UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ACTAVIS LLC
Petitioner,

v.

ABRAXIS BIOSCIENCE, LLC
Patent Owner

IPR2017-001101; IPR2017-01103; IPR2017-01104
U.S. Patent Nos. 7,820,788; 7,923,536; and 8,138,229

DECLARATION OF NICHOLAS A. PEPPAS, SC.D.

I, Nicholas A. Peppas, Sc.D., hereby declare and state as follows:

1. I submit this declaration on behalf of Abraxis Bioscience, LLC ("Abraxis" or "Patent Owner"), Patent Owner of U.S. Pat. Nos. 7,820,788 ("the '788 patent"), 7,923,536 ("the '536 patent"), and 8,138,229 ("the '229 patent") (collectively, "the Abraxis Patents") in connection with the petitions for *inter partes* reviews filed by Actavis LLC ("Actavis" or "Petitioner") in case nos. IPR2017-01101, IPR2017-01103, and IPR2017-01104 (collectively, the "Actavis IPR Petitions").

I. Qualifications

2. I am the Cockrell Family Regents Chair (*i.e.*, Chaired Professor) in Engineering at The University of Texas at Austin with appointments in the Departments of Chemical Engineering, Biomedical Engineering of the Cockrell College of Engineering, and the Division of Pharmaceutics of the College of Pharmacy of the University of Texas at Austin since January 1, 2003. I am also a tenured full professor with joint appointment in the Department of Pediatrics at the Dell Medical School of the same University. From September 2009 to August 2015, I was also the Chairman of the Biomedical Engineering Department in the same University.

3. Previously, I was the Showalter Distinguished Professor of Chemical and Biomedical Engineering at Purdue University, in West Lafayette, Indiana, with joint

appointments in the School of Chemical Engineering and in the Department of Biomedical Engineering. I joined Purdue University in 1976. I have degrees in chemical engineering from the National Technical University of Athens, Greece (Dipl. Eng., 1971) and the Massachusetts Institute of Technology - MIT (Sc.D., 1973). I did one year of postdoctoral work with Professors Clark Colton, Kenneth Smith and Robert Lees at the Arteriosclerosis Center of the Massachusetts Institute of Technology (1975–76).

4. I am an elected member of the (US) National Academy of Engineering, the (US) National Academy of Medicine, the American Academy of Arts and Sciences, the National Academy of Inventors, the Academy of Engineering, Medicine and Sciences of Texas, the National Academy of Pharmacy of France, the Royal Academy of Pharmacy of Spain and the Academy of Athens, Greece.

5. I have received honorary doctorate degrees from the University of Ghent, Belgium (1999), the University of Parma, Italy (1999), the University of Athens (2000), and the University of Ljubljana, Slovenia (2012), granted by their respective Faculties of Pharmacy. The doctorate from the University of Parma also carries the title "Doctor of Pharmacy". I have also received an honorary doctorate (in Chemical Engineering) from the University of Patras (2015).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 3 of 218

6. I have served as a Visiting Professor at the Faculty of Pharmacy of the University of Geneva, Switzerland (Fall 1982), the Department of Chemical Engineering of the California Institute of Technology (Spring 1983), the Faculty of Pharmacy of the University of Paris-Sud (Fall 1986), the Department of Pharmacy of the University of Parma, Italy (Fall 1987), the School of Pharmacy of the Hoshi University of Tokyo, Japan (Spring 1994), the School of Pharmacy of the Hebrew University of Jerusalem, Israel (Spring 1994), the Departments of Pharmacy and Materials Science of the University of Naples, Italy (May 1996), the Department of Pharmacy of the Free University of Berlin, Germany (January-March 2001), the Department of Pharmacy of the Complutense University of Madrid, Spain (March-May 2001) and the Department of Materials Science of the Nanyang Technological Institute of Singapore (2006).

7. My teaching assignments at the University of Texas in the past ten years have been courses on "Introduction to Polymer Science and Engineering", Advances in Biomedical Engineering", "Advances in Biomaterials Science and Engineering", "Bionanotechnology", and "Kinetics and Reaction Engineering".

8. Starting in 1979, I have developed and taught, along with Professors Robert Langer of MIT, Frank Szoka of the University of California at San Francisco and

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 4 of 218

others, the course "Advances in Controlled Release Technology" offered every summer at MIT. This is a five-day course offered to industrial and university researchers who do not have a sufficient background in the field. In my lectures, I teach the theory of diffusion of polymers and liquids, the utilization of polymer micro- and nanoparticles as carriers in drug delivery, as well as the preparation and characterization of drug delivery systems such as tablets, films, capsules, microspheres, nanospheres and related pharmaceutical systems. The past summer (2017) was the 39th year I taught this course.

9. My research contributions have been in several areas of drug and protein delivery including therapeutic agents for treatment of diabetes, cancer, autoimmune diseases and cardiovascular problems, biomaterials, bionanotechnology, mass transfer, kinetics and reaction engineering, polymers and biomedical engineering.

10. Since 1979, I have also worked on the design, development and investigation of the pharmaceutical and medical applications of micro- and nanoparticulate polymers and drug delivery formulations. I have published numerous papers on the design and use of polymers as micro- and nanoparticles and I have participated in the development of a number of products that incorporated micro- and nanoparticles in order to achieve desirable release properties.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 5 of 218

11. For over forty one years I have been involved with the preparation, characterization and evaluation of the behavior of hydrophilic and hydrophobic polymers and devices, especially in controlled delivery of drugs, peptides and proteins. My laboratory pioneered the use of many of these polymer carriers in drug delivery applications and I have extensive experience in formulation, preparation and testing of polymer formulations, including sustained release formulations. I received the 2012 National Academy of Engineering Founders Award in recognition of this pioneering work in the field of drug delivery. The National Academy of Engineering citation for the Founders Award lists "For contributions to biomedical and drug delivery applications of polymer networks and hydrogels and for leadership in the bioengineering community".

12. I am the author of approximately 1,300 publications, 450 abstracts, and approximately 35 issued or pending US and international patents.

13. I am the coauthor or coeditor of 37 books and volumes, including the three-volume monograph "Hydrogels in Medicine and Pharmacy" (CRC Press, 1987).

14. I am an Associate Editor of the journal "Cell and Molecular Bioengineering ", the journal "Regenerative Engineering and Translational Medicine", and the Biomedical Engineering Book Series of Cambridge University Press.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 6 of 218

15. I sit on the editorial boards of numerous journals, including the "Journal of Controlled Release", "Advanced Drug Delivery Reviews", "International Journal of Pharmaceutics", "Journal of Applied Polymer Science", "Journal of Biomedical Materials Research", "Journal of Biomaterials Science", "Journal of Drug Delivery Science and Technology", "European Journal of Pharmaceutics and Biopharmaceutics", and "Nanomedicine".

16. From 2008–2016, I was the President of the 26,000-member International Union of Societies of Biomaterials Science and Engineering.

17. Since 1981, I have been one of the leaders of the 4,000-member Controlled Release Society (CRS). I guided it as its President in 1987–88, and organized the 1985 (Geneva) and 1993 (Washington) meetings of the Society as well as many other conferences and workshops. The Controlled Release Society is the world's leading Society for technical information in the field of controlled release; it is a leading group addressing controlled release and bioadhesive controlled release systems. This July I received the CRS Distinguished Service Award.

18. Since 1975, I have been also active in the Society for Biomaterials. I was elected as President-elect in April 2002 and I took over as its President in April 2003 by automatic succession. The Society for Biomaterials is the world's premier

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 7 of 218

scientific and technical organization for the dissemination of knowledge related to biomaterials for medical devices, and polymers in pharmaceutical technology.

19. I am Past-Chair of the Engineering section of the American Association for the Advancement of Science (AAAS). I have received numerous US and international awards that are awarded by the leading world organizations of scientific and technical excellence. These include the 2012 Founders Award of the National Academy of Engineering, the 2010 Acta Biomaterialia Gold Medal; the 2010 Maurice-Marie Janot Award, of the French and German Pharmaceutical Associations APGI and APV; the 2002 Dale Wurster Award in Pharmaceutics of the American Association of Pharmaceutical Scientists (the highest research recognition of the most important pharmaceutical association of the USA); the 2002 Eurand Award for Life Achievements in Oral Drug Delivery (the highest scientific recognition in oral delivery by the Controlled Release Society); the 2010 Distinguished Achievement Award of the Biomedical Engineering Society; the 2010 Acta Biomaterialia Gold Medal ; the 2010 Distinguished Scientist of the Southern Universities Research Association; the 2008 Pierre Galletti Award of the American Institute of Medical and Biological Engineering; the 2008 Institute Lecturer Award of the American Institute of Chemical Engineers; the 2008 Jay Bailey Award of the Biological Engineering

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 8 of 218

Society; the 2000 General Electric Senior Research Award of ASEE recognizing the best engineering researcher of the U.S.; the 1999 Research Achievement Award in Pharmaceutical Technology of the American Association of Pharmaceutical Scientists (the highest scientific recognition in pharmaceutical technology); the 1995 International Pharmaceutical Technology Medal of the International Pharmaceutical Association (APV); the 1994 Pharmaceutical and Bioengineering Award of the American Institute of Chemical Engineers, and many others.

20. I have supervised the theses of 107 Ph.D. students, including 54 current professors in other Universities, and many other students, postdoctoral fellows and visiting scientists. My former students include many industrial leaders in chemical, pharmaceutical or medical companies. Several of them are in senior administrative positions. A copy of my curriculum vitae, including a list of publications I authored is attached to this declaration as Appendix A.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 9 of 218

II. Materials Considered

21. In preparing this declaration, I have reviewed the Actavis IPR Petitions as well as the other documents identified below and listed in the attached Appendix B.

III. Hypothetical Person of Ordinary Skill in the Art

22. I understand that Actavis contends in the Actavis IPR Petitions that a "hypothetical person of ordinary skill in the art" ("POSA") would have an advanced degree in chemistry, chemical engineering, pharmaceutics, pharmacy, or a related discipline, and/or having experience formulating compounds for use in pharmaceutical compositions, including nanoparticle suspensions, for several years. I further understand that for the Actavis IPR Petitions Actavis uses December 9, 2002, as the relevant date for analyzing the level of skill and knowledge of a hypothetical POSA. For purposes of this declaration, I have been asked to use Actavis's definition of a POSA and to use December 9, 2002 as the relevant date for analyzing the level of skill and knowledge of a hypothetical POSA.

IV. Statements

A. Expected loss of paclitaxel

23. Paclitaxel, a type of taxane that is sold under the brand name Taxol®, among others, is a chemotherapeutic medication that was first isolated in the late 1960's as part of a National Cancer Institute (NCI) program that screened

medicinal plants for potential chemotherapeutic activity. The structure of paclitaxel was published in 1971. (EX2021.)

24. Paclitaxel is an extremely hydrophobic compound, *i.e.*, it is highly insoluble in water. (*See, e.g.*, EX2043, 54 ("Paclitaxel is highly hydrophobic (water insoluble, with water solubility ≤0.5 mg/l)").) Due to its high hydrophobicity, an adjuvant such as Cremophor EL was historically required to solubilize the drug for use in its clinical administration, even though the Cremophor EL was known to cause serious side effects. (*See e.g.*, EX1001, 4:38–45; EX1006, 13:6–12, 26:2–5,29:19–22.)

25. Also due to its high hydrophobicity and other properties, paclitaxel rapidly and nonspecifically adsorbs (sticks and accumulates on the surface) to most surfaces, including plastic, glass, and metal. (*See, e.g.*, EX2031, 109 ("taxol adsorbs rapidly and non-specifically to plastic and glass surfaces."); EX2032 ("Taxol … is a notorious example" of a compound that "stick[s] to the sides of various containers like crazy."); EX2033, 5372-5373, 5379-5383 ("Paclitaxel (PAT), an anti-restenotic drug, has strong adhesion towards a variety of material surfaces. . . . PAT has been shown to strongly adsorb onto different materials including glass, polypropylene, silicones, and polytetrafluoroethylene."); EX2034, 2186 ("Paclitaxel adheres strongly to most surfaces."); EX2035, 2290 (teaching "paclitaxel adheres to the surface of [a metal] stent"); EX2036, 329-330

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 11 of 218

("Hydrophobic drugs (paclitaxel, verapamil and digoxin) were highly adsorbed to conventional plastic microplates. . . . [H]ydrophobic adsorption (van der Waals adsorption) is an interaction of a hydrophobic surface (*e.g.*, plastic) and hydrophobic drugs (*e.g.*, paclitaxel, digoxin, verapamil). . . . The adsorption rates of digoxin, verapamil and paclitaxel [to conventional (non-treated) plastic and glass containers] exceeded 10%, and the adsorption rate of paclitaxel was the highest among the probe drugs.").)

26. I am familiar with the method of making the Capxol™ nanoparticles that is described in Example 1 ("Preparation of Nanoparticles by High Pressure Homogenization") of Desai *et al.*, WO 1999/000113, "Novel Formulations of Pharmacological Agents, Methods for the Preparation thereof and Methods for the Use thereof" (published Jan. 7, 1999) ("Desai").

27. The method of making the Capxol™ nanoparticles that is described in Desai's Example 1 requires at least the following eight steps: 1) dissolution of 30 mg paclitaxel in 3.0 ml methylene chloride; 2) addition of the paclitaxel solution to 27 ml an aqueous human serum albumin solution (1% w/v); 3) 5 minutes low-speed homogenization in a Virtis homogenizer, model: Tempest I.Q.; 4) transfer of the crude emulsion into an Avestin high pressure homogenizer; 5) at least five cycles of high-pressure homogenization (emulsification) at 9000–40,000 psi; 6) transfer of the mixture to a flask for rotary evaporation; 7) 20–30 minutes of rotary

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 12 of 218

evaporation at elevated temperature (40° C); and 8) transfer of the mixture to a glass volumetric cylinder after evaporation.

28. In my opinion, a POSA would understand and expect that these manufacturing steps described in Example 1 of Desai would lead to a significant loss of paclitaxel in the final composition obtained from practicing the example. This loss would have been fully expected by a POSA as of December 9, 2002, due to paclitaxel's well-known properties, including its hydrophobicity. Indeed, a POSA would have understood that loss of paclitaxel could occur by a variety of phenomena, processes or mechanisms during processing, including epimerization or other degradation or transformations, binding to processing vessels and other equipment, and precipitation. (EXS2028–2030.)

29. As noted above, paclitaxel is highly adsorbed to glass vessels. (*See, e.g.*, EX2031, 109 ("taxol adsorbs rapidly and non-specifically to plastic and glass surfaces."); *see also* EX2036.) Therefore, by processing paclitaxel in a glass vessel, a POSA would expect sticking and loss of paclitaxel to the walls of the vessel. During steps 1 (dissolution of paclitaxel), 3 (low-speed homogenization) and 7 (rotary evaporation) as indicated above, glass vessels are typically used to hold the albumin/paclitaxel mixture, which would result in a loss of paclitaxel due to adsorption. The transfer of the mixture in steps 4, 6 and 8 also occurs in glass vessels. For example, the product of the high-pressure-homogenization process is

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 13 of 218

typically collected in a glass sample cylinder, and the product would then be transferred to a glass round-bottom flask for rotary evaporation. A POSA would thus expect loss of paclitaxel to occur in the transfer from the glass sample collection cylinder to a round-bottom flask. An example of a rotary evaporator including the glass round-bottom flask is shown in Appendix C to this declaration.

30. Likewise, during the at least 5 cycles of high-pressure homogenization (step 5), a metal sample chamber houses the mixture in the Avestin high pressure homogenizer. Thus, a POSA would expect sticking and loss of paclitaxel to the walls of the chamber.

31. Paclitaxel would also be expected to be lost to the different probes and component parts that contact the solution during the eight step process. For example, during step 3, a Virtis homogenizer, which has a metal impeller with multiple openings, is used during the low speed homogenization process. (Desai at 60:27–28.) Paclitaxel will stick to the open sides of the impeller and fill into the multiple openings of the impeller. An example of a Virtis homogenizer and a close-up image of the impeller are shown in Appendix D to this declaration.

32. Likewise, paclitaxel would also be expected to be lost to the different components parts of the Avestin high-pressure homogenizer (Desai at 60:30) — which includes a pump, valves, filter membranes, heat exchanger, lines, tubing, and plastic, PFTE (Teflon), and metal fitting and seals—because paclitaxel binds

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 14 of 218

nonspecifically to the materials from which these components are made. An example of an Avestin high-pressure homogenizer is shown in Appendix E to this declaration.

33. Plastic tubing and lines that are used in a high-pressure homogenizer have high affinity to paclitaxel. Hunz *et al*. reported that "Paclitaxel showed pronounced adsorption to the microdialysis membrane as well as to the outlet tubes. The amount bound to the equipment exceeded that recovered in the perfusate." (*See, e.g.*, EX2037, 660.)

34. In addition to the above, paclitaxel precipitation is also a potential reason for paclitaxel loss. (*See e.g.* EX2038; EX2039; EX2040, 135S; EX2041.) Due to the poor water solubility of paclitaxel (paclitaxel having a reported water solubility of 0.0003 mg/mL)[1], loss of paclitaxel in the manufacturing process of Capxol™ would be expected to occur through precipitation as a result of the drug's inability to solubilize in aqueous solution. Indeed, precipitation of paclitaxel has been observed in clinical settings when organic paclitaxel formulations were infused into aqueous solutions and when high-shear mechanical forces were applied to paclitaxel dispersions in water. (EX2040, 135S.) Thus, homogenization of a mixture of starting ingredients as described in Example 1 would be expected to

[1] (*See* EX2042, 1024.)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 15 of 218

result in precipitation of paclitaxel for the reasons described above. (*See id.*)

35. Based on the known hydrophobic nature of paclitaxel, at least the references cited above, and my knowledge as a skilled artisan, it my opinion that the process of Example 1 would result in a significant loss of paclitaxel during the processing steps described above, and a POSA on December 9, 2002 would have understood and expected such paclitaxel loss to occur. Likewise, the processes described in Examples 47–49 of the Abraxis Patents would similarly be expected to result in a loss of paclitaxel during the processing steps described in those examples.

36. Clearly then, given the expected loss of paclitaxel during processing, a POSA would have known that the ratio of albumin-to-paclitaxel in the final composition would be expected to be higher than the ratio calculated from the starting ingredients, since the amount of paclitaxel (denominator in the ratio "albumin-to-paclitaxel") would be lower. Accordingly, a POSA would have known that to determine the claimed weight ratio of albumin to paclitaxel, as opposed to deriving only an approximated "calculated ratio," it would be necessary to measure the amounts of albumin and paclitaxel in the finished composition.

37. Methods for measuring the amount of albumin and paclitaxel in pharmaceutical compositions, by techniques such as high performance liquid chromatography ("HPLC"), were well-known in the art at the time. (*See, e.g.*, EXS2023–2027, EX2051.) In fact, Desai describes using HPLC analysis to

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 16 of 218

determine the amount of paclitaxel in pharmaceutical formulations. (*See, e.g.*, Desai, at 74:20–24; 104:18–107:16.)

B. Kadima does not teach the claimed albumin-to-paclitaxel *weight* ratios

38. Upon reading Kadima *et al.*, WO 2000/006152, "Pharmaceutically Acceptable Composition Comprising an Aqueous Solution of Paclitaxel and Albumin" ("Kadima"), I have concluded that Kadima does not teach a range of albumin-to-paclitaxel weight "ratio[s] of about 0.5:1 to about 10:1." In addition, nowhere does Kadima even disclose albumin-to-paclitaxel *weight ratios*; Kadima discloses only albumin-to-paclitaxel *molar ratios*. (*See, e.g.*, Kadima Figs. 1–3, 6–8, 11, 12; *Id.* at 8:6–8, 31:8–10.) Kadima states: "[I]n order to produce a commercially available, pharmaceutically acceptable albumin-bound drug, the drug must be bound reversibly to the albumin in a high molar ratio."); *id.* at 11:7–8 ("The molar ratio of paclitaxel:albumin and the final concentration of paclitaxel in the albumin solution are optimized."); *id.* at 32:1–5 (Table showing estimation of cost at "different binding molar ratios").) Kadima's table (Kadima at p. 32), reproduced below, illustrates this point. While this table includes "Molar ratios" and quantities of human serum albumin (HSA) and paclitaxel in grams, no explicit weight ratio of these two compounds is reported.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 17 of 218

Based on binding molar ratio:

Estimation of main ingredients cost at different binding molar ratios for a 30-mg dose of paclitaxel

Molar ratio	Paclitaxel (mg)	HSA (g)	Paclitaxel Cost	HSA Cost[(1)]	Ingredients Total Cost
1:10	30	23.4	$7	$74.90	$81.90
1:5	30	11.7	$7	$37.40	$44.40
1:2	30	4.7	$7	$15.00	$22.00
1:1	30	2.34	$7	$ 7.49	$14.50
1:0.5	30	1.17	$7	$ 3.74	$10.70

[(1)]The fair 1999 market value of HSA is approximately $3.20 per gram.

39. Clearly, a POSA would have understood that weight ratios and molar ratios are distinct and different. A molar ratio is the ratio of the moles (a unit for measuring quantities of atoms or molecules) in any two compounds in a chemical reaction. The weight ratio is the ratio between the mass (*e.g.*, number of grams) of two components.

40. From the information contained in Kadima's table above (*i.e.*, the stated amounts of albumin (g) and paclitaxel (mg)), a POSA could calculate the weight ratio of albumin-to-paclitaxel. It is clear that this ratio will not be the same as the "molar ratio". For example, a 1:10 paclitaxel to albumin molar ratio, shown in the left-most column, is equivalent to a paclitaxel-to-albumin weight ratio of 30 mg

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 18 of 218

paclitaxel (first number in second column of the Table above) divided by 23,400 mg (*i.e.*, 23.4 grams) human serum albumin (HSA). Conversely, the albumin-to-paclitaxel weight ratio in the composition is 23,400 mg divided by 30 mg paclitaxel, *i.e.*, a calculated weight ratio of 780:1. The table below shows the calculated weight ratios for each of the examples shown in Kadima's table above. I also added two additional rows (shaded) illustrating the weight ratios of Capxol™ and Abraxane® for comparison.

Molar Ratio	**Paclitaxel (mg)**	**HSA (g)**	**Weight Ratio**
1:10	30	23.4	23400/30 = **780:1**
1:5	30	11.7	11700/30 = **390:1**
1:2	30	4.7	4700/30 = **157:1**
1:1	30	2.34	2340/30 = **78:1**
1:0.5	30	1.17	1170/30 = **39:1**
1:0.17	**30**	**0.4 (Capxol™)**	**400/30 = 13.33:1**
1:0.12	**100**	**0.9 (Abraxane®)**	**900/100 = 9:1**

41. As illustrated in the table above, the lowest albumin-to-paclitaxel weight ratio disclosed in Kadima is 39:1 and the highest is 780:1.

42. I declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both,

under Section 1001 of Title 18 of the United States Code.

Date: July 7, 2017

/s/
Nicholas A. Peppas, Sc.D.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 20 of 218

APPENDIX A

CURRICULUM VITAE OF NICHOLAS A. PEPPAS

Cockrell Family Regents Chair in Engineering #6
McKetta Department of Chemical Engineering, Department of Biomedical Engineering, Departments of Pediatrics, and Surgery and Perioperative Care, Dell Medical School, and Division of Pharmaceutics, College of Pharmacy
The University of Texas at Austin

Web site: http://www.che.utexas.edu/research/biomat/index.htm
E-mail: peppas@che.utexas.edu

Born
August 25, 1948, Athens, Greece

Education

Dipl. Eng. (Chem. Eng.), National Technical University of Athens, Greece, 1971.
Sc. D. (Chem. Eng.), Massachusetts Institute of Technology, 1973.

Honorary Doctorates

Doc. Hon. Causa, University of Ghent, Belgium, 1999.
Pharm. D. Hon. Causa, University of Parma, Italy, 1999.
Doc. Hon. Causa, University of Athens, Greece, 2000.
Hon. Prof., Sichuan University, People's Republic of China, 2012
Doc. Hon. Causa, University of Ljubljana, Slovenia, 2012.
Doc. Hon. Causa, University of Patras, Greece, 2015.
Doc. Hon. Causa, National Technical University of Athens, Greece, 2016.

Professional Experience

University of Texas, Department of Chemical Engineering, Cockrell Family Regents Chair #6, 2014-.
University of Texas, Department of Biomedical Engineering, Cockrell Family Regents Chair #6, 2014-.
University of Texas, Department of Chemical Engineering, Fletcher Stuckey Pratt Chair, 2003-14.
University of Texas, Department of Biomedical Engineering, Fletcher Stuckey Pratt Chair, 2003-14.
University of Texas, Department of Surgery and Perioperative Care, Dell Medical School, 2016- .
University of Texas, Department of Pediatrics, Dell Medical School, 2017- .
University of Texas, Division of Pharmaceutics, College of Pharmacy, Professor, 2003- .
University of Texas, Department of Biomedical Engineering, Chair of the Department, 2009-15.
University of Texas, Texas Materials Institute, Professor, 2003- .

Purdue University, School of Chemical Engineering, Showalter Distinguished Professor, 1993-2002.
Purdue University, Department of Biomedical Engineering, Showalter Distinguished Professor, 1999-2002.
Purdue University, School of Chemical Engineering, Professor, 1982-2002.
Purdue University, School of Chemical Engineering, Associate Professor, 1978-82.
Purdue University, School of Chemical Engineering, Assistant Professor, 1976-78.

Peking Union Medical College, People's Republic of China, *Honorary Professor*, March 2017- present.
Sichuan University, Chengdu, People's Republic of China, *Honorary Professor*, June 2012-present.
Nanyang Technological University, Singapore, *Visiting Professor*, January 2005.
Free University of Berlin, Germany, *Mercator Visiting Professor*, Jan-June 2001.
University of Santiago de Compostela, Spain, *Visiting Professor*, February-March 2001.
Complutense University, Madrid, Spain, *Visiting Professor*, March-April 2001.
University of Naples, Italy, *Visiting Professor*, Department of Materials Engineering, May 1996.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 22 of 218

Hoshi University, Tokyo, Japan, *Visiting Professor*, Jan.-March 1994; March 1995; March 1997.
Hebrew University, Jerusalem, Israel, *Visiting Professor*, March-May 1994.
University of Parma, Italy, Faculty of Sciences, *Adjunct Professor*, 1987-88; 1993-94.
University of Paris XI, France, Faculty of Pharmacy,*Visiting Professor*, May-December 1986.
California Institute of Technology, Department of Chemical Engineering, *Visiting Professor*, March-July 1983.
University of Geneva, Switzerland, Faculty of Sciences, *Visiting Professor*, Sept.1982-Feb. 1983.

M.I.T., Department of Chemical Engineering and Arteriosclerosis Center, Research Associate, 1975-76.
Research Center for National Defense, Research Associate, 1974-75.
Shell Co., Rotterdam, The Netherlands, Summer 1970.
Beso Co., Patras, Greece, Summers 1968 and 1969.

Member of Academies

National Academy of Engineering (2006)
National Academy of Medicine (2008)
American Academy of Arts and Sciences (2017)
National Academy of Inventors (2014)
French Academy of Pharmacy (Académie Nationale de Pharmacie) (2005)
Royal Academy of Spain (Academia Real) (2011)
Academy of Athens, Greece (2013)
Academy of Medicine, Engineering and Science of Texas (2006)
International Academy of Medical and Biological Engineering (2016)

Awards and Honors

2017 *Elected Honorary Professor, Peking Medical Union University*
2017 Elected to the American Academy of Arts and Sciences
2017 Life Achievements and Service, Controlled Release Society
2016 Honorary Doctorate, National Technical University of Athens
2016 Elected to the Internatinal Academy of Medical and Biological Engineering
2016 Robert A. Pritzker Distinguished Lecture Award, Biomedical Enginering Society
2016 Elected to the National Materials and Manufacturing Board, NRC
2015 International Award, European Society for Biomaterials, Krakow, Poland
2015 Controlled Release Society Award for Life Contributions, Edinburgh, Scotland
2015 Honorary Doctorate, University of Patras
2014 Giulio Natta Medal, Polytechnic School of Milan, Italy
2014 Best paper award for 2013, Journal of Drug Delivery Science & Technology
2014 Applied Polymer Science Award, American Chamical Society
2013 Elected to the Academy of Athens, Greece
2014 Nanoscale Science and Engineering Award, AIChE
2013 Distinguished Scientist Award, International Journal of Nanomedicine
2013 Benjamin Garver Lamme Excellence in Engineering Education Award, ASEE
2012 ***Founders Award, National Academy of Engineering***
2012 ***Honorary Doctorate, University of Ljubljana, Slovenia***
2012 Elected Honorary Professor, Sichuan University
2012 Hocott Distinguished Engineering Research Award, University of Texas at Austin
2012 ***Elected to the Royal Academy of Spain (Academia Real)***
2012 Nature and BioNIUM Distinguished Researcher and Educator Award, Nature Conferences
2011 Fellow, American Chemical Society
2011 Excellence in Surface Science Award, Surface in Biomaterials Foundation
2010 ***Distinguished Achievement Award,*** Biomedical Engineering Society

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 23 of 218

2010 ***Acta Biomaterialia Gold Medal***
2010 Inaugural Fellow, Controlled Release Society
2010 ***William H Hall Award for Contributions to Society, Society for Biomaterials***
2010 ***Distinguished Scientist, Southern Universities Research Association***
2010 ***Maurice Marie Janot Award, Pharmaceutical Sciences, APGI***
2010 George Mitchell Award for Excellence in Graduate Research, University of Texas
2009 Alan S Michaels Distinguished Lectureship in Medical & Biological Engineering, MIT
2009 Appointed Editor-in-Chief, SFB/Wiley Biomaterials Books Series
2008 ***Elected to the Institute of Medicine of the National Academy of Sciences***
2008 Premio Romulo Garza, Best Research published in 2008, Mexico
2008 ***Founders Award, American Institute of Chemical Engineers***
2008 ***"One Hundred Chemical Engineers of the Modern Era", American Institute of Chemical Engineers***
2008 Appointed Associate Editor of the *AIChE Journal*
2008 Elected to the Board of the Biomedical Engineering Society
2008 Elected President, International Union of Sicieties of Biomaterials Science and Engineering
2008 Fellow, American Society for Engineering Education
2008 Inaugural fellow, Materials Research Society
2008 Selected as a HighlyCited® ISI Researcher
2008 ***Pierre Galletti Award, American Institute of Medical and Biological Engineering***
2007 ***Institute Lecturer, American Institute of Chemical Engineers***
2007 ***Carreer Research Excellence Award, University of Texas***
2007 Most Outstanding ChE Faculty Member, Engineering Student Council, University of Texas
2006 ***Jay Bailey Award, Biological Engineering Society, American Institute of Chemical Engineers***
2006 ***William H. Walker Award, American Institute of Chemical Engineers***
2006 Best Paper Award, European Controlled Release Meeting
2006 ***Dow Chemical Engineering and Lctureship Award, American Society for Engineering Education***
2006 ***Elected to the National Academy of Engineering***
2006 ***Elected to the Academy of Medicine, Engineering and Science of Texas***
2006 Elected Chair of College of Fellows, American Institute of Medical And Biological Engineering
2006 Consulting Editor, *Pharmaceutical Research*
2005 Inaugural Fellow, Biomedical Engineering Society
2005 Best Paper Award, International Meeting of the Microencapsulation Society
2005 Distinguished Scientist Award, Houston Society of Engineering in Medicine and Biology
2005 ***Founders Award of the Society for Biomaterials***
2005 Whitaker Graduate Student Award, Society for Biomaterials
2005 ***Elected Member of the French Academy of Pharmacy (Académie Nationale de Pharmacie)***
2004 *Research Excellence Award for Best Research Paper (highest UT research recognition), Univ Texas*
2003 Materials Research Society Graduate Research Award
2003 Capsugel Award for Best Graduate Student Research in Controlled Drug Delivery
2003 Nagai Foundation Award for Research
2003 Appointed to the Nanotechnology Technical Advisory Board to the President's Council of Advisors on Science and Technology
2002 Outstanding Chemical Engineer Award, School of Chemical Engineering, Purdue University
2002 Distinguished Service Award, Department of Biomedical Engineering, Purdue University
2002 ***Dale E. Wurster Award in Pharmaceutics, American Association of Pharmaceutical Scientists***
2002 Graduate Student Award for Outstanding Research, Biomedical Engineering Society
2002 Graduate Student Award of the IEEE Engineering in Medicine and Biology Society
2002 Newsmaker of the Year, American Chemical Society
2002 Graduate Student Award, IEEE Engineering in Medicine and Biology Society
2002 ***Eurand Award for Outstanding Contributions in Oral Drug Delivery, Controlled Release Society***
2002 Pioneer in Biomedical Engineering, IEEE Engineering in Medicine and Biology Society
2002 Elected President-elect of the Society for Biomaterials
2002 *Sigma Xi Award, (highest Purdue research recognition), Purdue University*
2002 Chorafas Foundation Award for Best Dissertation
2002 Best Graduate Student Paper Award, Materials Research Society

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 24 of 218

2001 Editor, *New Drugs*
2001 Mercator Visiting Professor, Free University of Berlin
2001 Visiting Professor, University of Santiago de Compostela
2001 Visiting Professor, Complutense University of Madrid
2000 ***General Electric, Senior Research Award, American Society for Engineering Education***
2000 *Herbert McCoy Award (highest Purdue research recognition), Purdue University*
2000 J. Heller Award, Best Research for 1999, Controlled Release Society
2000 APV Award, Best Ph.D. Thesis, International Pharmaceutical Association
2000 Best Paper Award, European Journal of Pharmaceutics and Biopharmaceutics
2000 ***Honorary Doctorate, University of Athens, Greece***
2000 Fellow, American Association for the Advancement of Science
2000 Elected Director of the American Institute of Chemical Engineers
1999 ***Research Achievement Award in Pharmaceutical Technology, American Association of Pharmaceutical Scientists***
1999 ***Honorary Doctorate, Doctor of Pharmacy, University of Parma, Italy***
1999 Best Paper Award, Midwestern Meeting, American Association of Pharmaceutical Scientists
1999 Editor, *Advances in Chemical Engineering*
1999 Marion B. Scott Award, Purdue University
1999 ***Honorary Doctorate, University of Ghent, Belgium***
1998 Best Paper Award, Materials Research Society
1998 Fellow, American Physical Society
1997 Whitaker Best Paper Award, International Society for Artificial Organs
1997 Fellow, American Institute of Chemical Engineers
1996 Best Paper Award, Bioengineering Division, American Institute of Chemical Engineers
1996 Visiting Professor, University of Naples
1996 Best Doctoral Dissertation Award, Purdue University
1996 Whitaker Best Paper Award, Institute of Electrical and Electronic Engineers
1995 Best Paper Award, Materials Division, American Institute of Chemical Engineers
1995 Best Paper Award, Bioengineering Division, American Institute of Chemical Engineers
1995 APV Medal for Distinguished Pharmaceutical Contributions, International Pharmaceutical Association
1994 Best Paper Award, Annual Meeting American Institute of Chemical Engineers
1994 Best Session Award, Annual Meeting American Institute of Chemical Engineers
1994 Award and Honorary Membership, Italian Society of Medicine and Natural Sciences
1994 ***Food, Pharmaceutical and Bioengineering Award, American Institute of Chemical Engineers***
1994 Fellow, Biomaterials Science and Engineering, Society for Biomaterials
1994 Visiting Professor, Hoshi University
1994 Visiting Professor, Hebrew University
1994 Potter Award, Best Engineering Teacher, Purdue University
1994 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
1993 Showalter Distinguished Professor of Chemical and Biomedical Engineering
1993 Best Paper Award, Materials Division, American Institute of Chemical Engineers
1993 Unilever Award, Best Polymer Doctoral Thesis, American Chemical Society
1992 ***George Westinghouse Award, American Society for Engineering Education***
1992 ***Clemson Award for Basic Research in Biomaterials, Society for Biomaterials***
1992 Founding Fellow, American Institute of Medical and Biological Engineering
1992 Best Paper Award, Materials Division, American Institute of Chemical Engineers
1992 Controlled Release Society, Service Award
1991 ***Founders Award for Outstanding Research, Controlled Release Society***
1991 Victor LaMer Award, Best Colloids Doctoral Thesis, American Chemical Society
1991 Best Graduate Research Paper, Society of Adhesion
1991 Best Paper Award, Midwestern Meeting, American Association of Pharmaceutical Scientists
1991 Named *Polymer Science Pioneer* by the Journal *Polymer News*
1991 Editor, *European Journal of Pharmaceutics and Biopharmaceutics*
1991 Rene Maurice Gattefossé Medal, Academy of the Alpilles
1990 A.I.Ch.E. Service Award

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 25 of 218

1990 Fellow, American Association of Pharmaceutical Scientists
1989 A.I.Ch.E. Service Award
1988 ***Curtis McGraw Award for Outstanding Research, American Society for Engineering Education***
1988 Elected Chairman of the Materials Engineering and Sciences Division of AIChE
1987 Elected President of the Controlled Release Society
1987 Visiting Professor, University of Parma
1986 Visiting Professor, University of Paris XI
1985 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
1985 Potter Award, Best Engineering Teacher, Purdue University
1985 Controlled Release Society, Service Award
1984 ***Materials Engineering and Sciences Award, American Institute of Chemical Engineers***
1983 Visiting Professor, California Institute of Technology
1982 Zyma Foundation Award for the Advancement of Medical and Biological Sciences
1982 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
1982 A.I.Ch.E. National Best Counselor Award
1982 Editor, *Biomaterials*
1982 Visiting Professor, University of Geneva
1980 ***Western Electric Fund Award, American Society for Engineering Education***
1980 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
1980 Contributing Editor, *Polymer News*
1978 Potter Award, Best Engineering Teacher, Purdue University
1978 Shreve Prize, Best Chemical Engineering Teacher, Purdue University
1971 Chryssoverghion Award, Best Student, University-wide, N.T.U. Athens

Endowed/Honorary Lectureships

2017 Plenay Lecturer, Biomedical Engineering Society of China, Beijing, China.
2017 Key Lecturer, International Meeting of the Portuguese Materials Society, Aveiro, Portugal
2017 Distinguished Lecturer, Univesrity of Florida, Gainsville, Florida.
2016 ***Plenary Lecturer***, World Life Science Conference Beijing, China
2016 ***Pritzker Distinguished Lecturer***, Biomedical Engineering Society, Minneapolis, MN
2016 ***Plenary Lecturer***, Research Forum on Frontiers in Materials, Sichuan University, Chengdu, China.
2016 ***Lowrie Lecturer***, Ohio State University, Columbus, OH
2016 College of Engineering Distinguished Lecturer, University of California Davis, Davis, CA
2016 ***Pritzker Lecturer***, Illinois Institute of Technology, Chicago, Illinois.
2016 Plenary Lecturer, NanoDay 2016, Bilkent University, Ankara, Turkey
2016 ***TAMEST Materials Lecturer***, TAMEST, Dallas, TX
2015 ***Plenary Lecturer***, Chinese Biomaterials Congress, Haiku, China
2015 Invited Lecturer, US-China Entrepreneurship Symposium, Guangzhou, China
2015 ***International Award Lecturer***, European Society for Biomaterials, Krakow, Poland
2015 Plenary Lecturer, 10th Panhellenic Research Congress of Chemical Engineering, Patras, Greece
2015 Simpson Querrey Institute for BioNanotechnology Lecturer, Northwestern, Evanston, IL
2015 ***Katz Lecturer***, City College of New York, NY
2015 ***Kelly Lecturer***, 50th Anniversary, Purdue University, West Lafayette, IN
2015 ***Johnson & Johnson Lecturer***, Rutgers University, Piscataway, NJ
2015 ***Reilly Lecturer***, University of Notre Dame, South Bend, IN
2015 ***Invited Lecturer***, Chinese Academy of Engineering, Beijing, China
2015 ***National Academy of Inventors Lecture***, Pasadena, CA
2014 Strategic Research Theme Lecturer, Univerity of Hong Kong.
2014 ***Giulio Natta Lecture,*** Polytechnic School of Milan, Italy
2014 *Sangalli Lecture,* University of Milan, Milan, Italy
2014 ***Gaden Memorial Lecture***, Columbia University, New York, NY.
2014 ***Materials Today Asia Plenary Lecturer***, Hong Kong
2014 Keynote Lecture, US-China Symposium on Nanobiology and Nanomedicine, Washington, DC
2014 Plenary Lecturer, International Institute for Nanotechnology, Northwestern, Evanston, IL

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 26 of 218

2014 ***Plenary Lecturer***, Recovery of Biological Products XVI, Rostock, Germany
2014 ***Polymer Award Address***, American Chemical Society, Dallas, TX
2014 ***Kammermeyer Lecturer***, University of Iowa, Iowa City, IA
2014 ***Skalak Lecturer***, University of California at San Diego, CA
2013 ***Hoffman Lecturer***, University of Washington, Seattle, WA
2013 ***Plenary Lecturer***, 5th Asian Arden Conference, Nagoya, Japan
2013 International Journal of Nanomedicine Lecturer, MRS Meeting, Boston, MA
2013 ***Plenary Lecturer***, 19th International Symposium on Microencapsulation, Pamplona, Spain
2013 ***Plenary Lecturer***, 25th European Society for Biomaterials Meeting, Madrid, Spain
2013 ***Plenary Lecturer***, 4th International Conference on Biomolecular Engineering, Ft Lauderdale, FL
2013 ***Parr Lecturer***, University of Illinois, Urbana-Champaign, IL
2013 ***Ruckenstein Lecturer***, University of Buffalo, Buffalo, NY
2013 ***Distinguished Lecturer***, College of Engineering, Michigan Tech, Houghton, MI
2013 Keynote Speaker, 4th International Conference on Biomolecular Engineering, Miami, FL
2012 Keynote Speaker, Symposium New Innovations in Polymers and Biomaterials, Maui, HI
2012 Plenary Lecturer, 9th International Polymer Conference (IPC2012), Kobe, Japan
2012 ***Founders Award Lecture***, National Academy of Engineering, Washington, DC
2012 Plenary Lecturer, NanoBioSeattle, Seattle, WA
2012 ***Plenary Lecturer***, 9th World Congress of Biomaterials, Chengdu, China
2012 Plenary Lecturer, The Areces Foundation, Madrid, Spain
2012 ***The Berkeley Lectures***, University of California, Berkeley, CA
2012 Plenary Lecturer, Miami 2012 Winter Symposium: Nanotechnology in Biomedicine, Miami, FL
2012 Plenary Lecturer, 6th International Symposium on Intelligent Drug Delivery, Seoul, S. Korea
2011 ***UNC/Eisai Distinguished Lecturer*** in Drug Delivery, Univ North Carolina, Chapel Hill, NC
2011 Award Lecturer, Excellence in Surface Science, Surface in Biomaterials Foundation, Minneapolis, MN
2011 Centennial Lecture, Centennial, School Chemical Engineering, Purdue University, West Lafeyette, IN
2011 Plenary Lecturer, 7th International Symposium on Controlled Release Systems, Istanbul, Turkey
2011 ***Wohl Memorial Lecturer***, University of Delaware, Newark, DE.
2011 ***Payatakes Lecturer***, University of Houston, Houston, TX.
2011 ***Bashore Lecturer***, Auburn University, Auburn, AL.
2011 ***Skinner and Lautenschlager Memorial Lecturer***, Northwestern University, Evanston, IL
2011 Plenary Lecturer, 10th Congress of the Spanish Society of Industrial Pharnmacy, Madrid, Spain
2010 ***BMES Distinguished Achievement Lecturer,*** Annual Meeting of the BMES, Austin, TX
2010 ***Plenary Lecturer***, 37th Annual Meeting of the Controlled Release Society, Portland, OR
2010 Plenary Lecturer, 3rd International Meeting on Pharmacy & Pharmaceutical Sciences, Istanbul, Turkey
2010 Plenary Lecturer, Grand Challenges Summit of the National Academy of Engineering, Seattle, WA
2010 Distinguished Lecturer, Imperial College, London, England
2010 Distiguished Lecturer, Collège de France, Pris, France
2010 ***Maurice-Marie Janot Award Lecturer***, 7th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Valletta, Malta
2010 Plenary Lecturer, 1st Global Congress on NanoEngineering for Medicine and Biology, Houston, TX
2009 Honorary Lecturer, Series in Biomaterials, AIChE, Nashville, TN
2009 CMA Stine Lecturer, AIChE, Nashville, TN
2009 Plenary Lecturer, 2nd PharmSciFair, Nice, France.
2009 ***Alan Michaels Lecturer***, Massachusetts Institute of Technology, Cambridge, MA
2009 Kewaunee Lecturer, Duke University, Durham, NC
2009 Missouri Academy of Chemical Engineers Lecturer, Rolla, MO
2008 Plenary Lecturer, 11th Mediterranean Congress of Chemical Engineering, Barcelona, Spain
2008 Plenary Lecturer, 6th International Conference of the Chemical Societies of the SE European Countries
2008 ***Rohm and Haas Lecturer,*** University of Massachusetts, Amherst, MA
2008 ***Merck Lecturer,*** University of Puerto Rico, Mayagüez, PR
2008 ***Galletti Award Lecturer,*** American Institute for Medical and Biological Engineering
2008 Plenary Lecturer, International Conference on Cellular and Molecular Engineering, Singapore
2008 59th Institute Lecture, Annual AIChE Meeting, Salt Lake City, UT
2007 Plenary Lecturer, National Biotechnology Conference, AAPS, San Diego, CA

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 27 of 218

2007 Plenary Lecturer, 9th Greek Scientific Chemical Engineering Conference, Athens, Greece
2008 Plenary Lecturer, 31st Annual Meeting of the Society for Biomaterials, Chicago, IL
2007 Plenary Lecturer, Pharmaceutical Sciences World Congress, Amsterdam, The Netherlands
2006 ***Dow Distinguished Lectureship, American Society for Engineering Education, Chicago, IL***
2005 Plenary Lecturer, 3rd World Congress on Biomimetics, Artificial Muscles & Bionanotechnology, Lausanne, Switzerland
2005 Plenary Lecturer, European Polymer Congress, Moscow, Russia
2005 Plenary Lecturer, Society for Biomaterials Meeting, Memphis, TN
2005 Plenary Lecturer, Third World Congress on Drug Absorption, Transport and Delivery, Barcelona, Spain.
2005 Plenary Lecturer, Annual event of the American Institute of Medical and Biological Engineering, Washington, DC
2004 Plenary Lecturer, European Materials Research Society Meeting, Warsaw, Poland
2004 Plenary Lecturer, 20th Japanese Drug Delivery Systems Meeting, Tokyo, Japan.
2004 Gattefossé Lecturer, Gattefossé Meeting, Lyon, France
2004 Plenary Lecturer, NIH/NSF Transport in Biological Systems Panel, Washington, DC
2003 Plenary Lecturer, NIH/NSF Bionanotechnology Panel, Washington, DC
2003 Plenary Lecturer, 4th Annual BioMEMS and NanoTech Meeting, Washington, DC
2003 Gattefossé Lecture, 37th Galenic Days Meeting, St. Rémy, France
2003 ***Harry G. Fair Distinguished Lecturer***, University of Oklahoma, Norman, Oklahoma
2003 ***Larson-Ruth Distinguished Lecturer***, Iowa State University, Ames, Iowa
2002 Plenary Lecturer, Biomedical Engineering Society Meeting, Houston.
2002 Plenary Lecturer, ACS Meeting, Boston.
2002 Plenary Lecturer, International Pharmaceutical Technology Symposium, Istanbul, Turkey.
2002 Plenary Lecturer, 29th International Symposium of Controlled Release of Bioactive Agents, Seoul, Korea.
2002 Plenary Lecturer, Particles 2002, Orlando.
2002 Plenary Lecturer, World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy.
2002 ***Merck Distinguished Lecturer***, Rutgers University.
2001 Plenary Lecturer, 6th International Symposium on Polymers for Advanced Technologies, Eilat, Israel.
2000 Plenary Lecturer, North American Membrane Society Meeting, Boulder, Colorado.
2000 Plenary Lecturer, 6th World Congress of Biomaterials, Kamuela, Hawaii.
2000 Plenary Lecturer, Symposium on Biomedical Polymers for the 21st Century, Boston.
2000 ***Bayer Distinguished*** **Lecturer**, University of Pittsburgh.
1999 Plenary Lecturer, Drug Delivery for the Third Millennium, Pisa, Italy.
1999 Plenary Lecturer, Central European Symposium on Pharmaceutical Technology, PortoRoz, Slovenia.
1998 Plenary Lecturer, 90th Anniversary, American Institute of Chemical Engineers, Miami.
1998 Plenary Lecturer, International Pharmaceutical Conference, Portugal.
1998 Plenary Lecturer, International Pharmaceutical Technology Symposium, Istanbul, Turkey.
1997 Plenary Lecturer, Academy of Pharmaceutical Sciences and Technology, Tokyo, Japan.
1997 Plenary Lecturer, Japanese Drug Delivery Society, Sapporo, Japan.
1996 Plenary Bioengineering Lecturer, American Institute of Chemical Engineers, Chicago.
1996 Plenary Lecturer, POVAL Meeting, Kyoto, Japan.
1995 IUPAC Plenary Lecturer, Prague, Czech Republic.
1994 Hoshi Distinguished Lecturer, Tokyo, Japan.
1994 Plenary Lecturer, International Pharmaceutical Technology Conference.
1993 Plenary Lecturer, Materials Research Society.
1993 Nichiban Distinguished Lecturer, Tokyo, Japan.
1992 Plenary Lecturer, World Congress of Biomaterials, Berlin, Germany.
1992 Plenary Lecturer, ISOPOW-V, Valencia, Spain.
1991 ***Distinguished Lecturer***, Ontario Center for Materials Research, Toronto.
1991 Horizons Distinguished Lecturer, Kimberly-Clark, Roswell, Georgia.
1990 Distinguished Lecturer, Kimberly-Clark, Neenah, Wisconsin.
1990 Plenary Lecturer, Italian Chemical Society, Bressanone, Italy.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 28 of 218

1988 ***Minnetonka Distinguished Lecturer***, University of Minnesota, Minneapolis, Minnesota.
1987 Inaugural Lecturer, University of Pavia, Pavia, Italy.
1987 ***Warren McCabe Distinguished Lecturer***, North Carolina State University, Raleigh, North Carolina.
1986 Plenary Lecturer, Danish Society of Polymer Technology, Copenhagen, Denmark.
1986 Plenary Lecturer, Fourth International Conference on Pharmaceutical Technology, Paris, France.
1985 Plenary Lecturer, Swedish Academy of Sciences, Stockholm, Sweden.
1983 Zyma Foundation Lecturer, Nyon, Switzerland.
1980 Plenary Lecturer, European Controlled Release Symposium, Geneva, Switzerland.

Advisory Boards

- Department of Chemical Engineering, Princeton University, 2010- .
- Department of Chemical and Biomolecular Engineering, Tulane University, 2015- .

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 29 of 218

Editorial Boards

Chemical Engineering Journals

- Chinese Academy of Engineering Journal (2015-)
- AIChE Journal; **Associate Editor** (2008-11)
- Current Opinion in Chemical Engineeting (2010-)
- Industrial & Engineering Chemistry Research (2005-08)
- Advances in Chemical Engineering; **Editor** (1999-03)
- Chemical Engineering Progress (1991-93)

Biomedical Engineering Journals

- Current Opinion in Chemical Engineeting (2016-)
- Bioengineering and Translational Medicine (2015-).
- Cambridge University Texts in Biomedical Engineering; **Associate Editor** (2005-)
- Cell and Molecular Bioengineering (2013-); **Associate Editor** (2013-)
- Bioresearch Open Access (2012-)
- Advanced Healthcare Materials (2013-)
- Bioresearch Open Access (2103-)
- Bioengineering and Translational Medicine (2015-)
- Chinese Academy Engineering Journal (2015-)
- Regenerative Engineering and Translational Medicine (2015-); **Associate Editor** (2015-)

Nanotechnology Journals

- ACS Nano (2013-)
- Biomedical Microdevices (2007-); **Associate Editor** (2008-)
- International Journal of Nanomedicine (2005-)
- Nanomedicine (2005-)
- Dictionary of Nanoscience and Nanotechnology (2009-)

Biomaterials and Tissue Enginering Journals

- Regenerative Engineering (2015-)
- SFB/Wiley Biomaterials Book Series; **Editor-in-Chief** (2009-12)
- Hydrogels Handbook; **Editor** (2008-12)
- Biomaterials Science (2012-)
- Regenerative Biomaterials (2013-)
- Journal of Biomaterials Science, Polymer Edition (1987-)
- Encyclopedia of Biomaterials and Biomedical Engineering (2002-)
- Macromolecular Bioscience (2008-)
- Biomaterials (1980-04); **Editor** (1982-2001)
- Methods in Tissue Engineering (1999-)
- Tissue Engineering (1994-2008)
- Tissue Engineering Books, Academic Press (1995-)
- Biomedical Materials (1985-99)

Pharmaceutical and Medical Journals

- Pharmaceutical Research (2005-); **Consulting Editor** (2006-12)
- Journal of Biopharmaceutics and Biotechnology (2005-)
- International Journal of Pharmaceutics (2003-)
- Journal of Controlled Release (1983-)
- Les Annales Pharmaceutiques Françaises (2008-)
- Encyclopedia of Controlled Drug Delivery (1997-)
- Advanced Drug Delivery Reviews (1992-)
- Journal of Drug Delivery Science and Technology (1987-)
- AAPS PharmSci (1998-)
- AAPS PharmSciTech (2000-)
- Expert Opinion on Drug Delivery (2004-)
- Acta Pharmaceutica Sciencia (2006-)
- Annals Academie Nationale de Pharmacie (2008-)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 30 of 218

- European Journal of Pharmaceutics and Biopharmaceutics, **U.S. Editor** (1992-94); (1992-)
- Marmara Pharmaceutical Journal (2009-)

Polymer Journals

- Progress in Polymer Science (2007-)
- Journal of Applied Polymer Science (1976-)
- Polymer Gels and Networks (1993-99)
- Polymer News (1980-92)

Citations

Who's Who in America
Who's Who in Engineering
American Men and Women of Science
Who's Who in Technology
Who's Who in Medicine
Who's Who in American Education
International Who's Who in Engineering.
Who's Who in Frontier Science and Technology
Who's Who in Finance and Business
Who's Who in the South and Southwest
Who's Who in the Midwest
Personalities of America
Who's Who in Technology Today
1000 World Leaders of Scientific Influence
Who-Is-Doing-What in Drug Delivery
American Hellenic Who's Who
Who's Who in Music (1993)

Professional Societies and Positions Held

_____

National Academy of Engineering (NAE)
NAE Bioengineering Section, Section 2 Chair (2015-17), Chair-elect (2013-15)
NAE Awards Committee (2010-11)
Recruiting Committee, ChE section (2007-10)

National Academy of Medicine (NAM)
NAM Engineering, Sciences Section, Section 1 Chair (2015-17), Chair-elect (2013-15)
NAM Membership Committee (2013-17)
NAM Subcommittee on International Members (2015-16)

National Academy of Inventors (NAI)
NAI Fellow Advisory Board (2016)

Academy of Medicine, Engineering and Science of Texas (TAMEST)
Awards Committee of O'Donnell Award, Medicine Section (2008-09)
Chair, Awards Committee, of O'Donnell Award, Medicine Section (2009-2011)
Organizing Committee, Annual meeting (2016)

Académie Nationale de Pharmacie (France)
Editorial Committee, Academy Journal (2008-)

Academia Real Nacional (Spain)

Academy of Athens (Greece)

_____

American Institute of Medical and Biological Engineering (AIMBE)
Chair, College of Fellows (2007-08)
Chair, Fellows Selection Committee (2008-10)
Organizing Committee of 2005, 2007, 2008, 2009 and 2012 Meetings

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 31 of 218

SFB Representative to the Council of Societies (2004)
AIChE Representative to the Council of Societies (1995-2012)
Public Policy Committee (1996-2004)
Fellows Committee (1993, 1998-00, 2006-08)
Program Committee (1993, 2000-02)
Foreign Fellows Committee (1994)
Founding Fellow

American Institute of Chemical Engineers (AIChE)

Chairman, AIChE Awards Committee (2011-13)
Vice Chairman, AIChE Awards Committee (2009-10)
Member, AIChE Awards Committee (2006-2009)
Director (2000-02)
Member, Bioengineering Task Force (2002-05)
Member, Nominating Committee (2001-02)
Member, Board Award Committee (2001-02)
Member, Council of Technology (2000-02)
Member, RANTC (2000-)
Liaison with Bioengineering Division (2000-02)
Fellow (1998)
Chairman, Materials Division (1988-90)
First Vice-Chairman, Materials Division (1986-88)
Chairman, Nominating Committee, Materials Division (1991-92, 1994-95)
Chairman, Awards Committee, Materials Division (1991-92)
Program Chairman, Materials Division (1986-88)
Director, Materials Division (1981-82; 1984-86)
Vice Chairman, Committee on Polymers, Area 8a (1994-95)
Chairman, Committee on Polymers, Area 8a (1995-97)
Director, Food, Pharmaceuticals and Bioengineering Division (1994-97)
Chairman, New Materials Committee (1983-87)
Member, Awards Committee of Materials Division (1981-83; 85-88)
Member, History of Chemical Engineering Committee (1989-92)
Member, AIChE Chemical Engineering Education Projects Committee (1979-88)
Editorial Committee, "Chemical Engineering Faculties" (1984-87)
Editor, Materials Newsletter (1978-80)
Member, Committee on Engineering Fundamentals in Life Science, Area 15d/e (1977-)
Member, Committee on Biomaterials, Area 8b (1980-); Chairman (1980-84)
Member, Continuing Education Committee (1986-88)
Organizer, Topical Conference on Biomaterials (1997)
Organizer, Topical Conference on Biomaterials, Drug Delivery and Tissue Engineering (2003)
Organizer, Topical Conference on Medical Engineering, Drug Delivery and Therapeutic Systems (2006)
Nanotechnology Forum (2002-)
Chair, Bionanotechnology Area 22b (2002-05)
Organizer, Topical Conference on Bionanotechnology (2004)
Organizer, Topical Conference on Bionanotechnology (2005)

American Physical Society (APS)

Fellow (1997)

American Chemical Society (ACS)

Fellow (2011)
Chairman, Program Committee, Division of Industrial Engineering Chemistry (1982-84)
Member, Program Committee, Division of IEC (1979-82; 85-89)
Chairman, Organizing Committee of Winter Symposia of IEC (1979-81), Member (1982-85)
Member, Murphree Award Committee (1983-86)
Member, Technical Program Committee, Division of Polymer Chemistry (1980-82)
Member, Education Committee, Division of Polymer Chemistry (1982-86)

Materials Research Society (MRS)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 32 of 218

Inaugursal Felow (2008)
Coordinator (1993-97)
Member, External Affairs Committee (1995-98)

American Diabetes Association (ADA)

American Association for the Advancement of Sciences (AAAS)

AAAS Council (2015-16)
Past-Chair, Engineering Section (2015-16)
Chair, Engineering Section (2014-15)
Chair-elect, Engineering Section (2013-14)
Fellow (1999)

American Association of Pharmaceutical Scientists (AAPS)

Member Committee for Selection of Meritorious Manuscript Award (2004-06); ***Chair*** 2005
Fellow (1990)
Review Panel PPD Division (1990-91)
Strategic Alliance/Globalization Committee (1995-02)
Resource Fellow on Controlled Release (1992-02)

Controlled Release Society (CRS)

Fellow (2010)
President (1987-88)
Past President (1988-89)
Board of Trustees (1988-93)
Chairman, By-laws Committee (1988-89)
President-elect (1986-87)
Vice-President (1985-86)
Governor (1984-85)
Organizer, First Workshop and Exhibition of Controlled Release in Consumer Products (1990)
Organizer, Second Workshop and Exhibition of Controlled Release in Consumer Products (1992)
Organizer, Third Workshop and Exhibition on Controlled Release in Consumer Products (1993)
Program Chairman, 20th International Meeting on Controlled Release of Bioactive Materials (1993)
Program Chairman, 12th International Meeting on Controlled Release of Bioactive Materials (1985)
Chairman, Committee on Consumer Products (1990-92)
Member, Strategic Planning Committee (1991-94)
Chairman, Global Network Subcommittee (1993-95, 96-98)
Chairman, Premier Organization Status Subcommittee (1991-92)
Chairman, Heller Award Committee (1997-2000)
Member, Founders Award Committee (1991-97)
Member, Nominating Committee (1991-92)
Member, Awards Committee (1985-87)
Member, Pennwalt Award Committee (1984-85)
Newsletter Editor (1985-86)
Newsletter Columnist (1988-92)
Chairman, Committee (1985-86)
Chairman, Education Committee (1985-86)

Biomedical Engineering Society (BMES)

Member of the Board (2008-11)
Fellow (2005)
Chairman, Affiliations Committee (2006-08)
Chairman, By-laws Committee (1992-97)
Chair, Fellows Committee (2010-12)
Member, Fellows Committee (2008-12)
Member, Whitaker Awards Committee (1993-95)
Member, Awards Committee (1988-91)

North American Membrane Society (NAMS)

International Union of Societies of Biomaterials Science and Engineering

President (2008-16)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 33 of 218

Society for Biomaterials

President (2003-04)
Past President (2004-05)
President-Elect (2002-03)
Chair, Past Presidents Committee (2004-05)
Member SFB Council (2002-05, 2013-14)
Chair, Awards and Nominations Committee (2004-05, 2013-14)
Chair, Meetings Committee (2003-05)
Chair, Long Range Planning Committee (2002-03)
Chair, Liaison Committee (2006-)
Editor-in-Chief, Society for Biomaterials/Wiley Book Series (2009-)
Delegate to International Union of Biomaterials Societies (2006-)
Fellow, International Union of Biomaterials Societies (1993-)
Representative to AIMBE (2004)
Secretary, Executive Committee of Fellows (1997-02)
Chairman, Controlled Release Special Interest Group (1995-97)
Program Chairman, Ophthalmological Biomaterials Special Interest Group (2000-01)
Member, Awards and Nominations Committee (1996-98)
Nominating Committee (1986-88)

Tissue Engineering Society (TERMIS)

American Society for Engineering Education (ASEE)

Fellow (2008)
Westinghouse Award Committee (1993)
Dow Award Committee (2007-09)

New York Academy of Sciences (NYAS)

Society of Plastics Engineers (SPE)

Director, Medical Plastics Division (1980-86)
Member, Program Committee (1984-86)
Member, Technical Volumes Committee (1979-81)
Vice Chairman, National Committee of SPE Student Chapters (1979-80)

Adhesion Society

Sigma Xi

President, Purdue Chapter (1995-96)
Vice President, Purdue Chapter (1994-95)
Past President, Purdue Chapter (1996-97)
Chairman, Awards Committee (1996-97)

Phi Kappa Phi

Council of BME Chairs

Chair (2011-12)
Chair-elect (2010-11)
Past Chair (2012-13)
Nominating Committee (2011-13)
Long Range Planning Committee (2010-13)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 34 of 218

Companies Founded

Mimetic Solutions, Lexington, KY (2006-12)
Appian Laboratories, Austin, TX (2007- 17)
CoraDyn Biosystems, Austin, TX (2007-13)

Advisory Boards

Pharmacontrol Corp., Englewood Cliffs, NJ (1982-86)
Health-Chem Corp., Hercon Div., S. Plainfield, NJ (1984-89)
Cygnus Therapeutic Systems, Redwood City, CA (1986-92)
Enzytech Controlled Therapeutics, Cambridge, MA (1990-92)
Neomorphics, Boston, MA (1991-92)
Cambrex Hydrogels, East Rutherford, NJ (1992-94)
Biogel Technology, Indianapolis, IN (1992-2002)
Advanced Polymer Systems, Menlo Park, CA (1993-2002)
B.F. Goodrich, Brecksville, OH (1996-99)
Mimetic Solutions, Lexington, KY (2006-12)
Appian Laboratories, Austin, TX (2007-17)
CoraDyn Biosystems, Austin, TX (2007-11)
NanoMedical Systems, Austin, TX (2010-11)

Consultant

Panmarine Co., Piraeus, Greece (1974-77)
Rostone Corp., Lafayette, IN (1976-78)
M2M Manufacturing Co., Goshen, IN (1976-79)
American Can Co., Neenah, WI (1977-79)
E.I. duPont de Nemours, Wilmington, DE (1978-80)
Medicornea Inc., Lebanon, IN (1978-84)
Pharmacontrol Corp., *Board of Associates*, Englewood Cliffs, NJ (1982-86)
Zyma S.A., Nyon, Switzerland (1982-84)
Whitbread & Co., Luton, UK (1983-84)
IMC Corp., Terre Haute, IN (1983-87)
Health-Chem Corp., Hercon Div., *Scientific Advisory Board*, S. Plainfield, NJ (1984-89)
Schering Corp., New York, NY (1984-87)
Smith, Kline and French Co., Philadelphia, PA (1985-87)
Interx, Lawrence, KS (1985-87)
Owens-Corning, Conroe, TX (1985-88)
Brown & Williamson Tobacco Corp., Louisville, KY (1986-88)
Cygnus Therapeutic Systems, *Advisory Board*, Redwood City, CA (1986-)
Rhone-Poulenc Co., St. Fons, France (1986-92)
Nova Pharmaceuticals, Baltimore, MD (1987-89)
Athena Neurosciences, Menlo Park, CA (1988-91)
Dow Chemical Co., Midland, MI (1988-93)
Aegis Funds, Lexington, MA (1989-92)
Woodard, Emhardt, Naughton, Moriarty and McNett, Indianapolis, IN (1989-93)
Kaye, Scholer, Fierman, Hays and Handler, New York, NY (1989-91)
Ethyl Corporation, Baton Rouge, LA (1990-91)
C.R. Bard, Tewksbury, MA (1990-91)
Vistakon, Jacksonville, FL (1990-91)
Heritage Research Corporation, Goshen, IN (1990-92)
Enzytech Controlled Therapeutics, *Advisory Board*, Cambridge, MA (1990-92)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 35 of 218

Boston Scientific, Spencer, IN (1991-94)
Neomorphics, *Advisory Board*, Boston, MA (1991-92)
Baker and Botts, Houston, TX (1991-93)
Dowell Schlumberger, Tulsa, OK (1991- 93)
Biogel Technology, Indianapolis, IN (1992-02)
American Cyanamid, Princeton, NJ (1992-95)
Monsanto Agricultural Division, St. Louis, MO (1992-94)
Cambrex, *Advisory Board*, East Rutherford, NJ (1992-95)
Alkermes, Cambridge, MA (1993-94)
Advanced Polymer Systems, *Advisory Board*, Redwood City, CA (1993-2002)
Howmedica, East Rutherford, NJ (1993-95)
Ventritex, Sunnyvale, CA (1995)
ConvaTec, Princeton, NJ (1995)
UroMed, Needham, MA (1995-2001)
Alcon Laboratories, Fort Worth, TX (1996-03)
B.F. Goodrich, Brecksville, OH (1996-2001)
Monsanto/Ceregen, St. Louis, MO (1996)
ALZA Corp., Palo Alto, CA (1996-97)
Mentor Corp., Santa Barbara, CA (1996-2000)
Covington & Burling, Washington, DC (1996-98)
Morris, Nichols, Arsht & Tunnell, Wilmington, DE (1997-2001)
Kellogg, Battle Creek, MI (1998-2000)
Innotech, Newtown, CT (1998-2001)
Oblon, Spivak, McClelland, Maier & Neustadt, Arlington, VA (1998-2001)
Kenyon & Kenyon, Washington, DC (1998-2001)
Welsh & Katz (1999-2003)
Cor Therapeutics, South San Francisco, CA (1999-2002)
Aventis, Frankfurt, Germany (1999-01)
Hopgood, Calimafde, Judlowe and Mondolino, New York, NY (2000-03)
Kirkland and Ellis, New York, NY (2001-)
Patterson, Bellknap, Well and Tyler, New York, NY (2001-05)
Ciba Vision, Duluth, GA (2002-03)
Pennie & Edmonds LLP (2002-03)
Biomade, Groningen, The Netherlands (2002-04)
Schering Plough, Kenilworth, NJ (2003-04)
Amano Enzymes, Elgin, IL (2003-)
Kaye Scholer LLP, New York, NY (2005)
Alkerma, King of Prussia, PA (2006)
Genzyme, Waltham, MA (2007-)
Mitsubishi Chemical Company (2006-12)
Ciba Vision, Duluth, GA (2010-)
Millbank, New York, NY (2011-)
Hoffman & Baron, Parsippany, NJ (2013-)
Quinn Emanuel Urquhart & Sullivan, LLP, New York, MY (2016-)

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 36 of 218

International Committees

1. Member of the Program Committee of Area 15e, Engineering Fundamentals in Life Sciences, AIChE, 1977-.
2. Member of the Steering Committee of the AIChE Materials Engineering and Sciences Division, 1978 - 1982 .
3. Member of the Membership Committee (1978-79) and the Technical Program Committee (1977-78, 1981-82) of the Division of Polymer Chemistry of the American Chemical Society.
4. Vice Chairman of the National Committee of SPE Student Chapters, 1979-1980.
5. Member of the Chemical Engineering Education Projects Committee of AIChE, 1979-88.
6. Chairman of the Organizing Committee of the American Chemical Society/ Industrial Engineering Chemistry Division Winter Symposia, 1979-82.
7. Member of the Technical Program Committee of the Division of Industrial and Engineering Chemistry of the American Chemical Society, 1979-86.
8. Technical Program Chairman for the Materials Division Sponsored Symposia at the 87th National AIChE Meeting, Boston, August, 1979.
9. Technical Program Chairman for the Materials Division Sponsored Symposia at the 72nd Annual AIChE Meeting, San Francisco, November, 1979.
10. Director of the Division of Medical Plastics of the Society of Plastic Engineers, 1979-1982; 1983-86.
11. Technical Program Chairman for the Materials Division Sponsored Symposia at the 90th National AIChE Meeting, Houston, March 1981.
12. Technical Program Chairman for the IEC Division sponsored Symposia at the Annual ACS Meeting, New York, August 1981.
13. Member of Awards Committee for the Materials and Polymers AIChE Award, 1981-1983; 1985-88.
14. Director of the Materials Sciences Division of AIChE, 1981-1982; 1984-86.
15. Member of Scientific and Organizing Committee of IUPAC Macromolecules Meeting, Athens, August 1982. Chairman of the "Diffusion in Polymers" Symposia.
16. Chairman of the National Program Committee of the Division of Industrial and Engineering Chemistry of ACS, 1982-84.
17. Member of US Delegation in US-Taiwan Polymer Conference and Working Group, Berkeley, November 1983.
18. Chairman of the New Materials Subcommittee of the Materials Sciences Division of AIChE, 1983-88.
19. Member of Scientific Committee of 2nd International Conference on Polymers in Medicine, Capri, Italy, June 1984.
20. Governor of the Controlled Release Society, 1984-85.
21. Member of the Program Committee of the Medical Plastics Division of SPE, 1984-86.
22. Technical Program Chairman for the Materials Division Sponsored Symposia at the National AIChE Meeting, Houston, March 1985.
23. Vice-President of the Controlled Release Society, 1985-86.
24. Technical Program Chairman and Organizer of the 12th International Conference on Controlled Release of Bioactive Materials, Geneva, July 1985.
25. Technical Program Chairman for the Materials Division Sponsored Symposia of the Annual AIChE Meeting, Boston, August 1986.
26. President-elect of the Controlled Release Society, 1986-87.
27. First Vice Chairman of the Materials Division of AIChE, 1986-88.
28. Technical Program Chairman of the Materials Division of AIChE, 1986-88.
29. Member of the Scientific Committee of the 10th European Society of Biomaterials Meeting, Bologna, September 1986.
30. Organizer and Member of Scientific Committee of Biointeractions '87, Cambridge, England, July 1987.
31. Technical Program Chairman of the Materials Division Sponsored Symposia of the Annual AIChE Meeting, New York, November 1987.
32. Technical Program Chairman of the Materials Division - Sponsored Symposia of the Annual AIChE Meeting, Washington, November 1988.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 37 of 218

33. Chairman of the Materials Division of AIChE, 1988-90.
34. Organizer of Diffusion '89, Parma, Italy, May 1989.
35. Organizing Committee, First European Controlled Release Meeting, Uidschendam, March 1990.
36. Organizing Committee, Fifth International Symposium on Aboveground StorageTanks, Houston, June 1990.
37. President of the Controlled Release Society, 1986-87.
38. Organizing Committee, Fisrt European Controlled Release Meeting, Noordwijk, March 1990
39. Organizer, First Workshop and Exhibition on Controlled Release in Consumer Products, Cincinnati, October 1990.
40. NSF Panel for NSF Fellowships 1990-93.
41. Organizing Committee, Second European Controlled Release Meeting, Noordwijk, March 1992.
42. Organizer, Symposium on Pulsatile Drug Delivery, Köningswinter, May 1992.
43. Organizer, Second Workshop and Exhibition on Controlled Release in Consumer Products, Secaucus, NJ, May 1992.
44. Organizing Committee, Sixth International Symposium on Drug Delivery, Salt Lake City, UT, February 1993.
45. Organizer and Chairman, Symposium on Hydrogels of American Chemical Society, Denver, CO, March 1993.
46. Organizer and Chairman of the 20th International Conference on Controlled Release of Bioactive Materials, Washington, July 1993.
47. Organizer of Biointeractions '93, Leiden, September 1993.
48. Organizer and Chairman, Third Workshop on Controlled Release in Consumer Products, Geneva, October 1993.
49. Organizer and Chairman, Symposium on Biomaterials, Materials Research Society, Boston, November 1993.
50. Organizing Committee, Third European Controlled Release Meeting, March 1994.
51. Organizer, Third Workshop and Exhibition on Controlled Release in Consumer Products, Chicago, IL, September 1994.
52. Organizing Committee, Seventh International Symposium on Drug Delivery, Salt Lake City, UT, February 1995.
53. Organizing Committee, Materials Research Society Meeting, San Francisco, CA, April 1995.
54. International Scientific Board, First World Meeting on Pharmaceutical Technology, Budapest, Hungary, May 1995.
55. Scientific Advisory Board, First Spanish Portuguese Conference on Controlled Drug Delivery, Santiago de Compostela, Spain, September 1995.
56. Organizing Committee, Fourth European Controlled Release Meeting, Noordwijk, March 1996.
56. Organizing Committee, 23rd International Conference on Controlled Release of Bioactive Materials, Kyoto, Japan, July 1996.
57. International Advisory Board, Third Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, September 1996.
58. Organizing Committee, International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1996.
59. Advisory Board, Eighth Panhellenic Pharmaceutical Conference, Athens, Greece, October 1996.
60. International Advisory Board, Third International Symposium on Innovations in Pharmaceutical Sciences and Technology, Ahmedabad, India, February 1997.
61. Organizing Committee, Eighth International Symposium on Drug Delivery, Salt Lake City, UT, February 1997.
62. Program Committee, 23rd Annual Meeting, Society for Biomaterials, New Orleans, LA, April 1997.
63. Scientific Committee, Recent Advances in Drug Delivery Systems and Pharmaceutical Technology, June 1997.
64. Organizing Committee, Fifth European Controlled Release Meeting, Noordwijk, April 1998.
65. International Advisory Board, Second World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Paris, May 1998.
66. International Program Committee, Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, June 1998.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 38 of 218

67. Organizing Committee, Ninth International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1998.
68. Organizing Committee, US-Israel NSF Chemical Engineering Workshop, Haifa, Israel, March 1999.
69. Organizing Committee, Ninth International Symposium on Drug Delivery, Salt Lake City, UT, February 1999.
70. Advisory Board, 4th Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, October 1999.
71. Organizing Committee, Symposium on Drug Delivery in the Third Millennium, Pisa, Italy, October 1999.
72. Organizing Committee, 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 2000.
73. Organizing Committee, Sixth European Controlled Release Meeting, Noordwijk, April 2000.
74. Organizing Committee, World Congress of Biomedical Engineering, Chicago, IL, July 2000.
75. Organizing Committee, Tenth International Pharmaceutical Technology Symposium, Ankara, Turkey, September 2000.
76. Scientific Committee, Fourth Spanish-Portuguese Conference on Controlled Drug Delivery, Vittoria, Spain, September 2000.
77. International Scientific Advisory Board, Tenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2001.
78. Scientific Committee, Mediterranean Meeting of Chemical Engineering, Ankara, Turkey, May 2001.
79. International Organizing Committee, 28th International Symposium on Controlled Release of Bioactive Materials, San Diego, CA, June 2001.
80. Organizing Committee, 5th International Symposium on Polymer Therapeutics: From Laboratory to Clinical Practice, Cardiff, UK, January 2002.
81. Organizing Committee, Seventh European Controlled Release Meeting, Noordwijk, April 2002.
82. Scientific Committee, Eleventh International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 2002.
83. Organizer, ACS ProSpectives Conference, Boston, MA, October 2002.
84. Scientific Committee, Fifth Spanish-Portuguese Conference on Controlled Drug Delivery, Seville, Spain, November 2002.
85. International Scientific Advisory Board, Eleventh International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, March 2003.
86. Organizing Committee, Eighth European Controlled Release Meeting, Noordwijk, the Netherlands, April 2004.
87. Organizing Committee, European Conference on Drug Delivery and Pharmaceutical Technology, Seville, Spain, May 2004.
88. Organizing Committee, World Congres of Biomaterials Sydney, Australia, April 2004.
89. Scientific Committee, Twelveth International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 2004.
90. Organizing Committee, Conference on Regenerative Medicine, Societyfor Biomaterials, Philadelphia, PA, October 2004.
91. Chair of Organizing Committee, Topical Conference on Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering, AIChE Meeting, Austin, TX, November 2004.
92. Organizer, Topical Conference on Bionanotechnology, AIChE Meeting, Austin, TX, November 2004
93. International Scientific Advisory Board, Twelveth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2005.
94. Organizing Committee, Annual Meeting of the Society for Biomaterials, Memphis, TN, April 2005.
95. Organizer of Symposium on "Nanotechnology and Biomaterials", Society for Biomaterials, Memphis, TN, April 2005.
96. Organizer, Topical Conference on Bionanotechnology, AIChE Meeting, Cincinnati, OH, November 2005
97. Organizing Committee, Houston Society for Engineering in Biology and Medicine, Houston, TX, February 2006.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 39 of 218

98. Organizing Committee, Ninth European Controlled Release Meeting, Noordwijk, the Netherlands, April 2006.
99. Scientific Committee, Thirteenth International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 2006.
100. Organizing Committee, Topical Conference on Bionanotechnology, AIChE Meeting, San Francisco, CA, November 2006
101. Organizer and General Chiarman, US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery and Therapeutic Systems, AIChE Meeting, San Francisco, CA, November 2006
102. International Scientific Advisory Board, Thirteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2007.
103. Scientific Committee, International Meeting of APGI and ADRITELF on Innovation in Drug Delivery, Naples, Italy, September 2007.
104. International Advisory Committee, International Congress on Biohydrogels, Viareggio, Italy, November 2007.
105. Organizer and Chair of the Organizing Committee, 17th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2008.
106. Organizing Committee, Tenth European Controlled Release Meeting, Noordwijk, the Netherlands, April 2008.
107. International Scientific Advisory Board, Fourteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2009.
108. Organizing Committee, 18th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2009.
109. Advisory Committee, Annual Meeting European Society for Biomaterials, Lausanne, Switzerland, September 2009.
110. Organizing Committee, Eleventh European Controlled Release Meeting, Noordwijk, the Netherlands, April 2010.
111. International Scientific Advisory Board, Fifteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2011.
112. Organizer and Chairman, National Academy of Engineering Meeting, Engineering the Future of Health Care, Austin, TX, April 2011.
113. Organizing Committee, 20th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2011.
114. International Scientific Advisory Board, Fifteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2013.
115. International Scientific Advisory Board, 25th European Society for Biomaterials, Madrid, Spain, September 2013.
116. Organizing Committee, Workshop on Key Challenges in the Implementation of Convergence, National Research Council, Washington, DC, Fenruary 2013.
117. International Scientific Advisory Board, 10th Spanish-Portuguese Conference on Controlled Drug Delivery, Valencia, Spain, November 2013.
118. Organizer, "Integrated Cellular Systems: Building Machines with Cells", AAAS meeting, Chicago, IL, February 2014.
119. Co-organizer, TAMEST meeting on the Future of Materials Science, Dallas, TX, January 2016.
120. Organizing Committee, "Frontiers in Materials Science", Sichuan University, Chengdu, China, September 2016.
121. Organizing Committee, "International Symposium on Clinical Translational Medicine", Shanghai, China, September 2016.

Chair of Symposia

1. Chairman of Session, Symposium on "Chemistry and Properties of Crosslinked Polymers," ACS Meeting, San Francisco, September 1976.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 40 of 218

2. Chairman, Symposium on "Mass Transfer in Biological Systems," AIChE Meeting, New York, November 1977.
3. Moderator, Symposium on "Biomedical Applications of Polymers," Society of Plastics Engineers Meeting, Denver, November 1977.
4. Chairman, Symposium on "Multicomponent Polymer Systems," ACS Meeting, Anaheim, March 1978.
5. Co-Chairman, Symposium on "Heat Transfer and Thermal Regulation in Living Systems," AIChE Meeting, Miami, November 1978.
6. Chairman, Symposium on "Structure-Property Relationships in Polymeric Networks" Parts I and II, AIChE Meeting, Boston, August 1979.
7. Co-Chairman, Symposium on "Structural Influences on the Deformation Behavior of Polymeric Solids and Melts," Part II, AIChE Meeting, Boston, August 1979.
8. Chairman, Symposium on "Food Packaging Materials and Their Properties," AIChE Meeting, Boston, August 1979.
9. Chairman, Symposium on "Transport Phenomena in Artificial Organs," AIChE Meeting, San Francisco, November 1979.
10. Co-Organizer of the 1980 Winter Symposium of ACS/IEC on "Applications of Molecular Models of Polymer Dynamics".
11. Organizer and Chairman, Symposium on "Undergraduate Research in Chemical Engineering," ASEE Meeting, Amherst, MA, June 1980.
12. Organizer and Member of the Advisory Committee of 1980 IUPAC Symposium on "Interrelations between Processing, Structure and Properties of Polymeric Materials," August 1980, Athens, Greece.
13. Chairman of Session on "Theoretical Rheology," 8th International Congress of Rheology, September 1980, Naples, Italy.
14. Chairman, Symposium on "Morphology, Structure and Interactions of Biomaterials," Part I-IV, AIChE Meeting, Chicago, November 1980.
15. Chairman, Symposium on "Diffusional and Relaxational Phenomena in Glassy Polymers," AIChE Meeting, Houston, March 1981.
16. Chairman of Session, 28th International IUPAC Meeting on Macromolecules, Strasbourg, France, July 1981.
17. Chairman, Symposium on "Engineering Approaches to Diabetes," AIChE Meeting, New Orleans, November 1981.
18. Chairman of Session, International Meeting of Membranes and Membrane Processes, Perugia, Italy, May 1982.
19. Member of the Organizing Committee and Chairman of Sessions on "Diffusion in Polymers," IUPAC Meeting on Macromolecules, Athens, Greece, August 1982.
20. Chairman, Symposium on "Diffusion in Polymers," Parts I and II, AIChE Meeting, Los Angeles, November 1982.
21. Vice-Chairman, Symposium on "Biomedical Transport Phenomena III - Membranes," AIChE Meeting, Los Angeles, November 1982.
22. Chairman of Session, International Symposium on Recent Advances in Drug Delivery Systems, Park City, Utah, March 1983.
23. Chairman of AXS Symposium in honor of E. W. Merrill, AIChE Meeting, Washington, D.C., November 1983.
24. Chairman of Session, Biointeractions 1984, London, England, January 1984.
25. Chairman of Session, Conference on Macromolecules as Drugs and as Carriers for Biologically Active Materials, New York Academy of Sciences, New York, March 1984.
26. Chairman of Session, Second World Congress of Biomaterials, Washington, D.C., May 1984.
27. Chairman of Session, 11th International Conference of Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 1984.
28. Chairman of Session, 9th International Conference on Rheology, Acapulco, Mexico, October 1984.
29. Chairman of Symposium "Characterization of Macromolecular Structures in Coals," ACS Meeting, Miami Beach, April 1985.
30. Chairman of Session, Symposium on Properties of Polymers and Drug Delivery, Swedish Academy of Pharmaceutical Sciences, Stockholm, Sweden, May 1985.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 41 of 218

31. Member of the Organizing Committee, 2nd International Conference of Polymers in Medicine, Capri, Italy, June 3-7, 1985.
32. Technical Chairman and Organizer, 12th International Symposium on Controlled Release of Bioactive Materials, Controlled Release Society, Geneva, Switzerland, July 1985.
33. Chairman of Symposium on "Surface, Interfacial and Molecular Aspects of Polymer Bioadhesion on Soft Tissues," ACS Meeting, Chicago, September 1985.
34. Chairman of Symposium on "Morphology, Structure and Interactions of Biomaterials," Parts I, II, III and IV, AIChE Meeting, Chicago, November 1985.
35. Chairman of Symposium on "Controlled Release," International Biomedical Engineering Symposium, Salt Lake City, January 1986.
36. Chairman of Session on "Formes Nouvelles," Fourth International Conference on Pharmaceutical Technology, Paris, France, June 1986.
37. Chairman of Session on "Oral Systems," 13th International Conference of Controlled Release of Bioactive Materials, Norfolk, Virginia, August 1986.
38. Chairman of Session, 3rd International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1986.
39. Chairman, APGI Workshop on Matrix Systems, Paris, France, December 1986.
40. Chairman of Session on "Blood Compatibility," Biointeractions '87, Cambridge, United Kingdom, July 1987.
41. Chairman of Session on "Fundamentals," 14th International Conference on Controlled Release of Bioactive Materials, Toronto, Canada, August 1987.
42. Chairman of Symposium on "Diffusion in Polymers," Parts I, II and III, AIChE Meeting, New York, November 1987.
43. Chairman of Symposium on "Polymers in Microlithography," AIChE Meeting, New York, November 1987.
44. Chairman of Session, 15th International Conference on Controlled Release of Bioactive Materials, Basle, Switzerland, August 1988.
45. Chairman of Symposium on "Polymer Gels," AIChE Meeting, Washington, DC, November 1988.
46. Chairman of Session on "Drug Targeting," International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 1989.
47. Organizer and Chairman of International Symposium "Diffusion '89: The Theory and Applications of Diffusion in Biomedical, Pharmaceutical and Food Sciences," Parma, Italy, May 1989.
48. Chairman of Session on "Bioadhesive Applications," International CRS/APV Workshop on Bioadhesion-Possibilities and Future Trends, Leiden, The Netherlands, May 1989.
49. Chairman of Session on "Novel Formulations," Fifth International Conference on Pharmaceutical Technology, Paris, France, May 1989.
50. Chairman of Session on "Modelling," 16th International Conference on Controlled Release of Bioactive Materials, Chicago, Illinois, August 1989.
51. Organizer and Chairman of Symposium on "Biomaterials," AIChE Meeting, San Francisco, California, November 1989.
52. Chairman of Symposium on "Polymers in Microlithography," AIChE Meeting, San Francisco, California, November 1989.
53. Organizer and Chairman of Symposium on "Polymers as Biomaterials," ACS Meeting, Boston, Massachusetts, April 1990.
54. Organizer and Chairman of First International Workshop and Exhibition on Controlled Release in Consumer Products, Cincinnati, Ohio, October 1990.
55. Chairman of Session on "Biomaterials," USA-Czechoslovak Academy of Sciences Symposium on Novel Polymers, Prague, Czechoslovakia, December 1990.
56. Chairman of Session on "Triggered and Modulated Drug Delivery Systems," Fifth International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 1991.
57. Chairman of Session on "Hydrogels," 18th International Conference on Controlled Release of Bioactive Materials, Chicago, Illinois, July 1991.
58. Organizer and Chairman of Symposium on "Structure and Properties of Biomaterials," AIChE Meeting, Los Angeles, California, November 1991.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 42 of 218

59. Organizer and Chairman of Symposium on "Diffusion in Polymers," AIChE Meeting, Los Angeles, California, November 1991.
60. Organizer and Chairman of Symposium on "Polymers as Biomaterials," ACS Meeting, San Francisco, California, April 1992.
61. Organizer and Chairman of Second International Workshop and Exhibition on Controlled Release in Consumer Products, Secaucus, New Jersey, May 1992.
62. Organizer and Chairman of Workshop on Pulsatile Drug Delivery Systems, Königswinter, Germany, May 1992.
63. Chairman of Symposium on "Bioadhesion" of Second Jerusalem Meeting on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, May 1992.
64. Organizer and Chairman of Symposium on "Bioadhesives," AIChE Meeting, Miami Beach, FL, November 1992.
65. Organizer and Chairman of "Polymers in Pharmaceutics," AAPS Meeting, San Antonio, TX, November 1992.
66. Chairman of Session on "Hydrogels," International Meeting on Prospectives of Biomaterials, Kaanapali, Hawaii, December 1992.
67. Organizer and Chairman of "Preparation and Characterization of Hydrogels," ACS Meeting, Denver, CO, March 1993.
68. Organizer and Chairman of the 20th International Symposium on Controlled Release of Bioactive Agents, Washington, DC, July 1993. Chairman of three sessions.
69. Organizer and Chairman of Symposium on "Superabsorbent Polymers," ACS Meeting, Chicago, IL, August 1993.
70. Chairman of Symposium on "Ophthalmic Applications of Polymers and Pharmaceuticals," ACS Meeting, Chicago, IL, August 1993.
71. Organizer of Biointeractions '93, Leiden, the Netherlands, August 1993.
72. Organizer and Chairman of Third International Workshop and Exhibition on Controlled Release in Consumer Products, Geneva, Switzerland, October 1993.
73. Organizer and Chairman of Symposium on "Poly(ethylene oxide) and Other Hydrogels," AIChE Meeting, St. Louis, MO, November 1993.
74. Organizer and Chairman of Symposium on "Biomaterials for Drug and Cell Delivery," MRS Meeting, Boston, MA, December 1993.
75. Chairman of Symposium, Second US-Japan Meeting on Drug Delivery, Maui, HI, December 1993.
76. Chairman of Session on "Controlled Release," 20th Annual Meeting of the Society for Biomaterials, Boston, MA, April 1994.
77. Chairman of Session on "Drug Delivery," 11th Congress of the International Society for Artificial Cells, Blood Substitutes and Immobilization Biotechnology, `Boston, MA, July 1994.
78. Chairman of Session on "Hydrogels," Society for Biomaterials Meeting, San Francisco, CA, March 1995.
79. Organizer and Chairman of Symposium on "Polymer/Inorganic Interfaces," Materials Research Society Meeting, San Francisco, CA, April 1995.
80. Chairman of Session on "Biomedical Polymers," Kagoshima, Japan, April 1995.
81. Chairman of Session on "Microparticles," World Conference on Pharmaceutical Technology, Budapest, Hungary, May 1995.
82. Chairman of Session on "Oral Delivery," First Spanish Portuguese Conference on Controlled Drug Delivery, Santiago de Compostela, Spain, September 1995.
83. Organizer and Chairman of Sessions on "Diffusion in Polymers," AIChE Meeting, Miami Beach, FL, November 1995.
84. Chairman of Session on "Drug Delivery," World Congress of Biomaterials, Toronto, Ontario, May 1996.
85. Chairman of Session on "Hydrogels," 23rd International Conference on Controlled Release of Bioactive Materials, Kyoto, Japan, July 1996.
86. Chairman of Session on "Biomedical Applications of Polymers," AIChE Meeting, Chicago, IL, November 1996.
87. Chairman of Session on "Cellular Interactions of Biomaterials," AIChE Meeting, Chicago, IL, November 1996.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 43 of 218

88. Organizer and Chairman of Symposium on "New Biomaterials for Drug Delivery Applications," Society for Biomaterials Meeting, New Orleans, LA, April 1997.
89. Organizer and General Chairman of Topical Conference on "Biomaterials, Carriers for Drug Delivery and Scaffolds for Tissue Engineering," AIChE Meeting, Los Angeles, CA, November 1997.
90. Chairman of Session on "Drug Delivery," 4th US-Japan CRS Meeting, Kauai, HI, December 1997.
91. Chairman of Session on "Drug Delivery," 24th Annual Meeting of the Society for Biomaterials, San Diego, CA, April 1998.
92. Chairman of Session on "Biofunctional Polymers in Drug Delivery," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 1998.
93. Chairman of Session on "Drug Delivery," 9th International Pharmaceutical Technology Symposium, Ankara, Turkey, September 1998.
94. Chairman of Session, US-Turkey-Israel Conference on Chemical Engineering, Haifa, Israel, March 1999.
95. Chairman of Symposium on "Synthesis and Characterization of Polymers for Biomaterials and Drug Delivery Carriers," ACS Meeting, Anaheim, CA, March 1999.
96. Chairman of Symposium on "Drug Delivery in the Third Millennium," Pisa, Italy, October 1999.
97. Chairman of Sessions on "Drug Delivery," World Congress of Biomedical Engineering, Chicago, IL, July 2000.
98. Chairman of Session on "Chemical Engineering in Medicine and Biology: Forty Years of Successes," AIChE Meeting, Los Angeles, CA, November 2000.
99. Chairman of Session on "Polymer Design and Drug Delivery," Meeting on New Trends in Polymers for Oral and Parenteral Administration, APGI/GRTV, Paris, France, March 2001.
100. Chairman of Session on "Ophthalmological Biomaterials," Society for Biomaterials meeting, St. Paul, MN, April 2001.
101. Chairman of Session on "Oral Delivery," 6th US-Japan Symposium on Drug Delivery Systems, Lahaina, Maui, HI, December 2001.
102. Chairman of Sessions on "Biomimetic Materials," Society for Biomaterials Meeting, Tampa, FL, April 2002.
103. Chairman of Session on "Biomaterials," ACS Prospectives Meeting, Boston, MA, October 2002.
104. Chairman of Symposium on "Bionanotechnology," AIChE Meeting, Indianapolis, IN, November 2002.
105. Chairman of Symposium on "Nanotechnology in Drug Delivery", BioMEMS and NanoTech World meeting, Washington, DC, August 2003.
106. Chairman of Symposium on "Bionanotechnology," AIChE Meeting, San Francisco, CA, November 2003.
107. Chairman of Symposium on "Intelligent Biomaterials", European Materials Research Society, Warsaw, Poland, September 2004.
108. Chairman of Plenary Session of Meeting on "Biomaterials in Regenerative Medicine: the Advent of Combination Products", Society for Biomaterials, Philadelphia, PA, October 2004.
109. Chairman of Plenary Session on "Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering": AIChE Meeting, Austin, TX, November 2004.
110. Chairman of Symposium on "Nanobiotechnology", AIChE Meeting, Austin, TX, November 2004.
111. Chairman of Symposium on "Transport of Biomaterial/Bionanotech Devices Through Biological Barriers", AIChE Meeting, Austin, TX, November 2004.
112. Organizer and Chairman, Symposium on "Bionanotechnology" on Topical Conference on Bionanotechnology, AIChE Meeting, Austin, TX, November 2004
113. Chairman of Symposium on "Nanotechnology and Biomaterials", Society for Biomaterials, Memphis, TN, April 2005.
114. Chairman of Symposium on "Polymer Gels", European Polymer Congress, Moscow, Russia, June 2005.
115. Chairman of Symposium on "Biomaterials", Houston Society for Engineering in Biology and Medicine, Houston, TX, February 2006
116. Chairman of Plenary Session of "US-Japan Joint Topical Conference on Medical Engineering, Drug Delivery Systems and Therapeutic Systems", AIChE Meeting, San Francisco, CA, November 2006.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 44 of 218

117. Chairman of Symposium on the 65th Birthday of Prof. Clark Colton, AIChE Meeting, San Francisco, CA, November 2006.
118. Chairman, Symposium on "Bionanotechnology" of the Conference on Bionanotechnology, AIChE Meeting, Austin, TX, November 2007
119. Chairman of Symposium at the 9th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2007.
120. Chairman of Symposium on "Novel Chemistry" of the Fourteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2009.
121. Chair, Symposium on Translation of Knowledge, 18th Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 2009.
122. Chaiman of Symposium on Hydrogels, Fifteenth International Symposium on Recent Advances in Drug Delivery, Salt Lake City, Utah, February 2011
123. Chairman, National Academy of Engineering Meeting, Engineering the Future of Health Care, Austin, TX, April 2011
124. Chairman, Session at the 10th US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2011.
125. Chairman, Symposium on "Innovations in Medical and Biological Engineering", Annual Meeting of the American Institute of Medical and Biological Engineering, Washington, DC, February 20, 2012.
126. Chairman, Symposium, Workshop on Key Challenges in the Implementation of Convergence, National Research Council, Washington, DC, Fenruary 16, 2013.
127. Chairman, Session at the 12h US-Japan Symposium on Drug Delivery Systems, Lahaina, HI, December 2013.
128. Chairman, Symposium on "Integrated Cellular Systems: Building Machines with Cells", Annual AAAS meeting, Chicago, IL, February 2014.
129. Chairman, Symposium on "Drug Delivery", European Society for Biomaterials meeting, Krakow, Poland, September 2015.
130. Chairman, Symposium on "Biomaterials", Annual TAMEST meeting, Dallas, TX, 2016.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 45 of 218

Federal Review Panels

1. National Institutes of Health, Biomedical Engineering Centers, October 1977.
2. National Institutes of Health, Arteriosclerosis Centers, April 1981.
3. National Science Foundation, Bureau of Engraving and Printing Panel, October 1987.
4. National Institutes of Health, Surgery & Bioengineering, Study Section, 1987-88.
5. National Institutes of Health, Surgery & Bioengineering Study Section, 1990-91.
6. National Institutes of Health, Surgery, Anesthesiology and Trauma Panel, August 1991.
7. National Institutes of Health, Small Business Administration, 1992-93.
8. National Science Foundation Fellowships, February 1992.
9. National Science Foundation Fellowships, February 1993.
10. National Science Foundation Fellowships, February 1995.
11. National Science Foundation, Technology for a Sustainable Environmental Panel, June 1995.
12. National Institutes of Health, SBIR Review Board, March 1996.
13. National Institutes of Health, SBIR Review Board, October 1998.
14. National Science Foundation, IGERT Program, June 1999.
15. National Institutes of Health, Surgery & Bioengineering Study Section, June 1999.
16. Nanotechnology Technical Advisory Group to the President's Council of Advisors on Science and Technology, 2003-06
17. National Research Council Committee on "International Benchmarking of US Chemical Engineering Research Competitiveness", 2006-07.
18. National Institutes of Health, Challenge Grants, 2009
19. National Research Council, Key Challenges in the Implementation of Convergence, Washington, DC, February, 2013.
20. National Science Foundation Fellowships, Fall, 2015, Fall 2016.

Reviewer of proposlas for Research Foundations in Austria, Belgium, Germany, Japan, Portugal, Russia, Singapore, Spain, Switzerland, UK.

Participant or panelist in numerous NSF, NIH and DOE panels for review of proposals, definition of research directions and other subjects

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 46 of 218

Lecturer

Lecturer of an one-week industrial course (20.02s) on "Controlled Release Technology" at M.I.T. (August 1980, August 1981, August 1982, July 1983, July 1984, July 1985, July 1986, July 1986, July1987, June 1988, July 1989, June 1990, July 1991, August 1992, June 1993, July 1994, July 1995, June 1996; July 1997; July 1998; July 1999; June 2000; June 2001; June 2002; June 2003; July 2004; July 2005; July 2006; July 2007; June 2008; July 2009; July 2010; July 2011; July 2012; July 2013; July 2014; June 2015; June 2016; July 2017); in Brussels, Belgium (May 1983); in Vienna, Austria (June 1984); in Paris, France (April 1986); in Copenhagen, Denmark (June 1988).

Lecturer of the industrial course on "Structure and Properties of Polymeric Materials" at Purdue (August1984, June 1985, December 1985, May 1986, May 1987, April 1988, July 1989, April 1990, May 1991); in Indianapolis (June 1992); in Geneva, Switzerland (May 1987); in Pavia, Italy (May 1988); in Parma, Italy (October 1993).

Lecturer of the Industrial Course on "Hydrogels in Biomedical and Pharmaceutical Applications" in Indianapolis (April 1991); at Purdue (May 1992).

Lecturer of Controlled Release Society workshop at Ft. Lauderdale (July 1984), Toronto (August 1987).

Lecturer of Controlled Release Society workshop on Consumer Products at Cincinnati (October 1990).

Lecturer of Controlled Release Society workshop on Biomaterials at West Palm Beach (January 1992).

Lecturer of Controlled Release Society workshop on Consumer Products at Secaucus, NJ (May 1992).

Lecturer of Controlled Release Society workshop on Consumer Products at Geneva, Switzerland (October 1993).

Lecturer of Controlled Release Society workshop on Consumer Products at Chicago, IL (September 1994).

Lecturer of Controlled Release Society workshop on Development of Hydrogel Dosage Forms at Kyoto, Japan (July 1996).

Lecturer of Controlled Release Society workshop on Protein/Peptide Controlled-Release Delivery at Baltimore (August 1996).

Lecturer in Advanced Tissue Engineering course, Rice University, Houston, TX (August 2007).

Lecturer of Biomedical Nanotechnology Course, Tecnologico de Monterrey, Monterrey, Mexico (October 2008).

Lecturer of Controlled Release workshop, Kimberly Clark, Neenah, WI (October 2012).

Lecturer on workshop Fundamentals and Applications of Controlled Release and Dug Delivery, University of Belgrade, Belgrade, Serbia (May 2013).

Teaching at the University of Texas

ChE 379/384 (U/G): "Polymerization Kinetics and Reaction Engineering," Spring 2003.
ChE 384 (G): “Topics in Polymer Science and Engineering,” Summer 2003 (a few lectures).
BME 385J (G): “Fields, Forces and Flows in Cellular and Physiological Systems”, Fall 2003.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2003.
ChE 387M (G): “Mass Transfer”, Spring 2004.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2004.
BME 385J.34 (G): “Advances in Biomaterials Science and Engineering”, Fall 2004.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2004.
ChE 322 (U): “Chemical Engineering Thermodynamics”, Spring 2005.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2005.
BME 380J.2 (G): “Quantitative Physiology”, Fall 2005.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2005.
ChE 372 (U): “Kinetics and Reaction Engineering”, Spring 2006.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2006.
BME 385J.34 (G): “Advances in Biomaterials Science and Engineering”, Fall 2006.
ChE 372 (U): “Kinetics and Reaction Engineering”, Spring 2007.
ChE 384 (G): "Polymerization Kinetics and Reaction Engineering", Spring 2007.
ChE 355 (U): “Introduction to Polymer Science”, Fall 2007.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2007.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 47 of 218

BME 385J (G) and ChE 384 (G): “Bionanotechnology”, Spring 2008.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2008.
ChE 355 (U): “Introduction to Polymer Science”, Fall 2008.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2008.
BME 382J.4 (G): “Advances in Biomaterials Science and Engineering”, Spring 2009.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2009.
ChE 355 (U): “Introduction to Polymer Science”, Fall 2009.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2009.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2010.
BME 382J.4 and ChE 384 (G): “Advances in Biomaterials Science and Engineering”, Fall 2010
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2010.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2011.
BME 382J.4 and ChE 384 (G): “Advances in Biomaterials Science and Engineering”, Fall 2011
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2011.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2012.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2012.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2013.
BME 385J and ChE 384 (G): “Fields, Forces and Flows in Cellular and Physiological Systems”, Fall 2013.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2013.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2014.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2014.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2015.
ChE 384 (G): “Advances in Biomedical Engineering”, Fall 2015.
ChE 379/384 (U/G): "Polymerization Kinetics and Reaction Engineering," Spring 2016.
ChE 384 (G): “Advances in Biomedical Engineering”, Spring 2016.
BME 382J/ChE 384T (G): “Advances in Biomaterials Science and Engineering”, Fall 2016.
ChE 372 (U): “Kinetics and Reaction Engineering”, Fall 2016.

At UT, Peppas designed and taught eight new courses ChE 379/384, ChE 387M, ChE 322, ChE 372, BME 385J, BME 385J.34, BME 380J.2, ChE 355 and 385J. Of these five are new courses not previously offered at UT (ChE 379/384, BME 385J, BME 385J.34, BME 380J.2 and 385J).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 48 of 218

Teaching at Purdue University

ChE 542 (U/G): "Chemistry and Engineering of High Polymers," Spring, 1977.
ChE 624 (G): "Mass Transfer," Fall 1977.
ChE 529 (U/G): "Advanced Chemical Processes," Spring 1978.
ChE 544: "Structure and Properties of Polymeric Materials," Spring 1978.
ChE 311 (U): "Introductory Chemical Engineering Thermodynamics," Fall 1978.
ChE 529 (U/G): "Advanced Chemical Processes," Spring 1979.
ChE 543 (U/G): "Polymerization Reaction Engineering," Fall 1979.
ChE 597H (U/G): "Biomedical Engineering," Fall 1979.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1980.
ChE 439 (U): "Reaction Kinetics and Chemical Equilibrium," Fall, 1980.
ChE 597N (U/G): "Mechanical Behavior and Processing of Polymer Solids and Fluids," Spring 1981.
ChE 624 (G): "Mass Transfer," Fall 1981.
ChE 561 (U/G): "Biomedical Engineering," Fall 1977, Fall 1978, Fall 1980, Fall 1981, Fall 1983, Fall 1984.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1982.
ChE 697M (G): "Biomedical Phenomena," Spring 1982.
ChE 624 (G): "Mass Transfer," Fall 1983.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1984.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1984.
ChE 378 (U): "Heat and Mass Transfer," Fall 1984.
ChE 529 (U/G): "Advanced Chemical Processes," Spring 1985
ChE 543 (U/G): "Polymerization Reaction Engineering," Fall 1985.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1986.
ChE 450 (U): "Design and Analysis of Processing Systems," Spring 1986.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1987.
ChE 306 (U): "Design of Staged Separation Processes," Fall 1987.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1988.
ChE 610 (G): "Thermodynamics," Fall 1988.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Spring 1989.
ChE 378 (U): "Heat and Mass Transfer," Fall 1989.
ChE 450 (U): "Design and Analysis of Processing Systems," Spring 1990.
ChE 543 (U/G): "Polymerization Reaction Engineering," Fall 1990.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Spring 1991.
ChE 697M (G): "Biomedical Phenomena," Spring 1991.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Fall 1991.
ChE 697Y (G): "Macromolecular Analysis in Chemical Engineering Science," Spring 1992.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Fall 1992.
ChE 697Z (G): "Fundamentals of Controlled Release and Pharmaceutical Engineering," Spring 1993.
ChE 597H (U): "Honors Seminar," Spring 1993.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Fall 1993.
ChE 597H (U): "Honors Seminar," Fall 1993.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Fall 1994.
ChE 597H (U): "Honors Seminar," Fall 1994.
ChE 543 (U/G): "Polymerization Reaction Engineering," Spring 1995.
ChE 597H (U): "Honors Seminar," Spring 1995.
ChE 544(U/G): "Structure and Properties of Polymeric Materials," Fall 1995
ChE 597H (U): "Honors Seminar," Fall 1995.
ChE 697M (G): "Biomedical Phenomena," Spring 1996.
ChE 610 (G): "Thermodynamics," Fall 1996.
ChE 597H (U): "Honors Seminar," Fall 1996.
BME 601(G): "Principles of Biomedical Engineering I," Fall 1996.
ChE 660 (G): "Kinetics and Reaction Engineering," Spring 1997.
ChE 644 (G): "Macromolecular Analysis," Fall 1997

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 49 of 218

BME 602(G): "Principles of Biomedical Engineering II," Spring 1998.
ChE 660 (G): "Kinetics and Reaction Engineering," Spring 1998.
ChE 610 (G): "Thermodynamics," Fall 1998.
ChE 697A (G): "Polymer Science and Engineering," Fall 1998.
ChE 348 (U): "Reaction Kinetics and Chemical Equilibrium," Spring 1999
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Fall 1999
ChE 697C (G): "Biomaterials Science and Engineering," Fall 1999.
ChE 658 (G): "Biomedical Phenomena," Spring 2000.
ChE 378 (U): "Heat and Mass Transfer," Fall 2000.
ChE 306 (U): "Design of Staged Separation Processes," Fall 2001.
BME 695T (G): "Biomaterials Science and Engineering," Fall 2001.
BME 696I (G): "IGERT Seminar," Fall 2001.
ChE 543 (U/G): "Polymerization Reaction Engineering," Spring 2002.
BME 696I (G): "IGERT Seminar," Spring 2002.
ChE 544 (U/G): "Structure and Properties of Polymeric Materials," Fall 2002.

At Purdue Peppas designed and taught sixteen new courses not previously given there (ChE 303, ChE 543, ChE 544, ChE 597H, ChE 597N, ChE 644, ChE 658, ChE 644, ChE 658, ChE 697A, ChE 697C, ChE 697D, ChE 697M, ChE 697Y, BME 601, BME 602 and BME 696I). In addition, he modified extensively courses ChE 529 and ChE 624. He has taught, ChE 306 (2 times), 311(1), 378 (3), 348 (6), 450 (2), 529 (3), 542 (1), 543 (5), 544 (9), 597H (7), 597N (1), 610 (3), 624 (3), 644 (1), 658 (1), 660 (2), 697A (1), 697C (1), 697M (3), 697Y (4), 697Z (1), and BME 601 (1), 602 (1), 695T (1), 696I (2).

"Fundamentals of Polymer Science: Macromolecular Chemistry and Physics," Fall 1982. Course taught at Faculty of Sciences, University of Geneva, Switzerland.

"Advances in Polymer Science," Spring 1983. Series of 20 lectures given at the Department of Chemical Engineering, California Institute of Technology, Pasadena, California.

"Mathematical and Molecular Analysis of Diffusion in Polymers," Fall 1986. Series of 9 lectures given at the Department of Pharmacy, University of Paris-Sud, Châtenay-Malabry, France.

"Diffusion Theory," December 1986. Series of 16 lectures given at the Department of Chemical Engineering, Hacettepe University, Ankara, Turkey.

"Structure Properties and Applications of Polymeric Materials in Pharmaceutical Technology," May 1988 and October 1993. Series of 12 lectures given at the Faculty of Pharmacy, University of Parma, Parma, Italy.

Series of lectures given at the Faculty of Pharmacy, Hoshi University, Tokyo, Japan, Spring 1994.

"Diffusion in Polymers," May 1996. Series of 5 lectures given at the Department of Materials Science, University of Naples, Naples, Italy.

"Use of Hydrogels in Drug Delivery," May 1996. Series of 8 lectures at the Department of Pharmacy, University of Naples, Naples, Italy.

"Controlled Release Technology," January and May 2001. Series of 10 lectures at the Department of Pharmacy, Free University of Berlin, Berlin, Germany.

"Controlled Release Technology: Recent Advances in Carrier Selection, Formulation, Release Modelling, Cellular and in Vivo Behavior," March 2001. Series of 8 lectures at the School of Pharmacy, Complutense University, Madrid, Spain.

Series of six lectures at the Department of Materials Science, Nanyang Technological University, Singapore.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 50 of 218

Lecture on "Molecularly-Imprinted Matrices and Scaffolds for Tissue Engineering" in Advanced Tissue Engineering course, Rice University, 2007.

"Fundamentals and Applications of Controlled Release and Dug Delivery", May 2013. Series of 7 lectures at the School of Pharmacy, University of Belgrade, Belgrade, Serbia.

"Fundamentals and Applications of Biopolymers in Medical Applications and Drug Delivery". March 22-26, 2015. Series of 12 lectures at Sichuan University, Chengdu, China,

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 51 of 218

Service at the University of Texas

1. Evolution of ChE Committee, Chair, Chemical Engineering, 2003-04.
2. Review of Curriculum Committee, Chemical Engineering, 2003-05.
3. Graduate Committee, Biomedical Engineering, 2003-09.
4. Accreditation and Assessment Committee, College of Engineering, 2003-05.
5. Degrees and Courses Committee, College of Engineering, 2003-04.
6. Executive Committee, Biomedical Engineering, 2003-05.
7. Undergraduate Curriculum Committee, Biomedical Engineering, 2003-05.
8. Intellectual Property Committee, University, 2003-09.
9. Awards Committee, Biomedical Engineering, Chair, 2004- .
10. Awards Committee, Chemical Engineering, 2003- .
11. Research Excellence Awards Committee, University-wide, 2004- .
12. Various Qualifying Examination Committees, Chemical Engineering, since 2003.
13. Chair, Area 2, Health Care, Startegic Plan, School of Engineering, 2009- .
14. Chair, BME-Law School Committee, 2010- .
15. Chair, Recruiting Committee, Biomedical Engineering, 2010- .
16. Various Medical School Committes, 2013- .
17. Chair, Engineering-wide Medical School Committee, 2013- .
18. Member, Chief of Surgery Recruitment Committee, DMS, 2014.

Service at Purdue University

1. Dean's Advisory Committee, Schools of Engineering, 2002.
2. Dean's Research Enterprise Committee, Chair, School of Engineering, 2002.
3. Joint Committee of the Biomedical Engineering Program, 1996-02.
4. Chairman, Graduate Committee, Department of Biomedical Engineering, 1998-02.
5. Chairman, Qualifying Examinations, Department of Biomedical Engineering, 2000-02.
6. Member, Committee for McCoy Award, 2000-02.
7. Chairman, Sigma Xi Chapter, Purdue University, 1995-96.
8. Vice Chairman, Sigma Xi Chapter, Purdue University 1994-95.
9. Controlled Release Society Student Chapter, Advisor 1993-02.
10. Senator of Purdue University, June 1985-May 1988; June 1991-December 1993; Nominating Committee, June 1986-May 1988; Steering Committee, May-December 1993.
11. Committee on Faculty Relations, August 1990-June 1993.
12. New Directions Committee, August 1990-August 1998.
13. Committee on Internationalization of Purdue, April 1989-January 1990.
14. Purdue Engineer Magazine, Student Advisor, May 1989-May 1991.
15. In charge of Honors Program, September 1985-August 1987; September 1990-02.
16. Chemical Engineering Undergraduate Committee, September 1976-December 1979, August 1987-June 1990, August 1996-June 1998.
17. Chemical Engineering Graduate Committee, January 1980-August 1982; September 1985-June 1986, September 1990-02.
18. Chemical Engineering, Faculty Recruiting Committee, September 1977-August 1981; September 1983-August 1985; January 1987-02.
19. Chemical Engineering Seminars, August 1979-May 1982; May 1983-May 1984; January 1986-May 1986.
20. Editor of Purdue University, Chemical Engineering Graduate Brochure of 1980, 1981, 1982, 1983, 1985, 1987, 1989, 1991, 1998.
21. Chemical Engineering, Awards Committee, September 1983-May 1986, January 1987-02.
22. Committee for 75th Anniversary of ChE School, September 1984-June 1986.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 52 of 218

23. AIChE Student Chapter Counselor, June 1977-August 1982; June 1983-August 1985; January 1987-August 1987; August 1988-May 1993.
24. SPE Student Chapter Founder and Counselor, September 1978-August 1982; June 1983-August 1984.
25. Sigma Xi Chemical Engineering Representative, August 1983-93.
26. Engineering Library Coordinating Committee, September 1977-June 1979.
27. Engineering Academic Personnel Grievance Committee, September 1978-June 1980; Chairman 1978-79.
28. Engineering-Chemistry Liaison Committee, January 1980-August 1982.
29. Hellenic Student Association Counselor, September 1977-September 1979.
30. Faculty Fellow, Harrison Hall, August 1978-June 1979.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 53 of 218

Current Research Interests: Polymers, Materials and Nanotechnology

Diffusion in Polymers, Composites, Mathematical Modeling and Membrane Science

- Multicomponent diffusion through membranes and polymer films.
- Anomalous diffusion in polymers.
-- Physical chemistry of macromolecular networks.
- Controlled release theory and applications.
- Gel interactions
- Polymer/polymer interpenetration

Polymerization Kinetics and Reaction Engineering

- Kinetics of multimethacrylate polymerizations
- Reaction engineering of fast UV-curing reactions
- UV-crosslinkable polymers

Polymer Dissolution: Microelectronics and Optical Applications

- Etching on polymers
- Positive resists
- Polymer dissolution
- Mathematical modeling

Current Research Interests: Biomedical Engineering

Bionanotechnology
- Microfabricated devices
- Intelligent therapeutic systems
-

Controlled Drug Delivery
- Drug delivery
- Peptide and protein release systems
- Buccal and sublingual release devices
- Nasal formulations
- Modulated release using oral controlled release devices
- Temperature and pH-sensitive systems
- Mucoadhesive controlled release systems

Biomaterials
Non-thrombogenic biopolymers
- Contact and intraocular lens materials
- Artificial articular cartilage

Biointerfacial Phenomena
- Protein adsorption on polymer surfaces
- Bioadhesive systems
- Blood/polymer interactions

Nanotechnology
- Targeted nanoparticles
- Molecular recognition principles
- Recognitive systems

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 54 of 218

Books

1. S.L. Cooper, N.A. Peppas, A.S. Hoffman, and B. Ratner, editors: *Biomaterials: Interfacial Phenomena and Applications,* Advances in Chemistry Series, Volume 199, American Chemical Society, Washington, D.C., 1982, 539 pages.
2. N.A. Peppas: *Structure and Properties of Polymeric Materials*, Purdue University, 1984, 185 pages.
3. N.A. Peppas and R.J. Haluska, editors: *Proceedings of the 12th International Symposium on Controlled Release of Bioactive Materials*, CRS, Lincolnshire, IL, 1985, 375 pages.
4. N.A. Peppas: *History of the School of Chemical Engineering*, Purdue University, 1986, 378 pages.
5. N.A. Peppas: *Hydrogels in Medicine and Pharmacy, Vol. 1. Fundamentals*, CRC Press, Boca Raton, FL, 1986, 180 pages.
6. N.A. Peppas: *Hydrogels in Medicine and Pharmacy, Vol. 2. Polymers*, CRC Press, Boca Raton, FL, 1987, 172 pages.
7. N.A. Peppas: *Hydrogels in Medicine and Pharmacy, Vol. 3. Properties and Applications*, CRC Press, Boca Raton, FL, 1987, 196 pages.
8. A. Gürsoy, B. Dortunc, E. Piskin and N.A. Peppas: *Controlled Release Technology*, Ciba-Geigy, Istanbul, Turkey, 1989, 333 pages.
9. N.A. Peppas: *One Hundred Years of Chemical Engineering*, Kluwer, Dodrecht, The Netherlands, 1989, 414 pages.
10. N.A. Peppas and R.S. Langer, editors: *Biopolymers I*, published as *Advances in Polymer Science, 109* (1993) 272 pages
11. R. Gurny, H. Junginger and N.A. Peppas: *Pulsatile Drug Delivery: Current Applications and Future Trends*, Wissenschaftliche, Stuttgart, Germany, 1993, 186 pages.
12. T.J. Roseman, N.A. Peppas and H.L. Gabelnick, editors: *Proceedings of the 20th International Symposium on Controlled Release of Bioactive Materials*, CRS, Deerfield, IL, 1993, 513 pages.
13. A.G. Mikos, R. Murphy, H. Bernstein and N.A. Peppas, editors: *Biomaterials for Drug and Cell Delivery*, Materials Research Society, Pittsburgh, PA 1994, 290 pages.
14. F. Buchholz and N.A. Peppas, editors: *Superabsorbent Polymers: Science and Technology*, ACS Symposium Series, Volume 573, American Chemical Society, Washington, DC, 1994, 148 pages
15. N.A. Peppas and R.S. Langer, editors: *Biopolymers II*, published as *Advances in Polymer Science*, *122* (1995) 274 pages.
16. L. Drzal, R. Opila, N.A. Peppas and C. Schutte, editors: *Polymer/Inorganic Interfaces*, Materials Research Society, Pittsburgh, PA, 1995, 254 pages.
17. N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, editors: *Biomaterials, Carriers for Drug Delivery, and Scaffolds for Tissue Engineering,* AIChE, New York, NY, 1997, 356 pages.
18. D.L. Wise, L. Brannon-Peppas, A.M. Klibanov, R.L. Langer, A.G. Mikos, N.A. Peppas, D.J. Trantolo, G.E. Wnek, and M.J. Yaszemski, editors: *Handbook of Pharmaceutical Controlled Release Technology*, Dekker, New York, NY, 2000, 890 pages.
19. N.A. Peppas and M.V. Sefton, editors, *Molecular and Cellular Foundations of Biomaterials*, Academic Press, San Diego, 2004, 234 pages.
20. N.A. Peppas, K. Anseth, A. K. Dillow and C. E. Schmidt, editors, *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, AIChE, New York, NY, 2004, 263 pages.
21. N.A. Peppas and J.Z.Hilt, editors, *Advances in Bionanotechnology*, AIChE, New York, NY, 2005, 266 pages.
22. N.A. Peppas, A. S. Hoffman, T. Kanamori and K. Tojo, editors, *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, AIChE, New York, 2006, 342 pages.
23. N.A. Peppas, J.Z. Hilt and J.B. Thomas, editors, *Nanotechnology in Therapeutics: Current Technology and Applications*, Horizon Press, Norfolk, UK, 2007, 440 pages.
24. R. M. Ottenbrite, K. Park, T. Okano and N.A. Peppas, editors, Biomedical *Applications of Hydrogels Handbook*, Springer, New York, NY, 2010, 425 pages.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 55 of 218

Edited Volumes in Journals

1. N.A. Peppas, editor: *Advances in Polymer Networks*, published as *Polym. Eng. Sci., 19*, No.4, (1979), 94 pages.
2. N.A. Peppas, editor, *Undergraduate Research in Chemical Engineering*, published as *Chem. Eng. Educ., 15*(2), (1981).
3. N.A. Peppas and J. Petropoulos, editors: *Special IUPAC Issue*, published as *J. Membr. Sci., 15*, No.2, (1983), 78 pages.
4. D.J. Graves and N.A. Peppas, editors: *Special Issue Honoring E.W. Merrill*, published as *Chem. Eng. Commun., 30*, No.3-5, (1984), 310 pages.
5. S.L. Cooper and N.A. Peppas, editors: *Biomaterials Research*, published in *Biomaterials, 7*, No.5 (1986), 58 pages.
6. N.A. Peppas and M.V. Sefton, editors: *Special Issue Honoring R.S. Langer*, published as *Biomaterials, 11*, No.9 (1990), 145 pages.
7. A.B. Scranton and N.A. Peppas, *Modern Hydrogel Delivery Systems*, published as *Advances in Drug Delivery Reviews, 11* (1993), 200 pages.
8. C.M. Caramella, P. Colombo and N.A. Peppas, *Special Issue Honoring A. La Manna*, published as *Europ. J. Pharm. Biopharm., 4*, No.4, (1994), 54 pages.
9. J. Siepmann and N.A. Peppas, editors: *Mathematical Modeling of Controlled Drug Delivery*, published as *Advances in Drug Delivery Reviews, 48* (2001), 250 pages.
10. N.A. Peppas, editor: *Intelligent Therapeutics: Biomimetic Systems and Nanotechnology in Drug Delivery*, published as *Advances in Drug Delivery Reviews,* 56 (2004) 165 pages.
11. N.A. Peppas and M. Smolensky, editors: *Chronobiology, Drug Delivery and Chronotherapeutics,* published as *Advances in Drug Delivery Reviews,* 59 (2007) 245 pages.
12. J. Siepmann and N. A. Peppas, editors: Mathematical Modeling of Drug Delivery Systems: Takeru Higuchi issue, published as *Advances in Drug Delivery Reviews,* 418 (2011) 148 pages.
13. M. Morishita and N. A. Peppas, editors:*Advances in Oral Drug Delivery: Improved Bioavailability of Poorly Absorbed Drugs by Tissue and Cellular Optimization*, published as *Advances in Drug Delivery Reviews, 64* (2012), 110 pages.
14. A. Khademhosseini and N. A. Peppas, editors: *Future of Nano- and Microscale Materials for Healthcare,* published as *Advanced Healthcare Materials*, 2 (2013), 227 pages.
15. N. A. Peppas, editor: a tribute to the 25th Anniversary of the Journal ADDR, published as *Advanced Drug Delivery Reviews*, 64 (2012), 365 pages.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 56 of 218

Publications

1. H.P. Meissner and N.A. Peppas: "Activity Coefficients-Aqueous Solutions of Polybasic Acids and their Salts, "*AIChE Journal, 19*, 806-809 (1973).
2. N.A. Peppas and G.N. Valkanas: "Synthesis of Some Oligobenzylenes, Polybenzylenes and their Functional Derivatives," *Chem. Chron., New Ser., 3*, 37-46 (1974).
3. N.A. Peppas and E.W. Merrill: "Creep Behavior of Partially Crystalline PVA Hydrogels," *Techn. Chron., 43*, 559-568 (1974), in Greek.
4. N.A. Peppas and G.N. Valkanas: "Aspects of the Synthesis and the Properties of Linear Poly-2, 5-dimethylbenzylenes," *J. Polym. Sci., Polym. Chem., 12*, 2567-2579 (1974).
5. N.A. Peppas: "Polymers in Medicine," *Techn. Chron., 44*, 231-237 (1975), in Greek.
6. N.A. Peppas: "Turbidimetric Studies of Aqueous PVA Solutions," *Makromol. Chemie, 176*, 3433-3440 (1975).
7. N.A. Peppas: "Effect of Scanning Speed of DSC on Determination of Melting Points of Crosslinked Polymers," *J. Appl. Polym. Sci., 20*, 1715-1716 (1976).
8. N.A. Peppas and E.W. Merrill: "PVA Hydrogels: Reinforcement of Radiation-Crosslinked Networks by Crystallization," *J. Polym. Sci., Polym. Chem., 14*, 441-457 (1976).
9. N.A. Peppas and E.W. Merrill: "Determination of Interaction Parameter c_1 for PVA and Water in Gels Crosslinked from Solutions," *J. Polym. Sci., Polym. Chem., 14*, 459-464 (1976).
10. N.A. Peppas and G.N. Valkanas and E.T. Diamanti-Kotsida: "Polycondensation of Mono- and Difunctional Derivatives of p-Xylene," *J. Polym. Sci., Polym. Chem., 14*, 1241-1247 (1976).
11. N.A. Peppas and E.W. Merrill: "Differential Scanning Calorimetry of Crystallized PVA Hydrogels," *J. Appl. Polym. Sci., 20*, 1457-1465 (1976).
12. N.A. Peppas: "Development of Radial and Tangential Stresses in Cylindrical Gels During Drying," *Techn. Chron., 45*, 15-18 (1976).
13. N.A. Peppas: "Crystallization of PVA-Water Films by Slow Dehydration," *Europ. Polym. J., 12*, 495-498 (1976).
14. N.A. Peppas: "Kinetics of the Crystallization of Crosslinked PVA Films by Slow Evaporation of Hydrogels," *Org. Coat. Plast. Chem. Prepr., 36,* 541-545 (1976).
15. N.A. Peppas and G.N. Valkanas: "Novel Methods of Production of Crosslinked and Grafted Polystyrene with Improved Thermal Properties," *Polym. Prepr., 17* (2), 510-514 (1976)
16. L.A. Feig, N.A. Peppas, G.M. Chisolm, C.K. Colton, K.A. Smith and R.S. Lees: "Transport of Albumin Across the Aortic Wall during Acute Angiotensin-Induced Hypertension," *Proc. Ann. Conf. Eng. Med. Biol., 18,* 232 (1976).
17. N.A. Peppas: "Infrared Spectroscopy of Semicrystalline PVA Networks," *Makromol. Chemie, 178*, 595-601 (1977).
18. N.A. Peppas: "Tear Propagation Resistance of Semicrystalline Polymeric Networks," *Polymer, 18*, 403-408 (1977).
19. N.A. Peppas: "Kinetics of the Crystallization of Crosslinked PVA Films by Slow Evaporation of Hydrogels," in "Chemistry and Properties of Crosslinked Polymers," S.S. Labana, editor, pp. 469-478, Academic Press, New York, 1977.
20. N.A. Peppas and E.W. Merrill: "Development of Semicrystalline PVA Networks for Biomedical Applications," *J. Biomed. Mater. Res., 11*, 423-434 (1977).
21. N.A. Peppas and G.N. Valkanas: "Crosslinking of Polystyrene by Mono- and Difunctional Agents," *Angew. Makrom. Chem., 62*, 163-176 (1977).
22. N.A. Peppas and E.W. Merrill: "Crosslinked PVA Hydrogels as Swollen Elastic Networks," *J. Appl. Polym. Sci., 21*, 1763-1770 (1977).
23. N.A. Peppas: "Development of Crosslinked PVA Biomembranes," *Polym. Prepr., 18* (1), 794-799 (1977)
24. N.A. Peppas: "Hydrogels for Synthetic Articular Cartilage Applications," *SPE Techn. Papers* (NATEC), 62-63 (1977).
25. N.A. Peppas and T.W.B. Gehr: "New Hydrophilic Copolymers for Biomedical Applications," *Trans. Amer. Soc. Artif. Intern. Org., 24*, 404-410 (1978).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 57 of 218

26. R. Khanna and N.A. Peppas: "Mathematical Analysis of Transport Properties of Flexible Films in Relation to Food Storage Stability. I. Water Vapor Transport," *SPE Techn. Papers NATEC,* 56-58 (1978).
27. P.J. Hansen and N.A. Peppas: "Crystallization During Weathering of Packaging Films: I. Polymers with Kinetic Hindrance for Crystallization," *SPE Techn. Papers* (NATEC), 59-63 (1978).
28. T.A. Massaro, C.E. Glatz, N.A. Peppas, G.M. Chisolm and C.K. Colton: "Distribution of Glycosaminoglycans in Consecutive Layers of the Rabbit Aorta," *Artery, 5*, 1-13 (1979).
29. N.A. Peppas: "Characterization of Homogeneous and Pseudocomposite Homopolymers and Copolymers for Articular Cartilage Replacement," *Biomat., Med. Dev., Artif. Org., 7*, 421-433 (1979).
30. N.A. Peppas and T.W.B. Gehr: "Statistical Analysis of Nitrogen-Containing Vinyl Copolymers: Radiation-Induced Copolymerization of Vinyl Acetate and N-Vinyl-2-Pyrrolidone,"*J. Appl. Polym. Sci., 24*, 2159-2167 (1979).
31. N.A. Peppas: "Generalized Method of Prediction of Mean Activity Coefficients of Polyelectrolytes in Aqueous Solutions," *Proc. IUPAC, 26,* 827-830 (1979).
32. R.A. Sorensen and N.A. Peppas: "Transport of Macromolecules through Model Polymeric Networks," *Proc. IUPAC, 26,* 1108-1110 (1979).
33. N.A. Peppas, R.E. Benner Jr. and R.A. Sorensen: "Hydrophilic Polymeric Materials for Reconstruction of Vocal Cords," *Proc. IUPAC, 26,* 1539-1542 (1979).
34. C.R. Rhodes, K.A. Slight and N.A. Peppas: "Structural Investigations of Friedel-Grafts Crosslinked Polystyrene and its Sulfonated Ion Exchange Resins," *AIChE Stud. Bull.*, 23-26 (1979).
35. N.A. Peppas and R. Khanna: "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. II. Generalized Water Vapor Models," *Polym. Eng. Sci., 20*, 1147-1156 (1980).
36. N.A. Peppas, R. Gurny, E. Doelker and P.A. Buri: "Modelling of Drug Diffusion Through Swellable Polymeric Systems," *J. Membr. Sci., 7*, 241-253 (1980).
37. N.A. Peppas and R.E. Benner, Jr.: "Proposed Method of Intracordal Injection and Gelation of PVA Solution in Vocal Cords: Polymer Considerations," *Biomaterials, 1*, 158-164 (1980).
38. N.A. Peppas: "The Polymer Science and Engineering Program at Purdue University: Emphasis on Engineering Fundamentals," *SPE Techn. Papers, 26*, 656-660 (1980).
39. N.A. Peppas: "A Course on Polymerization Reaction Engineering," *Chem. Eng. Educ., 14*, 188-192 (1980).
40. N.A. Peppas and R.W. Korsmeyer: "Polymers for Sustained Release of Macromolecules," *Polym. News, 6*, 149-150 (1980).
41. N.A. Peppas: "Models for Plasticizer Migration Through Polymers," *Polym. News, 6*, 221-222 (1980).
42. N.A. Peppas: "Selection of Polymer Films for Food Packaging," *Polym. News, 6*, 275 (1980).
43. N.A. Peppas and D.G. Barar: "Isoporous Polystyrene Gels: New Preparative Techniques, Swelling and Diffusion Experiments," *Polym. News, 7*, 32-33 (1980).
44. N.A. Peppas and C.T. Reinhart: "Solute Diffusion in Highly Swollen Membranes," *Polym. News, 7*, 84-85 (1980).
45. N.A. Peppas and K.F. Zieminski: "Migration of Potentially Toxic Compounds from Plasticized Polymers," *SPE Techn. Papers, (ANTEC), 26,* 589-590 (1980).
46. N.A. Peppas and G.S. Sekhon: "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging: IV. Prediction of Shelf-Life of Food Packages Using Halsey Sorption Isotherms," *SPE Techn. Papers, ANTEC, 26*, 681-684 (1980).
47. N.A. Peppas: "Macromolecular Network Structure and its Effects on Drug Diffusion," in "Emploi des polymeres dans l'elaboration de nouvelles formes medicamenteuses," P.A.. Buri, E. Doelker and P. Pasquier, editors, 59-85, University of Geneva , Geneva, Switzerland, 1980.
48. N.A. Peppas and W.H. Yang: "Polymer Structural Effects on the Oxygen Permeation of Soft Contact Lens Materials," *Proceed. IUPAC, 27* (4), 28-33 (1980).
49. R. Gurny, E. Doelker and N.A. Peppas: "An Evaluation of New Mathematical Models for Drug Release from Matrix Tablets," *Interphex, 1,* 47-59 (1980).49
50. R. Gurny, N.A. Peppas, D.D. Harrington and G.S. Banker: "Development of Biodegradable and Injectable Latices for Controlled Release of Potent Drugs," *Drug Devel. Ind. Pharm., 7*, 1-25 (1981).
51. N.A. Peppas, W.R. Bussing, and K.A. Slight: "Structure of Friedel-Crafts Crosslinked Polystyrene and Sulfonated Resins Thereof," *Polym. Bull., 4*, 193-198 (1981).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 58 of 218

52. L.M. Lucht and N.A. Peppas: "Crosslinked Macromolecular Structures in Bituminous Coals: Theoretical and Experimental Considerations," in "Chemistry and Physics of Coal Utilization," B.S. Cooper and L. Petrakis, editors, pp. 28-48, American Institute of Physics, New York, N.Y., 1981.
53. C.T. Reinhart, R.W. Korsmeyer and N.A. Peppas: "Macromolecular Network Structure and its Effects on Drug and Protein Diffusion," *Intern. J. Pharm. Techn., 2*(2), 9-16 (1981).
54. L.M. Lucht and N.A. Peppas: "Crosslinked Structures in Coals: Models and Preliminary Experimental Data," in "New Approaches in Coal Chemistry," B.D. Blaustein, B.C. Bocrath and S. Friedman, editors, ACS Symposium Series, Vol. 169, pp. 43-59, ACS, Washington, D.C., 1981.
55. W.H. Yang, V.F. Smolen and N.A. Peppas: "Oxygen Permeability Coefficients of Polymers for Hard and Soft Contact Lens Applications," *J. Membr. Sci., 9*, 53-67 (1981).
56. R.S. Langer and N.A. Peppas: "Present and Future Applications of Biomaterials in Controlled Drug Delivery Systems," *Biomaterials, 2*, 201-214 (1981).
57. N.A. Peppas and W.H.M. Yang: "Properties-Based Optimization of the Structure of Polymers for Contact Lens Applications," *Cont. Intraoc. Lens Med. J., 7*, 300-314 (1981).
58. R.W. Korsmeyer and N.A. Peppas: "Effect of the Morphology of Hydrophilic Polymeric Matrices on the Diffusion and Release of Water Soluble Drugs," *J. Membr. Sci., 9*, 211-227 (1981).
59. E.G. Koukios and N.A. Peppas: "Critical Review of the Greek Curriculum in Chemical Engineering," *Bull. Greek Assoc. Chem. Eng., (25)*, 16-25 (1981).
60. N.A. Peppas: "Polymer Education in Chemical Engineering Departments," *Chem. Engin. Progr., 77(4)*, 23-30 (1981).
61. N.A. Peppas and R.G. Mallinson: "Biomedical Engineering in Chemical Engineering Curricula," *Chem. Engin. Progr., 77(5)*, 21-22 (1981).
62. N.A. Peppas: "Student Preparation for Graduate School through Undergraduate Research," *Chem. Eng. Educ., 15*, 135-137 (1981).
63. S.J. Napp and N.A. Peppas: "Diffusion of Gases in Glassy Polymers: I. Free Volume and Energy Fluctuation Theories," *Polym. News, 7*, 118-121 (1981).
64. S.J. Napp and N.A. Peppas: "Diffusion of Gases in Glassy Polymers: II. Dual Sorption Theory," *Polym. News, 7*, 174-177 (1981).
65. S.J. Napp and N.A. Peppas: "Diffusion of Gases in Glassy Polymers: III. Thermal History and Experimental Techniques," *Polym. News, 7*, 224-225 (1981).
66. N.A. Peppas: "Thermally-Induced Diffusion Phenomena in Polymer Systems" *Polym. News, 8*, 16-17 (1981).
67. N.A. Peppas and G.W.R. Davidson III: "Fibrinolytic Enzyme-Immobilized Polymers for Blood Compatible Applications," *Proceed. IUPAC, 27*, 1321 (1981).
68. E.A. Swan and N.A. Peppas: "Drug Release Kinetics from Hydrophobic Porous Monolithic Devices," *Proceed. Symp. Controlled Rel. Bioact. Mater., 8*, 18-23 (1981).
69. R.W. Korsmeyer and N.A. Peppas: "Swelling-Controlled Release from Hydrophilic Polymeric Networks," *Proceed. Symp. Controlled Rel. Bioact. Mater., 8*, 85-89 (1981).
70. R. Gurny, E. Doelker, and N.A. Peppas: "Modelling of Sustained Release of Water-Soluble Drugs from Porous, Hydrophobic Polymers,"*Biomaterials, 3*, 27-32 (1982).
71. N.A. Peppas: "Liquid-State Transitions ($T > T_g$) of Poly(vinyl alcohol)," *Coll. Polym. Sci., 260*, 294-296 (1982).
72. N.A. Peppas: "Contact Lenses as Biomedical Polymers: Polymer Physics and Structure-Properties Evaluation as Related to the Development of New Materials," in "Extended Wear Contact Lenses for Aphakia and Myopia," J. Hartstein, editor, pp. 6-43, C.V. Mosby Co., St. Louis, MO, 1982.
73. N.A. Peppas: "Structure, Testing and Applications of Biomaterials," in "Biomaterials: Interfacial Phenomena and Applications," S.L. Cooper, N.A. Peppas, A.S. Hoffman and B.D. Ratner, editors, Advances in Chemistry Series, Vol. 199, pp. 465-474, American Chemical Society, Washington, D.C., 1982.
74. N.A. Peppas: "Generalized Correlations of Mean Activity Coefficients of Polyelectrolytes with Monovalent Gegenions in Aqueous Solutions," *AIChE Journal, 28*, 861-863 (1982).
75. R. Khanna and N.A. Peppas: "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. III. Moisture and OxygenDiffusion," *AIChE Symp. Series, 218*, 185-191 (1982).
76. N.A. Peppas and P.J. Hansen: "Crystallization Kinetics of Poly(vinyl alcohol)," *J. Appl. Polym. Sci., 27*, 4787-4797 (1982).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 59 of 218

77. L.A. Feig, N.A. Peppas, C.K. Colton, K.A. Smith and R.S. Lees: "The Effect of Angiotensin II on *In-vivo* Albumin Transport in Normal Rabbit Aortic Tissue," *Atherosclerosis, 44*, 307-318 (1982).
78. K.G. Patterson, S.J. Padgett, and N.A. Peppas: "Microcrystallinity and Three-Dimensional Network Structure of Plasticized Poly(vinyl chloride)," *Coll. Polym. Sci., 260*, 851-858 (1982).
79. N.A. Peppas and K.P. Staller: "Friedel-Crafts Crosslinking Methods for Polystyrene Modification. V. Sulfonated Crosslinked Polystyrene Particles," *Polym. Bull., 8*, 233-237 (1982).
80. N.A. Peppas and R.G. Mallinson: "Trends in Biomedical Education," *Chem. Eng. Educ., 16*, 126-131, 143 (1982).
81. N.A. Peppas: "Controlled Release of Bioactive Agents," *Polym. News, 8*, 44-45 (1982).
82. N.A. Peppas: "Constant Solute Release Rates from Glassy Polymers," *Org. Coat. Appl. Polym. Sci. Proceed., 46,* 615-618 (1982).
83. N.A. Peppas and D.G. Barar: "Preparation and Structure of Friedel-Crafts Crosslinked Polystyrene Particles," *Org. Coat. Appl. Polym. Sci. Proceed., 46,* 502-505 (1982).
84. N.A. Peppas: "Diffusion of Solutes in Highly and Moderately Swollen Polymeric Networks," *Proceed. IUPAC, 28,* 731 (1982).
85. R.W. Korsmeyer, T.L. Rave, N.A. Peppas, R. Gurny, E. Doelker and P.A. Buri: "Swelling Controlled Release Systems: Progress Toward Zero-Order Kinetics with Polymer Blends," *Proceed. Symp. Controlled Rel. Bioact. Mater., 9,* 65-68 (1982).
86. R.W. Korsmeyer and N.A. Peppas: "Macromolecular and Modeling Aspects of Swelling-Controlled Systems," in "Controlled Release Delivery Systems," T.J. Roseman and S.Z. Mansdorf, editors, pp. 77-90, Dekker, New York, N.Y., 1983.
87. W.R. Bussing and N.A. Peppas: "Friedel-Crafts Crosslinking Methods for Polystyrene Modification. I. Preparation and Kinetics," *Polymer, 24*, 209-216 (1983).
88. N.A. Peppas and W.R. Bussing: "Friedel-Crafts Crosslinking Methods for Polystyrene Modification. II. T_g, T_{II} and □□ Transitions of Grafted Polystyrene," *Polymer, 24*, 898-902 (1983).
89. R.W. Korsmeyer, R. Gurny, E. Doelker, P.A. Buri and N.A. Peppas: "Mechanisms of KCl Release from Compressed, Hydrophilic, Polymeric Matrices: Effect of Entrapped Air," *J. Pharm. Sci., 72*, 1189-1191 (1983).
90. R.W. Korsmeyer, R. Gurny, E. Doelker, P.A. Buri and N.A. Peppas: "Mechanisms of Solute Release from Porous Hydrophilic Polymers," *Intern. J. Pharm., 15*, 25-35 (1983).
91. N.A. Peppas and N.M. Franson: "The Swelling Interface Number as a Criterion for Prediction of Diffusional Solute Release Mechanisms in Swellable Polymers," *J. Polym. Sci., Polym. Phys., 21*, 983-997 (1983).
92. N.A. Peppas and D.L. Meadows: "Macromolecular Structure and Solute Diffusion in Membranes: An Overview of Recent Theories," *J. Membr. Sci., 16*, 361-377 (1983).
93. K.F. Zieminski and N.A. Peppas: "Diluent Diffusion in Polymer-Diluent Systems Near T_g: Migration of Phthalic Esters from PVC to Water," *J. Appl. Polym. Sci., 28*, 1751-1765 (1983).
94. N.A. Peppas and R. Gurny: "Relation entre la structure des polymeres et la liberation controlee de principes actifs," *Pharm. Acta Helv., 58*, 2-8 (1983), in French.
95. E.S. Miller and N.A. Peppas: "Diffusional Release of Water-Soluble Bioactive Agents from Ethylene-Vinyl Acetate Copolymers," *Chem. Eng. Commun., 22*, 303-315 (1983).
96. E.S. Miller, N.A. Peppas and D.N. Winslow: "Morphological Changes of EVAc-Based Controlled Delivery Systems During Release of Water-Soluble Solutes," *J. Membr. Sci., 14*, 79-92 (1983).
97. N.A. Peppas: "A Model of Dissolution-Controlled Solute Release from Porous Drug-Delivery Polymeric Systems," *J. Biomed. Mater. Res., 17*, 1079-1087 (1983).
98. D.G. Barar, K.P. Staller and N.A. Peppas: "Friedel-Crafts Crosslinking Methods for Polystyrene Modification. III Preparation and Swelling Characteristics of Crosslinked Particles," *Ind. Eng. Chem., Prod. Res. Develop., 22*, 161-166 (1983).
99. D.G. Barar, K.P. Staller and N.A. Peppas: "Friedel-Crafts Crosslinking Methods for Polystyrene Modification. IV. Macromolecular Structure of Crosslinked Particles," *J. Polym. Sci., Polym. Chem., 21*, 1013-1024 (1983).
100. N.A. Peppas and J.L. Sinclair: "Anomalous Transport of Penetrants in Glassy Polymers. I.," *Coll. Polym. Sci., 261*, 404-409 (1983).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 60 of 218

101. N.M. Franson and N.A. Peppas: "Influence of Copolymer Composition on Non-Fickian Water Transport Through Glassy Copolymers," *J. Appl. Polym. Sci., 28*, 1299-1310 (1983).
102. K.F. Zieminski and N.A. Peppas: "Migration of Phthalic Esters from Poly(vinyl chloride) in the Presence of Alcohols," *Angew. Makromol. Chemie, 116*, 77-88 (1983).
103. W.H.M. Yang and N.A. Peppas: "Preparation and Structure of Crosslinked Poly(methyl methacrylate-co-1,3-bis(methacryloxymethyl)-1,1,3,3-tetramethyl disiloxane)," *Polym. Bull., 9*, 255-259 (1983).
104. R.S. Langer and N.A. Peppas: "Chemical and Physical Structure of Polymers as Carriers for Controlled Release of Bioactive Agents: A Review," *J. Macrom. Sci., Revs. Macromol. Chem. Phys., C23*, 61-126 (1983).
105. N.A. Peppas, and C.T. Reinhart: "Solute Diffusion in Swollen Membranes. I. A New Theory," *J. Membr. Sci., 15*, 275-287 (1983).
106. S.J. Napp, W.H.M. Yang and N.A. Peppas: "Oxygen Transport in Crosslinked, Silicon-containing Copolymers of Methyl Methacrylate," *J. Appl. Polym. Sci., 28*, 2793-2803 (1983).
107. W.H.M. Yang and N.A. Peppas: "Gas-to-Liquid Permeation in Silicon-Containing, Crosslinked, Glassy Copolymers of Methyl Methacrylate," *Biomaterials, 4*, 281-284 (1983).
108. N.A. Peppas: "Porous Structure of Polymeric Materials," *Polym. News, 8*, 330-331 (1983).
109. D.L. Meadows, and N.A. Peppas: "Irreversibility of Diffusive Processes in Membranes," *Polym. News, 9*, 15-18 (1983).
110. N.A. Peppas and H.J. Moynihan: "PHEMA Membranes: Preparation and Properties," *Polym. News, 9*, 139-141 (1983).
111. N.A. Peppas: "Modelling of Transport and Sorption in Plastic Packages of Pharmaceutical Products," *Proceed. Int. Pharm. Manag. Conf. Univ. Wisc., 3*, 48-66 (1983).
112. D.R. Miller and N.A. Peppas: "Surface Analysis of Poly(vinyl alcohol -co-N-vinyl-2-pyrrolidone) by ESCA," *Polym. Prepr., 24(1),* 12 (1983).
113. N.M. Franson and N.A. Peppas: "Release of Drugs from Initially Glassy, Dynamically Swelling P(HEMA-co-MMA) Copolymers," *Polym. Prepr., 24(1),* 53-54 (1983).
114. N.A. Peppas, M.W.H. Yang and S.J. Napp: "Glassy Copolymers of Methyl Methacrylate and Disiloxane Derivatives," *Polym. Prepr., 24(1),* 5 (1983).
115. R. Gurny, E. Doelker, P.A. Buri, R.W. Korsmeyer and N.A. Peppas: "Nouvelles observations sur le mecanisme de liberation d' un solute a partir de polymeres hydrophiles," *Proceed. Congress Intern. Pharmac. Technol. APGI, 3* (2), 97-105 (1983), in French.
116. N.A. Peppas, L.M. Lucht, H.J. Moynihan, D. Gobran and G.W. Sinclair: "Equilibrium and Dynamic Swelling of Highly Crosslinked Polymeric Networks," *Proceed. IUPAC, 29,* 172-175 (1983).
117. C. Bindschaedler, R. Gurny, E. Doelker and N.A. Peppas: "Equilibrium and Dynamic Behavior of Polymer Particles in Ternary Emulsion Systems," *Proceed. IUPAC, 29,* 265-269 (1983).
118. R.W. Korsmeyer and N.A. Peppas: "Modeling Drug Release from Swellable Systems," *Proceed. Symp. Controlled Rel. Bioact. Mater., 10,* 141-144 (1983).
119. N.A. Peppas, L.M. Lucht, J.M. Larson and G.W. Sinclair: "Analysis of Solvent Transport Mechanisms in Macromolecular Coal Networks," *Proceed. Intern. Coal Conference, 2,* 280-282 (1983).
120. N.A. Peppas: "Mathematical Modelling of Diffusion Processes in Drug Delivery Polymeric Systems," in "Controlled Drug Bioavailability. Vol. 1. Drug Product Design and Performance," V.F. Smolen and L.A. Ball, editors, pp. 203-237, Wiley, New York, 1984.
121. C.T. Reinhart and N.A. Peppas: "Solute Diffusion in Swollen Membranes. II. Influence of Crosslinking on Diffusive Properties," *J. Membr. Sci., 18*, 227-239 (1984).
122. G.W.R. Davidson III, N.A. Peppas, J.A. Thornhill and S.R. Ash: "Assessment of Biomaterials as Components of a Reciprocating Dialyzer during Canine Dialysis," *Biomaterials, 5*, 227-233 (1984).
123. N.A. Peppas: "Release of Bioactive Agents from Swellable Polymers: Theory and Experiments," in "Recent Advances in Drug Delivery Systems," J.M. Anderson and S.W. Kim, editors, pp. 279-290, Plenum Press, New York, N.Y., 1984.
124. N.A. Peppas, P.J. Hansen and P.A. Buri: "A Theory of Molecular Diffusion in the Intestinal Mucus," *Int. J. Pharm., 20*, 107-118 (1984).
125. G.W. Sinclair and N. A. Peppas; "Analysis of Non-Fickian Transport in Polymers Using Simplified Exponential Expressions," *J. Membr. Sci., 17*, 329-331 (1984).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 61 of 218

126. N.A. Peppas, J.L. Sinclair, M.J. Smith and J.G. Mounts: "Relaxation-controlled Transport of Penetrants in Glassy Polymers," in "Advances in Rheology. Vol. 3. Polymers," B. Mena, A. Garcia-Rejon and C. Rangel-Nafaile, editors, 209-214, U.N.A.M., Mexico City, 1984.
127. L.M. Lucht and N.A. Peppas: "Importance of Macromolecular Relaxations in Solvent Transport in Coal Particles," in "Advances in Rheology. Vol. 2. Fluids," B. Mena, A. Garcia-Rejon and C. Rangel-Nafaile, editors, 631-639, U.N.A.M., Mexico City, 1984.
128. R. Gurny, J.M. Meyer and N.A. Peppas: "Bioadhesive Intraoral Release Systems: Design, Testing and Analysis," *Biomaterials, 5,* 336-340 (1984).
129. N.A. Peppas and L.M. Lucht: "Macromolecular Structure of Coals. I. The Organic Phase of Bituminous Coals as a Macromolecular Network," *Chem. Eng. Commun., 30,* 291-310 (1984).
130. T.H. Kim and N.A. Peppas: "Preparation and Characterization of Poly(vinyl alcohol-co-methyl methacrylate) Copolymers," *Polym. Bull., 12,* 59-63 (1984).
131. R.W. Korsmeyer and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. III. Drug Release from Glassy P(HEMA-co-NVP) Copolymers," *J. Control. Rel., 1,* 89-98 (1984).
132. N.A. Peppas: "Mathematical Models for Controlled Release Kinetics," in "Medical Applications of Controlled Release Technology," Vol. 2., R.S. Langer and D. Wise, editors, 169-187, CRC Press, Boca Raton, Florida, 1984.
133. D.L. Meadows and N.A. Peppas: "Solute Diffusion in Swollen Membranes. III. Non-equilibrium Thermodynamic Aspects of Solute Diffusion in Polymer Network Membranes," *Chem. Eng. Commun., 31,* 101-119 (1984).
134. N.A. Peppas and H.J. Moynihan: "PHEMA Membranes: Diffusive Characteristics," *Polym. News, 9,* 236-239 (1984).
135. R.W. Korsmeyer and N.A. Peppas: "Diffusion and Anomalous Transport in Glassy Polymers," *Polym. News, 9,* 359-361 (1984).
136. L.M. Lucht and N.A. Peppas: "The Molecular Weight Between Crosslinks of Selected American Coals," *Fuel Chem. Prepr., 29* (1), 213-219 (1984).
137. J.M. Howell and N.A. Peppas: "Viscoelastic Properties of Bituminous Coals," *Fuel Chem. Prepr., 29* (1), 207-212 (1984).
138. D.R. Miller and N.A. Peppas: "XPS Analysis of P(VA-co-NVP)," *Trans. World Congr. Biomater., 2,* 18 (1984).
139. N.A. Peppas and R. Gurny: "Bioadhesive Intraoral Release Systems," *Trans. World Congr. Biomater., 2,* 202 (1984).
140. S.R. Lustig and N.A. Peppas: "Scaling Concepts in Controlled Release," *Proceed. Symp. Controlled Rel. Bioact. Mater., 11,* 104-105 (1984).
141. N.A. Peppas, E. Teillaud and L. Nelson: "Controlled Release Microparticle Systems for Urinary Tract Applications," *Proced. Symp. Controlled Rel. Bioact. Mater., 11,* 63-64 (1984).
142. S. Segot-Chicq, N.A. Peppas and F. Puisieux: "Release of Drugs from Ethylene-Vinyl Alcohol Copolymers," *Proceed. Symp. Controlled Rel. Bioact. Mater., 11,* 97-99 (1984).
143. G.W.R. Davidson, III and N.A. Peppas: "The Swelling Interface Number as a Criterion for Zero-Order Release," *Proceed. Symp. Controlled Rel. Bioact. Mater., 11,* 102-103 (1984).
144. N.A. Peppas: "Modelling of Drug Release from Porous Polymers," *Proceed. Symp. Controlled Rel. Bioact. Mater., 11,* 94-96 (1984).
145. P.J. Hansen, P.A. Buri and N.A. Peppas: "Transport of Drugs in the Intestinal Mucus," *Proceed. Symp. Controlled Rel. Bioact. Mater., 11,* 1-2 (1984).
146. C.C.R. Robert, P.A. Buri and N.A. Peppas: "Effect of Degree of Crosslinking on Water Transport in Polymer Microparticles," *J. Appl. Polym. Sci., 30,* 301-306 (1985).
147. M.J. Smith and N.A. Peppas: "Anomalous Transport of Penetrants in Glassy Polymers. II. Effect of the Degree of Crosslinking on Penetrant Transport in Polystyrene," *Polymer, 26,* 569-574 (1985).
148. N.A. Peppas, H.J. Moynihan and L.M. Lucht: "The Structure of Highly Crosslinked PHEMA Hydrogels," *J. Biomed. Mater. Res., 19,* 397-411 (1985).
149. N.A. Peppas and L.M. Lucht: "Transport of Penetrants in the Macromolecular Structure of Coals. I. Anomalous Transport in Untreated and Pyridine-Extracted Coals," *Chem. Eng. Commun., 37,* 333-354 (1985).
150. N.A. Peppas: "Analysis of Fickian and Non-Fickian Drug Release from Polymers," *Pharm. Acta Helv., 60,* 110-111 (1985).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 62 of 218

151. D.R. Miller and N.A. Peppas: "The Use of Ellipsometry to Study Adsorption on Hydrogels," *Biomaterials 6,* 33-40 (1985).
152. N.A. Peppas and H.J. Moynihan: "Solute Diffusion in Swollen Membranes. IV. Theories for Moderately Swollen Networks," *J. Appl. Polym. Sci., 30,* 2589-2606 (1985).
153. N.A. Peppas and S.R. Lustig: "The Role of Crosslinks, Entanglements and Relaxations of the Macromolecular Carrier in the Diffusional Release of Biologically Active Materials: Conceptual and Scaling Relationships," *Ann. N.Y. Acad. Sci., 446,* 26-41 (1985).
154. N.A. Peppas and P.A. Buri: "Surface, Interfacial and Molecular Aspects of Bioadhesion on Soft Tissues," *J. Controlled Release, 2,* 257-275 (1985).
155. C. Bindschaedler, R. Gurny, E. Doelker and N.A. Peppas: "Equilibrium Behavior of Polymer Particles in Ternary Emulsion Systems," *Makromol. Chem., Rapid Commun., 6,* 267-270 (1985).
156. C. Bindschaedler, R. Gurny, E. Doelker, and N.A. Peppas: "Thermodynamics of Swelling of Polymer Latex Particles by a Water-Soluble Solvent: I. Theoretical Considerations," *J. Coll. Interf. Sci., 108,* 75-82 (1985).
157. C. Bindschaedler, R. Gurny, E. Doelker and N.A. Peppas: "Thermodynamics of Swelling of Polymer Latex Particles by a Water-Soluble Solvent: II. Experimental Results on Cellulose Acetate Latices," *J. Coll. Interf. Sci., 108,* 83-94 (1985).
158. S. Segot-Chicq, E. Teillaud and N.A. Peppas: "Les dispositifs a liberation controlee pour la delivrance des principes actifs medicamenteux. I. Interet et applications," *STP-Pharma, 1,* 25-36 (1985), in French.
159. N.A. Peppas and S. Segot-Chicq: "Les dispositifs a liberation controlee pour la delivrance des principes actifs medicamenteux. II. Aspects fondamentaux de la diffusion des principes actifs dans les polymeres," *STP-Pharma, 1,* 121-127 (1985), in French.
160. N.A. Peppas and S. Segot-Chicq: "Les dispositifs a liberation controlee pour la delivrance des principes actifs medicamenteux. III. Modelisation des mecanismes diffusionnels," *STP-Pharma, 1,* 208-216 (1985), in French.
161. B.D. Barr-Howell and N.A. Peppas: "Importance of Junction Functionality in Highly Crosslinked Polymers," *Polym. Bull., 13,* 91-96 (1985).
162. M.E. Hill-Lievense, L.M. Lucht and N.A. Peppas: "Macromolecular Structure of Coals. V. Molecular Weight Distribution of Extracted Coal Liquids," *Angew. Makromol. Chem., 134,* 73-95 (1985).
163. B.D. Barr-Howell and N.A. Peppas: "Dynamic and Equilibrium Swelling of DVB-Crosslinked Polystyrene Particles," *J. Appl. Polym. Sci., 30,* 4583-4589 (1985).
164. F. Rodriguez, M.T. Shaw, L.H. Sperling and N.A. Peppas: "Polymer Principles for the Chemical Engineering Curriculum," *J. Chem. Educ., 62,* 1079-1081 (1985).
165. N.A. Peppas: "Experimental Methods in Diffusion in Polymers," *Polym. News, 10,* 204-205 (1985).
166. N.A. Peppas and R.W. Korsmeyer: "Measurement of Diffusion Coefficients by NMR Spectroscopy,"*Polymer News, 10,* 265-266 (1985).
167. B.D. Barr-Howell, J.M. Howell and N.A. Peppas: "Thermoplastic and Viscoelastic Properties of Coals," *Fuel Chem. Prepr., 30 (1),* 64-69 (1985).
168. B.D. Barr-Howell and N.A. Peppas: "Mechanisms of Amine Transport in Coal Particles," *Fuel Chem. Prepr., 30 (1),* 108-113 (1985).
169. N.A. Peppas and D.F. Kline: "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. V. Variable Storage Conditions," *Polym. Mater. Sci. Eng. Prepr., 52,* 579-583 (1985).
170. C. Bindschaedler, R. Gurny, E. Doelker and N.A. Peppas: "Swelling Thermodynamics of Polymer Latex Particles by a Water-Soluble Solvent," *Polym. Mater. Sci. Eng. Prepr., 52,* 304-308 (1985).
171. A.G. Mikos, N.A. Peppas and C.G. Takoudis: "Modeling of Suspension Copolymerization/Crosslinking of Styrene with Divinylbenzene," *Polym. Mater. Sci. Eng. Prepr., 52,* 334-338 (1985).
172. N.A. Peppas and H.J. Moynihan: "Solute Diffusion in Swollen Membranes. IV. Theories for Moderately Swollen Networks," *J. Appl. Polym. Sci., 30,* 2589-2606 (1985).
173. N.A. Peppas and S.R. Lustig: "The Role of Crosslinks, Entanglements and Relaxations of the Macromolecular Carrier in the Diffusional Release of Biologically Active Materials: Conceptual and Scaling Relationships," *Ann. N.Y. Acad. Sci., 446,* 26-41 (1985).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 63 of 218

174. S.R. Lustig and N.A. Peppas: "Scaling Laws for Solute Diffusion in Equilibrium Swollen Gels," *Polym. Prepr., 26* (2), 72-73 (1985).
175. B. Gander, R. Gurny, E. Doelker and N.A. Peppas: "Crosslinked Polyether-diol Micromatrices for Controlled Drug Release," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 23-24 (1985).
176. G.W.R. Davidson III and N.A. Peppas: "Relaxational Effects in Solute Transport and Release from Swelling-Controlled P(HEMA-co-MMA) Systems," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 25-27 (1985).
177. S.R. Lustig and N.A. Peppas: "The Mathematics and Physics of Solute Transport in Continuously Swelling Hydrophilic Polymers," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 30-31 (1985).
178. R.W. Korsmeyer, E.D. von Meerwall and N.A. Peppas: "Diffusion in Swellable Drug Delivery Systems," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 81-82 (1985).
179. N.A. Peppas and A.G. Mikos: "Polymer/Glycoprotein Chain Interpenetration in Bioadhesion," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 86-87 (1985).
180. C. Robert, N.A. Peppas and P.A. Buri: "Swelling of Gels of PHEMA and Release of Phenylephrin HCl from this Polymer," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 130-131 (1985).
181. N.A. Peppas and S.R. Lustig: "Scaling Laws for Drug Release from Equilibrium-Swollen Hydrogels," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 140-142 (1985).
182. A.G. Mikos and N.A. Peppas: "The Kinetics of Preparation of PHEMA Microparticles by Suspension Copolymerization/Crosslinking with EGDMA," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 210-211 (1985).
183. N.A. Peppas: "Release of Radioactive Isotopes from Stored Waste to the Ground," *Proceed. Symp. Controlled Rel. Bioact. Mater., 12,* 343-344 (1985).
184. H.J. Moynihan, M.H. Honey and N.A. Peppas: "Solute Diffusion in Swollen Membranes. V. Diffusion in PHEMA," *Polym. Eng. Sci. 26,* 1180-1185 (1986).
185. D.T. Hooker II, L.M. Lucht and N.A. Peppas: "Macromolecular Structure of Coals. VI. Mass Spectroscopic Analysis of Coal Derived Liquids," *Ind. Eng. Chem., Fund., 25,* 103-108 (1986).
186. R.W. Korsmeyer, S.R. Lustig and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. I. Mathematical Modelling," *J. Polym. Sci., Polym. Phys., 24,* 395-408 (1986).
187. R.W. Korsmeyer, E.D. von Meerwall and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. II. Verification of Theoretical Models," *J. Polym. Sci., Polym. Phys., 24,* 409-434 (1986).
188. D.R. Miller and N.A. Peppas: "The Use of X-Ray Photoelectron Spectroscopy for the Analysis of the Surface of Biomaterials," *J. Macrom. Sci., Revs. Macromol. Chem. Phys., C26,* 33-66 (1986).
189. D.R. Miller and N.A. Peppas: "Bulk Characterization and Scanning Electron Microscopy of Hydrogels of P(VA-co-NVP)," *Biomaterials, 7,* 329-339 (1986).
190. B.D. Barr-Howell, N.A. Peppas and D.N. Winslow: "Transport of Penetrants in the Macromolecular Structure of Coals. II. Effect of Porous Structure on Pyridine Transport Mechanisms," *Chem. Eng. Commun., 43,* 301-315 (1986).
191. S. Segot-Chicq and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. IV. Semicrystalline Swelling-controlled Release Systems of Poly(ethylene-co-vinyl alcohol), *J. Controlled Release, 3,* 193-204 (1986).
192. B.D. Barr-Howell, N.A. Peppas and T.G. Squires: "Transport of Penetrants in the Macromolecular Structure of Coals. III. Dynamic Swelling of Stiff Polymer Networks That Simulate the Coal Structure," *J. Appl. Polym. Sci., 31,* 39-53 (1986).
193. G.W.R. Davidson III and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. V. Relaxation-Controlled Transport in P(HEMA-co-MMA) Copolymers," *J. Controlled Release, 3,* 243-258 (1986).
194. G.W.R. Davidson III and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. VI. The Deborah and Swelling Interface Numbers as Indicators of the Order of Biomolecular Release," *J. Controlled Release, 3,* 259-271 (1986).
195. G.J. Howsmon and N.A. Peppas: "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. VI. Coupling of Moisture and Oxygen Transport Using Langmuir Sorption Isotherms," *J. Appl. Polym. Sci., 31,* 2071-2082 (1986).
196. J. Klier and N.A. Peppas: "Anomalous Penetrant Transport in Glassy Polymers. III. Use of Raman Spectroscopy to Study Penetrant Transport," *Polym. Bull., 16,* 359-362 (1986).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 64 of 218

197. N.A. Peppas and L.M. Lucht, "Macromolecular Structure of Coals. X. Thermodynamic Interaction Parameter for Solvents and Coal Networks," *Polym. Bull., 16,* 375-379 (1986).
198. N.A. Peppas and C. Bindschaedler: "Les dispositifs a liberation controlee pour la delivrance des principes actifs medicamenteux. IV. Systemes a gonflement controlee," *STP Pharma, 2,* 38-46 (1986), in French.
199. N.A. Peppas and K.G. Urdahl, "Anomalous Penetrant Transport in Glassy Polymers. VII. Overshoots in Cyclohexane Uptake in Crosslinked Polystyrene," *Polym. Bull., 16,* 201-207 (1986).
200. A.G. Mikos, C.G. Takoudis and N.A. Peppas: "Kinetic Modeling of Copolymerization-Crosslinking Reactions," *Macromolecules, 19,* 2174-2182 (1986).
201. A.G. Mikos, C.G. Takoudis and N.A. Peppas: "Reaction Engineering Aspects of Suspension Polymerization," *J. Appl. Polym. Sci., 31,* 2647-2659 (1986).
202. A.G. Mikos and N.A. Peppas: "Systems for Controlled Release of Drugs. V. Bioadhesive Systems," *S.T.P. Pharma, 2,* 705-716 (1986).
203. N.A. Peppas and A.G. Mikos: "Preparation Methods and Structure of Hydrogels" in "Hydrogels in Medicine and Pharmacy. Vol. 1. Fundamentals," N.A. Peppas, ed., 1-25, CRC Press, Boca Raton, FL, 1986.
204. N.A. Peppas and B.D. Barr-Howell: "Characterization of the Crosslinked Structure of Hydrogels," in "Hydrogels in Medicine and Pharmacy. Vol. 1. Fundamentals," N.A. Peppas, ed., 27-56, CRC Press, Boca Raton, FL, 1986.
205. N.A. Peppas and S.R. Lustig: "Solute Diffusion in Hydrophilic Network Structures," in "Hydrogels in Medicine and Pharmacy. Vol. 1. Fundamentals," N.A. Peppas, ed., 57-83, CRC Press, Boca Raton, FL, 1986.
206. N.A. Peppas, M.L. Brannon, R.S. Harland, J. Klier, S.R. Lustig and A.G. Mikos, "Influence of the Polymer Structure on Controlled Solute Release," *Bull. Techn. Gattefosse, 79,* 7-17 (1986).
207. W.N. Delgass and N.A. Peppas: "Purdue University: Seventy-Five Years of Chemical Engineering," *Chem. Eng. Ed., 20,* 60-62 (1986).
208. R.S. Harland and N.A. Peppas: "Solute Transport in Semicrystalline Membranes," *Polymer News, 11,* 171-174 (1986).
209. M.L. Brannon and N.A. Peppas: "Recent Advances on the Prediction of Asymmetric Membrane Morphology," *Polymer News, 12,* 17-19 (1986).
210. M.L. Brannon and N.A. Peppas: "Phase Inversion Process for the Formation of Asymmetric Membranes," *Polymer News, 12,* 112-114 (1986).
211. N.A. Peppas, A.G. Mikos, B.D. Barr-Howell and L.M. Eshelman, "Dynamic Swelling of and Drug Release from Microparticles for Swelling-Controlled Release Applications," *Life Support Systems, 4,* Suppl. 2, 397-398 (1986).
212. N.A. Peppas and L.S. Flosenzier, "Macromolecular Release from Magnetically-Triggered Controlled-Release Polymer Systems," *Life Support Systems, 4,* Suppl. 2, 395-396 (1986).
213. C. Robert, P. Buri and N.A. Peppas: "Influence de l' hydrosolubilite du principe actif sur la liberation a partir de microspheres de PHEMA et role joue par la nature du solvant, *Proceed. Congress Intern. Pharmac. Technol. APGI, 4* (2), 183-192 (1986).
214. N.A. Peppas: "The Role of Polymer Structure in Bioadhesion to the Mucus," *Proceed. Symp. Controlled Rel. Bioact. Mater., 13,* 146-147 (1986).
215. S.R. Lustig, U. Röcken and N.A. Peppas: "Investigation of the Effect of Thickness on the Swelling Kinetics of P(HEMA-co-MMA) in Water," *Proceed. Symp. Controlled Rel. Bioact. Mater., 13,* 210-211 (1986).
216. R.S. Harland and N.A. Peppas: "Drug Diffusion in Heterogeneous Polymeric Systems with Impermeable Domains," *Proceed. Symp. Controlled Rel. Bioact. Mater., 13,* 153-154 (1986).
217. A.G. Mikos and N.A. Peppas: "Comparison of Experimental Techniques for the Measurement of the Bioadhesive Forces of Polymeric Materials with Soft Tissues," *Proceed. Symp. Controlled Rel. Bioact. Mater., 13,* 97 (1986).
218. N.A. Peppas: "Hydrogels of Poly(vinyl alcohol) and its Copolymers," in "Hydrogels in Medicine and Pharmacy. Vol. 2. Polymers," N.A. Peppas, ed., 1-48, CRC Press, Boca Raton, FL, 1987.
219. N.A. Peppas and H.J. Moynihan: "Structure and Physical Properties of Poly(2-hydroxyethyl methacrylate) Hydrogels," in "Hydrogels in Medicine and Pharmacy. Vol. 2. Polymers," N.A. Peppas, ed., 49-64, CRC Press, Boca Raton, FL, 1987.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 65 of 218

220. N.A. Peppas and R.W. Korsmeyer: "Dynamically Swelling Hydrogels in Controlled Release Applications," in "Hydrogels in Medicine and Pharmacy. Vol. 3. Properties and Applications," N.A. Peppas, ed., 109-136, CRC Press, Boca Raton, FL, 1987.
221. N.A. Peppas: "Other Biomedical Applications of Hydrogels," in "Hydrogels in Medicine and Pharmacy. Vol. 3. Properties and Applications," N.A. Peppas, ed., 177-186, CRC Press, Boca Raton, FL, 1987.
222. L.M. Lucht and N.A. Peppas: "Macromolecular Structure of Coals. II. Molecular Weight Between Crosslinks from Pyridine Swelling Experiments," *Fuel, 66,* 803-809 (1987).
223. N.A. Peppas: "Diffusion Through Polymers," in "Transdermal Delivery of Drugs. Volume I." A.F. Kydonieus and B. Berner, editors, 17-28, CRC Press, Boca Raton, FL, 1987.
224. S.R. Lustig and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. VII. A Free-Volume-Based Model with Mechanical Relaxation," *J. Appl. Polym. Sci., 33,* 533-549 (1987).
225. N.A. Peppas: "Swelling Controlled Release Systems: Recent Developments and Applications," in "Controlled Drug Delivery," B.W. Müller, ed., 160-173, Wissenschaftliche Verlagsgesellschaft, Stuttgart, 1987.
226. A.G. Mikos and N.A. Peppas: "A Model for Prediction of the Structural Characteristics of EGDMA-Crosslinked PHEMA Microparticles During Suspension Copolymerization/Crosslinking," *J. Controlled Release, 5,* 53-62 (1987).
227. A.G. Mikos and N.A. Peppas: "Prediction of Feed Comonomer and Solvent Composition for Monomer-free Polymer Production," *Biomaterials, 8,* 404-406 (1987).
228. A.G. Mikos, C.G. Takoudis and N.A. Peppas: "Evidence of Unequal Vinyl Group Reactivity in Copolymerization/Crosslinking Reactions of Mono- and Divinyl Comonomers," *Polymer, 28,* 998-1004 (1987).
229. D.R. Miller and N.A. Peppas: "Surface Analysis of Poly(vinyl alcohol-co-N-vinyl-2-pyrrolidone) Copolymers by X-Ray Photoelectron Spectroscopy," *Macromolecules, 20,* 1257-1265 (1987).
230. P.L. Ritger and N.A. Peppas: "A Simple Equation for Description of Solute Release. I. Fickian and non-Fickian Release from Non-Swellable Devices in the Form of Slabs, Spheres, Cylinders or Discs," *J. Controlled Release, 5,* 23-36 (1987).
231. P.L. Ritger and N.A. Peppas: "A Simple Equation for Description of Solute Release. II. Fickian and Anomalous Release from Swellable Devices," *J. Controlled Release, 5,* 37-42 (1987).
232. M.L. Brannon and N.A. Peppas: "Solute Diffusion in Swollen Membranes. VIII. Characterization of and Diffusion in Asymmetric Membranes,"*J. Membr. Sci., 32,* 125-138 (1987).
233. P.L. Ritger and N.A. Peppas: "Transport of Penetrants in the Macromolecular Structure of Coals. IV. Models for Analysis of Dynamic Penetrant Transport," *Fuel, 66,* 815-826 (1987).
234. R.S. Harland and N.A. Peppas: "Solute Diffusion in Swollen Membranes. VI. A Model for Diffusion in Heterogeneous Media," *Polym. Bull., 18,* 553-556 (1987).
235. C. Bindschaedler and N.A. Peppas: "Detachment of Small Axisymmetric Particles from Fluid-liquid Interfaces," *Chem. Eng. Sci., 42,* 2531-2546 (1987).
236. M.L. Brannon, R.S. Harland and N.A. Peppas: "A Method of Experimental Determination of Structural Parameters in Asymmetric Membranes," *Makrom. Chem., Rapid Commun., 8,* 77-81 (1987).
237. J. Klier and N.A. Peppas: "Anomalous Penetrant Transport in Glassy Polymers. IV. Stresses in Partially Swollen Polymers," *Polymer, 28,* 1851-1859 (1987).
238. B.D. Barr-Howell and N.A. Peppas: "Structural Analysis of PHEMA Microparticles," *Europ. Polym. J., 8,* 591-594 (1987).
239. E.E. Parsonage and N.A. Peppas: "Properties of Positive Resists. I. Irradiation-induced Degradation and Sensitivity of Certain Methyl Methacrylate Copolymers," *Brit. Polym. J., 19,* 469-477 (1987).
240. E.E. Parsonage, P.I. Lee and N.A. Peppas: "Properties of Positive Resists. II. Dissolution Characteristics of Irradiated Poly(methyl methacrylate) and Poly(methyl methacrylate-co-maleic anhydride), *J. Vac. Sci. Tech., Part B, 5,* 538-545 (1987).
241. C.C.R. Robert, P.A. Buri and N.A. Peppas "Influence of the Drug Solubility and Dissolution Medium on the Release from Poly(2-hydroxyethyl methacrylate) Microspheres," *J. Controlled Release, 5,* 151-157 (1987).
242. K.G. Urdahl and N.A. Peppas, "Anomalous Penetrant Transport in Glassy Polymers. V. Cyclohexane Transport in Polystyrene," *J. Appl. Polym. Sci., 33,* 2669-2687 (1987).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 66 of 218

243. L.M. Lucht and N.A. Peppas, "Transport of Penetrants in the Macromolecular Structure of Coals. V. Anomalous Transport in Pretreated Coal Particles," *J. Appl. Polym. Sci., 33,* 1557-1566 (1987).
244. B.D. Barr-Howell, J.M. Howell and N.A. Peppas, "Transport of Penetrants in the Macromolecular Structure of Coals. VI. Amine Transport Mechanisms," *Energy & Fuels, 1,* 181-186 (1987).
245. P.L. Ritger and N.A. Peppas, "Transport of Penetrants in the Macromolecular Structure of Coals. VII. Transport in Thin Coal Sections," *Fuel, 66,* 1379-1388 (1987).
246. B.D. Barr-Howell, J.M. Howell and N.A. Peppas, "Transport of Penetrants in the Macromolecular Structure of Coals. VIII. Transport Mechanism as a Function of Temperature," *Thermoch. Acta, 116,* 153-159 (1987).
247. L.M. Lucht and N.A. Peppas, "Macromolecular Structure of Coals. III. Equilibrium Swelling of Coal Particles in Various Solvents," *Erdöl & Kohle, Erdgas, Petrochemie, 40,* 483-485 (1987).
248. L.M. Lucht, M.E. Hill and N.A. Peppas, "Macromolecular Structure of Coals. VII. Mass Spectrometry of Pyridine Extracted and Depolymerized Coal," *Angew. Makromol. Chemie, 150,* 123-136 (1987).
249. P.I. Lee, and N.A. Peppas, "Prediction of Polymer Dissolution in Swellable Controlled Release Systems," *J. Controlled Release, 6,* 207-215 (1987).
250. J.M. Howell and N.A. Peppas, "Macromolecular Structure of Coals. VIII. Viscoelastic Behavior of Coal Networks by Thermomechanical Analysis," *Fuel, 66,* 810-814 (1987).
251. L.M. Lucht and N.A. Peppas, "Macromolecular Structure of Coals. IV. Equilibrium Swelling Studies of Coal Networks Subjected to Various Treatments," *J. Appl. Polym. Sci., 33,* 2777-2785 (1987).
252. L.M. Lucht, J.M. Larson and N.A. Peppas, "Macromolecular Structure of Coals. IX. Molecular Structure and Glass Transition Temperature," *Energy & Fuels, 1,* 56-58 (1987).
253. N.A. Peppas, "Time- and Position-Dependent Drug Delivery in Controlled Release Systems," *J. Pharm. Sci., 76,* 267 (1987).
254. G. Ponchel, F. Touchard, D. Wouessidjewe, D. Duchene and N.A. Peppas, "Analyse du comportement bioadhesif de systemes a liberation controlee *S.T.P. Pharma, 3,* 238-239 (1987), in French.
255. G. Ponchel, F. Touchard, D. Duchêne and N.A. Peppas, "Bioadhesive Analysis of Controlled-Release Systems. I. Fracture and Interpenetration Analysis in Poly(acrylic acid)-Containing Systems," *J. Controlled Release, 5,* 129-141 (1987).
256. N.A. Peppas, G. Ponchel and D. Duchêne, "Bioadhesive Analysis of Controlled-Release Systems. II. Time-dependent Bioadhesive Stress in Poly(acrylic acid)-Containing Systems," *J. Controlled Release, 5,* 143-149 (1987).
257. G. Ponchel, F. Touchard, D. Wouessidjewe, D. Duchene and N.A. Peppas, "Bioadhesive Analysis of Controlled-Release Systems. III. Bioadhesive and Release Behavior of Metronidazole-containing Poly(acrylic acid)-Hydroxypropyl Methylcellulose Systems," *Intern. J. Pharm., 38,* 65-70 (1987).
258. C. Caramella, P. Colombo, U. Conte, F. Ferrari, A. Gazzaniga, A. La Manna and N.A. Peppas, "The Mechanism of Disintegration of Compressed Particulate Systems," *Polym. Bull., 18,* 541-544 (1987).
259. M.L. Brannon and N.A. Peppas, "Hydroxyalkyl Methacrylate Copolymers for Biomedical Applications," *Trans. Soc. Biomater., 13,* 212 (1987).
260. R.S. Harland and N.A. Peppas, "Models of Solute Transport Through Block Copolymer Membranes," *Proceed. N. Amer. Membr. Soc., 1,* 103 (1987).
261. G. Ponchel, D. Duchêne and N.A. Peppas, "Fracture Analysis of the Bioadhesive Interactions Between Surface-Swollen, Poly(acrylic Acid)-Containing Tablets and the Bovine Sublingual Tissue," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 14,* 8-9 (1987).
262. N.A. Peppas, G. Ponchel and D. Duchêne, "The Time-Dependent Behavior of the Adhesive Interactions Between Poly(acrylic Acid) and Buccal Tissue," *Proceed. Intern. Symp. Control. Rel. Bioactiv. Mater., 14,* 10-11 (1987).
263. R.S. Harland, C. Dubernet, J.P. Benoît and N.A. Peppas, "Coupled Diffusion/Dissolution Processes May Give Zero-Order Release of Drugs from Microspheres," *Proceed. Intern. Symp. Control. Rel. Bioactiv. Mater., 14,* 27-28 (1987).
264. F. Falson-Rieg, G. Conrath, G. Couarraze and N.A. Peppas, "Diffusive Characteristics of Drugs in Novel Gels," *Proceed. Intern. Symp. Control. Rel. Bioactiv. Mater., 14,* 77-78 (1987).
265. N.A. Peppas and K.G. Urdahl, "Anomalous Penetrant Transport in Glassy Polymers. VIII. Solvent-induced Cracking in Polystyrene," *Europ. Polym. J., 24,* 13-20 (1988).
266. K.G. Urdahl and N.A. Peppas, "Anomalous Penetrant Transport in Glassy Polymers. VI. Effect of Temperature on Transport." *Polym. Eng. Sci., 28,* 96-103 (1988).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 67 of 218

267. G. Conrath, F. Falson-Krieg, M. Besnard and N.A. Peppas, "Diffusive Characteristics of Testosterone in Novel Gels," *J. Controlled Release, 5,* 285-291 (1988).
268. D.R. Miller and N.A. Peppas: "Diffusional Effects During Albumin Adsorption on Highly Swollen Poly(vinyl Alcohol) Hydrogels,"*Europ. Polym. J., 24,* 611-615 (1988).
269. J. Klier and N.A. Peppas: "Solute and Penetrant Diffusion in Swellable Polymers. VIII. Influence of the Swelling Interface Number on Solute Concentration Profiles and Release," *J. Controlled Release, 7,* 61-68 (1988).
270. S.R. Lustig and N.A. Peppas: "Solute Diffusion in Swollen Membranes. IX. Scaling Laws for Solute Diffusion in Gels," *J. Appl. Polym. Sci., 36,* 735-747 (1988).
271. B. Gander, R. Gurny, E. Doelker and N.A. Peppas, "Crosslinked Poly(alkylene oxides) for the Preparation of Controlled Release Micromatrices," *J. Controlled Release, 5,* 271-283 (1988).
272. R.S. Harland, C. Dubernet, J.P. Benoit and N.A. Peppas, "A Model of Dissolution-controlled Diffusional Drug Release from Non-swellable Polymeric Microspheres," *J. Controlled Release, 7,* 207-215 (1988).
273. A.G. Mikos and N.A. Peppas, "The Flory Interaction Parameter c for Hydrophilic Copolymers with Water," *Biomaterials, 9,* 419-423 (1988).
274. C. Caramella, P. Colombo, U. Conte, F. Ferrari, A. Gazzaniga, A. La Manna and N.A. Peppas, "A Physical Analysis of the Phenomenon of Tablet Disintegration," *Intern. J. Pharmac., 44,* 177-186 (1988).
275. A.H. Tsou and N.A. Peppas, "Kinetic Analysis of Curing of Tetraepoxides and Diamines in the Presence of Etherification Side Reactions," *J. Polym. Sci., Polym. Phys., 26,* 2043-2060 (1988).
276. D. Duchêne, F. Touchard and N.A. Peppas, "Pharmaceutical and Medical Aspects of Bioadhesive Systems for Drug Administration," *Drug Develop. Ind. Pharm., 14,* 283-318 (1988).
277. A.G. Mikos and N.A. Peppas, "Polymer Chain Entanglements and Brittle Fracture," *J. Chem. Phys., 88,* 1337-1342 (1988).
278. J. Klier and N.A. Peppas, "Use of Energy Dispersive X-ray Analysis to Determine Solute Concentration Profiles," *Intern. J. Pharm., 46,* 179-180 (1988).
279. P. Colombo, F. Ferrari, A. Gazzaniga, C. Caramella, U. Conte, A. La Manna and N.A. Peppas, "Simulation of the Disintegration Process of Pharmaceutical Tablets," *Pharm. Acta Helv., 63,* 221-223 (1988).
280. A.G. Mikos and N.A. Peppas, "Healing and Fracture at the Interface Between Two Gels," *Europh. Letters, 6,* 403-406 (1988).
281. C. Robert, P. Buri and N.A. Peppas, "Experimental Method for Bioadhesive Testing of Various Polymers," *Acta Pharm. Technol., 34,* 95-98 (1988).
282. R.S. Harland, A. Gazzaniga, M.E. Sangalli, P. Colombo and N.A. Peppas, "Drug/Polymer Matrix Swelling and Dissolution," *Pharm. Res., 5,* 488-494 (1988).
283. W.R. Drummond, M.L. Knight, M.L. Brannon and N.A. Peppas, "Surface Instabilities During Swelling of pH-Sensitive Hydrogels," *J. Controlled Release, 7,* 181-183 (1988).
284. A.G. Mikos and N.A. Peppas, "Fracture Mechanics of Low Molecular Weight Polymers," in "Adhesion in Solids," D.M. Mattox, J.E.E. Baglin, C. Batich and R.J. Gottschall, eds., Materials Research Society Symposium Proceedings, Vol. 119, 63-68, Materials Research Society, Pittsburgh, PA, 1988.
285. N.A. Peppas, A.B. Scranton, A.H. Tsou and D.E. Edwards, "Branching Theory in Sol-Gel Processing," in "Better Ceramics Through Chemistry. III," C.J. Brinker, D.E. Clark and D.R. Ulrich, eds., Vol. 121, 43-47, Materials Research Society, Pittsburgh, PA, 1988.
286. D. Duchene, G. Ponchel, D. Wouessidjewe, F. Lejoyeux and N.A. Peppas, "Methodes d' evaluation de la bioadhesion et facteurs influants," *STP Pharma., 4,* 688-697 (1988).
287. L. Brannon-Peppas and N.A. Peppas, "Structural Analysis of Charged Polymeric Networks," *Polym. Bull., 20,* 285-289 (1988).
288. C.N. Bowman, A.L. Carver, S.L. Kennett, M.M. Williams and N.A. Peppas, "Polymers for Information Storage Systems. I. Preparation and Properties of Highly Crosslinked Polydimethacrylates," *Polym. Bull., 20,* 329-333 (1988).
289. A.H. Tsou and N.A. Peppas: "Moisture Sorption in Epoxy Resins and Composites," *Polymer News, 13,* 78-85 (1988).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 68 of 218

290. A.H. Tsou and N.A. Peppas: "Influence of Structural Parameters on Equilibrium Moisture Uptake of Epoxy Resins and Composites,"*Polymer News, 13*, 110-112 (1988).
291. R.S. Harland and N.A. Peppas: "Diffusion in Block Copolymers," *Polymer News, 13*, 142-143 (1988).
292. M.L. Brannon, J. Klier and N.A. Peppas: "Recent Developments on the Use of Environmentally-sensitive Hydrogels," *Polymer News, 13*, 209-210 (1988).
293. A.H. Tsou and N.A. Peppas, "Transport Properties of Water in Epoxy Resins and Composites," *Polym. Mater. Sci. Eng. Prepr., 58,* 952-956 (1988).
294. A.H. Tsou and N.A. Peppas, "Application of Branching Theory to Curing Kinetics of Tetraepoxy-diamine Systems," *Polymer Mater. Sci. Eng. Prepr., 58,* 1099-1103 (1988).
295. N.A. Peppas, C.N. Bowman, A.L. Carver, S.L. Kennett and M.M. Williams, "Polydimethacrylates for Laser Videodisc Applications," *Polym. Prepr., 29* (2), 204-205 (1988).
296. P. Colombo, C. Caramella, U. Conte and N.A. Peppas, "Tablet Disintegration: A Physical Model," *Proceed. Pharm. Technol. Conf., 7 (3),* 140-154 (1988).
297. L.A. Keneipp, K.A. Korowin, M.L. Brannon and N.A. Peppas, "Delivery of Selected Principal Essential Oils Used in Flavoring," *Proceed. Intern. Symp. Control. Rel. Bioactiv. Mater., 15,* 89-90 (1988).
298. T. Canal and N.A. Peppas, "Determination of Mesh Size in Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioactiv. Mater., 15,* 19-20 (1988).
299. M. Lovrecich and N.A. Peppas, "Production of Hydrophilic Homo- and Copolymer Microparticles by Suspension Polymerization," *Proceed. Intern. Symp. Cont. Rel. Bioactiv. Mater., 15,* 21-22 (1988).
300. B. Gander, R. Gurny, E. Doelker and N.A. Peppas, "Macromolecular Network Characteristics and their Effect on Drug Release from Crosslinked Poly(vinyl alcohol) Micromatrices," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 109-110 (1988).
301. C.M. Walker and N.A. Peppas, "Swelling-controlled Release Systems of Poly(multiethylene glycol dimethacrylates) and their Copolymers," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 30-31 (1988).
302. N.A. Peppas and P.V. Romanos, "Environmental Cracking of Long-term Antifouling Controlled Release Systems," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 91-92 (1988).
303. M.L. Brannon and N.A. Peppas, "The Swelling Behavior of pH-Sensitive Hydrogels," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 28-29 (1988).
304. W.R. Drummond, M.L.B. Knight, M.L. Brannon and N.A. Peppas, "Videomicroscopic Study of the Stresses Formed in Hydrogels During Swelling," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 254-255 (1988).
305. O. Saslawski, P. Couvreur and N.A. Peppas, "Alginate Magnetic Release Systems: Crosslinked Structure, Swelling and Release Studies," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 26-27 (1988).
306. P. Colombo, L. Maggi, A. Gazzaniga, V. Conte, A. LaManna and N.A. Peppas, "Drug Release from Swellable Matrices Restricted by Impermeable Film Coatings," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 40-41 (1988).
307. M.L. Brannon and N.A. Peppas, "Gel Syneresis and Drug Release with Temperature-sensitive Hydrogels," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 256-257 (1988).
308. F. Lejoyeux, G. Ponchel, D. Wouessidjewe, N.A. Peppas and D. Duchêne, "Influence of the Composition of the Test Medium on the Adhesion of a Bioadhesive Tablet to a Biological Tissue," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 460-461 (1988).
309. F. Lejoyeux, G. Ponchel, D. Wouessidjewe, N.A. Peppas and D. Duchêne, "Assessment of a New Method for the Determination of Bioadhesion," *Proceed. Intern. Symp. Contr. Rel. Bioactiv. Mater., 15,* 348-349 (1988).
310. R.S. Harland and N.A. Peppas: "Solute Diffusion in Swollen Membranes. VII. Diffusion in Semicrystalline Networks," *Coll. Polym. Sci., 267,* 218-225 (1989).
311. T. Canal and N.A. Peppas, "Correlation Between Mesh Size and Equilibrium Degree of Swelling of Polymeric Networks," *J. Biomed. Mater. Res., 23,* 1183-1193 (1989).
312. A.G. Mikos and N.A. Peppas, "Polymer Chain Entanglements and Brittle Fracture. II. Autohesion of Linear Polymers," *Polymer, 30,* 84-91 (1989).
313. A.G. Mikos and N.A. Peppas, "Brittle Fracture of Low Molecular Weight Polymers," *J. Mater. Sci., 24,* 1612-1616 (1989).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 69 of 218

314. R.S. Harland and N.A. Peppas, "Accessibility Factors for Controlled Drug Delivery Systems," *J. Pharm. Sci., 78,* 146-148 (1989).
315. N.A. Peppas, P. Colombo, U. Conte, A. Gazzaniga, C. Caramella, and F. Ferrari, "Energetics of Tablet Disintegration," *Intern. J. Pharmac., 51,* 77-83 (1989).
316. B. Gander, R. Gurny, E. Doelker and N.A. Peppas, "Effect of Polymeric Network Structure on Drug Release from Crosslinked PVA Micromatrices," *Pharm. Res., 6,* 578-584 (1989).
317. R.S. Harland and N.A. Peppas, "Delivery of Oligo- and Polypeptides from Polymeric Matrices Containing Crystalline and Amorphous Phases," *Chimica Oggi, 7*(4), 11-14 (1989).
318. L. Brannon-Peppas and N.A. Peppas, "Solute and Penetrant Diffusion in Swellable Polymers. IX. The Mechanisms of Drug Release from pH-Sensitive Swelling-Controlled Systems," *J. Controlled Release, 8,* 267-274 (1989).
319. F. Lejoyeux, G. Ponchel, D. Wouessidjewe, N.A. Peppas and D. Duchêne, "Bioadhesive Tablets: Influence of the Testing Medium Composition on Bioadhesion," *Drug Devel. Ind. Pharm., 15,* 2037-2048 (1989).
320. A.G. Mikos and N.A. Peppas, "Measurement of the Surface Tension of Mucin Solutions," *Intern. J. Pharm., 53,* 1-5 (1989).
321. A.G. Mikos and N.A. Peppas, "Polymer Chain Entanglements and Brittle Fracture. III. Critical Fracture Strength of Macromolecular Materials," *J. Mater. Sci. Lett., 8,* 833-834 (1989).
322. N.A. Peppas and A.G. Mikos, "Experimental Methods for Determination of Bioadhesive Bond Strength of Polymers with Mucus," *S.T.P. Pharma, 5,* 187-191 (1989).
323. R.K. Drummond, J. Klier, J.A. Alameda and N.A. Peppas, "Preparation of Poly(methacrylic acid-g-ethylene oxide) Microspheres," *Macromolecules, 22,* 3816-3818 (1989).
324. N.A. Peppas and P. Colombo, "Development of Disintegration Forces During Water Penetration in Porous Pharmaceutical Tablets," *J. Controlled Release, 10,* 245-250 (1989).
325. N.A. Peppas and J.J. Sahlin, "A Simple Equation for the Description of Solute Release. III. Coupling of Diffusion and Relaxation," *Intern. J. Pharm., 57,* 169-172 (1989).
326. A. Gürsoy, I. Sohtorik, N. Uyanik and N.A. Peppas, "Bioadhesive Controlled Release Systems for Vaginal Delivery," *STP Pharma, 5,* 886-892 (1989).
327. N.A. Peppas: "The Origins of Academic Chemical Engineering," in "One Hundred Years of Chemical Engineering," N.A. Peppas, ed., 1-14, Kluwer, Dodrecht, 1989.
328. N.A. Peppas and R.S. Harland: "Unit Processes Against Unit Operations: The Educational Fights of the Thirties," in "One Hundred Years of Chemical Engineering," N.A. Peppas, ed., 125-142, Kluwer, Dodrecht, 1989.
329. N.A. Peppas: "Academic Connections of the 20th Century U.S. Chemical Engineers: Influence of the 18th and 19th Century Swedish, French and German Chemists," in "One Hundred Years of Chemical Engineering," N.A. Peppas, ed., 27-37, Kluwer, Dodrecht, 1989.
330. N.A. Peppas and R.S. Harland: "Chemical Engineering at Purdue University," in "One Hundred Years of Chemical Engineering," N.A. Peppas, ed., 263-299, Kluwer, Dodrecht, 1989.
331. N.A. Peppas: "A Review of Main Experimental Research Work on Penetrant Transport in Glassy Polymers," *Polymer News, 14,* 337-339 (1989).
332. N.A. Peppas, "Diffusive and Surface Problems During Utilization of Hydrogels in Ophthalmology," *Proceed. Adv. Biomed. Polym., 1,* 76-78 (1989).
333. J. Klier and N.A. Peppas, "Complex-forming Hydrogels Sensitive to Physiological Conditions," *Proceed. Adv. Biomed. Polym., 1,* 107-109 (1989).
334. N.A. Peppas, L. Brannon-Peppas, O. Saslawski and P. Couvreur, "Temperature-sensitive Hydrogels for Biomedical Applications," *Proceed. Adv. Biomed. Polym., 1,* 99-102 (1989).
335. S.R. Lustig, J.M. Caruthers and N.A. Peppas, "Theories of Penetrant Transport in Glassy Polymers," *Polym. Prepr., 30*(1), 7-8 (1989).
336. C. Dubernet, J.P. Benoît, N.A. Peppas and F. Puisieux, "The Higuchi Model as a Tool to Obtain Information about the Structure of Ibuprofen-Loaded Ethylcellulose Microspheres," *Proceed. Congress Intern. Pharmac. Technol.APGI, 5*(5), 69-77 (1989).
337. L. Brannon-Peppas and N.A. Peppas, "Dynamic Swelling Behavior of pH-Sensitive Swelling Controlled Release Systems," *Proceed. Congress Intern. Pharmac. Technol. APGI, 5*(5), 231-237 (1989).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 70 of 218

338. O. Saslawski, L. Brannon-Peppas, P. Couvreur and N.A. Peppas, "Gel Syneresis as a Method to Release Drugs at Prescribed Intervals," *Proceed. Congress Intern. Pharmac. Technol. APGI, 5*(5), 238-241 (1989).

339. P. Colombo, U. Conte, A. Gazzaniga, L. Maggi, M.E. Sangalli, A. LaManna and N.A. Peppas, "Drug Release Modulation by Physical Restriction of Matrix Swelling," *Proceed. Congress Intern. Pharmac. Technol. APGI, 5* (5), 261-270 (1989).

340. P. Colombo, P. Santi, P.L. Catellani and N.A. Peppas, "Water Uptake and Disintegration Force Development in Pharmaceutical Tablets," *Proceed. Congress Intern. Pharmac. Technol. APGI, 5*(5), 427-431 (1989).

341. R.S. Harland, J. Klier and N.A. Peppas, "Thermodynamic Investigation of Equilibrium-Swollen Heterogeneous Networks," *Trans. Soc. Biomat., 15*, 167 (1989).

342. R.S. Harland and N.A. Peppas, "Protein Partitioning in Hydrophilic/Hydrophobic Graft and Block Copolymer Networks,"*Trans. Soc. Biomat., 15*, 168 (1989).

343. N.A. Peppas, "Kinetics of Mucus-Polymer Interactions," *Proceed. Bioadhesion-Possib. Fut. Trends, 1*, (1989).

344. R.S. Harland and N.A. Peppas, "Diffusion in Membranes Exhibiting Hydrophilic/Hydrophobic Phases,"*Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 16*, 99-100 (1989).

345. J. Klier and N.A. Peppas, "Complex-forming Hydrogels Sensitive to Physiological Conditions,"*Proceed. Intern. Symp. , Control. Rel. Bioact. Mater., 16* 101-102 (1989).

346. L. Brannon-Peppas and N.A. Peppas, "The Response of pH-Sensitive Polymers to Successive Changes of pH or Ionic Strength in Solution," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 16*, 165-166 (1989).

347. S.R. Lustig and N.A. Peppas, "Recent Advances in Modeling of Swelling-Controlled Release Systems," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 16*, 167-168 (1989).

348. A. Khare and N.A. Peppas, "pH-Dependent Anomalous Swelling of Glassy Polymers," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 16*, 326-327 (1989).

349. J. Van Straaten and N.A. Peppas, "Modelling of Protein Adsorption on Smooth Polymeric Surfaces Based on Calculated Interaction Parameters," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 21 (1989).

350. R.K. Drummond, J.K. Alameda and N.A. Peppas, "Fibrinolytic Activity of pH-Sensitive, Streptokinase-Immobilized Poly(Methacrylic Acid-g-Ethylene Oxide) Microspheres," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 39-40 (1989).

351. N.A. Peppas and P. Colombo, "Swelling/Dissolution Front Synchronization as a Method of Zero-Order Release," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 51-52 (1989).

352. J. Klier, A.B. Scranton and N.A. Peppas, "Self-Association of Poly(Ethylene Glycol-g-Methacrylic Acid) as Studied by Nuclear Overhauser Effect and NMR Relaxation Time Measurements," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 87-88 (1989).

353. N.A. Peppas and D. Edwards, "Structural Changes in TEOS Gelation as Revealed by Compressive Creep Experiments," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 151-152 (1989).

354. N.A. Peppas, R.K. Drummond and S.R. Lustig, "Dissolution of Positive Resists," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 459-460 (1989).

355. A.B. Scranton, J. Klier and N.A. Peppas, "Soluble Fraction Effects on Dynamic Swelling of Hydrogels,"*Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 587-588 (1989).

356. A.R. Khare and N.A. Peppas, "Dynamic and Equilibrium Swelling Characteristics of Hydrophilic Copolymers with Carboxylic Functional Groups," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 625-626 (1989).

357. S.R. Lustig, J.M. Caruthers and N.A. Peppas, "Development and Implementation of a Model for Penetrant Transport in Glassy Polymers," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 645-646 (1989).

358. J.J. Sahlin and N.A. Peppas, "Dynamic Penetrant Uptake and Equilibrium Sorption of Epoxy Resins," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 649-650 (1989).

359. C.N. Bowman and N.A. Peppas, "The Kinetics of UV-Induced Multiethylene Glycol Dimethacrylate Polymerizations,"*Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 661-662 (1989).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 71 of 218

360. A.B. Scranton and N.A. Peppas, "The Copolymerization and Crosslinking Reaction of 2-Hydroxyethyl Methacrylate with Ethylene Glycol Dimethacrylate," *Proceed. Top. Confer. Emerg. Techn. Mater. AIChE, 2*, 667-668 (1989).
361. A.G. Mikos and N.A. Peppas, "Scaling Concepts and Molecular Theories of Adhesion of Synthetic Polymers to Glycoproteinic Networks," in "Bioadhesive Drug Delivery Systems," V. Lenaerts and R. Gurny, eds., 25-42, CRC Press, Boca Raton, FL, 1990.
362. R. Gurny and N.A. Peppas, "Semi-solid Dosage Forms as Buccal Bioadhesives," in "Bioadhesive Drug Delivery Systems," V. Lenaerts and R. Gurny, eds., 153-168, CRC Press, Boca Raton, FL, 1990.
363. C.N. Bowman, A.L. Carver, S.N. Kennett, M.M. Williams and N.A. Peppas, "Polymers for Information Storage Systems. III. Crosslinked Structure of Polydimethacrylates," *Polymer, 31*, 135-139 (1990).
364. A.B. Scranton and N.A. Peppas, "A Statistical Model of Free-Radical Copolymerization/Crosslinking Reactions," *J. Polym. Sci., Polym. Chem., 28*, 39-57 (1990).
365. N.A. Peppas and L. Brannon-Peppas, "Hydrogels at Critical Conditions. I. Thermodynamics and Swelling Behavior," *J. Membr. Sci., 48*, 281-290 (1990).
366. P. Colombo, P.I. Lee and N.A. Peppas, "Swelling-Controlled Release, Swelling/Erosion Mechanisms and Front Synchronization, *Pharm. Res., 7*, 431-432 (1990).
367. A.G. Mikos and N.A. Peppas, "Bioadhesive Analysis of Controlled-Release Systems. IV. An Experimental Method for Testing the Adhesion of Microparticles with Mucus," *J. Controlled Release, 12*, 31-37 (1990).
368. C.M. Walker and N.A. Peppas, "Solute and Penetrant Diffusion in Swellable Polymers. X. Swelling of Multiethylene Glycol Dimethacrylate Copolymers," *J. Appl. Polym. Sci., 39*, 2043-2054 (1990).
369. A.B. Scranton, A.G. Mikos, L.C. Scranton and N.A. Peppas, "The Physical Mechanism for the Production of Hydrophilic Polymer Microparticles from Aqueous Suspensions,"*J. Appl. Polym. Sci., 40*, 997-1004 (1990).
370. R.K. Drummond, G.L. Boydston and N.A. Peppas, "Properties of Positive Resists. III. The Dissolution Behavior of Poly(methyl methacrylate-co-maleic anhydride)," *J. Appl. Polym. Sci., 39*, 2267-2277 (1990).
371. A.B. Scranton, J. Klier and N.A. Peppas, "Soluble Chain Fractions in Hydrophilic Polymer Networks: Origin and Effect on Dynamic Uptake Overshoots," *Polymer, 31*, 1288-1293 (1990).
372. N.A. Peppas and A.G. Mikos, "Kinetics of Mucus-Polymer Interactions," in "Bioadhesion: Possibilities and Future Trends," R. Gurny and H.E. Junginger, eds., 65-85, Wissenschaftliche Verlagsgesellschaft, Stuttgart, 1990.
373. N.A. Peppas and C.M. Walker, "Novel Biomaterials for Controlled Release Applications: Copolymers of Multiethylene Glycol Dimethacrylates," *Chimica Oggi, 8* (6), 17-21 (1990).
374. R.S. Harland, J. Klier and N.A. Peppas, "Thermodynamic Models for Swelling of Heterogeneous Networks," *J. Appl. Polym. Sci., 41*, 249-265 (1990).
375. C. Dubernet, J.P. Benoit, N.A. Peppas and F. Puisieux, "Ibuprofen-loaded Ethylcellulose Microspheres: Release Studies and Analysis of the Matrix Structure Through the Higuchi Model,"*J. Microencapsulation, 7*, 555-565 (1990).
376. L. Brannon-Peppas and N.A. Peppas, "The Equilibrium Swelling Behavior of Porous and Non-porous Hydrogels," in "Absorbent Polymer Technology," L. Brannon-Peppas and R.S. Harland, eds., 67-102, Elsevier, Amsterdam, 1990.
377. J. Klier and N.A. Peppas, "Structure and Swelling Behavior of Polymer Complexes," in "Absorbent Polymer Technology," L. Brannon-Peppas and R.S. Harland, eds., 147-169, Elsevier, Amsterdam, 1990.
378. A.R. Khare and N.A. Peppas, "Dynamic and Equilibium Swelling Characteristics of Hydrophilic Copolymers with Carboxylic Functional Groups," in "Absorbent Polymer Technology," L. Brannon-Peppas and R.S. Harland, eds., 223-231, Elsevier, Amsterdam, 1990.
379. J. Klier, A.B. Scranton and N.A. Peppas, "Self Associating Networks of Poly(Methacrylic Acid-g-Ethylene Glycol)," *Macromolecules, 23*, 4944-4949 (1990).
380. P. Colombo, U. Conte, A. Gazzaniga, L. Maggi, M.E. Sangalli, N.A. Peppas and A. LaManna, "Drug Release Modulation by Physical Restrictions of Matrix Swelling," *Intern. J. Pharm., 63*, 43-48 (1990).
381. L. Brannon-Peppas and N.A. Peppas, "Dynamic and Equilibrium Swelling Behavior of pH-Sensitive Hydrogels Containing 2-Hydroxyethyl Methacrylate," *Biomaterials, 11*, 635-644 (1990).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 72 of 218

382. J.M. Olivares and N.A. Peppas, "Penetrant Transport in Coal Network Structures Between 35°C and 150°C,"*Fuel Chem. Prepr., 35*(2), 292-298 (1990).
383. N.A. Peppas, "Hydrogels of P(EO-g-MA) for Biomedical Applications," *Proceed. Europ. Symp. Contr. Drug Deliv., 1*, 69-71 (1990).
384. N.A. Peppas, "Correlation Between Structure and Properties of Polymers and Drug Release," *Corso Avanzato di Chimica Farmaceutica, Societa Chimica Italiana, 10*, 79-124 (1990).
385. N.A. Peppas, "Controlled Release from Bioadhesive Polymeric Systems," *Corso Avanzato di Chimica Farmaceutica, Societa Chimica Italiana, 10*, 445-490 (1990).
386. L. Brannon-Peppas and N.A. Peppas, "Equilibrium Swelling Behavior of pH-Sensitive Hydrogels," *Chem. Eng. Sci., 46*, 715-722 (1991).
387. L.Y. Shieh and N.A. Peppas, "Solute and Penetrant Diffusion in Swellable Polymers. XI. The Dynamic Swelling Behavior of Hydrophilic Copolymers Containing Multiethylene Glycol Dimethacrylates," *J. Appl. Polym. Sci., 42*, 1579-1587 (1991).
388. A.B. Scranton, J. Klier and N.A. Peppas, "Complexation Thermodynamics of Free and Graft Oligomers with Complimentary Polymers," *J. Polym. Sci., Polym. Phys., 29*, 211-224 (1991).
389. J.J. Sahlin and N.A. Peppas, "Penetrant Transport in Epoxy Resins, *Ind. Eng. Chem. Res., 30*, 211-217 (1991).
390. J. Van Straaten and N.A. Peppas, "Modelling of Protein Adsorption on Polymeric Surfaces," *J. Biomat. Sci., Polym. Ed., 2*, 91-111 (1991).
391. J. Van Straaten and N.A. Peppas, "ATR-FTIR Analysis of Protein Adsorption on Polymeric Surfaces," *J. Biomat. Sci., Polym. Ed., 2*, 113-121 (1991).
392. C.N. Bowman and N.A. Peppas, "Polymers for Information Storage Systems. II. Polymerization Kinetics for Preparation of Highly Crosslinked Polydimethacrylates," *J. Appl. Polym. Sci., 42*, 2013-2018 (1991).
393. R.K. Drummond and N.A. Peppas, "Fibrinolytic Behavior of Streptokinase-Immobilized Poly(methacrylic acid-g-ethylene oxide)," *Biomaterials, 12*, 356-360 (1991).
394. A.R. Khare and N.A. Peppas: "The Structure and Transport Properties of Environmentally Sensitive Hydrogels," *Polymer News, 16*, 230-236 (1991).
395. A.B. Scranton, J. Klier and N.A. Peppas, "Statistical Analysis of Free-Radical Copolymerization/Crosslinking Reactions Using Probability Generating Functions: Reaction Directionality and General Termination," *Macromolecules, 24*, 1412-1415 (1991).
396. A.G. Mikos and N.A. Peppas, "Brittle Fracture of Entangled Polymers," *J. Polym. Sci., Polym. Phys., 29*, 837-841 (1991).
397. N.A. Peppas and J. Klier, "Controlled Release by Using Poly(ethylene oxide-g-methacrylic acid) Hydrogels,"*J. Controlled Release, 16*, 203-214 (1991).
398. N.A. Peppas and S.R. Stauffer, "Reinforced Uncrosslinked Poly(vinyl alcohol) Gels Produced by Cyclic Freezing-Thawing Processes: A Short Review,"*J. Controlled Release, 16*, 305-310 (1991).
399. A.G. Mikos, E. Mathiowitz, R.S. Langer and N.A. Peppas, "The Interaction of Polymer Microparticles with Mucin Gels as a Means of Characterizing Polymer Retention on Mucus," *J. Coll. Interf. Sci., 143*, 366-373 (1991).
400. L. Brannon-Peppas and N.A. Peppas, "Time-Dependent Response of Ionic Polymer Networks to pH and Ionic Strength Changes," *Intern. J. Pharmac., 70*, 53-57 (1991).
401. L. Brannon-Peppas and N.A. Peppas, "Equilibrium Swelling Behavior of Dilute Ionic Hydrogels in Electrolytic Solutions," *J. Controlled Release, 16*, 319-330 (1991).
402. C.N. Bowman and N.A. Peppas, "Coupling of Kinetics and Volume Relaxation During Polymerization of Multiacrylates and Multimethacrylates," *Macromolecules, 24*, 1914-1920 (1991).
403. A.G. Mikos and N.A. Peppas, "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," in "Optical and Electrical Properties of Polymers," J.A. Emerson and J.M. Torkelson, eds., 189-193, Materials Research Society, Pittsburgh, PA 1991.
404. C.N. Bowman and N.A. Peppas, "Effects of Aging on Polymerization Kinetics," in "Structure, Relaxation and Physical Aging of Glassy Polymers," R.J. Roe and J.M. O'Reilly, eds., 43-47, Materials Research Society, Pittsburgh, PA 1991.
405. J.S. Smith and N.A. Peppas, "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. VII. Moisture Transport Through a Polymer Film with Subsequent Adsorption on and Diffusion Through Food," *J. Appl. Polym. Sci., 43*, 1219-1225 (1991).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 73 of 218

406. C.N. Bowman and N.A. Peppas, "Initiation and Termination Mechanisms in Kinetic Gelation Simulations," *J. Polym. Sci., Polym. Chem., 29*, 1575-1583 (1991).
407. N.A. Peppas, "Physiologically Responsive Hydrogels," *J. Bioact. Compatible Polym., 6*, 241-246 (1991).
408. M.C. Lee and N.A. Peppas, "Interfacial Bonding Problems Due to Moisture Transport in Epoxy Composites," *Polymer News, 16*, 368-371 (1991).
409. E. Jabbari and N.A. Peppas, "Mapping of Concentration Profile at the Poly(vinyl chloride)/ Poly(ethyl methacrylate) Interface," *Polym. Bull., 27*, 305-309 (1991).
410. S.R. Lustig, J.M. Caruthers and N.A. Peppas, "Dynamic Mechanical Properties of Polymer/Fluid Systems: Characterization of PHEMA and P(HEMA-co-MMA) Hydrogels," *Polymer, 32*, 3340-3354 (1991).
411. N.A. Peppas and D. Hariharan, "Modulated Release of Peptides and Drugs Using Physioresponsive Polymers," *Bull. Gattefosse, 25*, 29-35 (1991).
412. V. Conte, P. Colombo, N.A. Peppas, L. Maggi and T. Vitali, "Swelling Dimensionality and Drug Release,"*Proceed. Intern. Pharm. Techn. Conf., 10*, 316-333 (1991).
413. C.N. Bowman and N.A. Peppas, "Polymer Characterization and Polymerization Reaction Modeling for Advanced Dental Materials," *Trans. Soc. Biomater., 17*, 69 (1991).
414. N.A. Peppas, "The Kinetics of Adhesive Bond Development Between Polymers and Mucus," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 18*, 71-72 (1991).
415. A.G. Mikos, E. Mathiowitz, N.A. Peppas and R. Langer, "A Method of Measuring Mucoadhesive Forces on Polymeric Microparticles," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 18*, 109-110 (1991).
416. D. Hariharan and N.A. Peppas, "Solute Release from Polyelectrolytic Networks," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 18*, 138-139 (1991).
417. N.A. Peppas, P. Colombo and U. Conte, "Dimensionality in Swelling of Polymer Carriers and its Importance in Drug Release," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 18*, 140-141 (1991).
418. A.R. Khare, G. Massimo, P. Colombo and N.A. Peppas, "Swelling Force Development in Ionic Polymeric Networks," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 18*, 263-264 (1991).
419. A.R. Khare and N.A. Peppas, "Release Behavior from pH-Sensitive Hydrogels Containing Bioactive Agents of Varying Thermodynamic Properties," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 18*, 411-412 (1991).
420. S.R. Lustig, J.M. Caruthers and N.A. Peppas, "Continuum Thermodynamics and Transport Theory for Polymer/Fluid Mixtures," *Chem. Eng. Sci., 47*, 3037-3057 (1992).
421. J.M. Olivares and N.A. Peppas, "The Effect of Temperature Treatment on Penetrant Transport in Coal," *Chem. Eng. Commun., 115*, 183-204 (1992).
422. J.M. Olivares, R. Drummond and N.A. Peppas, "Equilibrium Penetrant Swelling in Thin Coal Sections," *Erdöl Kohle, Erdgas, Petrochemie, 45*, 397-400 (1992).
423. B.E. Saunders and N.A. Peppas, "Polymers for Information Storage Systems. IV. Thermal and Compressive Properties of Polyacrylates and Polymethacrylates," *Polymer, 33*, 767-772 (1992).
424. S.R. Stauffer and N.A. Peppas, "Poly(vinyl alcohol) Hydrogels Prepared by Freezing-thawing Cyclic Processing," *Polymer, 33*, 3932-3936 (1992).
425. R.S. Harland and N.A. Peppas, "Swelling Equations for Confined Homogeneous and Heterogeneous Polymeric Networks: Calculation of H in Swellable Two-phase Systems," *J. Appl. Polym. Sci., 45*, 2121-2126 (1992).
426. A.B. Scranton, C.N. Bowman, J. Klier and N.A. Peppas, "Polymerization Reaction Dynamics of Ethylene Glycol Methacrylates and Dimethacrylates by Calorimetry," *Polymer, 33*, 1683-1689 (1992).
427. C.N. Bowman and N.A. Peppas, "A Kinetic Gelation Method for the Simulation of Free Radical Polymerizations," *Chem. Eng. Sci., 47*, 1411-1419 (1992).
428. N.A. Peppas and J.E. Scott, "Controlled Release from PVA Gels Prepared by Freezing-Thawing Processes," *J. Controlled Release, 18*, 95-100 (1992).
429. E. Jabbari and N.A. Peppas, "Polymer/Polymer Interdiffusion," *Polym. News, 17*, 43-47 (1992).
430. A.R. Khare, N.A. Peppas, G. Massimo and P. Colombo, "Measurement of the Swelling Force in Ionic Polymeric Networks. I. Effect of pH and Ionic Content," *J. Controlled Release, 22*, 239-244 (1992).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 74 of 218

431. N.A. Peppas, P. Colombo, U. Conte and L. Maggi, "Dimensionality in Swelling of Polymer Carriers and its Importance in Drug Release," *Rev. SAFYBI, 32,* 22-27 (1992).
432. P. Colombo, P.L. Catellani, N.A. Peppas, L. Maggi and U. Conte, "Swelling Characteristics of Hydrophilic Matrices for Controlled Release: New Dimensionless Number to Describe the Swelling and Release Behavior," *Intern. J. Pharm., 88*, 99-109 (1992).
433. R. Langer and N.A. Peppas, "New Drug Delivery System," *Biom. Eng. Soc. Bull., 16*(1), 3-7 (1992).
434. E. Jabbari and N.A. Peppas, "Interfacial Adhesion of PVC/PEMA," *Proceed. Adh. Soc., 15*, 113-115 (1992).
435. N.A. Peppas, D. Hariharan and A.R. Khare, "Bioresponsive Hydrogels for Controlled Release of Solutes," *Polym. Mater. Sci. Engin. Proceed., 66*, 83-84 (1992).
436. N.A. Peppas, "Hydrogels in Medicine and Biology," *Trans. World Congress Biomater., 4*, IL1 (1992).
437. N.A. Peppas, M.T. Rugger, D. Hariharan, A. Khare and L. Brannon-Peppas, "Mechanisms of Peptide and Protein Transport in Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 19*, 190-191 (1992).
438. A.R. Khare and N.A. Peppas, "Characterization of Water Structure in Relation to Release Behavior of Drugs from pH-Sensitive Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 19*, 200-201 (1992).
439. D. Hariharan and N.A. Peppas, "Swelling Controlled Drug Release from Cationic Polymers," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 19*, 367-368 (1992).
440. M.C. Lee and N.A. Peppas, "Water Transport in Graphite/Epoxy Composites," *J. Appl. Polym. Sci., 47*, 1349-1359 (1993).
441. D. Kim, J.M. Caruthers, and N.A. Peppas, "Penetrant Transport in Crosslinked Polystyrene," *Macromolecules, 26*, 1841-1847 (1993).
442. D. Hariharan and N.A. Peppas, "Swelling of Ionic and Neutral Polymer Networks in Ionic Solutions," *J. Membr. Sci., 78*, 1-12 (1993).
443. A.R. Khare and N.A. Peppas, "Release Behavior of Bioactive Agents from pH-Sensitive Hydrogels," *J. Biomat. Sci., Polym. Ed., 4*, 275-289 (1993).
444. D. Hariharan and N.A. Peppas, "Modelling of Water Transport and Solute Release in Physiologically Sensitive Gels," *J. Controlled Release, 23*, 123-136 (1993).
445. N.A. Peppas, "Fundamentals of pH- and Temperature-Sensitive Polymers," in "Pulsatile Drug Delivery: Current Applications and Future Trends," R. Gurny, H. Junginger and N.A. Peppas, eds., Wissenschaftliche, Stuttgart, 41-56, 1993.
446. E. Jabbari and N.A. Peppas, "Use of ATR-FTIR to Study Interdiffusion in Polystyrene and Poly(vinyl methyl ether), *Macromolecules, 26*, 2175-2186 (1993).
447. A.G. Mikos and N.A. Peppas, "Bioadhesive Phenomena in Controlled Release Systems," *Pharmakeftiki, 6*, 1-10 (1993).
448. J.C. Wu and N.A. Peppas, "Numerical Simulation of Anomalous Penetrant Diffusion in Glassy Polymers,"*J. Appl. Polym. Sci., 49*, 1845-1856 (1993).
449. M.C. Lee and N.A. Peppas, "Models of Moisture Transport and Moisture-induced Stresses in Epoxy Composites," *J. Compos. Mater., 27*, 1146-1171 (1993).
450. E. Jabbari, N. Wisniewski and N.A. Peppas, "Evidence of Mucoadhesion by Chain Interpenetration at a Poly(acrylic acid)/Mucin Interface Using ATR-FTIR Spectroscopy," *J. Controlled Release, 26*, 99-108 (1993).
451. N.A. Peppas and A.R. Khare, "Preparation, Structure and Diffusional Behavior of Hydrogels in Controlled Release," *Adv. Drug Deliv. Revs., 11*, 1-35 (1993).
452. K.S. Anseth, C.N. Bowman and N.A. Peppas, "Dynamic Mechanical Studies of the Glass Transition Temperature of Photopolymerized Multifunctional Acrylates," *Polym. Bull., 31*, 229-233 (1993).
453. R.S. Harland and N.A. Peppas, "Hydrophilic/hydrophobic, Block and Graft Copolymeric Hydrogels: Synthesis, Characterization and Solute Partition and Penetration, *J. Controlled Release, 26*, 157-174 (1993).
454. J.C. Wu and N.A. Peppas, "Modeling of Penetrant Diffusion in Glassy Polymers with an Integral Sorption Deborah Number," *J. Polym. Sci., Polym. Phys., 31*, 1503-1518 (1993).
455. M.C. Lee and N.A. Peppas, "Water Transport in Epoxy Resins," *Progr. Polym. Sci., 18*, 947-961 (1993).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 75 of 218

456. D.J. Kim, J.M. Caruthers and N.A. Peppas, "Viscoelastic Properties of Dodecane/Polystyrene Systems," *Polymer, 34*, 3638-3647 (1993).
457. R.S. Harland and N.A. Peppas, "On the Accurate Experimental Determination of Drug Diffusion Coefficients in Polymers," *STP Pharma Sciences, 3*, 357-361 (1993).
458. A.B. Argade and N.A. Peppas, "Preparation and Characterization of Novel Biodegradable Tri- and Tetraacrylate Intermediates," *Polym. Bull., 31*, 401-407 (1993).
459. R.S. Harland and N.A. Peppas, "Drug Transport in and Release from Controlled Delivery Devices Made of Hydrophilic/Hydrophobic Block and Graft Copolymers," *Europ. J. Pharm. Biopharm., 39*, 229-233 (1993).
460. A.R. Khare and N.A. Peppas, "Investigation of Hydrogel Water in Polyelectrolyte Gels Using Differential Scanning Calorimetry," *Polymer, 34*, 4736-4739 (1993).
461. B.J. Ficek and N.A. Peppas, "Novel Preparation of Poly(vinyl alcohol) Microparticles without Crosslinking Agent for Controlled Drug Delivery of Proteins," *J. Controlled Release, 27*, 259-264 (1993).
462. E. Jabbari and N.A. Peppas, "Temperature Effects on Interdiffusion of Glassy/Rubbery Interfaces," *J. Adhesion, 43*, 101-119 (1993).
463. D.L. Kurdikar and N.A. Peppas, "Highly Crosslinked Polymers in Information Technology Applications," *Polym. Mater. Sci. Eng. Proceed., 68*, 91-92 (1993).
464. N.A. Peppas, "Contemporary Issues in Hydrogels Research," *Polym. Prepr., 34*(1), 818 (1993).
465. C.L. Bell and N.A. Peppas, "Complexation in P(EG-g-MAA) Hydrogels, *Polym. Prepr., 34*(1), 831-832 (1993).
466. N.A. Peppas and D. Hariharan, "pH-Responsive Hydrogels for Controlled Drug Delivery," *Polym. Prepr., 34*(1), 837-838 (1993).
467. D.L. Kurdikar and N.A. Peppas, "Kinetics of Photopolymerizations of Multifunctional Monomers," *Polym. Mater. Sci. Eng. Proceed., 69*, 174-175 (1993).
468. D. Hariharan and N.A. Peppas, "The Dynamic Swelling of Ionic Networks," *Polym. Mater. Sci. Eng. Proceed., 69*, 535-536 (1993).
469. C.L. Bell and N.A. Peppas, "Highly Swollen Copolymers of P(EG-g-MAA) by Complexation," *Polym. Mater. Sci. Eng. Proceed., 69*, 569-570 (1993).
470. N.A. Peppas, J.J. Sahlin and E. Jabbari, "Near-field FTIR and ATR-FTIR Spectroscopies for the Investigation of Diffusional Mechanisms," *Polym. Prepr., 34*(2), 783-784 (1993).
471. N.A. Peppas and A. Argade, "Dendrimers and Star Polymers for Pharmaceutical and Medical Applications," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 20*, 143-144 (1993).
472. C.L. Bell and N.A. Peppas, "Synthesis and Characterization of P(EG-g-MAA) Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 20*, 30-31 (1993).
473. N.A. Peppas, "Thirty Years of Controlled Release Modelling," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 20*, 41-42 (1993).
474. E. Jabbari and N.A. Peppas, "Investigation of Poly(acrylic acid)/Mucin Bioadhesion Using ATR-FTIR Spectroscopy," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 20*, 442-443 (1993).
475. N.A. Peppas, "Controlling Protein Diffusion in Hydrogels," *Proceed. Intern. Symp. Delivery Protein Drugs*, 46-47 (1993).
476. E. Jabbari and N.A. Peppas, "Polymer-polymer Interdiffusion and Adhesion," *J. Macromol. Sci., Revs. Macrom. Chem. Phys., C34*, 205-241 (1994).
477. D.J. Kim, J.M. Caruthers, N.A. Peppas and E. von Meerwall, "Self and Mutual Diffusion Coefficients in the Dodecane/Polystyrene System," *J. Appl. Polym. Sci., 51*, 661-668 (1994).
478. D.L. Kurdikar and N.A. Peppas, "Method of Determination of Initiator Efficiency: Application to UV-Polymerizations Using 2,2-Dimethoxy-2-Phenyl Acetophenone," *Macromolecules, 27*, 733-738 (1994).
479. K.S. Anseth, C.N. Bowman and N.A. Peppas, "Polymerization Kinetics and Volume Relaxation Behavior of Photopolymerized Multifunctional Monomers Producing Highly Crosslinked Networks,"*J. Polym. Sci., Polym. Chem., 32* , 139-147 (1994).
480. N.A. Peppas, "Novel Developments in Bioadhesive Systems for Transdermal and Oral Applications," *Proceed. TDS Technology*, 19-45, Bunkashoin Co., Tokyo, Japan, 1994.
481. D.L. Kurdikar and N.A. Peppas, "A Kinetic Study of Diacrylate Photopolymerizations," *Polymer, 35*, 1004-1011 (1994).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 76 of 218

482. D. Hariharan and N.A. Peppas, "Modelling of Water Transport in Ionic Hydrophilic Polymers," *J. Polym. Sci., Polym. Phys., 32*, 1093-1103 (1994).
483. N.A. Peppas and R.S. Langer, "New Challenges in Biomaterials," *Science, 263*, 1715-1720 (1994).
484. N.A. Peppas and L.K. Foster, "Strong Buffering Characteristics and Swelling Behavior of Cationic Copolymers," *J. Appl. Polym. Sci., 52*, 763-768 (1994).
485. N.A. Peppas and L. Brannon-Peppas, "Water Diffusion and Sorption in Amorphous Macromolecular Systems and Foods," *J. Food Engin., 22*, 189-210 (1994).
486. C.L. Bell and N.A. Peppas, "Poly(methacrylic acid-g-ethylene glycol) Hydrogels as pH Responsive Materials," in A.G. Mikos, R. Murphy, H. Bernstein and N.A. Peppas, eds., *Biomaterials for Drug and Cell Delivery*, 199-204, Materials Research Society, Pittsburgh, 1994.
487. C.S. Brazel and N.A. Peppas, "Temperature- and pH-Sensitive Hydrogels for Controlled Release of Antithrombotic Agents," in A.G. Mikos, R. Murphy, H. Bernstein and N.A. Peppas, eds., *Biomaterials for Drug and Cell Delivery*, 211-216, Materials Research Society, Pittsburgh, 1994.
488. B.J. Ficek and N.A. Peppas, "Novel Preparation of Poly(vinyl alcohol) Microparticles Without Crosslinking Agent for Controlled Drug Delivery of Proteins," in A.G. Mikos, R. Murphy, H. Bernstein and N.A. Peppas, eds., *Biomaterials for Drug and Cell Delivery*, 223-226, Materials Research Society, Pittsburgh, 1994.
489. A.D. Ouellette and N.A. Peppas, "Controlled Release of Triamterene from Poly(dl-lactide-co-glycolide) Microsphers," in A.G. Mikos, R. Murphy, H. Bernstein and N.A. Peppas, eds., *Biomaterials for Drug and Cell Delivery*, 91-96, Materials Research Society, Pittsburgh, 1994.
490. N.A. Peppas, T. Nagai and M. Miyajima, "Prospects of Using Star Polymers and Dendrimers in Drug Delivery and Pharmaceutical Applications," *Pharm. Tech. Japan, 10*, 611-617 (1994) in Japanese.
491. D. Kim, J.M. Caruthers and N.A. Peppas, "PVT Properties of Dodecane/Polystyrene Systems," *J. Polym. Sci., Polym. Phys., 32*, 1593-1606 (1994).
492. E. Jabbari and N.A. Peppas, "Molecular Weight and Polydispersity Effects on Interdiffusion at the Interface Between Polystyrene and Poly(vinyl methyl ether)," *J. Mater. Sci., 29*, 3969-3978 (1994).
493. D.L. Kurdikar and N.A. Peppas, "A Kinetic Model for Diffusion-Controlled Bulk Crosslinking Photopolymerizations," *Macromolecules, 27*, 4084-4092 (1994).
494. N.A. Peppas, J.C. Wu and E.D. von Meerwall, "Mathematical Modeling and Experimental Characterization of Polymer Dissolution," *Macromolecules, 27*, 5626-5638 (1994).
495. L. Achar and N.A. Peppas, "Preparation, Characterization and Mucoadhesive Interactions of Poly(methacrylic acid) Copolymers with Rat Mucosa," *J. Controlled Release, 31*, 271-276 (1994).
496. D. Hariharan, N.A. Peppas, R. Bettini and P. Colombo, "Mathematical Analysis of Drug Delivery from Swellable Systems with Partial Physical Restrictions or Impermeable Coatings," *Intern. J. Pharmac., 112*, 47-54 (1994).
497. N.A. Peppas and D. Hariharan, "Dynamic Swelling of Ionic Networks: Application to the Behavior of Dry Superabsorbents" in F. Buchholz and N.A. Peppas, eds., *Superabsorbent Polymers*, ACS Symposium Series, Vol. 573, 40-49, American Chemical Society, Washington, D.C., 1994.
498. D.L. Kurdikar and N.A. Peppas, "Investigation of Diffusion-Controlled Multifunctional Homopolymerizations," *Vysokomol. Soedin., 36*, 1852-1861 (1994), in Russian; *Polym. Sci., 36*, 1558-1567 (1994).
499. N.A. Peppas and C.L. Bell, "Poly(methacrylic acid-g-ethylene glycol) as a pH Sensitive Biopolymer," *Trans. Soc. Biomaterials, 20*, 153 (1994).
500. N.A. Peppas, L. Achar and N. Wisniewski, "Bioadhesive Interactions of PMAA and PAA with Mucin and Mucus,"*Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 21*, 581-582 (1994).
501. P. Colombo, R. Bettini, G. Massimo, P. Santi, P.L. Catellani and N.A. Peppas, "Front Movement and Drug Release from Hydrogel Matrices," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 21*, 19-20 (1994).
502. N.A. Peppas, L. Achar, J.J. Sahlin and N. Wisniewski, "Recent Advances in Mucoadhesives for Drug Delivery," *Artif. Cells, Blood Subst., Immob. Biotech., 22*, A48, (1994).
503. N.A. Peppas, "Past, Present and Future of Materials in Medicine," *Acta Biomedica, 65*, 233-234 (1994).
504. L.F. Gudeman and N.A. Peppas, "Preparation and Characterization of pH-Sensitive, Interpenetrating Networks of Poly(vinyl alcohol) and Poly(acrylic acid)," *J. Appl. Polym. Sci., 55*, 919-928 (1995).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 77 of 218

505. J.M. Olivares and N.A. Peppas, "In-situ Penetrant Transport in Thin Coal Sections," *Chem. Eng. Commun.*, *132*, 91-106 (1995).
506. E. Jabbari and N.A. Peppas, "A Model for Interdiffusion at Interfaces of Polymers with Dissimilar Physical Properties," *Polymer*, *36* , 575-586 (1995).
507. A. DeAscentiis, J.L. de Grazia, C.N. Bowman, P. Colombo and N.A. Peppas, "Mucoadhesion of Poly(2-hydroxyethyl methacrylate) is Improved when Linear Poly(ethylene oxide) Chains are Added to the Polymer Network," *J. Controlled Release*, *33*, 197-201 (1995).
508. B.D. Berkowicz and N.A. Peppas, "Characterization of Surgical Adhesives from UV-Polymerized Poly (PEG Dimethacrylate-co-2-Hydroxyethyl Methacrylate) Copolymers," J. *Appl. Polym. Sci.*, *56*, 715-720 (1995).
509. N.A. Peppas and N. Sundaram, "An Analysis of Drug and Solute Transport Through Membranes Based on Potential Barriers," *J. Controlled Release, 34,* 37-42 (1995).
510. A.R. Khare and N.A. Peppas, "Swelling/Deswelling of Anionic Copolymer Gels," *Biomaterials, 16,* 559-567 (1995).
511. N.A. Peppas, "Controlling Protein Diffusion in Hydrogels," in V.H.L. Lee, M. Hashida and Y. Mizushima, eds., *Trends and Future Perspectives in Peptide and Protein Drug Delivery*, 23-37, Harwood, Chur, 1995.
512. M.T. am Ende, C.L. Bell, N.A. Peppas, G. Massimo and P. Colombo, "Measurement of the Swelling Force in Ionic Polymeric Networks II. Swelling Force and Disintegration of Controlled Release Dosage Formulations Using pH-Sensitive Components," *Intern. J. Pharm.*, *120*, 33-40 (1995).
513. D.L. Kurdikar and N.A. Peppas, "The Volume Shrinkage, Thermal and Sorption Behavior of Polydiacrylates," *Polymer*, *36*, 2249-2255 (1995).
514. C.L. Bell and N.A. Peppas, "Biomedical Membranes from Hydrogels and Interpolymer Complexes," *Adv. Polym. Sci.*, *122*, 125-178 (1995).
515. J.E. Dietz, B.J. Elliott and N.A. Peppas, "Real-Time Attenuated Total Reflectance-Fourier Transform Infrared Spectroscopy to Monitor Multiacrylate Polymerization Reactions," *Macromolecules*, 28, 5163-5166 (1995).
516. F.J. Doyle III, C. Dorski, J.E. Harting, and N.A. Peppas, "Control and Modeling of Drug Delivery Devices for the Treatment of Diabetes," *Proceed. Amer. Control Conf.* , *1*, 776-780 (1995).
517. M.T. am Ende, D. Hariharan and N.A. Peppas, "Factors Influencing Drug and Protein Transport and Release from Ionic Hydrogels," *Reactive Polymers*, *25* , 127-137 (1995).
518. E. Jabbari and N.A. Peppas, "Measurement of Adhesion and Interfacial Thickness of Polymer-Polymer Interfaces with Electron Microscopy," *Iranian J. Polym. Sci. Techn., 4*, 110-117 (1995).
519. E. Jabbari and N.A. Peppas, "Quantitative Measurement of Interdiffusion at Polymer/Polymer Interfaces with TEM/EDS and EELS," *J. Appl. Polym. Sci.* , *57*, 775-779 (1995).
520. P. Colombo, R. Bettini, G. Massimo, P.L. Catallani, P. Santi and N.A. Peppas, "Drug Diffusion Front Movement is Important in Drug Release Control from Swellable Matrix Tablets," *J. Pharm. Sci.*, *84*, 991-997 (1995).
521. D.L. Kurdikar, J. Somvarsky, K. Dusek and N.A. Peppas, "Development and Evaluation of a Monte Carlo Technique for the Simulation of Multifunctional Polymerizations", *Macromolecules*, *28*, 5910-5920 (1995).
522. D.L. Kurdikar, H.M.J. Boots and N.A. Peppas, "Network Formation by Chain Polymerization of Liquid-Crystalline Monomer: A First Off-Lattice Monte Carlo Study", *Macromolecules*, *28*, 5632-5637 (1995).
523. E. Jabbari and N.A. Peppas, "Matrix Effects on Interdiffusion at a Polystyrene and Poly(vinyl methl ether) Interface," *Macromolecules*, *28*, 6229-6237 (1995).
524. A. DeAscentiis, P. Colombo and N.A. Peppas, "Screening of Potentially Mucoadhesive Polymer Microparticles in Contact with Rat Intestinal Mucosa," *Europ. J. Pharmac. Biopharmac.*,*41*, 229-234 (1995).
525. N.A. Peppas, N. Mongia and A.S. Luttrell, "Bioadhesive Poly(vinyl alcohol) as a Carrier for Controlled Release of Growth Factors and Proteins," *Proceed. World Meeting APGI/APV, 1*, 817-818 (1995).
526. R. Bettini, G. Massimo, P.L. Catellani, N.A. Peppas, and P. Colombo, "Zero Order Release by Partial Coating of HPMC Matrix Tablets with Permeable and Semipermeable Films," *Proceed. World Meeting, APGI/APV, 1*, 288-289 (1995).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 78 of 218

527. S.K. Mallapragada and N.A. Peppas, "Effect of Dissolution on Lamellar Thickness Distribution of Semi-Crystalline Poly(vinyl alcohol), " *Polym. Mater. Sci. Eng. Proceed., 73*, 22-23 (1995).
528. B. Narasimhan and N.A. Peppas, "Development of a Dissolution-controlled, Zero-order Release, Drug Delivery System," *Polym. Prepr., 36*(2), 160-161 (1995).
529. E. Jabbari and N.A. Peppas, "Comparison of Interdiffusion at Polystyrene-Poly(vinyl methyl ether) and Polystyrene-Poly(isobutyl vinyl ether) Interfaces," *Polym. Intern., 38*, 65-69 (1995).
530. R. Bettini, P. Colombo and N.A. Peppas, "Solubility Effects on Drug Transport Through pH-Sensitive, Swelling-Controlled Release Systems", *J. Controlled Release*, 37, 105-111 (1995).
531. N.A. Peppas and J.R. Robinson, "Bioadhesives for Optimization of Drug Delivery," *J. Drug Targetting* , 3, 183-184 (1995).
532. C.S. Brazel and N.A. Peppas, "Synthesis and Characterization of Thermo- and Chemomechanically Responsive Poly(N-isopropylacrylamide-co-methacrylic acid) Hydrogels," *Macromolecules*, 28, 8016-8020 (1995).
533. C.L. Bell and N.A. Peppas, "Measurement of the Swelling Force in Ionic Polymer Networks. III. Swelling Force of Interpolymer Complexes," *J. Controlled Release*, *37*, 277-280 (1995).
534. M.T. am Ende and N.A. Peppas, "Analysis of Drug Distribution in Hydrogels Using FTIR Microscopy," *Pharm. Res., 12*, 2030-2035 (1995).
535. L.F. Gudeman and N.A. Peppas, "pH-Sensitive Membranes from Poly(vinyl alcohol)/Poly(acrylic acid) Interpenetrating Networks," *J. Membr. Sci.,107*, 239-248 (1995).
536. A.S. Hickey and N.A. Peppas, "Mesh Size and Diffusive Characteristics of Semicrystalline Poly(vinyl alcohol) Membranes Prepared by Freezing/Thawing Techniques," *J. Membr. Sci., 107*, 229-237 (1995).
537. Y. Maitani, T. Yamamoto, K. Takayama, N.A. Peppas and T. Nagai, "A Modelling Analysis of Drug Absorption and Administration from the Ocular, Naso-lacrimal Duct, and Nasal Routes in Rabbits", *Intern. J. Pharmac.* , *126*, 89-94 (1995).
538. N.A. Peppas, "New Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Drug Delivery Applications," *Proceed Intern. Symp. Recent Adv. Drug Deliv. Syst., 7*, 47-50 (1995).
539. E. Jabbari and N.A. Peppas, "A Model for Interdiffusion at Interfaces of Polymers with Dissimilar Physical Properties," *Polymer*, 36 , 575-586 (1995).
540. A. DeAscentiis, J.L. de Grazia, C.N. Bowman, P. Colombo and N.A. Peppas, "Mucoadhesion of Poly(2-hydroxyethyl methacrylate) is Improved when Linear Poly(ethylene oxide) Chains are Added to the Polymer Network," *J. Controlled Release*, *33*, 197-201 (1995).
541. C.S. Brazel and N.A. Peppas, "Pulsatile Release of Antithrombotic Agents from pH- and Temperature-Sensitive Hydrogels," *Proceed. Intern. Symp. Recent Adv. Drug Deliv. Syst., 7*, 183-184 (1995).
542. N.A. Peppas, "Recent Advances in Modeling and Physicochemical Behavior of Swellable Polymers, Biomaterials and Drug Delivery Systems," *Proceed. Iketani Conf., Intern. Symp. Biomed. Polym., 5*, 1-2 (1995).
543. C.S. Brazel and N.A. Peppas, "Transport in Hydrophilic Polymer Gels: Applications in Controlled Release," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 22*, 350-351 (1995).
544. N.A. Peppas, F.J. Doyle III and C.M. Dorski, "Recent Developments in Insulin Delivery and Control Using Hydrogel Systems," *Proceed. Spanish Conf. Controlled Drug Delivery*, 5 (1995).
545. M.T. am Ende and N.A. Peppas, "Transport of Ionizable Drugs and Proteins in Crosslinked PAA and P(AA-co-HEMA) Hydrogels. I. Polymer Characterization," *J. Appl. Polym. Sci.*, 59, 673-684 (1996).
546. D. Hariharan and N.A. Peppas, "Characterization, Dynamic Swelling Behavior and Solute Transport in Cationic Networks with Applications to the Development of Swelling-Controlled Release Systems," *Polymer*, *37*, 149-161 (1996).
547. N.A. Peppas, S.K. Vakkalanka, C.S. Brazel, A.S. Luttrell and N.K. Mongia, "Controlled Release Systems Using Swellable Random and Block Copolymers and Terpolymers," in N. Ogata, S.W. Kim, J. Feijen and T. Okano, eds., in "Advanced Biomaterials in Biomedical Engineering and Drug Delivery Systems," 3-7, Springer, Tokyo, 1996.
548. C.L. Bell and N.A. Peppas, "Swelling/Syneresis Phenomena in Gel-Forming Interpolymer Complexes," *J. Biomater. Sci., Polym. Ed., 7*, 671-683 (1996).
549. N. Sundaram and N.A. Peppas, "Friction Coefficient Analysis of Multicomponent Solute Transport Through Polymer Membranes," *J. Appl. Polym. Sci.*, 60, 95-101 (1996).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 79 of 218

550. S.K. Vakkalanka and N.A. Peppas, "Swelling Behavior of Temperature- and pH-Sensitive Block Terpolymers for Drug Delivery," *Polym. Bull.*, 36, 221-225 (1996).
551. C.M. Dorski, F.J. Doyle, III, and N.A. Peppas, "Glucose-responsive, Complexation Hydrogels," *Polym. Prepr., 37* (1), 475-476 (1996).
552. N.A. Peppas, B.A. Cowans and J.E. Dietz, "Solid State NMR Spectroscopy for Characterization of Acrylate Reactions," *Polym. Mater. Sci. Engin. Proceed., 74*, 194-195 (1996).
553. K.S. Anseth, R.A. Scott and N.A. Peppas, "Kinetics of UV Polymerization of Acrylic Acid," *Polym. Mater. Sci. Engin. Proceed., 74*, 196-197 (1996).
554. N.A. Peppas and J.L. Stringer, "Radiation Crosslinked Poly(ethylene Oxide) Hydrogels Show Insignificant Diffusional Screening Effects," *Polym. Mater. Sci. Engin. Proceed., 74*, 329-330 (1996).
555. C.S. Brazel and N.A. Peppas, "On the Mechanisms of Water Transport and Drug Release from Swellable Hydrogels," *Polym. Mater. Sci. Engin. Proceed.,74*, 370-371 (1996).
556. K. Podual, F.J. Doyle, III, and N.A. Peppas, "Release of Insulin from Glucose-sensitive Hydrogels," *Polym. Mater. Sci. Engin. Proceed., 74,* 372-373 (1996).
557. A.M. Lowman and N.A. Peppas, "Molecular Aspects of the Swelling Behavior of Interpolymer Complexing Hydrogels," *Polym. Mater. Sci. Engin. Proceed., 74*, 373-375 (1996).
558. R.A. Scott and N.A. Peppas, "An Experimental Study of Acrylic Acid Crosslinking Polymerizations," *Polym. Mater. Sci. Engin. Proceed., 74*, 376-377 (1996).
559. S.K. Mallapragada, N.A. Peppas and P. Colombo, "Modification of Drug Release Profiles and Swelling Behavior in Poly(vinyl alcohol) Due to the Presence of a Crystalline Phase," *Polym. Mater. Sci. Engin. Proceed., 74,* 416-417 (1996).
560. B. Narasimhan and N.A. Peppas, "Disentanglement and Reptation During Dissolution of Rubbery Polymers," *J. Polym. Sci., Polym. Phys.,34*, 947-961 (1996).
561. C.S. Brazel and N.A. Peppas, "Pulsatile Local Delivery of Thrombolytic and Antithrombotic Agents Using Poly(N-isopropylacrylamide-co-methacrylic acid) Hydrogels," *J. Controlled Release*, *39*, 57-64 (1996).
562. B. Narasimhan and N.A. Peppas, "On the Importance of Chain Reptation in Models of Dissolution of Glassy Polymers," *Macromolecules*, *29*, 3283-3291 (1996).
563. D. Kim and N.A. Peppas, "Concentration and Temperature Dependence of Diffusion Deborah Number During Dodecane Transport in Crosslinked Polystyrene", *Korean J. Chem. Eng., 13, 123-128* (1996).
564. M.H. Bland and N.A. Peppas, "Photopolymerized Multifunctional (Meth)acrylates as Model Polymers for Dental Applications", *Biomaterials*, *17*, 1109-1114 (1996).
565. S.K. Mallapragada and N.A. Peppas, "Dissolution Mechanism of Semicrystalline PVA in Water," *J. Polym. Sci., Polym. Phys.*,34, 1339-1346 (1996).
566. C.L. Bell and N.A. Peppas, "Water, Solute and Protein Diffusion in Physiologically-Responsive Hydrogels of Poly(methacrylic acid-g-ethylene glycol)," *Biomaterials*, *17*, 1203-1218 (1996).
567. C.L. Bell and N.A. Peppas, "Modulation of Drug Permeation through Interpolymer Complexed Hydrogels for Drug Delivery Applications," *J. Controlled Release*, *39*, 201-207 (1996).
568. P. Colombo, R. Bettini, P. Santi, A. De Ascentiis, and N.A. Peppas, "Analysis of the Swelling and Release Mechanisms from Drug Delivery Systems with Emphasis on Drug Solubility and Water Transport," *J. Controlled Release* , *39*, 231-237 (1996).
569. C.L. Bell and N.A. Peppas, "An Apparatus to Measure Polymer Swelling Under Load," *Intern. J. Pharm. 134*, 167-172 (1996).
570. N.A. Peppas and L. Brannon-Peppas, "Controlled Release of Fragrances from Polymers. I. Thermodynamic Analysis,"*J. Controlled Release*, *40*, 245-250 (1996).
571. N.A. Peppas and J.J. Sahlin, "Hydrogels as Muco- and Bioadhesive Materials: A Review," *Biomaterials*, *17*, 1553-1561 (1996).
572. M.T. am Ende and N.A. Peppas, "Investigation of Drug/Polymer Interactions in the Hydrated State," *Proceed. Adv. Contr. Deliv., 1*, 12-13 (1996).
573. N.A. Peppas and S.K. Mallapragada, "Crystal Dissolution-Controlled Release Systems: A Novel Technology for Facile Programmed Release of Drugs," *Proceed. Adv. Contr. Deliv., 1*, 89-90 (1996).
574. N.A. Peppas and R.A. Scott, "Independent Effects of pH and Monomer Concentration on the Kinetics of Acrylic Acid Solution Polymerization," *Polym. Mater. Sci. Eng. Proceed., 75*, 196-197 (1996).
575. C.L. Bell and N.A. Peppas, "Equilibrium and Dynamic Swelling of Polyacrylates," *Polym. Eng. Sci. ,36*, 1856-1861 (1996).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 80 of 218

576. N.K. Mongia, K.S. Anseth and N.A. Peppas, "Mucoadhesive Poly(vinyl alcohol) Hydrogels Produced by Freezing/Thawing Processes: Applications in the Development of Wound Healing Systems," *J. Biomat. Sci., Polym. Ed., 7*, 1055-1064 (1996).
577. J.L. Stringer and N.A. Peppas "Diffusion of Small Molecular Weight Drugs in Radiation-Crosslinked Poly(ethylene Oxide) Hydrogels," *J. Controlled Release*, *42*, 195-202 (1996).
578. D.J. Kim, J.M. Caruthers and N.A. Peppas, "Experimental Verification of a Predictive Model of Penetrant Transport in Glassy Polymers," *Chem. Eng. Sci., 51*, 4827-4841 (1996).
579. N.A. Peppas and S.L. Wright, "Characterization, Morphology and Diffusional Behavior of Poly(vinyl alcohol)-based Hydrogels," *Report Poval Committee*, *108*, 96-127 (1996).
580. J.J. Sahlin and N.A. Peppas, "An Investigation of Polymer Diffusion in Hydrogel Laminates Using Near-Field FTIR Microscopy," *Macromolecules*, *29*, 7124-7129 (1996).
581. N.A. Peppas, "Hydrogels" in "Biomaterials Science: An Introduction to Materials in Medicine," B.D. Ratner, A.S. Hoffman, F.J. Schoen and J.E. Lemons, eds., 60-66, Academic Press, New York, N.Y. 1996.
582. S.K. Vakkalanka, C.S. Brazel and N.A. Peppas, "Temperature and pH-Sensitive Terpolymers for Modulated Delivery of Streptokinase," *J. Biomed. Materials Sci., Polym. Ed., 8,* 119-129 (1996).
583. K.S. Anseth, R.A. Scott, and N.A. Peppas, "Effects of Ionization on the Reaction Behavior and Kinetics of Acrylic Acid Polymerization," *Macromolecules*, *29*, 8308-8312 (1996).
584. N.A. Peppas and S.L. Wright, "Solute Diffusion in PVA/PAA Interpenetrating Networks," *Macromolecules*, *29*, 8798-8804 (1996).
585. A. De Ascentiis, R. Bettini, P. Colombo and N.A. Peppas, "Mucoadhesive Properties of Hydrophilic Polymeric Microparticles," *Boll. Chim. Farm., 135*, 101-103 (1996).
586. N.A. Peppas, K.S. Anseth and N.K. Mongia, "Mucoadhesive PVA Hydrogels for Release of Wound Healing Drugs," *Trans. World Biomat. Congress, 5*, 643 (1996).
587. N.A. Peppas, A. De Ascentiis and J.M. Bauerle, "Mucoadhesive PEG-tethered Microparticulate Systems for Gastrointestinal and Vaginal Drug Delivery," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23*, 87-88 (1996).
588. N.A. Peppas and A. S.L. Borcherding, "Oral Delivery Devices from Freeze/Thawed Poly(vinyl alcohol) Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23*, 145-146 (1996).
589. N.A. Peppas, N.K. Mongia and C.A. Bugert, "Mucoadhesive Poly(vinyl alcohol) Films Produced by Freezing/Thawing Processes for the Release of Small Molecular Weight Solutes and for Wound Healing Systems," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23*, 157-158 (1996).
590. F.J. Doyle, III, N.A. Peppas, R.S. Parker, J.E. Harting and K. Podual, " Robust Model-Based Control of Insulin Pumps and Devices," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23*, 174-175 (1996).
591. N.A. Peppas, S.K. Vakkalanka and C.S. Brazel, "Unique Swelling-Controlled Release Systems Based on Temperature- and pH-Sensitive Terpolymers for Fibrinolytic Enzyme Delivery," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23*, 267-268 (1996).
592. A.M. Lowman and N.A. Peppas, "Oscillatory Drug and Protein Release by a Complexation/Decomplexation Mechanism," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23*, 745-746 (1996).
593. R.S. Parker, F.J. Doyle III, J.E. Harting and N.A. Peppas, "Model Predictive Control for Infusion Pump Insulin Delivery," *Proceed. IEEE-EMBS, Engin. Med. Biology Conference*, *18*, 265 (1996) .
594. B. Narasimhan and N.A. Peppas, "Understanding Polymer Dissolution Using Self-Consistent Diffusion Coefficient Models and Comparison with Magnetic Resonance Imaging Analysis," *Proceed. Topical Conf. Process. Structure Prep. Polym. Materials*, *1*, 245 (1996).
595. N.A. Peppas, "Characterization of Poly(vinyl alcohol) Prepared by Freezing/Thawing Techniques," *Proceed. Topical Conf. Process. Structure Prep. Polym. Materials*, *1*, 321-323 (1996).
596. R.A. Scott, K.S. Anseth, Z. Mogri and N.A. Peppas, "A Calorimetric Evaluation of the pH- and Conversion-Dependent Kinetics of (Meth)acrylic Acid Solution Polymerization," *Proceed. Topical Conf. Process. Structure Prep. Polym. Materials*, *1*, 519-521 (1996).
597. J.J. Sahlin and N.A. Peppas, "Near-Field FTIR Imaging: A Technique for Enhancing Spatial Resolution in FTIR Microscopy," *J. Appl. Polym. Sci.* , *63*, 103-110 (1997).
598. B. Narasimhan and N.A. Peppas, "The Physics of Polymer Dissolution: Modeling Approaches and Experimental Behavior," *Adv. Polym. Sci., 128*, 157-207 (1997).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 81 of 218

599. R.A. Scott and N.A. Peppas, "A Kinetic Study of Acrylic Acid Solution Polymerization," *AIChE Journal*, *43*, 135-144 (1997).

600. N.A. Peppas and P. Colombo, "Analysis of Drug Release Behavior from Swellable Polymer Carriers Using the Dimensionality Index," *J. Controlled Release*, *45*, 35-40 (1997).

601. S.K. Mallapragada and N.A. Peppas, "Crystal Dissolution-Controlled Release Systems: I. Physical Characteristics and Modeling Analysis," *J. Controlled Release*, *45*, 87-94 (1997).

602. N.A. Peppas and N.K. Mongia, "Ultrapure Poly(vinyl alcohol) Hydrogels with Mucoadhesive Drug Delivery Characteristics," *Europ. J. Pharm. Biopharmac.*, *43*, 51-58 (1997).

603. B. Narasimhan and N.A. Peppas, "Molecular Analysis of Drug Delivery Systems Controlled by Dissolution of the Polymer Carrier," *J. Pharm. Sci.*, *86*, 297-304 (1997).

604. A.M. Lowman, T.D. Dziubla and N.A. Peppas, "Novel Networks and Gels Containing Increased Amounts of Grafted and Crosslinked Poly(ethylene glycol)," *Polym. Prepr.*, *38* (1), 622-623 (1997).

605. R.A. Scott and N.A. Peppas, "Preparation and Characterization of Random Copolymers of Acrylic Acid and Multifunctional Acrylates," *Polym. Prepr.*, *38*(1), 516-517 (1997).

606. H.J.J. Boots, N.A. Peppas and K.S. Anseth, "Computer Simulations of Liquid-Crystalline Diacrylate Monomer Polymerization," *Polym. Prepr., 38*(1), 485-486 (1997).

607. A.M. Lowman and N.A. Peppas, "A Complexation/Decomplexation Mechanism in pH-Responsive Copolymer Networks," *Polym. Mater. Sci. Eng. Proceed., 76,* 232-233 (1997).

608. A.S. Hoffman, G. Chen, X. Wu, Z. Ding, B. Kabra, K. Randeri, N.A. Peppas and C. Brazel, "Graft Copolymers of PEO-PPO-PEO Triblock Polyethers on Bioadhesive Polymer Backbones: Synthesis and Properties," *Polym. Prepr., 38*(1), 524-525 (1997).

609. B. Narasimhan and N.A. Peppas, "Molecular Analysis of the Dissolution of Glassy Polymers," *Polym. Mater. Sci. Eng. Proceed.*, *76*, 435-436 (1997).

610. C.M. Dorski, F.J. Doyle III and N.A. Peppas, "Preparation and Characterization of Glucose-Sensitive P(MAA-g-EG) Hydrogels," *Polym. Mater. Sci. Eng. Proceed.*, *76*, 281-282 (1997).

611. A.S. Hoffman, G. Chen, X. Wu, Z. Ding, B. Kobra, K. Randeri, M. Schiller, E. Ron, N.A. Peppas and C. Brazel, "Graft Copolymers of PEO-PPO-PEO Triblock Polyethers on Bioadhesive Polymer Backbones for use as Drug Delivery Carriers," *Polym. Mater. Sci. Eng. Proceed., 76*, 271-272 (1997).

612. J.J. Sahlin and N.A. Peppas, "Monte Carlo Simulations of Grafted Chains at Interfaces," *J. Appl. Polym. Sci.*, *64*, 547-551 (1997).

613. B. Narasimhan and N.A. Peppas, "The Role of Modeling Studies in the Development of Future Controlled Release Devices", in K. Park, ed., *Controlled Drug Delivery: Challenges and Strategies*, 529-557, American Chemical Society, Washington, DC, 1997.

614. S.K. Mallapragada and N.A. Peppas, "Crystal Unfolding and Chain Disentanglement During Semicrystalline Polymer Dissolution," *AIChE J.*, *43*, 870-876 (1997).

615. M. Morishita, K. Takayama, T. Nagai, A.M. Lowman and N.A. Peppas, "Application of a pH-Responsive Polymer to an Insulin Oral Dosage Form," *Yakuzaigaku, 57 Suppl.*, 96-97 (1997), in Japanese.

616. J.J. Sahlin and N.A. Peppas, "Enhanced Hydrogel Adhesion by Polymer Interdiffusion: Use of Linear Poly(ethylene glycol) as an Adhesion Promoter," *J. Biomat. Sci., Polym. Ed., 8*, 421-436 (1997).

617. N.A. Peppas, "Swelling and Dissolution of the Macromolecular Structure of Bituminous Coals," *Polymer*, *38*, 3425-3427 (1997).

618. J.E. Dietz and N.A. Peppas, "Reaction Kinetics and Chemical Changes During Multifunctional (Meth)acrylate Polymerizations for Highly Crosslinked Information Storage Polymers," *Polymer*, *38*, 3767-3781 (1997).

619. M.T. am Ende and N.A. Peppas, "Transport of Ionizable Drugs and Proteins in Crosslinked Poly(acrylic acid) and Poly(acrylic acid-co-2-hydroxyethyl methacrylate) Hydrogels II. Diffusion and Release Studies, " *J. Controlled Release*, *48*, 47-56 (1997).

620. S.K. Mallapragada, N.A. Peppas and P. Colombo, "Crystal Dissolution-Controlled Release Systems. II. Metronidazole Release from Semicrystalline Poly(vinyl alcohol) Systems Prepared by Annealing," *J. Biomed. Mater. Res.*, *36*, 125-130 (1997).

621. N.A. Peppas, C.M. Hassan, K.B. Keys, A.M. Lowman, K. Podual and R. Scott, "Biomaterials for Developing Pharmaceutical Preparations of High Quality of Life," *Proceed. Conf. Pharm. Techn., 22*, 1-6 (1997).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 82 of 218

622. L.M. Schwarte and N.A. Peppas, "Preparation and Characterization of PEG-Containing pH-Sensitive, Cationic Hydrogels for Drug Delivery Applications," *Polym. Prepr., 38* (2) 596-597 (1997).
623. A.M. Lowman and N.A. Peppas, "Complexation Graft Copolymers as Oral Drug Delivery Systems," *Polym. Prepr., 38* (2), 566-567 (1997).
624. R.A. Scott and N.A. Peppas, "Novel Copolymeric Acrylate Networks for Sustained Solute Delivery," *Polym. Prepr., 38* (2), 580-581 (1997).
625. N.A. Peppas, "Hydrogels and Drug Delivery," *Curr. Opinion Coll. Interfac. Sci., 2*, 531-537 (1997).
626. N.A. Peppas and D. am Ende, "Controlled Release of Perfumes from Polymers. II. Incorporation and Release of Essential Oils from Glassy Polymers," *J. Appl. Polym. Sci., 66,* 509-513 (1997).
627. A.S. Hickey and N.A. Peppas, "Solute Diffusion in Poly(vinyl alcohol)/Poly(acrylic acid) Composite Membranes Prepared by Freezing/Thawing Techniques," *Polymer, 38,* 5931-5936 (1997).
628. A.M. Lowman and N.A. Peppas, "Analysis of the Complexation/Decomplexation Phenomena in Graft Copolymer Networks," *Macromolecules , 30*, 4959-4965 (1997).
629. C.M. Hassan, F.J. Doyle III and N.A. Peppas, "Dynamic Behavior of Glucose-Responsive Poly(methacrylic acid-g-ethylene glycol) Hydrogels," *Macromolecules, 30*, 6166-6173 (1997).
630. J.E. Dietz, B.A. Cowans, R.A. Scott, and N.A. Peppas, "Solid-state NMR Spectroscopy for Characterization of Acrylate Reactions," in A.B. Scranton, C.N. Bowman and R.W. Peiffer, eds., *Photopolymerization: Fundamentals and Applications*, ACS Symposium Series, Vol. 673, 28-34 ACS, Washington, D.C., 1997.
631. A.M. Lowman and N.A. Peppas, "Design of Oral Delivery Systems for Peptides and Proteins Using Complexation Graft Copolymer Networks," in N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, eds., *Biomaterials Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, 21-23, AIChE, New York, NY, 1997.
632. N.A. Peppas and B. Narasimhan, "Molecular and Release Characteristics of Dissolution-Controlled Drug Delivery Systems," in N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, eds., *Biomaterials Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, 147-149, AIChE, New York, NY, 1997.
633. K. Podual, F.J. Doyle and N.A. Peppas, "Glucose-Sensitive Cationic Hydrogels: Preparation Characterization and Modeling of Swelling Properties," in N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, eds., *Biomaterials Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, 190-192, AIChE, New York, NY, 1997.
634. N.A. Peppas and K. Kollias, "Analysis of Insulin Administration and Absorption from Ocular/Lacrimal/Nasal Systems with or without Enhancers," in N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, eds., *Biomaterials Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, 315-318, AIChE, New York, NY, 1997.
635. R.S. Parker, K.L. Rabinovitch, F.J. Doyle and N.A. Peppas, "Control Analysis of Pancreas Models for Optimal Insulin Delivery," in N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, eds., *Biomaterials Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, 319-321, AIChE, New York, NY, 1997.
636. N.A. Peppas and A.S. Hickey, "Protein and Drug Transport in PVA/PAA Composite Membranes Prepared by Freezing/Thawing Techniques," in N.A. Peppas, D.J. Mooney, A.G. Mikos and L. Brannon-Peppas, eds., *Biomaterials Carriers for Drug Delivery, and Scaffolds for Tissue Engineering*, 328-330, AIChE, New York, NY, 1997.
637. Y. Maitani, T. Nagai, K. Kollias and N.A. Peppas, Design of Ocular/Lacrimal and Nasal Systems Through Analysis of Drug Administration and Absorption," *J. Controlled Release, 49*, 185-192 (1997).
638. B. Narasimhan and N.A. Peppas, "Drug Delivery Systems Controlled by Polymer Carrier Dissolution: Formulation and Performance," *Trans. Soc. Biomater., 23*, 171 (1997).
639. A.M. Lowman and N.A. Peppas, "Pulsatile Drug Delivery Systems Based on Interpolymer Complexing Biopolymer Networks," *Trans. Soc. Biomater., 23*, 168 (1997).
640. N.A. Peppas, A.M. Lowman, C.S. Brazel and C.L. Bell-Huff, "Oral Drug Delivery Using Swellable and pH-Sensitive Systems," *Proceed. Greek CRS Confer., 1*, 45-49 (1997).
641. C.S. Brazel and N.A. Peppas, "Analysis of Swelling-Controlled Release Systems for Optimization of Drug Delivery," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 24*, 169-170 (1997).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 83 of 218

642. N.A. Peppas, B. Narasimhan, J.E.M. Snaar, R.W. Bowtell and C.D. Melia, "Magnetic Resonance Imaging Analysis of Soluble Drug Delivery Carriers," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 24*, 171-172 (1997).

643. R. Bettini, P. Colombo and N.A. Peppas, "Drug Concentration Profiles During Release from Hydrophilic Matrices," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 24*, 635-636 (1997).

644. N.A. Peppas, A.M. Lowman, M.D. Little and A. De Ascentiis, "Poly(ethylene glycol)-Tethered Controlled Release Systems with Improved Mucoadhesive Behavior: Preparation and Studies with ATR-FTIR Spectroscopy," *Drug Delivery System, 12*, 240 (1997).

645. P. Colombo, R. Bettini, P. Santi, and N.A. Peppas, "The Importance of Drug Diffusion Front in Drug Delivery Kinetics from Swellable Matrices," *Pharm. Res., 14*, S-532 (1997).

646. H.M.J. Boots, K.S. Anseth, D.L. Kurdikar and N.A. Peppas, "Network Formation by Chain Polymerization of a Liquid-Crystalline Monomer," in K. te Nijenhuis and W.J. Mijs, eds., *Chemical and Physical Networks: Formative and Control of Properties,* 377-385, Wiley, New York, N.Y. , 1998.

647. N.A. Peppas, "Diffusion in PVA Hydrogels," *J. Membr. Sci., 140*, 103-104 (1998).

648. N.A. Peppas, "Molecular Calculations of Poly(ethylene glycol) Transport Across a Swollen Poly(acrylic Acid)/Mucin Interface," *J. Biomater. Sci., Polym. Ed., 9*, 535-542 (1998).

649. R. Bettini, P.L. Catellani, N.A. Peppas and P. Colombo, "Interpretation of Drug Release Kinetics and Drug Concentration Profiles in HPMC Gels," *Proceed. World Meeting APGI/APV*, 2, 147-148 (1998).

650. P.L. Catellani, P. Colombo, N.A. Peppas, P. Santi, and R. Bettini, "Partial Permselective Coating Adds Osmotic Contribution to Drug Release from Swellable Matrices," *J. Pharm. Sci., 87*, 726-731 (1998).

651. N.A. Peppas and S.L. Wright, "Drug Dissolution and Binding in Ionizable Interpenetrating Networks from Poly(vinyl alcohol) and Poly(acrylic acid)," *Europ. J. Pharmac. and Biopharmac., 46*, 15-29 (1998).

652. A.M. Lowman, N.A. Peppas and B.A. Cowans, "Solid-state NMR Investigation of Interpolymer Complexation in Swollen Copolymer Networks," *Polym. Mater. Sci. Eng. Proceed., 79*, 465-466 (1998).

653. C.M. Hassan and N.A. Peppas, "Long-term Morphological Changes in Freeze-thawed PVA Hydrogels," *Polym. Mater. Sci. Eng. Proceed., 79*, 473-474 (1998).

654. J. Zhang and N.A. Peppas, "Structure and Solute Size Exclusion of Poly(N-isopropylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks," *Polym. Prepr., 39* (2), 228-229 (1998).

655. L.M. Schwarte and N.A. Peppas, "Novel Poly(ethylene glycol)-grafted Cationic Hydrogels: Preparation, Characterization and Diffusive Properties," *Polymer, 39*, 6057-6066 (1998).

656. N.A. Peppas and A.M. Lowman, "Protein Delivery from Novel Bioadhesive Complexation Hydrogels," S. Frøkjaer, L. Christrup and P. Krogsgaard-Larsen, eds., *Peptide and Protein Drug Delivery*, 206-216, Munksgaard, Copenhagen, 1998.

657. A.B. Argade and N.A. Peppas, "Poly(Acrylic Acid)/Poly(Vinyl Alcohol) Copolymers with Superabsorbent Properties," *J. Appl. Polym. Sci., 70*, 817-829 (1998).

658. J.E.M. Snaar, R. Bowtell, C.D. Melia, S. Morgan, B. Narasimhan and N.A. Peppas, "Self-diffusion and Molecular Mobility in PVA-Based Dissolution-Controlled Systems for Drug Delivery," *Magnetic Resonance Imaging, 16*, 691-694 (1998).

659. K.B. Keys, F.M. Andreopoulos and N.A. Peppas, "Poly(ethylene glycol) Star Polymer Hydrogels," *Macromolecules, 31*, 8149-8156 (1998).

660. C.M. Hassan, P. Trakarnpan and N.A. Peppas, "Water Solubility Characteristics of Poly(vinyl alcohol) and Gels Prepared by Freezing/Thawing Processes," in Z. Amjad, ed., *Water Soluble Polymers: Solution Properties and Applications,* 31-40, Plenum Press, New York, NY, 1998.

661. A.M. Lowman, N.A. Peppas, M. Morishita and T. Nagai, "Novel Bioadhesive Complexation Networks for Oral Protein Drug Delivery," in I. McCullouch and S. Shalaby, eds., *Tailored Polymeric Materials for Controlled Release Applications*, ACS Symposium Series, Vol. 709, 156-164, ACS, Washington, DC, 1998.

662. B. Narasimhan and N.A. Peppas, "Dissolution Mechanism of Glassy Polymers: A Molecular Analysis," in Structure and Properties of Glassy Polymers, M.R. Tant and A.J. Hill, eds., ACS Symposium Series, Vol. 710, 413-432, American Chemical Society, Washington, DC, 1998.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 84 of 218

663. B. Narasimhan and N.A. Peppas, "Dissolution Mechanism in Glassy Polymers: A Molecular Analysis," in "Glassy Polymers," M.R. Tant and A.J. Hill, eds., 413-432, ACS Symposium Series, ACS, Washington, DC, 1998.

664. A.M. Lowman and N.A. Peppas, "Novel Bioadhesive Complexation Gels for Oral Peptide Delivery," *Trans. Soc. Biomat., 24*, 144 (1998).

665. N.A. Peppas, A.M. Lowman, K.B. Keys and M. Torres-Lugo, "Poly(ethylene glycol)-containing Hydrogels in Drug Delivery," in Y. Sugiyama, M. Hashida, K. Takayama, D.D. Breimer and V.H.L. Lee, eds., *Challenges for Drug Delivery and Pharmaceutical Technology*, 33-34, Waseda University, Tokyo, 1998.

666. M. Morishita, A.M. Lowman, K. Takayama, N.A. Peppas and T. Nagai, "Application of pH-Responsive Polymers to Insulin Oral Dosage Forms," in Y. Sugiyama, M. Hashida, K. Takayama, D.D. Breimer and V.H.L. Lee, eds., *Challenges for Drug Delivery and Pharmaceutical Technology*, 140, Waseda University, Tokyo, 1998.

667. K. Nakamura, Y. Maitani, A.M. Lowman, K. Takayama, N.A. Peppas and T. Nagai, "Nasal Administration of Budesonide with pH-Sensitive and Bioadhesive Polymers in Rabbits," in Y. Sugiyama, M. Hashida, K. Takayama, D.D. Breimer and V.H.L. Lee, eds., *Challenges for Drug Delivery and Pharmaceutical Technology*, 162, Waseda University, Tokyo, 1998.

668. R. Bettini, N.A. Peppas, and P. Colombo, "Polymer Relaxation in Swellable Matrices Contributes to Drug Release," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 36-37 (1998).

669. C.M. Hassan and N.A. Peppas, "Pure PVA Hydrogels Using Freezing/Thawing Techniques as Carriers for Drug Delivery," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 50-51 (1998).

670. K. Podual, N.A. Peppas, and F.J. Doyle III, "Insulin Release from pH-Sensitive Cationic Hydrogels," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 56-57 (1998).

671. R.A. Scott and N.A. Peppas, "Molecular Design of Ionizable PEG-Containing Networks for Extended Solute Release," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 58-59 (1998).

672. A.M. Lowman and N.A. Peppas, "Drug Transport Analysis in Complex Networks Using Molecular Probes," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 244-245 (1998).

673. N.A. Peppas and B. Narasimhan, "Modelling of Controlled Release Systems for Consumer Products," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 306-307 (1998).

674. K.B. Keys and N.A. Peppas, "Synthesis and Characterization of Poly(ethylene glycol) Star Polymer Gels for Medical and Pharmaceutical Applications," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 868-869 (1998).

675. J. Zhang and N.A. Peppas, "Novel PNIPAAm/PMAA Interpenetrating Polymer Networks," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 25*, 870-871 (1998).

676. N.A. Peppas, "Macromolecules as Excipients," *Proceed. Intern. Pharm. Technol. Symp., 9*, 12-13 (1998).

677. N.A. Peppas, A. Foss, C.D. Hassan, H. Ichikawa, W. Leobandung, M. Torres-Lugo and J. Zhang, "Advances in Drug and Protein Delivery," *Proceed. Intern. Pharm. Stud. Feder., 1*, 1-2 (1998).

678. J. Siepmann, K. Podual, M. Sriwongjanya, N.A. Peppas and R. Bodmeier, "A New Model Describing the Swelling and Drug Release Kinetics from HPMC Tablets," *Pharm. Sci., 1*, S-43 (1998).

679. F. Madsen and N.A. Peppas, "Some Properties of Novel Multifunctional pH-Sensitive and Bioadhesive Polymers," *Pharm. Sci., 1*, S-59 (1998).

680. R.S. Parker, F.J. Doyle, III and N.A. Peppas, "A Model-based Algorithm for Blood Glucose Control in Type I Diabetic Patients," *IEEE Trans. Biomed. Eng., 46*, 148-157 (1999).

681. J. Siepmann, K. Podual, M. Sriwongjanya, N.A. Peppas and R. Bodmeier, "A New Model Describing the Swelling and Drug Release Kinetics from HPMC Tablets," *J. Pharm. Sci., 88*, 65-72 (1999).

682. N.A. Peppas, "Poly(N-isopropyl acrylamide)," in J.E. Mark, ed., *Polymer Data Handbook*, 625-626, Oxford University Press, New York, 1999.

683. N.A. Peppas, "Poly(2-hydroxy ethyl methacrylate)," in J.E. Mark, ed., *Polymer Data Handbook*, 598-599, Oxford University Press, New York, 1999.

684. B. Narasimhan, J.E.M. Snaar, R.W. Bowtell, C.D. Melia, and N.A. Peppas, "NMR Imaging Analysis of Molecular Mobility During Dissolution of PVA in Water," *Macromolecules, 32*, 704-710 (1999).

685. C.S. Brazel and N.A. Peppas, "Mechanisms of Solute and Drug Transport in Relaxing, Swellable, Hydrophilic Glassy Polymers," *Polymer , 40*, 3383-3398 (1999).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 85 of 218

686. W. Leobandung, G. McLennan, N. Patel, K.P. Moresco and N.A. Peppas, "The Characterization of P(PEGMA-co-PEGDMA) Gels for Use in Coating the Tract of a Transjugular Intrahepatic Porto-systemic Shunt," *Polym. Prepr., 40* (1), 337-338 (1999).
687. P. Bures and N.A. Peppas, "Structural and Morphological Characteristics of Carriers Based on Poly(acrylic acid)," *Polym. Prepr., 40* (1), 345-346 (1999).
688. H. Ichikawa and N.A. Peppas, "pH-Dependent Swelling of Nano-sized Poly(methacrylic acid-g-ethylene glycol) Gels," *Polym. Prepr., 40* (1), 363-364 (1999).
689. L.M. Schwarte, K. Podual and N.A. Peppas, "Cationic Hydrogels for Controlled Release of Proteins and Other Macromolecules" in I. McCulloch and S.W. Shalaby, eds., *Tailored Polymeric Materials for Controlled Delivery Systems,* ACS Symposium Series, Vol. 709, 56-66, ACS, Washington, DC, 1999.
690. R.A. Scott and N.A. Peppas, "Novel Ionogenic Acrylate Copolymer Networks for Sustained Solute Delivery," in I. McCulloch and S.W. Shalaby, eds., *Tailored Polymeric Materials for Controlled Delivery Systems*, ACS Symposium Series, Vol. 709, 129-142, ACS, Washington, DC, 1999.
691. A.M. Lowman, N.A. Peppas, M. Morishita and T. Nagai, "Novel Bioadhesive Complexation Networks for Oral Protein Drug Delivery," in I. McCulloch and S.W. Shalaby, eds., Tailored Polymeric Materials for Controlled Delivery Systems, ACS Symposium Series, Vol. 709, 156-164, ACS, Washington, DC, 1999.
692. C.S. Brazel and N.A. Peppas, "Dimensionless Analysis of Swelling of Hydrophilic Glassy Polymers with Subsequent Drug Release from Relaxing Structures," *Biomaterials*, 20, 721-732 (1999).
693. C.M. Hassan and N.A. Peppas, "Novel Ethylene Glycol-Containing, pH-Sensitive Hydrogels for Drug Delivery Applications: "Molecular Gates" for Insulin Delivery," in S.M. Dinh, J.D. DeNuzzio, A.R. Comfort, eds., *Intelligent Materials for Controlled Release*, ACS Symposium Series, Vol.728, 54-69, ACS, Washington, DC, 1999.
694. A.M. Lowman and N.A. Peppas, "Pulsatile Drug Delivery Based on a Complexation/Decomplexation Mechanism," in S.M. Dinh, J.D. DeNuzzio, and A.R. Comfort, eds., *Intelligent Materials for Controlled Release,* ACS Symposium Series, Vol.728, 30-42, ACS, Washington, DC, 1999.
695. R.A. Scott and N.A. Peppas, "Highly Crosslinked, PEG-Containing Copolymers for Sustained Solute Delivery," *Biomaterials*, *20*, 1371-1380 (1999).
696. A.M. Lowman and N.A. Peppas, "Hydrogels," in "Encyclopedia of Controlled Drug Delivery," E. Mathiowitz, ed., 397-418, Wiley, New York, NY, 1999.
697. B. Narasimhan, S.K. Mallapragada and N.A. Peppas, "Release Kinetics: Data Interpretation," in "Encyclopedia of Controlled Drug Delivery," E. Mathiowitz, ed., 921-935, Wiley, New York, NY, (1999).
698. J. Zhang and N.A. Peppas, "Interpenetrating Polymeric Networks with pH and Temperature Sensitivity," *Polym. Prepr., 40* (2), 201-202 (1999).
699. J.H. Ward and N.A. Peppas, "Kinetic Gelation Modeling of Polymer Networks Formed by a Living Radical Polymerization," *Polym. Prepr., 40* (2), 364-365 (1999).
700. N.A. Peppas, K.B. Keys, M. Torres-Lugo and A.M. Lowman, "Poly(ethylene glycol)-containing Hydrogels in Drug Delivery," *J. Controlled Release*, *62*, 81-87(1999).
701. R.A. Scott, B.A. Cowans and N.A. Peppas, "NMR Spectroscopy and Free Volume Analysis of the Effects of Copolymer Composition on the Swelling Kinetics and Chain Dynamics of Highly Crosslinked Copolymers of Acrylic Acid and PEG-Containing Multiacrylates," *J. Polym. Sci., Polym. Phys., 37*, 1953-1968 (1999).
702. A.M. Lowman, M. Morishita, M. Kajita, T. Nagai and N.A. Peppas, "Oral Delivery of Insulin Using pH-Responsive Complexation Gels," *J. Pharm. Sci.*, *88*, 933-937 (1999).
703. K. Nakamura, Y. Maitani, A.M. Lowman, K. Takayama, N.A. Peppas and T. Nagai, "Uptake and Release of Budesonide from Mucoadhesive, pH-Sensitive Copolymers and their Application to Nasal Delivery," *J. Controlled Release*, *61*, 329-335 (1999).
704. F. Madsen and N.A. Peppas, "Complexation Graft Copolymer Networks: Swelling Properties Calcium Binding and Proteolytic Enzyme Inhibition," *Biomaterials, 20*, 1701-1708 (1999).
705. P. Colombo, R. Bettini and N.A. Peppas, "Observation of Swelling Process and Diffusion Front Position During Swelling in HPMC Matrices Containing a Soluble Drug," *J. Controlled Release, 61*, 83-91 (1999).
706. M. Torres-Lugo and N.A. Peppas, "Molecular Design and in vitro Studies of Novel pH-Sensitive Hydrogels for the Oral Delivery of Calcitonin," *Macromolecules*, *32*, 6646-6651 (1999).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 86 of 218

707. N.A. Peppas, M. Torres-Lugo, J. Pacheco-Gomez, A. Foss, Y. Huang, H. Ichikawa and W. Leobandung, "Intelligent Hydrogels and their Biotechnological and Separation Applications," *Farm. Vestn., 50*, 265-266 (1999).
708. N.A. Peppas, "Biomaterials Intelligenti e Metodi Avanzati per il Pilascio di Farmaci," 20 pages, University of Parma, Parma, Italy, 1999.
709. P. Colombo, R. Bettini, P.L. Catellani and N.A. Peppas, "Drug Volume Fraction Profile in the Gel Phase and Drug Release Kinetics in HPMC Matrices Containing a Solute Drug," *Europ. J. Pharm. Sci., 9*, 33-40 (1999).
710. A.M. Lowman and N.A. Peppas, "Solute Transport Analysis in pH-Responsive, Complexing Hydrogels of Poly(Methacrylic Acid-g-Ethylene Glycol)," *J. Biomat. Sci., Polym. Ed., 10,* 999-1009 (1999).
711. J. Siepmann, H. Kranz, R. Bodmeier and N.A. Peppas, "HPMC Matrices for Controlled Drug Delivery: A New Model Combining Diffusion, Swelling and Dissolution Mechanisms and Predicting the Release Kinetics," *Pharm. Res., 16*, 1748-1756 (1999).
712. H. Ichikawa and N.A. Peppas, "Development of Nano-sized pH-sensitive Complex Hydrogles for Oral Peptide Delivery," *Syuuki Kennkyuu Happyoukai Kouen Ronbunshu, 2*, 189-193 (1999), in Japanese.
713. C.S. Brazel and N.A. Peppas, "Recent Studies and Molecular Analysis of Drug Release from Swelling Controlled Devices," *STP Pharma, 9*, 473-485 (1999).
714. M.T. am Ende and N.A. Peppas, "FTIR Spectroscopic Investigation and Modeling of Solute/Polymer Interaction in the Hydrated State," *J. Biomater. Sci. Polym. Ed., 10,* 1289-1302 (1999).
715. R.A. Scott and N.A. Peppas, "Kinetics of Copolymerization of PEG-Containing Multiacrylates with Acrylic Acid," *Macromolecules, 32*, 6149-6158 (1999).
716. R.A. Scott and N.A. Peppas, "Compositional Effects on Network Structure of Highly Crosslinked Copolymers of PEG-Containing Multiacrylates with Acrylic Acid," *Macromolecules, 32*, 6139-6148 (1999).
717. N.A. Peppas, P. Bures, A. Foss, Y. Huang and W. Leobandung, "Molecular Aspects of Muco- and Bioadhesion: Tethered Structures and Site-Specific Surfaces," *Proceed. Intern. Symp. Recent Adv. Drug Deliv. Sys., 9*, 31-34 (1999).
718. A.M. Lowman, M. Morishita, T. Nagai and N.A. Peppas, "Targeted Oral Delivery of Insulin from Complexation Hydrogels," *Trans. Soc. Biomater., 25*, 319 (1999).
719. T.D. Dziubla, N.A. Peppas and A.M. Lowman, "Tailor-made Networks of Poly(ethylene glycol) for Controlled Drug Delivery," *Proceed. Int. Symp. Control. Rel. Bioact. Mater., 26*, 539-540 (1999).
720. A.C. Foss, R.A. McClay and N.A. Peppas, "P(AA-g-PEG) Copolymer Gels as Carriers for Delivery of Chemotherapeutic Agents," *Proceed. Int. Symp. Control. Rel. Bioact. Mater., 26,* 927-928 (1999).
721. J. Siepmann, H. Kranz, N.A. Peppas and R. Bodmeier, "A New Model Elucidating the Transport Mechanisms and Predicting the Release Kinetics from HPMC Matrices," *Proceed. Int. Symp. Control. Rel. Bioact. Mater., 26,* 994-955 (1999).
722. J.E. Stewart, C.M. Hassan and N.A. Peppas, "Protein Release from PVA Gels Prepared by Freezing and Thawing Techniques," *Proceed. Int. Symp. Control. Rel. Bioact. Mater., 26,* 1004-1005 (1999).
723. C.D. Hassan and N.A. Peppas, "Analysis of Diffusional and Structural Characteristics and PVA Hydrogels Prepared by Freezing-Thawing Techniques," *AAPS Pharm. Sci.*, S-92 (1999).
724. Y. Huang and N.A. Peppas, "Poly(ethylene glycol Tehtered Chains and Their Role in Gel Mucoadhesion," *AAPS Pharm. Sci.*, S-386 (1999).
725. A. Foss and N.A. Peppas, "Molecular Structure and Diffusive Behavior of Poly(ethylene glycol)-Grafted Poly(acrylic acid) Hydrogels as Drug Cariers," *AAPS Pharm. Sci.*, S-435 (1999).
726. A.M. Lowman and N.A. Peppas, "Molecular Analysis of Interpolymer Complexation in Graft Copolymer Networks," *Polymer, 41*, 73-80 (2000).
727. C.S. Brazel and N.A. Peppas, "Modelling of Drug Release from Swellable Polymers," *Europ. J. Pharm. Biopharm., 49*, 47-58 (2000).
728. J. Zhang and N.A. Peppas, "Synthesis and Characterization of pH- and Temperature-Sensitive PMAA/PNIPAm Interpenetrating Polymer Networks," *Macromolecules, 33*, 102-107 (2000).
729. C.M. Hassan, J.E. Stewart and N.A. Peppas, "Diffusional Characteristics of Freeze/Thawed PVA Hydrogels: Applications to Protein Controlled Release from Multilaminate Devices," *Europ. J. Pharm. Biopharm., 49*, 161-166 (2000).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 87 of 218

730. N.A. Peppas, "Intelligent Hydrogels and their Biotechnological and Separation Applications," in G. Güven "Radiation Synthesis of Intelligent Hydrogels and Membranes for Separation Purposes," 1-14, IAEA, Vienna, 2000.
731. K. Podual, F.J. Doyle, III, and N.A. Peppas, "Preparation and Characterization of the Dynamic Response of Cationic Copolymer Hydrogels Containing Glucose Oxidase," *Polymer*, *41*, 3975-3983 (2000).
732. Y. Huang, W. Leobandung, A. Foss and N.A. Peppas, "Molecular Aspects of Muco- and Bioadhesion: Tethered Structures and Site-Specific Surfaces," *J. Controlled Release*, *65*, 63-71 (2000).
733. C.M. Hassan and N.A. Peppas, "Cellular Freeze/Thawed PVA Hydrogels," *J. Appl. Polym. Sci., 76,* 2075-2079 (2000).
734. N.A. Peppas, H. Ichikawa and M. Torres-Lugo, "Cytotoxicity and Transport Enhancement of Proteins Through Cell Monolayers Using Novel pH-Sensitive Hydrogels," *Proceed. World Meeting APV/APGI, 3*, 201-202 (2000).
735. J. Siepmann, H. Kranz, N.A. Peppas and R. Bodmeier, "Calculations of the Required Size and Shape of HPMC Matrices to Achieve Desired Drug Release Profiles," *Proceed. World Meeting APV/APGI, 3*, 203-204 (2000).
736. N.A. Peppas, E. Oral and J.H. Ward, "Micropatterning and Molecular Imprinting for Medical Applications," *Proceed. Europ. Symp. Controlled Drug Delivery, 6*, 21-22 (2000).
737. K. Podual, F.J. Doyle, III, and N.A. Peppas, "Glucose-sensitivity of Glucose Oxidase-containing Cationic Copolymer Hydrogels Having Poly(ethylene glycol) Grafts," *J. Controlled Release*, *67*, 9-17 (2000).
738. M. Torres-Lugo and N.A. Peppas, "Transmucosal Delivery Systems for Calcitonin: A Review," *Biomaterials*, *21*, 1191-1196 (2000).
739. C.M. Hassan and N.A. Peppas, "Structure and Morphology of Freeze/Thawed PVA Hydrogels," *Macromolecules*, *33*, 2472-2479 (2000).
740. N.A. Peppas, H. Ichikawa and M. Torres-Lugo, "Cytotoxicity and Transport Enhancement of Proteins Through Cell Monolayers Using Novel pH-Sensitive Hydrogels," *Proceed. World Meeting APV/APGI, 3*, 201-202 (2000).
741. N.A. Peppas, P. Bures, W. Leobandung and H. Ichikawa, "Hydrogels in Pharmaceutical Formulations," *Eur. J. Pharm. Biopharm.,50,* 27-46 (2000).
742. K. Podual, F.J. Doyle, III, and N.A. Peppas, "Dynamic Behavior of Glucose-Oxidase-containing Microparticles of Poly(ethylene glycol)-grafted Cationic Hydrogels in an Environment of Changing pH," *Biomaterials*, *21*, 1439-1450 (2000).
743. C.M. Hassan, J.H. Ward and N.A. Peppas, "Modeling of Crystal Dissolution of Poly(vinyl alcohol) Gels Produced by Freezing/Thawing Processes," *Polymer*, *41*, 6729-6739 (2000).
744. P. Colombo, R. Bettini and N.A. Peppas, "Swelling Matrices for Controlled Drug Delivery: Gel Layer Behavior, Mechanisms and Optimal Performance," *Pharm. Sci. Techn. Today*, *3*, 198-204 (2000).
745. J. Siepmann, H. Kranz, N.A. Peppas and R. Bodmeier, "Calculation of the Required Size and Shape of HPMC Matrices to Achieve Desired Drug Release Profiles," *Intern. J. Pharm. 201,* 151-164 (2000).
746. E. Oral and N.A. Peppas, "Molecularly Imprinted Hydrogels with Polyfunctional Methacrylates," in "Molecularly Imprinted Polymer Science and Technology," K.R. Brain and C.J. Alexander, eds., 36, STS Publishing, Cardiff, 2000.
747. M.E. Byrne, K. Park and N.A. Peppas, "Non-Covalent Molecular Imprinting of Glucose: Recognition in Aqueous Media," in "Molecularly Imprinted Polymer Science and Technology," K.R. Brain and C.J. Alexander, eds., 111, STS Publishing, Cardiff, 2000.
748. J.H. Ward and N.A. Peppas, "Kinetic Gelation Modeling of Controlled Radical Polymerization," *Macromolecules*, *33*, 5137-5142 (2000).
749. J.H. Ward, R. Gomez, R. Bashir and N.A. Peppas, "UV Free-Radical Polymerization for Micropatterning Poly(ethylene glycol)-Containing Films," *Proceed. SPIE, 4097,* 221-228 (2000).
750. C.M. Hassan and N.A. Peppas, "Structure and Applications of Poly(vinyl alcohol) Hydrogels Produced by Conventional Crosslinking or by Freezing/Thawing Methods," *Adv. Polym. Sci.*, *153*, 37-65 (2000).
751. N.A. Peppas and J. Zhang, "Diffusional Behavior in pH- and Temperature Sensitive Interpenetrating Polymeric Networks Used in Drug Delivery," in "Biomaterials and Drug Delivery Systems Towards

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 88 of 218

the New Millenium," K.D. Park, I.C. Kwon, N. Yui, S.Y.Jeong and K. Park, eds., 87-96, Seoul, Korea, 2000.

752. P. Bures and N.A. Peppas, "Molecular Dynamics of pH-Sensitive Hydrogels Based on PAA," *Polym. Mater. Sci. Eng. Proceed., 83*, 506-507 (2000).

753. E. Oral and N.A. Peppas, "Molecular Imprinting in Biological Systems," *STP Pharma*, 10, 261-267 (2000).

754. A.M. Lowman, B.A. Cowans and N.A. Peppas, "Investigation of Interpolymer Complexation in Swollen Polyelectroyte Networks by Solid State NMR Spectroscopy," *J. Polym. Sci., Polym. Phys, 38,* 2823-2831 (2000).

755. E. Oral and N.A. Peppas, "Molecularly Imprinted Polyfunctional Methacrylates for Drug Delivery Applications," *Proceed. Intern. Pharm. Technol. Symp., 10*, 59-60 (2000).

756. R. Scott, J.H. Ward and N.A. Peppas, "Development of Acrylate and Methacrylate Polymer Networks for Controlled Release by Photopolymerization Technology," in "Handbook of Pharmaceutical Controlled Release Technology," D.L. Wise, L. Brannon-Peppas, A.M. Klibanov, R. Langer, A.G. Mikos, N.A. Peppas, D.J. Trantolo, G.E. Wnek, and M.J. Yaszemski, eds., 47-64, Dekker, New York, NY, 2000.

757. P. Colombo, P. Santi, N.A. Peppas and R. Bettini, "Drug Release from Swelling Controlled Systems," in "Handbook of Pharmaceutical Controlled Release Technology," D.L. Wise, L. Brannon-Peppas, A.M. Klibanov, R.L. Langer, A.G. Mikos, N.A. Peppas, D.J. Trantolo, G.E. Wnek, and M.J. Yaszemski, eds.,183-209, Dekker, New York, NY, 2000.

758. N.A. Peppas, M.D. Little and Y. Huang, "Bioadhesive Controlled Release Systems," in "Handbook of Pharmaceutical Controlled Release Technology," D.L. Wise, L. Brannon-Peppas, A.M. Klibanov, R.L. Langer, A.G. Mikos, N.A. Peppas, D.J. Trantolo, G.E. Wnek, and M.J. Yaszemski, eds., 255-269, Dekker, New York, NY, 2000

759. N.A. Peppas, Y. Huang, M. Torres-Lugo, J.H. Ward and J. Zhang, "Physicochemical Foundations and Structural Design of Hydrogels in Medicine and Biology," *Ann Revs. Biomed. Eng., 2*, 9-29 (2000).

760. R.S. Parker, J.H. Ward, F.J. Doyle III and N.A. Peppas, "Robust Control in Diabetes Using a Physiological Model," *AIChE J. 46*, 2537-2549 (2000).

761. A. Streubel, J. Siepmann, N.A. Peppas and R. Bodmeier, "Bimodal Drug Release Achieved with Multilayer Matrix Tablets: Transport Mechanisms and Device Design," *J. Controlled Release, 69*, 455-468 (2000).

762. N.A. Peppas, "Design of Advanced Biomaterials and Drug Delivery Carriers," *Trans. World Biomater. Congress, 6*, 544 (2000).

763. M. Torres-Lugo, H. Ichikawa and N.A. Peppas, "Calcitonin Transport Through Poly(methacrylic acid-PEG-Grafted Hydrogels Using a CaCo-2 Cell Model," *Trans. World Biomater. Congress, 6*, 679 (2000).

764. E. Oral and N.A. Peppas, "Patterning and Molecular Imprinting with Polyfunctional Methacrylates," *Trans. World Biomat. Congress, 6*, 782 (2000).

765. J. Siepmann and N.A. Peppas: "A New Mathematical Model to Predict Drug Release from Hydrophilic Matrices: The "Sequential Layers" Model"," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 27,* 55-56 (2000).

766. N.A. Peppas: "Molecular Design of New Bioamterials for Controlled Release," *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 27,* 133-134 (2000).

767. P. Bures and N.A. Peppas: "A New Dispersion Technique for Micro- and Nanoparticle Formation of Drug Delivery Carriers Based on Poly(acrylic acid)," *Proceed. Intern. Symp. Rel. Bioact. Mater., 27,* 1102-1103 (2000).

768. Y. Huang, I. Szleifer and N.A. Peppas, "New Biomedical Gel Materials with Tethered Chains: Theory and Biological Interactions," *Proceed. China/USA Chem. Eng. Conf., 3*, 08079-08080, (2000).

769. B. Kim and N.A. Peppas, "Poly(ethylene glycol)-containing Hydrogels as Insulin Delivery Carriers," *AAPS Pharm. Sci.*, S-2394 (2000).

770. P. Bures and N.A. Peppas, "pH-Sensitive Drug Delivery Carriers Based on Modified Poly(acrylic acid), *AAPS Pharm. Sci.*, S-2395 (2000).

771. E. Oral and N.A. Peppas, "Recognition Mechanisms of Molecularly Imprinted Polymers: Smart Systems for Drug Delivery," *AAPS Pharm. Sci.*, S-2401 (2000).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 89 of 218

772. M.E. Byrne, K. Park and N.A. Peppas, "Non-covalent Molecular Imprinting of Glucose in Polar Protic Media," *AAPS Pharm. Sci.*, S-2404 (2000).
773. C. Donini, D.N. Robinson and N.A. Peppas, "Preparation and Characterization of pH-Sensitive Poly(methacrylic acid-g-Ethylene Glycol) Microspheres for Oral Insulin Delivery," *AAPS Pharm. Sci.*, S-3104 (2000).
774. J. Siepmann, A. Streubel, N.A. Peppas and R. Bodmeier, "Drug Release Mechanisms from HPMC Matrices," *AAPS Pharm. Sci.*, S-3132 (2000).
775. H. Ichikawa, M. Torres-Lugo and N.A. Peppas, "Novel pH-Sensitive Hydrogels for Oral Peptide Delivery: In Vitro Evaluation of their Cytocompatibility and Insulin-Transport Enhancing Effect in Caco-2 cell Monolayers," *AAPS Pharm. Sci.*, S-3287 (2000).
776. A.C. Foss and N.A. Peppas," Development and Cytotoxicity of Poly(methacrylic acid-g-Poly(ethylene glycol)) Microparticles for Use as Drug Carriers in Oral Delivery," *AAPS Pharm. Sci.*, S-3290 (2000).
777. W. Leobandung, H. Ichikawa, Y. Fukumori and N.A. Peppas, "Preparation of Thermosensitive Hydrogel Nanoparticles Containing Poly(ethylene glycol) for Microencapsulation of Peptides in the Wurster Coating Process," *AAPS Pharm. Sci.*, S-3358 (2000).
778. J.E. Witman, C.M. Hassan and N.A. Peppas, "Multilaminate PVA Hydrogel Systems as Protein Controlled Release Devices," *AAPS Pharm. Sci.*, S-4050 (2000).
779. R. Bettini, A. Arduini, P. Catellani, G. Massimo, N.A. Peppas and P. Colombo, "Drug Volume Fraction Profiles in HPMC Matrices by Image Analysis," *AAPS Pharm. Sci.*, S-4052 (2000).
780. Y. Huang, N.V. Efremova, D.E. Leckband, and N.A. Peppas, "The Use of Self-Assembled Monolayers to Study Mucoadhesio," *AAPS Pharm. Sci.*, S-4072 (2000).
781. R.S. Parker, F.J. Doyle III, and N.A. Peppas, "The Intravenous Route to Blood Glucose Control," *IEEE Eng. Med. Biol. Mag. 20*, 65-73 (2001).
782. J.H. Ward and N.A. Peppas, "Preparation of Controlled Release Systems by Free-radical UV Polymerizations in the Presence of a Drug," *J. Controlled Release*, *71*, 183-192 (2001).
783. Y. Huang, I. Szleifer and N.A. Peppas, "Gel-Gel Adhesion by Tethered Polymers," *J. Chem. Phys.*, *114*, 3809-3816 (2001).
784. R. Bettini, P.L. Catellani, P. Santi, G. Massimo, N.A. Peppas and P. Colombo, "Translocation of Drug Particles in HPMC Matrix Gel Layer: Effect of Drug Solubility and Influence on Release Rate," *J. Controlled Release*, *70*, 383-391 (2001).
785. J. Siepmann and N.A. Peppas, "Modeling of Drug Release from Delivery Systems Based on Hydroxypropyl Methylcellulose (HPMC)," *Adv. Drug Deliv. Revs.*, *48*, 139-157 (2001).
786. J. Siepmann and N.A. Peppas, "Mathematical Modeling of Controlled Drug Delivery," *Adv. Drug Deliv. Revs.*, *48*, 137-138 (2001).
787. P. Bures, Y. Huang, E. Oral and N.A. Peppas, "Surface Modifications and Molecular Imprinting of Polymers in Medical and Pharmaceutical Applications," *J. Contr. Rel.*, *72*, 25-33 (2001).
788. J.H. Ward, R. Bashir, and N.A. Peppas, "Micropatterning of Biomedical Polymer Surfaces by Novel UV Polymerization Techniques," *J. Biomed. Mat. Res.*, *56*, 351-360 (2001).
789. J. Zhang and N.A. Peppas, "Structure and Solute Size Exclusion of Poly(methacrylic acid)/Poly(N-isopropyl acrylamide) Interpenetrating Polymeric Networks," in "Polymeric Drugs and Drug Delivery Systems," R.M. Ottenbrite and S.W. Kim, eds., 157-168 Technomic, Lancaster, PA, 2001.
790. B.S. Kim and N.A. Peppas, "New Glucose-Containing Poly(methacrylic acid-g-ethylene glycol) Hydrogels", *Polym. Mater. Sci. Engin. Proceed.*, *85*, 587-588 (2001).
791. A.C. Foss and N.A. Peppas, "Acrylic-Based Copolymers for Oral Insulin Delivery Systems," *Polym. Prepr.*, *42(2)*, 94-95 (2001).
792. E. Oral and N.A. Peppas, "Macroscopic and Microscopic Investigations of 2-Hydroxyethyl Methacrylate Based Molecularly Imprinted Networks," *Polym. Prepr.*, *42(2)*, 111-112 (2001).
793. J. Zhang and N.A. Peppas, "Molecular Interactions in Poly(methacrylic acid)/Poly(N-isopropyl acrylamide) Interpenetrating Polymeric Networks," *J. Appl. Polym. Sci.*, *82*, 1077-1082 (2001).
794. J. Kristl, S. Baumgartner and N.A. Peppas, "Molecular Characterization of the Network Structure of Swollen Cellulose Ethers Used for Controlled Release," *Scientia Pharmac.*, *69*, 202-203 (2001).
795. N.A. Peppas, "Gels for Drug Delivery," in "Encyclopedia of Materials: Science and Technology," 3492-3495, Elsevier, Amsterdam, 2001.
796. N.A. Peppas and L. Brannon-Peppas, "Drug Delivery Biomaterials," in "Encyclopedia of Materials: Science and Technology," 2351-2355, Elsevier, Amsterdam, 2001.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 90 of 218

797. S.F. Badylak, K. Park, N.A. Peppas, G. McCabe, M. Yoder, "Marrow-Derived Cells Populate Scaffolds Composed of Xenogenic Extracellular Matrix," *Experim. Hematology*, *29*, 1310-1318 (2001).

798. N.A. Peppas, B.S. Kim, C. Donini, O. Sipahigil and W. Leobandung, "Stimuli-sensitive Polymers for Oral and Parenteral Administration," in "New Trends in Polymers for Oral and Parenteral Administration: From Design to Receptors," G. Barratt, D. Duchêne, F. Fattal and J.Y. Legendre, eds., 32-41, Editions de Santé, Paris, 2001.

799. H. Ichikawa and N. A. Peppas, "Synthesis and Characterization of pH-Responsive Nanosized Hydrogels of Poly(methacrylic acid-g-ethylene glycol) for Oral Peptide Delivery," in "New Trends in Polymers for Oral and Parenteral Administration: From Design to Receptors," G. Barratt, D. Duchêne, F. Fattal and J.Y. Legendre, eds., 261-264, Editions de Santé, Paris, 2001.

800. M. Garcia, M. Torres-Lugo, M. J. Alonso and N. A. Peppas, "Biointeractions of pH-Sensitive Poly(methacrylic acid-g-ethylene glycol) Hydrogel Microspheres with the Caco-2 Model Cell Line," in "New Trends in Polymers for Oral and Parenteral Administration: From Design to Receptors," G. Barratt, D. Duchêne, F. Fattal and J.Y. Legendre, eds., 386-389, Editions de Santé, Paris, 2001.

801. R.A. Scott and N.A. Peppas, "Compositional Dependence of Copolymerization Kinetics in an Intraocular Lens Formulation," *Trans. Soc. Biomater.*, *27*, 230 (2001).

802. T.D. Dziubla, A.M. Lowman and N.A. Peppas, "Evaluation of Poly(ethylene glycol)-Based Copolymers for Contact Lenses," *Trans. Soc. Biomater.*, *27*, 232 (2001).

803. N.A. Peppas, "Teaching of Biomaterials Science and Engineering in a Modern Engineering Curriculum," *Trans. Soc. Biomater.*, *27*, 67 (2001).

804. S. Baumgartner, J. Kristl and N.A. Peppas, "Study of the Network Structure of Swollen Cellulose Derivatives Used in Pharmaceutical Applications," *Proceed. Intern. Symp. Controlled Release Bioact. Mater.*, *28*, 692-693 (2001).

805. T. Azzam, N.A. Peppas, W. Leobandung, K.B. Keys and A.J. Domb, "Length and Breadth Polyrotaxane Structures: A New Concept in Three Dimensional Polymeric Systems for Biomedical Applications," *Proceed. Intern. Symp. Polym. Advanced Techn.*, *6*, 186 (2001).

806. N.A. Peppas, M. Byrne, E. Oral and D. Henthorn, "UV-Free Radical Polymerizations for Micropatterning and Microimprinting of Poly(ethylene glycol)-Containing Films," *Proceed. Intern. Symp. Polym. Advanced Techn.*, *6*, 44 (2001).

807. J. Siepmann, A. Streubel, R. Bodmeier, and N.A. Peppas, "The Sequential Layer Model Quantifying Drug Release from Hydrophilic Matrix Tablets:Experimental Verification", *AAPS Pharm. Sci.*, 3 (2001).

808. M. Byrne, K. Park and N.A. Peppas, "Molecular Imprinting within Hydrogels," *Adv. Drug Deliv. Revs.*, *54*, 149-161 (2002).

809. J.H. Ward, A. Shahar, and N.A. Peppas, "Kinetics of "Living" Radical Polymerizations of Multifunctional Monomers," *Polymer*, *43*, 1745-1752 (2002).

810. Y. Huang, N. Efremova, N.A. Peppas and D.E. Leckband, "Direct Measurement of Interations Between Tethered PEG Chains and Adsorbed Mucin Layers," *Langmuir*, *18*, 836-845 (2002).

811. Y. Huang, I. Szleifer and N.A. Peppas, "A Molecular Theory of Polymer Gels," *Macromolecules*, *35*, 1373-1380 (2002).

812. J. Siepmann, A. Streubel, and N.A. Peppas, "Understanding and Predicting Drug Delivery from Hydrophilic Matrix Tablets: Using the Sequential Layer Model," *Pharm. Res.*, *19*, 306-314 (2002).

813. L. Brannon-Peppas and N.A. Peppas, "Polymer Science of Controlled Release Systems," in "Controlled Release Systems," A.Z. Gürsoy, ed., 21-40, KSSD, Istanbul, 2002.

814. M.E. Byrne, D.B. Henthorn, Y. Huang and N.A. Peppas, "Micropatterning Biomimetic Materials for Bioadhesion and Drug Delivery," in "Biomimetic Materials and Design: Biointerfacial Strategies, Tissue Engineering and Targeted Drug Delivery", A.K. Dillow and A. Lowman, eds., 443-470 Dekker, New York, NY, (2002).

815. M. Morishita, A.M. Lowman, K. Takayama, T. Nagai and N.A. Peppas, "Elucidation of the Mechanism of Incorporation of Insulin in Controlled Release Systems Based on Complexation Polymers," *J. Controlled Release*, *81*, 25-32 (2002).

816. N.A. Peppas and Y. Huang, "Polymers and Gels as Molecular Recognition Agents," *Pharmac. Res.*, *19*, 578-587 (2002).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 91 of 218

817. M. Torres-Lugo, M. Garcia, R. Record and N.A. Peppas, "Physicochemical Behavior and Cytotoxic Effects of P(MAA-g-EG) Nanospheres for Oral Delivery of Proteins," *J. Controlled Release*, *80*, 197-205 (2002).
818. W. Leobandung, H. Ichikawa, Y. Fukumori and N.A. Peppas, "Preparation of Stable Insulin-loaded Nanospheres of Poly(ethylene glycol) Macromers and N-isopropyl Acrylamide," *J. Controlled Release*, *80*, 357-363 (2002).
819. E. Oral and N.A. Peppas, "Molecular Imprinting with Small Molecules: Effects on Polymerization, Material and Imprinting Properties," *Polym. Prepr.*, *43(2)*, 393-394 (2002).
820. M. Torres-Lugo, M. García, R. Record and N.A. Peppas, "pH-Sensitive Hydrogels as Gastrointestinal Tract Absorption Enhancers: Transport Mechanisms of Salmon Calcitonin and Other Model Molecules using the Caco-2 Cell Model," *Biotechnology Progress*, *18*, 612-616 (2002).
821. N.A. Peppas, "Advances in Oral Protein Delivery," *Proceed. World Meeting APGI/APV*, *4*, 1-2 (2002).
822. C. Donini, F. Giordano, P. Colombo and N.A. Peppas, "Characterization and Optimization of P(MAA-g-EG) Insulin-Loaded Nanospheres," *Proceed. World Meeting APGI/APV*, *4*, 695-696 (2002).
823. H. Ichikawa, Y. Yamasaki, N.A. Peppas, and Y. Fukumori, "Novel Core-Shell Nanoparticles with Thermo- and pH-Responsive Swelling Properties for Oral Peptide Delivery," *Proceed. World Meeting APGI/APV*, *4*, 737-738 (2002).
824. T. Bussemer, N.A. Peppas and R. Bodmeier, "Simulation of the Rupture of a Pulsatile Drug Delivery System," *Proceed. World Meeting APGI/APV*, *4*, 1541-1542 (2002).
825. E. Oral and N.A. Peppas, "Template-sensitive Polymers for Biomimetic Applications," *Trans. Soc. Biomater.*, *28*, 74, (2002).
826. M.E. Byrne, J.Z. Hilt, R. Bashir, K. Park and N.A. Peppas, "Biomimetic Materials for Selective Recognition and Microsensing of Biologically Significant Molecules," *Trans. Soc. Biomater.*, *28*, 78 (2002).
827. N.A. Peppas, "Intelligent Biomaterials in Protein Delivery, Molecular Imprinting and Micropatterning," *Proceed. Control. Rel. Society, 29* (2002).
828. T. Goto, M. Morishita, A. Foss, N.A. Peppas, A.M. Lowman and K. Takayarma, "In vivo Studies of Oral Insulin Delivery Systems Based on Complexation Hydrogels," *Proceed. Control. Rel. Society, 29,* (2002).
829. D.N. Robinson and N.A. Peppas, "Preparation and Characterization of pH-Responsive Poly(methacrylic acid-g-poly(ethylene glycol) Nanospheres," *Macromolecules*, *35*, 3668-3674 (2002).
830. M. Torres-Lugo and N.A. Peppas, "Preparation and Characterization of P(MAA-g-EG) Nanospheres for Protein Delivery Applications," *J. Nanoparticle Res.*, *4*, 73-81 (2002).
831. J. Zhang and N.A. Peppas, "Morphology of poly(methacrylic acid)/Poly(N-isopropyl acrylamide) Interpenetrating Polymeric Networks," *J. Biomat. Sci., Polym. Ed.*, *13*, 511-525 (2002).
832. C. Donini, P. Colombo, F. Giordano, and N.A. Peppas, "The Role of Preparation Conditions on Particle Size and Redispersion Ability of P(MAA-g-EG)" Nanospheres, *AAPS Pharm. Sci.*, T3073 (2003).
833. M.E. Byrne, K. Park, and N.A. Peppas, "Biomimetic Materials for Selective Recognition of Biomolecules," in J. McKittrick, J. Aizenberg, J.M.M. Kittrick, C.A. Orme, P. Vekilov, eds., "Biological and Biomimetic Materials – Properties to Function," 193-199, Vol. 724, MRS, Pittsburgh, PA, 2002.
834. J.Z. Hilt, A.K. Gupta, R. Bashir and N.A. Peppas, "A Microsensor Based on a Microcentilever Patterned with an Environmentally Sensitive Hydrogel," in R.P. Manginell, J.T. Borenstein, L.P. Lee, and P.J. Hesketh, eds., "BioMEMS and Bionanotechnology", 173-178, Vol. 729, MRS, Pittsburgh, PA, 2002.
835. J. Blanchette, K. Park, and N.A. Peppas, "Oral Administration of Chemotherapeutic Agents Using Complexation Hydrogels," in in J. McKittrick, J. Aizenberg, J.M.M. Kittrick, C.A. Orme, P. Vekilov, eds., "Biological and Biomimetic Materials – Properties to Function," 215-220, Vol. 724, MRS, Pittsburgh, PA, 2002.
836. N.A. Peppas, "Devices Based on Intelligent Biopolymers for Oral Protein Delivery," *Proceed. Intern. Pharm. Technol. Symp., 11*, 2-4 (2002).
837. E. Oral and N.A. Peppas, "Recognition-based Hydrogel Networks as Intelligent Drug Delivery Systems," *Proceed. Intern. Pharm. Technol. Symp., 11*, 67-68 (2002).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 92 of 218

838. O. Sipahigil, A. Gürsoy, F. Cakalagaoglu, and N.A. Peppas, "Histopathological Evaluation of Drug Loaded P(MAA-g-EG) Hydrogels," *Proceed. Intern. Pharm. Technol. Symp., 11,* 71-72 (2002).
839. S. Baumgartner, J. Kristl and N.A. Peppas, "Network Structure of Cellulose Ethers Used in Pharmaceutical Applications during Swellling and at Equilibrium," *Pharm. Res., 19,* 1084-1090 (2002).
840. C. Donini, D.N. Robinson, P. Colombo, F. Giordano and N.A. Peppas, "Preparation of P(MAA-g-EG) Nanospheres for Pharmaceutical Applications," *Intern. J. Pharmac., 245,* 83-91 (2002).
841. R. Bashir, J.Z. Hilt, A. Gupta, O. Elibol and N.A. Peppas, "Micromechanical Cantilever as an ultrasensitive pH Microsensor," *Appl. Phys. Lett., 81,* 3091-3093 (2002).
842. B. Kim and N.A. Peppas, "Synthesis and Characterization of pH-Sensitive Glycopolymers for Oral Drug Delivery Systems," *J. Biomater. Sci., Polym. Ed., 13,* 1271-1281 (2002).
843. O. Sipahigil, M. Torres-Lugo and N.A. Peppas, "FTIR Spectroscopic Analysis of Protein/Carrier Interactions in Novel Protein Delivery Systems," *STP Pharma, 12,* 345-350 (2002).
844. T. Azzam, N.A. Peppas, S. Slomkowski and A.J. Domb, "Length and Breadth Polyrotaxane Structures: A New Concept in Three Dimensional Polymeric Systems," *Polym. Adv. Technol., 13,* 788-797 (2002).
845. M.E. Byrne, E. Oral, J.Z. Hilt and N.A. Peppas, "Networks for Recognition of Biomolecules: Molecular Imprinting and Micropatterning Poly(ethylene glycol)-Containing Films," *Polym. Adv. Technol., 13,* 798-816 (2002)
846. B. Kim and N.A. Peppas, "Complexation Phenomena in pH-Responsive Copolymer Networks with Pendent Saccharides," *Macromolecules, 35,* 9545-9550 (2002).
847. N.A. Peppas, A. Argade and S. Bhargava, "Preparation and Properties of Poly(ethylene oxide) Star Polymers," *J. Appl. Polym. Sci., 87,* 322-327 (2003).
848. W. Leobandung, H. Ichikawa, Y. Fukumori and N.A. Peppas, "Monodisperse Nanoparticles of Poly(ethylene glycol) Macromers and N-isopropyl Acrylamide for Biomedical Applications," *J. Appl. Polym. Sci., 87,* 1678-1684 (2003).
849. N. Bergmann and N.A. Peppas, "Protein-Imprinted Polymeric Microparticles for Tissue Engineering Applications," *Trans. Soc. Biomater., 29,* 457 (2003).
850. N. J. Kavimandan and N.A. Peppas, "Insulin Transport Across Cell Monolayers in the Presence of Complexation Hydrogels," *Trans. Soc. Biomater., 29,* 248 (2003).
851. J. Blanchette, K. Park, and N.A. Peppas, "Use of Complexation Hydrogels for Oral Administartion of Chemotherapeutic Agents", *Trans. Soc. Biomat., 29,* 246 (2003).
852. B. Kim, K. La Flamme and N.A. Peppas, "Dynamic Swelling Behavior of pH-Sensitive Anionic Hydrogels Used for Protein Delivery," *J. Appl. Polym. Sci., 89,* 1606-1613 (2003).
853. N. J. Kavimandan, N. A. Peppas, M. Morishita, T. Goto, T. Nagai, and K. Takayama, "Experimental Investigation of the Effect of Complexation Hydrogels on Insulin Transport Across Model Intestinal Cell Monolayers", *Drug. Deliv. Syst., 18,* 283 (2003).
854. M. Morishita, T. Goto, T. Nagai, N.A. Peppas and K. Takayama, "Development of Oral Insulin Delivery Systems and Evaluation as Pharmaceutical Dosage Forms in Diabetic Rats", *Drug. Deliv. Syst., 18,* 282 (2003).
855. B. Kim and N.A. Peppas, "Analysis of Molecular Interactions in P(MAA-g-EG) Hydrogels," *Polymer, 44,* 3701-3707 (2003).
856. J.H. Ward, K. Furman and N.A. Peppas, "Effect of Monomer Type and Dangling End Size on Polymer Network Synthesis," *J. Applied Polymer Science, 89,* 3506-3519 (2003).
857. J.Z. Hilt, A.K. Gupta, R. Bashir and N.A. Peppas, "Ultrasensitive BioMEMs Sensors Based on Microcantilevers Patterned with Environmentally Responsive Hydrogels," *Biomed. Microdevices, 5,* 177-184 (2003).
858. A. Steubel, J. Siepmann, C. Dietzsch, N. A. Peppas, and R. Bodmeier, "Comparison of Low and High Molecular weight HPMC Types: Drug and Polymer Release from Matrix Tablets", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 30,* 55-56 (2003).
859. J. Siepmann, A. Streubel, N. A. Peppas, and R. Bodmeier, "Calculation of the Erosion and Swelling Front Positions in Swellable Controlled Release Tablets", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 30,* 55-56 (2003).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 93 of 218

860. O. Sipahigil, A Gürsoy, Y. Okar, F. Çakalagaoglu, and N. A. Peppas, "Oral Administration of P(MAA-g-EG) Particls to Rats: Histological Characterization", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 30,* 55-56 (2003).

861. T. Bussemer, N.A. Peppas and R. Bodmeier, "Time-dependent Mechanical Properties of Polymeric Coatings Used in Rupturable Pulsatile Release Dosage Forms", *Drug Dev. Ind. Pharm., 29,* 623-630 (2003).

862. T. Bussemer, N.A. Peppas and R. Bodmeier, "Evaluation of the Swelling, Hydration and Rupturing Properties of the Swelling Layer of a Rupturable Pulsatile Drug Delivery System", *Europ. J. Pharm. Biopharm., 56*, 261-270 (2003).

863. B. Kim and N.A. Peppas, "PEG-containing Hydrogel Micrparticles for Oral Protein Delivery Applications," *Biomed. Microdevices*, *5,* 333-341 (2003)

864. B. Kim and N.A. Peppas, "In Vitro Release Behavior and Stability of Insulin in Complexation Hydrogels as Oral Drug Delivery Carriers," *Intern. J. Pharm., 266,* 29-37 (2003).

865. N.A. Peppas and M.E. Byrne, "New Biomaterials for Intelligent Biosensing, Recognitive Drug Delivery and Therapeutics", *Bull. Gattefossé, 96*, 23-35 (2003).

866. H. Ichikawa and N.A. Peppas, "Novel Complexation Hydrogels for Oral Peptide Delivery: In vitro Evaluation of their Cytocompatibility and Insulin-Transport Enhancing Effects Using Caco-2 Cell Monolayers," *J. Biomed. Mater. Res., 67*, 609-617 (2003).

867. J. Siepmann and N.A. Peppas, "Elucidation of Water, Drug and Polymer Transport in Swellable Matrix tablets Unders Steric Restriction", *AAPS Pharm. Sci.,* W5155 (2003).

868. L. Serra and N.A. Peppas, "Novel Poly(ethylene glycol) Containing Polymers as Mucoadhesive Drug Delivery Systems", *AAPS Pharm. Sci.,* M1302 (2003).

869. D.B. Henthorn, K. Park and N.A. Peppas, "Templated Polymeric Networks for Molecular Recognition: Simulation and Experimental Correlations," in AIChE Proceedings, 2003.

870. N. J. Kavimandan and N.A. Peppas, "Oral Delivery of Insulin Bioconjugates Using Complexation Hydrogels," in AIChE Proceedings, 2003.

871. M.E. Byrne, J.Z. Hilt, N.A. Peppas "Novel Biomimetic Polymer Networks: Development and Application as Selective Recognition Elements for Biomolecules at the Micro/Nano-scale", in AIChE Proceedings, 2003.

872. R. Langer and N.A. Peppas, "Advances in Biomaterials, Drug Delivery, and Bionanotechnology", *AIChE J., 49,* 2990-3006 (2003)..

873. J. Berger, M. Reist, J.M. Mayer, O. Felt, N.A. Peppas, and R. Gurny, "Structure and Interactions in Covalently and Ionically Crosslinked Chitosan Hydrogels for Biomedical Applications", *Europ. J. Pharm. Biopharm., 57,* 19-34 (2004).

874. E. Oral and N.A. Peppas, "Responsive and Recognitive Hydrogels Using Star Polymers," *J. Biomed. Mater. Res., 68A*, 439-447 (2004).

875. A.C. Foss, T. Goto, M. Morishita and N.A. Peppas, "Development of Acrylic-Based Copolymers for Oral Insulin Delivery," *Europ. J. Pharm. Biopharmac., 57,* 163-169 (2004).

876. N.A. Peppas, "Hydrogels" in "Biomaterials Science: An Introduction to Materials in Medicine," B.D. Ratner, A.S. Hoffman, F.J. Schoen and J.E. Lemons, eds., 2nd edition, 100-107, Academic Press, New York, NY, 2004.

877. N.A. Peppas and R. Langer, "Origins and Development of Biomedical Engineering within Chemical Engineering", *AIChE J., 50,* 536-546 (2004).

878. N.A. Peppas and W. Leobandung, "Stimuli-sensitive Hydrogels in Chronotherapeutic Applications", *J. Biomater. Sci., Polym. Ed., 15,* 125-144 (2004).

879. K. Nakamura, R.J. Murray, J.I. Joseph, N.A. Peppas, M. Morishita and A.M. Lowman: "Oral Insulin Delivery Using P(MAA-g-EG) Hydrogels: Effects of Network Morphology on Insulin Delivery Characteristics", *J. Controlled Release, 95,* 589-599 (2004).

880. N.A. Peppas, "Kinetics of Smart Hydrogels", in "Reflexive Polymers and Hydrogels: Understanding and Designing Fast-responsive Polymeric Systems", N. Yui, R. Mrsny and K. Park, eds., 99- 113, CRC Press, Boca Raton, FL, 2004.

881. J. O. Blanchette, N. Kavimandan and N.A. Peppas, "Principles of Transmucosal Delivery of Therapeutic Agents", *Biomedicine & Pharmacotherapy, 58*, 142-151 (2004).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 94 of 218

882. A.C. Foss and N.A. Peppas, "Investigation of the Cytotoxicity and Insulin Transport of Acrylic-based Copolymer Protein Delivery Systems in Contact with Caco-2 Cultures," *Europ. J. Pharm. Biopharm..*, *57,* 447-455 (2004).

883. J.E. López and N.A. Peppas, "Cellular Evaluation of Insulin Transmucosal Delivery," *J. Biomater. Sci., Polym. Ed., 15,* 385-396 (2004).

884. A.M. Lowman, T.D. Dziubla, P. Bures and N.A. Peppas, "Structural and Dynamic Response of Neutral and intelligent Networks in Biomedical Environments", in N.A. Peppas and M.V. Sefton, eds., "Molecular and Cellular Foundations of Biomaterials", 75-130, Academic Press, New York, 2004.

885. M. Morishita, T. Goto, N.A. Peppas, J.I. Joseph, M.C. Torjman, C. Munsick, K. Nakamura, K. Takayama and A.M. Lowman, "Mucosal Insulin Delivery Systems Based on Complexation Polymer Hydrogels: Effect of Particle Size on Insulin Enteral Absorption", *J. Controlled Release, 97,* 115-124 (2004).

886. N.A. Peppas, "Devices Based on Intelligent Biopolymers for Oral Protein Delivery," *Intern. J. Pharmac., 277,* 11-17 (2004).

887. N.A. Peppas, K.M. Wood and J.O. Blanchette, "Hydrogels for Oral Delivery of Therapeutic Proteins", *Expert Opin. Biol. Ther., 4,* 881 – 887 (2004).

888. H. Chiba, M. Morishita, N.A. Peppas, A.M. Lowman, T. Nagai and K. Takayama, "Application of Complexation Hydrogels to Oral Delivery Systems for peptode and Protein Drugs", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 31,* 3 (2004).

889. T. Yamagata, M. Morishita, N.J. Kavimandan, N.A. Peppas, T. Nagai and K. Takayama, "Characterization of Insulin Protection Properties of Complexation Hydrogels in Gastric and Intestinal Enzyme Fluids", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 31,* 483 (2004).

890. T. Goto, M. Morishita, N.J. Kavimandan, N.A. Peppas, T. Nagai and K. Takayama, "Gastrointestinal Transit of Mucoadhesive Complexation Hydrogels in Rats", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 31,* 53 (2004).

891. M. Morishita, T. Goto, A.M. Lowman, N.A. Peppas, T. Nagai and K. Takayama, "Successful Oral Insulin Carrier Systems Based on complexation Polymer Hydrogels: Single and Multiple Administration Studies in Type I and II Diabetic Rats", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 31,* 39 (2004).

892. J.O. Blanchette and N.A. Peppas, "Cellular and Molecular Evaluation of Novel Carriers for Oral Chemotherapy", *Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 31,* 436 (2004).

893. J.E. López and N.A. Peppas, "Effect of PEG Molecular Weight and Microparticle Size on Oral Insulin Delivery from P(MAA-g-EG) Microparticles," *Drug Develop. Ind. Pharm, 30,* 497-504 (2004).

894. N.A. Peppas, "Bionanotechnology in Drug Delivery and intelligent Therapeutic Systems, *Drug Deliv. Systems, 19,* 200 (2004).

895. E. Oral and N.A. Peppas, "Dynamic Studies of Molecular Imprinting Polymerizations", *Polymer, 45,* 6163-6173 (2004).

896. N.A. Peppas, "Intelligent Therapeutics: Biomimetic Systems and Nanotechnology in Drug Delivery", *Adv. Drug Deliv. Revs., 56,* 1529-1531 (2004).

897. N.A. Peppas and J. H. Ward: "Biomimetic Materials and Micropatterned Structures Using Iniferters", *Adv. Drug Deliv. Revs., 56,* 1587-1597 (2004).

898. N.A. Peppas and Y. Huang, "Nanoscale Technology of Mucoadhesive Interactions", *Adv. Drug Deliv. Revs., 56,* 1675-1687 (2004).

899. N.A. Peppas, "Is There a Future in Glucose-sensitive, Responsive Insulin Delivery?", *J. Drug Deliv. Sci. Techn., 14,* 247-256 (2004).

900. N.A. Peppas and R.E.P. Simmons, "Mechanistic Analysis of Protein Delivery from Porous PVA Systems", *J. Drug Deliv. Sci. Techn., 14,* 285-289 (2004).

901. N.A. Peppas and D. Tennenhouse, "Semicrystalline Poly(vinyl alcohol) Films and their Blends with Poly(acrylic acid) and Poly(ethylene glycol) for Drug Delivery Applications", *J. Drug Deliv. Sci. Techn., 14,* 291-297 (2004).

902. N. Bergmann and N.A. Peppas, "Investigation of Degradable, Imprinted Microspheres for the Development of a Tissue Engineering Scaffold", in "Biomaterials in Regenerative Medicine", M.V. Sefton, ed., SFB, Philadelphia, PA, 2004.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 95 of 218

903. K. Podual, F. Doyle III and N.A. Peppas, "Modeling of Water Transport in and Release from Glucose-sensitive, Swelling-controlled Release Systems Based on P(DEAEM-g-EG)", *Ind. Eng. Chem. Res.*, *43,* 7500-7512 (2004).

904. J. Z. Hilt, M. E. Byrne and N.A. Peppas, "Biomimetic Polymers in Drug Delivery and Sensing Applications: Effect of Network Molecular Structure on Recognition Properties", in N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, 41-43, AIChE, New York, NY, 2004.

905. N.A. Peppas, "Theory and Applications of Intelligent Biomaterials", in N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, 73-75, AIChE, New York, NY, 2004.

906. N.A. Peppas, N.M. Bergmann, E.H. Lauten and J.Z. Hilt, "The Future of Intelligent Therapeutics", in N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, 87-89, AIChE, New York, NY, 2004.

907. N.J. Kavimandan and N.A. Peppas, "Complexation Hydrogels as Oral Delivery Vehicles for Insulin-Transferrin Conjugates", in N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, 179-181, AIChE, New York, NY, 2004.

908. N.M. Bergmann and N.A. Peppas, "Biomimetic, Molecularly Imprinted Hydrogels for Recognition and Capture of High Molecular Weight Proteins", in N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, 1-3, AIChE, New York, NY, 2004.

909. T.G. Farmer, T.F. Edgar and N.A. Peppas, 'Modeling and Control of the Behavior of Glucose sensing Devices", in N.A. Peppas, K. Anseth, A.K. Dillow and C.E. Schmidt, eds., *Advances in Biomaterials, Bionanotechnology, Biomimetic Systems and Tissue Engineering*, 231-234, AIChE, New York, NY, 2004.

910. M. Fukuda, N.A. Peppas and J. McGinity, "Influence of Electrolytes on the Dissolution Properties of Chlorpheniramine Maleate from Hot-Melt Extruded Tablets Containing Chitosan and an Anionic Polymer", *AAPS Pharm. Sci.*, M1302 (2004).

911. M. Fukuda, N.A. Peppas, J. McGinity, "Design of pH and Buffer-species Independent Sustained Release Hot-Melt Extruded Tablets: Application of Inter- and Intra-Molecular Hydrogelation", *AAPS Pharm. Sci.*, M1302 (2004).

912. N.A. Peppas, 'Molecular Design and Cellular Response of Novel Intelligent Mucoadhesive Carriers for Oral Delivery of Proteins", in "Architecture and Application of Biomaterials and Biomolecular Materials", J.Y. Wong, A.L. Plant, C.E. Schmidt, L. Shea, A.J. Coury, C.S. Chen, A. E. Barron, H.A. Klok, T. J. Deming, W. M. Saltzman, A. Chilkoti, D. Luo and K. Uhrich, eds., MRS Proceedings, 381-392, Materials Research Society, Pittsburgh, PA, 2004.

913. N.A.Peppas and D.B.Henthorn, "Molecular Simulations of Recognitive Polymer Networks Prepared by Biomimetic Configurational Imprinting as Responsive Biomaterials", in, "Molecularly Imprinted Materials", P. Kofinas, B. Sellergren, and M. J. Roberts, eds, MRS Proceedings Volume 787, 7-16, Materials Research Society, Pittsburgh, PA, 2004.

914. K. Podual and N. A. Peppas, "Relaxational Behavior and Swelling-pH Master Curves of Poly(diethylaminoethyl methacrylate-g-ethylene glycol) Hydrogels", *Polym. Intern., 54,* 581-593 (2005).

915. L. Serra Bigas, J. Doménech Berrozpe and N. A. Peppas, "Diseño y síntesis de hidrogeles acrílicos modificados para la liberación controlada de fármacos", *Proceed. Spanish Society Industrial Galenic Pharm.,* 7, 271-273 (2005).

916. J. O. Blanchette and N. A. Peppas, "Cellular Evaluation of Oral Chemotherapy Carriers", *J. Biomed. Mater. Res., 72A,* 381-388 (2005).

917. J. O. Blanchette and N. A. Peppas, "Oral Chemotherapeutic Delivery: Design and Cellular Response", *Ann. Biomed. Eng., 33,* 142-149 (2005).

918. N.A. Peppas, "Intelligent Therapeutics and Nanoscale Delivery: Impact on Absorption and Transport", *Proceed. World Conf. Drug Absorp. Transp. Deliv., 3,* 18-20 (2005).

919. M. Morishita, T. Goto, N.A. Peppas and K. Takayama, "Formulation Optimization for Oral Peptide and protein Delivery", *Proceed. World Conf. Drug Absorp. Transp. Deliv., 3,* 28-30 (2005).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 96 of 218

920. L. Serra, J. Doménech Berrozpe and N. A. Peppas, "Improved Absorption of Therapeuic Agents Through Acrylic-based Biohydrogels: Investigation of the in vitro Release Properties and Cytocompatibility", *Proceed. World Conf. Drug Absorp. Transp. Deliv., 3,* 109 (2005).
921. K. Wood and N.A. Peppas, "In vitro Investigation of lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", *Proceed. World Conf. Drug Absorp. Transp. Deliv., 3,* 111 (2005).
922. O. Fisher and N.A. Peppas, "Poly(methacrylic acid-g-ethylene glycol) Microparticles as Modulators of Tight Junction Morphology", *Proceed. World Conf. Drug Absorp. Transp. Deliv., 3,* 127 (2005).
923. N. Bergmann and N.A. Peppas, "Biomimetic Imprinted Microparticles for the Recognition and Capture of Serum Proteins," *Trans. Soc. Biomater., 30,* 62-63 (2005).
924. J. B. Thomas and N.A. Peppas, "Mucoadhesive Characteristics of Biomaterials Containing the Adhesion Promoter PEG," *Trans. Soc. Biomater., 30,* 180-181 (2005).
925. K. Wood and N.A. Peppas, "Molecular Design and Evaluation of Complexation Hydrogels as Advanced oral protein Delivery Systems," *Trans. Soc. Biomater., 30,* 179-180 (2005).
926. N.A. Peppas, "Hydrogels as Biomaterials: Infinite Possibilities in Bionanotechnology, Drug Delivery, Biological Recognition and Tissue Engineering," *Trans. Soc. Biomater., 30,* 2-3 (2005).
927. N. A. Peppas, "Recognitive and Diagnostic Polymer Networks: Formation, Simulations and Thermodynamics", *Proceed, Europ. Polym. Congress,* 4916-4919 (2005).
928. N.A. Peppas, "Smart Drug Delivery and Bionanotechnology", in "Microencapsulation", P. Colombo, ed., 1-2, Tefarco, Parma, 2005.
929. E. H. Lauten and N. A. Peppas, "Configurational Biomimetic Imprinting of Angiotensin II for Novel Drug Delivery Systems", in "Microencapsulation", P. Colombo, ed., 43-44, Tefarco, Parma, 2005.
930. N. M. Bergmann, E. H. Lauten and N. A. Peppas, "Intelligent Biomaterials for Drug Delivery: Combining Molecular Recognition with Drug Delivery", *Drug Deliv: Systems & Sci., 4,* 35-40 (2005).
931. J. Z. Hilt and N. A. Peppas, "Microfabricated Drug Delivery Devices", *Intern. J. Pharm., 306,* 15-23 (2005).
932. S. Venkatesh, M. E. Byrne, N. A. Peppas and J. Z. Hilt, "Applications of Biomimetic Systems in Drug Delivery", *Expert Opin. Drug Deliv., 2,* 1085-1096 (2005).
933. D.E. Owens III and N.A. Peppas, "Temperature-Sensitive Polymer-Gold Nanocomposites as Intelligent Therapeutic Systems", in "Advances in Bionanotechnology", N.A. Peppas and J.Z. Hilt, eds., 223-227, AIChE, New York, NY, 2005.
934. U. G. Spizzirri and N. A. Peppas, "Structural Analysis and Diffusional Behavior of Molecularly Imprinted Polymer Networks for Cholesterol Recognition", *Chem. Mater., 17,* 6719-6727 (2005).
935. N. A. Peppas, "Bioadhesive Drug Delivery Systems", *Tüftad Haberler, 12 (3-4),* 4-8 (2005).
936. J. B. Thomas, N. A. Peppas, M. Sato and T. J. Webster, "Nanotechnology and Biomaterials" in "Nanomaterials Handbook", Y. Gogotsi, ed., 605-636, CRC Taylor and Francis, Boca Raton, FL, 2006.
937. D. E. Owens III and N. A. Peppas, "Opsonization, Biodistribution and Pharmacokinetics of Polymeric Nanoparticles", *Intern. J. Pharm., 307,* 93-102 (2006).
938. J. B. Thomas, C. M. Creecy, J. W. McGinity and N. A. Peppas, "Synthesis and Properties of Lightly Crosslinked Poly((meth)acrylic acid) Microparticles Prepared by Free Radical Precipitation Polymerization", *Polym. Bull., 57,* 11-20 (2006).
939. T. Goto, M. Morishita, N.J. Kavimandan, N.A. Peppas, and K. Takayama, "Gastrointestinal Transit and Mucoadhesive Characteristics of Complexation Hydrogels in Rats", *J. Pharm. Sci., 95,* 462-469 (2006).
940. M. Fukuda, N. A. Peppas and J. W. McGinity, "Properties of Sustained Release Hot-melt Extruded Tablets Containing Chitosan and Xanthan Gum", *Intern. J. Pharm., 310,* 90-100 (2006).
941. A. Besheer, K. M. Wood, N. A. Peppas and K. Mäder, "Loading and Mobility of Spin-Labeled Insulin in Physiologically Responsive Complexation Hydrogels Intended for Oral Administration", *J. Controlled Release, 111,* 73-80 (2006).
942. E. Losi, R. Bettini, P. Santi, F. Sonvico, G. Colombo, K. Lofthus, P. Colombo and N.A. Peppas, "Assemblage of Novel Release Modules for the Development of Adaptable Drug Delivery Systems", *J. Controlled Release, 111,* 212-218 (2006).
943. N. A. Peppas and B. Kim, "Stimuli-sensitive Protein Delivery Systems", *J. Drug Del, Syst. Techn., 16,* 11-18 (2006).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 97 of 218

944. M. Morishita, T. Goto, K. Takayama, and N. A. Peppas, "Oral Insulin Delivery Systems Based on Complexation Polymer Hydrogels", *J. Drug Deliv. Sci. Techn., 16,* 19-24 (2006).
945. M. Morishita, T. Goto, K. Nakamura, A. M. Lowman, K. Takayama and N.A. Peppas, "Novel Oral Insulin Delivery Systems Based on Complexation Polymer Hydrogels: Single and Multiple Administration Studies in Type 1 and 2 Diabetic Rats", *J. Controlled Release., 110,* 587-594 (2006).
946. L. Serra, J. Doménech and N. A. Peppas, "Design of Poly(ethylene glycol)-tethered Copolymers as Novel Mucoadhesive Drug Delivery Systems", *Europ. J. Pharm. Bioph., 63,* 11-18 (2006).
947. J. B. Thomas and N. A. Peppas, "Adhesives", in G. E. Wnek and G.L. Bowlin, ed., "Encyclopedia of Biomaterials and Biomedical Engineering", DOI: 10.1081/E-EBBE-120007250, Dekker, New York, NY, 2006.
948. N. A. Peppas and C.D. Bures, "Glucose-Responsive Hydrogels", in G. E. Wnek and G.L. Bowlin, ed., "Encyclopedia of Biomaterials and Biomedical Engineering", DOI: 10.1081/E-EBBE-120042786, Dekker, New York, NY, 2006.
949. N. A. Peppas and J. Zhang, "Interpenetrating Polymeric Networks", in G. E. Wnek and G.L. Bowlin, ed., "Encyclopedia of Biomaterials and Biomedical Engineering", 10.1081/E-EBBE-120042787 Dekker, New York, NY, 2006.
950. N. A. Peppas and C. Donini, "Protein Delivery Systems", in G. E. Wnek and G.L. Bowlin, ed., "Encyclopedia of Biomaterials and Biomedical Engineering", DOI: 10.1081/E-EBBE-120042788, Dekker, New York, NY, 2006.
951. K. M. Wood, G. Stone and N. A. Peppas, "Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", *Proceed. Europ. Symp. Controlled Drug Deliv., 9,* 180-183 (2006).
952. H. Lauten, J. Ng, and N.A. Peppas, "Selective Recognition of Angiotensin II for Novel Drug Delivery Systems", *Proceed. Europ. Symp. Controlled Drug Deliv., 9,* (2006).
953. D. E. Owens III and N.A. Peppas, "Integration of Thermally Responsive Nanosphere Hydrogels with Gold Nanoparticles for Intelligent Therapeutic Applications" *Trans. Soc. Biomater., 31,* 150-151 (2006).
954. T. S. Karande, J. Mahavedan, N.A. Peppas, W. Sun, D.D. Dean and C.M. Agrawal "Effect of Scaffold Architecture on Diffusion of Oxygen in Tissue Engineering Constructs" *Trans. Soc. Biomater., 31,* 182-183 (2006).
955. N.A. Peppas and J.Z. Hilt, "Intelligent Polymeric Networks in Biomolecular Sensing", in R. Bashir and S. Wereley, eds., Handbook of BioMEMs and Biomedical Nanotechnology", 117-132, Klouwer, Amsterdam, 2006.
956. N.A. Peppas, J.Z. Hilt, A. Khademhosseini and R. Langer, "Hydrogels in Biology and Medicine: From Fundamentals to Bionanotechnology", *Adv. Mater., 18,* 1345-1360 (2006).
957. T. Yamagata, M. Morishita, N.J. Kavimandan, K. Nakamura, Y. Fukuoka, K. Takayama and N.A. Peppas, "Characterization of Insulin Protection Properties of Complexation Hydrogels in Gastric and Intestinal Enzyme Fluids", *J. Controlled Release, 112.* 343-349 (2006).
958. E. Oral and N.A. Peppas, "Hydrophilic Molecularly Imprinted PHEMA-Polymers", *J. Biomed. Mater. Res., 78A,* 205-210 (2006).
959. N. J. Kavimandan, E. Losi, and N. A. Peppas, "Novel Delivery System Based on Complexation Hydrogels as Delivery Vehicles for Insulin-Transferrin Conjugates", *Biomaterials, 27,* 3846-3854 (2006).
960. N. A. Peppas, "Oral Delivery of Proteins", *Proceed. Intern. Symp. Rel. Bioact. Mater., 33,* 4 (2006).
961. N.A. Peppas, O.Z. Fisher, K. M. Wood and N. Kavimandan, "Molecular Design and Celular Studies of Oral Protein Delivery", *Proceed. Intern. Symp. Rel. Bioact. Mater., 33,* 66 (2006).
962. D. E. Owens III, J.K. Eby, Y. Jian, and N.A. Peppas, "Externally Triggered Metal-Polymer Nanocomposites for Controlled Release Applications", *Proceed. Intern. Symp. Rel. Bioact. Mater., 33,* 339 (2006).
963. A. Besheer, K. M. Wood, N.A. Peppas, and K. Mäder, "Loading and Mobility of Spin-Labeled Insulin in Repsonsive Complexation Hydrogels- An ESR Study", *Proceed. Intern. Symp. Rel. Bioact. Mater., 33,* 446 (2006).
964. M. Fukuda, D. A. Miller, N.A. Peppas and J. McGinity, "Influence of Sulfobutyl Ether Beta-Cyclodextrin on the Dissolution Properties of a Poorly Soluble drug from Extrudates Prepared by Hot-Melt Extrusion", *AAPS PharmSci,* T3235 (2006).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 98 of 218

965. J.B. Thomas and N. A. Peppas, "Dynamics of Tethered Biomaterials and their Development into pH Responsive Mucoadhesive Oral Drug Delivery Systems", *AAPS PharmSci,* T3093 (2006).

966. D. Carr and N.A. Peppas, "pH-Sensitive Complexation Hydrogels for the Oral Delivery of Proteins", *AAPS PharmSci,* W4218 (2006)..

967. L. Serra, J. Doménech and N. A. Peppas, "Drug Transport Mechanisms in and Release Kinetics from Molecularly Designed Poly(Acrylic Acid-g-Ethylene Glycol) Hydrogels", *Biomaterials, 27,* 5440-5451 (2006).

968. N.A. Peppas, "Vecteurs de médicaments innovants et intelligents: Leur applications pharmaceutiques", *Ann. Pharm. Fr, 64,* 260-275 (2006).

969. M. Morishita and N. A. Peppas, "Is the Oral Route Possible for Peptide and Protein Drug Delivery?", *Drug Discovery Today, 11,* 905- 910 (2006).

970. A. Besheer, K.M. Wood, N.A. Peppas and K. Mäder, "Loading and Mobility of Spin-Labeled Insulin in Responsive Complexation Hydrogels- An ESR Study", *Proceed. Polypharma, 1,* P05 (2006).

971. N. A. Peppas and N. J. Kavimandan, "Nanoscale Analysis of Protein and Peptide Absorption: Insulin Absorption Uisng Complexation and pH-Sensitive Hydrogels as Delivery Vehicles", *Europ. J. Pharm. Sci., 29,* 183-197 (2006).

972. M. Fukuda, N.A. Peppas and J.W. McGinity, "Floating Hot-Melt Extruded Tablets for Gastroretentive Controlled Drug Release System", *J. Controlled Release, 115,* 121-129 (2006).

973. N.A. Peppas, "Intelligent Biomaterials as Pharmaceutical Carriers in Microfabricated and Nanoscale Devices", *MRS Bulletin, 31,* 888-893 (2006).

974. K. M. Wood, G. Stone and N. A. Peppas, "Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", *J. Controlled Rel., 116,* 66-68 (2006).

975. A. Vasudev, C. Bayer and N.A. Peppas, "Microcantilever-Based Sensors", *Proceed NNIN REU,* 98-99 (2006).

976. N. J. Kavimandan, E. Losi, J. J. Wilson, J. S. Brodbelt and N. A. Peppas, "Synthesis and Characterization of Insulin-Transferrin Conjugates", *Bioconjugate Chem., 17,* 1376-1384 (2006).

977. J. Z. Hilt, M. E. Byrne and N. A. Peppas, "Microfabrication of Intelligent Biomimetic Networks for Recognition of D-Glucose", *Chem. Mater. 18,* 5869-5875 (2006).

978. K.M. Wood, G. Stone and N.A. Peppas, "In vitro Investigation of Oral Insulin Delivery Systems Using Lectin Functionalzed Complexation Hydrogels", in *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, N.A. Peppas, A.S. Hoffman, T. Kanamori and K. Tojo, eds., 75-83, AIChE, New York, NY, 2006.

979. J. B. Thomas, J. H. Tingsanchali, C. M. Creecy, A. M. Rosales, J. W. McGinity, and N. A. Peppas, "Tethered pH Responsive Biomaterials for Mucoadhesive Oral Controlled Release Drug Delivery Systems", in *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, N.A. Peppas, A.S. Hoffman, T. Kanamori and K. Tojo, eds., 249-254, AIChE, New York, NY, 2006.

980. D.E. Owens III, Y. Jian, and N.A. Peppas, "Thermally-responsive Interpenetrating Polymer Network Nanoparticles", in *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, N.A. Peppas, A.S. Hoffman, T. Kanamori and K. Tojo, eds., 145-149, AIChE, New York, NY, 2006.

981. E.H. Lauten and N.A. Peppas, "Selective Recognition of Angiotensin II", in *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, N.A. Peppas, A.S. Hoffman, T. Kanamori and K. Tojo, eds., 163-166, AIChE, New York, NY, 2006.

982. O. Z. Fisher, M. Lin and N.A. Peppas, "Characterizing Transport Enhancement by P(MAA-g-EG) Drug Carriers in the Presence of Mucus", in *Advances in Medical Engineering, Drug Delivery Systems and Therapeutic Systems*, N.A. Peppas, A.S. Hoffman, T. Kanamori and K. Tojo, eds., 262-269, AIChE, New York, NY, 2006.

983. N.A. Peppas, "Bionanotechnology and Responsive, Biomimetic Drug Delivery Systems", *NEPTIS Proceed., 15,* 1-7 (2006).

984. N.A. Peppas, "Concepts of Medical Chronobiology, Chronopharmacology and Chronotherapeutics as the Basis for Applications of Drug Delivery Technology", in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 3-23, Horizon Press, Norfolk, UK, 2007.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 99 of 218

985. N.A. Peppas and D.N. Robinson, "Nanospheres of Intelligent Networks for Biomedical and Drug Delivery Applications" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 361-379, Horizon Press, Norfolk, UK, 2007.

986. N.A. Peppas and C. Donini, "Nanoparticulate Structures in Diabetes Treatment" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 407-430, Horizon Press, Norfolk, UK, 2007.

987. J.O. Blanchette and N.A. Peppas, "Nanotechnology and Cancer Therapy" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 287-313, Horizon Press, Norfolk, UK, 2007.

988. S. Seidlits and N.A. Peppas, "Star Polymers and Dendrimers in Nanotechnology and Drug Delivery" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 317-348, Horizon Press, Norfolk, UK, 2007.

989. P. Bures and N.A. Peppas, "Ionic Nanoparticulate Systems for Drug Delivery" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 349-360, Horizon Press, Norfolk, UK, 2007.

990. D. Henthorn, Y. Zheng and N.A. Peppas, "Synthetic ligand-receptor Interactions in Delivery Systems" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* Horizon Press, Norfolk, UK, 2007.

991. Y. Huang and N.A. Peppas, "Nanoscale Analysis of Mucus-Carrier Interactions for Improved Drug Absorption" in N.A. Peppas, J.Z. Hilt and J.B. Thomas, eds, *Nanotechnology in Therapeutics: Current Technology and Applications,* 109-129, Horizon Press, Norfolk, UK, 2007.

992. H. Bodugoz, O. Güven and N. A. Peppas, "Glucose Recognition Capabilities of HEMA-based Hydrogels Containing PEG Chains", *J. Appl. Polym. Sci., 103,* 432-441 (2007).

993. N.A. Peppas, "Drug Delivery Using Smart Polymers: Recent Advances", in I. Galaev and B. Mattiasson, eds., *Smart Polymers: Applications in Biotechnology and Biomedicine,* 331-358, CRC Press, Boca Raton, FL, 2007.

994. N.A. Peppas, "Bionanotechnology and Responsive, Biomimetic Drug Delivery Systems", in "Nanotechnology in Life Sciences", 1-7, Nisshin Engineering, Osaka, Japan, 2007.

995. N.A. Peppas, "Nanotechnology and Intelligent Response: What Have They Done for Biomaterials Lately?" *Trans. Soc. Biomat., 32,* 1-2 (2007).

996. D.A. Carr, M.C. Boudes, O.Z. Fisher and N.A. Peppas, "Growth Hormone Release from pH-Sensitive Complexation Hydrogels", *Trans. Soc. Biomat., 32,* 249-250 (2007).

997. C.L. Bayer and N.A. Peppas, "Characterization of Hydrogel-Conductive Polymer Recognitive Interpenetrating Networks", *Trans. Soc. Biomat., 32,* 402-403 (2007).

998. N.A. Peppas, "*Le plus ça change*... Nanotechnology and Bioengineering in an Evolving Chemical Engineering World", *Proceed. Greek ChE Meeting, 9(A),* 17-26 (2007)

999. T. Farmer, N.A. Peppas and T. Edgar, "Design of A Polymeric Insulin Infusion System For Blood Glucose Control", *Proceed. Amer. Control Conf, 1,* 607-612 (2007).

1000. J.B. Thomas, J. Tingsanchali, A. Rosales, C.M. Creecy, J. W. McGinity and N.A. Peppas, "Dynamics of Poly(ethylene glycol)-Tethered, pH Responsive Biomaterials", *Polymer,* 48, 5042-5048 (2007).

1001. D.B. Henthorn and N.A. Peppas, "Molecular Simulations of Recognitive Behavior of Molecularly Imprinted Intelligent Polymeric Networks", *Ind. Eng. Chem. Res., 46,* 6084-6091 (2007).

1002. D.E. Owens III, Y. Jian, J.E. Fang, B.V. Slaughter, Y.H. Chen and N.A. Peppas, "Thermally-responsive swelling properties of polyacrylamide/poly(acrylic acid) interpenetrating polymer network nanoparticles", *Macromolecules, 40,* 7306-7310 (2007).

1003. M.H. Smolensky and N.A. Peppas, "Chronobiology, Drug Delivery and Chronotherapeutics, an Introduction", *Adv. Drug Deliv. Revs., 59,* 823-824 (2007).

1004. M.H. Smolensky and N.A. Peppas, "Chronobiology, Drug Delivery and Chronotherapeutics", *Adv. Drug Deliv. Revs., 59,* 828-851 (2007).

1005. J. P. Shofner, A Rosales, N.J. Kavimandan and N.A. Peppas, "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", *Proceed. Intern. Symp. Microencapsulation, 16,* 87-88 (2007).

1006. D.A. Carr, W.A. Hunt and N.A. Peppas, "Evaluation of Therapeutic Protein Encapsulation and Release from pH-Sensitive Complexation Hydrogels", *Proceed. Intern. Symp. Microencapsulation, 16,* 95-96 (2007).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 100 of 218

1007. D. E. Owens III, J. K. Eby, Y. Jian and N. A. Peppas, "Temperature-Responsive Polymer-Gold Nanocomposites as Intelligent Therapeutic Systems", *J. Biomed. Mater. Res., 83A, 692-695 (2007).*

1008. N.A. Peppas, K.M. Wood and J.B. Thomas, "Membranes in Controlled Release", in K.V. Peinemann and S. Pereira Nunes, eds, Membrane Technology, Vol 1., Membranes for the Life Sciences, 175-190, Wiley-VCH, Weinheim, 2008.

1009. M. E. Byrne, J. Z. Hilt and N. A. Peppas, "Recognitive Biomimetic Networks with Moiety Imprinting for Intelligent Drug Delivery", *J. Biomed. Mater. Res., 84A,* 137-147 (2008).

1010. T.G. Farmer Jr, T.F. Edgar and N.A. Peppas, "The Future of Open and Closed-Loop Insulin Delivery for Diabetes Mellitus", *J. Pharm. Pharmacol., 60,* 1-13 (2008).

1011. O.Z. Fisher and N.A. Peppas, "Quantifying Tight Junction Disruption Caused by Biomimetic pH-Sensitive Hydrogel Drug Carriers", *J. Drug Delivery Sci. Techn., 18,* 47-50 (2008).

1012. M. Fukuda, D. A. Miller, N. A. Peppas and J. W. McGinity "Influence of Sulfobutyl Ether b-Cyclodextrin (Captisol®) on the Dissolution Properties of a Poorly Soluble Drug from Extrudates Prepared by Hot-Melt Extrusion", *Inter, J. Pharm., 350,* 188-196 (2008).

1013. T.G. Farmer Jr, T.F.Edgar and N.A. Peppas, "Parameter Set Uniqueness and Confidence Limits in Model Identification of Diabetic Patient Models", *Diabetes Techn. Therap., 10,* 128-141 (2008)

1014. N.M. Bergmann and N.A. Peppas, "Molecularly Imprinted Polymers with Specific Recognition for Macromolecules and Proteins", *Progr. Polym. Sci., 33,* 271-288 (2008)

1015. J.P. Shofner, N.J. Kavimandan and N.A. Peppas, "Oral Insulin Bioconjugate Delivery Using Intelligent Complexation Systems", *Proceed. World Meet. Pharm. Biopharm. Pharm Techn., 6,* 62-63 (2008).

1016. M. Gomez-Burgaz, D. Carr, O.Z. Fisher and N.A. Peppas, "New pH-sensitive Hydrogel for an Oral Delivery of Proteins with a High Isoelectric Point" *Proceed. World Meet. Pharm. Biopharm. Pharm Techn., 6,* 77 (2008).

1017. K. Nakamura, M. Morishita, J. Ehara, Y. Onuki, T. Yamagata, N. Kamei, A.M. Lowman, N.A. Peppas and K. Takayama, "Key Functions in Polymer Carriers for Intestinal Absorption of Insulin", *Intern. J. Pharmac, 354,* 135-142 (2008).

1018. N. J. Kavimandan and N. A. Peppas, "Confocal Microscopic Analysis of Transport Mechanisms of Insulin Across the Cell Monolayer", *Intern. J. Pharm., 354,* 143-148 (2008).

1019. N.A. Peppas, M. Phillips, O.Z. Fisher and J.P. Shofner, "Protein Bioconjugate Delivery via Intelligent Complexation Systems", *Proceed. European Controlled Release Meeting, 10,* 39-41 (2008).

1020. M Wood, GM Stone and NA Peppas, "Wheat Germ Agglutinin Functionalized Complexation Hydrogels for Oral Insulin Delivery", *Biomacromolecules, 9,* 1293-1298 (2008).

1021. T. Tuesca, K. Nakamura, M. Morishita, J. Joseph, N.A. Peppas and A.M. Lowman, "Complexation Hydrogels for Oral Insulin Delivery: Effects of Polymer Dosing on In Vivo Efficacy", *J. Pharm. Sci., 97,* 2607-2618 (2008).

1022. I. Y. Sánchez-Chávez, S. O. Martínez-Chapa, N. A. Peppas, "Computer Evaluation of Hydrogel-Based Systems for Diabetes Closed Loop Treatment", *AIChE J., 54,* 1901-1911 (2008).

1023. L. L. Lao, S. S. Venkatraman and Nicholas A. Peppas, "Modeling of Drug Release from Biodegradable Polymer Blends", *Europ. J. Pharm. Biopharm., 70,* 796-803 (2008),

1024. C.L. Bayer and N.A. Peppas, "Advances in Recognitive, Conductive and Responsive Delivery Systems", *J. Controlled Release, 132,* 216-221 (2008).

1025. N.M. Bergmann and N.A. Peppas, "Configurational Biomimetic Imprinting for Protein Recognition: Structural Characteristics of Recognitive Hydrogels", *Ind. Eng. Chem. Res., 47,* 9099-9107 (2008).

1026. N.A. Peppas, "The Role of Chemical Engineering in the Growth of Bioengineering and Nanotechnology", *Proceed. Mediter. Congress Chem. Engn., 11,* 20-26 (2008).

1027. N. A. Peppas, "Oral Delivery of Insulin and Other Proteins", *Proceed. World Biomaterials Congress, 8,* 1120-1121 (2008).

1028. D Carr, M Gomez, NA Peppas , "Molecular Design of a Novel Complexation Hydrogel for the Oral Delivery of Therapeutic Proteins" *Proceed. World Biomaterials Congress, 8,* 1179-1180 (2008).

1029. J Shofner, N Peppas, "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", *Proceed. World Biomaterials Congress, 8,* 2511-2512 (2008).

1030. S Marek, N Peppas, "Cationic Hydrogels for Intelligent Insulin Delivery", *Proceed. World Biomaterials Congress, 8,* 1928-1929 (2008).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 101 of 218

1031. F. M. Marks, A Lowman, N Peppas, "Analysis of Poly(Ethylene Glycol) Tethered Poly(Acrylic Acid) Networks for Mucoadhesive Applications", ", *Proceed. World Biomaterials Congress, 8*, 1929-1930 (2008).

1032. M. L. Gran, DE Owens III, N Peppas, "Metal-Polymer Nanocomposites as Externally Triggered Therapeutic Systems", *Proceed. World Biomaterials Congress, 8*, 2604-2605 (2008).

1033. L. L. Lao, S. S. Venkatraman, N. A. Peppas, "Fast- vs. Slow- Paclitaxel Eluting Degradable Stents and Their Impacts on Coronary Artery Smooth Muscle Cells Proliferation", *Proceed. World Biomaterials Congress, 8*, 248-249 (2008).

1034. T. G. Farmer Jr. , T. F. Edgar, and N. A. Peppas, "Pharmacokinetic Modelling of the Glucoregulatory System", *J. Drug Delivery Sci. Techn., 18,* 387-391 (2008).

1035. T.G. Farmer, T.F. Edgar and N.A. Peppas, "In Vivo Simulations of pH-Responsive Cationic Hydrogels in Diabetic Patients", *Ind. Eng. Chem. Res.. 47,* 10053-10063 (2008).

1036. L.L. Lao, S.S. Vankatraman and N.A. Peppas, "Comparative Study and Modeling of Hydrophilic and Hydrophobic Drug Release from Bioerodible Polymers", *Polym. Mater. Sci Eng Prepr., 98*, 309-310 (2008)

1037. N.A. Peppas, J.B. Thomas and J. W. McGinity, "Molecular Aspects of Mucoadhesive Carrier Development for Drug Delivery and Improved Absorption", *J. Biomat. Sci., Polym. Ed., 20,* 1-20 (2009).

1038. O.Z. Fisher, T. Kim, S.R.Dietz and N.A. Peppas, "Enhanced Core Hydrophobicity, Functionalization and Cell Uptake of Polybasic Nanomatrices", *Pharm. Res. , 26*, 51-60 (2009).

1039. L. Serra, J. Doménech and N. A. Peppas, "Engineering Design and Molecular Dynamics of Mucoadhesive Drug Delivery Systems as Targeting Agents", *Europ. J. Pharm. Biopharm., 71*, 519-528 (2009).

1040. N. Kamei, M. Morishita, H. Chiba, N.J. Kavimandan, N.A. Peppas, and K. Takayama, "Complexation Hydrogels for Intestinal Delivery of Interferon beta and Calcitonin", *J. Controlled Release, 134,* 98-102 (2009).

1041. M.A. Kanzelberger and N.A. Peppas: " The Development of an Oral Protein Delivery system Using PEGylated Proteins," *Trans. Soc. Biomater., 33,* 202-203 (2009).

1042. M.A. Phillips and N.A. Peppas: "Hydrogels modified with carbohydrates for oral protein delivery," *Trans. Soc. Biomater., 33,* 267-268 (2009).

1043. M.L. Gran and N.A. Peppas: "Temperature-Sensitive Polymer-Gold Nanocomposites for Externally Controlled therapeutic Systems," *Trans. Soc. Biomater., 33*, 346-347 (2009).

1044. D.L. Kryscio and N.A. Peppas: "Protein Recognitive Hydrogel Systems for Biosensor/Biodiagnostic Applications," ", *Trans. Soc. Biomater., 33,* 429-430 (2009).

1045. D.K.Snelling, B.L. Ekerdt, and N.A. Peppas: "Biodegradable, pH-responsive Hydrogels as Sensing Microstructures," *Trans. Soc. Biomater., 33,* 678-679 (2009).

1046. T. G. Farmer Jr. , T. F. Edgar, and N. A. Peppas, "Effectiveness of Intravenous Infusion Algorithms for Glucose Control in Diabetic Patients Using Different Simulation Models", *Ind. Eng. Chem. Res.*, 48, 4402-4414 (2009).

1047. N.A. Peppas, "Poly(2-hydroxy ethyl methacrylate)," in J.E. Mark, ed., *Polymer Data Handbook*, Second edition, 753-755, Oxford University Press, New York, 2009.

1048. N.A. Peppas, "Poly(N-isopropyl acrylamide)," in J.E. Mark, ed., *Polymer Data Handbook*, Second edition, 792-793, Oxford University Press, New York, 2009.

1049. D.A. Carr and N.A. Peppas, "Molecular Structure of Physiologically-Responsive Hydrogels Controls Diffusive Behavior", *Macromol. Biosciences, 9*, 497-505 (2009).

1050. D.R. Kryscio and N.A. Peppas, "Mimicking Biological Delivery Through Feedback-Controlled, Recognitive Drug Release Systems Based on Molecular Imprinting Methods", *AIChE J., 55,* 1311-1324 (2009).

1051. L. L. Lao, S. S. Venkatraman and Nicholas A. Peppas, "A Novel Model and Experimental Analysis of Hydrophilic and Hydrophobic Agent Release from Biodegradable Polymers", *J. Biomed. Mater. Res., 90*, 1054-1065 (2009).

1052. O.Z. Fisher and N.A. Peppas, "Polybasic Nanomatrices Prepared by UV-initiated Photopolymerization", *Macromolecules, 42*, 3391-3398 (2009).

1053. N.A. Peppas and D.A. Carr, "Impact of Absorption on Intelligent Therapeutics and Nanoscale Delivery of Protein Therapeutic Agents", *Chem. Eng. Sci., 64*, 4553-4565 (2009).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 102 of 218

1054. N. A. Peppas and N. J. Kavimandan, "Synergistic Effects of Permeation Enhancers and Complexation Hydrogels on The Cell Monolayer" *J. Drug Delivery Sci. Techn., 19*, 365-368 (2009).
1055. B. Slaughter, S. Khurshid, O.Z. Fisher, A. Khademhosseini and N.A. Peppas, "Hydrogels in Regenerative Madicine", *Adv. Mater., 21*, 3307-3329 (2009).
1056. M. Caldorera-Moore and N.A. Peppas, "Micro- and Nanotechnologies for Biomaterial-Based Medical Systems", *Advanced Drug Delivery Reviews, 61,* 1391-1401 (2009).
1057. E.H. Lauten and N.A. Peppas, "Intelligent Drug Release Using Molecular Imprinting Methods", *J. Drug Delivery Sci. Techn., 19,* 391-399 (2009).
1058. K.M. Wood, G.M. Stone and NA Peppas, "The Effect of Complexation Hydrogels on Insulin Transport in Intestinal Epithelial Cell Models", *Acta Biomaterialia*, 6, 48-56 (2010).
1059. D.A. Carr and N.A. Peppas, "Assessment of Poly(Methacrylic Acid-co-N-Vinyl Pyrrolidone) as a Carrier for the Oral Delivery of Therapeutic Proteins Using Caco-2 and HT29-MTX Cell Lines", *J Biomed. Mater Res, Part A,* 92A, 504-512 (2010).
1060. O.Z. Fisher, A. Khademhosseini and N.A. Peppas, "Drug Delivery: Nanoscale Devices" in K. H. J Buschow, R. W. Cahn, M. C. Flemings, B. Ilschner, E. J. Kramer, S. Mahajan and P. Veyssiere, eds, Encyclopedia of Materials: Science and Technology, Elsevier, Oxford, 1-9, 2010.
1061. N.A. Peppas, "Biomaterials in the Service of World Health and the Improvement of our Patients' Quality of Life", *Trans. Soc. Biomaterials, 34,* 96 (2010).
1062. M.L. Gran and N.A. Peppas, "Nanoparticulate Gold-Polymer Systems for Externally-Controlled Delivery", *Trans. Soc. Biomaterials, 34,* 650-651 (2010).
1063. D. Kryscio and N.A. Peppas, "Protein Recognitive Hydrogel Systems for Biosensor Applications", *Trans. Soc. Biomaterials, 34,* 884-885 (2010).
1064. W. B. Liechty and N.A. Peppas, "Synthesis and In Vitro Characterization of pH-Responsive Nanogels for Oral Delivery of siRNA, *Proceed. Intern. Symp. Polym. Therap., 8,* 71 (2010).
1065. C.L. Bayer, I.J. Trenchard and N.A.Peppas, "Analyzing Polyaniline-poly(2-acrylamidomethylpropane sulfonic acid) Biocompatibility with 3T3 Fibroblasts", *J. Biomater. Sci., Polym. Ed, 21*, 623-634 (2010).
1066. N. A. Peppas, ""Controlled Release 50 Years Later: Responsive Intelligence and Delivery by Design", *Proceed. Intern. Symp. Rel. Bioact. Mater., 37,* 4 (2010).
1067. O.Z. Fisher, A. Khademhosseini, R. Langer and N. A. Peppas, "Bioinspired Materials for Controlling Stem Cell Fate", *Acc. Chem. Res., 43*, 419-428 (2010).
1068. T. Betancourt, J. Prado, K. Soo and N.A. Peppas, "Characterization of pH-Responsive Hydrogels of Poly(itaconic acid)-g-Poly(ethylene glycol) Prepared by UV-Initiated Free Radical Polymerization as Biomaterials for Oral Delivery of Biological Compounds", *J. Biomed. Mater. Res., 93A*, 175-188 (2010).
1069. J.P. Shofner, M.A. Phillips and N.A. Peppas, "Cellular Evaluation of Synthesized Insulin-Transferrin Bioconjugates for Oral Insulin Delivery Using Intelligent Complexation Hydrogels", *Macromol. Biosci.,* 10, 299-306 (2010).
1070. J.P. Shofner and N.A. Peppas, "Overview of Biodrug Delivery Systems: Disease Fundamentals, Delivery Problems and Strategic Approaches", in "Biodrug Delivery Systems: Fundamentals, Applications and Clinical Development," M. Morishita and K. Park, eds, 1-12, Informa Healthcare, New York, NY, 2010.
1071. M. Morishita, E. S. Khafagy, J.P. Shofner, and N.A. Peppas, "Oral Delivery Systems", in "Biodrug Delivery Systems: Fundamentals, Applications and Clinical Development," M. Morishita and K. Park, eds, 172-186, Informa Healthcare, New York, NY, 2010.
1072. C. L. Bayer, A. A. Konuk and N. A. Peppas, "Development of a Protein Sensing Device Utilizing Interactions between Polyaniline and Polymer Acid Dopant", *Biomed. Microdev., 12*, 435-442 (2010).
1073. S.R. Marek, C.A. Conn and N.A. Peppas, "Cationic Nanogels Based on Diethylaminoethyl Methacrylate", *Polymer*, 51, 1237-1243 (2010)
1074. M. A. Phillips, M. L. Gran and N.A. Peppas, "Targeted Nanodelivery of Drugs and Diagnostics", *NanoToday*, *5*, 143-159 (2010).
1075. W.B. Liechty, D. R. Kryscio, B. V. Slaughter and N. A. Peppas, "Polymers for Drug Delivery Systems", *Ann. Revs. Chem. Biomol. Eng., 1*, 149-173 (2010).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 103 of 218

1076. I. Y. Sanchez and N. A. Peppas, "Feedback Control Systems Using Environmentally and Enzymatically Sensitive Hydrogels", in "Biomedical Applications of Hydrogels Handbook", R. M. Ottenbrite, K. Park, T. Okano and N.A. Peppas, eds, Springer, New York, 45-65, 2010.
1077. D.A. Carr, M. Gomez-Burgaz, M. Boudes and N.A. Peppas, "Complexation Hydrogels for the Oral Delivery of Growth Hormone and Salmon Calcitonin", *Ind. Eng. Chem. Res.*, *49*, 11991-11995 (2010).
1078. M.H. Smolensky and N.A. Peppas, "Chronotherapy of Hypertension: Past, Present and Future". *Proceed. Conf. Internat. Society Chronobiology, 26*, 5-6 (2010).
1079. É. Pérez Herrero, Eva M. Del Valle and N. A. Peppas, "Protein imprinting by means of alginate based polymer microcapsules", *Ind. Eng. Chem. Res.*, *49*, 9811-9814 (2010).
1080. N. A. Peppas, W. B. Liechty, M. Caldorera-Moore, M. Phillips and C. Schoener, "New Frontiers in Drug Delivery: Emerging Applications in Oral Administration", *Proceed. Intern. Symp. Recent Adv. Drug Delivery Systems*, 15, 38-39 (2011).
1081. N. A. Peppas, "Advances in Protein Delivery and Responsive Nanoscale Drug Delivery Systems", *Proceed. Span. Congress Ind. Pharmacy, 10*, 31-32 (2011).
1082. A. M. Fernandez, W. Liechty, M. D. Blanco, I. Iglesias and N. A. Peppas, "Development of pH-Responsive Biodegradable Hydrogels for the Controlled Release of Antitumor Drugs", *Proceed. Span. Congress Ind. Pharmacy, 10*, 161-162 (2011).
1083. S. S. Khurshid, C. E. Schmidt and N. A. Peppas, "Optimization of Molecularly Imprinted Polymers of Serotonin for Biomaterial Applications", *J. Biomat. Sci., Polym. Ed.*, *22*, 343-362 (2011)
1084. C. L. Bayer, É. Pérez Herrero, and N. A. Peppas, "Alginate Films as Macromolecular Imprinted Matrices", *J. Biomater. Sci., Polym. Ed*, *22*, 1523-1534 (2011).
1085. M. Caldorera-Moore and N. A. Peppas, "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Hydrophobic Cancer Drugs ", *Proceed. Intern. Symp. Rel. Bioact. Mater., 38,* (2011).
1086. C. A. Schoener and N. A. Peppas, "Polymeric Platforms for Oral Delivery of Chemotherapeutics", *Proceed. Intern. Symp. Rel. Bioact. Mater., 38,* (2011).
1087. W. B. Liechty, R. L. Scheuerle and N. A. Peppas, "Dual Responsive Nanoscale Hydrogels for Intracellular Delivery of small interfering RNA", *Proceed. Intern. Symp. Rel. Bioact. Mater., 38,* (2011).
1088. E. Dawson, N. A. Peppas and K. Roy, "An Injectable, Immune Priming Center for Cancer Vaccines: Simultaneous, Single-Carrier Delivery of Tumor-Antigens and Immune-Modulatory IL-10 siRNA to Dendritic Cells", *Proceed. Intern. Symp. Rel. Bioact. Mater., 38,* (2011).
1089. H. Hutson, C. Schoener, and N.A. Peppas, Hydrogels Decorated with Hydrophobic Nanoparticles for the Oral Delivery of Chemotherapeutics, *AIChE Proceedings*, 210-215, (2011).
1090. D. Snelling Van Blarcom and N.A. Peppas, "Microcantilever Sensing Arrays from Biodegradable, pH-Responsive Hydrogels", *Biomedical Microdevices*, *13*, 829-836 (2011).
1091. L.L. Lao, N.A. Peppas, F.Y.C. Boey and S. S. Venkatraman, "Modelling of Drug Release from Bulk-Degrading Polymers", *Intern. J. Pharm.*, 418, 29-41 (2011).
1092. J. Siepmann and N. A. Peppas, "Higuchi Equation: Derivation, Applications, Use and Misuse", *Intern. J. Pharmac, 418*, 6-12 (2011).
1093. J. Siepmann and N. A. Peppas, "Takeru Higuchi", *Intern. J. Pharmac*, *418,* 1-2 (2011).
1094. W. B. Liechty, M. Caldorera-Moore, M. A. Phillis, C. Schoener and N. A. Peppas, "Advanced Molecular Design of Biopolymers for Transmucosal and Intracellular Delivery of Chemotherapeutic Agents and Biological Therapeutics", *J. Controlled Release*, *155,* 119-127 (2011).
1095. M. E. Caldorera-Moore, W. B. Liechty and N.A. Peppas, "Responsive Theranostic Systems: Integration of Diagnostic Imaging Agents into Responsive Controlled Release Drug Delivery Systems", *Acc. Chem. Res.*, *44*, 1061-1070 (2011).
1096. C. Schoener, H. Hutson, G. Fletcher and N.A.Peppas, "Amphiphilic Interpenetrating Networks for the Oral Delivery of a Low Molecular Weight, Hydrophobic Molecule, *Ind. Engin. Chem. Res., 50,* 12556-12561 (2011).
1097. D.R. Kryscio, Y. Shi, P. Ren and N.A. Peppas, Molecular Docking Simulations for Macromolecularly Imprinted Polymers, *Ind Eng. Chem Res, 50*, 13877-13884 (2011).
1098. N.A. Peppas, B.V. Slaughter and M.A. Kanzelberger, "Hydrogels", in K. Matyjaszewski and M. Möller, editors, Polymer Science: A Comprehensive Reference, Vol 9, pp. 385–395 Elsevier, Amsterdam, 2012.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 104 of 218

1099. C. Echeverria, N.A, Peppas and C. Mijangos, "Novel Strategy for the Determination of UCST-like Microgel Network Structure: Effect on Swelling Behavior and Rheology", *Soft Matter*, *8*, 337-346 (2012).
1100. D. R. Kryscio and N. A. Peppas, Critical Review and Perspective of Macromolecularly Imprinted Polymers. *Acta Biomaterialia, 8*, 461-473 (2012).
1101. W.B. Liechty and N.A. Peppas, "Expert Opinion: Responsive Polymer Nanoparticles in Cancer Therapy", *Europ. J. Pharm. Biopharm., 80*, 241-246 (2012).
1102. A. K. Ekenseair, R. A. Ketcham and N.A. Peppas , "Visualization Of Anomalous Penetrant Transport In Glassy Poly(Methyl Methacrylate) Utilizing High-Resolution X-Ray Computed Tomography", *Polymer, 53* 776-781 (2012).
1103. C. Schoener, H. Hutson, and N.A.Peppas, "pH-Responsive Hydrogels with Dispersed Hydrophobic Nanoparticles for the Delivery of Hydrophobic Therapeutic Agents", *Polym. Intern., 61*, 874-879 (2012).
1104. W. B. Liechty and N.A. Peppas, "Enhanced Membrane Disruption and siRNA Delivery through Responsive Nanoscale Hydrogels", *AAPS Pharm. Sci.*, 3734 (2012).
1105. A. K. Ekenseair and N. A. Peppas, "Network Structure and Methanol Transport Dynamics in Poly(methyl methacrylate)", *AIChE J., 58*, 1600-1609 (2012).
1106. M. Morishita and N. A. Peppas, "Advances in Oral Drug Delivery: Improved Bioavailability of Poorly Absorbed Drugs by Tissue and Cellular Optimization ", *Adv. Drug Deliv. Revs., 64*, 479 (2012)
1107. S. Sant, S. Tao, Omar Z. Fisher, Q. Xu, N. A. Peppas and A. Khademhosseini" "Microfabrication Technologies for Oral Drug Delivery", *Adv. Drug Deliv. Revs., 64*, 496–507 (2012).
1108. N.A. Peppas and A.S. Hoffman, "Hydrogels" in "Biomaterials Science: An Introduction to Materials in Medicine," B.D. Ratner, A.S. Hoffman, F.J. Schoen and J.E. Lemons, eds., third edition, 166-179, Academic Press, New York, N.Y. 2012.
1109. D.R. Kryscio, M.Q. Fleming and N.A. Peppas, "Conformational Studies of Common Protein Templates in Macroolecularly Imprinted Polymers", *Biomed. Microd., 14*, 679-687 (2012)
1110. C. A. Schoener, H. N. Hutson and N. A. Peppas, "pH-Responsive Hydrogels with Dispersed Hydrophobic Nanoparticles for the Delivery of Hydrophobic Therapeutic Agents", *Polym Intern. 61*, 874-879 (2012)
1111. A. K. Ekenseair, R. N. Seidel and N. A. Peppas, "Tuning the Transport Dynamics of Small Penetrant Molecules in Glassy Polymers", *Polymer, 53*, 4010-4017 (2012).
1112. D.R. Kryscio and N.A. Peppas, "Surface imprinted thin polymer film systems with selective recognition for bovine serum albumin", *Anal. Chim. Acta*, *718*, 109-115 (2012).
1113. D.R. Kryscio, M. Q. Fleming and N. A. Peppas, "Protein Conformational Studies for Macromolecularly Imprinted Polymers, *Macromol. Biosciences*, *12*, 1137-1144 (2012).
1114. D. C. Forbes and N. A. Peppas, "Oral delivery of small RNA and DNA", *J. Controllled Release*, *162*, 438-445 (2012).
1115. M. Creixell and N. A. Peppas, "Co-delivery of siRNA and Therapeutic Agents Using Nanocarriers to Overcome Multidrug Resistance in Cancer Therapy", *NanoToday*, 7, 367–379 (2012)
1116. Cha C, Liechty W, Khademhosseini A, Peppas N A , Designing Biomaterials to Direct Stem Cell Fate, *ACS Nano*, *6*, 9353-9358 (2012)
1117. N. A. Peppas, An introduction to the most cited papers in the history of the ADDR journal, *Adv. Drug Deliv Rev. 64* 1-3 (2012)
1118. C.A. Schoener and N.A. Peppas, Oral Delivery of Chemotherapeutic Agents: Background and Perspective, *J. Drug Deliv. Sci. Technol.*, *22*, 459-468 (2012).
1119. H. Bae H, A.S. Puranik, R. Gauvin, F. Edalat, B. Carrillo-Conde, N.A. Peppas and A. Khademhosseini, Building functional vascular networks within tissue engineered constructs, *Science Translational Medicine Building Vascular Networks, Sci. Transl. Med., 4*, 160ps23 (2012).
1120. N.A. Peppas, 2012 Foundeers Award Acceptance Remarks, *Bridge, 42 (4)*, 69-72 (2012).
1121. N. A. Peppas, "Historical Perspectives on Advanced Drug Delivery: How engineering design and mathematical modeling helped the field mature ", *Adv. Drug Deliv. Reviews*, *65*, 5-9 (2013).
1122. A. S. Puranik, E. R. Dawson and N.A. Peppas, "Recent Advances in Drug Eluting Stents", *Intern. J Pharmac., 441*, 665-679 (2013).
1123. S. Steichen, M. E. Caldorera-Moore and N. A. Peppas, "Nanoparticles and Targeting Moieties for the Delivery of Cancer Therapeutics", *Europ. J. Pharm. Sci., 48, 416-427* (2013).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 105 of 218

1124. A. Khademhosseini, and N. A. Peppas, Micro- and Nanoengineering of Biomaterials for Healthcare Applications, *Adv. Healthcare Mater., 2*, 10-12 (2013)
1125. J. M. Knipe, J. Peters and N. A. Peppas, "Theranostic agents for gene delivery and spatiotemporal tracking", *NanoToday, 8*, 21-38 (2013).
1126. D. Forbes, M. Creixell, H Frizzell and N.A. Peppas, Polycationic nanoparticles synthesized using ARGET ATRP for drug delivery, *Europ. J. Pharm. Biopharm., 84*, 472-478 (2013).
1127. C.A. Schoener, H.N. Hutson and N.A. Peppas, Amphiphilic Interpenetrating Polymer Networks for the Oral Delivery of Chemotherapeutics, *AIChE J. 59*, 1472-1478 (2013).
1128. S. Marek and N. A. Peppas, "Insulin Release Dynamics from Poly(diethylaminoethyl methacrylate) Hydrogel Systems", *AIChE J.*, 59, 3578-3585 (2013).
1129. C.A. Schoener, B. Carillo-Conde, H.N. Hutson and N.A. Peppas, An Inulin and Doxorubicin Conjugate for Improving Cancer Therapy, *J. Drug Deliv. Sci. Technol. 23*, 111-118 (2013).
1130. N. A. Peppas, Smart Materials for Drug Delivery: Preface, in Alvarez-Lorenzo C; Concheiro A., Smart Materials for Drug Delivery, RSC Smart Materials Series, London, UK, 2013.
1131. C.A. Schoener, H.N. Hutson, N.A. Peppas, pH-Responsive Hydrogels with Dispersed Hydrophobic Nanoparticles for the Oral Delivery of Chemotherapeutics, *J. Biomed. Mater. Res. A 101*, 2229-2236 (2013).
1132. S. D. Steichen and N. A. Peppas, "Development of a pH-Responsive Hydrogel Network for the Oral Delivery of Human Growth Hormone", *Trans. Soc. Biomaterials, 37,* 123 (2013).
1133. D. C. Forbes, H. Frizzell and N.A. Peppas, "Polycationic Hydrogel Nanoparticles for siRNA Delivery", *Trans. Soc. Biomaterials, 37,* 136 (2013).
1134. N.A. Peppas, "Novel Intelligent and Recognitive Carriers for siRNA Delivery and Theranostics", *Proceed. Asian Arden Conf.,* 5, 1-2 (2013).
1135. C.A. Schoener and N.A. Peppas, pH-Responsive hydrogels containing PMMA nanoparticles: an analysis of controlled release of a chemotherapeutic conjugate and transport properties, *J. Biomat. Sci. Polym. Ed. 24*, 1027-1040 (2013).
1136. E Losi, N Peppas, G Colombo, R Bettini, F Sonvico and P Colombo, Investigation of Swelling Behavior of Dome Matrix® Drug Delivery Module by X-Ray Tomography, *J. Drug. Deliv. Sci. Technol. 23*, 165-170 (2013).
1137. W.B. Liechty, R.L. Scheuerle and N.A. Peppas, "Tunable, responsive nanogels containing tert-butyl methacrylate and 2-(tert-butylamino)ethyl methacrylate", *Polymer 54*, 3784-3795 (2013).
1138. D. Forbes and N.A. Peppas, "Differences in molecular structure in cross-linked polycationic nanoparticles synthesized using ARGET ATRP or UV-initiated polymerization", *Polymer 54*, 4486-4492 (2013).
1139. N. Annabi, A. Tamayol, J.A. Uquillas, M. Akbari, L. Bertassoni, C. Cha, G. Camci-Unal, M. Dokmeci, N.A. Peppas and A. Khademhosseini, Emerging Frontiers in Rational Design and Application of Hydrogels in Regenerative Medicine, *Adv. Materials*, *26*, 85-124 (2014).
1140. A. K. Gaharwar, N. A. Peppas, A Khademhosseini, Nanocomposite Hydrogels for Biomedical Applications, *Biotechnology & Bioengineering*, *111*, 441-453 (2014)
1141. J.M. Knipe, F. Chen, N.A. Peppas, Multi-responsive polyanionic microgels with inverse pH responsive behavior by encapsulation of polycationic nano gels, *J Appl Polym Sci, 131*, 40098 (2014).
1142. L. A. Sharpe, A. Daily, S. Horava and N. A. Peppas, Therapeutic applications of hydrogels in oral drug delivery. *Exp. Opinion on Drug Delivery*, *11*, 901-915 (2014).
1143. D. C. Forbes and N. A. Peppas, Polycationic Nanoparticles for siRNA Delivery: Comparing ARGET ATRP and UV-initiated Formulations, *ACS Nano*, *8*, 2908-2917 (2014).
1144. M. C. Koetting and N. A. Peppas, pH-Responsive poly(itaconic acid-co-N-vinylpyrrolidone) hydrogels with reduced ionic strength loading solutions offer improved oral delivery potential for high isoelectric point-exhibiting therapeutic proteins, *Intern J Pharmac*, *471*, 83-91 (2014).
1145. H. Culver, A. Daily, A. Khademhosseini and N.A. Peppas, Intelligent recognitive systems in nanomedicine, *Current Opinions in Chemical Engineering*, *4,* 105-113 (2014).
1146. M Durán-Lobato, B Carrillo-Conde, Y Khairandish, NA Peppas, Surface-modified P(HEMA-co-MAA) Nanogel Carriers for Oral Vaccine Delivery: Design, Characterization, and Targeting Evaluation, *Biomacromolecules*, *15*, 2725-2743 (2014).
1147. D. C. Forbes and N. A. Peppas, Polymeric Nanocarriers for siRNA Delivery to Murine Macrophages, *Macromol Biosci.*, *14*, 1096-1105 (2014).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 106 of 218

1148. NA Peppas, B Narasimhan, Mathematical models in drug delivery: How modeling has shaped the way we design new drug delivery systems, *J. Controlled Release*, 190, 75-81 (2014).
1149. A.K. Gaharwar, N.A. Peppas and A. Khademhosseini, Nanocomposite Hydrogels for Biomedical Applications, *Biotechnology & Bioengineering, 111*, 441-453 (2014)
1150. N Annabi, A Tamayol, SR Shin, AM Ghaemmaghami, NA Peppas, Akhademhosseini, Surgical Materials: Current Challenges and Nano-enabled Solutions, *Nano Today, 9*, 574-589 (2014).
1151. A Singh, NA Peppas, Hydrogels as scaffolds for immunomodulation, *Adv. Mater.*, Hydrogels as scaffolds for immunomodulation, *Adv. Mater., 26*, 6530-6541, (2014).
1152. J. M. Knipe and N.A. Peppas, Multi-responsive Hydrogels for Drug Delivery and Tissue Engineering Applications, *Regenerative Biomaterials*, *1*, 57-65 (2014).
1153. M. Durán-Lobato, B. Carrillo-Conde, Y. Khairandish and N. A. Peppas, pH-Responsive Mannan-modified P(HEMA-co-MAA) Nano-hydrogel Carriers for Oral Vaccine Delivery, *Proceed. PBP World Meeting*, 9 (2014).
1154. NA Peppas, Commentary on an exponential model for the analysis of drug delivery: Original Research Article: A simple equation for description of solute release: I II. Fickian and non-Fickian release from non-swellable devices in the form of slabs, spheres, cylinders or discs, 1987, *J. Controlled Release, 190*, 31-32 (2014).
1155. N.A. Peppas et al., Highly cited research articles in JCR: Commentaries and perspectives, J. Control. Rel., 190, 29-74 (2014).
1156. A. Joaquin, N.A. Peppas and J. Zoldan, Hydrogel Polymer Library for Developing Induced Pluripotetnt Stem Cell Derived Cardiac Patches. *Tiss, Engin, A*, 20, S55 (2014).
1157. N.A. Peppas, M. Caldorera-Moore and S.D. Steichen, Historical Survey of Drug Delivery Devices, in "Drug-Device Combinations for Chronic Diseases," R. Siegel and S P Lyu, eds., 39-65, Drug-Device Combinations for Chronic Diseases, Wiley, New York, NY (2015).
1158. N.A. Peppas, Introduction to M.V. Sefton Festschrift, *Biomat. Sci.*, Introduction, Themed collection for Michael Sefton's 65th birthday, *Biomater. Sci.*, 3, 1 (2015).
1159. D.S. Spencer, A.S. Puranik, N.A. Peppas, Intelligent Nanoparticles for Advanced Drug Delivery in Cancer Treatment, *Curr. Opin Chem. Engineer., 7*, 84-92 (2015).
1160. S.R. Marek, M.L. Gran, N.A. Peppas, M. Caldorera-Moore, Intelligent, Responsive and Theranostic Hydrogel Systems for Controlled Delivery of Therapeutics, in HJ Schneider, ed, Chemoresponsive Materials: Stimullation by Chemical and Biological Signals, RSC, London, 2015.
1161. BV Slaughter, AT Blanchard, KF Maass, NA Peppas, Dynamic swelling behavior of interpenetrating polymer networks in response to temperature and pH, *J Appl Polym Sci, 132*, 24, 42076 (2015)
1162. B.R. Carrillo-Conte, E. Brewer, A. Lowman and N. A. Peppas,Complexation Hydrogels for Oral delivery Vehicles of Therapeutic Antibodies: An in Vitro and ex Vivo Evaluation of Antobody Stability and Bioactivity, Ind Eng Chem Res 54, 10197-10205 (2015).
1163. M.C. Koetting, J.T. Peters, S.D. Steichen, NA Peppas, Stimulus-responsive Hydrogels: Theory, modern advances and applications, *Mat. Sci. Engin. R: Reports*, 93, 1-49 (2015).
1164. J. M. Knipe, F. Chen, N. A Peppas, Enzymatic Biodegradation of Hydrogels for Protein Delivery Targeted to the Small Intestine, *Biomacromolecules, 16*, 962-972 (2015).
1165. C. A. Reinhart-King, C. E. Schmidt and N.A.Peppas, The 2015 Young Innovators of Cellular and Molecular Bioengineering, Cell. Molec. Engn., 6, 305-306 (2015),
1166. C.N. Koepke, H.R. Culver and N. A. Peppas, "Molecularly Imprinted Polymers on Surface-Modified Gold Nanoparticles for Biosensing Applications", *Trans. Soc. Biomaterials, 39* (2015).
1167. L. A. Sharpe, O. Haddadin, J. Thirumavalavan, Y. Khairandish, and N. A. Peppas, PROMPT: Polyanhydride- Releasing Oral Microparticle Technology as an Oral Vaccine Strategy, ", *Trans. Soc. Biomaterials, 39* (2015).
1168. S.D. Horava and N.A.Peppas, "pH-Responsive Carriers for the Oral Delivery of Hemophiliac Factor IX, *Trans. Soc. Biomaterials, 39* (2015).
1169. L. E. Strong, J. M. Knipe, N. A. Peppas, "pH Responsive Nanoparticles-in-Microparticles System for Oral Delivery of siRNA", *Trans. Soc. Biomaterials, 39* (2015).
1170. J. T. Peters, S. Verghese, and N. A. Peppas, "Surface Hydrolysis for the Functionalization of pNIPAAm Nanogels", *Trans. Soc. Biomaterials, 39* (2015).
1171. H.R. Culver and N. A. Peppas, "Responsive polymer based nanobiosensors for diagnostic applications.", *Proceed. Polaris Conference*, 2 (2015).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 107 of 218

1172. J.R. Clegg, H.R. Culver, J. Zhong, A.S. Irani and N.A. Peppas, "Molecularly Imprinted Polymers Capture Biomolecules According to Molecular Weight and Isoelectric Point", *Proceed. Polaris Conference*, 2 (2015).

1173. B. Carillo-Conde, E. Brewer, A.M. Lowman and N.A. Peppas, Complexation Hydrogel Carriers as Oral Delivery Vehicles of Therapeutic Antibodies: An in-vitro and ex-vivo Evaluation of Antibody Stability and Bioactivity, *Ind. Engn. Chem. Res.*, *54*, 10197-10205 (2015).

1174. C.A. Reinhardt-King, C.E. Schmidt and N.A. Peppas, The 2015 Young Innovators of Cellular and Molecular Engineering, *Cell. Molec. Engin.*, *8*, 305-306 (2015).

1175. M Caldorera-Moore, G Fletcher, K. Maas, R. Hegab and N.A. Peppas, Hybrid Responsive Hydrogel Carriers for Oral Delivery of Low Molecular Weight Therapeutic Agents , *J. Drug Deliv. Sci.* Techn., *30*, 352-359 (2015).

1176. N.A. Peppas and D. Snelling Van Blarcom, Hydrogel-based Biosensors and Sensing Devices for Drug Delivery, *J. Contr. Release*, *240*, 142-150 (2016).

1177. N.A. Peppas, Promoting Convergence in Biomaterials Science and Engineering, *Annals Chinese Acad. Engineering* (2015).

1178. B.R. Carrillo-Conde, E. Brewer, A. Lowman, & N.A. Peppas. Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies: An in Vitro and ex Vivo Evaluation of Antibody Stability and Bioactivity. *Industrial and Engineering Chemistry Research*, 54, 10197-10205 (2015).

1179. M Caldorera-Moore, G Fletcher, K. Maas, NA Peppas, Hybrid Responsive Hydrogel Carriers for Oral Delivery of Hydrophobic, Low Molecular Weight Therapeutics, *J. Drug Deliv. Sci. Technol.*, 30, Part B, 352-359 (2015).

1180. JM Knipe, LE Strong, NA Peppas, Enzyme- and pH-Responsive Microencapsulated Nanogels for Oral Delivery of siRNA to Induce TNF-α Knockdown in the Intestine, *Biomacromolecules*, 17, 788-797 (2016).

1181. S. D. Horava and N. A. Peppas, Design of pH-Responsive Biomaterials to Enable the Oral route of Hematological Factor IX, *Ann Biomed Engin.*, 44, 1970-1982 (2016).

1182. N.A. Peppas and J.R. Clegg, The Challenge to Improve the Response of Biomaterials to the Physiological Environment, *Regen. Biomaterials*, 3, 67-71 (2016).

1183. H. Culver, S. Steichen, M. Herrera-Alonso, N. A. Peppas, Versatile Tool for Colloidal Stability and Surface Functionalization of Hydrophobic Nanomaterials, *Langmuir*, 32, 5629-5636 (2016).

1184. M.C. Koetting, J.F. Guido, M. Gupta, A. Zhang, & N.A. Peppas. pH-responsive and enzymatically-responsive hydrogel microparticles for the oral delivery of therapeutic proteins: Effects of protein size, crosslinking density, and hydrogel degradation on protein delivery. *J. Control. Release*, 221, 18-25 (2016).

1185. J.P. Shofner and N.A. Peppas, "Overview of Biodrug Delivery Systems: Disease Fundamentals, Delivery Problems and Strategic Approaches", in "Biodrug Delivery Systems: Fundamentals, Applications and Clinical Development," M. Morishita and K. Park, eds, 1-12, Informa Healthcare, New York, NY, 2016.

1186. M. Morishita, E. S. Khafagy, J.P. Shofner, and N.A. Peppas, "Oral Delivery Systems", in "Biodrug Delivery Systems: Fundamentals, Applications and Clinical Development," M. Morishita and K. Park, eds, 172-186, Informa Healthcare, New York, NY, 2016.

1187. M. I. Neves, M. E. Wechsler, M. E. Gomes, R. L. Reis, P. L. Granja, and N. A. Peppas, Molecularly Imprinted Intelligent Scaffolds for Tissue Engineering Applications. *Tissue Engineering Part B: Reviews*, *23*, 27-43 (2016).

1188. A. S. Puranik, L. P. Pao, V. M. White, and N. A. Peppas" Synthesis and Characterization of pH-Responsive Nanoscale Hydrogels for Oral Delivery of Hydrophobic Therapeutics, *Europ. J. Pharm. Biopharm.*, 108, 196-213 (2016).

1189. H. Culver, L.S. Strong and N.A. Peppas, "Development of protein biosensors using surface-imprinted silica-gold nanoshells, *Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress*. doi: 10.3389/conf.FBIOE.2016.01.00185 (2016).

1190. A.M. Wagner, B. Chethan, A. Schroeder, N. Al-Sayyad and N.A. Peppas, "Influence of the Molecular Architecture in the Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", *Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress*. doi: 10.3389/conf.FBIOE.2016.01.01343 (2016).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 108 of 218

1191. J.R. Clegg, J.X. Zhong, H.R. Culver and N.A. Peppas, "Molecularly Imprinted Polymers for Protein Capture, Sequestration, and Delivery", *Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress*. doi: 10.3389/conf.FBIOE.2016.01.02358 (2016).

1192. J. Vela Ramirez, L. Sharpe, J. Guido, O. Mutaz-Haddadin and N.A. Peppas, "Hydrogel microencapsulation of polyanhydride nanoparticles for antibiotic treatment", *Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress*. doi: 10.3389/conf.FBIOE.2016.01.03067 (2016).

1193. L. Sharpe, J. Vela Ramirez, J. Guido, O. Mutaz-Haddadin and N.A. Peppas, "Polyanhydride-releasing oral microparticle technology (PROMPT) as a strategy for subunit vaccine administration", *Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress*. doi: 10.3389/conf.FBIOE.2016.01.01628 (2016).

1194. D. Spencer, D. Beckman, B. Luu and N.A. Peppas, " Characterization of Tertiary Amine Methacrylate Nanogels for Co-delivery of Multiple Therapeutic Agents", *Front. Bioeng. Biotechnol. Conference Abstract: 10th World Biomaterials Congress*. doi: 10.3389/conf.FBIOE.2016.01.01628 (2016).

1195. A. S. Puranik, L. P. Pao, V. M. White, and N. A. Peppas, In Vitro Evaluation of pH-Responsive Nanoscale Hydrogels for the Oral Delivery of Hydrophobic Therapeutics, *Ind. Engin. Chem. Res., 55*, 10576-10590 (2016).

1196. H. R. Culver, S. D. Steichen and N.A. Peppas, " A Closer Look at the Impact of Molecular Imprinting on Adsorption Capacity and Selectivity for Protein Templates", *Biomacromolecules, 17*, 4045-4053 (2016).

1197. N.A. Peppas and A. Khademhosseini, Make Better, Safer Biomaterials, *Nature, 540*, 335-337 (2016).

1198. S. D. Steichen, C. O'Connor, and N. A. Peppas, Development of a P((MAA-co-NVP)-g-EG) hydrogel platform for oral protein delivery: effects of hydrogel composition on environmental response and protein partitioning, *Macromol. Biosci*. Published as DOI: 10.1002/mabi.201600266 (2017).

1199. S. Horava, K. J. Moy and N.A. Peppas, Biodegradable Hydrophilic Carriers for the Oral Delivery of Hematological Factor IX for Hemophilia B Treatment, *Intern. J. Pharmac, 514*, 220-228 (2017).

1200. H. Culver, J. Clegg and N.A. Peppas, Hydrogels Responsive to Analytes and External Biological Inputs, *Acc. Chemical Research*, 50, 170-178, (2017).

1201. S. Horava and N.A. Peppas, "Recent Advances in Hemophilia B Therapy", *Drug Delivery Transl. Res.*, 1-14 (2017)

1202. J. Vela-Ramirez, L. Sharpe and N.A. Peppas, "Current state and challenges in developing oral vaccines", *Adv Drug Deliv Revs*, (under review).

1203. M. Yoshida, N. Kamei, K. Muto, J. Kunisawa, K. Takayama, N. A. Peppas, M. Takeda-Morishita, "Complexation hydrogels as potential carriers in oral vaccine delivery systems", *Europ. J. Pharm. Biopharm., 112*, 138-142 (2017)

1204. C O'Connor, S Steichen, NA Peppas, Development and characterization of stimuli-responsive hydrogel microcarriers for oral protein delivery, *J. Biomed. Mater. Res, A,* Published as DOI: 10.1002/jbm.a.36030 (2017).

1205. John R. Clegg, Justin X. Zhong, Afshan S. Irani, Joann Gu, David S. Spencer and Nicholas A. Peppas, Characterization of protein interactions with molecularly imprinted hydrogels that possess engineered affinity for high isoelectric point biomarkers, *J. Biomed. Mater. Res, A,* Published as DOI: 10.1002/jbm.a.36029 (2017).

1206. JR Clegg, ME Wechsler, NA Peppas, "Vision for Functionally Decorated and Molecularly Imprinted Polymers in Regenerative Engineering, Regen. Engin. Transl. Medicine, 1-10 (2017).

1207. N.A. Peppas, Intelligent Hydrogels as Biomaterials, *Ann Biomed Engin.*, (under review).

1208. BV Slaughter, S.E. Propst and N.A. Peppas, Synthesis and Purification of Interpenetrating Network Nanoparticles Syntehsized via Microemulsion Polymerization, *Biomat. Sci*. (under review).

1209. J. P. Shofner and N.A. Peppas, Oral Delivery of Protein-Transporter Bioconjugates Using Intelligent Complexation Hydrogels, *Europ. J. Pharm. Sci*. (under review).

1210. M. L. Gran and N. A. Peppas, Metal-Polymer Nanoparticulate Systems for Externally-Controlled Delivery, *Adv. Health Care Mater*. (under review).

1211. A. Wagner and N.A. Peppas, Designing the New Generation of Intelligent Biocompatible Carriers for Protein Delivery, *Intern. J. Pharm.* (under review).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 109 of 218

Patents

1. N.A. Peppas and G.N. Valkanas, "Method of Production of Crosslinked Microreticular Polystyrene and its Graft Copolymers," *European Patent No. 54356, June 1, 1976.*
2. N.A. Peppas, W.H. Yang, and V.F. Smolen, "Preparation and Use of Silicone-Acrylic Copolymers for Hard Contact Lenses," U.S. Patent.
3. E. Mathiowitz, N.A. Peppas, A. Staubli, A. Mikos and R. Langer, "Bioadhesive Properties of Polyanhydrides," U.S. Patent.
4. E. Mathiowitz, N.A. Peppas and R. Langer, "Poly(anhydrides) as Oral Delivery Systems and Bioadhesive Properties of Poly(anhydrides)," U.S. Patent.
5. N.A. Peppas and S. Bhargava: "Poly(ethylene oxide) Star and Starburst Polymers," US Patent (pending).
6. A.B. Argade and N.A. Peppas: "Novel Star-shaped Polymers for Biomedical and Pharmaceutical Applications," US Patent.
7. K.S. Anseth, A.R. Kannurpatti and N.A. Peppas: "A Photopolymerization Technique to Synthesize Delivery Devices with Controlled Release Rates of Active Agents," U.S. Patent.
8. N.A. Peppas, A.M. Lowman, T. Nagai and M. Morishita: "Method of Oral Delivery of Proteins," *EP Patent 0,975,328, US Patent; WO 98/43615; Australian Patent No. 727053/March 15, 2001; Turkish Patent No. TR1999 03240 B/December 21, 2000; New Zealand No. 500075/July 21, 2001; Singapore Patent No. 9904786-2/February 22, 2002.*
9. P. Bures, D.B. Henthorn and N.A. Peppas: "Microparticle Composition and Method", *U. S. Patent, 0071869 A1, June 13, 2002.*
10. N.A. Peppas, F.J. Doyle III, K. Podual and R. Parker: "Internally Regulated Insulin Release Gel System," U.S. Patent (pending).
11. N.A. Peppas and C.M. Hassan: "Process to Assure Long Term Stability of Poly(vinyl alcohol) Gels," U.S. Patent (pending).
12. W. Leobandung, H. Ichikawa and N.A. Peppas: "Novel chronopharmacological Drug Delivery Systems," U.S. Patent (pending).
13. P. Bures, D.B. Henthorn and N.A. Peppas: "A Method of Production of Hydrophilic Micropsheres Using Non-Toxic Agents," U.S. Patent (pending).
14. N.A. Peppas and B. Kim: "Method of Preparation of Polyacrylate and polymethacylate Copolymers Containing Glucose Moieities," U.S. Patent (pending).
15. R. Bashir, N.A. Peppas, Z. Hilt and A. Gupta: "Microscale sensor element and related device and method of Use," *U.S. Patent 6,935,165, issued August 30, 2005.*
16. N.A. Peppas, J. Z. Hilt and M. E. Byrne, "Polymer Network Compositions and Associated Methods", *U.S. patent WO 2006/116734 (A2), November 2, 2006.*
21. D. Owens III and N.A. Peppas: "Temperature-sensitive nanoparticles for controlled drug delivery", *U.S. patent App. 20,080/138,430, 2007.*
22. J.B. Thomas and N.A. Peppas: "Polymerization of Carboxylic acid and Polyethylene Glycol-Containing Nanoparticles", U.S. patent (pending)
23. M.C. Boudes, D.A. Carr and N.A. Peppas, "Formulations and Methods of Oral Delivery of Proteins", U.S. patent (pending).
24. J.Z. Hilt, M.E. Byrne and N.A. Peppas: "Polymer Network Compositions and Associated Methods", U.S. patent WO 2007/071712 (A1), March 29, 2007.
25. N.A. Peppas, J. Z. Hilt and M. E. Byrne, "Polymer Network Compositions and Associated Methods", U.S. patent *WO US 2007/190084 (A1), August 16, 2007.*
26. C.L. Bayer and N.A. Peppas, "Method of Preparation and Composition of Micro- and Nanodevices for Recognition and Sensing", U.S. patent (pending).
27. N.A. Peppas, ""Methods and Process For the Production of Multi-Coated Recognitive and Releasing Systems", *U.S. patent 60/894,451 March 12, 2007.*
28. C.L. Bayer and N.A. Peppas, "Recognitive Hydrogel", *U.S. patent WO 2008/131123 (A1), October 30, 2008*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 110 of 218

29. N.A. Peppas, ""Methods and Process For the Production of Multi-Coated Recognitive and Releasing Systems", *U.S. patent 2008/226684 (A1), September 18, 2008.*
30. S.S. Khurshid, C. M. Schmidt and N.A. Peppas: "Recognitive Hyaluronic Acid", U.S. patent (pending).
31. N. A. Peppas, B. Ekerdt and M. Gomez: "Multicompartmental tablets and multilaminate systems for biomarker recognition and drug delivery", U.S. patent (pending).
32. O.Z. Fisher and N.A. Peppas: "Method of Fabrication and Processing of Polybasic Nanomatrices, Nanomaterials, Nanogels and Nanodevices", U.S. Patent (pending).
33. N.A. Peppas: "Composition and Method of preparation of Release Systems for Constant (Zero-Order) Release of Active Agents", U.S. Patent App. *US 20090317465 A1, December 24, 2009.*
34. A. Peppas: "Method and Process for the Production of the Production of Multicoated, Recognitive and Releasing Systems", *U.S. Patent 2009/232857 September 17, 2009*
35. *N. A. Peppas, B. Ekerdt and M. Gomez: "Method and Process for the Production of Multicoated, Recognitive and Releasing Systems", U.S. Patent 8,821,899, issued September 2, 2014.*
36. N. A. Peppas and L. Brannon-Peppas: "Multilayer Modular Oral Release System", U.S. Patent (pending).
37. N.A. Peppas: "Mimetic Drug Delivery Systems for Release with Specific Molecular Triggers", U.S. Patent App. 20,100/210,835, 2010.
38. *N.A. Peppas and E. Perez-Herrero: "Protein Imprinting by Means of Alginate-Based Polymer Microcapsules", U.S. Patent 8,940,394, issued January 27, 2015.*
39. N. A. Peppas and L. Brannon-Peppas: "Tablets and Discs with Compartments with Two or More Drugs for Release at Certain Intervals and with Specific Rates", *U.S. Patent US 20100112054 A1, May 6, 2010.*
40. N.A. Peppas and C.L. Bayer, "Recognitive Hydrogel", *U.S. patent 8,304,247, issued November 6, 2012.*
41. N.A. Peppas, J. Z. Hilt and M. E. Byrne, "Polymer Network Compositions and Associated Methods", *U.S. patent 7,771,732, issued August 10, 2010.*
42. N.A. Peppas and A. Durgam: "Highly Porous Recognitive Polymer Systems", *U.S. Patent 8,741,316, issued June 3, 2014.*
43. *N. A. Peppas, B. Ekerdt and M. Gomez: "Method and Process for the Production of Multicoated, Recognitive and Releasing Systems", U.S. patent 8,771,713, issued July 8, 2014.*
44. N.A. Peppas and M.C. Koetting. "Polymers for Delivery of High Isoelectric Point Therapeutic Proteins" , *U.S. Patent pending Patent Application UTSB.P1031WO.*
45. N.A. Peppas and W. Liechty, Delivery of small interfering RNA and microRNA through membrane-disruptive, responsive nanoscale hydrogels, *US 20150216814 A1, April 14, 2015.*
46. W. Liechty and N.A. Peppas, "Delivery Of Small Interfering RNA and Micro RNA Through Nanogels Containing Hydrophobic Pseudo-Peptides", US Patent pending.
47. M.C. Koetting and N.A. Peppas, Aptamer Ligands and Selection Protocol for Enhancing Intestinal Transport of Orally-Administered Therapeutics, US Patent pending,
48. S. Horava and N. A. Peppas, "Polymers for Delivery of Large Molecular Weight Therapeutic Proteins," *US Patent pending, Application No. 62/076,124.*
49. H. R. Culver and N. A. Peppas, Method of Preparation of Biodegradable Nanoparticles with Recognition Characteristics" *Application Serial No. PCT/US2014/57812 filed September 26, 2014; U.S. Provisional Application Serial No. 61/883,630 filed September 27, 2013*
50. J. Knipe and N.A. Peppas, "Hydrogels For Delivery Of Therapeutic Compounds," *U.S. Provisional Patent Application No. 62/103,446 January 14, 2015.*
51. N.A. Peppas, "Mimetic Drug Delivery Systems for Release with Specific Molecular Triggers", *U.S. Provisional Patent Application No. 13/708,224, June 6, 2015.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 111 of 218

Abstracts

1. N.A. Peppas and P.J. Hansen: "Isothermal Crystallization of Crosslinked and Uncrosslinked Hydrophilic Polymers in the Presence or Absence of Solvent," *Abstr. AIChE Meeting,* Abstract 7a, (April 1979).
2. N.A. Peppas, C.T. Reinhart, G.S. Sekhon and R.A. Sorensen: "Diffusion of Macromolecules Through Model Hydrophilic Networks," *Abstr. AIChE Meeting,* Abstract 14f, (August 1979).
3. K.F. Zieminski and N.A. Peppas: "Migration of Environmentally Hazardous Plasticizers from Polymers," *Abstr. AIChE Meeting,* Abstract 28e, (November 1980).
4. N.A. Peppas, R. Gurny and P.A. Buri: "Modelling of Drug Diffusion Through Swellable Polymeric Systems," *Abstr. ACS, 179,* INDE-34, (1980).
5. D.R. Miller and N.A. Peppas: "ESCA Characterization of PVA/PNVP Copolymers for Biomedical Applications," *Abstr. AIChE Meeting,* Abstract 28e, (November 1980).
6. C.T. Reinhart and N.A. Peppas: "Solute Diffusion in Highly Swollen Gels," *Abstr. AIChE Meeting,* Abstract 97g, (November 1980).
7. L.M. Lucht and N.A. Peppas: "Macromolecular Network Analysis of Bituminous Coals," *Abstr. AIChE Meeting,* Abstract 79c, (November 1980).
8. S.J. Napp and N. A. Peppas: "Oxygen Diffusion in Glassy Copolymers of Methyl Methacrylate and Disiloxanes," *Bull. Amer. Phys. Soc., 26,* 462, (1981).
9. N.A. Peppas and K.F. Zieminski: "Case-II Transport in Plasticized PVC," *Proceed. IUPAC, 27,* 735, (1981).
10. G.W.R. Davidson III, S.R. Ash and N.A. Peppas: "Streptokinase-Immobilized Hydrogels: Preparation, Characterization and Preliminary Evaluation as Blood-Compatible Materials," *Artif. Organs, 5* (A), 54, (1981).
11. N.A. Peppas: "Polymer Structure and Thermodynamic Considerations of Solute Transport in Polymer Membranes." *Abstr. ACS, 182,* INDE-94, (1981).
12. N.A. Peppas, R.W. Korsmeyer, D.L. Meadows, H.J. Moynihan, C.T. Reinhart, N.M. Franson and M.S Honey, "Macromolecular Structure and Solute Diffusion in Membranes," *Proceed. Intern. Symp. Membr. & Membr. Process.,* 73, (1982).
13. E.S. Miller, D.L. McCullum and N.A. Peppas: "Effect of Porous Structure on Drug-Release from Hydrophobic Polymers," *Proceed. Intern. Symp. Polym. in Medicine,* 24, (1982).
14. N.A. Peppas and D.L. Meadows: "Kedem-Katchalsky Analysis of Transport of Albumin Through Molecular Size Pores of Polymeric Networks," *Abstr. AIChE Meeting,* Abstract 51e, (November 1982).
15. H.J. Moynihan and N.A. Peppas: "Molecular Diffusion of Monomer Albumin Through Crosslinked PHEMA Membranes," *Abstr. AIChE Meeting,* Abstract 96b, (November 1982).
16. N.A. Peppas, M.E. Hill-Lievense, D.T. Hooker II and L.M. Lucht: "Changes of the Crosslinked Macromolecular Structure of Coal During Extraction and Solubilization," *Abstr. AIChE Meeting,* Abstract 121e, (November 1982).
17. L.M. Lucht, J.M. Larson and N.A. Peppas: "Thermal Analysis of Macromolecular Coal Networks," *Bull. Amer. Phys. Soc., 28,* 566 (1983).
18. N.A. Peppas: "Release of Bioactive Agents from Swellable Polymers," *Proceed. Intern. Symp. Recent Adv. Drug. Deliv. Syst., 1,* 38 (1983).
19. R. Gurny, J.M. Meyer and N.A. Peppas: "Bioadhesive Intraoral Release Systems: Design, Testing and Analysis," *Proceed. Ann. Meet. Intern. Assoc. Dental Research, 20,* 112 (1983).
20. B. Gander, R. Gurny, E. Doelker and N.A. Peppas: "Crosslinked PVA Micromatrices for Swelling-Controlled Drug Release," *Proceed. Intern. Symp. Control. Rel. Pharm.,* 5, (1983).
21. N.A. Peppas: "Physical Aspects of Polymeric Drug Delivery Systems," *Abstr. Acad. Pharm. Sci., 14* (1), 16 (1984).
22. D.G. Barar and N.A. Peppas: "Preparation and Swelling Characteristics of Friedel-Crafts Crosslinked Polystyrene Particles," *Abstr. AIChE Meeting,* Abstract 48h, (November 1984).
23. A.G. Mikos, C.G. Takoudis and N.A. Peppas: "Modelling of Suspension Copolymerization/Crosslinking of Styrene," *Abstr. AIChE Meeting,* Abstract 48i, (November 1984).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 112 of 218

24. N.A. Peppas, P.A. Buri and P.J. Hansen: "Drug Diffusion in Aqueous Mucin Solutions: Towards Understanding of Drug Absorption by the Intestine," *Abstr. AIChE Meeting,* Abstract 62e, (November 1984).
25. M.J. Smith, K.G. Urdahl and N.A. Peppas: "Some New Observations of Penetrant Transport in Crosslinked Polystyrene," *Abstr. AIChE Meeting,* Abstract 108e, (November 1984).
26. N.A. Peppas and P.A. Buri: "Surface, Interfacial and Molecular Aspects of Polymer Adhesion on Soft Tissues," *Abstr. AIChE Meeting,* Abstract 148h, (November 1984).
27. R.S. Harland and N.A. Peppas: "The Effect of the Crystalline Structure of Membranes on their Solute Diffusion Behavior," *Abstr. AIChE Meeting,* Abstract137c, (November 1984).
28. N.A. Peppas: "Theory and Experiments with Bioadhesive Swellable Delivery Systems," *Proceed. Intern. Symp. Recent Adv. Drug Deliv. Syst., 2,* 22 (1985).
29. P.L. Ritger and N.A. Peppas: "Dynamic Swelling of Thin Coal Sections," *Abstr. ACS, 189,* INDE-100, (1985).
30. N.A. Peppas: "Oxygen-permeable Silicon-based Contact Lenses: An Assessment of Permeation and Wettability Problems," *Abstr. ACS, 189,* INDE-56, (1985).
31. N.A. Peppas and A.G. Mikos: "Molecular Aspects of Polymer Adhesion on Mucus," *Abstr. ACS, 190,* INDE-35, (1985).
32. R.S. Harland and N.A. Peppas: "The Effect of Degree of Crystallinity and Crystallite Size on Solute Diffusion through Membranes," *Abstr. ACS, 190,* INDE-72, (1985).
33. N.A. Peppas: "Bioadhesives: Fundamental Studies on Adhesion to Mucus Membranes," *Abstr. Acad. Pharm. Sci., 15* (2), 19 (1985).
34. N.A. Peppas and G.W.R. Davidson III: "The Relaxational Aspects of Drug Release from P(HEMA-co-MMA) Copolymers," *Abstr. AIChE Meeting,* Abstract 37b, (November 1985).
35. N.A. Peppas and D.R. Miller: "The Surface of P(VA-co-NVP) Hydrogels as Revealed by Scanning Electron Microscopy," *Abstr. AIChE Meeting,* Abstract 37e, (November 1985).
36. N.A. Peppas and S.R. Lustig: "Modeling of Multicomponent Transport in Swelling Polymers," *Abstr. AIChE Meeting,* Abstract 106f, (November 1985).
37. A.G. Mikos, C.G. Takoudis and N.A. Peppas: "Kinetic Modelling of Copolymerization-Crosslinking Reaction," *Abstr. AIChE Meeting,* Abstract 113e, (November 1985).
38. N.A. Peppas and A.G. Mikos: "Interfacial Phenomena Related to Bioadhesion of Polymers on the Intestinal Mucus," *Abstr. AIChE Meeting,* Abstract 125b, (November 1985).
39. S.R. Lustig, J.M. Caruthers and N.A. Peppas: "A Predictive Theory of Solvent Penetration in Initially Glassy, Swellable Polymers," *Abstr. ACS, 192,* INDE-30, (1986).
40. N.A. Peppas and A.G. Mikos: "The Bioadhesive Behavior of 2-Hydroxyethyl Methacrylate-Containing Copolymer Microparticles with Aqueous Gels of Bovine Submaxillary Mucin," *Abstr. Europ. Congr. Biomater., 10,* 12 (1986).
41. N.A. Peppas: "The Design and Evaluation of Bioadhesive Controlled Release Systems," *Abstr. Intern. Pharm. Technol. Symp., 3,* 35 (1986).
42. N.A. Peppas and A.G. Mikos: "Polymer Microparticles on Biological Surfaces," *Abstr. AIChE Meeting,* Abstract 68h, (November 1986).
43. N.A. Peppas, P.A. Buri, A. Aebi and P. Hansen: "Transport of Drugs Through the Intestinal Mucus," *Abstr. AIChE Meeting,* Abstract 107f, (November 1986).
44. N.A. Peppas and A.B. Scranton: "Preparation and Modelling of Water-Soluble Microparticles by Suspension Polymerization," *Abstr. AIChE Meeting,* Abstract 160e, (November 1986).
45. G. Conrath, F. Falson-Rieg, M. Besnard, J.P. Devissaguet and N.A. Peppas: "Modele d' etude experimentale d' un systeme transdermique," *Proceed. Intern. Forum Formul. Phys. Chem. Appl., 1,* (1987), in French.
46. P.I. Lee and N.A. Peppas: "Prediction of Polymer Dissolution in Swellable Controlled Release Systems," *Proceed. Intern. Symp. Recent Adv. Drug Deliv. Syst., 3,* 49 (1987).
47. G. Ponchel, F. Touchard, D. Wouessidjewe, D. Duchêne and N. A. Peppas: "The Interactions of Poly(acrylic acid)-Containing Polymeric Systems with Bovine Sublingual Mucus," *Trans. Biointeractions '87, 2,* 26 (1987).
48. C. Caramella, P. Colombo, U. Conte, F. Ferrari, A. Gazzaniga, A. La Manna and N.A. Peppas: "The Mechanisms of Disintegration of Compressed Particle Systems," *Abstr. Intern. Symp. Persp. Solid Dosage Form Design, 1,* 22 (1987).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 113 of 218

49. N.A. Peppas, A.B. Scranton and L.C. Scranton: "Suspension Polymerization of 2-Hydroxyethyl Methacrylate," *Abstr. AIChE Meeting,* Abstract 28g, (November 1987).
50. S.R. Lustig, J.M. Caruthers and N.A. Peppas: "A Rational Thermodynamics Theory for Penetrant Transport in Polymers," *Abstr. AIChE Meeting,* Abstract 38c, (November 1987).
51. N.A. Peppas and P.I. Lee: "Dissolution Analysis of Model Positive Resists," *Abstr. AIChE Meeting,* Abstract 123d, (November 1987).
52. N.A. Peppas, G. Ponchel and D. Duchêne: "Testing of the Adhesive Force Between Poly(acrylic acid) and Bovine Sublingual Mucus," *Abstr. AIChE Meeting,* Abstract 154f, (November 1987).
53. A.G. Mikos and N.A. Peppas: "Crack Healing of Polymer-Polymer Interfaces of Linear Polymers," *Abstr. MRS Meeting,* Abstract L.3.3, 315, (November 1987).
54. A.G. Mikos and N.A. Peppas: "Effect of Chain Entanglements on the Fracture Characteristics of Polymeric Materials," *Abstr. MRS Meeting,* Abstract L.8.15, 326, (November 1987).
55. P. Colombo, C. Caramella, U. Conte and N.A. Peppas: "Modello Fisico per la Disgregazione di Compresse," *Abstr. Symp. ADRITELF, 11,* 30 (1988).
56. N.A. Peppas and M.L. Brannon: "Structural Changes in Environmentally Sensitive Hydrogels," *Abstr. MRS Meeting,* Abstract B.2.3., 30, (April 1988).
57. N.A. Peppas, M.L. Brannon, L.A. Keneipp, L.E. Malone and S.M. Shoup: "The Thermodynamics of Perfume Incorporation and Release from Polymers," *Abstr. MRS Meeting,* Abstract B.2.5., 30, (April 1988).
58. P. Colombo, A. Gazzaniga and N.A. Peppas: "Mechanisms of Dissolution of Compressed Tablets," *Abstr. MRS Meeting,* Abstract B.2.6., 30, (April 1988).
59. A.G. Mikos and N.A. Peppas: "Fracture Mechanics of Low Molecular Weight Polymers," *Abstr. MRS Meeting,* Abstract F.2.3., 92, (April 1988).
60. N.A. Peppas and D.E. Edwards: "Branching Theory in Sol-gel Processing," *Abstr. MRS Meeting,* Abstract H.1.5., 122, (April 1988).
61. N.A. Peppas: "Solute Transport in Heterogeneous Polymeric Systems with Semipermeable Domains," *Abstr. US-Europe Symp. Adv. Membr. Sci. Techn., 3,* 11 (1988).
62. N.A. Peppas, L.A. Keneipp and K.A. Korowin: "Controlled Release Polymeric Systems for Essential Oils Used in Flavoring," *Abstr. ACS, 196,* AGFD-27 (1988).
63. A.B. Scranton and N.A. Peppas: "Copolymerization and Crosslinking Reactions of Hydrophilic Monomers," *Abstr. AIChE Meeting*, Abstract 107a (November 1988).
64. M.L. Brannon and N.A. Peppas: "The Swelling Behavior of pH-Sensitive Hydrogels," *Abstr. AIChE Meeting*, Abstract 121e (November 1988).
65. J. Klier and N.A. Peppas: "Structure and Swelling Behavior of Poly(ethylene glycol-g-methacrylic acid) Networks,"*Abstr. AIChE Meeting*, Abstract 121f (November 1988).
66. C.N. Bowman and N.A. Peppas: "Preparation and Properties of Novel Methacrylate-based laser Videodisc Polymers," *Abstr. AIChE Meeting*, Abstract 136d (November 1988).
67. N.A. Peppas, A.B. Scranton and D.E. Edwards: "A Branching Theory for the Analysis of Certain Sol-Gel Processes," *Abstr. AIChE Meeting*, Abstract 139d (November 1988).
68. N.A. Peppas, D.E. Edwards and A.B. Scranton: "The Progress of Alkoxysilane Reactions for Sol-gel Processing,"*Abstr. Intern. Symp. Ceram., 7*, 26 (1988).
69. N.A. Peppas: "Modelling the Complex Sequence of Sol-gel Processing Reactions," *Abstr. Amer. Ceram. Soc., 91*, 342 (1989).
70. N.A. Peppas: "Drying and Stresses in Non-crystalline and Crystalline Solids Derived from Gels," *Abstr. Amer. Ceram. Soc., 91*, 210 (1989).
71. N.A. Peppas: "Diffusional Peptide Release," *Abstr. Diffusion '89*, 1, 30 (1989).
72. A.R. Khare and N.A. Peppas: "pH-Dependent Anomalous Swelling of Glassy Polymers," *Abstr. Diffusion '89, 1*, 43 (1989).
73. C.N. Bowman and N.A. Peppas: "Fractal Analysis in Polymer Structures for Information Storage Technology," *Abstr. AIChE Meeting*, Abstract 60k (November 1989).
74. N.A. Peppas, O. Saslawski, P. Couvreur and L. Brannon-Peppas: "Programmed Insulin Delivery Using Thermosensitive Hydrogels," *Abstr. AIChE Meeting*, Abstract 32p (November 1989).
75. J.M. Olivares and N.A. Peppas: "Penetrant Transport in Coal Network Structures Between 35°C and 150°C," *Abstr. ACS, 199*, FUEL-37 (1990).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 114 of 218

76. M.C. Lee and N.A. Peppas: "Modelling of Moisture Transport in Epoxy Composites," *Abstr. ACS, 199*, INDE-54 (1990).
77. N.A. Peppas: "Mucoadhesive Polymers," *Abstr. ACS, 199*, POLY-343 (1990).
78. P. Colombo, N.A. Peppas, V. Conte, L. Maggi and A. La Manna: "Swelling Dimensionality and Drug Release from Swellable Matrices," *Abstr. Intern. Pharm. Technol. Symp., 5*, 39 (1990).
79. N.A. Peppas and C.N. Bowman: "Kinetics and Volume Relaxation for Polymerizations of Multiethylene Glycol Dimethacrylates," *Abstr. AIChE Meeting*, Abstract 84c (November 1990).
80. A.R. Khare and N.A. Peppas: "pH-Dependent Swelling Behavior of Carboxyl-Containing Copolymeric Networks," *Abstr. AIChE Meeting*, Abstract 85a (November 1990).
81. A.B. Scranton, J. Klier and N.A. Peppas: "Complexation of Polymeric Acids with Complementary Oligomeric Bases," *Abst. AIChE Meeting*, Abstract 208d (November 1990).
82. D. Hariharan and N.A. Peppas: "Mathematical Modelling of Drug Release from Physiologically Sensitive Hydrogels," *Abstr. AIChE Meeting*, Abstract 248c (November 1990).
83. N.A. Peppas and D.E. Edwards: "Control of Mesh and Pore Size of Bioceramics Produced by Sol/Gel Processing," *Abstr. Intern. Symp. Ceram. Med., 3*, (1990).
84. A.G. Mikos and N.A. Peppas: "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," *Abstr. Mater. Res. Soc. Meet.*, 563 (November 1990).
85. C.N. Bowman and N.A. Peppas: "Effects of Aging on Polymerization Kinetics," *Abstr. Mater. Res. Soc. Meet.*, 569 (November 1990).
86. C.N. Bowman and N.A. Peppas: "A Novel Kinetic Gelation Simulation for Analysis of Free Radical Polymerizations of Multifunctional Monomers," *Bull. Amer. Phs. Soc., 36*, 482 (1991).
87. J.C. Wu and N.A. Peppas: "A Model for Coupled Deformation and Mass Transport Processes in Polymers," *Bull. Amer. Phys. Soc., 36*, 482 (1991).
88. J. Sahlin and N.A. Peppas: "Chain Dynamics at a Gel/Gel Interface," *Bull. Amer. Phys. Soc., 36*, 581 (1991).
89. N.A. Peppas and J. Scott: "Structure of Hydrogels by Freezing-Thawing Cyclic Processing," *Bull. Amer. Phys. Soc., 36*, 582 (1991).
90. A. Khare and N.A. Peppas: "Effect of Ionic Strength, Temperature and pH on the Dynamic and Equilibrium Swelling Behavior of Ionic Hydrogels," *Proceed. AAPS Midwest Meeting*, PDD-25, 24 (1991).
91. A.R. Khare and N.A. Peppas: "Release Behavior of Bioactive Agents from pH-Sensitive Hydrogels," *Abstr. AIChE Meeting*, Abstract 16d (November 1991).
92. J.C. Wu and N.A. Peppas: "Dissolution of Glassy Polymers," *Abstr. AIChE Meeting*, Abstract 18d (November 1991).
93. D. Hariharan and N.A. Peppas: "Dynamic Swelling of pH-Sensitive Controlled Release Systems," *Abstr. AIChE Meeting*, Abstract 22e (November 1991).
94. C.N. Bowman and N.A. Peppas: "Kinetics and Modelling of UV-Induced Multi-Ethylene Glycol Dimethacrylate Polymerization," *Abstr. AIChE Meeting*, Abstract 26f (November 1991).
95. N.A. Peppas and M.C. Lee: "Water Effects on the Interfacial Shear Strength of Graphite/Epoxy Interface," *Abstr. AIChE Meeting*, Abstract 33f (November 1991).
96. M.T. Rugger and N.A. Peppas: "Synthesis and Characterization of Acrylic Acid Hydrogels for Bioadhesive Applications," *Abstr. AIChE Meeting*, Abstract 36h, (November 1991).
97. D.J. Kim, N.A. Peppas and J.M. Caruthers: "PVT Properties of Crosslinked Polystyrene/Dodecane System," *Bull. Amer. Phys. Soc., 37*, 675 (1992).
98. E. Jabbari and N.A. Peppas: "Interdiffusion in Compatible Polymer Pairs," *Bull. Amer. Phys. Soc., 37*, 728 (1992).
99. J.C. Wu and N.A. Peppas: "Characterization of Polymer Dissolution," *Bull. Amer. Phys. Soc., 37*, 776 (1992).
100. D. Hariharan and N.A. Peppas: "Penetrant Transport in Ionic Polymers," *Bull. Amer. Phys. Soc., 37*, 776 (1992).
101. N.A. Peppas and J.J. Sahlin: "Use of Near-field FTIR Imaging to Investigate Polymer Interdiffusion in Relation to Bioadhesive of Controlled Release Systems," *Abstr. Jerus. Conf. Pharm. Sci., 2*, 16 (1992).
102. N.A. Peppas: "Bioadhesive Controlled Release Systems," *Abstr. Develop. Biopharm. Pharmacok.*, 8 (1992).
103. N.A. Peppas: "Peptide Diffusion and Release from Polymeric Carriers," *Abstr. Repl. Deliv*, 7 (1992).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 115 of 218

104. K.S. Anseth and N.A. Peppas: "Photopolymerizations of Multifunctional Acrylates and Methacrylates,"*Abstr. AIChE Meeting*, Abstract 180b (November 1992).
105. J.C. Wu and N.A. Peppas: "Modeling and Characterization of Polymer Dissolution,"*Abstr. AIChE Meeting*, Abstract 185d (November 1992).
106. J.J. Sahlin and N.A. Peppas: "Near-field FTIR Imaging Studies of Polymer-polymer Diffusion," *Abstr. AIChE Meeting*, Abstract 185i (November 1992).
107. D. Kim, J.M. Caruthers and N.A. Peppas: "Diffusional and Mechanical Behavior of the Dodecane/Polystyrene System," *Abstr. AIChE Meeting*, Abstract 185b (November 1992).
108. M.T. Rugger and N.A. Peppas: "Characterization of Polymer/Drug Interactions by ATR-FTIR," *Abstr. AIChE Meeting*, Abstract 177e (November 1992).
109. M.T. Rugger, N.A. Peppas, G. Massimo and P. Colombo: "Disintegration of Pharmaceutical Formulations," *Abstr. AIChE Meeting*, Abstr. 177h (November 1992).
110. C.L. Bell and N.A. Peppas: "Dynamic and Equilibrium Swelling of Polyacrylates,"*Abstr. AIChE Meeting*, Abstract 184e (November 1992).
111. D.J. am Ende, D. Kim and N.A. Peppas: "Release of Essential Oils from Swellable Polymers," *Abstr. AIChE Meeting*, Abstract 178h (November 1992).
112. E. Jabbari and N.A. Peppas: "Use of ATR-FTIR Spectroscopy for the Investigation of Chain Interpenetration in Bioadhesion," *Abstr. AIChE Meeting*, Abstract 206b (November 1992).
113. N.A. Peppas and A.R. Khare: "Investigation of Drug Distribution and Interaction with Polymer Networks by Thermal Analysis and Electron Microscopy," *Abstr. AIChE Meeting*, Abstract 177c (November 1992).
114. R.S. Harland and N.A. Peppas: "New Hydrophilic/Hydrophobi Block and Graft Copolymers for Selective Solute Separation,"*Abstr. AIChE Meeting*, Abstract 182e (November 1992).
115. J.E. Dietz and N.A. Peppas: "Physical and Mechanical Characterization of Polymultifunctional Acrylates and Methacrylates," *Abstr. AIChE Meeting*, Abstract 184k (November 1992).
116. E. Jabbari and N.A. Peppas: "Measurement of the Concentration Profile at a Poly(vinyl chloride) and Poly(methyl methacrylate) Interface with Analytical Electron Microscopy," *Abstr. AIChE Meeting*, Abstract 184e (November 1992).
117. D.L. Kurdikar, B.J. Elliott and N.A. Peppas: "Highly Crosslinked Polymers as Information Storage Systems," *Abstr. AIChE Meeting*, Abstract 184p (November 1992).
118. D. Hariharan and N.A. Peppas: "Relaxational and Diffusional Phenomena Observed During Swelling and Release from Ionic Polymers," *Abstr. AIChE Meeting*, Abstract 184q (November 1992).
119. N.A. Peppas: "Bioresponsive Drug Delivery Systems," *Proceed. Intern. Confer. Mater. Biomed. Applic., 3*, 36 (1993).
120. E. Jabbari and N.A. Peppas: "Evidence of Mucoadhesion by Chain Interpenetration at a PAA/Mucin Interface Using ATR-FTIR Spectroscopy," *Abstr. AIChE Meeting*, Abstract 103c (November 1993).
121. D.L. Kurdikar and N.A. Peppas: "Experimental and Theoretical Studies of Diacrylate Photopolymerizations,"*Abstr. AIChE Meeting*, Abstract 84e (November 1993).
122. L. Achar and N.A. Peppas: "Poly(methacrylic acid Copolymer Interactions with Mucin with Applications to Mucoadhesion," *Abstr. AIChE Meeting*, Abstract 120c (November 1993).
123. N.A. Peppas and M.T. am Ende: "Macromolecular Transport in Ionic Hydrogels," *Abstr. AIChE Meeting*, Abstract 79f (November 1993).
124. J.E. Dietz, B.J. Elliott and N.A. Peppas: "Information Storage Systems from Highly Crosslinked Multifunctional (Meth)acrylates," *Abstr. AIChE Meeting*, Abstract 80kk (November 1993).
125. B. Narasimhan and N.A. Peppas: "Dissolution of Glassy Polymers," *Abstr. AIChE Meeting*, Abstract 80mm (November 1993).
126. N.A. Peppas, C.L. Bell and L.F. Gudeman: "Comparative Studies of Oscillatory Swelling and Solute Transport in Complexing Poly(ethylene glycol-g-methacrylic acid) and Poly(acrylic acid) - containing Hydrogels," *Abstr. AIChE Meeting*, Abstract 88c (November 1993).
127. L.F. Gudeman and N.A. Peppas: "Environmentally Sensitive Membranes for Separation Processes," *Abstr. AIChE Meeting*, Abstract 80ll (November 1993).
128. N.A. Peppas: "Intelligent Polymers as Carriers for Drug Delivery," *Abstr. Mater. Res. Soc. Meeting*, 572 (November 1993).
129. C.L. Bell and N.A. Peppas: "Poly(methacrylic acid-g-ethylene glycol) Hydrogels as pH Responsive Biomedical Materials," *Abstr. Mater. Res. Soc. Meet.*, Abstract 493 (November 1993).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 116 of 218

130. C.S. Brazel and N.A. Peppas: "Temperature-and pH-Sensitive Hydrogels for Controlled Release of Antithrombotic Agents,"*Abstr. Mater. Res. Soc. Meet.*, Abstract 493 (November 1993).
131. B.J. Ficek and N.A. Peppas: "Novel Preparation of Poly(vinyl alcohol) Microparticles Without Crosslinking Agent for Controlled Drug Delivery of Proteins," *Abstr. Mater. Res. Soc. Meet.*, 494 (November 1993).
132. A.D. Ouellette and N.A. Peppas: "Controlled Release of Triamterene from Poly(dl-lactide-co-glycolide) Microspheres," *Abstr. Mater. Res. Soc. Meet.*, 490 (November 1993).
133. R. Bettini and N.A. Peppas: "Penetrant Transport and Drug Release in pH-Sensitive Hydrogel," *Abstr. Midwest AAPS Meeting*, 27 (1994).
134. A. DeAscentiis and N.A. Peppas: "The Mucoadhesive Properties of Polymeric Microparticles," *Abstr. Midwest AAPS Meeting*, 31 (1994).
135. N.A. Peppas: "Future Directions in the Development of Biomaterials," *Ann. Biomed. Engin., 22*, Suppl. 1, 2 (1994).
136. N.A. Peppas, C.L. Bell, C.S. Brazel and S. Teague: "Mechanochemical Behavior of pH- and Temperature-Sensitive Gels," *Ann. Biomed. Engin., 22*, Suppl. 1, 74 (1994).
137. C.S. Brazel and N.A. Peppas: "P(NIPAAm-co-MAA) Hydrogels for Temperature-and pH-Sensitive Release of Antithrombotic Agents", *Abstr. AIChE Meeting*, Abstract 25i (November 1994).
138. N.A. Wisniewski, E. Jabbari and N.A. Peppas: "Evidence of Mucoadhesion by Chain Interpenetration at a PAA/Mucin Interface Using ATR-FTIR Spectroscopy", *Abstr. AIChE Meeting*, Abstract 169c, (November 1994).
139. A.S. Luttrell, N.K. Mongia and N.A. Peppas: "Adhesive and Diffusive Characteristics of Novel PVA Films for Medical Applications", *Abstr. AIChE Meeting*, Abstract 202c, (November 1994).
140. J. Bauerle, M. McFerrin, J.E. Dietz and N.A. Peppas: "Kinetics of Multifunctional Acrylates for Information Storage Systems", *Abstr. AIChE Meeting*, Abstract 170o, (November 1994).
141. B. Narasimhan and N.A. Peppas, "Polymer Dissolution: A Modeling Attempt to 'Couch' Molecular Theories in a Phenomenological Framework," *Bull. Amer. Phys. Soc., 40*, 53 (1995).
142. A. De Ascentiis, R. Bettini, P. Colombo and N.A. Peppas, "Proprieta Mucoadesive di Microparticelle Polimeriche Idrofile," *Proceed. Symp. AFI, 35*, 82 (1995).
143. N.A. Peppas, B. Narasimhan and B. Chadwell, "Fickian and non-Fickian Diffusion in Swellable Gels," *Abstr. IUPAC Symp., 36*, 5 (1995).
144. B. Narasimhan and N.A. Peppas, "Chain Disentanglement and Reptation Mechanism During Polymer Dissolution," *Abstr. AIChE Meeting*, Abstract 141e, (November 1995).
145. S. Mallapragada and N.A. Peppas, "A New Model for Dissolution of Semicrystalline Polymers," *Abstr. AIChE Meeting*, Abstract 142c (November 1995).
146. C.S. Brazel and N.A. Peppas, "Transport in Swellable Polymer Systems for Controlled Drug Release," *Abstr. AIChE Meeting*, Abstract 147f (November 1995).
147. R.A. Scott and N.A. Peppas, "Rate Behavior in Solution Polymerization of Acrylic Acid," *Abstr. AIChE Meeting*, Abstract 242.8aa (November 1995).
148. A.M. Lowman and N.A. Peppas, "Swelling/Deswelling Behavior in pH-Responsive Hydrogels of Ethylene Glycol Poly(Methacrylic acid) Copolymers," *Abstr. AIChE Meeting*, Abstract 242.8z (November 1995).
149. K. Podual, F.J. Doyle III and N.A. Peppas, "Glucose-responsive Gels for the Release of Insulin," *Abstr. AIChE Meeting*, Abstract 242.15ac (November 1995).
150. N.A. Peppas, F.J. Doyle III, C.M. Dorski and K. Podual, "Intelligent Hydrogel Systems for Protein and Drug Release with Feedback Control," *Adv. US Japan Symposium Drug Delivery Systems, 3*, 16 (1995).
151. B. Narasimhan and N.A. Peppas, "A Self-Consistent Diffusivity Approach to Understand Polymer Dissolution," *Bull. Amer. Phys. Soc., 41*, 259 (1996).
152. S. Mallapragada and N.A. Peppas, "Modeling of Dissolution of Semicrystalline Polymers," *Bull. Amer. Phys. Soc., 41*, 320 (1996).
153. H.M.T. Boots, K.S. Anseth, D.L. Kurdikar, and N.A. Peppas, "Network Formation by Chain Polymerization of Liquid-Crystalline Monomers," *Abstr. Polymer Network '96 Meeting, 41*, 1 (1996).
154. C. Brazel and N.A. Peppas, " Influence of Molecular Parameters of Glassy Crosslinked Polymers on Swelling-Controlled Solute Release Profiles," *Abstr. AIChE Meeting*, Abstract 52kk (November 1996).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 117 of 218

155. R. Parker, F. Doyle III, and N.A. Peppas, "Insulin Delivery Using Model-Based Control of Insulin Infusion Pumps ," Abstr. AIChE Meeting, Abstract 52ll (November 1996).
156. N.A. Peppas, "New Directions in Drug Delivery," *Abstr. AIChE Meeting*, Abstract 77d (November 1996).
157. B. Narsimhan and N.A. Peppas, "Understanding Polymer Dissolution Using Self-Consistent Diffusion with Magnetic Resonance Imaging Analysis," *Abstr. AIChE Meeting*, Abstract 117f (November 1996).
158. N.A. Peppas, "Characterization of PVA Prepared by Freezing/Thawing Techniques," *Abstr. AIChE Meeting*, Abstract 138e (November 1996).
159. Z. Mogri, N.A. Peppas, R. Scott, and K. Anseth, "A Calorimetric Evaluation of the pH- and Conversion-Dependent Kinetics of (Meth)acrylic Acid Solution Polymerization," *Abstr. AIChE Meeting*, Abstract 154a (November 1996).
160. S. Mallapragada and N.A. Peppas, "Dissolution Mechanism Controlled Drug Delivery Systems: A New Method of Drug or Protein Delivery," *Abstr. AIChE Meeting,* Abstract 169h (November 1996).
161. S. Mallapragada and N.A. Peppas, "Crystal Dissolution Controlled Drug Delivery Systems: A New Method of Drug or Protein Delivery," *Abstr. AIChE Meeting*, Abstract 190d (November 1996).
162. K. Podual, N.A. Peppas and F. Doyle III, "Glucose-Sensitive, Poly(ethylene glycol)-Grafted Copolymer Networks for Feedbac Responsive Insulin Delivery," *Abstr. AIChE Meeting*, Abstract 212b (November 1996)
163. A. Lowman and N.A. Peppas, "Interpolymer Complexation in Polyelectrolyte Biopolymers," *Abstr. AIChE Meeting*, Abstract 229a (November 1996).
164. C. Dorski, F. Doyle III, and N.A. Peppas, "Preparation, Swelling Behavior, and Insulin Release from Glucose-Responsive Complexation Hydrogels," *Abstr. AIChE Meeting*, Abstract 229c (November 1996).
165. L. Schwarte and N.A. Peppas, "Preparation and Characterization of pH-Sensitive, Cationic Hydrogels," *Abstr. AIChE Meeting*, Abstract 229e (November 1996).
166. A.M. Lowman, M. Morishita, T. Nagai and N.A. Peppas, "Design of Oral Controlled Drug Delivery Systems for Insulin," *Artific. Organs*, *21*, 493 (1997).
167. R.S. Parker, F. J. Doyle, III, and N.A. Peppas, "Variable-rate Implantable Insulin Infusion Pumps: Closed-loop Maintenance of Normoglycemia Under Patient Variability for Type I Diabetes," *Artific. Organs, 21,* 495 (1997).
168. N.A. Peppas and A.M. Lowman, "Protein Delivery from Novel Bioadhesive Complexation Hydrogels," *Abstr. Alfred Benzon Symp., 43*, 28 (1997).
169. J.E.M. Snaar, R.W. Bowtell, C.D. Melia, S. Morgan, B. Narasimhan and N.A. Peppas, "Self-diffusion and Molecular Mobility in PVA-based Dissolution-controlled Systemsfor Drug Delivery," *Abstr. Intern. Meet. Rec. Adv. MR Applicat. Porous Media, 4*, 100 (1997).
170. R. Parker, F. Doyle III, K. Rabinovitch and N.A. Peppas, "Time and Frequency Domain Analysis of Blood Glucose Regulation Algorithms, *Abstr. IEEE Engin. Medic. Biology, 19*, 142 (1997).
171. R. Scott and N.A. Peppas, "Probing the Network Structure of Highly Crosslinked Ionizable Polymers," *Bull. Amer. Phys. Soc., 43*, 144-145 (1998).
172. R. Scott and N.A. Peppas, "Network Structure and Diffusion in Highly Crosslinked Ionizable Polymers," *Bull. Amer. Phys. Soc., 43*, 146 (1998).
173. B. Narasimhan, N.A. Peppas, A. Snaar, R. Bowtell, S. Morgan and C. Melia, "NMR Imaging Analysis of Self-Diffusion and Molecular Mobility During Dissolution of Water-Soluble Polymers," *Bull. Amer. Phys. Soc., 43,* 256 (1998).
174. A.M. Lowman and N.A. Peppas, "NMR Study of Interpolymer Complexation in Polyelectrolyte Gels Using the Nuclear Overhauser Effect," *Bull. Amer. Phys. Soc., 43*, 896-897 (1998).
175. A. M. Lowman and N.A. Peppas, "Analysis of the Complexation/Decomplexation Behavior of Polyelectrolyte Gels," *Bull. Amer. Phys. Soc., 43*, 897 (1998).
176. R. Bettini, P. Colombo and N.A. Peppas, "Modelling of the Swelling Process and the Diffusion Front Position in Hydrophilic Matrices," *Abstr. ADRITELF, 16*, 51 (1998).
177. K.B. Keys, N.A. Peppas and F.M. Andreopoulos, "Poly(ethylene glycol) Star Polymer Hydrogels," *Abstr. AIChE Meeting*, Abstract 198h (Hovember 1998).
178. C.M. Hassan and N.A. Peppas, "Structure and Morphology of Novel Poly(vinyl alcohol) Hydrogels Prepared by Freezing/Thawing Processes," *Abstr. AIChE Meeting*, Abstract 199g (November 1998).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 118 of 218

179. A.M. Lowman, B. Cowans and N.A. Peppas, "Molecular Level Investigation of Interpolymer Complexation in Copolymer Gels," *Abstr. AIChE Meeting*, Abstract 199h (November 1998).
180. J.E. Harting and N.A. Peppas, "Experiments and Modelling of Ultraviolet Polymerizations," *Abstr. AIChE Meeting*, Abstract 197b (November 1998).
181. N.A. Peppas, F.J. Doyle III and R.S. Parker, "Uncertainty and Robustness in Diabetic Patient Blood Glucose Control," *Abstr. AIChE Meeting*, Abstract 252f (November 1998.)
182. N.A. Peppas and J. Zhang, "Preparation and Characterization of Poly(N-isopropyl acrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks; *Abstr. AIChE Meeting*, Abstract 284b (November 1998).
183. M. Torres-Lugo and N.A. Peppas, "pH-Sensitive Hydrogels with PEG-tethered Chains for Oral Delivery of Calcitonin," *Abstr. Mater. Res. Soc. Meeting*, 1998.
184. N.A. Peppas, "Advances in Gel Science and Technology," *Abstr. US-Israel-Turkey Chem. Eng. Conference, 1*, 27-28 , 1999.
185. Y. Huang, I. Szleifer and N.A. Peppas, "A Thermodynamic Study of Polymer Chains Tethered on Gel Surfaces," *Bull. Amer. Phys. Soc.*, 44 (1), 1842 (1999).
186. N.A. Peppas, D. Henthorn, M. Torres-Lugo and J.H. Ward, "Novel Protein Delivery Based on PEG," *Acta Techn. Leg. Medicam., 10*, 73 (1999).
187. N.A. Peppas, Y. Huang, and I. Szleifer, "Long and Short Chains Tethered on Gel Surfaces," *Abstr. AIChE Meeting*, Abstract 169j (November 1999).
188. N.A. Peppas and J.H. Ward, "Kinetic Simulation and Analysis of PEG-containing Networks synthesized by Free Radical Polymerizations," *Abstr. AIChE Meeting*, Abstract 171b (November 1999).
189. N.A. Peppas, R.S. Parker, A.T. Starups and F.J. Doyle III, "Robust Control of Type I Diabetic Patient Blood Glucose," *Abstr. AIChE Meeting*, Abstract 266b (November 1999).
190. N.A. Peppas, M. Torre-Lugo, H. Ichikawa, A. Foss, "Advances in Proteins and Bioadhesive Delivery," *Adv. US Japan Symposium Drug Delivery Systems, 5*, 2 (1999).
191. Y. Huang and N.A. Peppas, "A New Mean-field Theory for Equilibrium Gel Swelling," *Bull. Amer. Phys. Soc., 45*, 84 (2000).
192. J.H. Ward and N.A. Peppas, "Kinetic Simulation of Networks Synthesized by Free Radical Polymerization," *Bull. Amer. Phys. Soc., 45*, 85 (2000).
193. J. Zhang and N.A. Peppas, "Morphology and Dynamics of Interpenetrating Polymeric Networks with Combined pH and Temperature Sensitivity," *Bull. Amer. Phys. Soc., 45*, 85 (2000).
194. J.H. Ward and N.A. Peppas, "Novel Patterned Films by Free-Radical Polymerization Techniques," *Bull. Amer. Phys. Soc., 45*, 212 (2000).
195. Y. Huang, J. Szleifer and N.A. Peppas, "Tethered Polymer Chains Contribute to Gel-Gel Adhesion," *Bull. Amer. Phys. Soc., 45*, 917 (2000).
196. N.A. Peppas, "Tethered Polymers for Controlled Drug Delivery," *Abstr. Millennial World Congress Pharm. Sci., 1*, 13 (2000).
197. N.A. Peppas, "Intelligent Biopolymers in Protein and Drug Delivery," *Abstr. Annual NAMS Meet., 11*, 164 (2000).
198. P. Bures and N.A. Peppas, "A New Dispersion Technique for Micro- and Nanoparticle Formation of Drug Delivery Carriers Based on Poly(acrylic acid)," *Abstr. IUPAC Meet. Polym. Medicine, 40*, P52 (2000).
199. J. Pacheco-Gomez and N.A. Peppas, "Glucose Responsive pH-Dependent Hydrogels," *Abstr. World Congress Biomed. Engin., 14*, MO-CXH-84 (2000).
200. M. Torres-Lugo, N.A. Peppas and H. Ichikawa, "Novel pH-Sensitive Hydrogels for the Oral Delivery of Calcitononin: Caco-2 Cell Studies," *Abstr. World Congress Biomed. Engin., 14*, WE-E326-01 (2000).
201. N.A. Peppas, "Design of Advanced Biomaterials and Drug Delivery Carriers," *Abstr. AIChE Meeting*, Abstract 181b (November 2000).
202. W. Leobandung and N.A. Peppas, "Temperature-Sensitive Particulate Systems Containing Polyethylene glycol)," *Abstr. AIChE Meeting*, Abstract 199h (November 2000).
203. D.N. Robinson and N.A. Peppas, "Poly(methacrylic Acid-g-Ethylene Glycol) Microspheres for Protein Delivery Applications," *Abstr. AIChE Meeting*, Abstract 279d (November 2000).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 119 of 218

204. B.S. Kim and N.A. Peppas, "Poly(ethylene glycol)-Containing Hydrogels for Insulin Delivery Systems," *Abstr. AIChE Meeting*, Abstract 279c (November 2000).
205. D. Henthorn, J.H. Ward, N.A. Peppas and R. Bashir, "Patterned Poly(ethylene glycol)-Containing Films by UV Free-Radical Polymerization Techniques," *Abstr. AIChE Meeting*, Abstract 309b (November 2000).
206. E. Oral and N.A. Peppas, "Molecularly Imprinted Gels Using Polymethacrylates and Poly(ethylene glycol), Abstr. AIChE Meeting, Abstract 313I (November 2000).
207. N.A. Peppas, "Future Directions of Drug and Protein Delivery," Abstr. AIChE Meeting, Abstract 362e (November 2000).
208. N.A. Peppas, M. Torres-Lugo, A.C. Foss, D. Robinson, C. Donini and M. Garcia, "New Complexation-Sensitive Hydrogels for Oral Protein Delivery," *Abstr. Mater. Res. Soc.*, S-37824, (2000).
209. Y. Huang, N. Efremova, D.E. Leckband and N.A. Peppas, "Direct Measurement of Interactions Between Tethered PEG Chains and Adsorbed Mucin Layers by Surface Force Apparatus," *Abstr. Mater. Res. Soc.*, S-39059, (2000).
210. O. Sipahigil, A. Gürsoy and N.A. Peppas, "Protein/Carrier Interactions in Novel Protein Delivery Systems Examined by FTIR Spechoscopy," *Proceed Mediterranean Meeting Controlled Release Society*, *2*, 188 (2001).
211. J. Siepmann, A. Streubel, R. Bodmeier and N.A. Peppas, "The Sequential Layer Model Quantifying Drug Release from Hydrophilic Matrix Tablets: Experimental Verification," *Abstr. AAPS*, W4342 (2001).
212. J. Blanchette, J. Lopez, K. Park and N.A. Peppas, "Use of Methacrylic Acid-Containing Hydrogels to Increase Protein Transport Across the Intestinal Epithelium," *Bull. Amer. Phys. Soc.*, *47*, 394 (2002).
213. M. Byrne, K. Park and N.A. Peppas, "Biomimetic Materials for Selective Recognition of Biologicals: Theoretical and Experimental Analysis," *Bull. Amer. Phys. Soc.*, *47*, 395-396 (2002).
214. J.Z. Hilt, A.K. Gupta, R. Bashir and N.A. Peppas, "Environmentally Sensitive Hydrogels Patterned on Silicon Microcantilevers," *Bull. Amer. Phys. Soc.*, *47*, 926 (2002).
215. D.B. Henthorn, K. Park and N.A. Peppas, "Modeling of the Specific Binding of Biomolecules by Molecularly Imprinted Polymeric Gels," *Bull. Amer. Phys. Soc.*, *47*, 1166 (2002).
216. N.A. Peppas, "Micro- and Nanospheres of Intelligent Biopolymers in Protein/Drug Delivery and Molecular Imprinting," *Abstr. Particles 2002*, *1*, 28 (2002).
217. N.A. Peppas, J. Blanchette, A. Foss, J. Lopez, B. Kim and C. Donini, "Molecular Design and Cellular Studies with Oral Insulin Delivery," *Abstr. BMES*, 161 (2002).
218. J.O. Blanchette, K. Park and N.A. Peppas, "Use of Complexation Hydrogels for Oral Delivery of Chemotherapeutic Agents," *Abstr. BMES*, 164 (2002).
219. J.Z. Hilt, R. Bashir, N.A. Peppas, A.K. Gupta, "A BioMEMS Sensor Platform Based on a Cantinlever with a Precisely Patterned Environmentally Sensitive Hydrogel," *Abstr. BMES*, 281 (2002).
220. D.B. Henthorn, E. Oral, K. Park and N.A. Peppas, "Simulation of Polymeric Network Formation with Atomic Level Interactions for the Study of Templated and Recognitive Materials," *Bull. Amer. Phys. Soc.*, *48*, 210 (2003).
221. N. Bergmann and N.A. Peppas, "Biomprinted Polymer Scaffolds for Selective Recognition of RGD Peptides", *Bull. Amer. Phys. Soc.*, *48*, 142 (2003).
222. J.Z.Hilt, N.A. Peppas and R. Bashir, "Integration of Environmentally Responsive Hydrogels with Silicon Microcantilevers for Biosensor Applications", *Bull. Amer. Phys. Soc.*, *48*, 560 (2003).
223. J.Z. Hilt, M.E. Byrne and N.A. Peppas, "Micropatterning of Biomimetic Recognitive Hydrogels for Microsensing Applications", *Abstr. Annual Houston Conf. Biom. Engin. Res.*, *20,* 21 (2003).
224. N.M. Bergmann and N.A. Peppas, "Bioimprinted Polymer Scaffolds for Selective Recognition of RGD Peptides", *Abstr. Annual Houston Conf. Biom. Engin. Res.*, *20,* 24 (2003).
225. L. Serra and N.A. Peppas, "Improved Mucoadhesive Formulations for Buccal and Oral Drug Delivery", *Abstr. Annual Houston Conf. Biom. Engin. Res.*, *20,* 56 (2003).
226. J. Blanchette and N.A. Peppas, "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents", *Abstr. Annual Houston Conf. Biom. Engin. Res.*, *20,* 67 (2003).
227. N. J. Kavimandan and N.A. Peppas, " Synergestic Effect of Complexation Hydrogels and Permeation Enhancers on Model Intestinal Cell Monolayer: Implications to the Oral Delivery of Insulin", *Abstr. Annual Houston Conf. Biom. Engin. Res.*, *20,* 70 (2003).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 120 of 218

228. N. J. Kavimandan, N. A. Peppas, M. Morishita, T. Goto, T. Nagai, and K. Takayama, "Experimental Investigation of the Effect of Complexation Hydrogels on Insulin Transport Across Model Intestinal Cell Monolayers", *Drug. Deliv. Syst., 18*, 283 (2003).
229. N.A. Peppas, "New Biomaterials for Intelligent Biosensing, Recognitive Drug Delivery and Therapeutics", *Abstr. Journ. Galen., 37* (2003).
230. J. Siepmann and N. A. Peppas, "Elucidation of Water, Drug and Polymer Transport in Swellable Matrix tablets Unders Steric Restriction",. *Abstr. AAPS*, (2003)
231. L. Serra and N. A. Peppas, "Novel Poly(ethylene glycol) Containing Polymers as Mucoadhesive Drug Delivery Systems", *Abstr. AAPS*, (2003)
232. J.Z. Hilt, M.E. Byrne, R. Bashir, N.A. Peppas, "Intelligent Polymer Networks as Sensing Elements: Enabling Technologies for Novel Biosensor Platforms" *Abstr. AIChE Meeting*, Abstract 193c (November 2003).
233. D.B. Henthorn, K. Park and N.A. Peppas, "Templated Polymeric Networks for Molecular Recognition: Simulation and Experimental Correlations," *Abstr. AIChE Meeting*, Abstract 398g (November 2003).
234. N. J. Kavimandan and N.A. Peppas, "Oral Delivery of Insulin Bioconjugates Using Complexation Hydrogels," *Abstr. AIChE Meeting*, Abstract 12d (November 2003).
235. J. Blanchette and N.A. Peppas, "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents," *Abstr. AIChE Meeting*, Abstract 17e (November 2003).
236. N. Bergmann and N.A. Peppas, "Biomimetic Polymer Scaffolds for Selective Recognition of Blood Proteins In Tissue Engineering Applications," *Abstr. AIChE Meeting*, Abstract 390c (November 2003).
237. M.E. Byrne, J.Z. Hilt, N.A. Peppas "Novel Biomimetic Polymer Networks: Development and Application as Selective Recognition Elements for Biomolecules at the Micro/Nano-scale" *Abstr. AIChE Meeting*, Abstract 392d (November 2003).
238. N.M. Bergmann and N.A. Peppas, "Molecular Imprinting of Novel Biodegradable Polymer Matrices for Drug Delivery Applications," *Proceed. US-Japan Drug Delivery Meeting, 7,* 26 (2003).
239. J.O. Blanchette and N.A. Peppas, "Oral Administration of Chemotherapeutic Agents from Complexation Hydrogels," *Proceed. US-Japan Drug Delivery Meeting, 7,* 27 (2003).
240. J.Z. Hilt and N.A. Peppas, "Development and Application of Intelligent Polymer Networks as Recognition Elements for Novel Biomedical Microdevices," *Proceed. US-Japan Drug Delivery Meeting, 7,* 36 (2003).
241. K. Wood and N.A. Peppas, "Advanced Oral Protein Delivery Systems: Modifying the Molecular Design to Create Biologically Intelligent Complexation Hydrogels," *Proceed. US-Japan Drug Delivery Meeting, 7,* 52 (2003).
242. N. J. Kavimandan and N.A. Peppas, " Complexation Hydrogels for Oral Delivery of Insulin: Overcoming the Enzymatic Barriers", *Abstr. Annual Houston Conf. Biom. Engin. Res., 21,* 96 (2004).
243. H. Lauten and N.A. Peppas, " A Novel Technique Using Degradable Components to Create Configurational biomimetic imprinted Polymers", *Abstr. Annual Houston Conf. Biom. Engin. Res., 21,* 155 (2004).
244. K. Wood and N.A. Peppas, " Biologically Intelligent Complexation Hydrogels for the Oral Delivery of Proteins", *Abstr. Annual Houston Conf. Biom. Engin. Res., 21,* 160 (2004).
245. J. Siepmann, A. Streubel and N. A. Peppas, " Drug Release Mechanisms in Swellable Matrix Tablets with Steric Restrictions", *Proceed. Europ. Conf. Drug Deliv. Pharm. Techn., 6,* 40 (2004).
246. N.A. Peppas, "Configurational Biomimesis as a Method for Preparation of Novel Biomaterials and Drug Delivery Carriers," *Abstr. World Congress Pharm. Sci., 2,* 32 (2004).
247. T. Yamagata, M. Morishita, N.J. Kavimandan, N.A. Peppas, A. M. Lowman, T. Nagai and K. Takayama "Elucidation of the Mechanisms for Increasing Oral Insulin Absorption in Delivery Systems Based on Complexation Hydrogels," *Abstr. World Congress Pharm. Sci., 2,* 239 (2004).
248. H. Chiba, M. Morishita, N.A. Peppas, A. M. Lowman, T. Nagai and K. Takayama "Development of Oral Delivery Systems for Peptide and Protein Drugs Based on Complexation Hydrogels," *Abstr. World Congress Pharm. Sci., 2,* 240 (2004).
249. M. Morishita, T. Goto, A. M. Lowman, N.A. Peppas, T. Nagai and K. Takayama "Oral Insulin Delivery Systems Based on Complexation Hydrogels: Single and Multiple Administration Studies in Type 1 and 2 Diabetic Rats," *Abstr. World Congress Pharm. Sci., 2,* 260 (2004).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 121 of 218

250. N. A. Peppas, "Bionanotechnology in Drug Delivery, Drug Design and Therapeutic Systems", *Abstr. Asan-Harvard Joint International Symposium on Nanotechnology in Biology and Medicine*, *4*, 41 (2004).
251. N. A. Peppas, "Intelligent Biomaterials in Microfabricated and Nanoscale devices for Pharmaceutical Applications", *Abstr. Asan-Harvard Joint International Symposium on Nanotechnology in Biology and Medicine*, *4*, 75-76 (2004).
252. J. Z. Hilt, M. E. Byrne and N. A. Peppas, "Novel Biomimetic Polymer Networks with Tailored Recognition Properties: Functional Components in Diagnostic and Therapeutic Devices", *Abstr. BioMEMS and NanoTech World Meeting, 5,* 23 (2004).
253. N. A. Peppas, "Advances in Intelligent Biomaterials for Protein Delivery, Biological recognition and Bioresponsive Systems", *Abstr. EMRS Meeting,* 60 (2004).
254. J.Z. Hilt, M.E. Byrne, and N.A. Peppas, "Novel Biomimetic Polymer Networks: Tailored Recognition Properties Properties for Biomedical Applications", *Abstr. BMES,* 567 (2004).
255. K.M. Wood and N.A. Peppas, "Molecular Design and Evaluation of Complexation Hydrogels as Advanced Oral Protein delivery Systems", *Abstr. BMES,* 695 (2004).
256. E.H. Lauten and N.A. Peppas, "Configurational Biomimetic Imprinted Polymers Selective for Angiotensin II", *Abstr. BMES,* 699 (2004).
257. N. Bergmann and N.A. Peppas, "Novel Molecularly Imprinted Hydrogels for the Recognition of Blood Proteins", *Abstr. BMES,* 1050 (2004).
258. N. Bergmann and N.A. Peppas, "Investigation of Degradable, Imprinted Microspheres for the Development of a Tissue Engineering Scaffold", *Proceed. Biomaterials Regenerative Medicine*, 2004.
259. J. Blanchette and N.A. Peppas, "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", *Abstr. AIChE Meeting*, Abstract 460e (November 2004).
260. N. Bergmann and N.A. Peppas, "Biomimetic, Molecularly Imprinted Hydrogels for Recognition and Capture of High Molecular Weight Proteins", *Abstr. AIChE Meeting*, Abstract 61g (November 2004).
261. D. Henthorn and N.A. Peppas, "Protein Recognition and Binding at Interfaces: Engineering Polymeric Materials to Bind Specific Molecules", *Abstr. AIChE Meeting*, Abstract 65b (November 2004).
262. J. Z. Hilt, M. Byrne and N.A. Peppas, "Biomimetic Polymers in Drug Delivery and Sensing Applications: Effect of Network Molecular Structure on Recognition Properties", *Abstr. AIChE Meeting*, Abstract 66d (November 2004).
263. E.H. Lauten and N.A. Peppas, "Incorporation of Degradable Components into a Configurational Biomimetic Imprinted Polymer", *Abstr. AIChE Meeting*, Abstract 66e (November 2004).
264. K. Wood and N.A. Peppas, "Molecular Design of Advanced Oral Protein Delivery Systems Using Complexation Hydrogels", *Abstr. AIChE Meeting*, Abstract 501a (November 2004).
265. D. Owens III and N.A. Peppas, "Thermo-responsive Polymer Nanoparticles for Stealth Drug Delivery and Molecular Recognition", *Abstr. AIChE Meeting*, Abstract 501d (November 2004).
266. N. Kavimandan N.A. Peppas, "Use of Complexation Hydrogels in Overcoming Enzymatic Barriers to Oral Insulin Delivery", *Abstr. AIChE Meeting*, Abstract 463a (November 2004).
267. N.A. Peppas, "Theory and Applications of Intelligent Biomaterials", *Abstr. AIChE Meeting*, Abstract 70d (November 2004).
268. N.A. Peppas, "The Future of Intelligent Therapeutics", *Abstr. AIChE Meeting*, Abstract 73a (November 2004).
269. N. Kavimandan and N.A. Peppas, "Complexation Hydrogels as Oral Delivery Vehicles for Insulin-Transferrin Conjugates", *Abstr. AIChE Meeting*, Abstract 82a (November 2004).
270. D. Barad and N.A. Peppas, "Kinetic Studies of Inferter Photopolymerizations for Highly Crosslinked Polymer Networks", *Abstr. AIChE Meeting*, Abstract 351a (November 2004)
271. T. Farmer, T. Edgar and N.A. Peppas, "Modeling and Control of the Behavior of Glucose Sensing Devices", *Abstr. AIChE Meeting*, Abstract 88c (November 2004).
272. J. B. Thomas and N.A. Peppas, "Transmucosal Drug Delivery Systems Using Mucoadhesive Brush-containing Networks", *Abstr. AIChE Meeting*, Abstract 192e (November 2004).
273. N. A. Peppas, "Biomimetic Polymers in Sensing Applications and Drug Delivery", *Abstr. Annual Houston Conf. Biom. Engin. Res., 22,* 43 (2005).
274. N. J. Kavimandan and N. A. Peppas, "Integrating Stategies for Improved Oral Delivery of Therapeutic Proteins", *Abstr. Annual Houston Conf. Biom. Engin. Res., 22,* 45 (2005).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 122 of 218

275. J. B. Thomas and N. A. Peppas, "Utilization of the Adhesion Promoter Poly(ethylene glycol) in Mucoadesive Biomaterials", *Abstr. Annual Houston Conf. Biom. Engin. Res., 22,* 104 (2005).
276. T. G. Farmer, T. G. Edgar and N. A. Peppas, "Applications of Modeling and Control Toward the Development of Novel Therapies for Diabetes Mellitus", *Abstr. Annual Houston Conf. Biom. Engin. Res., 22,* 147 (2005).
277. D. A. Barad and N. A. Peppas, "Improvement of Novel Biomedical devices via Kinetic Studies of Iniferter Photopolymerization", *Abstr. Annual Houston Conf. Biom. Engin. Res., 22,* 161 (2005).
278. D. E. Owens III and N. A. Peppas, "Temperature-Sensitive Stealth Nanoparticles as Intelligent Therapeutic Systems", *Abstr. Annual Houston Conf. Biom. Engin. Res., 22,* 206 (2005).
279. E. Losi, P. Colombo and N.A. Peppas, "The Swelling Behavior of Hydrophilic Tablets as Revealed by High-Reoslution X-ray Computed Tomography" , *Proceed. PharmSciFair, 1,* SC80 (2005)
280. G. Spizzirri and N. A. Peppas, "Structural Analysis and Diffusional Behavior of Molecularly Imprinted Polymer Networks for Cholesterol Recognition", *Proceed. PharmSciFair, 1,* PO163 (2005).
281. E. Losi, P. Colombo and N.A. Peppas, "The Swelling Behavior of Hydrophilic Tablets as Analyzed by High-Resolution X-Ray Computed Tomography", *Proceed. Symp. Innovat. Therap.*, 8 (2005).
282. N.A. Peppas, "Complexation Hydrogels for Biological Recognition and Intelligent Delivery", *Proceed. Intern. Symp. Polymer Gels*, 51-52 (2005).
283. D.E. Owens III and N. A. Peppas, "Temperature Sensitive Nanoparticles as Intelligent Therapeutic Systems", *Proceed. Intern. Symp. Polymer Gels*, 157 (2005).
284. J.B. Thomas, J.W. McGinity and N.A. Peppas, "Synthesis and Characterization of pH Responsive Mucoadhesive Tethered Biomaterials", *Proceed. Intern. Symp. Polymer Gels*, 158-159 (2005).
285. K. Wood, T. Goto, M. Morishita, K. Takayama, and N.A. Peppas, "Investigation of Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", *Abstr. AAPS*, M1188 (2005)
286. M. Fukuda, N.A. Peppas and J. McGinity, "Properties of Sustsained Release Floating Tablets Prepared by a Hot-Melt Extusion Process", *Abstr. AAPS*, M1203 (2005)
287. J. B. Thomas, J. McGinity and N.A. Peppas, "Development of PEG-Containing pH-Responsive polymers for Oral Drug Delivery", *Abstr. AAPS*, *W4247* (2005)
288. J.B. Thomas, N.A. Peppas and J. McGinity, "Properties of Mucoadhesive Oral Drug Delivery Systems for Spatial Localization of Levodopa", *Abstr. AAPS*, R6149 (2005).
289. J.B. Thomas, J.W. McGinity and N.A. Peppas, "Molecularly Designed Mucoadhesive pH Responsive Tethered Biomaterials and their Use in Spatially Controlled Therapeutic Delivery", *Abstr. AIChE Meeting*, Abstract 4cp (November 2005).
290. K.M. Wood, and N.A. Peppas, "Mucoadhesive Oral Insulin Delivery Systems Using Lectin Functionalized Complexation Hydrogels", *Abstr. AIChE Meeting*, Abstract 51b (November 2005).
291. J.B. Thomas, N.A. Peppas and J.W. McGinity, "Novel Mucoadhesive Formuations Employing pH-Responsive Biomaterials", *Abstr. AIChE Meeting*, Abstract 76g (November 2005).
292. J.B. Thomas, J.W. McGinity and N.A. Peppas, "Molecularly Designed Mucoadhesive pH-Responsive tethered Biomaterials", *Abstr. AIChE Meeting*, Abstract 151a (November 2005).
293. N.A. Peppas, "Membrane Science and Intelligent Therapeutics", *Abstr. AIChE Meeting*, Abstract 166c (November 2005).
294. D.E. Owens III and N.A. Peppas, "temperature-Sensitive Polymer-Gold Nanocomposites as Intelligent Therapeutic Systems", *Abstr. AIChE Meeting*, Abstract 580b (November 2005).
295. N.A. Peppas, "Intelligent Therapeutics and Bionanotechnology", *Proceed. US-Japan Drug Delivery Meeting, 8,* (2005).
296. D.E. Owens III and N.A. Peppas, "Gold-Polymer Nanocomposites as Intelligent Therapeutic Systems", *Proceed. US-Japan Drug Delivery Meeting, 8,* (2005).
297. J.B. Thomas and N. A. Peppas, "Molecularly-Designed Mucoadhesive pH-Responsive tethered Biomaterials", *Proceed. US-Japan Drug Delivery Meeting, 8,* (2005).
298. E.H. Lauten and N.A. Peppas, "Configurational Biomimetic Polymers for Novel Drug Delivery Systems", *Proceed. US-Japan Drug Delivery Meeting, 8,* (2005).
299. J. K. Eby, D. E. Owens III and N. A. Peppas, "Metal-Polymer Nanocomposites as Externally Triggerred Intelligent Therapeutic Systems", *Abstr. Annual Houston Conf. Biom. Engin. Res., 23,* 19 (2006).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 123 of 218

300. Y. Jian D. E. Owens III and N. A. Peppas, "Temperature-Responsiv Interpenetrating Polymer Network Nanospheres as Intelligent Therapeutic Systems", *Abstr. Annual Houston Conf. Biom. Engin. Res., 23,* 91-92 (2006).
301. T. G. Farmer, T.F. Edgar and N.A. Peppas, "Application of Process Control Techniques Towards Type 1 Diabetes Mellitus", *Abstr. Annual Houston Conf. Biom. Engin. Res., 23,* 111 (2006).
302. G. Stone, K. M. Wood and N.A. Peppas, "Oral Insulin Delivery Using Lectin Functionalized Complexation Hydrogels", *Abstr. Annual Houston Conf. Biom. Engin. Res., 23,* 112 (2006).
303. N.A. Peppas, "Biomimetic Polymers in Intelligent Drug Delivery", *Abstr. World Congr. Biomim. Art. Muscles Nanobiotechnology, 3,* 29-30 (2006)
304. T. Farmer Jr, T. Edgar and N.A. Peppas, "Modeling of the Dynamics of Insulin Release from pH Responsive Cationic Hydrogel Nanospheres", *Proceed. Diabetes Technol. 6,* A40 (2006).
305. D.E. Owens III, J.K. Eby, N.A. Peppas, "Metal-Polymer Nanocomposites for Therapeutic and Imaging Applications", *Abstr. AIChE Meeting*, Abstract 477b (November 2006).
306. S.R. Marek and N.A. Peppas, "Glucose-Responsive Systems for Insulin Delivery Based on Poly(Ethylene Glycol)-Containing, pH-Sensitive, Cationic Hydrogels", *Abstr. AIChE Meeting*, Abstract 112b (November 2006).
307. F.M. Marks III and N.A. Peppas, "Dynamics of Novel Multifunctional, Intelligent Mucoadhesive Copolymers", *Abstr. AIChE Meeting*, Abstract 172d (November 2006).
308. K.M. Wood, G.Stone, N.A. Peppas, "In Vitro Investigation of Oral Insulin Delivery Systems Using Lectin Functionalized Complexation Hydrogels", *Abstr. AIChE Meeting*, Abstract 184d (November 2006).
309. Donald E. Owens III, Yicun Jian, Nicholas A. Peppas, "Thermally Responsive Interpenetrating Polymer Network Nanoparticles", *Abstr. AIChE Meeting*, Abstract 266a (November 2006).
310. N.A. Peppas, "Drug Absorption in the Upper Small Intestine and Its Implications in the Design of Oral Protein Delivery Carriers", *Abstr. AIChE Meeting*, Abstract 262e (November 2006).
311. A.K. Ekenseair and N.A. Peppas, "Penetrant Transport in Well-Characterized Glassy Polymers as Revealed by High-Resolution X-Ray Computed Tomography", *Abstr. AIChE Meeting*, Abstract 384d (November 2006).
312. N.A. Peppas and E. Losi, "Engineering of Novel Drug Delivery Devices Based on Convex/Concave Geometries and Dynamic Analysis Using X-Ray Tomography", *Abstr. AIChE Meeting*, Abstract 429c (November 2006).
313. J.B. Thomas, J. Tingsanchali, C.M. Creecy, A.M. Rosales, J.W. McGinity, N.A. Peppas, "Tethered pH Responsive Biomaterials for Mucoadhesive Oral Controlled Release Drug Delivery Systems", *Abstr. AIChE Meeting*, Abstract 475a (November 2006).
314. E.H. Lauten and N.A. Peppas, "Selective Recognition of Angiotensin II", *Abstr. AIChE Meeting*, Abstract 364a (November 2006).
315. O.Z. Fisher, M. Lin, Nicholas A. Peppas, "Characterizing Transport Enhancement by P(MAA-g-EG) Drug Carriers in the Presence of Mucus", *Abstr. AIChE Meeting*, Abstract 475f (November 2006).
316. Daniel A. Carr, Nicholas A. Peppas, "Molecular Analysis of Interpolymer Complexing Hydrogels Based on Poly(Methacrylic Acid) and N-Vinyl Pyrrolidone as Carriers for Protein Delivery by Transmucosal Transport", *Abstr. AIChE Meeting*, Abstract 532b (November 2006).
317. J.P. Shofner, N.J. Kavimandan, and N.A. Peppas, "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", *Abstr. AIChE Meeting*, Abstract 586e (November 2006).
318. D.A. Carr, M.C. Boudes, O.Z. Fisher and N.A. Peppas, "Growth Hormone Release Using pH-Sensitive Complexation Hydrogels", *Abstr. Annual Houston Conf. Biom. Engin. Res., 24,* 102 (2007).
319. D.P. Desai, M. Lin, O.Z. Fisher and N.A. Peppas, "Development an Characterization of Polycationic Nanogels for Targetted Intracellular Drug Delivery", *Abstr. Annual Houston Conf. Biom. Engin. Res., 24,* 136 (2007).
320. C.T. Haynes, M. Boudes, O.Z. Fisher, D.A. Carr and N.A. Peppas, "Comparing pH-Sensitive Carriers in Transporting Growth Homone", *Abstr. Annual Houston Conf. Biom. Engin. Res., 24,* 141 (2007).
321. N.A. Peppas, "Targeting with Molecularly Decorated nanoparticles", *Proceed. Pharmac. World Congress,* (2007).
322. O.Z. Fisher, M. Lin, D. Desai and N.A. Peppas, "Photoemulsion Polymerization of Polycationic Nanogels for Intracellular Drug Delivery", *Proceed. Pharmac. World Congress,* (2007).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 124 of 218

323. N.A. Peppas, "Nanotechnology and Intelligent Systems in Drug Delivery", *Abstr. Natl Biotechn. Confer. AAPS*, 34 (2007).
324. N.A. Peppas, "Chemical Engineering in Bioengineering and Bionanotechnology", *Abstr. CHEMECA 2007*, 30 (2007).
325. N. A. Peppas, "What Has Nanotechnology Done for Drug Delivery Lately?", *Abstr. APGI/ADRITELF Meet. Innovation Drug Delivery, 1,* 1-2 (2007).
326. F.M. Marks III, A.M. Lowman, and N.A. Peppas. "Dynamics of Novel Multifunctional, Intelligent Mucoadhesive Copolymers". *Abstr. AIChE Meeting*, Abstract 79g (November 2007).
327. N.A. Peppas. "Polymerizations in the Service of Nanotechnology and Intelligent Biomaterials Science". *Abstr. AIChE Meeting*, Abstract 93b (November 2007).
328. I.Y. Sánchez Chávez, S.O. Martínez Chapa, and N.A. Peppas. "Computer Evaluation of Hydrogel-Based Systems for the Closed Loop Treatment of Type I Diabetes Mellitus". *Abstr. AIChE Meeting*, Abstract 96c (November 2007).
329. M.A. Phillips and N.A. Peppas. "Polysaccharide-Tethered Hydrogels for Drug Delivery". *Abstr. AIChE Meeting*, Abstract 124a (November 2007).
330. D.A. Carr, W.A. Hunt and N.A. Peppas. "Molecular Design and Dynamic Behavior of Interpolymer Complexing Hydrogels as Carriers for the Oral Delivery of Therapeutic Proteins". *Abstr. AIChE Meeting*, Abstract 196b (November 2007).
331. A.K. Ekenseair, R.A. Ketcham and N.A. Peppas. "*In Situ* Dynamics of Penetrant Transport in Glassy Polymers". *Abstr. AIChE Meeting*, Abstract 200g (November 2007).
332. N.A. Peppas. AIChE Institute Lecture: "Le Plus Ça Change…Nanotechnology and Bioengineering in an Evolving Chemical Engineering World". *Abstr. AIChE Meeting*, Abstract 1a, (November 2007).
333. S.R. Marek and N.A. Peppas. "Cationic Polymeric Systems for Glucose-Responsive Insulin Delivery". *Abstr. AIChE Meeting*, Abstract 536a (November 2007)..
334. J.P. Shofner and N.A. Peppas. "Oral Delivery of Insulin-Transferrin Bioconjugates Using Intelligent Complexation Hydrogels". *Abstr. AIChE Meeting*, Abstract 565b (November 2007).
335. N.A. Peppas. "Intelligent Biomaterials in Protein Delivery, Molecularly Reognitive Systems and Microdevices", *Proceed. Intern. Confer. Cellular Molecular Engin.* 1, 21 (2007).
336. D.A. Carr and N.A. Peppas, "Complexation Hydrogels of Methacrylic Acid and N-Vinyl Pyrrolidone for the Oral Delivery of Therapeutic Proteins", *Proceed. US-Japan Drug Delivery Meeting, 9,* 53 (2007).
337. C.L. Bayer and N.A. Peppas, "Conductive Polymers for Recognitive Hydrogels", *Proceed. US-Japan Drug Delivery Meeting, 9,* 53 (2007).
338. J.P. Shofner and N.A. Peppas, "Oral Delivery of Insulin-Transferrin Bioconjugates Using Intelligent Complexation Hydrogels", *Proceed. US-Japan Drug Delivery Meeting, 9,* 56 (2007).
339. M.A. Phillips and N.A. Peppas, "Carbohydrate-Containing hydrogels for Oral Protein Delivery", *Proceed. US-Japan Drug Delivery Meeting, 9,* 56 (2007).
340. S.R. Marek and N.A. Peppas, "Intelligent Glucose-Responsive Insulin Delivery via Cationic Hydrogel Systems, *Proceed. US-Japan Drug Delivery Meeting, 9,* 57 (2007).
341. M.L. Gran and N.A. Peppas, Metal-Polymer Composites as Externally-Controlled Intelligent Therapeutic Systems", *Proceed. US-Japan Drug Delivery Meeting, 9,* 58 (2007).
342. D.K. Snelling and N.A. Peppas, "Towards the Development of Biodegradable Sensors from Smart Hydrogels", *Proceed. US-Japan Drug Delivery Meeting, 9,* 58 (2007).
343. C. L. Bayer, Y. Loo and N. A. Peppas, "Hydrogel and Conductive Polymer Composite as a Sensing Device", *Abstr. Annual Houston Conf. Biom. Engin. Res., 25,* 132 (2008).
344. S. R. Dietz, O. Z. Fisher and N. A. Peppas, "Material Characterization of pH-Sensitive Polycationic Nanocarriers for Intracellular Drug Delivery", *Abstr. Annual Houston Conf. Biom. Engin. Res., 25,* 165 (2008).
345. J. Dempsey, M. Kanzelberger and N. A. Peppas, "PEGylated Insulin Loading of Poly(Methacrylic Acid-G-Ethylene Glycol) Particles", *Abstr. Annual Houston Conf. Biom. Engin. Res., 25,* 121 (2008).
346. T. Kim, O. Z. Fisher and N. A. Peppas, "pH-Sensitive Polycationic Hydrogels for Intracellular Drug Delivery", *Abstr. Annual Houston Conf. Biom. Engin. Res., 25,* 119 (2008).
347. S. S. Khurshid, F. Butt, C. E. Schmidt and N. A. Peppas, "Recognitive Biomaterials for Neurotransmitters", *Abstr. Annual Houston Conf. Biom. Engin. Res., 25,* 183 (2008).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 125 of 218

348. A. Ekenseair, R. Ketcham and N.A. Peppas, "Visualization and Analysis of the Dynamics of Methanol Transport in Poly(methyl methacrylate)", *Bull. Amer. Phys. Soc., 53,* 394 (2008).
349. N.A. Peppas, "Oral Delivery of Insulin and Other Proteins", *Abstr. World Congress Biomater., 8,* (2008)
350. D Carr, M Gomez Burgaz, N.A. Peppas, "Molecular Design of a Novel Complexation Hydrogel for the Oral Delivery of Therapeutic Proteins", *Abstr. World Congress Biomater., 8,* (2008)
351. J. Shofner and N.A. Peppas, "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", *Abstr. World Congress Biomater., 8,* (2008)
352. S. Marek and N.A. Peppas, "Cationic Hydrogels for Intelligent Insulin Delivery", *Abstr. World Congress Biomater., 8,* (2008)
353. F.M. Marks, A. Lowman and N.A. Peppas, "Analysis of Poly(Ethylene Glycol) Tethered Poly(Acrylic Acid) Networks" *Abstr. World Congress Biomater., 8,* (2008)
354. M. Gran, D.E. Owens and N.A.Peppas, "Metal-Polymer Nanocomposites as Externally Triggered Therapeutic Systems" *Abstr. World Congress Biomater., 8,* (2008)
355. LL Lao, SS Venkatraman, NA Peppas, "Fast- vs. Slow- Paclitaxel Eluting Degradable Stents and Their Impacts on Coronary Artery Smooth Muscle Cells Proliferation", *Abstr. World Congress Biomater., 8,* (2008)
356. C. L. Bayer, I.J. Trenchard and N. A. Peppas, "Conductive Polymer and Hydrogel Composites as Functional Biomaterials" *Abstr. AIChE Meeting*, Abstract (November 2008).
357. C. L. Bayer and N. A. Peppas, "Polyaniline-poly(2-acrylamidomethylpropane sulfonic acid) Biocompatibility with 3T3 Fibroblasts" *Abstr. BMES Meeting*, Abstract (September 2008).
358. A. K. Ekenseair, N. A. Peppas, "Investigating Dynamic Penetrant Transport In Glassy Polymers for High-Tech Applications" *Abstr. AIChE Meeting*, Abstract (November 2008).
359. O. Z. Fisher, T. Kim, S. R. Dietz, N. A. Peppas, "Photopolymerized pH-Responsive Nanomatrices for Applications In Nanomedicine", *Abstr. AIChE Meeting*, Abstract (November 2008).
360. A. K. Ekenseair, R. A. Ketcham, N. A. Peppas, "An Examination of Structural Parameters Affecting the Dynamics of Penetrant Transport In Glassy Polymers", *Abstr. AIChE Meeting*, Abstract (November 2008).
361. N.A. Peppas "Past, Present and Future of Drug Delivery" *Abstr. AIChE Meeting*, Abstract (November 2008).
362. C. L. Bayer, A. A. Konuk, N. A. Peppas, "Biomolecular Sensing with Polyaniline-Poly(2-acrylamidomethylpropane sulfonic acid) Nanosystems", *Abstr. AIChE Meeting*, Abstract (November 2008).
363. D. K. Snelling and N.A. Peppas, "Towards the Development of Biodegradable Sensors from Smart Hydrogels", *Abstr. AIChE Meeting*, Abstract (November 2008).
364. N.A. Peppas, "Design of Functional and Intelligent Polymeric Carriers for Improved Cellular Transport and Biorecognition", *Proceed. Intern Conf. Chem. Soc. SE Europ. Countries, 6*, 5 (2008)
365. N.A. Peppas, "Swelling-controlled release 30 years later: Responsive Intelligence and Delivery by Design", *Proceed. PharmSciFair, 2*, 15 (2009).
366. N.A. Peppas and D.R. Kryscio, "Novel Polymer Networks as Biomimetic Structures, *ACS Abstracts* (2009).
367. N.A. Peppas, "Stimulus Responsive Networks 60 Years Later", *ACS Abstracts* (2009).
368. B. L. Ekerdt, D. K. Snelling and N. A. Peppas, "Novel Microsensors From Biodegradable Smart Hydrogels", *Abstr. AIChE Meeting*, Abstract (November 2009).
369. D. R. Kryscio and N. A. Peppas, "Protein Recognitive Hydrogel Systems for Biosensor Applications", *Abstr. AIChE Meeting*, Abstract (November 2009)..
370. N. A. Peppas, "Recent Advances in Hydrogels as Biomaterials", *Abstr. AIChE Meeting*, Abstract (November 2009).
371. N. A. Peppas, "Recognitive Networks in Advanced Responsive Systems", *Abstr. AIChE Meeting*, Abstract (November 2009).
372. D. K. Snelling, B. L. Ekerdt, and N. A. Peppas, "Microcantilever Sensors Utilizing Biodegradable, pH-Responsive Hydrogel", *Abstr. AIChE Meeting*, Abstract (November 2009).
373. A. K. Ekenseair, R. K. Ketcham and N.A. Peppas, "Dynamics of Non-Fickian Penetrant Transport in Glassy Polymers", *Abstr. AIChE Meeting*, Abstract (November 2009).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 126 of 218

374. W. B. Liecthy and N. A. Peppas, "Development of pH-Responsive Nanogels for Delivery of siRNA", *Abstr. AIChE Meeting*, Abstract (November 2009).
375. A. K. Ekenseair and N.A. Peppas, , "Investigating Dynamics Penetrant Transport in Glassy Polymers for High-Tech Applications", *Abstr. AIChE Meeting*, Abstract (November 2009).
376. A. Konuk, C, Bayer and N.A. Peppas, "Synthesis and Caracterization of Polyaniline-Polymer Acid Complexes for Use in Biosensing Applications", *Abstr. AIChE Meeting*, Abstract (November 2009).
377. N.A. Peppas, "Recognition and Delivery: The Next Generation of Medical Microdevices", *Proceed. US-Japan Drug Delivery Meeting, 10,* 15 (2009).
378. N.A. Peppas, "Health Care and Advanced Therapeutics", *Proceed. Innovation in Health Care Delivery Systems, 1*, 25 (2010).
379. N.A. Peppas, "Advanced Responsive and Feedback-Controlled Nanoparticles for Drug and Protein Delivery", *Proceed. Intern. Meet. Pharmacy & Pharmac. Sci., 3*, PL7 (2010)
380. W. B. Liechty and N.A. Peppas, "Synthesis and In Vitro Characterization of pH-Responsive Nanogels for Oral Delivery of siRNA, *Proceed. Intern. Symp. Polym. Therap., 8,* 71 (2010).
381. D. Kryscio and N.A. Peppas, "Protein Recognitive Hydrogel Systems for Biosensor Applications", *Proceed. World Congress Biosensors, 20*, P.2.1.013 (2010).
382. N.A. Peppas, "Intelligent and Feedback-Controlled Nanoparticles for Intelligent Drug Delivery", *Proceed. Global Congress NanoEngineering Medicine Biology, 1*, 9-1-6, (2010)
383. M. Gran and N.A. Peppas, "Nanoparticulate Metal-Polymer Systems for Externally-Controlled Delivery", *Proceed. Global Congress NanoEngineering Medicine Biology, 1*, 2-6-1, (2010)
384. D. Kryscio, "Protein Recognitive Hydrogel Systems for Biosensor Applications", *Proceed. Global Congress NanoEngineering Medicine Biology, 1*, 8-1-1, (2010).
385. M. A. Phillips and N. A. Peppas, "Carbohydrate Surface Modification for Oral Protein Delivery", *Abstr. BMES Meeting*, Abstract (October 2010).
386. M. L. Gran and N. A. Peppas, "Metal-Polymer Composite Nanoparticle Systems for Externally Controlled Delivery", *Abstr. BMES Meeting*, Abstract (October 2010).
387. B.V. Slaughter and N. A. Peppas, "Kinetic Swelling Responses of Iron Oxide/Hydrogel Nanocomposites", *Abstr. BMES Meeting*, Abstract (October 2010).
388. R. L. Scheuerle, M. C. Moore, and N. A. Peppas, "Development of pH-Responsive Nanoparticles for Targeted, Controlled Release of 5-Fluorouracil", *Abstr. BMES Meeting*, Abstract (October 2010).
389. D. Kryscio and N.A. Peppas, "Optimizing Protein Recognitive Hydrogel Systems for Biosensor Applications", *Abstr. BMES Meeting*, Abstract (October 2010).
390. S. R. Marek and N. A. Peppas, "Swelling and Insulin Release of Glucose-Responsive Microparticles and Nanogels", *Abstr. BMES Meeting*, Abstract (October 2010).
391. W. B. Liechty and N. A. Peppas, "Polybasic 2-(diethylaminoethyl) methacrylate nanogels and their application in oral siRNA delivery", *Abstr. BMES Meeting*, Abstract (October 2010).
392. A.K. Ekenseair and N.A. Peppas, "Investigating Case II and Anomalous Penetrant Transport in Glassy Polymers", *Abstr. AIChE Meeting*, Abstract (November 2010).
393. D. Kryscio and N.A. Peppas, "Hydrogel-Based Protein Recognitive Systems for Diagnostic Applications", *Abstr. AIChE Meeting*, Abstract (November 2010).
394. A.K. Ekenseair, R. Ketcham and N.A. Peppas, "Case II and Anomalous Penetrant Transport in Glassy Polymers", *Abstr. AIChE Meeting*, Abstract (November 2010).
395. W. B. Liechty and N.A. Peppas, "Synthesis and in vitro Characterization of pH-Responsive Nanogels for Oral Delivery of siRNA", *Abstr. AIChE Meeting*, Abstract (November 2010).
396. A.K. Ekenseair and N.A. Peppas. "Tuning the Dynamics of Penetrant Transport in Glassy Polymers through Network Structure Modification." *Bull. of the Amer. Phys. Soc.*, 56 (1), (2011).
397. M. Caldorera-Moore and N. A. Peppas, "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Chemotherapeutics", *Abstr. SFB Biomaterials Day, 1*, 12 (2011).
398. D. Kryscio, M. Q. Fleming and N. A. Peppas, "Protein Conformational Studies for Molecularly Imprinted Polymers", *Abstr. SFB Biomaterials Day, 1*, 16 (2011).
399. C. A. Schoener and N. A. Peppas, "Amphiphilic Interpenetrating Networks for Oral Anticancer Drug Delivery", *Abstr. SFB Biomaterials Day, 1*, 18 (2011).
400. W. B. Liechty, R. L. Scheuerle and N. A. Peppas, "Rapidly Degradable Dual-Responsive NAnoscale Hydrogels for siRNA Delivery", *Abstr. SFB Biomaterials Day, 1*, 22 (2011).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 127 of 218

401. N. A. Peppas "Advanced siRNA and Protein Delivery Through Smart Hydrogels", *Proceed. 7th International Symposium on Controlled Release Systems, 1*, 4-28 (2011).
402. A. Ekenseair and N. A. Peppas, Tuning the Dynamics of Penetrant Transport in Glassy Polymers Through Network Structure Modification, *Bull. Amer. Phys. Soc., 56* (1) BAPS. 2011. MAR.X42.2 (2011).
403. M. A. Phillips, and N. A. Peppas, Evaluation of Polysaccharide-Modified Complexation Hydrogels for Oral Protein Delivery, *Abstr. BMES Meeting*, Abstract (October 2011).
404. B. V. Slaughter, and N. A. Peppas, Temperature-Responsive Interpenetrating Polymer Network Nanogels and Nanocomposites, *Abstr. BMES Meeting*, Abstract (October 2011).
405. C. Schoener and N.A. Peppas, Hydrophobic-Hydrophilic Interpenetrating Networks for Oral Chemotherapeutic Delivery, *Abstr. BMES Meeting*, Abstract (October 2011).
406. H. Hutson, C. Schoener, and N.A. Peppas, Hydrogels Decorated with Hydrophobic Nanoparticles for the Oral Delivery of Chemotherapeutics, *Abstr. AIChE Meeting*, Abstract (October 2011).
407. E. Dawson, J. Leleux, N. A. Peppas, and K. Roy, An Injectable, Synthetic Immune Center for Cancer Vaccines: Efficient Delivery of Tumor-Antigens and Immune-Modulatory Nucleic Acids to Dendritic Cells, *Abstr. BMES Meeting*, Abstract (October 2011).
408. C. Schoener, H. Hutson and N.A. Peppas, Hydrophobic Nanoparticles Encapsulated in Hydrophilic Hydrogel for Oral Delivery of Chemotherapeutics*Abstr. AIChE Meeting*, Abstract (November 2010).
409. N.A. Peppas. "Responsive Nanoscale Drug Delivery Systems", *Proceed. Biointerface, 21*, 2011.
410. K. Roy, E. Dawson, J. Leleux and N.A. Peppas, "An Injectable, Synthetic Immune-Priming Center for Efficient Delivery of Immunomodulatory Nucleic Acids and Protein/Peptide Antigens", *Proceed. US-Japan Drug Delivery Meeting, 11,* 47 (2011).
411. M. Caldorera-Moore and N.A. Peppas, "Oral Delivery of Interferon-alpha for Chemotehrapy", *Proceed. US-Japan Drug Delivery Meeting, 11,* 47 (2011).
412. N. A. Peppas, "Applications of Intelligent Nanotechnologies in Therapeutic Delivery, *Abstr. Winter Symp., Nanotechn. Biomedicine, 1*, S23 (2012).
413. N.A. Peppas, "Advances in Hydrogels for Biomedical Applications", *Proceed. Intern. Symp. Intelligent Drug Delivery, 6*, 15 (2012).
414. N. A. Peppas and D. Kryscio, "Intelligent Biomaterials for Medical Devices with Molecular Recognition Capabilities", *Abstr. World Biomaterials Congress, 9*, (2012).
415. W.B. Liechty, A. E. Bergeron, N. A. Peppas and R.L. Scheuerle, "Efficient Delivery of siRNA with Dual-responsive Nanoscale Hydrogels", *Abstr. World Biomaterials Congress, 9*, (2012).
416. N. A. Peppas, "Intelligent Biomaterials to Control Recognition and Specificity in Naomedicine", *Abstr. NanoBioSeattle*, 1, 10 (2012).
417. N. A. Peppas, "Promoting Convergence in Biomaterials Engineering", Abstracts Top-Level Forum: Biomaterials Science and Engineering, Present, Future and Development Stategy, page 4, 2012.
418. N. A. Peppas, "Hydrogels as Biomaterials: A 40-year saga", *Abstracts, Biomaterials Days*, 2012.
419. M. Creixell and N. A. Peppas, "Responsive polycationic nanoparticles for co-delivery of siRNA and chemotherapeutical agents to overcome multidrug resistance in cancer therapy", *Abstracts, Biomaterials Days*, 2012.
420. M. C. Koetting and N. A. Peppas "pH-Responsive Hydrogels for Oral Delivery of Therapeutic Proteins", *Abstracts, Biomaterials Days*, 2012.
421. D. C. Forbes, H. Frizzel, and N. A. Peppas, "Comparing ARGET ATRP with traditional free radical polymerization for versatile polycationic hydrogel nanoparticles", *Abstracts, Biomaterials Days*, 2012.
422. H. Frizzell, D. C. Forbes and N. A. Peppas, "Two-part oral siRNA delivery system: polycationic hydrogel nanoparticles and alginate matrix", *Abstracts, Biomaterials Days*, 2012.
423. S. Steichen and N. A. Peppas, "Design of pH-Responsive Carriers for the Oral Delivery of High Molecular Weight Protein Therapeutics", *Abstracts, Biomaterials Days*, 2012.
424. B. R. Carrillo-Conde and N. A. Peppas, "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies", *Abstracts, Biomaterials Days*, 2012.
425. J. M. Knipe and N. A. Peppas, "Synthesis and Characterization of Composite Hydrogel Particles for Oral Delivery Small Interfering RNA", *Abstracts, Biomaterials Days*, 2012.
426. A. S. Puranik and N. A. Peppas, "Intelligent Polymeric Biomaterials for the Oral Delivery of Hydrophobic Therapeutic Agents for Cancer Treatment", *Abstracts, Biomaterials Days*, 2012.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 128 of 218

427. B. V. Slaughter and N.AA. Peppas, "Externally-Triggered Thermally-Responsive Nanocomposites for Advanced Therapeutic Delivery", *Abstracts, Biomaterials Days*, 2012.
428. G. Fletcher, M. Caldorera-Moore and N. A. Peppas, "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Protein-Based Chemotherapeutic Agents", *Abstracts, Biomaterials Days*, 2012.
429. W. B. Liechty, R. L. Scheuerle, A. E. Bergeron and N. A. Peppas, "The Influence of Enhanced Core Hydrophobicity on Membrane Disrupve Properties of Poycationic Nanoscale Hydrogels Containing 2-(Diethylaminoethyl) Methacrylate, *Abstracts, Biomaterials Days*, 2012.
430. A. S. Puranik and N. A. Peppas, "Intelligent Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", *Abstr. BMES Meeting*, Abstract (October 2012).
431. J. M. Knipe and N. A. Peppas, "Composite Hydrogel Particles for Oral Small Interfering RNA Delivery", *Abstr. BMES Meeting*, Abstract (October 2012).
432. S. Steichen and N. A. Peppas, "Development of Responsive Hydrogel Networks for the Oral Delivery of Human Growth Hormone", *Abstr. BMES Meeting*, Abstract (October 2012).
433. B. R. Carrillo-Conde and N. A. Peppas, "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies", Annual BMES meeting, Atlanta, GA, October 26, 2012 (P).
434. E. Dawson, N.A. Peppas and K. Roy, "An injectable, immune priming center for cancer vaccines: Simultaneous, single-carrier delivery of tumor-antigens and immune-modulatory nucleic acids to dendritic cells", CPRIT Conference, October 25, 2012 (P).
435. M. Creixell, D. Forbes, H. Frizzell, and N. A. Peppas, "Nanohydrogels as delivery systems of antineoplastic drugs and siRNA to overcome multidrug drug resistance in cancer treatment", CPRIT Conference, October 25, 2012 (P).
436. D. Forbes, M. Creixell, H. Frizzell, and N. A. Peppas, "Two-part oral siRNA delivery systems for the treatment of colon cancer", CPRIT Conference, October 25, 2012 (P).
437. N.A. Peppas, "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive, Intelligent Medical Microdevices", *Abstr. AIChE Meeting*, Abstract (October 2012).
438. D.C. Forbes and N.A. Peppas, "pH-Responsive, Polycationic Nanoparticles Designed for Intracellular siRNA Delivery", *Abstr. AIChE Meeting*, Abstract (October 2012).
439. J.M. Knipe, T. Pham and N.A. Peppas, "Nanoscale Anionic Hydrogel Prepared by Emulsion Polymerization for Oral Delivery of siRNA", *Abstr. AIChE Meeting*, Abstract (October 2012).
440. J. Peters, B.V. Slaughter and N.A. Peppas, "Surface Hydrolysis Mediated PEG Conjugation of Poly(N-isopropyl acrylamide-co-acrylamide) Nanospheres", *Abstr. AIChE Meeting*, Abstract (October 2012).
441. M. Koetting and N.A. Peppas, "pH-Responsive Hydrogels for Oral Delivery of Therapeutic Proteins", *Abstr. AIChE Meeting*, Abstract (October 2012).
442. A. S. Puranik and N.A. Peppas, "Grafted Polymeric Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", *Abstr. AIChE Meeting*, Abstract (October 2012).
674. N.A. Peppas, ""Intelligent Hydrogels and the Future of Nanomedicine", Proceed. NIPAM-80 meeting 2012.
443. N. A. Peppas, "Protein Transport Mechanisms and Protein/Polymer Dynamics in Transmucosal Delivery", *Proceed. Intern. Conf. Biomolecular Engin.*, 4, 19 (2013).
444. D. Forbes and N.A. Peppas, "pH-Responsive polymer nanoparticles synthesized using ARGET ATRP for therapeutic siRNA delivery, *Abstracts, Biomaterials Days*, 2013.
445. M. C. Koetting and N. A. Peppas, "pH-Responsive Hydrogels for Improved Bioavailability of Therapeutic Proteins by Oral Administration, *Abstracts, Biomaterials Days*, 2013.
446. N.A. Peppas, "Novel Intelligent and Recognitive Carriers for siRNA Delivery and Theranostics," Abstr. ESB, 25, 1, 2013.
447. N.A. Peppas, "Advanced Responsive and Feedback-Controlled Nanoparticles for Consumer and Cosmetic Applications," Proceed. Intern. Symp. Microencapsulation, 19, 2013.
448. H. Frizzell, D. Forbes and N. A. Peppas, "Oral delivery of siRNA Using pH-Resonsive Hydrogel Nanoparticles", *Abstr. BMES Meeting*, Abstract (September 2013).
449. A. Daily and N. A. Peppas, "Delivery Vectors for Oral Protein Therapeutics: Characterization and Cellular Transport", *Abstr. BMES Meeting*, Abstract (September 2013).
450. L. Sharpe and N. A. Peppas, "Synthesis and Characterization of pH-sensitive Hydrogel Carriers for Oral Vaccine Delivery", *Abstr. BMES Meeting*, Abstract (September 2013).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 129 of 218

451. S. Steichen and N. A. Peppas, "Development and optimization of a pH-responsive hydrogel system for the oral delivery of high molecular weight protein therapeutics", *Abstr. BMES Meeting*, Abstract (September 2013).
452. H. Culver and N.A. Peppas, "Design of surface imprinted nanoparticles for enhanced recognition of biomacromolecules", *Abstr. BMES Meeting*, Abstract (September 2013).
453. M.C. Koetting and N.A. Peppas, "Oral Delivery of Therapeutic Proteins Exhibiting High Isoelectric Points in pH-Responsive Hydrogels," *Abstr. AIChE Meeting*, Abstract, November, 2013.
454. A.S. Puranik and N.A. Peppas, "Responsive Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics," *Abstr. AIChE Meeting*, Abstract, November, 2013.
455. N.A. Peppas, "NSEF Forum Award Presentation: Intelligent and Recognitive Nanoscale Systems for a New Generation of Therapeutic Applications," *Abstr. AIChE Meeting*, Abstract, November, 2013.
456. J.M. Knipe, F. Chen, S. Khot, and N.A. Peppas, "Microencapsulated Nanogel System for the Oral Delivery of siRNA," *Abstr. AAPS Meeting*, Abstract, November, 2013.
457. D.C. Forbes and N.A. Peppas, "Therapeutic siRNA Delivery Using pH-Responsive Polymer Nanoparticles," *Abstr. AAPS Meeting*, Abstract, November, 2013.
458. M. C. Koetting and N.A. Peppas, "Improved Release of Salmon Calcitonin from pH-Responsive Hydrogels," *Abstr. AAPS Meeting*, Abstract, November, 2013.
459. A.S. Puranik and N.A. Peppas, "Smart, Hydrogel Nanoparticles for the Oral Delivery of Hydrophobic Therapeutics," *Abstr. AAPS Meeting*, Abstract, November, 2013.
460. S.D. Steichen, E.J. Fischer, B. Carrillo-Condo and N.A. Peppas, "Development and Characterization of Surface-modified pH-Responsive Hydrogels for Oral Delivery of Protein Therapeutics," *Abstr. AAPS Meeting*, Abstract, November, 2013.
461. N.A. Peppas, "Advanced Biomaterials and Nanotechnology for Improved Health Care," *Abstr. MRS Meeting*, Abstract, December, 2013.
462. J.M. Knipe and N.A. Peppas, "Microencapsulated Polymeric Systems for the Oral Delivery of siRNA," *Abstr, US-Japan Symposium on Drug Delivery Systems, 12*, 2013.
463. L.A. Sharpe and N.A. Peppas, "Synthesis and Characterization of pH-Sensitive Hydrogel Carriers for Oral Vaccine Delivery," *Abstr, US-Japan Symposium on Drug Delivery Systems*, 12, 2013.
464. S. Steichen, E. Fischer and N.A. Peppas, "Development and Optimization of a pH-Responsive Hydrogel System for the Oral Delivery of High Molecular Weight Therapeutics," *Abstr, US-Japan Symposium on Drug Delivery Systems*, 12, 2013.
465. M.C. Koetting and N.A. Peppas, "Stimuli-Responsive Hydrogels for Oral Delivery of High Isoelectric Point-Exhibiting Therapeutic Proteins," *Abstr ACS* March 2014.
466. N.A. Peppas, "Intelligent and Recognitive Networks and Hydrogels: From Theory to Biomedical Applications," *Abstr ACS* March 2014.
467. S.D. Steichen, E.J. Fischer, S.M. Yarborough and N.A. Peppas, "Surface-Modification of P(MAA-co-NVP) Microparticles for Oral Protein Delivery," *Abstr ACS* March 2014.
468. J.T. Peters, I. Verma, N. Lizana and N.A. Peppas, "Investigation of Core-Shell N-alkyl Substituted Acrylamides for Theranostic Delivery of Chemotherapeutics," *Abstr ACS* March 2014.
469. M. Caldorera-Moore and N.A. Peppas, "Environmentally Responsive Theranostic Carrier Systems for Oral Delivery of Chemotherapeutic Agents," *Abstr ACS* March 2014.
470. H.R. Culver, A. Sitabkhan, C. Koepke, and N.A. Peppas, "Fabrication of Intelligent, Protein Recognitive Polymers on the Surface of Biodegradable Nanoparticles," *Abstr ACS* March 2014.
471. J.T. Peters, S. Verghese, and N.A. Peppas, "Surface Hydrolysis Mediated PEGylation for the Passivation of pNIPAM Nanogels," *Abstr ACS* March 2014.
472. L.A. Sharpe and N.A. Peppas, "Design of a Polyanhydride-Releasing Oral Microparticle Technology (PROMPT) for Oral Vaccine Delivery," *Abstr ACS* March 2014.
473. S.D. Steichen, E.J. Fischer, S.M. Yarborough, and N.A. Peppas, "Evaluation of Surface-Modified P(MAA-co-NVP) Hydrogels for Oral Protein Delivery," *Abstr ACS* March 2014.
474. A. Puranik, D. Spencer, V. White, L. Pao, N.A. Peppas, "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", *Abstr. BMES Meeting*, Abstract (October 2014).
475. H.. Culver, C. Fauvarque Nuytten and N.A. Peppas, "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors", *Abstr. BMES Meeting*, Abstract (October 2014).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 130 of 218

476. J. Peters, N. Lizana, I. Verma and N.A. Peppas, "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", *Abstr. BMES Meeting*, Abstract (October 2014).
477. A. Blanchard, J. Peters, S. Varghese and N.A. Peppas, "Passivation of pNIPAM Nanogels through Surface Hydrolysis Mediated PEGylation", *Abstr. BMES Meeting*, Abstract (October 2014).
478. J. Knipe, F. Chen and N.A. Peppas, "Enzymatically Degradable Microgels for the Oral Delivery of siRNA", *Abstr. BMES Meeting*, Abstract (October 2014).
479. S. Horava and N.A. Peppas, "Optimization of pH-Responsive Hydrogels for Delivery of HMW Proteins", *Abstr. BMES Meeting*, Abstract (October 2014).
480. L. Sharpe, Y. Khairandish, and N.A. Peppas, "Development of pH-Responsive Hydrogel Carriers for Oral Vaccine Delivery", *Abstr. BMES Meeting*, Abstract (October 2014).
481. M. Koetting, A. Zhang and N.A. Peppas, "pH-Responsive P(IA-co-NVP) Hydrogels for the Oral Delivery of High Isoelectric Point Proteins" *Abstr. BMES Meeting*, Abstract (October 2014).
482. A. Joaquin, N.A. Peppas and J. Zoldan, "Hydrogel Polymer Libraries for Developing Induced Pluripotent Stem Cell Derived Cardiac Patches",*Abstr. BMES Meeting*, Abstract (October 2014).
483. J. T. Peters, N. Lizana, I. Verma and N.A. Peppas, "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", *Abstr. BMES Meeting*, Abstract (October 2014).
484. A. Puranik, D. Spencer, V. White, L. Pao, N.A. Peppas, "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics ",*Abstr. BMES Meeting*, Abstract (October 2014).
485. H.. Culver, C. Fauvarque Nuytten and N.A. Peppas, "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors" *Abstr. BMES Meeting*, Abstract (October 2014).
486. S. Horava and N. A. Peppas, "Characterization of pH-Sensitive Polymers for the Delivery of Hemophiliac Factors", *Abstr. AAPS Meeting*, Abstract, November, 2014.
487. M.C. Koetting, A. Zhang and N.A. Peppas, "pH-Sensitive P(IA-co-NVP) Hydrogels As Oral Delivery Vehicles for High Isoelectric Point-Exhibiting Therapeutic Proteins" *Abstr. AAPS Meeting*, Abstract, November, 2014.
488. J. Peters, N. Lizana, I. Verma, and N. A. Peppas, "Core/Shell structures for the improved retention of hydrophobic chemotherapeutics", *Abstr. AAPS Meeting*, Abstract, November, 2014.
489. A. Joaquin, N. A. Peppas and J. Zoldan, "Hydrogel Polymer Libraries for Developing Induced Pluripotent Stem Cell Derived Cardiac Patches", *Abstr. AAPS Meeting*, Abstract, November, 2014.
490. H. Culver and N.A. Peppas, "Recognition of macromolecular biomarkers using core-shell imprinted nanoparticles", *Abstr. BMES Cellular and Molecular Bioengineering Meeting*, Abstract (January 2015).
491. J. Peters, S. Verghese, A. Blanchard and N.A. Peppas, "The Effect of Particle Swelling on Protein Adsorption and Recognition", *Abstr. BMES Cellular and Molecular Bioengineering Meeting*, Abstract (January 2015).
492. S. Horava and N.A. Peppas, "Novel Biomaterial-Based Carriers for Oral Delivery of Hemophiliac Factor IX", *Abstr. BMES Cellular and Molecular Bioengineering Meeting*, Abstract (January 2015).
493. M. Koetting, J. Guido, A. Zhang and N.A. Peppas, "Improved Oral Delivery of High Isoelectric Point Therapeutic Proteins using P(IA-co-NVP) Hydrogels", *Abstr. BMES Cellular and Molecular Bioengineering Meeting*, Abstract (January 2015).
494. D. Spencer, B. Luu, N.A. Peppas, "Cationic Block Copolymers for the Co-Delivery of siRNA and Chemotherapeutics", *Abstr. MRS Meet.*, 2015 .
495. H. R. Culver, W. Van Wyngaardt, and N. A. Peppas, "Molecularly imprinted polymer-based biosensors for detection of biomacromolecules", *Abstr. MRS Meet.*, JJ5.57, (2015).
496. J. Peters, N. Lizana, I. Verma, and N. A. Peppas , "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", *Abstr. MRS Meet.*, 2015 .
497. S. Steichen, C. O'Connor and N.A. Peppas, "Design & Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", *Abstr. Annual Society for Biomaterials Meeting*, Abstract (April 2015).
498. L. Strong, J. Knipe and N.A. Peppas, "pH Responsive Nanoparticles-in- Microparticles System for Oral Delivery of siRNA", *Abstr. Annual Society for Biomaterials Meeting*, Abstract (April 2015).
499. C. Koepke, H. Culver and N.A. Peppas, "Molecularly Imprinted Polymers on Surface-Modified Gold Nanoparticles for Biosensing Applications", *Abstr. Annual Society for Biomaterials Meeting*, Abstract (April 2015).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 131 of 218

500. L. Sharpe, O. Mutaz-Haddadin, J. Thirumavalavan, Y. Khairandish and N.A. Peppas, "PROMPT: Polyanhydride-Releasing Oral Microparticle Technology as an Oral Vaccine Strategy", *Abstr. Annual Society for Biomaterials Meeting,* Abstract (April 2015).
501. A.M. Wagner, B. Chethan and N.A. Peppas, "Thermodynamic Response and Structural Dynamics of Novel Nanoscale Hydrogels," *Abstr. Annual Texas Soft Matter Meeting,* Abstract (August 2015).
502. J.R. Clegg, H.R. Culver, J.X. Zhong, A.S. Irani and N.A. Peppas, "Synthesis and Characterization of Smart Molecularly Imprinted Polymers, Using Structural Analogue Templates, for the Capture and Detection of Biomolecules", *Abstr. Annual BMES Meeting,* Abstract (October 2015).
503. H. Culver and N.A. Peppas, "Detection of Protein Biomarkers Based On Fluorescence Quenching of Polymer-Coated Conjugated Polymer Nanoparticles", *Abstr. Annual BMES Meeting,* Abstract (October 2015).
504. C. Koepke, H. Culver and N.A. Peppas, "Stimuli-Responsive Polymer Shells on Surface-Modified Gold Nanomaterials for Biosensing Applications", *Abstr. Annual BMES Meeting,* Abstract (October 2015).
505. L. Strong, J. Knipe and N.A. Peppas, "Oral Delivery of siRNA Using Dual Stimuli-Responsive Microparticles", *Abstr. Annual BMES Meeting,* Abstract (October 2015).
506. L. Sharpe, O. Mutaz-Haddadin, J. Thirumavalavan, Y.Khairandish and N.A. Peppas, "Encapsulation of Polyanhydride Nanoadjuvants in Biodegradable Microgels for Oral Delivery", *Abstr. Annual BMES Meeting,* Abstract (October 2015).
507. S. Steichen, C. O'Connor and N.A. Peppas, "Design & Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", *Abstr. Annual BMES Meeting,* Abstract (October 2015).
508. A.M. Wagner, B. Chethan, A. Schroeder and N.A. Peppas. Intelligent Nanogels for the Concurrent Delivery of Hydrophilic and Hydrophobic Chemotherapeutic Agents", *Abstr. Annual AIChE Meeting*, Abstract (November 2015).
509. S. Horava and N.A. Peppas, "Tailoring Biomaterial Microcarriers for the Improved Delivery of Hemophiliac Factor IX", *Abstr. Annual AIChE Meeting*, Abstract (November 2015).
510. D. Spencer, B. Luu and N.A. Peppas, "Cationic Nanogels for the Co-delivery of siRNA and Chemotherapeutics", *Abstr. Annual AIChE Meeting*, Abstract (November 2015).
511. J. Peters, S. Hutchinson, A. Blanchard and N.A. Peppas, "P-NIPMAMM Based Core/Shell Systems for Improved Retention of Hydrophobic Chemotherapeutics", *Abstr. Annual AIChE Meeting*, Abstract (November 2015).
512. A.M. Wagner, B. Chethan, A. Schroeder, N. Al-Sayyad and N.A. Peppas, "Influence of the Molecular Architecture in the Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", *Abstr. World Biomaterials Congress*, Abstract (May 2016).
513. J.R. Clegg, J.X. Zhong, H.R. Culver and N.A. Peppas, "Molecularly Imprinted Polymers for Protein Capture, Sequestration, and Delivery", *Abstr. World Biomaterials Congress*, Abstract (May 2016).
514. H. Culver, L.S. Strong and N.A. Peppas, "Development of protein biosensors using surface-imprinted silica-gold nanoshells", *Abstr. World Biomaterials Congress*, Abstract (May 2016).
515. J. Vela Ramirez, L. Sharpe, J. Guido, O. Mutaz-Haddadin and N.A. Peppas, "Hydrogel microencapsulation of polyanhydride nanoparticles for antibiotic treatment", *Abstr. World Biomaterials Congress*, Abstract (May 2016).
516. L. Sharpe, J. Vela Ramirez, J. Guido, O. Mutaz-Haddadin and N.A. Peppas, "Polyanhydride-releasing oral microparticle technology (PROMPT) as a strategy for subunit vaccine administration", *Abstr. World Biomaterials Congress*, Abstract (May 2016).
517. D. Spencer, D. Beckman, B. Luu and N.A. Peppas, "Synthesis and Characterization of Tertiary Amine Methacrylate Nanogels for Co-delivery of Multiple Therapeutic Agents", *Abstr. World Biomaterials Congress*, Abstract (May 2016).
518. J.R. Clegg, J. Gu and N.A. Peppas, "Affinity-Mediated Retention and Delivery of High-Isoelectric Point Exhibiting Therapeutic Proteins from Molecularly Imprinted Microparticles", *Abstr. Annual BMES Meeting*, Abstract (October 2016).
519. H. Culver, M.E. Wechsler and N.A. Peppas, "Rational Design of Charged Nanogels for Differential Protein Capture", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 132 of 218

520. H. Culver, I. Sharma and N. A. Peppas, "Multiplexed Detection of Protein Biomarkers Using Recognitive Polymers in a Localized Surface Plasmon Resonance Sensor Array", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
521. J.R. Clegg, A.S. Irani, M. Harger, J.X. Zhong, C.S. Kung, P. Ren and N.A. Peppas, "Molecularly Imprinted Polymer-Peptide Hybrid Materials for Engineered Protein Recognition", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
522. M.E. Wechsler, H. Culver and N.A. Peppas, "Polymer Nanoparticle Synthesis and Characterization for the Delivery of Osteoinductive Molecules", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
523. D. Spencer, D. Beckman, B. Luu and N.A. Peppas, "Optimization of Cationic Nanogel Composition for Enhanced Co-Delivery of siRNA and Chemotherapeutics", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
524. L. Sharpe, J. Vela Ramirez and N.A Peppas, "A Self-Assembled pH-Responsive Multi-Component Platform for Oral Vaccination", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
525. N.A. Peppas, "Cell, Peptide and Protein Delivery Problems in Regenerative Engineering", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
526. S. Steichen, C. O'Connor and N.A. Peppas, "Design, development, and optimization of pH-responsive hydrogels for the oral delivery of human growth hormone", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
527. J. Vela Ramirez and N.A. Peppas, "Recognitive Methacrylated Alginate Nanoparticles for Protein Therapeutics", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
528. A.M. Wagner and N.A. Peppas, "Intelligent Hydrogel Systems for Recognitive and Responsive Delivery", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).
529. A.M. Wagner, B. Chethan and N.A. Peppas, "Stimuli-Responsive Nanoscale Hydrogels for the Co-Delivery of Chemotherapeutic Agents", *Abstr. Annual AIChE Meeting*, Abstract (November 2016).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 133 of 218

Reports

1. N.A. Peppas: "Investigation of the Crosslinked Macromolecular Nature of Bituminous Coals," DOE-FG-22-78ET13379, Report, PETC, Pittsburgh, PA., 1980, 126 pages.
2. N.A. Peppas, M.E. Hill-Lievense, D.T. Hooker and L.M. Lucht: "Macromolecular Structural Changes in Bituminous Coals During Extraction and Solubilization," Part 1, DOE-FG-22-80PC30222 Report, PETC, Pittsburgh, PA, 1981, 230 pages.
3. N.A. Peppas and L.M. Lucht: "Macromolecular Structural Changes in Bituminous Coals During Extraction and Solubilization," Part 2, DOE-FG-22-80PC30222, Report, PETC, Pittsburg, PA, 1982, 100 pages.
4. N.A. Peppas: "Macromolecular Structural Changes in Bituminous Coals During Extraction and Solubilization," Part 3, DOE-FG-22-80PC30222, PETC, Pittsburgh, PA, 1983, 369 pages.
5. N.A. Peppas, D.T. Hooker and L.M. Lucht: "Analysis of Fractions Obtained from Coal Solubilization," Continental Oil Company, 1983, 105 pages.
6. N.A. Peppas, L.M. Lucht, D. Gobran and G. Sinclair: "The Dynamic Swelling Behavior of Coal and Coal Particles," Exxon Company, 1983, 88 pages.
7. N.A. Peppas, D.G. Barar, W.R. Bussing, H.J. Moynihan, K.P. Staller, G.N. Valkanas, and F. Regas: "The Structure, Physical and Diffusive Properties of Charged and Non-Charged Polystyrene Gels and Membranes," North Atlantic Treaty Organization, 1983, 352 pages.
8. N.A. Peppas, B.D. Barr-Howell, J.M. Howell and P.L. Ritger: "Anomalous Solvent Transport in Macromolecular Coal Networks," Part 1, DOE-FG-22-83PC60792, PETC, Pittsburgh, PA, 1984, 120 pages.
9. N.A. Peppas and R.S. Harland: "Fundamental Studies of Solute Diffusion in Membranes of PVA, PHEMA and their Copolymers with Si-Containing Monomers," Dow Corning Corp., 1985, 98 pages.
10. N.A. Peppas, G.W.R. Davidson, III, R.W. Korsmeyer, S.R. Lustig, M.J. Smith, S. Segot-Chicq, J. Klier and K.G. Urdahl: "Mechanisms of Solute Diffusion in Swelling Hydrophilic Polymer Systems," NSF-CPE-82-07381, NSF, Washington, DC, 1985, 267 pages.
11. N.A. Peppas, B.D. Barr-Howell, J.M. Howell and P.L. Ritger: "Anomalous Solvent Transport in Macromolecular Coal Networks," Part 2, DOE-FG-22-83PC60792, PETC, Pittsburgh, PA, 1985, 247 pages.
12. N.A. Peppas, R.S. Harland and M.L. Brannon: "Fundamental Studies of Solute Diffusion in Membranes of PVA, PHEMA and their Copolymers with Si-Containing Monomers," Dow Corning Corp., 1986, 112 pages.
13. N.A. Peppas, B.D. Barr-Howell, J.M. Howell and P.L. Ritger: "Anomalous Solvent Transport in Macromolecular Coal Networks," Part 3, DOE-FG-22-83PC60792, PETC, Pittsburgh, PA, 1986, 370 pages.
14. N.A. Peppas and F. Puisieux: "Release of Macromolecular Drugs from Swelling-Controlled Polymeric Systems," NSF-INT-84-12692, NSF, Washington, D.C., 1986, 86 pages.
15. D.N. Winslow, N.A. Peppas and C.W. Lovell: "Acquisition of a Mercury Intrusion Porosimeter," NSF-MSM-86-04564, NSF, Washington, D.C., 1987, 52 pages.
16. N.A. Peppas, M.L. Brannon, R.S. Harland and N. Sundaram: "Ultrafiltration and Hyperfiltration Membranes from Heat-treated Hydrophilic Polymers," NSF-CBT-84-10860, NSF, Washington, D.C., 1988, 295 pages.
17. N.A. Peppas: "Macromolecular Coal Structure as Revealed by Novel Diffusion Tests," Part 1, DOE-FG-22-87PC79914, PETC, Pittsburgh, PA, 1988, 110 pages.
18. N.A. Peppas: "Suspension Polymerization of Hydrophilic Monomers," NSF-CBT-86-17719, NSF, Washington, D.C., 1989, 36 pages.
19. N.A. Peppas, J. Olivares and R.W. Drummond: "Macromolecular Coal Structure as Revealed by Novel Diffusion Tests," Part 2, DOE-FG-22-87PC79914, PETC, Pittsburgh, PA, 1989, 76 pages.
20. N.A. Peppas and J. Klier: "Absorbency of Polyacrylates," Dow Chemical Co., Midland, MI, 1989, 20 pages.
21. N.A. Peppas, J. Olivares, R. Drummond and S. Lustig, "Macromolecular Coal Structure as Revealed by Novel Diffusion Tests," Part 3, DOE-FG-22-87PC79914, PETC, Pittsburgh, PA, 1990, 248 pages.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 134 of 218

22. N.A. Peppas, A.B. Scranton, A. Mikos, T. Canal, C.N. Bowman, A.L. Carver, S.N. Kennett and M.M. Williams, "Suspension Polymerization of Hydrophilic Monomers," NSF-CBT-86-17719, NSF, Washington, D.C. 1990, 167 pages.
23. N.A. Peppas, P. Colombo and A. LaManna, "Fundamental Studies of Solute Diffusion in Swellable Polymers," NATO-0651-86, NATO, Brussels, Belgium, 1990, 60 pages.
24. N.A. Peppas, R.S. Harland, J. Klier, and M.L. Brannon-Peppas, "Block Copolymer Membranes with Hydrophilic/Hydrophobic Domains," NSF-CBT-87-14653, NSF, Washington, D.C. 1990, 252 pages.
25. N.A. Peppas, "Suspension Polymerization of Hydrophilic Monomers," NSF-CBT-86-17719, NSF, Washington, DC., 1990, 67 pages.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 135 of 218

Presentations in National and International Meetings

1. "Kinetics of the Crystallization of Crosslinked PVA Films by Slow Evaporation of Hydrogels," 172nd National American Chemical Society Meeting, San Francisco, California, August 29 - September 3, 1976, (P).
2. "Novel Methods of Production of Crosslinked and Grafted Polystyrene with Improved Thermal Properties," 172nd National American Chemical Society Meeting, San Francisco, California, August 29 - September 3, 1976, (P).
3. "Transport of Albumin Across the Aortic Wall During Angiotensin-Induced Hypertension," 29th Annual Conference on Engineering in Medicine and Biology, Boston, Massachusetts, November 11, 1976, (A), *.
4. "Development of New PVA Biomembranes," 173rd National American Chemical Society Meeting, New Orleans, Louisiana, March 25, 1977, (P).
5. "Hydrogels for Synthetic Articular Cartilage Applications," Society of Plastics Engineers National Meeting (NATEC), Denver, Colorado, November 8, 1977, (P).
6. "Chain Entanglements and Microcrystallinity in Plasticized Poly(vinyl chloride)," 70th Annual AIChE Meeting, New York, New York, November 15, 1977, (P).
7. "The Effect of Angiotensin II in *In-vivo* Albumin Transport in Normal Rabbit Aortic Tissue," 70th Annual AIChE Meeting, New York, November 15, 1977, (P).
8. "New Hydrophilic Copolymers for Biomedical Applications," 24th Annual American Society for Artificial Internal Organs Meeting, Chicago, Illinois, April 28, 1978, (P).
9. "Novel Methods of Polymerization and Crosslinking of Styrene," 71st Annual AIChE Meeting, Miami, Florida, November 13, 1978, (P).
10. "A Reaction Engineering Approach to a Course in Industrial Chemistry," 71st Annual AIChE Meeting, Miami, Florida, November 13, 1978, (P).
11. "Does Undergraduate Research Contribute to a Chemical Engineering Curriculum?," 71st Annual AIChE Meeting, Miami, Florida, November 14, 1978, (P).
12. "Crystallization During Weathering of Packaging Films," Society of Plastics Engineers National Meeting, Chicago, Illinois, November 15, 1978, (P), *.
13. "Mathematical Analysis of Transport Properties of Flexible Fibers in Relation to Food Storage Stability, I. Water Vapor Sorption," Society of Plastics Engineers National Meeting, (NATEC), Chicago, Illinois, November 15, 1978, (P), *.
14. "Isothermal Crystallization of Crosslinked and Uncrosslinked Hydrophilic Polymers in the Presence or Absence of Solvent," 86th National AIChE Meeting, Houston, Texas, April 2, 1979, (A).
15. "Reconstruction of Vocal Cords by Intracordal Polymer Injection and Gelation," 25th Annual Society of Plastics Engineers Meeting (ANTEC), New Orleans, Louisiana, May 8, 1979, (P).
16. "Non-Gaussian Macromolecular Network Models for the Investigation of Highly Crosslinked Networks," 87th National AIChE Meeting, Boston, Massachusetts, August 20, 1979, (A).
17. "Diffusion of Macromolecules Through Model Hydrophilic Networks," 87th National AIChE Meeting, Boston, Massachusetts, August 20, 1979, (A).
18. "Diffusion Controlled Mechanisms of Crystallization of Crosslinked and Uncrosslinked Polymers," 87th National AIChE Meeting, Boston, Massachusetts, August 22, 1979, (P).
19. "Mathematical Analysis of Transport Properties of Polymer Packaging Films in Relation to Food Storage Stability. II. Non-linear Water Vapor Sorption Models," 87th National AIChE Meeting, Boston, Massachusetts, August 22, 1979, (P).
20. "Mathematical Analysis of Transport Properties of Polymer Packaging Films in Relation to Food Storage Stability. III. Sorption and Chemical Reaction of Oxygen," 87th National AIChE Meeting, Boston, Massachusetts, August 22, 1979, (P).
21. "Hydrophilic Polymeric Materials for Reconstruction of Vocal Cords," 26th International Symposium on Macromolecules IUPAC, Mainz, West Germany, September 18, 1979, (P).
22. "Transport of Macromolecules Through PVA Networks," 26th International Symposium on Macromolecules IUPAC, Mainz, West Germany, September 19, 1979, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 136 of 218

23. "Generalized Method of Prediction of Mean Activity Coefficients of Polyelectrolytes in Aqueous Solutions," 26th International Symposium on Macromolecules IUPAC, Mainz, West Germany, September 20, 1979, (P).
24. "A Chemical Engineering Curriculum Serving the National Needs: The Greek System," 72nd Annual AIChE Meeting, San Francisco, California, November 26, 1979, (P).
25. "Migration of Environmentally Hazardous Plasticizers from Polymers," 72nd Annual AIChE Meeting, San Francisco, California, November 28, 1979, (A).
26. "Generalized Mean Activity Coefficients for Aqueous Solutions of Polyelectrolytes," 72nd Annual AIChE Meeting, San Francisco, California, November 29, 1979, (P).
27. "Diffusion of Oxygen Through Polymers for Hard and Soft Contact Lenses," National Meeting of Contact Lens Association of Ophthalmologists, Las Vegas, Nevada, January 10, 1980, (A).
28. "Modelling of Drug Diffusion Through Swellable Polymeric Systems," 179th National ACS Meeting, Houston, Texas, March 27, 1980, (P).
29. "Migration of Potentially Toxic Compounds from Plasticized Polymers," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 7, 1980, (P).
30. "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. IV. Prediction of Shelf-Life of Food Packages Using Halsey Sorption Isotherms," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 8, 1980, (P).
31. "The Polymer Science and Engineering Program at Purdue University: Emphasis on Engineering Fundamentals," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 5, 1980, (P).
32. "Polymer Gel Drying: Theory and Applications," 38th Annual Meeting of Society of Plastics Engineers, New York, New York, May 8, 1980, (A).
33. "Models and Experimental Studies on Macromolecular Crosslinked Structures of Bituminous Coals," Conference on the Chemistry and Physics of Coal Utilization of the American Physical Society, Morgantown, West Virginia, June 2, 1980, *Invited-Plenary Lecture,* (P).
34. "Practical Applications of Synthetic Membranes: Past, Present and Future," 2nd Panhellenic Congress of Chemical Engineers, Athens, Greece, June 11, 1980, (A); (not presented).
35. "Prediction of Shelf-Life of Food Products after Packaging," 2nd Panhellenic Congress of Chemical Engineers, Athens, Greece, June 12, 1980, (A); (not presented).
36. "Preparation of Students through Undergraduate Research," 88th Annual ASEE Conference, Amherst, Massachusetts, June 24, 1980, (P).
37. "Synthetic Membranes: Interrelations between Structure and Diffusive Properties," IUPAC Macromolecular Meeting, Athens, Greece, August 25, 1980, *Invited-Plenary Lecture,* (A).
38. "Polymer Structural Effects on the Oxygen Permeation of Soft Contact Lens Materials," 27th International IUPAC Macromolecular Symposium, Florence, Italy, September 11, 1980, (P).
39. "An Evaluation of New Mathematical Models for Drug Release from Matrix Tablets," First International Pharmaceutical Exhibition, Interphex 80, New York, New York, September 16, 1980, *Invited Lecture,* (P), *.
40. "Macromolecular Network Structure and its Effects on Drug and Protein Diffusion," European Controlled Release Symposium, Geneva, Switzerland, October 2, 1980, *Invited-Plenary Lecture,* (P).
41. "Physicochemical and Statistical Analysis of Crosslinked Structures in Coal Networks," ACS Coal Meeting, Pittsburgh, Pennsylvania, November 10, 1980, *Invited Lecture,* (P), *.
42. "ESCA Characterization of PVA/PNVP Copolymers for Biomedical Applications," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (A); (not presented).
43. "Diffusion of Phthalic Esters Through Plasticized Polymers," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
44. "Solute Diffusion in Highly Swollen Gels," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
45. "Macromolecular Network Analysis of Bituminous Coals: Theory, Extraction and Swelling Experiments," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (A), *.
46. "Teaching of Polymer Science and Engineering in Chemical Engineering Departments," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).
47. "Teaching of Biomedical Engineering in Chemical Engineering Departments," 73rd Annual AIChE Meeting, Chicago, Illinois, November 17-20, 1980, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 137 of 218

48. "Oxygen Diffusion in Glassy Copolymers of Methyl Methacrylate and Disiloxanes," Annual Meeting of American Physical Society, Phoenix, Arizona, March 16-19, 1981, (A).
49. "Fibrinolytic Enzyme Immobilized Polymers for Blood Compatible Applications," 28th International IUPAC Macromolecular Symposium, Strasbourg, France, July 8, 1981, (A).
50. "Case-II Transport in Plasticized PVC," 28th International IUPAC Macromolecular Symposium, Strasbourg, France, July 9, 1981, (A).
51. "Streptokinase Immobilized Hydrogels: Preparation, Characterization and Preliminary Evaluation as Blood-Compatible Materials," 3rd Congress of International Society for Artificial Organs, Paris, France, July 10, 1981, (A).
52. "Drug Release Kinetics from Hydrophobic Porous Monolithic Devices," 8th International Symposium of Controlled Release of Bioactive Materials, Ft. Lauderdale Florida, July 27, 1981, (P).
53. "Swelling-Controlled Release from Hydrophilic Polymeric Networks," 8th International Symposium of Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 27, 1981, (P).
54. "Models and Experimental Studies of Drug Release from Porous Polymeric Formulations," National AIChE Meeting, Detroit, Michigan, August 18, 1981, (A), *.
55. "Diffusive Characteristics of Polymer Membranes for Protein Separation: Polymer Physical Considerations," National AIChE Meeting, Detroit, Michigan, August 19, 1981, (P), *.
56. "Polymer Structure and Thermodynamic Considerations of Solute Transport in Polymer Membranes," ACS Annual Meeting, New York, N.Y. August 26, 1981, (A).
57. "Macromolecular Structural Changes in Bituminous Coals during Extraction and Solubilization," DOE Contractors Conference, Pittsburgh, PA, October 7, 1981 (P).
58. "Preparation and Structure of Friedel-Crafts Crosslinked Polystyrene Particles," ACS Annual Meeting, Las Vegas, Nevada, March 31, 1982, (P)
59. "Constant Solute Release Rates from Glassy Polymers," ACS Annual Meeting, Las Vegas, Nevada, April 1, 1982, (P).
60. "Macromolecular Structure and Solute Diffusion in Membranes," International Symposium on Membranes and Membrane Processes, Perugia, Italy, May 20, 1982, *Invited Lecture,* (A).
61. "Diffusion of Solutes in Highly and Moderately Swollen Polymeric Networks," 29th International IUPAC Macromolecular Symposium, Amherst, Massachusetts, July 14, 1982, *Invited Lecture,* (P).
62. "Swelling Controlled Release Systems: Progress Toward Zero-Order Kinetics with Polymer Blends," 9th International Symposium of Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 21, 1982, (P), *.
63. "Solute Diffusion in Swellable Polymers," International IUPAC Macromolecular Symposium, Athens, Greece, August 30, 1982, *Invited Lecture,* (A).
64. "Macromolecular Structural Changes in Bituminous Coals during Extraction and Solubilization," DOE Contractors Conference, Pittsburgh, Pennsylvania, September 23, 1982 (P), *.
65. "Kedem-Katchalsky Analysis of Transport of Monomer Albumin Through Molecular Size Pores of Polymeric Networks," Annual AIChE Meeting, Los Angeles, California, November 16, 1982, (A).
66. "Molecular Diffusion of Monomer Albumin Through Crosslinked PHEMA Membranes," Annual AIChE Meeting, Los Angeles, California, November 17, 1982 (A).
67. "Changes of the Crosslinked Macromolecular Structure of Coal During Extraction and Solubilization," Annual AIChE Meeting, Los Angeles, California, November 19, 1982, (A), *.
68. "Polymeres biocompatibles," Symposium on "Biomateriaux, application a des formes pharmaceutiques nouvelles," Lille, France, December 13, 1982, *Invited Lecture,* (A).
69. "Release of Bioactive Agents from Swellable Polymers: Theory and Experiments," International Symposium on Recent Advances in Drug Delivery Systems, Park City, Utah, March 24, 1983, *Invited Lecture,* (A).
70. "Surface Analysis of Poly(vinyl alcohol-co-N-vinyl-2-pyrrolidone)," ACS Annual Meeting, Seattle, Washington, March 22, 1983 (P)*.
71. "Copolymers of Methyl Methacrylate and Disiloxane Derivatives," ACS Annual Meeting, Seattle, Washington, March 22, 1983, (P).
72. "Release of Drugs from Initially Glassy, Dynamically Swelling P(HEMA-co-MMA) Copolymers," ACS Annual Meeting, Seattle, Washington, March 24, 1983, (P).
73. "Thermal Analysis of Macromolecular Coal Networks," APS Annual Meeting, Los Angeles, California, March 25, 1983, (A).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 138 of 218

74. "New Observations of the Mechanism of Solute Release from Hydrophilic Polymers," Third International Conference of Pharmaceutical Technology, Paris, France, June 1, 1983, (P) *.
75. "Modeling Drug Release from Swellable Systems," 10th International Symposium of Controlled Release of Bioactive Materials, San Francisco, California, July 25, 1983, (P) *.
76. "Analysis of Solvent Transport Mechanisms in Macromolecular Coal Networks," International Coal Conference, Pittsburgh, Pennsylvania, August 17, 1983, (P).
77. "Equilibrium and Dynamic Swelling of Highly Crosslinked Polymeric Networks," International IUPAC Macromolecular Symposium, Bucharest, Rumania, September 6, 1983, (P) *.
78. "Equilibrium and Dynamic Behavior of Polymer Particles in Ternary Emulsion Systems," International IUPAC Macromolecular Symposium, Bucharest, Rumania, September 7, 1983, (P) *.
79. "Bioadhesive Intraoral Release Systems: Design, Testing and Analysis," 20th Annual Meeting of International Association for Dental Research, Geneva, Switzerland, September 23, 1983, (P) *.
80. "Crosslinked PVA Micromatrices for Swelling-Controlled Drug Release," International Symposium on Controlled Release Pharmaceuticals, Pavia, Italy, September 27, 1983, (A) *.
81. "Macromolecular Structural Changes in Bituminous Coals during Extraction and Solubilization," DOE Contractors Conference, Pittsburgh, Pennsylvania, October 18, 1983 (P).
82. "Modelling of Transport and Sorption in Packaging Systems for Pharmaceutical Products," Industrial Pharmacy Management Conference, University of Wisconsin, Madison, Wisconsin, October 25, 1983, *Invited Lecture,* (P).
83. "The Role of Crosslinks, Entanglements and Relaxations of the Macromolecular Carrier in the Diffusional Release of Biologically Active Materials," Conference on Macromolecules as Drugs and as Carriers for Biologically Active Materials," New York Academy of Sciences, New York, New York, March 26, 1984, *Invited Lecture* (A).
84. "Viscoelastic Properties of Bituminous Coals," ACS Annual Meeting, St. Louis, Missouri, April 12, 1984(P)*.
85. "The Molecular Weight Between Crosslinks of Selected American Coals," ACS Annual Meeting, St. Louis, Missouri, April 12, 1984 (P) *.
86. "XPS Analysis of P(VA-co-NVP)," Second World Congress on Biomaterials, Washington, D.C., April 28, 1984 (P).
87. "Bioadhesive Intraoral Release Systems," Second World Congress on Biomaterials, Washington, D.C., April 28, 1984 (P).
88. "Physical Aspects of Polymeric Drug Delivery Systems," Annual Meeting of Academy of Pharmaceutical Sciences, Montreal, Canada, May 7, 1984, *Invited Lecture,* (A).
89. "Analysis of the Structure of Highly Crosslinked Polymeric Networks," ACS Rubber Chemistry Meeting, Indianapolis, Indiana, May 8, 1984 (A) *.
90. "Anomalous Transport in Macromolecular Coal Networks," DOE Contractors Conference, Pittsburgh, Pennsylvania, June 7, 1984, (P)*.
91. "Molecular Theories and Experiments of Penetrant Transport in Coal Particles," Gordon Conference on Fuel Sciences, New Hampton, New Hampshire, July 2, 1984, *Invited Lecture*.
92. "Transport of Drugs in the Intestinal Mucus," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 23, 1984, (P).
93. "Controlled Release Microparticle Systems for Urinary Tract Applications," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 23, 1984, (P).
94. "Scaling Concepts in Controlled Release," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P)*.
95. "Release of Drugs from Ethylene-Vinyl Alcohol Copolymers," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P)*.
96. "The Swelling Interface Number as a Criterion for Zero-Order Release," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P)*.
97. "Modelling of Drug Release from Porous Polymers," 11th International Symposium on Controlled Release of Bioactive Materials, Ft. Lauderdale, Florida, July 24, 1984, (P).
98. "Bioadhesive Controlled Release Systems," Workshop of Controlled Release Society, Ft. Lauderdale, Florida, July 25, 1984,
99. "Relaxation-Controlled Transport of Penetrants in Glassy Polymers," 9th International Congress on Rheology, Acapulco, Mexico, October 9, 1984, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 139 of 218

100. "Importance of Macromolecular Relaxations in Solvent Transport in Coal Particles," 9th International Congress on Rheology, Acapulco, Mexico, October 10, 1984, (P)*.
101. "Swelling Controlled Release Systems: Recent Developments and Applications," International Symposium of the International Association for Pharmaceutical Technology (APV), Bad Homburg, West Germany, November 13, 1984, (P).
102. "Preparation and Swelling Characteristics of Friedel-Crafts Crosslinked Polystyrene Particles," Annual AIChE Meeting, San Francisco, California, November 27, 1984, (A).
103. "Modelling of Suspension Copolymerization/Crosslinking of Styrene," Annual AIChE Meeting, San Francisco, California, November 27, 1984, (A)*.
104. "Drug Diffusion in Aqueous Mucin Solution: Towards Understanding of Drug Absorption by the Intestine," Annual AIChE Meeting, San Francisco, California, November 28, 1984 (A)*.
105. "Some New Observations of Penetrant Transport in Crosslinked Polystyrene," Annual AIChE Meeting, San Francisco, California, November 29, 1984, (A)*.
106. "Comparison of the Macromolecular Structure of Coals with That of Stiff Polymer Chains," Annual AIChE Meeting, San Francisco, California, November 30, 1984, (P)*.
107. "Surface, Interfacial and Molecular Aspects of Polymer Adhesion on Soft Tissues," Annual AIChE Meeting, San Francisco, California, November 30, 1984, (A).
108. "The Effect of the Crystalline Structure of Membranes on their Solute Diffusion Behavior," Annual AIChE Meeting, San Francisco, California, November 30, 1984, (A)*.
109. "Bioadhesive Polymers: Design and Performance," International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii, December 18, 1984, (A). *Invited Lecture*.
110. "Theory and Experiments with Bioadhesive Swellable Delivery Systems," International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 28, 1985, *Invited Lecture,* (A).
111. "Integral Methods in Polymerization Reaction Engineering," Integral Methods in Science and Engineering 1985, Arlington, Texas, March 18, 1985, (A)*.
112. "Thermoplastic and Viscoelastic Properties of Coals," ACS Annual Meeting, Miami Beach, Florida, April 29, 1985, (P).
113. "Mechanisms of Amine Transport in Coal Particles," ACS Annual Meeting, Miami Beach, Florida, April 30, 1985, (P).
114. "Dynamic Swelling of Thin Coal Sections," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (A)*.
115. "Swelling Thermodynamics of Polymer Latex Particles by a Water-Soluble Solvent," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (P)*.
116. "Oxygen-permeable Silicon-based Contact Lenses: An Assessment of Permeation and Wettability Problems," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (A).
117. "Modeling of Suspension Copolymerization/Crosslinking of Styrene with Divinyl Benzene," ACS Annual Meeting, Miami Beach, Florida, May 1, 1985, (P)*.
118. "Mathematical Analysis of Transport Properties of Polymer Films for Food Packaging. V. Variable Storage Conditions," ACS Annual Meeting, Miami Beach, Florida, May 2, 1985, (P).
119. "Transport of Bioactive Agents through Polymers," Symposium on Properties of Polymers and Drug Delivery, Swedish Academy of Pharmaceutical Sciences, Stockholm, Sweden, May 9, 1985, *Invited-Plenary Lecture,* (A).
120. "Core Course Material in Polymers for Chemical Engineering Courses," 19th ACS Great Lakes Regional Meeting, West Lafayette, Indiana, June 10, 1985, (A).
121. "Models of Penetrant and Solute Transport in Glassy Polymers," 19th ACS Great Lakes Regional Meeting, West Lafayette, Indiana, June 12, 1985, (A) *.
122. "Penetrant Transport in Polystyrene," 19th ACS Great Lakes Regional Meeting, West Lafayette, Indiana, June 12, 1985, (A)*.
123. "Crosslinked Polyether-diol Micromatrices for Controlled Drug Release," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P)*.
124. "Relaxational Effects in Solute Transport and Release from Swelling-Controlled P(HEMA-co-MMA) Systems," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 140 of 218

125. "The Mathematics and Physics of Solute Transport in Continuously Swelling Hydrophilic Polymers," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P)*.
126. "Diffusion in Swellable Drug Delivery Systems," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P)*.
127. "Polymer/Glycoprotein Chain Interpenetration in Bioadhesion," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 9, 1985, (P).
128. "Swelling of Gels of PHEMA and Release of Phenylephrin · HCl from this Polymer," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 10, 1985, (P)*.
129. "Swelling Laws for Drug Release from Equilibrium Swollen Hydrogels," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 10, 1985, *Invited Lecture* (P).
130. "The Kinetics of Preparation of PHEMA Microparticles by Suspension Copolymerization/Crosslinking with EGDMA," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 11, 1985, (P)*.
131. "Release of Radioactive Isotopes from Stored Waste to the Ground," 12th International Symposium on Controlled Release of Bioactive Materials, Geneva, Switzerland, July 12, 1985, (P).
132. "Molecular Aspects of Polymer Adhesion on Mucus," ACS Annual Meeting, Chicago, Illinois, September 9, 1985, (A).
133. "The Effect of Degree of Crystallinity and Crystallite Size on Solute Diffusion through Membranes," ACS Annual Meeting, Chicago, Illinois, September 9, 1985, (A)*.
134. "Scaling Laws for Solute Diffusion in Equilibrium Swollen Gels," ACS Annual Meeting, Chicago, Illinois, September 10, 1985, (P)*.
135. "Bioadhesives: Fundamental Studies on Adhesion to Mucus Membranes," APS Annual Meeting, Minneapolis, Minnesota, October 21, 1985, (A).
136. "The Relaxational Aspects of Drug Release from P(HEMA-co-MMA) Copolymers," Annual AIChE Meeting, Chicago, Illinois, November 12, 1985, (A) *.
137. "The Surface of P(VA-co-NVP) Hydrogels as Revealed by Scanning Electron Microscopy," Annual AIChE Meeting, Chicago, Illinois, November 12, 1985, (A)*.
138. "Modeling of Multicomponent Transport in Swelling Polymers," Annual AIChE Meeting, Chicago, Illinois, November 13, 1985, (A) *.
139. "Kinetic Modelling of Copolymerization-Crosslinking Reactions," Annual AIChE Meeting, Chicago, Illinois, November 14, 1985, (A) *.
140. "Interfacial Phenomena Related to Bioadhesion of Polymers on the Intestinal Mucus," Annual AIChE Meeting, Chicago, Illinois, November 15, 1985, (A).
141. "Diffusion of Biological Molecules in Semidilute Gels," Annual Materials Research Society Meeting, Boston, Massachusetts, December 4, 1985, (A).
142. "New Observations of Anomalous Transport in Crosslinked Polystyrene,"= Annual Materials Research Society Meeting, Boston, Massachusetts, December 5, 1985, (A).
143. "Measurement of the Bioadhesive Force Between a Polymer Microparticle and Mucin Gel," International Biomedical Engineering Symposium, Salt Lake City, Utah, January 21, 1986, (A).
144. "Bioadhesive Controlled-Release Systems," Fourth International Conference on Pharmaceutical Technology, Paris, France, June 3, 1986, *Plenary Lecture,* (A).
145. "Influence de l' hydrosolubilite du principe actif sur la liberation a partir de microspheres de PHEMA et role joue par la nature du solvant," Fourth International Conference on Pharmaceutical Technology, Paris, France, June 4, 1986, (P) *.
146. "Relaxation-Coupled Diffusion in Glassy Polymers," Second Conference of European Rheologists, Prague, Czechoslovakia, June 18, 1986, (A).
147. "The Role of Polymer Structure in Bioadhesion to the Mucus," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 4, 1986, *Invited Lecture,* (P).
148. "Investigation of the Effects of Thickness on the Swelling Kinetics of P(HEMA-co-MMA) in Water," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 141 of 218

149. "Drug Diffusion in Heterogeneous Polymeric Systems with Impermeable Domains," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986, (P).
150. "Comparison of Experimental Techniques for the Measurement of the Bioadhesive Forces of Polymeric Materials with Soft Tissues," 13th International Symposium on Controlled Release of Bioactive Materials, Norfolk, Virginia, August 5, 1986, (P).
151. "The Design and Evaluation of Bioadhesive Controlled Release Systems," Third International Pharmaceutical Technology Symposium, Ankara, Turkey, September 9, 1986, *Invited Lecture,* (P).
152. "The Bioadhesive Behavior of 2-Hydroxyethyl Methacrylate-Containing Copolymer Microparticles with Aqueous Gels of Bovine Submaxillary Mucin," European Congress on Biomaterials, Bologna, Italy, September 15, 1986, (A).
153. "Dynamic Swelling of and Drug Release from Microparticles for Swelling-Controlled Release Applications," 13th Annual Meeting of the European Society of Artificial Organs, Avignon, France, September 18, 1986, (A).
154. "Macromolecular Release from Magnetically-Triggered Controlled-Release Polymer Systems," 13th Annual Meeting of the European Society of Artificial Organs, Avignon, France, September 20, 1986, (A).
155. "L'influence de la structure polymerique sur la liberation controlee des principes actifs," Journees Galeniques, Saint-Remy de Provence, France, September 26, 1986, (P).
156. "Transport of Drugs Through the Intestinal Mucus," Annual AIChE Meeting, Miami, Florida, November 6, 1986, (A).
157. "Polymer Microparticles on Biological Surfaces," Annual AIChE Meeting, Miami, Florida, November 5, 1986, (A)*.
158. "Preparation and Modelling of Water-Soluble Microparticles by Suspension Polymerization," Annual AIChE Meeting, Miami, Florida, November 7, 1986, (A)*.
159. "Membrane and Reservoir Systems," Symposium on Drug Delivery Systems, Danish Society of Polymer Technology, Copenhagen, Danemark, November 19, 1986, *Plenary Lecture,* (A).
160. "Bioadhesive Polymers," Symposium on Drug Delivery Systems, Danish Society of Polymer Technology, Copenhagen, Danemark, November 20, 1986, *Plenary Lecture,* (A).
161. "Model Experimental Study of a Transdermal System," International Symposium on Transdermal Drug Delivery Systems, New Ulm, Federal Republic of Germany, December 2, 1986, (A)*.
162. "Bioadhesive Analysis of Controlled Release Systems. I. Systems Containing Poly(acrylic acid)," APGI Colloquium, Paris, France, December 11, 1986, (A)*.
163. "Bioadhesive Analysis of Controlled Release Systems. II. Systems for Release of Metronidazole," APGI Colloquium, Paris, France, December 11, 1986, (A)*.
164. Modele d' etude experimentale d' un systeme transdermique," First International Forum on Formulation Physical Chemistry and its Applications, Nice, France, February 5, 1987, (A)*.
165. Prediction of Polymer Dissolution in Swellable Controlled Release Systems," International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, Utah, February 26, 1987, *Invited Lecture,* (A).
166. "Bioadhesion et microformes," First Scientific Meeting of the Industrial Health Group of East-Central France, Dijon, France, May 15, 1987, (A).
167. "Models of Solute Transport Through Block Copolymer Membranes," 1st Annual Meeting of the North American Membrane Society, Cincinnati, Ohio, June 2, 1987, (P)*.
168. "Hydroxyalkyl Methacrylate Copolymers for Biomedical Applications," 13th Annual Meeting of Society for Biomaterials, New York, N.Y., June 4, 1987, (P)*.
169. "The Interaction of Poly(acrylic acid)-Containing Polymeric Systems with Bovine Sublingual Mucus," Biointeractions '87, Cambridge, United Kingdom, July 8, 1987, (A).
170. "Fracture Analysis of the Bioadhesive Interactions Between Surface-swollen, Poly(acrylic Acid)-Containing Tablets and the Bovine Sublingual Tissue," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987, (P)*.
171. "The Time-Dependent Behavior of the Adhesive Interactions Between Poly(acrylic Acid) and Buccal Tissue," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987 (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 142 of 218

172. "Coupled Diffusion/Dissolution Processes May Give Zero-Order Release of Drugs from Microspheres," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987, (P).
173. "Diffusive Characteristics of Drugs in Novel Gels," 14th International Symposium on Controlled Release of Bioactive Materials, Toronto, Canada, August 3, 1987, (P)*.
174. "The Mechanisms of Disintegration of Compressed Particle Systems," International Symposium on Perspectives in Solid Dosage Form Design, Pavia, Italy, September 28, 1987, (A)*.
175. "Suspension Polymerization of 2-Hydroxyethyl Methacrylate," Annual AIChE Meeting, New York, N.Y., November 16, 1987, (A)*.
176. "A Rational Thermodynamics Theory for Penetrant Transport in Polymers," Annual AIChE Meeting, New York, N.Y., November 16, 1987, (A)*.
177. "Testing of the Adhesive Force Between Poly(acrylic acid) and Bovine Sublingual Mucus," Annual AIChE Meeting, New York, N.Y., November 18, 1987, (A).
178. "Dissolution Analysis of Model Positive Resists," Annual AIChE Meeting, New York, N.Y., November 19, 1987, (A).
179. "Crack Healing of Polymer-Polymer Interfaces of Linear Polymers," Fall Meeting Materials Research Society, Boston, MA, December 1, 1987, (A).
180. "Effect of Chain Entanglements on the Fracture Characteristics of Polymeric Materials," Fall Meeting, Materials Research Society, Boston, MA, December 3, 1987, (A)*.
181. "Modello Fisico per la Disgregazione di Compresse," 11th Symposium of ADRITELF, Erice, Italy, March 20, 1988, (A)*.
182. "Biomaterials Needs for the Next Generation of Drug Delivery," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, *Invited Lecture,* (A).
183. "Mechanisms of Dissolution of Compressed Tablets," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (A).
184. "Branching Theory in Sol-Gel Processing," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (P).
185. "Fracture Mechanics of Low Molecular Weight Polymers," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (P).
186. "The Thermodynamics of Perfume Incorporation and Release from Polymers," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (A).
187. "Structural Changes in Environmentally Sensitive Hydrogels," Spring Meeting, Materials Research Society, Reno, NV, April 5, 1988, (A)*.
188. "Tablet Disintegration: A Physical Model," 7th Pharmaceutical Technology Conference, London, April 14, 1988 (P)*.
189. "Synthesis and Swelling Characteristics of a Type of Hydrophilic/Hydrophobic Membranes," Second Annual Meeting, North American Membrane Society, Syracuse, NY, June 20, 1988, (P)*.
190. "Transport Properties of Water in Epoxy Resins and Composites," National Meeting, American Chemical Society, Toronto, Canada, June 9, 1988, (P)*.
191. "Application of Branching Theory to Curing Kinetics of Tetraepoxy-Diamine Systems," National Meeting, American Chemical Society, Toronto, Canada, June 9, 1988, (P)*.
192. "Measurement of the Forces Between Polymer Microparticles and Mucin Gels," National Meeting, American Chemical Society, Toronto, Canada, June 8, 1988, (A).
193. "Elements of Chemical Technology in the Byzantine University of Constantinople and in the Byzantine Empire," National Meeting American Chemical Society, Toronto, Canada, June 6, 1988, (A).
194. "Unit Processes Against Unit Operations: The Educational Fights of the Thirties," National Meeting, American Chemical Society, Toronto, Canada, June 6, 1988, (A).
195. "Academic Connections of the 20th Century U.S. Chemical Engineers: Influence of the 18th and 19th Century Swedish, French, German, and Italian Chemists," National Meeting, American Chemical Society, Toronto, Canada, June 6, 1988, (A).
196. "Delivery of Selected Principal Essential Oils Used in Flavoring," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P)*.
197. "Determination of Mesh Size in Hydrogels," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 143 of 218

198. "Production of Hydrophilic Homo- and Copolymer Microparticles by Suspension Polymerization," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
199. "Macromolecular Network Characteristics and their Effect on Drug Release from Crosslinked Poly(vinyl alcohol) Micromatrices," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
200. "Swelling-controlled Release Systems of Poly(multiethylene glycol dimethacrylates) and their Copolymers," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P).
201. "Environmental Cracking of Long-term Antifouling Controlled Release Systems," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P).
202. "The Swelling Behavior of pH-Sensitive Hydrogels," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
203. "Videomicroscopic Study of the Stresses Formed in Hydrogels During Swelling," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 19, 1988, (P).
204. "Alginate Magnetic Release Systems: Crosslinked Structure, Swelling and Release Studies," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P).
205. "Drug Release from Swellable Matrices Restricted by Impermeable Film Coatings," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P)*.
206. "Gel Syneresis and Drug Release with Temperature-Sensitive Hydrogels," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 19, 1988, (P).
207. "Influence of the Composition of the Test Medium on the Adhesion of a Bioadhesive Tablet to a Bilogical Tissue," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 18, 1988, (P)*.
208. "Assessment of a New Method for the Determination of Bioadhesion," 15th International Symposium on Controlled Release of Bioactive Materials, Basle, Switzerland, August 17, 1988, (P)*.
209. "Polydimethacrylates for Laser Videodisc Applications," ACS Annual Meeting, Anaheim, California, September 26, 1988, (P).
210. "Controlled Release Polymeric Systems for Essential Oils Used in Flavoring," ACS Annual Meeting, Anaheim, California, September 27, 1988, (A).
211. "Solute Transport in Heterogeneous Polymeric Systems with Semipermeable Domains," US-Europe Symposium on Advanced Membrane Science and Technology, Ravello, Italy, October 3, 1988, \fIInvited Lecture\fR, (A).
212. "Copolymerization and Crosslinking Reactions of Hydrophilic Monomers," Annual AIChE Meeting, Washington, DC, November 19, 1988, (A)*.
213. "The Swelling Behavior of pH-Sensitive Hydrogels," Annual AIChE Meeting, Washington, DC, December 1, 1988, (A)*.
214. "Structure and Swelling Behavior of Poly(ethylene glycol-g-methacrylic acid)Networks," Annual AIChE Meeting, Washington, DC, December 1, 1988, (A)*.
215. "Preparation and Properties of Novel Methacrylate-Based Laser Videodisc Polymers," Annual AIChE Meeting, Washington, DC, November 28, 1988, (A)*.
216. "A Branching Theory for the Analysis of Certain Sol-Gel Processes," Annual AIChE Meeting, Washington, DC, November 30, 1988, (A)*.
217. "The Progress of Alkoxysilane Reactions for Sol-gel Processing," 7th International Symposium on Ceramics, Bologna, Italy, December 15, 1988, (A).
218. "DIffusive and Surface Problems During Utilization of Hydrogels in Ophthalmology," International Symposium on Advances in Biomedical Polymers, Perth, Australia, February 6, 1989, *Invited Lecture*, (P).
219. "Ampholytic Hydrogels Sensitive to Physiological Conditions," International Symposium on Advances in Biomedical Polymers, Perth, Australia, February 8, 1989, (P).
220. "Temperature Sensitive Hydrogels for Biomedical Applications," International Symposium on Advances in Biomedical Polymers, Perth, Australia, February 9, 1989, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 144 of 218

221. "Transport Characteristics of Glassy and Rubbery Polymers," Second Materials Science Symposium of the School of Optometry of the University of Missouri, St. Louis, Missouri, March 14, 1989, *Invited Lecture*.
222. "Theories of Penetrant Transport in Glassy Polymers," Annual ACS Meeting, Dallas, Texas, March 20, 1989, *Invited Lecture*, (P)*.
223. "Controlled Release of Drugs from pH-Sensitive Polymers," Annual Meeting of the Society of Biomedical Engineering, New Orleans, Louisiana, March 20, 1989 (A).
224. "Modelling the Complex Sequence of Sol-gel Processing Reactions," 91st Annual Meeting of American Ceramic Society, Indianapolis, Indiana, April 25, 1989, (A).
225. "Drying and Stresses in Non-crystalline and Crystalline Solids Derived from Gels," 91st Annual Meeting of American Ceramic Society, Indianapolis, Indiana, April 26, 1989, (A).
226. "Controlled Release of Drugs from pH-Sensitive Polymers," Annual Meeting Biomedical Engineering Society, April 26, 1989, (A)*.
227. "Thermodynamic Investigation of Equilibrium-Swollen Heterogeneous Networks," 15th Annual Meeting of Society for Biomaterials, Lake Buena Vista, Florida, May 1, 1989, (P)*.
228. "Protein Partitioning in Hydrophilic/Hydrophobic Graft and Block Copolymer Networks," 15th Annual Meeting of Society for Biomaterials, Lake Buena Vista, Florida, May 1, 1989, (P)*.
229. "Diffusional Peptide Release," First International Meeting on the Theory and Applications of Diffusion in Biomedical, Pharmaceutical and Food Sciences, Parma, Italy, May 16, 1989, *Invited Lecture*, (A).
230. "pH-Dependent Anomalous Swelling of Glassy Polymers," First International Meeting on the Theory and Applications of Diffusion in Biomedical, Pharmaceutical and Food Sciences, Parma, Italy, May 16, 1989, (A)*.
231. "Kinetics of Mucus-Polymer Interactions," International CRS/APV Workshop on Bioadhesion-Possibilities and Future Trends, Leiden, The Netherlands, May 23, 1989, *Invited Lecture*, (P).
232. "The Higuchi Model as a Tool to Obtain Information about the Structure of Ibuprofen-loaded Ethylcellulose Microspheres," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P)*.
233. "Dynamic Swelling Behavior of pH-Sensitive Swelling Controlled Release Systems," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P).
234. "Gel Syneresis as a Method to Release Drugs at Prescribed Intervals," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P).
235. "Drug Release Modulation by Physical Restriction of Matrix Swelling," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P)*.
236. "Water Uptake and Disintegration Force Development in Pharmaceutical Tablets," Fifth International Conference on Pharmaceutical Technology, Paris, France, June 1, 1989, (P)*.
237. "Diffusion in Membranes Exhibiting Hydrophilic/Hydrophobic Phases," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
238. "Complex-forming Hydrogels Sensitive to Physiological Conditions," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
239. "The Response of pH-Sensitive Polymers to Successive Changes of pH or Ionic Strength in Solutions," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
240. "Recent Advances in Modeling of Swelling-Controlled Release Systems," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P).
241. "pH-Dependent Anomalous Swelling of Glassy Polymers," 16th International Symposium on Controlled Release of Bioactive Materials, Chicago, Illinois, August 8, 1989, (P)*.
242. "Programmed Insulin Delivery Using Thermosensitive Hydrogels," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P).
243. "Fractal Analysis in Polymer Structures for Information Storage Technology," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
244. "Kinetics of UV-Induced Multiethylene Glycol Dimethacrylate Polymerizations," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
245. "Copolymerization/Crosslinking Reaction of 2-Hydroxyethyl Methacrylate with Ethylene Glycol Dimethacrylate," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 145 of 218

246. "Modeling of Protein Adsorption on Smooth Polymeric Surfaces Based on Calculated Interaction Parameters," Annual AIChE Meeting, San Francisco, California, November 6, 1989, (P)*.
247. "Fibrinolytic Activity of pH-Sensitive Streptokinase-Immobilized Poly(methacrylic acid-g-ethyleneoxide) Microspheres," Annual AIChE Meeting, San Francisco, California, November 7, 1989, (P).
248. "Swelling/Dissolution Front Synchronization as a Method of Zero-Order Release," Annual AIChE Meeting, San Francisco, California, November 7, 1989, (P).
249. "Self-Association of Poly(ethylene glycol-g-methacrylic acid) as Studied by Nuclear Overhauser Effect and NMR Relaxation Time Measurements," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
250. "Dynamic and Equilibrium Swelling Characteristics of Hydrophilic Copolymers with Carboxylic Functional Groups," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P).
251. "Soluble Fraction Effects on Dynamic Swelling of Hydrogels," Annual AIChE Meeting, San Francisco, California, November 7, 1989, (P)*.
252. "Development and Implementation of a Model for Penetrant Transport in Glassy Polymers," Annual AIChE Meeting, San Francisco, California, November 8, 1989, (P)*.
253. "Dynamic Penetrant Uptake and Equilibrium Sorption of Epoxy Resins," Annual AIChE Meeting, San Francisco, California, November 9, 1989, (P)*.
254. "Dissolution of Positive Resists," Annual AIChE Meeting, San Francisco, California, November 6, 1989, (P).
255. "Structural Changes in TEOS Gelation as Revealed by Compressive Creep Experiments," Annual AIChE Meeting, San Francisco, California, November 9, 1989, (P).
256. "Hydrogels of P(EO-g-MA) for Biomedical Applications," First European Symposium of Controlled Drug Delivery, the Hague, the Netherlands, March 29, 1990, (P), *Invited Lecture.*
257. "Penetrant Transport in Coal Networks," ACS Meeting, Boston, Massachusetts, April 25, 1990, (P).
258. "Modelling of Moisture Transport in Epoxy Composites," ACS Meeting, Boston, Massachusetts, April 24, 1990, (A).
259. "Mucoadhesive Polymers," ACS Meeting, Boston, Massachusetts, April 25, 1990, (A).
260. "Correlation Between Structure and Properties of Polymers and Drug Release," 10th Advanced Course on Pharmaceutical Chemistry, Italian Chemical Society, Bressanone, Italy, June 6, 1990, (P), *Invited Lecture.*
261. "Controlled Release from Bioadhesive Polymeric Systems," 10th Advanced Course on Pharmaceutical Chemistry, Italian Chemical Society, Bressanone, Italy, June 8, 1990, (P), *Plenary Lecture.*
262. "Swelling and Syneresis of Hydrogels due to Temperature, pH and Ionic Strength Changes," 33rd IUPAC Symposium on Macromolecules, Montreal, Canada, July 10, 1990, (A), *Invited Lecture.*
263. "Swelling Dimensionality and Drug Release from Swellable Matrices," Fifth International Pharmaceutical Technology Symposium, Ankara, Turkey, September 11, 1990, (P)*.
264. "Polymer Structure and Diffusion in Polymers," First Workshop on Controlled Release in Consumer Products, Cincinnati, Ohio, October 18, 1990, (P), *Invited Lecture.*
265. "Polymers and Hydrocolloids in Consumer Product Applications," First Workshop on Controlled Release in Consumer Products, Cincinnati, Ohio, October 18, 1990, (P), *Invited Lecture.*
266. "Perfume Release and Air Fresheners," First Workshop on Controlled Release in Consumer Products, Cincinnati, Ohio, October 19, 1990, (P), *Invited Lecture.*
267. "pH-Dependent Swelling Behavior of Carboxyl-Containing Copolymeric Networks," Annual AIChE Meeting, Chicago, IL, November 15, 1990, (A)*.
268. "Mathematical Modelling of Drug Release from Physiologically Sensitive Hydrogels," Annual AIChE Meeting, Chicago, IL, November 12, 1990, (A)*.
269. "Kinetics and Volume Relaxation for Polymerizations of Multiethylene Glycol Dimethacrylates," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
270. "Complexation of Polymeric Acids with Complementary Oligomeric Bases," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
271. "Modelling of Coupled Deformation and Mass Transport Processes," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
272. "Water Diffusion Kinetics in Graphite/Epoxy Composites," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 146 of 218

273. "A Novel Kinetic Gelation Simulation for Analysis of Free Radical Polymerizations of Multifunctional Monomers," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
274. "Imaging Polymer Interfaces by Scanning Electron Microscopy and Energy Dispersive X-Ray Analysis," Annual AIChE Meeting, Chicago, IL, November 14, 1990, (A)*.
275. "Control of Mesh and Pore Size of Bioceramics Produced by Sol/Gel Processing," Third International Symposium on Ceramics in Medicine, Terre Haute, IN, November 20, 1990, (A).
276. "Fracture Energy and Critical Strength of High Molecular Weight Glassy Polymers," Fall Meeting, Materials Research Society, Boston, MA, November 26, 1990, (P)*.
277. "Effects of Aging on Polymerization Kinetics," Fall Meeting, Materials Research Society, Boston, MA, November 27, 1990, (P)*.
278. "Physiologically Responsive Hydrogels," USA-Czechoslovak Academy of Sciences Workshop on Novel Polymers and Properties for Biotechnology and Bioengineering, Prague, Czechoslovakia, December 13, 1990, (A), *Invited Lecture.*
279. "A Novel Kinetic Gelation Simulation for Analysis of Free Radical Polymerizations of Multifunctional Monomers," Annual American Physical Society Meeting, Cincinnati, OH, March 18, 1991, (A)*.
280. "A Model for Coupled Deformation and Mass Transport Processes in Polymers," Annual American Physical Society Meeting, Cincinnati, OH, March 18, 1991, (A)*.
281. "Chain Dynamics at a Gel/Gel Interface," Annual American Physical Society Meeting, Cincinnati, OH, March 19, 1991, (A)*.
282. "Structure of Hydrogels by Freezing-Thawing Cyclic Processing," Annual American Physical Society Meeting, Cincinnati, OH, March 19, 1991, (A)*.
283. "Swelling Dimensionality and Drug Release," 10th Pharmaceutical Technology Conference, Bologna, Italy, April 16, 1991, (P)*.
284. "Polymer Characterization and Polymerization Reaction Modeling for Advanced Dental Materials," Annual Meeting of the Society of Biomaterials, Scottdale, AZ, May 1, 1991, (A)*.
285. "Effect of Ionic Strength, Temperature and pH on the Dynamic and Equilibrium Swelling Behavior of Ionic Hydrogels," AAPS Midwest Regional Meeting, Chicago, Illinois, May 6, 1991, (A)*.
286. "Modulated Release of Peptides and Drugs Using Physio-responsive Polymers," 25th Journees Galeniques Meeting, St. Remy, France, May 31, 1991, (P), *Invited Lecturer.*
287. "The Kinetics of Adhesive Bond Development Between Polymers and Mucus," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991, (P), *Invited Lecture.*
288. "A Method of Measuring Mucoadhesive Forces on Polymeric Microparticles," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991, (P)*.
289. "Solute Release from Polyelectrolytic Networks," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991, (P).
290. "Dimensionality in Swelling of Polymer Carriers and its Importance in Drug Release," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 9, 1991 (P).
291. "Swelling Force Development in Ionic Polymeric Networks," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 10, 1991 (P)*.
292. "Release Behavior from pH-Sensitive Hydrogels Containing Bioactive Agents of Varying Thermodynamic Properties," 18th International Symposium on Controlled Release of Bioactive Materials, Amsterdam, the Netherlands, July 10, 1991, (P)*.
293. "Physicochemical Characteristics of Drug Diffusion in Polymers," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 16, 1991, (P).
294. "Design and Optimization of Controlled Release Systems," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 16, 1991 (P).
295. "Swelling Controlled Release Systems," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 18, 1991, (P).
296. "Transdermal Delivery," International Workshop on Drug Delivery Systems and Pharmaceutical Technology, Buenos Aires, Argentina, September 19, 1991, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 147 of 218

297. "Bioadhesion," First Latin American Symposium on Drug Administration Strategies and Therapeutic Systems, Buenos Aires, Argentina, September 20, 1991, (P).
298. "Release Behavior of Bioactive Agents from pH-Sensitive Hydrogels," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
299. "Dissolution of Glassy Polymers," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
300. "Dynamic Swelling of pH-Sensitive Controlled Release Systems," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
301. "Kinetics and Modelling of UV-Induced Multi-Ethylene Glycol Dimethacrylate Polymerizations," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
302. "Water Effects on the Interfacial Shear Strength of Graphite/Epoxy Interface," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
303. "Synthesis and Characterization of Acrylic Acid Hydrogels for Bioadhesive Applications," Annual AIChE Meeting, Los Angeles, CA, November 19, 1991, (A)*.
304. "Physiologically-Sensitive Hydrogels in Controlled Release Applications," US-Japan Symposium on Drug Delivery Systems, Maui, HI, December 17, 1991, (A), *Invited Lecture.*
305. "Modeling of Ionic Polymers for Controlled Drug Delivery Applications," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
306. "Effect of Physiological Conditions on Drug Release Behavior from Ionic Polymeric Devices," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
307. "Poly(acrylic acid) Hydrogels for Bioadhesive Controlled Release Applications," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
308. "Near-field FTIR Imaging as a Method for Studying Polymer Interdiffusion in Bioadhesive Controlled Release Systems," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
309. "Characterization of Polymer Dissolution for Design of Polymer Implant Devices," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, January 22, 1992, (A)*.
310. "Hydrogels and Bioadhesion," CRS Workshop on Biomaterials and Controlled Release, Jupiter Beach, FL, January 30, 1992, (A), *Invited Lecture.*
311. "Interfacial Adhesion of PVC/PEMA," Annual Adhesion Society Meeting, Hilton Head, SC, February 17, 1992, (P)*.
312. "PVT Properties of Crosslinked Polystyrene/Dodecane System," Annual Meeting of American Physical Society, Indianapolis, IN, March 19, 1992, (A)*.
313. "Interdiffusion in Compatible Polymer Pairs," Annual Meeting of American Physical Society, Indianapolis, IN, March 20, 1992, (A)*.
314. "Characterization of Polymer Dissolution," Annual Meeting of American Physical Society, Indianapolis, IN, March 20, 1992, (A)*.
315. "Penetrant Transport in Ionic Polymers," Annual Meeting of American Physical Society, Indianapolis, IN, March 20, 1992, (A).
316. "Bioresponsive Hydrogels for Controlled Release of Solutes," Annual Meeting of American Chemical Society, San Francisco, CA, April 7, 1992, (P), *Invited Lecture.*
317. "Hydrogels in Medicine and Biology," Fourth World Biomaterials Congress, Berlin, Germany, April 26, 1992, (P), *Plenary Lecture.*
318. "Diffusion Release from Polymers," Second Workshop on Controlled Release in Consumer Products, Secaucus, New Jersey, May 13, 1992, (P), *Invited Lecture.*
319. "Fundamentals of pH- and Temperature-sensitive Polymers," Symposium on Pulsatile Drug Delivery, Königswinter, Germany, May 20, 1992, (P), *Invited Lecture.*
320. "Use of Near-field FTIR Imaging to Investigate Polymer Interdiffusion in Relation to Bioadhesion of Controlled Release Systems," Second Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, May 28, 1992, (A), *Invited Lecture.*
321. "Bioadhesive Controlled Release Systems," Workshop on Developments in Biopharmaceutics and Pharmacokinetics, Athens, Greece, May 30, 1992, (A), *Invited Lecture.*
322. "Mechanisms of Peptide and Protein Transport in Hydrogels," 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, Florida, July 29, 1992, (P), *Invited Lecture.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 148 of 218

323. "Characterization of Water Structure in Relation to Release Behavior of Drugs from pH-Sensitive Hydrogels," 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, Florida, July 29, 1992, (P)*.
324. "Swelling Controlled Drug Release from Cationic Polymers," 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, Florida, July 29, 1992, (P)*.
325. "Peptide Diffusion and Release from Polymeric Carriers," 7th Symposium on Peptide Delivery, Zermatt, Switzerland, September 29, 1992, (A), *Invited Lecture.*
326. "Photopolymerizations of Multifunctional Acrylates and Methacrylates," Annual AIChE Meeting, Miami Beach, FL, November 2, 1992, (A)*.
327. "Modeling and Characterization of Polymer Dissolution," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
328. "Near-field FTIR Imaging Studies of Polymer-polymer Diffusion," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A).
329. "Diffusional and Mechanical Behavior of the Dodecane/Polystyrene System," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
330. "Characterization of Polymer/Drug Interactions by ATR-FTIR," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
331. "Disintegration of Pharmaceutical Formulations," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
332. "Dynamic and Equilibrium Swelling of Polyacrylates," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
333. "Release of Essential Oils from Sweelable Polymers," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
334. "Use of ATR-FTIR Spectroscopy for the Investigation of Chain Interpenetration in Bioadhesion," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
335. "Investigation of Drug Distribution and Interaction with Polymer Microscopy," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
336. "New Hydrophilic/Hydrophobic Block and Graft Copolymers for Selective Solute Separation," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
337. "Physical and Mechanical Characterization of Polymultifunctional Acrylates and Methacrylates," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
338. "Measurement of the Concentration Profile at a Poly(vinyl chloride) and Poly(methyl methacrylate) Interface with Analytical Electron Microscopy," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
339. "Highly Crosslinked Polymers as Information Storage Systems," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*.
340. "Relaxational and Diffusional Phenomena Observed During Swelling and Release from Ionic Polymers," Annual AIChE Meeting, Miami Beach, FL, November 4, 1992, (A)*
341. "Diffusion and Sorption in Amorphous Polymer," Fifth International Symposium on Properties of Water," Peniscola, Spain, November 10, 1992, (A), *Plenary Lecturer.*
342. "Interaction of Biologically Active Molecules with Ionic Polymer Networks," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, March 1, 1993, (A)*, *Invited Lecture.*
343. "Novel Preparation Method of PVA Microparticles," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, March 1, 1993 (A)*.
344. "Synthesis and Characterization of Poly(ethylene glycol-g-methacrylic acid) Hydrogels," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, March 1, 1993, (A)*.
345. "Highly Crosslinked Polymers in Information Technology Applications," Annual ACS Meeting, Denver, CO, March 31, 1993 (P).
346. "Contemporary Issues in Hydrogels Research," Annual ACS Meeting, Denver, CO, April 1, 1993, (P), *Invited Lecture.*
347. "Complexation in P(EG-p-MAA) Hydrogels," Annual ACS Meeting, Denver, CO, April 1, 1993, (P)*.
348. "pH-Responsive Hydrogels for Controlled Drug Delivery," Annual ACS Meeting, Denver, CO, April 1, 1993, (P).
349. "Recent Advances in Transdermal and Oral Bioadhesives," Nichiban Conference, Tokyo, Japan, May 28, 1993, (A).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 149 of 218

350. "Bioresponsive Drug Delivery Systems," International Conference on Materials for Biomedical Applications," Capri, Italy, June 10, 1993, (A), *Invited Lecture.*
351. "Dedrimers and Star Polymers for Pharmaceutical and Medical Applications," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 27, 1993, (P), *Invited Lecture.*
352. "Thirty Years of Controlled Release Modelling," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 26, 1993, (P).
353. Synthesis and Characterization of P(EG-g-MAA) Hydrogels," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 27, 1993, (P)*.
354. Investigation of Poly(acrylic acid)/Mucin Bioadhesion Using ATR-FTIR Spectroscopy," 20th International Symposium on Controlled Release of Bioactive Materials, Washington, D.C., July 28, 1993, (P).
355. "Kinetics of Photopolymerizations of Multifunctional Monomers," Annual ACS Meeting, Chicago, IL, August 1993, (P)*.
356. "The Dynamic Swelling of Ionic Networks," Annual ACS Meeting, Chicago, IL, August 1993, (P)*.
357. "Highly Swollen Copolymers of Poly(ethylene glycol-g-methacrylic acid)," Annual ACS Meeting, Chicago, IL, August 1993, (P).
358. "Near-Field FTIR and ATR-FTIR Spectroscopies for the Investigation of Diffusional Mechanisms, Annual ACS Meeting, Chicago, IL, August 1993, (P), *Invited Lecture.*
359. "Fundamentals of Controlled Release with Applications to Food Flavor Delivery," Annual ACS Meeting, Chicago, IL, August 1993, (A), *Invited Lecture.*
360. "Glassy/Rubbery Transition in Relation to Penetrant Transport and Controlled Release of Encapsulated Food Ingredients," Annual ACS Meeting, Chicago, IL, August 1993, (A), *Invited Lecture.*
361. "Controlling Protein Diffusion in Hydrogels," International Symposium on Delivery of Protein Drugs, Kyoto, Japan, September 4, 1993, (A), *Invited Lecture.*
362. "Bioadhesive Polymers," Symposium on Polymers and Bioengineering, Cambridge, MA, October 1, 1993, *Invited Lecture.*
363. "Release Mechanisms from Polymeric Carriers," First European Workshop and Exhibition on Controlled Delivery in Consumer Products, Geneva, Switzerland, October 21, 1993, (P), *Invited Lecture.*
364. "Evidence of Mucoadhesion by Chain Interpenetration at a PAA/Mucin Interface Using ATR-FTIR Spectroscopy," Annual AIChE Meeting, St. Louis, MO, November 7, 1993, (A)*.
365. "Experimental and Theoretical Studies of Diacrylate Photopolymerizations," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A)*.
366. "Poly(methacrylic acid) Copolymer Interactions with Mucin with Applications to Mucoadhesion," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A)*.
367. "Macromolecular Transport in Ionic Hydrogels," Annual AIChE Meeting, St. Louis, MO, November 1993, (A)*.
368. "Information Storage Systems from Highly Crosslinked Multifunctional (Meth)acrylates," Annual AIChE Meeting, St. Louis, MO, November 5, 1993, (A)*.
369. "Dissolution of Glassy Polymers," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A)*.
370. "Comparative Studies of Oscillatory Swelling and Solute Transport in Complexing Poly(ethylene glycol-g-methacrylic acid) and Poly(acrylic acid)-containing Hydrogels," Annual AIChE Meeting, St. Louis, MO, November 6, 1993, (A), *Invited Lecture.*
371. "Environmentally Sensitive Membranes for Separation Processes," Annual AIChE Meeting, St. Louis, MO, November 7, 1993, (A)*.
372. "Intelligent Polymers as Carriers for Drug Delivery," Materials Research Society Meeting, Boston, MA, November 30, 1993, (A), *Plenary Lecture.*
373. "Poly(methacrylic acid-g-ethylene glycol) Hydrogels as pH Responsive Biomedical Materials," Materials Research Society Meeting, Boston, MA, November 30, 1993, (P)*.
374. "Temperature- and pH-Sensitive Hydrogels for Controlled Release of Antithrombotic Agents," Materials Research Society Meeting, Boston, MA, November 30, 1993, (P)*.
375. "Novel Preparation of Poly(vinyl alcohol) Microparticles Without Crosslinking Agent for Controlled Drug Delivery of Proteins," Materials Research Society Meeting, Boston, MA, November 30, 1993, (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 150 of 218

376. "Controlled Release of Triamterene from Poly(dl-lactide-co-glycolide) Microspheres," Materials Research Society Meeting, Boston, MA, November 29, 1993, (P)*.
377. "Developments in Biomedical Research Polymers," ACS Meeting on Materials Technology for Competitive Advantage, St. Petersburgh, FL, November 22, 1993, (A), *Invited Lecture.*
378. "Dissolution of Glassy Polymers," American Physical Society Meeting, Pittsburgh, PA, March 21, 1994, (A)*.
379. "Molecular and Modelling Aspects of Dissolution of Glassy Polymers," Israeli Institute of Chemical Engineers Meeting, Beer-sheva, Israel, March 29, 1994, (A), *Invited Lecture.*
380. "Poly(methacrylic acid-g-ethylene glycol) as a pH Sensitive Biopolymer," Society for Biomaterials Meeting, Boston, MA, April 7, 1994, (P).
381. "Recent Advances in the Development and Performance of Bioresponsive Drug Delivery Systems," 13th Pharmaceutical Technology Conference, Strasbourg, France, April 14, 1994, (A), *Plenary Lecture.*
382. "Penetrant Transport and Drug Release in pH-Sensitive Hydrogels," Midwest Meeting American Association of Pharmaceutical Scientists, Chicago, Illinois, May 23, 1994, (A)*.
383. "The Mucoadhesive Properties of Polymeric Microparticles," Midwest Meeting American Association of Pharmaceutical Scientists, Chicago, Illinois, May 23, 1994, (A)*.
384. "Moving Fronts and Drug Release from Hydrogel Matrices," 21st International Symposium on Controlled Release of Bioactive Materials, Nice, France, June 28, 1994, (P)*.
385. "Bioadhesive Interactions of PMAA and PAA with Mucin and Mucus," 21st International Symposium on Controlled Release of Bioactive Materials, Nice, France, June 29, 1994, (P).
386. "Recent Advances in Mucoadhesives for Drug Delivery," 11th Congress of ISABI, Boston, Massachusetts, July 25, 1994, (P), *Invited Lecture.*
387. "Crosslinking Methods: Applications to Controlled Release," Fourth Workshop on Controlled Delivery in Consumer Products, Chicago, IL, September 27, 1994, *Invited Lecture.*
388. "Past, Present and Future of Materials in Medicine," Meeting of Society of Medicine and Natural Sciences, Parma, Italy, October 3, 1994, *Plenary Lecture.*
389. "Future Directions in the Development of Biomaterials," Annual Meeting of the Biomedical Engineering Society, Tempe, AZ, October 15, 1994, (A), *Invited Lecture.*
390. "Mechanochemical Behavior of pH- and Temperature-Sensitive Gels," Annual Meeting of the Biomedical Engineering Society, Tempe, AZ, October 16, 1994, (A).
391. "Measurement of Chain Interpenetration at a Mucoadhesive Interface Using ATR-IR Spectroscopy," First Iranian Chemical Engineering Conference, Teheran, Iran, November 15, 1994, (A)*.
392. "Intelligent Biomaterials: Scientific Curiosity or Panacea?", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A), *Invited Lecture.*
393. "P(NIPAAm-co-MAA) Hydrogels for Temperature-and pH-Sensitive Release of Antithrombotic Agents", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A), *Invited Lecture.*
394. "Mechanistic Aspects and Transport Behavior during Polymer Dissolution", Annual AIChE Meeting, San Francisco, CA, November 14, 1994, (A)*.
395. "Understanding of Dissolution of Semicrystalline Polymers", Annual AIChE Meeting, San Francisco, CA, November 14, 1994, (A)*.
396. "Evidence of Mucoadhesion by Chain Interpenetration at a PAA/Mucin Interface Using ATR-FTIR Spectroscopy", Annual AIChE Meeting, San Francisco, CA, November 14, 1994, (A)*.
397. "Adhesive and Diffusive Characteristics of Novel PVA Films for Medical Applications", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A)*.
398. "Kinetics of Multifunctional Acrylates for Information Storage Systems", Annual AIChE Meeting, San Francisco, CA, November 15, 1994, (A).
399. "Semicrystalline Polymers for Controlled Drug Delivery," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, February 16, 1995, (A)*.
400. "Release of Antithrombotic Agents," Indianapolis/Cincinnati Meeting, AAPS, Indianapolis, IN, February 16, 1995, (A)*.
401. "New Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Drug Delivery Applications," Seventh International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 28, 1995, (P), *Invited Lecture.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 151 of 218

402. "Pulsatile Release of Antithrombotic Agents from pH- and Temperature Sensitive Hydrogels," Seventh International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 28, 1995, (A)*.
403. "Polymer Dissolution: A Modeling Attempt to "Couch" Molecular Theories in a Phenomenological Framework," American Physical Society Meeting, San Jose, CA, March 22, 1995, (A)*.
404. "Recent Advances in Modeling and Physicochemical Behavior of Swellable Polymers, Biomaterials, and Drug Delivery Systems," 5th Iketani Conference and International Symposium on Biomedical Polymers, Kagoshima, Japan, April 19, 1995, (P), *Invited Lecture.*
405. "Zero Order Release by Partial Coating of HPMC Matrix Tablets with Permeable and Semipermeable Films," First World Congress of Pharmaceutics and Biopharmaceutics, Budapest, Hungary, May 9, 1995, (P)*.
406. "Bioadhesive Poly(vinyl alcohol) as a Carrier for Controlled Release of Growth Factors and Proteins," First World Congress on Pharmaceutics and Biopharmaceutics, Budapest, Hungary, May 9, 1995, (P).
407. "Mucoadhesive Properties of Hydrophilic Polymeric Microparticles," 35th Symposium of AFI, Italian Pharmaceutical Association, Riccione, Italy, June 9, 1995, (A)*.
408. "Control and Modeling of Drug Delivery Devices for the Treatment of Diabetes," American Control Conference, Seattle, June 22, 1995, (P)*.
409. "Fickian and non-Fickian Diffusion in Swellable Gels," 36th IUPAC Microsymposium on High-Swelling Gels, Prague, Czech Republic, July 10, 1995, (A), *Plenary Lecture.*
410. "Transport in Hydrophilic Polymer Gels: Applications in Controlled Release," 22nd International Symposium of Controlled Release of Bioactive Materials, Seattle, WA, August 1, 1995, (P)*.
411. "Effect of Dissolution on Lamellar Thickness Distribution of Semi-Crystalline Poly(vinyl alcohol)," Annual ACS Meeting, Chicago, IL, August 24, 1995, (P)*.
412. "Development of a Dissolution-controlled, Zero-order Release, Drug Delivery System," Annual ACS Meeting, Chicago, IL, August 21, 1995, (P)*.
413. "Recent Developments in Insulin Delivery and Control Using Hydrogel Systems," Spanish Portuguese Conference on Controlled Drug Delivery, Santiago de Compostela, Spain, September 25, 1995, (P), *Invited Lecture.*
414. "Chain Disentanglement and Reptation Mechanisms During Polymer Dissolution," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
415. "A New Model for Dissolution of Semicrystalline Polymers," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
416. "Transport in Swellable Polymer Systems for Controlled Drug Release," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
417. "Rate Behavior in Solution Polymerization of Acrylic Acid," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
418. "Swelling/Deswelling Behavior in pH-Responsive Hydrogels of Ethylene Glycol Poly(Methacrylic acid) Copolymers," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
419. "Glucose-responsive Gels for the Release of Insulin," Annual AIChE Meeting, Miami Beach, FL, November 13, 1995, (A)*.
420. "Intelligent Hydrogel Systems for Protein and Drug Release with Feedback Control," 3rd US-Japan Symposium on Drug Delivery Systems, Maui, HI, December 18, 1995, (A), *Invited Lecture.*
421. "A Self-Consistent Diffusivity Approach to Understand Polymer Dissolution," American Physical Society Meeting, St. Louis, MO, March 19, 1996, (A)*.
422. "Modeling of Dissolution of Semicrystalline Polymers," American Physical Society Meeting, St. Louis, MO, March 19, 1996, (A)*.
423. "Modification of Drug Release Profiles and Swelling Behavior in Poly(vinyl alcohol) due to the Presence of a Crystalline Phase," American Chemical Society Meeting, New Orleans, LA, March 26, 1996, (P)*.
424. "On the Mechanisms of Water Transport and Drug Release from Swellable Hydrogels," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
425. "Solid State NMR Spectroscopy for Characterization of Acrylate Reaction," American Chemical Society Meeting, New Orleans, LA, March 26, 1996, (P).
426. "Radiation Crosslinked Poly(ethylene oxide) Hydrogels Show Insignificant Diffusional Screening Effects," American Chemical Society Meeting, New Orleans, LA, March 26, 1996, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 152 of 218

427. "An Experimental Study of Acrylic Acid Crosslinking Polymerizations," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
428. "Molecular Aspects of the Swelling Behavior of Interpolymer Complexing Hydrogels," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
429. "Glucose-responsive Complexation Hydrogels," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
430. "Kinetics of UV Polymerization of Acrylic Acid," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
431. "Release of Insulin from Glucose-Sensitive Hydrogel," American Chemical Society Meeting, New Orleans, LA, March 27, 1996, (P)*.
432. "Design of New Biomaterials for Drug Delivery: Tailoring the Structure to Specific Delivery Needs and Release Requirements," European Course on New Forms and New Routes of Administration of Drugs, Parma, Italy, March 30, 1996, (A), *Plenary Lecture.*
433. "Mucoadhesive PVA Hydrogels for Release of Wound Healing Drugs," Fifth World Biomaterials Congress, Toronto, Canada, June 1, 1996, (P).
434. "Recent Advances on Characterization, Morphology and Structural Modification of PVA with Emphasis on Diffusional and Adhesive Characteristics," 108th Poly(vinyl alcohol) Meeting, Kyoto, Japan, July 6, 1996, (A), *Plenary Lecture.*
435. "Mucoadhesive PEG-tethered Microparticulate Systems for Gastrointestinal and Vaginal Drug Delivery," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996 (P).
436. "Oral Delivery Devices from Freeze/Thawed PVA Hydrogels," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996 (P).
437. "Mucoadhesive PVA Films Produced by Freezing/Thawing Processes for the Release of Small Molecular Weight Solutes and for Wound Healing Systems," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 9, 1996 (P).
438. "Unique Swelling-Controlled Release Systems Based on Temperature- and pH-Sensitive Terpolymers for Fibrinolytic Enzyme Delivery," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 10, 1996 (P).
439. "Oscillatory Drug and Protein Release by a Complexation/Decomplexation Mechanism," 23rd International Symposium on Controlled Release of Bioactive Materials, Kyoto, Japan, July 10, 1996, (P)*.
440. "Robust Model-Based Control of Insulin Pumps and Devices," 23rd International Symposium on Controlled Release of Bioactive Materials,Kyoto, Japan, July 10, 1996, (P)*, *Plenary Lecture.*
441. "Investigation of Drug/Polymer Interactions in the Hydrated State," Conference on Advances in Controlled Delivery, Baltimore, MD, August 19, 1996, (P)*.
442. "Crystal Dissolution-Controlled Release Systems: A Novel Technology for Facile Programmed Release of Drugs," Conference on Advances in Controlled Delivery, Baltimore, MD, August 20, 1996, (P).
443. "Independent Effects of pH and Monomer Concentration on the Kinetics of Acrylic Acid Solution Polymerization," American Chemical Society Meeting, Orlando, FL, August 26, 1996, (P)*.
444. "Network Formation by Chain Polymerization of Liquid-Crystalline Monomers," Polymer Networks 96 Meeting, Doorn, The Netherlands, September 4, 1996, (A)*.
445. "Model Predictive Control for Infusion Pump Insulin Delivery," 18th Annual International Conference IEEE, Engineering in Medicine and Biology Society, Amsterdam, The Netherlands, November 2, 1996, (P)*.
446. "Influence of Molecular Parameters of Glassy Crosslinked Polymer on Swelling-Controlled Solute Release Profiles," Annual AIChE Meeting, Chicago, IL, November 12, 1996, (A)*.
447. "Insulin Delivery Using Model-Based Control of Insulin Infusion Pumps," Annual AIChE Meeting, Chicago, IL, November 12, 1996, (A)*.
448. "New Directions in Drug Delivery," Annual AIChE Meeting, Chicago, IL, November 12, 1996, (A), *Invited Lecture.*
449. "Understanding Polymer Dissolution Using Self-Consistent Diffusion Coefficient Models and Comparison with Magnetic Resonance Imaging Analysis," Annual AIChE Meeting, Chicago, IL, November 13, 1996, (A)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 153 of 218

450. "Characterization of PVA Prepared by Freezing/Thawing Techniques," Annual AIChE Meeting, Chicago, IL, November 13, 1996, (A).
451. "A Calorimetric Evaluation of the pH- and Conversion-Dependent Kinetics of (Meth)acrylic Acid Solution Polymerization," Annual AIChE Meeting, Chicago, IL, November 14, 1996, (A)*.
452. "Dissolution Mechanism of Thin Semicrystalline Polymer Films," Annual AIChE Meeting, Chicago, IL, November 14, 1996, (A)*.
453. Crystal Dissolution Controlled Drug Delivery Systems: A New Method of Drug or Protein Delivery," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
454. "Glucose-Sensitive, Poly(ethylene glycol)-Grafter Copolymer Networks for Feedback Responsive Insulin Delivery," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
455. "Interpolymer Complexation in Polyelectrolyte Biopolymers," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
456. "Preparation, Swelling Behavior, and Insulin Release from Glucose-Responsive Complexation Hydrogels," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
457. "Preparation and Characterization of pH-Sensitive, Cationic Hydrogels," Annual AIChE Meeting, Chicago, IL, November 15, 1996, (A)*.
458. "Design of New Biomaterials for Drug Delivery: Tailoring the Structure to Specific Delivery Needs and Release Requirements," UK CRS Meeting, Manchester, United Kingdom, January 6, 1997, (A), *Invited Lecture.*
459. "Application of pH Responsive Polymer to an insulin Oral Dosage Form," 12th Annual Meeting Academy Pharmaceutical Sciences and Technology, Ohmiya, Japan, April 41997, (P)*.
460. "Novel Networks and Gels Containing Increased Amounts of Grafted and Crosslinked Poly(ethylene glycol)," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
461. "Preparation and Characterization of Random Copolymers of Acrylic Acid and Multifunctional Acrylates," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
462. "Computer Simulations of Liquid-Crystalline Diacrylate Monomer Polymerization," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
463. "A Complexation/Decomplexation Mechanism in pH-Responsive Copolymer Networks," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
464. "Graft Copolymers of PEO-PPO-PEO Triblock Polyethers on Bioadhesive Polymer Backbones: Synthesis and Properties," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
465. "Molecular Analysis of the Dissolution of Glassy Polymers," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
466. "Preparation and Characterization of Glucose-Sensitive P(MAA-g-EG) Hydrogels," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
467. "Graft Copolymers of PEO-PPO-PEO Triblock Polyethers on Bioadhesive Polymer Backbones for use as Drug Delivery Carriers," American Chemical Society Meeting, San Francisco, CA, April 15, 1997, (P)*.
468. "Pulsatile Drug Delivery Systems Based on Interpolymer Complexing Biopolymer Networks," Society for Biomaterials Meeting, New Orleans, LA, May 3, 1997, (P)*.
469. "Drug Delivery Systems Controlled by Polymer Carrier Dissolution: Formulation and Performance," Society for Biomaterials Meeting, New Orleans, LA, May 3, 1997, (P).
470. "Recent Applications in Therapeutic pH- and Temperature-Sensitive Systems," First Argentinian CRS International Symposium, Buenos Aires, Argentina, May 13, 1997, (P), *Invited Lecture.*
471. "Peptide and Protein Diffusion in Polymeric Systems," First Argentinian CRS International Symposium, Buenos Aires, Argentina, May 13, 1997, (P), *Invited Lecture.*
472. "Oral Drug Delivery Using Swellable and pH-Sensitive Systems," First Greek CRS Conference, Athens, Greece, May 26, 1997, (P), *Invited Lecture.*
473. "Analysis of Swelling-Controlled Release Systems for Optimization of Drug Delivery," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 17, 1997, (P)*.
474. "Magnetic Resonance Imaging Analysis of Soluble Drug Delivery Carriers," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 17, 1997, (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 154 of 218

475. "Drug Concentration Profiles During Release from Hydrophilic Matrices," 24th International Symposium on Controlled Release of Bioactive Materials, Stockholm, Sweden, June 17, 1997, (P)*.
476. "Design of Oral Controlled Drug Delivery Systems for Insulin," 11th World Congress of the International Society for Artificial Organs, Providence, RI, July 1, 1997 (A)*.
477. "Variable-rate Implantable Insulin Infusion Pumps: Closed-loop Maintenance of Normoglycemia Under Patient Variability for Type I Diabetes," 11th World Congress of the International Society for Artificial Organs, Providence, RI, July 1, 1997 (A)*.
478. "Poly(ethylene glycol)-Tethered Controlled Release Systems with Improved Mucoadhesive Behavior: Preparation and Studies with ATR-FTIR Spectroscopy," Japanese Drug Delivery Systems Society Meeting, Sapporo, Japan, July 11, 1997(P), *Plenary Lecture.*
479. "Biomaterials for Developing Pharmaceutical Preparations of High Quality of Life," Annual Meeting of Academy of Pharmaceutical Sciences and Technology, Kitamazu, Chiba, Japan, July 14, 1997 (P), *Plenary Lecture.*
480. "Protein Delivery from Novel Bioadhesive Complexation Hydrogels," Alfred Benzon Symposium, Copenhagen, Denmark, August 19, 1997 (A), *Invited Lecture.*
481. "Self-diffusion and Molecular Mobility in PVA-based Dissolution-Controlled Systems for Drug Delivery," Fourth International Meeting of Recent Advancesin Magnetic Resonance Applications to Porous Media, Trondheim, Norway, September 2, 1997 (A)*.
482. "Complexation Graft Copolymers as Oral Drug Delivery Systems," American Chemical Society Meeting, Las Vegas, NV, September 9, 1997 (P)*.
483. "Novel Copolymeric Acrylate Networks for Sustained Solute Delivery," American Chemical Society Meeting, Las Vegas, NV, September 10, 1997, (P)*.
484. "Preparation and Characterization of PEG-Containing pH-Sensitive, Cationic Hydrogels for Drug Delivery Applications," American Chemical Society Meeting, Las Vegas, NV, September 10, 1997, (P).
485. "Morphology of Poly(Vinyl Alcohol) Gels Prepared by a Freezing/Thawing Process," American Chemical Society Meeting, Las Vegas, NV, September 10, 1997, (A).
486. "Time and Frequency Domain Analysis of Blood Glucose Regulation Algorithms," 19th IEEE Engineering in Medicine and Biology Conference, Chicago, IL, November 1, 1997, (A)*.
487. "The Importance of the Drug Diffusion Front in Drug Delivery Kinetics from Swellable Matrices," American Association of Pharmaceutical Scientists Meeting, Boston, MA, November 4, 1997, (A)*
488. "Design of Oral Delivery Systems for Peptides and Proteins Using Complexation Graft Copolymer Networks," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
489. "Molecular and Release Characteristics of Dissolution-Controlled Drug Delivery Systems," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
490. "Glucose-Sensitive Cationic Hydrogels: Preparation Characterization and Modeling of Swelling Properties," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
491. "Analysis of Insulin Administration and Absorption from Ocular/Lacrimal/Nasal Systems with or without Enhancers," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
492. "Control Analysis of Pancreas Models for Optimal Insulin Delivery," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P)*.
493. "Protein and Drug Transport in PVA/PAA Composite Membranes Prepared by Freezing/Thawing Techniques," Annual AIChE Meeting, Los Angeles, CA, November 18, 1997, (P).
494. "Probing the Network Structure of Highly Crosslinked Ionizable Polymers," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
495. "Network Structure and Diffusion in Highly Crosslinked Ionizable Polymers," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
496. "NMR Imaging Analysis of Self-Diffusion and Molecular Mobility During Dissolution of Water-Soluble Polymers," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
497. "NMR Study of Interpolymer Complexation in Polyelectrolyte Gels Using the Nuclear Overhauser Effect," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
498. "Analysis of the Complexation/Decomplexation Behavior of Polyelectrolyte Gels," Annual Physical Society Meeting, Los Angeles, CA, March 18, 1998, (A)*.
499. "Physicochemical and Mathematical Factors Influencing Drug Delivery," Annual Society for Biomaterials Meeting, San Diego, CA, April 21, 1998, (A), *Invited Lecture.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 155 of 218

500. "Novel Bioadhesive Complexation Gels for Oral Peptide Delivery," Annual Society for Biomaterials Meeting, San Diego, CA, April 23, 1998, (P)*.
501. "Interpretation of Drug Release Kinetics and Drug Concentration Profiles in HPMC Gels," Second World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Paris, France, May 26, 1998, (P)*.
502. "Poly(ethylene glycol)-containing Hydrogels in Drug Delivery," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 10, 1998, (P), *Invited Lecture.*
503. "Application of pH-Responsive Polymers to Insulin Oral Dosage Forms," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 11, 1998, (P)*, *Invited Lecture.*
504. "Nasal Administration and Bioadhesive Polymers in Rabbits," Conference on Challenges for Drug Delivery and Pharmaceutical Technology, Tokyo, Japan, June 11, 1998, (P)*.
505. "Polymer Relaxation in Swellable Matrices Contributes to Drug Release," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 22, 1998, (P).
506. "Pure PVA Hydrogels Using Freezing/Thawing Techniques as Carriers for Drug Delivery," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 22, 1998, (P)*.
507. "Insulin Release from pH-Sensitive Cationic Hydrogels," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 23, 1998, (P)*.
508. "Molecular Design of Ionizable PEG-Containing Networks for Extended Solute Release," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 23, 1998, (P).
509. "Drug Transport Analysis in Complex Networks Using Molecular Probes," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 24, 1998, (P)*.
510. "Modelling of Controlled Release Systems for Consumer Products," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 23, 1998, (P).
511. "Synthesis and Characterization of Poly(ethylene glycol) Star Polymer Gels for Medical and Pharmaceutical Applications," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 24, 1998, (P)*.
512. "Novel PNIPAAm/PMAA Interpenetrating Polymer Networks," 25th International Symposium on Controlled Release of Bioactiive Materials, Las Vegas, Nevada, June 24, 1998, (P)*.
513. "Solid-state NMR Investigation of Interpolymer Complexation in Swollen Copolymer Networks," Annual American Chemical Society Meeting, Boston, MA, August 27, 1998, (P)*.
514. "Long-term Morphological Changes in Freeze-thawed PVA Hydrogels," Annual American Chemical Society Meeting, Boston, MA, August 27, 1998, (P)*.
515. "Structure and Solute Size Exclusion of Poly(N-isopropylacrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks," Annual American Chemical Society Meeting, Boston, MA, August 27, 1998, (P)*.
516. "Contract Research Organizations and Their Role and Importance," Symposium on New Drug Developments in Pharmaceutical Sciences and Drug Registration, Istanbul, Turkey, September 5, 1998.
517. "Macromolecules as Excipients," 9th International Pharmaceutical Technology Symposium, Ankara, Turkey, September 8, 1998 (A), *Plenary Lecture.*
518. "Excipients for Food, Cosmetic and Consumer Applications," 9th International Pharmaceutical Technology Symposium, Ankara, Turkey, September 8, 1998 (A), *Plenary Lecture.*
519. "Poly(ethylene glycol) Star Polymer Hydrogels," Sixth Annual Chemical Engineering Graduate Student Symposium, Lexington, Kentucky, September 18, 1998, (P)*.
520. "Kinetics and Modeling of UV Polymerizations Initiated with an Iniferter," Sixth Annual Chemical Engineering Graduate Student Symposium, Lexington, Kentucky, September 18, 1998, (P)*.
521. "Novel pH-Sensitive Hydrogels for the Oral Delivery of Salmon Calcitonin," Sixth Annual Chemical Engineering Graduate Student Symposium, Lexington, Kentucky, September 18, 1998, (P)*.
522. "Modelling of the Swelling Process and the Diffusion Front Position in Hydrophilic Matrices," Sixteen Meeting of ADRITELF, Pisa, Italy, October 9, 1998, (A)*.
523. "Advances in Drug and Protein Delivery," First International Pharmaceutical Students Federation Meeting, Coimbra, Portugal, November 3, 1998 (A), *Plenary Lecture.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 156 of 218

524. "A New Model Describing the Swelling and Drug Release Kinetics from HPMC Tablets," Annual American Association of Pharmaceutical Scientists Meeting, San Francisco, CA, November 13, 1998, (P)*.
525. "Some Properties of Novel Multifunctional pH-Sensitive and Bioadhesive Polymers," Annual American Association of Pharmaceutical Scientists Meeting, San Francisco, CA, November 13, 1998, (P)*.
526. "Biomaterials and Drug Delivery Systems," Annual AIChE Meeting, Miami Beach, FL, November 12, 1998, *Plenary Lecture*.
527. "Poly(ethylene glycol) Star Polymer Hydrogels," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
528. "Structure and Morphology of Novel Poly(vinyl alcohol) Hydrogels Prepared by Freezing/Thawing Processes," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
529. "Molecular Level Investigation of Interpolymer Complexation in Copolymer Gels," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
530. "Experiments and Modelling of Ultraviolet Polymerizations," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
531. "Uncertainty and Robustness in Diabetic Patient Blood Glucose Control," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
532. "Preparation and Characterization of Poly(N-isopropyl acrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks," Annual AIChE Meeting, Miami Beach, FL, November 14, 1998, (A)*.
533. "pH-Sensitive Hydrogels with PEG-tethered Chains for Oral Delivery of Calcitonin," Annual MRS Meeting, Boston, MA, December 1, 1998, (A)*.
534. "Molecular Aspects of Muco- and Bioadhesion: Tethered Structures andSite-Specific Surfaces," Ninth International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 22, 1999, (P), *Invited Lecture*.
535. "Advances in Gel Science and Technology," US-Israel-Turkey NSF Meeting on Chemical Engineering, Haifa, Israel, March 10, 1999, (A), *Invited Lecture*.
536. "The Characterization of P(PEGMA-co-PEGDMA) Gels for Use in Coating the Tract of a Transjugular Intrahepatic Porto-systemic Shunt," Annual American Chemical Society Meeting, Anaheim, CA, March 24, 1999 (P)*.
537. "Structural and Morphological Characteristics of Carriers Based on Poly(acrylic acid)," Annual American Chemical Society Meeting, Anaheim, CA, March 24, 1999 (P)*.
538. "pH-Dependent Swelling of Nano-sized Poly(methacrylic acid-g-ethylene glycol) Gels," Annual American Chemical Society Meeting, Anaheim, CA, March 24, 1999 (P)*.
539. "A Thermodynamic Study of Polymer Chains Tethered on Gel Surfaces," Annual American Physical Society Meeting, Atlanta, GA, March 25, 1999 (A)*.
540. "Poly(N-isopropyl acrylamide)/Poly(methacrylic acid) Interpenetrating Polymeric Networks in Drug Delivery," Midwestern AAPS Meeting, Chicago, IL, May 17, 1999 (A)*.
541. "Targeted Oral Delivery of Insulin from Complexation Hydrogels," Annual Meeting of Society for Biomaterials, Providence, RI, April 30, 1999 (P)*, *Invited Lecture*.
542. "Intelligent Hydrogels and their Biotechnological and Separation Applications," Meeting of International Atomic Energy Agency, Takasaki, Japan, May 18, 1999 (P).
543. "Tailor-made Networks of Poly(ethylene glycol) for Controlled Drug Delivery," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
544. "P(AA-g-PEG) Copolymer Gels as Carriers for Delivery of Chemotherapeutic Agents," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
545. "A New Model Elucidating the Transport Mechanisms and Predicting the Release Kinetics from HPMC Matrices," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
546. "Protein Release from PVA Gels Prepared by Freezing and Thawing Techniques," 26th International Symposium on Controlled Release of Bioactive Materials, Boston, MA, June 22, 1999, (P)*.
547. "Kinetic Gelation Modeling of Polymer Networks Formed by a Living Radical Polymerization," Annual American Chemical Society Meeting, New Orleans, LA, August 23, 1999 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 157 of 218

548. "Interpenetrating Polymeric Networks with pH and Temperature Sensitivity," Annual American Chemical Society Meeting, New Orleans, LA, August 24, 1999 (P)*.
549. "Recent Advances and Molecular Observations on the Controlled Drug and Protein Delivery," Third Central European Symposium on Pharmaceutical Technology, Portoroz, Slovenia, September 23, 1999 (P), *Plenary Lecture.*
550. "Long and Short Chains Tethered on Gel Surfaces," Annual AIChE Meeting, Dallas, TX, October 31, 1999 (A)*.
551. "Kinetic Simulation and Analysis of PEG-containing Networks synthesized by Free Radical Polymerizations," Annual AIChE Meeting, Dallas, TX, November 1, 1999 (A)*.
552. "Robust □Control of Type I Diabetic Patient Blood Glucose," Annual AIChE Meeting, Dallas, TX, November 2, 1999 (A)*.
553. "Analysis of Diffusional and Structural Characteristics of PVA Hydrogels Prepared by Freezing-Thawing Techniques," Annual American Association of Pharmaceutical Scientists Meeting, New Orleans, LA, November 16, 1999 (A).
554. "Poly(ethylene glycol) Tethered Chains and Their Roles in Gel Mucoadhesion," Annual American Association of Pharmaceutical Scientists Meeting, New Orleans, LA, November 16, 1999 (A).
555. "Molecular Structure and Diffusive Behavior of Poly(ethylene glycol)-Grafted Poly(acrylic acid) Hydrogels as Drug Carriers," Annual American Association of Pharmaceutical Scientists Meeting, New Orleans, LA, November 16, 1999 (A).
556. "Advances in Protein and Bioadhesive Delivery," US-Japan Drug Delivery Meeting, Maui, HI, December 14, 1999 (A).
557. "Development of Nano-sized pH-sensitive Complex Hydrogles for Oral Peptide Delivery," Annual Meeting of Society of Powder Technologies, Japan, Kobe, Japan, November 24, 1999.
558. "Gaseous and Solute Transport in Hydrogels," Symposium on Biomedical Polymers for the 21st Century, Boston, MA, March 17, 2000 (P), *Plenary Lecture.*
559. "Novel Patterned Films for Free-Radical Polymerization Techniques," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
560. "Kinetic Simulation of Networks Synthesized by Free Radical Polymerization," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
561. "Morphology and Dynamics of Interpenetrating Polymeric Networks with Combined pH and Temperature Sensitivity," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
562. "A New Mean-field Theory for Equilibrium Gel Swelling," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
563. "Tethered Polymer Chains Contribute to Gel-Gel Adhesion," Annual American Physical Society Meeting, Minneapolis, MN, March 21, 2000 (A)*.
564. "Fickian and non-Fickian Processes in Swellable Controlled Release Systems," Annual American Chemical Society Meeting, San Francisco, CA, March 26, 2000 (A), *Invited Lecture.*
565. "Cytotoxicity and Transport Enhancement of Proteins Through Cell Monolayers Using Novel pH-Sensitive Hydrogels," Third World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Berlin, Germany, April 6, 2000 (P)*.
566. "Calculation of the Required Size and Shape of HPMC Matrices to Achieve Desired Drug Release Profiles," Third World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Berlin, Germany, April 6, 2000 (P)*.
567. "Micropatterning and Molecular Imprinting for Medical Applications," Sixth European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, Netherlands, April 12, 2000 (P), *Invited Lecture.*
568. "Tethered Polymers for Controlled Drug Delivery," Millennial World Congress of Pharmaceutical Sciences, San Francisco, CA, April 18, 2000, (A), *Invited Lecture.*
569. "Design of Advanced Biomaterials and Drug Delivery Carriers," Sixth World Congress for Biomaterials, Kamuela, Hawaii, May 19, 2000, (P), *Plenary Lecture.*
570. "Calcitonin Transport Through Poly(methacrylic acid)-PEG-Grafted Hydrogels Using a CaCo-2 Model," Sixth World Congress for Biomaterials, Kamuela, Hawaii, May 16, 2000 (P)*.
571. "Patterning and Molecular Imprinting with Polyfunctional Methacrylates," Sixth World Congress for Biomaterials, Kamuela, Hawaii, May 16, 2000 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 158 of 218

572. "Intelligent Biopolymers in Protein and Drug Delivery," Eleventh North American Membrane Society Meeting, Boulder, Colorado, May 26, 2000 (A), *Plenary Lecture*.
573. "Molecularly Imprinted Hydrogels with Polyfunctional Methacrylates," First International Workshop on Molecularly Imprinted Polymers, Cardiff, United Kingdom, July 5, 2000 (P)*.
574. "Non-covalent Molecular Imprinting of Glucose: Recognition in Aqueous Media," First International Workshop on Molecularly Imprinted Polymers, Cardiff, United Kingdom, July 5, 2000 (P)*.
575. "A New Mathematical Model to Predict Drug Release from Hydrophilic Matrices: The "Squential Layers" Model", 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 11, 2000, (P)*.
576. "Molecular Design of New Biomaterials for Controlled Release," 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 13, 2000, (P)*, *Invited Lecture*.
577. "A New Dispersion Technique for Micro- and Nanoparticle Formation of Drug Delivery Carriers Based on Poly(acrylic acid)", 27th International Symposium on Controlled Release of Bioactive Materials, Paris, France, July 13, 2000, (P)*.
578. "A New Dispersion Technique for Micro- and Nanoparticle Formation of Drug Delivery Carriers Based on Poly(acrylic acid)," 40 th Minisymposium on Polymers in Medicine, Prague, July 19, 2000, (A)*.
579. "Glucose Responsive pH-Dependent Hydrogels," World Congress of Biomedical Engineering, Chicago, IL, July 25, 2000 (A)*.
580. "Novel pH-Sensitive Hydrogels for the Oral Delivery of Calcitonin: Caco-2 Cell Studies," World Congress of Biomedical Engineering, Chicago, IL, July 26, 2000 (A)*.
581. "UV Free Radical Polymerization for Micropatterning Poly(ethylene glycol)-containing Films," 45th SPIE Meeting, San Diego, CA, July 31, 2000 (P)*.
582. "Protein and Drug Delivery: Recent Successes and Future Challenges," Whitaker Foundation Meeting, La Jolla, CA, August 13, 2000 (A), *plenary lecture*.
583. "Molecular Dynamics of pH-Sensitive Hydrogels Based on Poly(acrylic acid)," Annual ACS Meeting, Washington, DC, August 23, 2000 (P)*.
584. "Molecular Design of Mucoadhesive Drug Delivery Systems," British Pharmaceutical Conference, Birmingham, United Kingdom, September 12, 2000 (A), *invited lecture*.
585. "Molecularly Imprinted Polyfunctional Methacrylates for Drug Delivery Applications," Tenth International Pharmaceutical Technology Symposium, Instanbul, Turkey, September 12, 2000 (P)*.
586. "New Biomedical Gels Materials with Tethered Chains: Theory and Biological Interactions," Third Joint China/USA Chemical Engineering Conference, Beijing, Chinca, September 27, 2000 (P)*.
587. "Poly(ethylene glycol)-containing Hydrogels as Insulin Delivery Carriers," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
588. "New Biomedical Gel Materials with Tethered Chains: Theory and Biological Interactions," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
589. "Poly(ethylene glycol)-containing Hydrogels as Insulin Delivery Carriers," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
590. "pH-Sensitive Drug Delivery Carriers Based on Modified Poly(acrylic acid)," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, October 31, 2000 (A)*.
591. "Recognition Mechanisms of Molecularly Imprinted Polymers: Smart Systems for Drug Delivery," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
592. "Non-covalent Molecular Imprinting of Glucose in Polar Protic Media," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
593. C. Donini, D.N. Robinson and N.A. Peppas, "Preparation and Characterization of pH-Sensitive Poly(methacrylic acid-g-Ethylene Glycol) Microspheres for Oral Insulin Delivery," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
594. "Drug Release Mechanisms from HPMC Matrices," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.
595. "Novel pH-Sensitive Hydrogels for Oral Peptide Delivery: In Vitro Evaluation of their Cytocompatibility and Insulin-Transport Enhancing Effect in Caco-2 cell Monolayers," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 1, 2000 (A)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 159 of 218

596. " Development and Cytotoxicity of Poly(methacrylic acid-g-Poly(ethylene glycol)) Microparticles for Use as Drug Carriers in Oral Delivery," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
597. "Preparation of Thermosensitive Hydrogel Nanoparticles Containing Poly(ethylene glycol) for Microencapsulation of Peptides in the Wurster Coating Process," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
598. "Multilaminate PVA Hydrogel Systems as Protein Controlled Release Devices," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
599. "Drug Volume Fraction Profiles in HPMC Matrices by Image Analysis," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
600. "The Use of Self-Assembled Monolayers to Study Mucoadhesion," Annual American Association of Pharmaceutical Scientists Meeting, Indianapolis, IN, November 2, 2000 (A)*.
601. "Design of Advanced Biomaterials and Drug Delivery Carriers," Annual AIChE Meeting, Los Angeles, CA, November 13, 2000 (A), *invited lecture.*
602. "Future Directions of Drug and Protein Delivery," Annual AIChE Meeting, Los Angeles, CA, November 13, 2000 (A), *invited lecture.*
603. "Temperature-Sensitive Particulate Systems Containing Poly(ethylene glycol)," Annual AIChE Meeting, Los Angeles, CA, November 13, 2000 (A)*.
604. "Poly(methacrylic Acid-g-Ethylene Glycol) Microspheres for Protein Delivery Applications," Annual AIChE Meeting, Los Angeles, CA, November 14, 2000 (A)*.
605. "Poly(ethylene glycol)-Containing Hydrogels for Insulin Delivery Systems," Annual AIChE Meeting, Los Angeles, CA, November 14, 2000 (A)*.
606. "Patterned Poly(ethylene glycol)-Containing Films by UV Free-Radical Polymerization Techniques," Annual AIChE Meeting, Los Angeles, CA, November 15, 2000 (A)*.
607. "Molecularly Imprinted Gels Using Polymethacrylates and Poly(ethylene glycol)," Annual AIChE Meeting, Los Angeles, CA, November 16, 2000 (A)*.
608. "New Complexation-Sensitive Hydrogels for Oral Protein Delivery," Annual MRS Meeting, Boston, MA, November 27, 2000 (A), *invited lecture.*
609. "Direct Measurement of Interactions Between Tethered PEG Chains and Adsorbed Mucin Layers by Surface Force Apparatus," Annual MRS Meeting, Boston, MA, November 28, 2000 (A)*.
610. "Stimuli-sensitive Polymers," APGI/GRTV Meeting, "New Trends in Polymers for Oral and Parenteral Administration," Paris, France, March 12, 2001 (A), *Invited Lecture.*
611. "Protein/Carrier Interactions in Novel Protein Delivery Systems Examined by FTIR Spechoscopy," Second Mediterranean Meeting of the Controlled Release Society, Athens, Greece, April 28, 2001 (A)*.
612. "Teaching of Biomaterials Science and Engineering in a Modern Engineering Curriculum," Annual Meeting of the Society for Biomaterials, St. Paul, MN, April 26, 2001 (A), *invited lecture.*
613. "Compositional Dependence of Copolymerization Kinetics in an Intraocular Lens Formation," Annual Meeting of the Society for Biomaterials, St. Paul, MN, April 28, 2001 (P)*.
614. "Evaluation of Poly(ethylene glycol)-based Copolymers for Contact Lenses," Annual Meeting of the Society for Biomaterials, St. Paul, MN, April 28, 2001 (P).
615. "Study of the Network Structure of Swollen Cellulose Derivatives Used in Pharmaceutical Applications," 28th International Symposium on Controlled Release of Bioactive Materials, San Diego, CA, June 25, 2001 (P)*.
616. "New Glucose-Containing Poly(methacrylic acid-g-ethylene glycol) Hydrogels," Annual ACS Meeting, Chicago, IL, August 26, 2001 (P)*.
617. "Acrylic-Based Copolymers for Oral Insulin Delivery Systems," Annual ACS Meeting, Chicago, IL, August 26, 2001 (P)*.
618. "Macroscopic and Microscopic Investigations of HEMA-Based Molecularly Imprinted Networks," Annual ACS Meeting, Chicago, IL, August 27, 2001 (P)*.
619. "Biomimetic Materials for Drug Targeting and Drug Delivery," Annual ACS Meeting, Chicago, IL, August 28, 2001 (A)*, *invited lecture.*
620. "Length and Breadth Polyrotaxane Structures: A Concept in Three Dimensional Polymeric Systems for Biomedical Applications," Sixth International Symposium on Polymers for Advanced Technologies, Eilat, Israel, September 3, 2001 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 160 of 218

621. "Micropatterning and Microimprinting of Poly(ethylene glycol)-Containing Films," Sixth International Symposium on Polymers for Advanced Technologies, Eilat, Israel, September 5, 2001 (P), *plenary lecture*.
622. "Characterization of the Network Mesh Size of Swollen Cellulose Ethers Used for Controlled Release," Fourth Central European Symposium on Pharmaceutical Technology, Vienna, Austria, September 24, 2001 (P)*.
623. "Microfabrication of Biomedical Polymers for Sensor Applications," Second BioMEMS and Biomedical Nanotechnology World 2001, Columbus, OH, September 24, 2001 (A)*.
624. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning," Annual Meeting of the National Academy of Engineering, Washington, D.C., October 8, 2001 (A), *invited lecture*.
625. "The Sequential-Layer Model Quantifying Drug Release from Hydrophilic Matrix Tablets: Experimental Verification," Annual Meeting of American Association of Pharmaceutical Scientists, Denver, CO, October 24, 2001 (A)*.
626. "PEG-Containing Complexation Hydrogels Enhance Calcitonin Transport Across Caco-2 Cell Monolayers," Annual AIChE Meeting, Reno, NV, November 6, 2001 (A)*.
627. "Molecular Imprinting in PHEMA Copolymers," Annual AIChE Meeting, Reno, NV, November 6, 2001 (A)*.
628. "pH-Sensitive Hydrogels with Pendent Saccharides for Protein Delivery Applications," Annual AIChE Meeting, Reno, NV, November 7, 2001 (A)*.
629. "Use of Methacrylic Acid-Containing Hydrogels to Increase Protein Transport Across the Intestinal Epithelium," Annual Meeting of the American Physical Society, Indianapolis, IN, March 19, 2002 (A)*.
630. "Biomimetic Materials for Selective Recognition of Biologicals: Theoretical and Experimental Analysis," Annual Meeting of the American Physical Society, Indianapolis, IN, March 19, 2002 (A)*.
631. "Environmentally Sensitive Hydrogels Patterned on Silicon Microcantilevers," Annual Meeting of the American Physical Society, Indianapolis, IN, March 20, 2002 (A)*.
632. "Modeling of the Specific Binding of Biomolecules by Molecularly Imprinted Polymeric Gels," Annual Meeting of the American Physical Society, Indianapolis, IN, March 21, 2002 (A)*.
633. "Producing Networks for Recognition of Biomolecules: Biomimetic Materials for Drug Delivery and Targeting," Materials Research Society Annual Meeting, San Francisco, CA, April 2, 2002 (A)*.
634. Selective Recognition of Biologically Significant Molecules," Materials Research Society Annual Meeting, San Francisco, CA, April 5, 2002 (A)*.
635. "Use of Complexation Hydrogels for Oral Delivery of Cancer Theraputics," Materials Research Society Annual Meeting, San Francisco, CA, April 5, 2002 (A)*.
636. "Environmentally Sensitive Hydrogels Patterned on Silicon Microcantilevers," Materials Research Society Annual Meeting, San Francisco, CA, April 3, 2002 (A)*.
637. "Star Polymers for Molecular Recognition," Materials Research Society Annual Meeting, San Francisco, CA, April 4, 2002 (A)*.
638. "Requirements for Molecular Recognition by Imprinted Polymers," Materials Research Society Annual Meeting, San Francisco, CA, April 5, 2002 (A)*.
639. "Advances in Oral Protein Delivery," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 8, 2002 (A), *Plenary Lecture.*
640. "Characterization and Optimization of P(MAA-g-EG) Insulin-Loaded Nanospheres," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 9, 2002 (P)*.
641. "Novel Core-Shell Nanoparticles with Thermo- and pH-Responsive Swelling Properties for Oral Peptide Delivery," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 9, 2002 (P)*.
642. "Simulation of the Rupture of a Pulsatile Drug Delivery System," Fourth World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Florence, Italy, April 9, 2002 (P)*.
643. "Micro- and Nanospheres of Intelligent Biopolymers in Protein/Drug Delivery and Molecular Imprinting," Particles 2002, Orlanco, FL, April 22, 2002 (A), *Plenary Lecture.*
644. "Template-sensitive Polymers for Biomimetic Applications," Annual Meeting of the Society for Biomaterials, Tampa, FL, April 25, 2002 (A)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 161 of 218

645. "Biomimetic Materials for Selective Recognition and Microsensing of Biologically Significant Molecules," Annual Meeting of the Society for Biomaterials, Tampa, FL, April 25, 2002 (A).
646. "25 Years of Oral Drug Delivery Research," 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 22, 2002 (P), *Invited Lecture.*
647. "Intelligent Biomaterials in Protein Delivery, Molecular Imprinting and Micropatterning," 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 23, 2002 (P), *Invited Lecture.*
648. "In vivo Studies of Oral Delivery Systems Based on Complexation Hydrogels," 29th Annual Meeting of the Controlled Release Society, Seoul, Korea, July 23, 2002 (P)*.
649. "Molecular Imprinting with Small Molecules: Effects on Polymerization and Imprinted Properties," Annual Meeting of American Chemical Society, Boston, MA, August 20, 2002 (P)*.
650. "Devices Based on Intelligent Biopolymers for Oral Protein Delivery," 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9, 2002 (P), *Plenary Lecture.*
651. "Recognition-based Hydrogel Networks as Intelligent Drug Delivery Systems," 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9, 2002 (P).
652. "Histopathological Evaluation of Drug Loaded P(MAA-g-EG) Hydrogels," 11th International Pharmaceutical Technology Symposium, Istanbul, Turkey, September 9, 2002 (P).
653. "Ultrasensitive BioMEMS Sensor Based on Silicon Microcantilevers Patterned with Environmentally Responsive Hydrogels," Third Annual BioMEMS and Biomedical Nanotech Conference, Columbus, OH, September 8, 2002 (P).
654. "Biomimetic Networks for Selective Recognition of Biomolecules: Materials for Bionanotechnology," Third Annual BioMEMS and Biomedical Nanotech Conference, Columbus, OH, September 8, 2002 (P).
655. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning," ACS Prospectives Meeting, Boston, MA, October 13, 2002 (A), *Plenary Lecture.*
656. "Molecular Design and Cellular Studies with Oral Insulin Delivery Systems," Annual Meeting of the Biomedical Engineering Society, Houston, TX, October 22, 2002 (A), *Invited Lecture.*
657. "Use of Complexation Hydrogels for Oral Delivery of Chemotherapeutic Agents," Annual Meeting of the Biomedical Engineering Society, Houston, TX, October 23, 2002 (A)*.
658. "A BioMEMs Sensor Platform Based on a Cantilever with a Precisely Patterned Environmentally Sensitive Hydrogel," Annual Meeting of the Biomedical Engineering Society, Houston, TX, October 23, 2002 (A)*.
659. "Computer Simulation of the Formation of Recognitive Polymer Networks," Annual AIChE Meeting, Indianapolis, IN, November 4, 2002 (A)*.
660. "Biomimetic Networks as Selective Recognition Elements for Detection of Biomolecules in Microsensor and Microarray Devices," Annual AIChE Meeting, Indianapolis, IN, November 4, 2002 (A)*.
661. "Protein Transport and Cell Interactions of Polymer Carriers with a Caco-2 Cell Line," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A).
662. "Swelling and Insulin Loading and Release from pH-sensitive hydrogels," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A).
663. "Poly(ethylene glycol)-tethered Structures as Improved Buccal and Oral Mucoadhesive Drug Delivery Systems," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A)*.
664. "Modified pH-Sensitive Copolymer Networks with Pendent Saccharides as Biomedical Materials," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A)*.
665. "Transport Mechanisms of Salmon Calcitonin and Other Model Molecules Using the Caco-2 Cell Model," Annual AIChE Meeting, Indianapolis, IN, November 5, 2002 (A)*.
666. "Environmentally Sensitive Hydrogels Patterned onto Silicon Microcantilevers as a Biomems Sensor Platform," Annual AIChE Meeting, Indianapolis, IN, November 6, 2002 (A)*.
667. "Development of Acylic-Based Copolymers for Oral Protein Delivery," Annual AIChE Meeting, Indianapolis, IN, November 6, 2002 (A).
668. "Biomolecular Specific Polymers for Sensing and Diagnostics," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
669. "Biological Recognition by Smart Hydrogels," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 162 of 218

670. "Glucose-Binding Polymeric Networks: Correlations Between Computational Simulations and Experiment," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
671. "Biomimetic Materials for Selective Recognition of Biomolecules: Recognitive Networks for Drug Delivery, Targeting, and Biosensors," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
672. "Novel Poly(ethylene glycol)-containing Hydrogels for Transmucosal Protein Delivery," Annual AIChE Meeting, Indianapolis, IN, November 7, 2002 (A)*.
673. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents," Annual AIChE Meeting, Indianapolis, IN, November 8, 2002 (A)*.
675. "Direct Measurements of Adhesion Between Mucin and Poly(ethylene glycol)," Annual AIChE Meeting, Indianapolis, IN, November 8, 2002 (A)*.
676. "The Role of Preparation Conditions on Particle Size and Redispersion Ability of P(MAA-g-EG) Nanospheres," Annual AAPS Meeting, Toronto, Canada, November 12, 2002 (A)*.
677. "Simulation of Polymeric Network Formation with Atomic Level Interactions for the Study of Templated and Recognitive Materials," Annual Meeting of the American Physical Society, Austin, TX, March 3, 2003 (A)*.
678. "Biomprinted Polymer Scaffolds for Selective Recognition of RGD Peptides," Annual Meeting of the American Physical Society, Austin, TX, March 3, 2003 (A)*.
679. "Integration of Environmentally Responsive Hydrogels with Silicon Microcantilevers for Biosensor Applications," Annual Meeting of the American Physical Society, Austin, TX, March 4, 2003 (A)*.
680. "Micropatterning of Biomimetic Recognitive Hydrogels for Microsensing Applications", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
681. Bioimprinted Polymer Scaffolds for Selective Recognition of RGD Peptides", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
682. Improved Mucoadhesive Formulations for Buccal and Oral Drug Delivery", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
683. Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
684. Synergestic Effect of Complexation Hydrogels and Permeation Enhancers on Model Intestinal Cell Monolayer: Implications to the Oral Delivery of Insulin", 20th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, April 3, 2003.
685. "Biotechnology in a Chemical Engineering World", Council of Chemical Research, Austin, TX, April 8, 2003.
686. "Protein-Imprinted Polymeric Microparticles for Tissue Engineering Applications," Annual Meeting of the Society for Biomaterials, Reno, NV, May 2, 2003 (P)*.
687. "Insulin Transport Across Cell Monolayers in the Presence of Complexation Hydrogels," Annual Meeting of the Society for Biomaterials, Reno, NV, May 2, 2003 (P)*.
688. "Use of Complexation Hydrogels for Oral Administartion of Chemotherapeutic Agents", Annual Meeting of the Society for Biomaterials, Reno, NV, May 2, 2003 (P)*.
689. "New Biomaterials for Intelligent Biosensing, Recognitive Drug Delivery and Therapeutics", 37th Annual Meeting of the Academy of the Alpilles, St Remy, France, June 12, 2003 (P), *Invited Lecture.*
690. "Experimental Investigation of the Effect of Complexation Hydrogels on Insulin Transport Across Model Intestinal Cell Monolayers", Annual Meeting of the Japanese Drug Delivery Systems Society, Kyoto, Japan, June 20, 2003 (A)*.
691. "Development of Oral Insulin Delivery Systems and Evaluation as Pharmaceutical Dosage Forms in Diabetic Rats", Annual Meeting of the Japanese Drug Delivery Systems Society, Kyoto, Japan, June 20, 2003 (A)*.
692. "Comparison of Low and High Molecular weight HPMC Types: Drug and Polymer Release from Matrix Tablets", 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003 (P)*.
693. "Calculation of the Erosion and Swelling Front Positions in Swellable Controlled Release Tablets", 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 163 of 218

694. "Oral Administration of P(MAA-g-EG) Particls to Rats: Histological Characterization", 30th International Symposium on Controlled Release of Bioactive Materials, Glasgow, Scotland, July 22, 2003 (P)*.
695. "Intelligent Mucoadhesive Nanospheres for Transmucosal Protein Delivery and Other Pharmaceutical Applications", 4th BioMEMS and NanoTech World Meeting, Washington, DC, August 25, 2003 (A), *Plenary Lecture*.
696. "Novel BioMEMS Sensor Platform: Fusion of Silicon Technologies with Intelligent Polymer Networks", 4th BioMEMS and NanoTech World Meeting, Washington, DC, August 25, 2003 (A)*.
697. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents", Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
698. "Biomimetoc Polymer Scaffolds for Selective Recognition of Cell Adhesion Proteins", Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
699. "Biologically Intelligent Complexation Hydrogels for the Oral Delivery of Therapeutic Proteins" Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
700. "Role of Complexation Hydrogels in Insulin Transport Across Model Intestinal Cell Monolayer", Annual BMES Meeting, Nashville, TN, October 4, 2003 (A)*.
701. "Nanotechnology to Enhance Human Health", NIH-NSF Nanobiotechnology Workshop, Washington, DC, October 9, 2003 (P), *Plenary Lecture*.
702. "Elucidation of Water, Drug and Polymer Transport in Swellable Matrix tablets Unders Steric Restriction", Annual AAPS Meeting, Salt Lake City, UT, October 27, 2003 (A)*.
703. "Novel Poly(ethylene glycol) Containing Polymers as Mucoadhesive Drug Delivery Systems", Annual AAPS Meeting, Salt Lake City, UT, October 28, 2003 (A)*.
704. "Intelligent Polymer Networks as Sensing Elements: Enabling Technologies for Novel Biosensor Platforms" Annual AIChE Meeting, San Francisco, CA, November 17, 2003 (A)*.
705. "Templated Polymeric Networks for Molecular Recognition: Simulation and Experimental Correlations," Annual AIChE Meeting, San Francisco, CA, November 19, 2003 (A)*.
706. "Oral Delivery of Insulin Bioconjugates Using Complexation Hydrogels," Annual AIChE Meeting, San Francisco, CA, November 19, 2003 (A)*.
707. "Use of Complexation Hydrogels for Oral Administration of Chemotherapeutic Agents," Annual AIChE Meeting, San Francisco, CA, November 20, 2003 (A)*.
708. "Biomimetic Polymer Scaffolds for Selective Recognition of Blood Proteins In Tissue Engineering Applications," Annual AIChE Meeting, San Francisco, CA, November 21, 2003 (A)*.
709. "Novel Biomimetic Polymer Networks: Development and Application as Selective Recognition Elements for Biomolecules at the Micro/Nano-scale" Annual AIChE Meeting, San Francisco, CA, November 21, 2003 (A)*.
710. "Development and Application of Intelligent Polymer Networks as Recognition Elements for Novel Microdevices," Materials Research Society Annual Meeting, Boston, MA, December 1, 2003 (A)*.
711. "Molecular Simulations of Recognitive Polymer Networks Prepared by Biomimetic Configurational Imprinting as responsive Biomaterials," Materials Research Society Annual Meeting, Boston, MA, December 1, 2003 (A)*, *Invited Lecture*.
712. "Molecular Design and Cellular Response of Novel Intelligent Mucoadhesive Carriers for Oral Delivery of Proteins an Chemotherapeutic Agents," Materials Research Society Annual Meeting, Boston, MA, December 1, 2003 (A)* *Invited Lecture*.
713. "Molecular Imprinting of Novel Biodegradable Polymer Matrices for Drug Delivery Applications," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
714. "Oral Administration of Chemotherapeutic Agents from Complexation Hydrogels," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
715. "Development and Application of Intelligent Polymer Networks as Recognition Elements for Novel Biomedical Microdevices," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
716. "Advanced Oral Protein Delivery Systems: Modifying the Molecular Design to Create Biologically Intelligent Complexation Hydrogels," US-Japan Drug Delivery Meeting, Maui, HI, December 17, 2003 (A)*.
717. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Micropatterning", Inaugural Meeting, Texas Academy of Science, Engineering and Medicine, San Antonio, TX, January 7, 2004, *Invited Lecture*, (A).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 164 of 218

718. "Complexation Hydrogels for Oral Delivery of Insulin: Overcoming the Enzymatic Barriers", 21st Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 12, 2004 (A)*.
719. "A Novel Technique Using Degradable Components to Create configurationally Biomimetic Imprinted Polymers", 21st Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 12, 2004 (A)*.
720. "Biologically Intelligent Complexation Hydrogels for the Oral Delivery of Proteins", 21st Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 12, 2004 (A)*.
721. "Nanotechnology and Intelligent Therapeutics: Configurationally Biomimetic Imprinting and Protein Delivery", Southwest Regional Conference of the National Academy of Engineering, Houston, TX, March 25, 2004, *Invited Lecture,* (A).
722. "Voies de progrès en formulation: Quelles perspectives?", Gattefossé Meeting, Lyon, France, April 22, 2004. *Plenary Lecture,* (A).
723. "Transport Phenomena in Drug and Protein Delivery Processes and Therapeutics", NSF/NIH Workshop on Transport Processes in Biomedical Systems, Washington, DC, May 6, 2004, *Invited Lecture,* (A).
724. "Drug Release Mechanisms in Swellable Matrix Tablets with Steric Restriction", European Conference on Drug Delivery and Pharmaceutical Technology, Seville, Spain, May 10, 2004, (P).
725. "Configurational Biomimesis as a Method for Preparation of Novel Biomaterials and Drug Delivery Carriers," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, May 31, 2004, *Invited Lecture,* (A).
726. "Elucidation of the Mechanisms for Increasing Oral Insulin Absorption in Delivery Systems Based on Complexation Hydrogels," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, June 1, 2004, (A)*.
727. "Development of Oral Delivery Systems for Peptide and Protein Drugs Based on Complexation Hydrogels," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, June 1, 2004, (A)*.
728. "Oral Insulin Delivery Systems Based on Complexation Hydrogels: Single and Multiple Administration Studies in Type 1 and 2 Diabetic Rats," Second World Congress on Pharmaceutical Sciences, Kyoto, Japan, June 1, 2004, (A)*.
729. "Application of Complexation Hydrogels to Oral Delivery Systems for Peptide and Protein Drugs", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 14, 2004 (P)*.
730. "Characterization of Insulin Protection Properties of Complexation Hydrogels in Gastric and Intestinal Enzyme Fluids", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 15, 2004 (P)*.
731. "Gastrointestinal Transit of Mucoadhesive Complexation Hydrogels in Rats", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 15, 2004 (P)*.
732. "Successful Oral Insulin Carrier Systems Based on complexation Polymer Hydrogels: Single and Multiple Administration Studies in Type I and II Diabetic Rats", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 16, 2004 (P)*.
733. "Cellular and Molecular Evaluation of Novel Carriers for Oral Chemotherapy", 31st International Symposium on Controlled Release of Bioactive Materials, Honolulu, Hawaii, June 16, 2004 (P)*.
734. "Bionanotechnology in Drug Delivery, Drug Design and Therapeutic Systems", 4th Asan-Harvard Joint International Symposium on Nanotechnology in Biology and Medicine, Seoul, Korea, June 16, 2004 (A), *Plenary lecture.*
735. "Intelligent Biomaterials in Microfabricated and Nanoscale Devices for Pharmaceutical Applications", 4th Asan-Harvard Joint International Symposium on Nanotechnology in Biology and Medicine, Seoul, Korea, June 16, 2004 (A), *Plenary lecture.*
736. "Bionanotechnology in Drug Delivery and Intelligent Therapeutic Systems", 20th Japanese Drug Delivery Systems Meeting, Tokyo, Japan, July 15, 2004 (P), *Plenary lecture*.
737. "Novel Biomimetic Polymer Networks with Tailored Recognition Properties: Functional Components in Diagnostic and Therapeutic Devices", 5th BioMEMS and NanoTech World Meeting, Washington, DC, August 17, 2004 (A).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 165 of 218

738. "Advances in Intelligent Biomaterials for Protein Delivery, Biological Recognition and Responsive Systems", European Materials Research Society, Warsaw, Poland, September 6, 2004 (A), *Plenary lecture*.
739. "Novel Biomimetic Polymer Networks: Tailored Recognition Properties for Biomedical Applications", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 15, 2004 (A)*.
740. "Molecular design ad Evaluation of Complexation Hydrogels as Advanced Oral Protein delivery Systems", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 15, 2004 (A)*.
741. "Configurationally Biomimetic Imprinted Polymers Selective for Angiotensin II", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 15, 2004 (A)*.
742. "Novel Molecularly Imprinted Hydrogels for the Recognition of Blood Proteins", Annual Meeting Biomedical Engineering Society, Philadelphia, PA, October 16, 2004 (A)*.
743. "Investigation of Degradable, Imprinted Microspheres for the Development of a Tissue Engineering Scaffold", Meeting on "Biomaterials in Regenerative Medicine", Philadelphia, PA, October 17, 2004 (P)*.
744. "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", Annual AIChE Meeting, Austin, TX, November 8, 2004 (A)*.
745. "Biomimetic, Molecularly Imprinted Hydrogels for Recognition and Capture of High Molecular Weight Proteins" Annual AIChE Meeting, Austin, TX, November 8, 2004 (A)*.
746. "Protein Recognition and Binding at Interfaces: Engineering Polymeric Materials to Bind Specific Molecules", Annual AIChE Meeting, Austin, TX, November 9, 2004 (A)*.
747. "Biomimetic Polymers in Drug Delivery and Sensing Applications: Effect of Network Molecular Structure on Recognition Properties, Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
748. "Incorporation of Degradable Components into a Configurationally Biomimetic Imprinted Polymer, Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
749. "Molecular Design of Advanced Oral Protein Delivery Systems Using Complexation Hydrogels", Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
750. "Thermo-responsive Polymer Nanoparticles for Stealth Drug Delivery and Molecular Recognition", Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
751. "Use of Complexation Hydrogels in Overcoming Enzymatic Barriers to Oral Insulin Delivery", Annual AIChE Meeting, Austin, TX, November 9, 2004, (A)*.
752. "Theory and Applications of Intelligent Biomaterials, Annual AIChE Meeting, Austin, TX, November 9, 2004, (A), *Invited lecture*.
753. "The Future of Intelligent Therapeutics", Annual AIChE Meeting, Austin, TX, November 10, 2004
754. "Complexation Hydrogels As Oral Delivery Vehicles For Insulin-Transferrin Conjugates", Annual AIChE Meeting, Austin, TX, November 11, 2004, (A)*.
755. "Kinetic Studies of Iniferter Photopolymerizations for Highly Crosslinked Polymer Networks", Annual AIChE Meeting, Austin, TX, November 11, 2004, (A)*.
756. "Modeling And Control Of The Behavior Of Glucose Sensing Devices", Annual AIChE Meeting, Austin, TX, November 12, 2004, (A)*.
757. "Transmucosal Drug Delivery Systems Using Mucoadhesive Brush-containing Networks", Annual AIChE Meeting, Austin, TX, November 12, 2004, (A)*.
758. "Influence of Electrolytes on the Dissolution Properties of Chlorpheniramine Maleate from Hot-Melt Extruded Tablets Containing Chitosan and an Anionic Polymer", Annual AAPS meeting, Baltimore, MD, November 12, 2004, (A)*.
759. "Design of pH and Buffer-species Independent Sustained Release Hot-Melt Extruded Tablets: Application of Inter- and Intra-Molecular Hydrogelation", Annual AAPS meeting, Baltimore, MD, November 12, 2004, (A)*.
760. "Novel Chronopharmacological Protein Delivery Systems Based on PEG-containing Hydrogels" Meeting on "Chronobiology and Chronotherapy", Austin, TX, November 12, 2004.
761. "Diseño y síntesis de hidrogeles acrílicos modificados para la liberación controlada de fármacos", Seventh Congress of the Spanish Society of Industrial and Galenic Pharmacy, Salamanca, Spain, February 7, 2005.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 166 of 218

762. "Biomimetic Polymers in Sensing Applications and Drug Delivery", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A), *Invited lecture*.
763. "Integrating Stategies for Improved Oral Delivery of Therapeutic Proteins", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A)*.
764. "Utilization of the Adhesion Promoter Poly(ethylene glycol) in Mucoadesive Biomaterials", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A)*.
765. "Applications of Modeling and Control Toward the Development of Novel Therapies for Diabetes Mellitus", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 10, 2005 (A)*.
766. "Improvement of Novel Biomedical devices via Kinetic Studies of Iniferter Photopolymerization", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 11, 2005 (A)*.
767. "Temperature-Sensitive Stealth Nanoparticles as Intelligent Therapeutic Systems", 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 11, 2005 (A)*.
768. "Biomimetic Systems and Nanotechnology in Intelligent Therapeutics", Annual Event of the American Institute of Medical and Biological Engineering, Washington, DC, February 17, 2005, (A), *Plenary Lecture*.
769. "Intelligent Therapeutics and Nanoscale Delivery: Impact on Absorption and Transport", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 18, 2005 (A), *Plenary lecture*.
770. "Formulation Optimization for Oral Peptide and Protein Delivery", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 18, 2005 (A)*, *Plenary lecture*.
771. "Improved Absorption of Therapeuic Agents Through Acrylic-based Biohydrogels: Investigation of the in vitro Release Properties and Cytocompatibility", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 19, 2005 (A)*.
772. "In vitro Investigation of lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 19, 2005 (A)*.
773. "Poly(methacrylic acid-g-ethylene glycol) Microparticles as Modulators of Tight Junction Morphology, Third World Conference on Drug Absorption, Transport and Delivery, Barcelona, Spain, April 19, 2005 (A)*.
774. "Biomimetic Imprinted Microparticles for the Recognition and Capture of Serum Proteins," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P)*.
775. "Mucoadhesive Characteristics of Biomaterials Containing the Adhesion Promoter PEG," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P)*.
776. "Molecular Design and Evaluation of Complexation Hydrogels as Advanced Oral protein Delivery Systems," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P)*.
777. "Hydrogels as Biomaterials: Infinite Possibilities in Bionanotechnology, Drug Delivery, Biological Recognition and Tissue Engineering," Annual Meeting of the Society for Biomaterials, Memphis, TN, April 29, 2005 (P), *plenary lecture*.
778. "The Swelling Behavior of Hydrophilic Tablets as Revealed by High-Reoslution X-ray Computed Tomography" , Pharmaceutical Sciences Fair and Exhibition, Nice, France, June 14, 2005 (A)*
779. "Structural Analysis and Diffusional Behavior of Molecularly Imprinted Polymer Networks for Cholesterol Recognition", Pharmaceutical Sciences Fair and Exhibition, Nice, France, June 14, 2005 (A)*.
780. "Recognitive and Diagnostic Polymer Networks: Formation, Simulations and Thermodynamics", European Polymer Congress, Moscow, Russia, June 28, 2005 (P), *Plenary lecture.*
781. "The Swelling Behavior of Hydrophilic Tablets as Analyzed by High-Resolution X-Ray Computed Tomography", Symposium on Innovative Therapeutics, Louvain, Belgium, July 12, 2005 (A)*.
782. "Smart Drug Delivery and Bionanotechnology", 15th International Symposium on Microencapsulation, Parma, Italy, September 19, 2005, (P), *Plenary lecture.*
783. "Configurational Biomimetic Imprinting of Angiotensin II for Novel Drug Delivery Systems", 15th International Symposium on Microencapsulation, Parma, Italy, September 19, 2005, (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 167 of 218

784. " Modeling the Effect of Scaffold Architecture on Diffusion of Oxygen in Tissue Engineering Constructs", Annual Meeting Biomedical Engineering Society, Baltimore, MD, September 30, 2005 (A)*.
785. "Calcium Dependent Epithelial Permeability Enhancement", Annual Meeting Biomedical Engineering Society, Baltimore, MD, September 30, 2005 (A)*.
786. "Molecular Imprinting of Pepetides for Novel Drug Delivery Systems", Annual Meeting Biomedical Engineering Society, Baltimore, MD, October 1, 2005 (A)*.
787. "Complexation Hydrogels for Biological Recognition and Intelligent Delivery", International Symposium on Polymer Gels, Sapporo, Japan, October 17, 2005 (A), *Plenary lecture.*
788. "Temperature Sensitive Nanoparticles as Intelligent Therapeutic Systems", International Symposium on Polymer Gels, Sapporo, Japan, October 18, 2005 (A)*.
789. "Synthesis and Characterization of pH Responsive Mucoadhesive Tethered Biomaterials", International Symposium on Polymer Gels, Sapporo, Japan, October 18, 2005 (A)*.
790. "Investigation of Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
791. "Properties of Sustsained Release Floating Tablets Prepared by a Hot-Melt Extusion Process", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
792. "Development of PEG-Containing pH-Responsive polymers for Oral Drug Delivery", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
793. "Properties of Mucoadhesive Oral Drug Delivery Systems for Spatial Localization of Levodopa", Annual AAPS meeting, Nashville, TN, November 8, 2005, (A)*.
794. "Molecularly Designed Mucoadhesive pH Responsive Tethered Biomaterials and their Use in Spatially Controlled Therapeutic Delivery", Annual AIChE Meeting, Cincinnati OH, October 30, 2005 (A)*.
795. "Mucoadhesive Oral Insulin Delivery Systems Using Lectin Functionalized Complexation Hydrogels", Annual AIChE Meeting, Cincinnati OH, October 31, 2005 (A)*.
796. "Novel Mucoadhesive Formuations Employing pH-Responsive Biomaterials", Annual AIChE Meeting, Cincinnati OH, October 31, 2005 (A)*.
797. "Molecularly Designed Mucoadhesive pH-Responsive tethered Biomaterials", Annual AIChE Meeting, Cincinnati OH, November 1, 2005 (A)*.
798. "Membrane Science and Intelligent Therapeutics", Annual AIChE Meeting, Cincinnati OH, November 1, 2005 (A), *Invited lecture.*
799. "Temperature-Sensitive Polymer-Gold Nanocomposites as Intelligent Therapeutic Systems", Annual AIChE Meeting, Cincinnati OH, November 3, 2005 (A)*.
800. "Intelligent Therapeutics and Bionanotechnology", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2005 (A), *Invited lecture.*
801. "Gold-Polymer Nanocomposites as Intelligent Therapeutic Systems", US-Japan Drug Delivery Meeting, Maui, HI, December 20, 2005 (A)*.
802. "Molecularly-Designed Mucoadhesive pH-Responsive Tethered Biomaterials", US-Japan Drug Delivery Meeting, Maui, HI, December 20, 2005 (A)*.
803. "Configurational Biomimetic Polymers for Novel Drug Delivery Systems", US-Japan Drug Delivery Meeting, Maui, HI, December 20, 2005 (A)*
804. "Metal-Polymer Nanocomposites as Externally Triggerred Intelligent Therapeutic Systems", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
805. "Temperature-Responsiv Interpenetrating Polymer Network Nanospheres as Intelligent Therapeutic Systems", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
806. "Application of Process Control Techniques Towards Type 1 Diabetes Mellitus", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
807. "Oral Insulin Delivery Using Lectin Functionalized Complexation Hydrogels", 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2006 (A)*.
808. "Lectin Functionalized Complexation Hydrogels for Oral Protein Delivery", 9th European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, the Netherlands, April 6, 2006 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 168 of 218

809. "Selective Recognition of Angiotensin II for Novel Drug Delivery Systems", 9th European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, the Netherlands, April 6, 2006 (P)*.
810. "Integration of Thermally Responsive Nanosphere Hydrogels with Gold Nanoparticles for Intelligent Therapeutic Applications" Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006 (P)*.
811. "Effect of Scaffold Architecture on Diffusion of Oxygen in Tissue Engineering Constructs" Annual Meeting of the Society for Biomaterials, Pittsburgh, PA, April 29, 2006 (P)*.
812. "Biomimetic Polymers in Intelligent Drug Delivery", 3rd World Congress on Biomimetics, Artificial Muscles and Nanobiotechnology, Lausanne, Switzerland, May 26, 2006 (A), *Invited lecture.*
813. "The Fascinating World of Bionanotechnology", ASEE Annual Conference, Chicago, IL, June 19, 2006 (A), *Plenary lecture*.
814. "Molecular Design and Cellular Studies of Oral Protein Delivery", 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P)*.
815. "Externally triggered Metal-Polymer Nanocomposites for Controlled Release Applications, 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P)*.
816. "Loading and Mobility of Spin-Labeled Insulin in Repsonsive Complexation Hydrogels", 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P)*.
817. "Oral Delivery of Proteins", 33rd International Symposium on Controlled Release of Bioactive Materials, Vienna, Austria, July 20, 2006 (P), *Plenary lecture.*
818. "Polymeric Drug Delivery- Past, Present and Future", PolyPharma meeting, Halle, Germany, September 25, 2006, *Plenary lecture*.
819. "Loading and Mobility of Spin-Labeled Insulin in Responsive Complexation Hydrogels- An ESR Study", PolyPharma meeting, Halle, Germany, September 25, 2006 (P)*.
820. "Molecularly Imprinted Hydrogels for Recognition of Serum Proteins for Sustained Drug Delivery", Annual Meeting of the Biomedical Engineering Society, Chicago, IL, October 12, 2006 (A)*.
821. "Considering Mucus in the Enhancement of Paracytosis by P(MAA-g-EG) Drug Carriers", Annual Meeting of the Biomedical Engineering Society, Chicago, IL, October 12, 2006 (A)*.
822. "Molecular Imprinted Hydrogels as Intelligent Drug Delivery Systems", Annual Meeting of the Biomedical Engineering Society, Chicago, IL, October 12, 2006 (A)*.
823. "Influence of Sulfobutyl Ether Beta-Cyclodextrin on the Dissolution Properties of a Poorly Soluble drug from Extrudates Prepared by Hot-Melt Extrusion", Annual AAPS Meeting, San Antonio, TX, October 31, 2006 (A)*.
824. "Dynamics of Tethered Biomaterials and their Development into pH Responsive Mucoadhesive Oral Drug Delivery Systems", Annual AAPS Meeting, San Antonio, TX, October 31, 2006 (A)*.
825. "pH-Sensitive Complexation Hydrogels for the Oral Delivery of Proteins", Annual AAPS Meeting, San Antonio, TX, October 31, 2006 (A)*.
826. "Modeling of the Dynamics of Insulin Release from pH Responsive Cationic Hydrogel Nanospheres", Sixth Annual Diabetes Technology Meeting, Atlanta, November 3, 2006 (A)*.
827. "Metal-Polymer Nanocomposites for Therapeutic and Imaging Applications", Annual AIChE Meeting, San Francisco, CA, November 13, 2006 (P)*.
828. "Glucose-Responsive Systems for Insulin Delivery Based on Poly(Ethylene Glycol)-Containing, pH-Sensitive, Cationic Hydrogels", Annual AIChE Meeting, San Francisco, CA, November 13, 2006 (P)*.
829. "Dynamics of Novel Multifunctional, Intelligent Mucoadhesive Copolymers", Annual AIChE Meeting, San Francisco, CA, November 14, 2006 (P).
830. "In Vitro Investigation of Oral Insulin Delivery Systems Using Lectin Functionalized Complexation Hydrogels", Annual AIChE Meeting, San Francisco, CA, November 14, 2006 (P).
831. "Thermally Responsive Interpenetrating Polymer Network Nanoparticles", Annual AIChE Meeting, San Francisco, CA, November 14, 2006 (P)*.
832. "Drug Absorption in the Upper Small Intestine and Its Implications in the Design of Oral Protein Delivery Carriers", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P).
833. "Penetrant Transport in Well-Characterized Glassy Polymers as Revealed by High-Resolution X-Ray Computed Tomography", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 169 of 218

834. "Engineering of Novel Drug Delivery Devices Based on Convex/Concave Geometries and Dynamic Analysis Using X-Ray Tomography", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P).
835. "Tethered pH Responsive Biomaterials for Mucoadhesive Oral Controlled Release Drug Delivery Systems", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
836. "Selective Recognition of Angiotensin II", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P).
837. "Characterizing Transport Enhancement by P(MAA-g-EG) Drug Carriers in the Presence of Mucus", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
838. "Molecular Analysis of Interpolymer Complexing Hydrogels Based on Poly(Methacrylic Acid) and N-Vinyl Pyrrolidone as Carriers for Protein Delivery by Transmucosal Transport", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
839. "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", Annual AIChE Meeting, San Francisco, CA, November 15, 2006 (P)*.
840. "Bionanotechnology and Responsive, Biomimetic Drug Delivery Systems", Fifteenth Nisshin Engineering Particle Technology International Meeting "Nanotechnology in Life Sciences", Awajishima, Japan, December 11, 2006 (P), *Plenary lecture*.
841. "nanostructured Biomaterials and Surfaces for Recognition", Meeting on Biomaterials from 2D to 3D to Larger than Life, Maui, HI, December 15, 2007 (A). *Invited lecture.*
842. "Growth Hormone Release Using pH-Sensitive Complexation Hydrogels", 24th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2007 (P)*.
843. "Development an Characterization of Polycationic Nanogels for Targetted Intracellular Drug Delivery", 24th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2007 (P)*.
844. "Comparing pH-Sensitive Carriers in Transporting Growth Homone", 24th Annual Houston Conference on Biomedical Engineering Research, Houston, TX, February 9, 2007 (P)*.
845. "Targeting with Molecularly Decorated Nanoparticles", Pharmaceutical World Congress, Amsterdam, The Netherlands, April 24, 2007 (A).
846. "Photoemulsion Polymerization of Polycationic Nanogels for Intracellular Drug Delivery", Pharmaceutical World Congress, Amsterdam, The Netherlands, April 24, 2007 (A)*.
847. "Nanotechnology and Intelligent Response: What Have They Done for Biomaterials Lately?" Annual Meeting of the Society for Biomaterials, Chicago, IL, April 20, 2007 (P).
848. "Growth Hormone Release from pH-Sensitive Complexation Hydrogels", Annual Meeting of the Society for Biomaterials, Chicago, IL, April 20, 2007 (P)*.
849. "Characterization of Hydrogel-Conductive Polymer Recognitive Interpenetrating Networks", Annual Meeting of the Society for Biomaterials, Chicago, IL, April 20, 2007 (P)*.
850. "Nanotechnology and Drug Delivery", BIO2007, Boston, MA, May 7, 2007.
851. "*Le plus ça change…* Nanotechnology and Bioengineering in an Evolving Chemical Engineering World", 9th Greek Scientific ChemicaL Engineering Conference, Athens, Greece, May 31, 2007 (P), *Plenary lecture.*
852. "Nanotechnology and Intelligent Systems in Drug Delivery", National Biotechnology Conference, AAPS, San Diego, CA, June 26, 2007 (A), *Plenary lecture.*
853. "Design of a Polymeric Insulin Infusion System for Blood Glucose Control", IEEE Control Systems Society and American Automatic Control Council Meeting, New York, NY, July 10, 2007 (P)*.
854. "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", 14th International Symposium of Microncapsulation, Lexington, KY, September 11, 2007 (P)*.
855. D.A. Carr, W.A. Hunt and N.A. Peppas, "Evaluation of Therapeutic Protein Encapsulation and Release from pH-Sensitive Complexation Hydrogels", 14th International Symposium of Microncapsulation, Lexington, KY, September 11, 2007 (P)*.
856. "The Next Generation of Drug Delivery Technologies", Conference on the Impact of New technologies on the Future of Pharmacy Practice and Science, University of Central Lancashire, Preston, UK, September 13, 2007 (A), *Plenary Lecture*.
857. "Chemical Engineering in Bioengineering and Bionanotechnology", CHEMECA Meeting, Melbourne, Australia, September 25, 2007 (A), *Plenary Lecture*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 170 of 218

858. "Biomolecular Sensing with Polyaniline-Polymer Acid Complex", Annual Meeting Biomedical Engineering Society, Los Angeles, CA, September 28, 2007 (A)*.
859. "What Has Nanotechnology Done for Drug Delivery Lately?", Meeting of APGI and ADRITELF on Innovation in Drug Delivery, Naples, Italy, October 1, 2007 (P), *Plenary Lecture.*
860. "Complexation Hydrogels as Biomimetic Smart Materials," Materials and Complex Fluids Workshop, The University of Texas at Austin. Austin, TX. October 12, 2007 (A).
861. "Dynamics of Novel Multifunctional, Intelligent Mucoadhesive Copolymers". Annual AIChE Meeting, Salt Lake City, UT, November 5, 2007 (A)*.
862. "Polymerizations in the Service of Nanotechnology and Intelligent Biomaterials Science". Annual AIChE Meeting, Salt Lake City, UT, , November 5, 2007 (A), *Invited Lecture.*
863. "Computer Evaluation of Hydrogel-Based Systems for the Closed Loop Treatment of Type I Diabetes Mellitus", Annual AIChE Meeting, Salt Lake City, UT, November 5, 2007 (A)*..
864. "Polysaccharide-Tethered Hydrogels for Drug Delivery", Annual AIChE Meeting, Salt Lake City, UT, November 5, 2007 (A)*.
865. "Molecular Design and Dynamic Behavior of Interpolymer Complexing Hydrogels as Carriers for the Oral Delivery of Therapeutic Proteins" Annual AIChE Meeting, Salt Lake City, UT, November 6, 2007 (A)*.
866. "*In Situ* Dynamics of Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Salt Lake City, UT, November 6, 2007 (A)*.
867. "Le Plus ça Change…Nanotechnology and Bioengineering in an Evolving Chemical Engineering World". Annual AIChE Meeting, Salt Lake City, UT, November 7, 2007 (A), *Plenary Institute Lecture.*
868. "Cationic Polymeric Systems for Glucose-Responsive Insulin Delivery". Annual AIChE Meeting, Salt Lake City, UT, November 8, 2007 (A)*.
869. "Oral Delivery of Insulin-Transferrin Bioconjugates Using Intelligent Complexation Hydrogels", Annual AIChE Meeting, Salt Lake City, UT, November 8, 2007 (A)*.
870. "Intelligent Biomaterials in Protein Delivery, Molecularly Reognitive Systems and Microdevices", International Conference on Cellular and Molecular Engineering, Singapore, December 11, 2007 (A), *Plenary Lecture.*
871. "Complexation Hydrogels of Methacrylic Acid and N-Vinyl Pyrrolidone for the Oral Delivery of Therapeutic Proteins", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
872. "Conductive Polymers for Recognitive Hydrogels", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
873. "Oral Delivery of Insulin-Transferrin Bioconjugates Using Intelligent Complexation Hydrogels", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
874. "Carbohydrate-Containing hydrogels for Oral Protein Delivery", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
875. "Intelligent Glucose-Responsive Insulin Delivery via Cationic Hydrogel Systems, US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
876. "Metal-Polymet Composites as Externally-Controlled Intelligent Therapeutic Systems", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
877. "Towards the Development of Biodegradable Sensors from Smart Hydrogels", US-Japan Drug Delivery Meeting, Maui, HI, December 19, 2007 (A)*.
878. "Hydrogel and Conductive Polymer Composite as a Sensing Device", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
879. "Material Characterization of pH-Sensitive Polycationic Nanocarriers for Intracellular Drug Delivery", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
880. "PEGylated Insulin Loading of Poly(Methacrylic Acid-G-Ethylene Glycol) Particles", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
881. "pH-Sensitive Polycationic Hydrogels for Intracellular Drug Delivery", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.
882. "Recognitive Biomaterials for Neurotransmitters", 25th Annual Conference of the Houston Society for Engineering in Medicine and Biology, Houston, TX, February 8, 2008 (A)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 171 of 218

883. "Bioengineering Advances to Improve the Quality of Life Throughout the World", 17th Annual Event of the American Institute for Medical and Biological Engineering, Washington, DC, February 21, 2008, *Galletti Award Lecture.*
884. "Visualization and Analysis of the Dynamics of Methanol Transport in Poly(methyl methacrylate)", American Physical Society Meeting, New Orleans, LA, March 14, 2008, (A)*.
885. "Protein Bioconjugate Delivery via Intelligent Complexation Systems", Tenth European Controlled Release Meeting, Noordwijk, the Netherlands, April 3, 2008 (P), *Invited Lecture.*
886. "Oral Insulin Bioconjugate Delivery Using Intelligent Complexation Systems", 6th World meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Barcelona, Spain, April 9, 2008, (A)*.
887. "New pH-sensitive Hydrogel for an Oral Delivery of Proteins with a High Isoelectric Point" 6th World meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Barcelona, Spain, April 9, 2008, (A)*.
888. "Oral Delivery of Insulin and Other Proteins", 8th World Biomaterials Congress, Amsterdam, The Netehrlands, May 30, 2008 (P).
889. "Molecular Design of a Novel Complexation Hydrogel for the Oral Delivery of Therapeutic Proteins" 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 30, 2008 (P)*.
890. "Oral Delivery of Insulin Bioconjugates Using Intelligent Complexation Hydrogels", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 30, 2008 (P)*.
891. "Cationic Hydrogels for Intelligent Insulin Delivery", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008 (P)*.
892. "Analysis of Poly(Ethylene Glycol) Tethered Poly(Acrylic Acid) Networks for Mucoadhesive Applications", ", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008 (P)*.
893. "Metal-Polymer Nanocomposites as Externally Triggered Therapeutic Systems", ", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 29, 2008 (P)*.
894. "Fast- vs. Slow- Paclitaxel Eluting Degradable Stents and Their Impacts on Coronary Artery Smooth Muscle Cells Proliferation", ", 8th World Biomaterials Congress, Amsterdam, The Netherlands, May 31, 2008 (P)*.
895. "Design of Functional and Intelligent Polymeric Carriers for Improved Cellular Transport and Biorecognition", 6th International Conference of the Chemical Societies of the SE European Countries, September 13, 2008 (A), *Plenary Lecture*.
896. "The Role of Chemical Engineering in the Growth of Bioengineering and Nanotechnology", 11th Mediterranean Congress of Chemical Engineering, October 23, 2008 (P), *Plenary Lecture.*
897. "Conductive Polymer and Hydrogel Composites as Functional Biomaterials", Annual AIChE Meeting, Philadelphia, PA, November 16, 2008 (A)*.
898. "Investigating Dynamic Penetrant Transport In Glassy Polymers for High-Tech Applications", Annual AIChE Meeting, Philadelphia, PA, November 16, 2008 (A)*.
899. "Photopolymerized pH-Responsive Nanomatrices for Applications In Nanomedicine", Annual AIChE Meeting, Philadelphia, PA, November 16, 2008 (A)*.
900. "An Examination of Structural Parameters Affecting the Dynamics of Penetrant Transport In Glassy Polymers", Annual AIChE Meeting, Philadelphia, PA, November 17, 2008 (A)*.
901. "Past, Present and Future of Drug Delivery", Annual AIChE Meeting, Philadelphia, PA, November 17, 2008 (A)*.
902. "Biomolecular Sensing with Polyaniline-Poly(2-acrylamidomethylpropane sulfonic acid) Nanosystems", Annual AIChE Meeting, Philadelphia, PA, November 18, 2008 (A)*.
903. "Towards the Development of Biodegradable Sensors from Smart Hydrogels", Annual AIChE Meeting, Philadelphia, PA, November 21, 2008 (A)*.
904. "Diffusional Mechanisms in Glassy Polymers", Annual APS Meeting, Pittsburgh, PA, March 17, 2009 (A)*.
905. "The Development of an Oral Protein Delivery System Using PEGylated Proteins", Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
906. "Hydrogels Modified with Carbohydrates for Oral Protein Delivery," Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
907. "Temperature-Sensitive Polymer-Gold Nanocomposites for Externally Controlled Therapeutic Systems," Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 172 of 218

908. "Protein Recognitive Hydrogel Systems for Biosensor/Biodiagnostic Applications", Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
909. "Biodegradable, pH-Responsive Hydrogels as Sensing Microstructures", Annual SFB Meeting, San Antonio, TX, April 24, 2009 (P)*.
910. "Swelling Controlled Release 30 Years Later: Responsive Intelligence and Delivery Design", PharmSciFAir, Nice, France, June 10, 2009 (P), *Invited lecture.*
911. "Novel Microsensors From Biodegradable Smart Hydrogels", Annual AIChE Meeting, Nashville, TN, November 7, 2009 (A)*.
912. "Protein Recognitive Hydrogel Systems for Biosensor Applications", Annual AIChE Meeting, Nashville, TN, November 9, 2009 (A)*.
913. "Recent Advances in Hydrogels as Biomaterials", Annual AIChE Meeting, Nashville, TN, November 10, 2009 (A), *Invited Lecture.*
914. "Recognitive Networks in Advanced Responsive Systems", Annual AIChE Meeting, Nashville, TN, November 11, 2009 (A), *Invited Lecture.*
915. "Dynamics of Non-Fickian Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
916. "Microcantilever Sensors Utilizing Biodegradable, pH-Responsive Hydrogel", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
917. "Investigating Dynamics Penetrant Transport in Glassy Polymers for High-Tech Applications", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
918. "Development of pH-Responsive Nanogels for Delivery of siRNA", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
919. "Synthesis and Caracterization of Polyaniline-Polymer Acid Complexes for Use in Biosensing Applications", Annual AIChE Meeting, Nashville, TN, November 13, 2009 (A)*.
920. "Recognition and Delivery: The Next Generation of Medical Microdevices", US-Japan Drug Delivery Meeting, Maui, HI, December 18, 2009 (A)*, *Invited lecture.*
921. "Intelligent and Feedback-Controlled Nanoparticles for Intelligent Drug Delivery", First Global Congress on NanoEngineering for Medicine and Biology, ASME, Houston, TX, February 9, 2010 (A), *Plenary Lecture.*
922. "Nanoparticulate Metal-Polymer Systems for Externally-Controlled Delivery", First Global Congress on NanoEngineering for Medicine and Biology, ASME, Houston, TX, February 9, 2010 (A), *Plenary Lecture.*
923. ""Protein Recognitive Hydrogel Systems for Biosensor Applications", First Global Congress on NanoEngineering for Medicine and Biology, ASME, Houston, TX, February 9, 2010 (A), *Plenary Lecture.*
924. "The Evolution of Controlled Drug Delivery Devices and Systems: Pioneers and Imaginative Solutions", 7th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Valletta, Malta, March 8, 2010, *Maurice-Marie Janot Award Lecture.*
925. "The Future of Biomedical Engineering", Annual Meeting of the Southeastern Universities Research Association, Duke University, Durham, NC, March 10, 2010, *Distinguished Scientist Lecture.*
926. "Biomaterials in the Service of World Health and the Improvement of our Patients' Quality of Life", Society for Biomaterials meeting, Seattle, WA, April 22, 2010 (A), *Hall Award Lecture.*
927. "Nanoparticulate Gold-Polymer Systems for Externally-Controlled Delivery", Society for Biomaterials meeting, Seattle, WA, April 22, 2010 (A)*.
928. "Protein Recognitive Hydrogel Systems for Biosensor Applications", Society for Biomaterials meeting, Seattle, WA, April 22, 2010 (A)*.
929. "Health Care and Advanced Therapeutics", Meeting on Innovation in Health Care Delivery Systems, April 30, 2010 (A), *Invited Lecture.*
930. "Engineering Better Materials", Grand Challenges Summit of the National Academy of Engineering, University of Washington, Seattle, WA, May 3, 2010 (A), *Plenary Lecture.*
931. "Protein Recognitive Hydrogel Systems for Biosensor Applications", 20th World Congress on Biosensors, Glasgow, United Kingdom, May 27, 2010 (A)*.
932. "Controlled Release 50 Years Later: Responsive Intelligence and Delivery by Design", 37th Annual Meeting & Exposition of the Controlled Release Society, Portland, OR, July 14, 2010 (A), *Plenary Lecture.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 173 of 218

933. "Advanced Responsive and Feedback-Controlled Nanoparticles for Drug and Protein Delivery", 3rd International Meeting on Pharmacy & Pharmaceutical Sciences, Istanbul, Turkey, June 11, 2010 (A), *Plenary Lecture*.
934. "Chronotherapy of Hypertension: Past, Present and Future", 26th meeting of the International Society of Chronobiology, Vigo, Spain, July 12, 2010 (A)*.F
935. "Advances in Hydrogels as Intelligent Biomaterials", Annual BMES meeting, Austin, TX, October 7, 2010 (P), *Plenary Lecture, Acta Biomaterialia Lecture*.
936. "From Therapeutics and Drug Delivery to Advanced, Intelligent Biomedical Devices for Improvement of the Quality of Life of our Patients", Annual BMES meeting, Austin, TX, October 7, 2010 (P), *Plenary Lecture, BMES Distinguished Achievement Award Lecture*.
937. "Kinetic Swelling Responses of Iron Oxide/Hydrogel Nanocomposites", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
938. "Optimizing Protein Recognitive Hydrogel Systems for Biosensor Applications", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
939. "Polybasic 2-(Diethylaminoethyl) Methacrylate Nanogels and Their Application in Oral SiRNA Delivery", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
940. "Metal-Polymer Composite Nanoparticle Systems for Externally Controlled Delivery", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
941. "Development of PH-Responsive Nanoparticles for Targeted, Controlled Release of 5-Fluorouracil", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
942. "Swelling and Insulin Release of Glucose-Responsive Microparticles and Nanogels", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
943. "Carbohydrate Surface Modification for Oral Protein Delivery", Annual BMES meeting, Austin, TX, October 7, 2010 (P)*.
944. "Investigating Case II and Anomalous Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Salt Lake City, UT, November 7, 2010 (A)*.
945. "Hydrogel-Based Protein Recognitive Systems for Diagnostic Applications", Annual AIChE Meeting, Salt Lake City, UT, November 8, 2010 (A)*.
946. "Case II and Anomalous Penetrant Transport in Glassy Polymers", Annual AIChE Meeting, Salt Lake City, UT, November 8, 2010 (A)*.
947. "Synthesis and in vitro Characterization of pH-Responsive Nanogels for Oral Delivery of siRNA", Annual AIChE Meeting, Salt Lake City, UT, November 10, 2010 (A)*.
948. "Seeking Art-ful Science in Biomaterials", Annual TERMIS Meeting, Orlando, FL, December 4, 2010 (A), *Invited Lecture*.
949. "Advances in Protein Delivery and Responsive Nanoscale Drug Delivery Systems", Congress of the Spanish Sciety of Industrial Pharmacy, Madrid, February 2, 2011 (P), *Plenary Lecture*.
950. "Development of pH-Responsive Biodegradable Hydrogels for the Controlled Release of Antitumor Drugs", Congress of the Spanish Sciety of Industrial Pharmacy, Madrid, February 2, 2011 (P)*.
951. "New Frontiers in Drug Delivery: Emerging Applications in Oral Administration", 15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, February 15, 2011 (A), *Invited Lecture*.
952. "Tuning the Dynamics of Penetrant Transport in Glassy Polymers through Network Structure Modification," Annual American Physical Society Meeting, Dallas, TX, March 24, 2011 (A)*.
953. "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Chemotherapeutics", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
954. "Protein Conformational Studies for Molecularly Imprinted Polymers", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
955. "Amphiphilic Interpenetrating Networks for Oral Anticancer Drug Delivery", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
956. "Rapidly Degradable Dual-Responsive Nanoscale Hydrogels for siRNA Delivery", SFB Biomaterials Day, College Station, TX, May 16, 2011 (A)*.
957. "Advanced siRNA and Protein Delivery Through Smart Hydrogels", 7th International Symposium on Controlled Release Systems, Istanbul, Turkey, June 2, 2011 (A), *Plenary Lecture*.
958. "Evaluation of Polysaccharide-Modified Complexation Hydrogels for Oral Protein Delivery", Annual BMES meeting, Hartford, CT, October 13, 2011 (P).

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 174 of 218

959. "Temperature-Responsive Interpenetrating Polymer Network Nanogels and Nanocomposites", Annual BMES meeting, Hartford, CT, October 13, 2011 (P).
960. "Hydrophobic-Hydrophilic Interpenetrating Networks for Oral Chemotherapeutic Delivery" ", Annual BMES meeting, Hartford, CT, October 13, 2011 (P)*.
961. "Hydrophobic Nanoparticles Encapsulated in Hydrophilic Hydrogel for Oral Delivery of Chemotherapeutics", Annual BMES meeting, Hartford, CT, October 13, 2011 (P)*.
962. "An Injectable, Synthetic Immune Center for Cancer Vaccines: Efficient Delivery of Tumor-Antigens and Immune-Modulatory Nucleic Acids to Dendritic Cells", Annual BMES meeting, Hartford, CT, October 14, 2011 (P)*.
963. "Responsive Nanoscale Drug Delivery Systems", Biointerface meeting, Minneapolis, MN, October 26, 2011 (A), *Plenary Lecture*.
964. "An Injectable, Synthetic Immune-Priming Center for Efficient Delivery of Immunomodulatory Nucleic Acids and Protein/Peptide Antigens", US-Japan Drug Delivery Meeting, Maui, HI, December 18, 2011 (A)*.
965. "Oral Delivery of Interferon-alpha for Chemotehrapy", US-Japan Drug Delivery Meeting, Maui, HI, December 18, 2011 (A)*.
966. "Applications of Intelligent Nanotechnologies in Therapeutic Delivery, Miami 2012 Winter Symposium: Nanotechnology in Biomedicine, Miami, FL, February 29, 2012, *Plenary Lecture*.
967. "Advances in Hydrogels for Medical Applications", 6th International Symposium on Intelligent Drug Delivery, Seoul, South Korea, March 15, 2012 (A), *Plenary Lecture*.
968. "Advances in Intelligent and Recognitive Hydrogels for Treatment of Diabetes, Cancer and Multiple Sclerosis", International Symposium, Drugs, Nanomedicine and Biomaterials, Areces Foundation, Madrid, Spain, April 25, 2012 (A), *Plenary Lecture*.
969. "Intelligent Biomaterials for Medical Devices with Molecular Recognition Capabilities", 9th World Biomaterials Congress, Chengdu, China, June 2, 2012 (P), *Plenary Lecture*.
970. "Efficient Delivery of siRNA with Dual-responsive Nanoscale Hydrogels", 9th World Biomaterials Congress, Chengdu, China, June 2, 2012 (P).
971. "Promoting Convergence in Biomaterials Engineering", Top-Level Forum: Biomaterials Science and Engineering, Present, Future and Development Stategy, Chengdu, China, June 2, 2012 (A).
972. "Intelligent Biomaterials to Control Recognition and Specificity in Naomedicine", NanoBioSeattle, Seattle, WA, July 23, 2012 (A), *Plenary Lecture*.
973. "Hydrogels as Biomaterials: A 40-year saga", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
974. "Responsive polycationic nanoparticles for co-delivery of siRNA and chemotherapeutical agents to overcome multidrug resistance in cancer therapy", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
975. "pH-Responsive Hydrogels for Oral Delivery of Therapeutic Proteins", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
976. "Comparing ARGET ATRP with traditional free radical polymerization for versatile polycationic hydrogel nanoparticles", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
977. "Two-part oral siRNA delivery system: polycationic hydrogel nanoparticles and alginate matrix", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
978. "Design of pH-Responsive Carriers for the Oral Delivery of High Molecular Weight Protein Therapeutics", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
979. "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
980. "Synthesis and Characterization of Composite Hydrogel Particles for Oral Delivery Small Interfering RNA", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
981. "Intelligent Polymeric Biomaterials for the Oral Delivery of Hydrophobic Therapeutic Agents for Cancer Treatment", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
982. "Externally-Triggered Thermally-Responsive Nanocomposites for Advanced Therapeutic Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 175 of 218

983. "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Protein-Based Chemotherapeutic Agents", Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
984. "The Influence of Enhanced Core Hydrophobicity on Membrane Disruptive Properties of Poycationic Nanoscale Hydrogels Containing 2-(Diethylaminoethyl) Methacrylate, Biomaterials Days, Society for Biomaterials Regional Meeting, Houston, TX, July 27, 2012.
985. "Enhanced Membrane Disruption and siRNA Delivery through Responsive Nanoscale Hydrogels", Annual AAPS meeting, Chicago, IL, October 18, 2012.
986. "An injectable, immune priming center for cancer vaccines: Simultaneous, single-carrier delivery of tumor-antigens and immune-modulatory nucleic acids to dendritic cells", CPRIT Conference, October 25, 2012 (P).
987. "Nanohydrogels as delivery systems of antineoplastic drugs and siRNA to overcome multidrug drug resistance in cancer treatment" CPRIT Conference, October 25, 2012 (P).
988. "Two-part oral siRNA delivery systems for the treatment of colon cancer", CPRIT Conference, October 25, 2012 (P).
989. "Synthesis and Characterization of Composite Hydrogel Particles for Oral Delivery of siRNA," Annual BMES Meeting, Atlanta, GA, October 25, 2012 (P).
990. "Intelligent Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual BMES meeting, Atlanta, GA, October 27, 2012 (P).
991. "Composite Hydrogel Particles for Oral Small Interfering RNA Delivery", Annual BMES meeting, Atlanta, GA, October 26, 2012 (P).
992. "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Antibodies," Annual BMES Meeting, Atlanta, GA, October 25, 2012 (P).
993. "Development of pH-Responsive Hydrogel Networks for the Oral Delivery of Human Growth Hormone", Annual BMES meeting, Atlanta, GA, October 26, 2012 (P).
994. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive, Intelligent Medical Microdevices", Topical Conference, Annual AIChE meeting, Pittsburgh, PA, October 29, 2012, (A) *Plenary Lecture.*
995. "pH-Responsive, Polycationic Nanoparticles Designed for Intracellular siRNA Delivery", Annual AIChE meeting, Pittsburgh, PA, October 30, 2012, (A)*.
996. "Nanoscale Anionic Hydrogel Prepared by Emulsion Polymerization for Oral Delivery of siRNA", Annual AIChE meeting, Pittsburgh, PA, October 30, 2012, (A)*.
997. "Surface Hydrolysis Mediated PEG Conjugation of Poly(N-isopropyl acrylamide-co-acrylamide) Nanospheres", Annual AIChE meeting, Pittsburgh, PA, October 30, 2012, (A)*.
998. "pH-Responsive Hydrogels for Oral Delivery of Therapeutic Proteins", Annual AIChE meeting, Pittsburgh, PA, November 1, 2012, (A)*.
999. "Grafted Polymeric Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual AIChE meeting, Pittsburgh, PA, November 1, 2012, (A)*.
1000. "Dynamics and Diffusional Behavior of Complexation Networks and gels with Applications to Drug Delivery and Molecular Recognition", 9th Society og Polymer Science Japan International Polymer Conference, Kobe, Japan, December 12, 2012, (A), *Plenary Lecture.*
1001. "Intelligent Hydrogels and the Future of Nanomedicine", NIPAM-80 meeting in honor of Allan Hoffman, December 16, 2012 (P), *Invited Lecture.*
1002. "Protein Transport Mechanisms and Protein/Polymer Dynamics in Transmucosal Delivery", Keynote Speaker, 4th International Conference on Biomolecular Engineering, Miami, FL January 13, 2013 (P), *Keynote Lecture.*
1003. "Development of a pH-Responsive Hydrogel Network for the Oral Delivery of Human Growth Hormone", Society for Biomaterials meeting, Boston, MA, April 10, 2013 (A)*.
1004. "Polycationic Hydrogel Nanoparticles for siRNA Delivery", Society for Biomaterials meeting, Boston, MA, April 12, 2013 (A)*.
1005. "Microencapsulated Polymeric Systems for the Oral Delivery of siRNA", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1006. "Startegies for the Enhanced Bioavailability of Orally-Delivered Growth Hormonw Utilizing pH-Responsive Polymeric Platforms", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 176 of 218

1007. "Smart Hydrogel Nanocarriers for the Oral Delivery od Chemotherapeutics", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1008. "pH-Responsive polymer nanoparticles synthesized using ARGET ATRP for therapeutic siRNA delivery, Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1009. "pH-Responsive Hydrogels for Improved Bioavailability of Therapeutic Proteins by Oral Administration, Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1010. "Oral delivery of siRNA Using pH-Resonsive Hydrogel Nanoparticles", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1011. "Complexation Hydrogels as Oral Delivery Vehicles of Therapeutic Proteins: Evaluation of Protein Release and Bioactivity", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1012. "Novel Biocompatible Nanoparticles for Externally Triggered Drug Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, Austin, TX, May 31, 2013*.
1013. "Novel Intelligent and Recognitive Carriers for siRNA Delivery and Theranostics", 5th Asian Arden Conference, Nagoya, Japan, August 6, 2013, *Plenary Lecture* (P).
1014. "Novel Intelligent and Recognitive Carriers for siRNA Delivery and Theranostics," XXV Symposium of the European Symposium for Biomaterials, Madrid, Spain, September 8, 2013, *Plenary Lecture* (P).
1015. "Advanced Responsive and Feedback-Controlled Nanoparticles for Consumer and Cosmetic Applications," 19th International Symposium on Microencapsulation, Pamplona, Spain, September 10, 2013, *Plenary Lecture* (P).
1016. "Oral delivery of siRNA Using pH-Resonsive Hydrogel Nanoparticles", Annual BMES meeting, Seattle, WA, September 26, 2013 (P)*.
1017. "Delivery Vectors for Oral Protein Therapeutics: Characterization and Cellular Transport", Annual BMES meeting, Seattle, WA, September 26, 2013 (P)*.
1018. "Synthesis and Characterization of pH-sensitive Hydrogel Carriers for Oral Vaccine Delivery", Annual BMES meeting, Seattle, WA, September 27, 2013 (P)*.
1019. "Development and optimization of a pH-responsive hydrogel system for the oral delivery of high molecular weight protein therapeutics", Annual BMES meeting, Seattle, WA, September 28, 2013 (P)*.
1020. "Design of surface imprinted nanoparticles for enhanced recognition of biomacromolecules", Annual BMES meeting, Seattle, WA, September 28, 2013 (P)*.
1021. "Biodegradable microencapsulated nanogel system for the oral delivery of siRNA", Annual Meeting Society of Women Engineers, Baltimore, MD, October 25, 2013, (P)*.
1022. "Oral Delivery of Therapeutic Proteins Exhibiting High Isoelectric Points in pH-Responsive Hydrogels," 2013 Annual AIChE Meeting, San Francisco, CA, November 4, 2013, (P)*.
1023. "Responsive Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics," 2013 Annual AIChE Meeting, San Francisco, CA, November 4, 2013, (P)*.
1024. "NSEF Forum Award Presentation: Intelligent and Recognitive Nanoscale Systems for a New Generation of Therapeutic Applications," 2013 Annual AIChE Meeting, San Francisco, CA, November 4, 2013, (P), *Award Lecture*.
1025. "Microencapsulated Nanogel System for the Oral Delivery of siRNA," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 11, 2013 (P)*.
1026. "Therapeutic siRNA Delivery Using pH-Responsive Polymer Nanoparticles," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013, (P)*.
1027. "Improved Release of Salmon Calcitonin from pH-Responsive Hydrogels," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013, (P)*.
1028. "Smart, Hydrogel Nanoparticles for the Oral Delivery of Hydrophobic Therapeutics," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013 (P)*.
1029. "Development and Characterization of Surface-modified pH-Responsive Hydrogels for Oral Delivery of Protein Therapeutics," 2013 AAPS Annual Meeting and Exposition, San Antonio, TX, November 12, 2013 (P)*.
1030. "Advanced Biomaterials and Nanotechnology for Improved Health Care," 2013 MRS Fall Meeting, Boston, MA, December 2, 2013, *Plenary Lecture*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 177 of 218

1031. "Development and characterization of a pH-responsive hydrogel system for the oral delivery of high molecular weight protein therapeutics", US-Japan Drug Delivery meeting, Lahaina, HI, December 15-19, 2013*.
1032. "Development of pH-responsive hydrogel carriers for targeted oral vaccine delivery", US-Japan Drug Delivery meeting, Lahaina, HI, December 15-19, 2013*.
1033. "Microencapsulated polymeric systems for the oral delivery of siRNA" , US-Japan Drug Delivery meeting, Lahaina, HI, December 15-19, 2013*.
1034. "Stimuli-Responsive Hydrogels for Oral Delivery of High Isoelectric Point-Exhibiting Therapeutic Proteins," 2014 Annual ACS Meeting, Dallas, TX, March 18, 2014, (P)*.
1035. "Intelligent and Recognitive Networks and Hydrogels: From Theory to Biomedical Applications," 2014 Annual ACS Meeting, Dallas, TX, March 18, 2014, *Award Address*. (P)*.
1036. "Surface-Modification of P(MAA-co-NVP) Microparticles for Oral Protein Delivery," 2014 Annual ACS Meeting, Dallas, TX, March 18, 2014, (P)*.
1037. "Investigation of Core-Shell N-alkyl Substituted Acrylamides for Theranostic Delivery of Chemotherapeutics," 2014 Annual ACS Meeting, Dallas, TX, March 19, 2014, (P)*.
1038. "Environmentally Responsive Theranostic Carrier Systems for Oral Delivery of Chemotherapeutic Agents," 2014 Annual ACS Meeting, Dallas, TX, March 20, 2014, (P)*.
1039. "pH-Responsive Mannan-modified P(HEMA-co-MAA) Nano-hydrogel Carriers for Oral Vaccine Delivery, 9th PBP World Meeting, Lisbon, Portugal, April 10, 2014 (P)*.
1040. "Fabrication of Intelligent, Protein Recognitive Polymers on the Surface of Biodegradable Nanoparticles," 2014 Annual SFB Meeting, Denver, CO, April 17, 2014, (P)*.
1041. "Surface Hydrolysis Mediated PEGylation for the Passivation of pNIPAM Nanogels," 2014 Annual SFB Meeting, Denver, CO, April 17, 2014, (P)*.
1042. "Design of a Polyanhydride-Releasing Oral Microparticle Technology (PROMPT) for Oral Vaccine Delivery," 2014 Annual SFB Meeting, Denver, CO, April 18, 2014, (P)*.
1043. "Evaluation of Surface-Modified P(MAA-co-NVP) Hydrogels for Oral Protein Delivery," 2014 Annual SFB Meeting, Denver, CO, April 18, 2014, (P)*.
1044. "Future Directions in Drug Delivery and Interlligent/ Responsive Materials", Recovery of Biological Products XVI Conference, Hohe Düne, Rostock, Germany, (A), July 30, 2014, *Plenary Lecture.*
1045. "Intelligent/Recognitive Nanoscale Systems for New Therapeutic Applications", US-China Symposium on Nanobiology and Nanomedicine, Washington, DC (P), October 16, 2014, Keynote Lecture.
1046. "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1047. "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors", Annual BMES meeting, San Antonio, TX, October 22, 2014 (P)*.
1048. "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 22, 2014 (P)*.
1049. "Passivation of pNIPAM Nanogels through Surface Hydrolysis Mediated PEGylation", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1050. "Enzymatically Degradable Microgels for the Oral Delivery of siRNA", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1051. "Optimization of pH-Responsive Hydrogels for Delivery of HMW Proteins", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1052. "Development of pH-Responsive Hydrogel Carriers for Oral Vaccine Delivery", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1053. "pH-Responsive P(IA-co-NVP) Hydrogels for the Oral Delivery of High Isoelectric Point Proteins" Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1054. "Hydrogel Polymer Libraries for Developing Induced Pluripotent Stem Cell Derived Cardiac Patches", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1055. "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 24, 2014 (P)*.
1056. "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors" Annual BMES meeting, San Antonio, TX, October 24, 2014 (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 178 of 218

1057. "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", Annual BMES meeting, San Antonio, TX, October 24, 2014 (P)*.
1058. "Polyanionic Nanoscale Hydrogels for the Oral Delivery of Chemotherapeutics ", Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1059. "Macromolecularly Imprinted Polymers on the Surface of Nanoparticle Supports for Low-Cost Biosensors" Annual BMES meeting, San Antonio, TX, October 23, 2014 (P)*.
1060. "Biomedical Engineering: Health Care's Secret Weapon", UT in a Day meeting, Houston, TX, November 13, 2014.
1061. "Characterization of pH-Sensitive Polymers for the Delivery of Hemophiliac Factors", 2014 Annual AIChE Meeting, Atlanta, GA, November 19, 2014, (P)*.
1062. "pH-Sensitive P(IA-co-NVP) Hydrogels As Oral Delivery Vehicles for High Isoelectric Point-Exhibiting Therapeutic Proteins" 2014 Annual AIChE Meeting, Atlanta, GA, November 18, 2014, (P)*.
1063. "Core/Shell structures for the improved retention of hydrophobic chemotherapeutics", 2014 Annual AIChE Meeting, Atlanta, GA, November 18, 2014, (P)*.
1064. "Hydrogel Polymer Libraries for Developing Induced Pluripotent Stem Cell Derived Cardiac Patches", 2014 Annual AIChE Meeting, Atlanta, GA, November 19, 2014, (P)*.
1065. "The next Generation of Intelligent Hydrogels: Molecular Reognition, Cellular Interactions and Advanced Delivery Studies", MaterialsToday Asia2014 meeting, Hong Kong, (A), December 9, 2014, *Plenary Lecture.*
1066. "Recognition of macromolecular biomarkers using core-shell imprinted nanoparticles", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1067. "The Effect of Particle Swelling on Protein Adsorption and Recognition", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1068. "Novel Biomaterial-Based Carriers for Oral Delivery of Hemophiliac Factor IX", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1069. "Improved Oral Delivery of High Isoelectric Point Therapeutic Proteins using P(IA-co-NVP) Hydrogels", BMES Cellular and Molecular Bioengineering Meeting, St. Thomas, US Virgin Islands, January 07, 2015 (A)*.
1070. "Innovation and Invention in the Pharmaceutical and Biomedical Industry: How to Improve Treatment and Quality of Life of our Patients" National Academy of Inventors meeting, Pasadena, CA, March 20, 2015 (A), *Plenary Lecture.*
1071. "Fundamentals and Applications of Biopolymers in Medical Applications and Drug Delivery", series of 12 lectures at Sichuan University, Checgdu, China, March 22-26, 2015.
1072. "Mathematical Modelling in Drug Delivery: How to Design New Systems Based on Modeling Analysis", Sichuan University, Chengdu, China, March 26, 2015.
1073. "Biomaterials: Past, Present and Future", Chinese Academy of Engineering, Beijing, China, March 27, 2015, *Invited Lecture.*
1074. "Cationic Block Copolymers for the Co-Delivery of siRNA and Chemotherapeutics", Materials Research Society meeting, San Francisco, CA, April 7, 2015 (P)*.
1075. "Molecularly imprinted polymer-based biosensors for detection of biomacromolecules", Materials Research Society meeting, San Francisco, CA, April 7, 2015 (P)*.
1076. "Core/Shell Systems for Improved Control of the Externally Triggered Release of Chemotherapeutics", Materials Research Society meeting, San Francisco, CA, April 7, 2015 (P)*.
1077. "Molecularly Imprinted Polymers on Surface-Modified Gold Nanoparticles for Biosensing Applications", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.
1078. " PROMPT: Polyanhydride- Releasing Oral Microparticle Technology as an Oral Vaccine Strategy, ", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.
1079. "pH-Responsive Carriers for the Oral Delivery of Hemophiliac Factor IX, 2015 Annual SFB Meeting, Charlotte, NC, April 17, 2015, (P)*.
1080. "pH Responsive Nanoparticles-in-_Microparticles System for Oral Delivery of_siRNA", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.
1081. "Surface Hydrolysis for the Functionalization of pNIPAAm Nanogels", 2015 Annual SFB Meeting, Charlotte, NC, April 16, 2015, (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 179 of 218

1082. "Synthesis and Characterization of Smart Molecularly Imprinted Polymers, Using Structural Analogue Templates, for the Capture and Detection of Biomolecules", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1083. "Optimizing Microcarrier Loading for Oral Drug Delivery Systems", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1084. "Surface Hydrolysis Mediated PEGylation of PNIPAAm Nanogels", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1085. "Encapsulation of Polyanhydride Nanoadjuvants in Biodegradable Microgels for Oral Delivery", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1086. "Synthesis and Characterization of Cationic Nanogels for Enhanced Cancer Therapy", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1087. "Design and development of pH-responsive hydrogel systems for the oral delivery of therapeutic proteins", Texas Biomaterials Day, Houston, TX, June 1, 2015.
1088. "Intelligent, Recognitive Nanoscale Systems for New Therapeutic Applications", 10th Panhellenic Research Congress of Chemical Engineering, Patras, Greece , (A), June 4, 2015, *Plenary Lecture*.
1089. "Responsive polymer based nanobiosensors for diagnostic applications.", 2nd Polaris Conference, Guimaraes, Portugal, June 30, 2015, (P)*.
1090. "Molecularly Imprinted Polymers Capture Biomolecules According to Molecular Weight and Isoelectric Point", 2nd Polaris Conference, Guimaraes, June 30, 2015, (P)*.
1091. "Hydrogels in Drug Delivery". Controlled Rlease Society meeting , Edinburgh, Scotland, July 28, 2015, (A), *Plenary Lecturer*.
1092. "Thermodynamic Response and Structural Dynamics of Nanogels for Concurrent Delivery of Hydrophilic and Hydrophobic Chemotherapeutic Agents", Fouth Texas Soft Matter meeting, Houston, TX, August 21, 2015, (A)*.
1093. "Hydrogels as Biomaterials". European Society for Biomaterials meeting, Krakow, Poland, (A), September 1, 2015, *Award Lecture*.
1094. "Synthesis and Characterization of Smart Molecularly Imprinted Polymers, Using Structural Analogue Templates, for the Capture and Detection of Biomolecules", Annual BMES Meeting, Tampa, FL, October 7, 2015, (P) *.
1095. "Optimizing Synthesized Nanoparticles for Applications in Drug Delivery", Annual BMES Meeting, Tampa, FL, October 9, 2015, (P) *.
1096. "Detection of Protein Biomarkers Based On Fluorescence Quenching of Polymer-Coated Conjugated Polymer Nanoparticles", Annual BMES Meeting, Tampa, FL, October 8, 2015, (P) *.
1097. "Stimuli-Responsive Polymer Shells on Surface-Modified Gold Nanomaterials for Biosensing Applications", Annual BMES Meeting, Tampa, FL, October 8, 2015, (P) *.
1098. "Oral Delivery of siRNA Using Dual Stimuli-Responsive Microparticles", Annual BMES Meeting, Tampa, FL, October 9, 2015, (P) *.
1099. "Encapsulation of Polyanhydride Nanoadjuvants in Biodegradable Microgels for Oral Delivery", Annual BMES Meeting, Tampa, FL, October 9, 2015, (P) *.
1100. "Design & Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", Annual BMES Meeting, Tampa, FL, October 8, 2015, (P) *.
1101. "Design and Optimization of Smart Hydrogels for Protein Recognition", AIChE Southwest Regional Conference, Houston, TX, April 9, 2016*.
1102. "Avoiding the Needle: Novel Oral Delivery Systems of Hemophiliac Factor IX", Annual Society of Women Engineers Meeting, Nashville, TN, October 21, 2015*.
1103. "Design and Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", Annual Society of Women Engineers Meeting, Nashville, TN, October 21, 2015*.
1104. "Intelligent Nanogels for the Concurrent Delivery of Hydrophilic and Hydrophobic Chemotherapeutic Agents", Annual AIChE Meeting, Salt Lake City, UT. November 11, 2015, (A) *.
1105. "Tailoring Biomaterial Microcarriers for the Improved Delivery of Hemophiliac Factor IX", Annual AIChE Meeting, Salt Lake City, UT. November 11, 2015, (A) *.
1106. "Cationic Nanogels for the Co-delivery of siRNA and Chemotherapeutics", Annual AIChE Meeting, Salt Lake City, UT. November 11, 2015, (A) *.
1107. "P-NIPMAMM Based Core/Shell Systems for Improved Retention of Hydrophobic Chemotherapeutics", Annual AIChE Meeting, Salt Lake City, UT. November 12, 2015, (A) *.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 180 of 218

1108. "The Challenge to Improve the Response of Biomaterials to the Physiological Environment", Grand Challenges in Biomaterials for the 21st Century, Chengdu, China, November 27, 2015 (A), *Invited Lecturer,*

1109. "Biomaterials: Past, Present and Future", 2015 Chinese Biomaterials Congress and the 3rd China-US Joint Forum on Innovation and Regulation of Biomaterials, Haiku, China, November 20, 2015, (A), *Invited Lecturer.*

1110. "The Challenge to Improve the Response of Biomaterials to the Physiological Environment", US-China Entrepreneurship Symposium, Guangzhou, China, December 1, 2015, (A),

1111. "Advanced Intelligent Polymers" Annual Meeting of the Texas Academy TAMEST, Dallas, TX, January 12, 2016, (A*), Plenary Lecturer.*

1112. "Optimization of methacrylic acid-based pH-responsive hydrogels for the oral delivery of therapeutic proteins", Annual ACS Meeting, San Diego, CA, March 13, 2016, (A) *.

1113. "pH-Responsive Microcarriers for the Improved Oral Delivery of Hemophiliac Factor IX", Annual ACS Meeting, San Diego, CA, March 13, 2016, (A) *.

1114. "Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", World Biomaterials Congress, Montreal, Canada, May 19, 2016, , (A) *.

1115. "Molecularly Imprinted Polymers for Protein Capture, Sequestration, and Delivery", World Biomaterials Congress, Montreal, Canada, May 21, 2016, , (A) *.

1116. "Development of protein biosensors using surface-imprinted silica-gold nanoshells", World Biomaterials Congress, Montreal, Canada, May 19, 2016, , (A) *.

1117. "Hydrogel microencapsulation of polyanhydride nanoparticles for antibiotic treatment", World Biomaterials Congress, Montreal, Canada, May 19, 2016, (A)*.

1118. "Polyanhydride-releasing oral microparticle technology (PROMPT) as a strategy for subunit vaccine administration", World Biomaterials Congress, Montreal, Canada, May 19, 2016, (A)*.

1119. "Synthesis and Characterization of Tertiary Amine Methacrylate Nanogels for Co-delivery of Multiple Therapeutic Agents", World Biomaterials Congress, Montreal, Canada, May 20, 2016, (A)*.

1120. "Development of a Dual-Responsive Hydrogel Platform for Tumor-Targeted Drug Delivery", UT Austin-Portugal Collaboration Conference, Lisbon, Portugal, May 24, 2016, (A)*.

1121. "Intelligent Polymers for Tissue Engineering Applications", UT Austin-Portugal Collaboration Conference, Lisbon, Portugal, May 24, 2016, (A)*.

1122. "Recognitive Alginate Nanoparticles for Protein Therapeutics", UT Austin-Portugal Collaboration Conference, Lisbon, Portugal, May 24, 2016, (A)*.

1123. "Nanoscale Biomaterials", NanoDay 2016" here at Bilkent UniversityMay 29, 2016, (A), Invited Lecturer.

1124. *"Development of pH-Responsive* Nanogels for Tumor-Targeted Drug Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.

1125. "Influence of Copolymer Composition in Hydrogel-Mediated Chemotherapeutic Delivery", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.

1126. "Design and Optimization of Smart Hydrogels for Protein Recognition", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.

1127. "Toward Protein Recognition Within Oligopeptide-Containing Imprinted Hydrogels", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.

1128. "Co-Delivery of Multiple Therapeutic Agents to Liver Cancer", Biomaterials Days, Society for Biomaterials Regional Meeting, San Antonio, TX, June 3, 2016, (A)*.

1129. "Molecularly and Cellularly Imprinted, Intelligent Scaffolds for Tissue Engineering", International Symposium on Clinical and Translational Medicine 2016, Shanghai, China, September 24, 2016, (A), *Invited Lecturer.*

1130. "Intelligent Biomaterials to Control Recognition and Specificity, Research Forum on Frontiers in Materials, Sichuan University, Chengdu, China, September 26, 2016, (A), *Plenary Lecturer.*

1131. "Designing the Next Generation of Intelligent Biomaterials and Hydrogels: Molecular Recognition and Advanced Protein and Cell Delivery." Annual BMES Meeting, Minneapolis, MN, October 7, 2016, (P)*, *Pritzker Lecturer.*

1132. "Affinity-Mediated Retention and Delivery of High-Isoelectric Point Exhibiting Therapeutic Proteins from Molecularly Imprinted Microparticles", Annual BMES Meeting, Minneapolis, MN, October 7, 2016, (P)*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 181 of 218

1133. "Stimuli-Responsive Nanoscale Hydrogels for the Co-Delivery of Chemotherapeutic Agents", Annual Society of Women Engineers Meeting, Philadelphia, PA, October 28, 2016, (A)*.
1134. "Design and Development of pH-Responsive Hydrogels: An Oral Delivery Strategy for Protein Therapeutics", Annual Society of Women Engineers Meeting, Philadelphia, PA, October 28, 2016, (A)*.
1135. "Impact of Novel Intelligent and Recognitive Biomaterials in Medical Sciences", 2016 World Life Science Conference, Beijing, China, November 3, 2016, (A), *Plenary Lecturer*.
1136. "Rational Design of Charged Nanogels for Differential Protein Capture", Annual AIChE Meeting, San Francisco, CA, November 16, 2016, (A)*.
1137. "Multiplexed Detection of Protein Biomarkers Using Recognitive Polymers in a Localized Surface Plasmon Resonance Sensor Array", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1138. "Molecularly Imprinted Polymer-Peptide Hybrid Materials for Engineered Protein Recognition", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1139. "Polymer Nanoparticle Synthesis and Characterization for the Delivery of Osteoinductive Molecules", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1140. "Optimization of Cationic Nanogel Composition for Enhanced Co-Delivery of siRNA and Chemotherapeutics", Annual AIChE Meeting, San Francisco, CA, November 14, 2016, (A)*.
1141. "A Self-Assembled pH-Responsive Multi-Component Platform for Oral Vaccination", Annual AIChE Meeting, San Francisco, CA, November 16, 2016, (A)*.
1142. "Cell, Peptide and Protein Delivery Problems in Regenerative Engineering", Annual AIChE Meeting, San Francisco, CA, November 16, 2016, (A)*.
1143. "Design, development, and optimization of pH-responsive hydrogels for the oral delivery of human growth hormone", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1144. "Recognitive Methacrylated Alginate Nanoparticles for Protein Therapeutics", Annual AIChE Meeting, San Francisco, CA, November 14, 2016, (A)*.
1145. Intelligent Hydrogel Systems for Recognitive and Responsive Delivery", Annual AIChE Meeting, San Francisco, CA, November 17, 2016, (A)*.
1146. "Stimuli-Responsive Nanoscale Hydrogels for the Co-Delivery of Chemotherapeutic Agents", Annual AIChE Meeting, San Francisco, CA, November 15, 2016, (A)*.
1147. "Development and Characterization of Stimuli-Responsive Hydrogel Microcarriers for Oral Protein Delivery", Annual SFB Meeting, Minneapolis, MN, April 6, 2017, (A)*.
1148. "Synthesis and Characterization of Polymer Nanogels for the Delivery of Therapeutic Small Molecule Analogs", Annual SFB Meeting, Minneapolis, MN, April 6, 2017, (A)*
1149. "Characterization of Protein Interactions with Molecularly Imprinted Hydrogels that Possess Engineered Affinity for High Isoelectric Point Biomarkers", Annual SFB Meeting, Minneapolis, MN, April 8, 2017, (A)*."
1150. "Influence of Molecular Architecture in the Design and Development of a pH-Responsive Nanoscale Hydrogel Platform for Tumor-Targeted Drug Delivery", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1151. "Design of pH Responsive Systems for the Oral Delivery of High pI, High Molecular Weight Protein Therapeutics", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1152. "Polymer Nanogels for the Delivery of Osteoinductive Small Molecule Analogs", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.
1153. "Hydrophobic Modifications of Cationic Nanogels for Enhanced Coloading of Cationic Chemotherapeutic Agents", 44th Annual Meeting & Exposition of the Controlled Release Society, Boston, MA, July 18, 2017, (A)*.

P = preprint available; A = abstract available; * = paper presented by collaborator.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 182 of 218

Invited Lectures at Universities and Companies

1. "Novel Heat Resistant Oligomeric Structures as Crosslinking Agents for Polystyrene," Bell Laboratories, Department of Chemistry and Plastics, Murray Hill, New Jersey, November 29, 1976.
2. "Approaches to the Development of Synthetic Biomedical Materials," Stevens Institute of Technology, Department of Chemistry and Chemical Engineering, Hoboken, New Jersey, November 30, 1976.
3. "Transport Properties of Flexible Packaging Materials," American Can Company, Neenah, Wisconsin, February, 1978.
4. "Crystallization of Polymer Networks and its Effect on their Mechanical and Transport Properties," Polymer Department, General Motors Technical Center, Warren, Michigan, October 12, 1978.
5. "Fundamental Studies of Molecular Structure of Polymer Networks in Relation to Applications in Biomedical Engineering," Iowa State University, Department of Chemical Engineering, Ames, Iowa, February 1, 1979.
6. "Non-Gaussian Macromolecular Network Models for the Investigation of the Structure of Bituminous Coals," University of Washington, Department of Chemical Engineering, Seattle, Washington, March 6, 1979.
7. "Hydrophilic Networks for Biomedical Applications," University of Washington, Bioengineering Center, Seattle, Washington, March 6, 1979.
8. "Crystallinity Effects on the Mechanical and Transport Properties of Polymer Films," Oregon State University, Department of Chemical Engineering, Corvallis, Oregon, March 8, 1979.
9. "Effect of Crystallinity on the Mechanical and Diffusion Properties of Polymer Films and Membranes," University of Alberta, Department of Chemical Engineering, Edmonton, Alberta, Canada, March 9, 1979.
10. "Design Possibilities for Portable Artificial Kidneys," University of Geneva, School of Medicine, Geneva, Switzerland, May 17, 1979.
11. "Fundamental Studies of Hydrophilic Polymeric Networks with Applications to Blood-Compatible Materials," University of Geneva, Departments of Chemistry and Pharmacy, Geneva, Switzerland, May 18, 1979.
12. "Crystallization of Hydrophilic Polymers," Federal Technical University of Lausanne, Departments of Chemical Engineering and Materials Science, Lausanne, Switzerland, May 21, 1979.
13. "Statistical Mechanics of Non-Gaussian Polymeric Networks," University of Naples, Department of Chemical Engineering, Naples, Italy, May 22, 1979.
14. "Diffusion through Model Polymeric Networks," University of Naples, Department of Chemical Engineering, Naples, Italy, May 23, 1979.
15. "Design Possibilities for Portable Artificial Kidneys," University of Athens, School of Medicine, Nephrology Section, Athens, Greece, May 30, 1979.
16. "Recent Research on the Mechanical Properties of and the Diffusion Through Hydrophilic Polymers," Greek Atomic Energy Commission, Democritos Nuclear Research Center, Athens, Greece, June 5, 1979.
17. "A Multi-phase Stefan Problem for Swelling of Glassy Polymers," Greek Atomic Energy Commission, Democritos Nuclear Research Center, Athens, Greece, June 5, 1979.
18. "Investigation of the Macromolecular Structure of Bituminous Coals with Applications to Coal Liquefaction," National Technical University of Athens, Department of Chemical Engineering, Athens, Greece, June 12, 1979.
19. "Transport Properties of Hydrophilic Polymers," University of Maine, Department of Chemical Engineering, Orono, Maine, August 15, 1979.
20. "Crystallinity Effects on the Mechanical and Transport Properties of Polymer Films," Rohm and Haas Company, Research Laboratories, Springhouse, Pennsylvania, November 8, 1979.
21. "Structure Effects on the Diffusion Through Rubbery and Glassy Polymers: Theory, Experiments and Applications," Michigan State University, Department of Chemical Engineering, East Lansing, Michigan, January 10, 1980.
22. "Investigation of the Crosslinked Macromolecular Nature of Bituminous Coals," Exxon Research Co., Corporate Research, Linden, New Jersey, May 9, 1980.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 183 of 218

23. "Structural Effects on the Diffusion through Rubbery and Glassy Polymers," DuPont de Nemours & Co., Engineering Experimental Station, Wilmington, Delaware, June 25, 1980.
24. "Prediction of Food Packaging Stability," American Can Co., Barrington Technical Center, Barrington, Illinois, July 8, 1980.
25. "Alcohol Diffusion in PVC," Democritos Nuclear Research Center, Athens, Greece, August 28, 1980.
26. "Effect of Polymer Structure on the Diffusion of Solutes through Membranes," Celanese Research Co., Summit, New Jersey, October 7, 1980.
27. "Theoretical and Experimental Studies of Solute Diffusion in Water-Swollen Polymers with Applications in Hemodialysis and Controlled Release Systems," University of Utah, Departments of Bioengineering and Pharmaceutics, Salt Lake City, Utah, February 10, 1981.
28. "Transport and Relaxation Phenomena in Polymer-Diluent Systems," Stanford University, Department of Chemical Engineering, Palo Alto, California, February 11, 1981.
29. "Solute Diffusion in Swollen Crosslinked Polymers," California Institute of Technology, Department of Chemical Engineering, Pasadena, California, February 12, 1981.
30. "Macromolecular Structures in Bituminous Coals," California Institute of Technology, Department of Chemical Engineering, Pasadena, California, February 13, 1981.
31. "Theoretical and Experimental Studies of Solute Diffusion in Water-Swollen Polymers," University of Michigan, Department of Chemical Engineering, Ann Arbor, Michigan, April 2, 1981.
32. "Controlled Release Technology," Rose-Hulman Institute and Terre-Haute AIChE Chapter, Terre-Haute, Indiana, November 17, 1981.
33. "Molecular Exclusion and Junction Fluctuations: Molecular Theories of Diffusion in Swollen Polymer Networks," University of California at San Diego, Department of Chemical Engineering, LaJolla, California, January 6, 1982.
34. "Macromolecular Structural Analysis of Coals: A New Tool for Investigation of Coal Structure and Coal Liquefaction," University of Houston, Department of Chemical Engineering, Houston, Texas, January 22, 1982.
35. "Molecular Diffusion in Swollen Polymeric Networks: Theories and Applications in Biomedical Separation and Solute Release," Virginia Polytechnic Institute, Department of Chemical Engineering, Blacksburg, Virginia, January 25, 1982.
36. "Recent Advances in Solute Diffusion Through Rubbery and Glassy Polymers," M.I.T., Department of Chemical Engineering, Cambridge, Massachusetts, March 11, 1982.
37. "Controlled Release Technology: Theory and Applications," University of Maine, Department of Chemical Engineering, Orono, Maine, March 12, 1982.
38. "How Polymer Theories Contribute to Our Understanding of Coal Utilization Processes," University of Illinois at Chicago Circle, Department of Energy Engineering, Chicago, Illinois, March 16, 1982.
39. "Recent Developments in EVAc-Based Controlled Release Systems," IMC Corporation, Terre Haute, Indiana, May 4, 1982.
40. "Swelling-Controlled Release Behavior," University of Geneva, Department of Pharmacy, Geneva, Switzerland, May 28, 1982.
41. "Biocompatible Polymers for Non-thrombogenic Applications," University of Lille, Faculty of Sciences, Lille, France, December 14, 1982.
42. "Anomalous Transport of Penetrants and Solutes in Polymers Undergoing Transitions," University of Bologna, Department of Chemical Engineering, Bologna, Italy, January 10, 1983.
43. "Diffusion in Polymer Networks," University of Naples, Department of Chemical Engineering, Naples, Italy, January 12, 1983.
44. "Engineering Aspects of Arteriosclerosis," University of Geneva, Department of Industrial Pharmacy, Geneva, Switzerland, January 14, 1983.
45. "Release of Bioactive Agents from Swellable Polymers: Theory and Experiments," Sandoz Ltd., Pharmaceutical Division, Basle, Switzerland, January 19, 1983.
46. "Transport of Bioactive Agents in the Nasal and Gastric Mucus," Zyma S.A., Nyon, Switzerland, January 26, 1983.
47. "Development, Characterization and Evaluation of New Membranes for Artificial Kidney Applications," Hospital Center of Vaud of the University of Lausanne, Department of Internal Medicine, Division of Nephrology and Hypertension, Lausanne, Switzerland, January 27, 1983.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 184 of 218

48. "Contact Lenses as Biomaterials," University of Geneva, Faculty of Sciences, Geneva, Switzerland, February 4, 1983.
49. "Recent Developments in Controlled-Release Drug Delivery Systems," University Hospital Center of Vaud of the University of Lausanne, Institute of Pharmacology, Lausanne, Switzerland, February 2, 1983.
50. "Diffusional Release from Polymers," Fournier S.A. and University of Dijon, Dijon, France, February 7, 1983.
51. "Recent Advances in Controlled-Release Systems," University of Geneva, Faculty of Sciences, Geneva, Switzerland, February 11, 1983.
52. "Recent Developments in Controlled-Release Drug Delivery Systems," University of Liege, Faculty of Medicine and Institute of Pharmacy, Liege, Belgium, February 14, 1983.
53. "Topological and Free Volume Analysis of Solute Diffusion in Hydrophilic Networks," Twente University of Technology, Department of Chemical Engineering, Enschede, The Netherlands, February 15, 1983.
54. "Topological and Free Volume Analysis of Solute Diffusion in Hydrophilic Networks," University of Leiden, Gorlaeus Laboratory, Department of Physical Chemistry, Leiden, The Netherlands, February 16, 1983.
55. "Energetics of Polymer Surfaces," University of Lausanne, Departments of Chemistry and Pharmacy, Lausanne, Switzerland, February 17, 1983.
56. "Physical Structure and Biocompatibility of Polymers," University of Paris (Paris-Sud), School of Science, Châtenay-Malabry, Paris, France, February 22, 1983.
57. "Some Recent Developments of Modeling and Physical Understanding of Transport of Solutes and Solvents in Glassy Polymers," University of California at Los Angeles, Department of Chemical Engineering, Los Angeles, California, March 18, 1983.
58. "Topological and Free Volume Analysis of Solute Diffusion in Polymeric Networks," University of California at Berkeley, Department of Chemical Engineering, Berkeley, California, April 11, 1983.
59. "Controlled Release of Bioactive Molecules *in vitro* and *in vivo*," California Institute of Technology, Department of Chemical Engineering, Pasadena, California, April 21, 1983.
60. "Controlled Release of Bioactive Molecules," University of California at Davis, Department of Chemical Engineering, Davis, California, May 19, 1983.
61. "Drug Transport in Dynamically Swelling Hydrophilic Polymers," University of California at San Francisco, Department of Pharmaceutical Chemistry, San Francisco, California, May 27, 1983.
62. "Polymer Structure and Controlled Release of Biomolecules," a set of four seminars on "Diffusion of Solutes in Polymers," "Theories and Experiments of Solute Diffusion in Membranes," "Use of Swellable Polymers in Controlled Release" and "Biocompatibility of Polymers," Zyma Foundation, Nyon, Switzerland, November 24, 1983.
63. "Novel Hydrophilic Systems for Zero-Order Release of Drugs," Farmitalia Carlo Erba of Montedison, Milan, Italy, November 25, 1983.
64. "Swelling-and Relaxation-Controlled Release of Bioactive Agents from Polymers," Purdue University, School of Chemical Engineering, West Lafayette, Indiana, December 1, 1983.
65. "Free-Volume Theories of Solute Diffusion in Membranes," Indiana University-Purdue University at Indianapolis, Department of Chemistry, Indianapolis, Indiana, January 18, 1984.
66. "Swelling-Controlled Release of Bioactive Agents from Polymers," Purdue University, Department of Chemistry, West Lafayette, Indiana, January 25, 1984.
67. "Macromolecular Structure of Bituminous Coals," ACS Pittsburgh Section, Pittsburgh, Pennsylvania, February 16, 1984.
68. "Dynamic Swelling of Coal Particles as a Probe of their Macromolecular Structure," Pennsylvania State University, Department of Materials Science and Engineering, Fuel Science Program, University Park, Pennsylvania, March 8, 1984.
69. "Diffusion of Penetrants and Solutes in Swellable Polymers with Applications to Controlled Release Technology," University of Missouri-Rolla, Department of Chemical Engineering, Rolla, Missouri, April 11, 1984.
70. "Diffusion in Membranes," University of Vienna, Department of Physical Chemistry, Vienna, Austria, June 6, 1984.
71. "Polymers in Controlled Release," Schering Co., New York, New York, October 1, 1984.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 185 of 218

72. "Swellable Polymers for Controlled Release of Biomolecules," Smith, Kline and Beckman, Philadelphia, Pennsylvania, December 11, 1984.
73. "A New Experimental Method for the Determination of the Bioadhesive Bond Strength Between Polymers and Mucus," Menley and James Laboratories, King of Prussia. Pennsylvania, December 12, 1984.
74. "Gel Membrane Structure and Solute Diffusion," Department of Chemical Engineering, State University of New York, Buffalo, New York, January 8, 1985.
75. "Transport of Penetrants and Solutes Through Swellable Glassy Polymers," Department of Chemical Engineering, Washington University, St. Louis, Missouri, March 11, 1985.
76. "Development and Use of Polymer Time-Release Medications," Indianapolis AIChE Section, Indianapolis, Indiana, April 23, 1985.
77. "Characterization of Polymers for Sustained Release Dosage Forms," Upjohn Co., Kalamazoo, Michigan, June 7, 1985.
78. "Characterization Methods of Polymers for Controlled Release," University of Paris-Sud, Department of Pharmacy, Châtenay-Malabry, France, July 2, 1985.
79. "Hydrogels in Controlled Release: Structure of Hydrogels and Mathematical Modeling of Controlled Release Processes," Interx and University of Kansas, Department of Pharmaceutical Chemistry, Lawrence, Kansas, September 17, 1985.
80. "Multicomponent Diffusion in Glassy Polymers," University of Colorado, Department of Chemical Engineering, Boulder, Colorado, October 3, 1985.
81. "Anomalous Penetrant Transport in and Solute Release from Glassy Polymers," University of Wisconsin, Department of Chemical Engineering, Madison, Wisconsin, October 30, 1985.
82. "Bioadhesive Polymers," Hercon Co., S. Plainfield, New Jersey, January 13, 1986.
83. "Bioadhesive Controlled Release Systems," Eli Lilly & Co., Indianapolis, Indiana, February 4, 1986.
84. "Anomalous Transport in Glassy Polymers," University of Akron, Institute of Polymer Science, Akron, Ohio, April 3, 1986.
85. "Anomalous Transport in Glassy Polymers," Owens Corning, Conroe, Texas, May 12, 1986.
86. "Bioadhesion," Rhône-Poulenc Recherches, Saint-Fons, France, October 1, 1986.
87. "Diffusional Phenomena and Stresses Observed During Penetrant Transport and Solute Release in Hydrogels," Leiden University, Center for Biopharmaceutical Sciences, Leiden, Netherlands, October 9, 1986.
88. "Biocompatible Polymers," University of Paris-Sud, Department of Industrial Pharmacy, Châtenay-Malabry, France, October 16, 1986.
89. "Molecular Phenomena in Bioadhesion," Columbia University, Department of Chemical Engineering, New York City, New York, October 24, 1986.
90. "Unusual Applications of Biomaterials: Reconstruction of Vocal Cords, Cartilage and Genital Organs," University of Paris XI, Faculty of Sciences, Châtenay-Malabry, France, November 18, 1986.
91. "Modeling of Solute Diffusion in Polymers," Rhône-Poulenc Recherches, Saint-Fons, France, November 26, 1986.
92. "Solute Diffusion in Block Copolymer Membranes," Rhône-Poulenc Recherches, Saint-Fons, France, November 27, 1986.
93. "Bioadhesion," University of Trieste, Department of Pharmacy, Trieste, Italy, November 28, 1986.
94. "The Effect of Polymer Structure on Drug Delivery," University of Siena, Faculty of Chemistry, Siena, Italy, December 3, 1986.
95. "The Effect of Polymer Structure on Drug Delivery from Controlled-Release Systems," University of Milan, Faculty of Pharmacy, Milan, Italy, December 5, 1986.
96. "Novel Bioadhesive Controlled Release Systems for the Delivery of Febuverine and Metronidazole," Farmitalia Carlo Erba, Milan, Italy, December 5, 1986.
97. "Recent Studies on the Delivery of Peptides Using Swellable Polymers," University of Marmara, Faculty of Sciences, Istanbul, Turkey, December 22, 1986.
98. "Diffusion Studies of Testosterone Through Low Molecular Weight Gels for Transdermal Applications," Hercon Co., S. Plainfield, New Jersey, January 16, 1987.
99. "Bioadhesive Systems for Gastrointestinal and Nasal Applications," Smith, Kline and Beckman, Philadelphia, Pennsylvania, January 22, 1987.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 186 of 218

100. "Interactions of Swellable Polymer Microparticles with Mucus," University of Texas, Department of Chemical Engineering, Austin, Texas, February 17, 1987.
101. "Liquid Diffusion in Glassy Polymers," Rice University, Department of Chemical Engineering, Houston, Texas, February 19, 1987.
102. "A New Approach to Targeting of Genetically-Engineered Molecules: Use of Mucoadhesive Polymeric Microparticles as Carriers for Biomolecular Delivery," Duke University, Department of Biomedical Engineering, Durham, North Carolina, March 17, 1987.
103. "Bioadhesive Polymers," Cygnus Research Co., Redwood City, California, April 4, 1987.
104. "Polymer Microparticle/Mucus Interactions," North Carolina State University, Department of Chemical Engineering, Raleigh, North Carolina, April 6, 1987, *McCabe Lecture*.
105. "New Types of Gels for Biopharmaceutical Applications," Ciba-Geigy Corporation, Basic Pharmaceutics Division, Ardsley, New York, April 14, 1987.
106. "Tablet Disintegration Mechanisms," University of Pavia, Department of Pharmacy, Pavia, Italy, July 3, 1987.
107. "Structure, Swelling and Transport Properties of Methacrylate-Based Networks," University of Cincinnati, Department of Chemical and Nuclear Engineering, Cincinnati, Ohio, October 29, 1987.
108. "Controlled Release Within and Beyond Pharmaceutical Research," University of Pavia, Department of Pharmacy, Pavia, Italy, November 24, 1987, Inaugural *Lecture*.
109. "Bioadhesive Controlled Release Systems," University of Parma, Department of Pharmacy, Parma, Italy, November 25, 1987.
110. "Controlled Release Applications of Hydrophilic Polymers," University of Arizona, Department of Chemical Engineering, Tucson, Arizona, December 8, 1987.
111. "Controlled Release of Perfumes and Other Cosmetic Products," University of Paris XI, Department of Pharmacy, Châtenay-Malabry, France, December 14, 1987.
112. "Environmentally-sensitive Hydrogels," Purdue University, Department of Industrial and Physical Pharmacy, West Lafayette, Indiana, January 19, 1988.
113. "Interactions of Polymers with Mucus: Analysis of Bioadhesive Problems," Johns Hopkins University, Department of Chemical Engineering, Baltimore, Maryland, April 11, 1988.
114. "Swelling-controlled Release Systems," American Cyanamid Company, Lederle Laboratories, Pearl River, New York, April 15, 1988.
115. "Controlled Release from Swellable and Environmentally-Sensitive Polymers," University of Minnesota, College of Pharmacy, Minneapolis, Minnesota, April 21, 1988, *Minnetonka Lecture*.
116. "Polymers as Carriers for Controlled Release Applications," Tecnofarmaci, Milan, Italy, May 6, 1988.
117. "Swelling and Dissolution of Polymers," University of Modena, School of Pharmacy, Modena, Italy, May 13, 1988.
118. "Bioadhesion," University of Pisa, Faculty of Sciences, Pisa, Italy, May 16, 1988.
119. "Swelling and Dissolution of Tablets for Zero-order Controlled Release Systems," University of Geneva, School of Pharmacy, Geneva, Switzerland, May 20, 1988.
120. "Swelling and Dissolution of Polymers," University of Turin, School of Pharmacy, Turin, Italy, May 23, 1988.
121. "Polymer Considerations in the Design of Peptide Delivery Systems," University of Parma, School of Pharmacy, Parma, Italy, May 26, 1988.
122. "Swelling and Collapse of Gels," University of Houston, Department of Chemical Engineering, Houston, Texas, September 23, 1988.
123. "Hydrogels Sensitive to pH, Ionic Strength and Temperature Changes," Northwestern University, Department of Chemical Engineering, Chicago, Illinois, November 10, 1988.
124. "Polymers and Transdermal Systems," Cygnus Research Company, Redwood City, California, November 17, 1988.
125. "pH-Sensitive Hydrogels," University of Washington, Department of Chemical Engineering, Seattle, Washington, March 6, 1989.
126. "Crosslinking in Multimethacrylate Reactions," University of South Florida, Department of Chemical Engineering, Tampa, Florida, March 17, 1989.
127. "Temperature- and pH-Sensitive Hydrogels," University of Pennsylvania, Department of Chemical Engineering, Philadelphia, Pennsylvania, March 20, 1989.
128. "Ionic Hydrogels," Dow Chemical USA, Midland, Michigan, May 5, 1989.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 187 of 218

129. "Polymers as Carriers for Controlled Release," Procter & Gamble, Cincinnati, Ohio, October 3, 1989.
130. "Novel Release Systems for the Delivery of Perfumes and Essential Oils Used in Flavorings," Procter & Gamble, Cincinnati, Ohio, October 3, 1989.
131. "Temperature and pH-Sensitive Hydrogels in Biomedical and Pharmaceutical Applications," University of Michigan, Department of Pharmacy, Ann Arbor, Michigan, October 11, 1989.
132. "The Effect of the Chemical and Physical Polymer Structure on the Release of Bioactive Agents," Ethyl Corporation, Baton Rouge, Louisiana, February 8, 1990.
133. "Swelling Characteristics and Mechanical Properties of Highly Swollen Hydrogels," Kimberly-Clark, Neenah, Wisconsin, February 15, 1990, *Distinguished Lecturer*.
134. "Programmed Insulin Delivery Using Thermosensitive Hydrogels," University of Parma, Department of Pharmaceutical Sciences, Parma, Italy, March 6, 1990.
135. "Ionic Permeability of Polymer Films," C.R. Bard Co., Tewksbury, Massachusetts, April 18, 1990.
136. "Diffusion of Oxygen in Hydrogels," Vistakon, Inc., Jacksonville, Florida, June 20, 1990.
137. "Mechanical Properties of Hydrogels," Vistakon, Inc., Jacksonville, Florida, June 20, 1990.
138. "Drug Release from Hydrogels that Respond to pH and Temperature," University of Geneva, School of Pharmacy, Geneva, Switzerland, September 24, 1990.
139. "Polymers for Articular Cartilage Replacement," Rose-Hulman Institute of Technology, Terre-Haute, Indiana, October 8, 1990.
140. "Structure-Property Relationships in Poly(ethylene oxide-g-methacrylic acid) Hydrogels," Bausch and Lomb Co., Contact Lens Division, Rochester, New York, March 26, 1991.
141. "Recent Advances in Environmentally Sensitive Polymers," Virginia Polytechnic Institute, Department of Chemical Engineering, Blacksburg, Virginia, April 9, 1991.
142. "Characterization of Polymeric Hydrogels," Johnson & Johnson Co., New Brunswick, New Jersey, April 23, 1991.
143. "Diffusional Phenomena and Processes in Polymers in Relation to Consumer Products Development," Kimberly-Clark, Roswell, Georgia, May 17, 1991, *Horizons Lecturer*.
144. "Biodegradable Absorbent Polymers," Dow Chemical Co., Midland, Michigan, August 6, 1991.
145. "Peptide and Protein Delivery from Novel Poly(vinyl alcohol) and Poly(N-vinyl pyrrolidone) Carriers," University of Toronto, Department of Pharmacy, Toronto, Ontario, Canada, October 15, 1991.
146. "Physiologically-sensitive Hydrogels for Biomedical and Drug Delivery Applications," University of Toronto, Department of Chemical Engineering, Toronto, Ontario, Canada, October 16, 1991, Distinguished *Lecturer*.
147. "Bioadhesion of Polymer Gels with Mucin and Mucus: Interdiffusion, Wetting Phenomena and Experimental Verification," Center for Biomaterials, Ontario Center for Materials Research, Toronto, Ontario, Canada, October 16, 1991.
148. "Fast UV Curing Kinetics of Multimethacrylates and their Applications to the Field of Information Storage Systems," McMaster University, Department of Chemical Engineering, Hamilton, Ontario, Canada, October 17, 1991.
149. "Kinetics and Properties of Crosslinked Polymers from Multifunctional Methacrylates," Princeton University, Department of Chemical Engineering, Princeton, New Jersey, November 6, 1991.
150. "Mathematical Modeling of Controlled Release Systems," University of Geneva, Department of Pharmacy, Geneva, Switzerland, April 29, 1992.
151. "Bioadhesive Polymers," University of Santiago, Department of Pharmacy, Santiago de Compostella, Spain, November 12, 1992.
152. "Polymer Gels in Medicine and Biology," Texas A&M University, Department of Chemical Engineering, College Station, Texas, January 29, 1993.
153. "Controlled Release with Ionic Polymers," Landec Corporation, Redwood City, California, May 5, 1993.
154. "Recent Advances in Bioadhesive," Nichiban Co., Tokyo, Japan, April 27, 1993.
155. "Hydrogels in Drug Delivery," Advanced Polymer Systems, Menlo Park, California, July 1, 1993.
156. "Physiologically Sensitive Controlled Release Systems," Seoul National University, Department of Pharmacy, Seoul, Korea, August 30, 1993.
157. "Modeling of Multifunctional UV Polymerizations of Multimethacrylates," Seoul National University, Department of Chemical Engineering, Seoul, Korea, August 30, 1993.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 188 of 218

158. "Bioadhesive Controlled Release Systems," Korean Institute of Science and Technology, Department of Polymer Science, Seoul, Korea, August 31, 1993.
159. "Poly(vinyl alcohol) Hydrogels," Kyoto University, Department of Biomedical Engineering, Kyoto, Japan, September 1, 1993.
160. "Temperature Sensitive Networks," Osaka University, Department of Chemistry, Osaka, Japan, September 2, 1993.
161. "Bioadhesive Polymers," Massachusetts Institute of Technology, Department of Chemical Engineering, Cambridge, Massachusetts, October 1, 1993.
162. "Classification of Release Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 22, 1993.
163. "Fundamental of Diffusion," University of Parma, Faculty of Pharmacy, Parma, Italy, October 22, 1993.
164. "Polymer Structure and Controlled Release," University of Parma, Faculty of Pharmacy, Parma, Italy, October 25, 1993.
165. "Diffusion Controlled Systems (Matrix Devices)," University of Parma, Faculty of Pharmacy, Parma, Italy, October 25, 1993.
166. "Reservoir and Osmotic Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
167. "Swelling-Controlled Release Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
168. "Pulsatile Delivery and pH-Sensitive Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
169. "Bioadhesive Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 26, 1993.
170. "Microencapsulation," University of Parma, Faculty of Pharmacy, Parma, Italy, October 27, 1993.
171. "Polymers for Drug Targeting Systems," University of Parma, Faculty of Pharmacy, Parma, Italy, October 27, 1993.
172. "Swelling Controlled Release Systems," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, January 17, 1994.
173. "Bioresponsive Drug Delivery Systems," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, January 25, 1994.
174. "Recent Advances in Swelling Controlled DDS for Release of Drugs and Proteins," Kyoto University, Faculty of Pharmaceutical Sciences, Sakyo, Kyoto, Japan, January 26, 1994.
175. "Bioresponsive Drug Delivery Systems," Takeda Chemical Industries, Yodogawa, Osaka, Japan, January 27, 1994.
176. "Contemporary Issues in Hydrogel Development," Kyoto University, Research Center for Biomedical Engineering, Sakyo, Kyoto, Japan, January 28, 1994.
177. "Novel Applications of Star Polymers in Drug Delivery," Sanagawa Academy of Science and Technology, Kawasaki, Japan, February 2, 1994.
178. "Bioresponsive Drug Delivery Systems," Tokyo Institute of Technology, Department of Biomolecular Engineering, Midori, Tokohama, Japan, February 2, 1994.
179. "Diffusion in Polymers," Nichiban Co., Hidaka, Japan, February 3, 1994.
180. "Novel Applications of Star Polymers in Drug Delivery," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, February 4, 1994.
181. "Contemporary Issues in Hydrogels Research," Tokyo Women's Medical College, Shinjuku, Tokyo, Japan, February 7, 1994.
182. "Cationic Hydrogels as pH-Sensitive Materials," Hoshi University, Faculty of Pharmacy, Shinagawa, Tokyo, Japan, February 8, 1994.
183. "Bioadhesives," Teijin Ltd., Chiyoda, Tokyo, Japan, February 10, 1994.
184. "Bioadhesive Polymers," Hebrew University, Faculty of Medicine, Jerusalem, Israel, March 20, 1994.
185. "Polymer Dissolution," Ben-Gurion University, Chemical Engineering Department, Beer-sheva, Israel, March 28, 1994.
186. "Probing the Nature of the Mucoadhesive Behavior of PEG and PAA-Containing Hydrogels via ATR-FTIR Spectroscopy, Near Field FTIR Spectroscopy and the Falling Liquid Film Technique," Cygnus Therapeutic Systems, Redwood City, California, September 15, 1994.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 189 of 218

187. "Trends, New Technologies and Smart Polymers in Controlled Release," Colorcon, Princeton, NJ, October 12, 1994.
188. "Issues in Contemporary Hydrogels Research for Medical Applications", University of Wisconsin, Department of Chemical Engineering, Madison, Wisconsin, December 1, 1994.
189. "Chain Interpenetration and Fracture in Gel/Gel and Gel/Mucin Adhesion," Michigan State University, Department of Chemical Engineering, East Lansing, Michigan, February 16, 1995.
190. "Bioadhesive Poly(vinyl alcohol) as a Carrier for Controlled Release of Proteins and Factors for Wound Healing," Sankyo Company, Research Institute, Tokyo, Japan, March 7, 1995.
191. "Smart Materials in Medicine Applications," Ventritex Co., Sunnyvale, California, April 5, 1995.
192. "Contemporary Hydrogels Research," Kagoshima University, Department of Applied Chemistry and Chemical Engineering, Kagoshima, Japan, April 17, 1995.
193. "Hydrogels: Synthesis, Properties and Biomedical Applications," ConvaTec, Princeton, New Jersey, June 15, 1995.
194. "Diffusion and Drying Phenomena in Hydrogels: Influence of Gels' Structure and Hydrophilicity," Cygnus, Redwood City, California, August 31, 1995.
195. "Multifunctional Methacrylates as Biomaterials in Ocular Applications," Alcon Labs, Ft. Worth, Texas, January 23, 1996.
196. "Molecular Dynamics in Polymer Networks with Applications in Biomedical and Drug Delivery Systems," University of Michigan, Department of Chemical Engineering, Ann Arbor, Michigan, January 25, 1995.
197. "Hydrogels in Pharmaceutical Applications," B.F. Goodrich, Brecksville, Ohio, February 1, 1996.
198. "Mechanistic Aspects of Polymer Dissolution," University of Kentucky, Department of Chemical Engineering, Lexington, Kentucky, February 7, 1996.
199. "Mechanistic Aspects of Polymer Dissolution," City University of New York, Department of Chemical Engineering, New York, New York, March 18, 1996.
200. "Poly(vinyl alcohol)-Based Release Systems," ALZA Corporation, Palo Alto, California, April 30, 1996.
201. "Intelligent Biomaterials: Scientific Curiosity or Panacea?" Ohio State University, Department of Chemical Engineering, Columbus, OH, May 2, 1996.
202. "Diffusion in Polymers," University of Naples, Department of Materials Science, Naples, Italy, May 15, 1996.
203. "Use of Hydrogels in Drug Delivery," University of Naples, Department of Pharmaceutical Chemistry, Naples, Italy, May 21, 1996.
204. "Swelling-Controlled Release Systems," University of Rome, Department of Pharmaceutical Chemistry, Rome, Italy, May 24, 1996.
205. "Crystal-Dissolution-Controlled Poly(Vinyl Alcohol)-Based Release Systems," University of Pavia, Department of Pharmaceutical Sciences, Pavia, Italy, November 26, 1996.
206. "Recent Advances in Drug Delivery," Vectorpharma Co., Trieste, Italy, November 28, 1996.
207. "Solute and Water Transport in Polymeric, Swelling-Controlled Release Systems," Cygnus, Redwood City, California, February 6, 1997.
208. "Protein Delivery Using Novel Hydrogel Systems," B.F. Goodrich Co., Brecksville, Ohio, March 19, 1997.
209. "Kinetics and Properties of Crosslinked Polymers from Multifunctional Methacrylates," New Mexico State University, Department of Chemical Engineering, Las Cruces, NM, April 11, 1997.
210. "Protein Release from Hydrogels," B.F. Goodrich, Brecksville, Ohio, June 23, 1997.
211. "Poly(vinyl alcohol)-based Gels by Freezing/Thawing Processes," Hokkaido University, Division of Biological Sciences, Sapporo, Japan, July 10, 1997.
212. "Carriers from PEG Star Polymers for Drug Delivery and Molecular Imprinting," University of Parma, Department of Pharmacy, Parma, Italy, May 19, 1998.
213. "Protein Delivery with Poly(ethylene glycol) Systems," University of Ferrara, Faculty of Pharmacy, Ferrara, Italy, May 21, 1998.
214. "Glassy/rubbery Transitions in Food Products and Importance in Flavor Release," Kellogg, Battle Creek, MI, September 23, 1998.
215. "Intelligent Biomaterials and Advanced Methods of Drug Delivery," University of Ghent, Belgium, *Honorary Doctorate Lecture*, March 19, 1999.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 190 of 218

216. "Drug Delivery from PVA Networks," University of Parma, Department of Pharmacy, Parma, Italy, May 5, 1999.
217. "Dynamics of Chain Interpenetration of PEG-Tethered Hydrogels," Washington University, Department of Chemical Engineering, St. Louis, Missouri, September 7, 1999.
218. "Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Protein and Drug Delivery," Carnegie Mellon University, Department of Chemical Engineering, September 14, 1999.
219. "Intelligent Biomaterials and Advanced Methods of Drug Delivery," University of Parma, Italy, *Honorary Doctorate Lecture*, October 13, 1999.
220. "Interpolymer Complexes, Star Polymers and Ionic Hydrogels in Protein and Drug Delivery," University of Akron, Department of Chemical Engineering, October 21, 1999.
221. "Molecular Chemical Engineering: The Contributions of Chemical Engineers to Biomaterials and Pharmaceutical Engineering," University of Pittsburgh, Department of Chemical Engineering, *Bayer Lecture*, February 24, 2000.
222. "Poly(ethylene glycol)-based Hydrogels for Protein Delivery and Molecular Imprinting," University of Pittsburgh, Department of Chemical Engineering, *Bayer Lecture*, February 25, 2000.
223. "Intelligent Biomaterials and Advanced Methods of Drug Delivery," University of Athens, Greece, *Honorary Lecture*, March 9, 2000.
224. "Poly(ethylene glycol)-based Hydrogels for Protein Delivery and Molecular Imprinting," Aventis Research and Technologies, Frankfurt, Germany, March 15, 2000.
225. "Advances in Mucoadhesive Delivery," Aventis Research and Technologies, Frankfurt, Germany, March 15, 2000.
226. "Novel Oral Protein Delivery Systems: Design, Formulation, Cellular and in vivo Studies," Free University of Berlin, Department of Pharmacy, Berlin, Germany, January 19, 2001.
227. "Oral Protein Delivery Systems Based on Complexation Hydrogels," University of Santiago de Compostela, Department of Pharmacy and Pharmaceutical Technology, Santiago de Compostela, Spain, March 7, 2001.
228. "Mucoadhesive Drug Delivery Systems," University of Santiago de Compostela, Department of Pharmacy and Pharmaceutical Technology, Santiago de Compostela, Spain, March 8, 2001.
229. "Polymer-cell Interactions in Relation to the Development of Oral Delivery Systems," University of Santiago de Compostela, Department of Pharmacy and Pharmaceutical Technology, Santiago de Compostela, Spain, March 8, 2001.
230. "UV Free Radical Polymerizations for Micropatterning and Molecular Imprinting of Poly(ethylene glycol)-containing Films," National Science Foundation, Institute of Science and Technology of Polymers, Madrid, Spain, March 15, 2001.
231. "Advances in Oral Delivery of Proteins Using Smart Polymer Carriers," University of Seville, Department of Chemistry, Seville, Spain, March 16, 2001.
232. "Mucoadhesive Systems in Drug Delivery," University of Barcelona, Department of Pharmacy and Pharmaceutical Technology, Barcelona, Spain, March 23, 2001.
233. "Novel Complexation Hydrogels for Oral Protein Delivery," University of Marburg, Departments of Chemistry and Pharmacy, Marburg, Germany, May 14, 2001.
234. "Molecular Imprinting and Micropatterning in Pharmaceutical and Biomedical Applications," Institute of Pharmacy, Free University of Berlin, May 23, 2001.
235. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning", Department of Chemical and Biochemical Engineering, Rutgers University, March 28, 2002, *Named Lecture*.
235. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognition," University of Texas, Departments of Chemical and Biomedical Engineering, May 9, 2002.
236. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning," Texas A&M University, Department of Chemical Engineering, May 16, 2002.
237. "Mucoadhesion and Bioadhesion: Mechanisms, Experimental Techniques and Development of New Systems," Schering A.G., Berlin, Germany, October 7, 2002.
238. "Intelligent Systems for Transmucosal Delivery of Insulin, Calcitonin and Other Proteins," Eurand, Milan, Italy, November 25, 2002.
239. "Intelligent Biomaterials for Configurational Biomimesis: New Devices for Molecular Recognition," Eurand, Milan, Italy, November 25, 2002.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 191 of 218

240. "Solvent-Activated Controlled Release Systems: Swelling Systems and the Use of Hydrogels in Controlled Release," Eurand, Trieste, Italy, November 26, 2002.
241. "Mucoadhesion and Bioadhesion: Mechanisms, Experimental Techniques and Development of New Systems," Eurand, Trieste, Italy, November 26, 2002.
242. "Devices Based on Intelligent Biopolymers for Oral Protein Delivery," Eurand, Trieste, Italy, November 26, 2002.
243. "Advances in Protein Delivery, Molecular Recognition and Micropatterning", Iowa State University, Department of Chemical Engineering, Ames, IA, April 10, 2003, *Named Lecture*.
244. "Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Imprinting", University of Oklahoma, Department of Chemical Engineering, Norman, OK, April 17, 2003, *Named Lecture*.
245. "Mucoadhesive Polymers", Amano Enzymes, Elgin, IL, August 6, 2003.
246. "Advances in Intelligent Biomaterials; Protein Delivery, Configurational Biomimetic Systems and Bionanotechnology", Johnson & Johnson, Somerville, NJ, August 7, 2003.
247. "Advanced Sensor-Based Control", Becton Dickinson, Chapel Hill, NC, December 18, 2003.
248. "The Future of Biomaterials", EI duPont de Nemours, Wilmington, DE, January 9, 2004.
249. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Micropatterning", EI duPont de Nemours, Wilmington, DE, January 9, 2004.
250. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Micropatterning", Rice University, Department of Biomedical Engineering, Houston, TX, February 5, 2004.
251. "Intelligent Polymer Networks in Protein Delivery and Molecular Recognition", MIT, Program in Polymer Science and Technology, Cambridge, MA, March 17, 2004.
252. "New Hydrogel Systems for Smart Delivery of Drugs and Proteins", University of Tokyo, Department of Materials Science, Tokyo, Japan, July 16, 2004.
253. "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", Hoshi University, Tokyo, Japan, July 17, 2004.
254. "The Future of Nanotechnology with Special Emphasis on Biomedical Applications", Technical University of Lodz, Poland, September 9, 2004.
255. "Intelligent Biomaterials in Protein Delivery, Micropatterning and Molecular Recognition", Technical University of Lodz, Poland, September 9, 2004.
256. "Materials and Methods of Bio- and Mucoadhesion", Technical University of Lodz, Poland, September 9, 2004.
257. "Bionanotechnology and Molecular Recognition," Texas A&M University, Department of Chemical Engineering, College Station, Texas, December 17, 2004.
258. "Polymers for Medical Applications: The Future of Biomaterials", Nanyang Technological University, Department of Materials Science and Engineering, Singapore, January 11, 2005.
259. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Bionanotechnology", Nanyang Technological University, Singapore, January 12, 2005.
260. "Fast UV-Polymerization Kinetics and Reaction Engineering: Kinetics and Network Structure in Relation to Microfabrication", Nanyang Technological University, Department of Chemical Engineering, Singapore, January 13, 2005.
261. "Oral Delivery Systems for Chemotherapeutic Agents and Protein", Nanyang Technological University, Department of Materials Science and Engineering, Singapore, January 14, 2005.
262. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Bionanotechnology", University of Texas at San Antonio, College of Engineering, San Antonio, TX, January 24, 2005.
263. "Advances in Intelligent Biomaterials for Protein Delivery, Molecular Recognition and Bionanotechnology", University of Texas at Austin, IGERT Program, Austin, TX, February 4, 2005.
264. "Intelligent Protein and Drug delivery Systems", University of Barcelona, College of Pharmacy, Barcelona, Spain, March 30, 2006.
265. "Intelligent Acrylic and Methacrylic Biohydrogels for Protein Delivery, Molecular Imprinting and Micropatterning", Arkema, King of Prussia, PA, June 8, 2006.
266. "Biomimetic Polymers in Responsive and Intelligent Drug Delivery," University of Kentucky, Department of Chemical Engineering, Lexington, Kentucky, October 20, 2006, *Ashland Lecture*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 192 of 218

267. "The Next Generation of Drug Delivery Technologies", School of Pharmacy, University of Central Lancashire, Preston, UK, September 13, 2007, *Named Lecture*.
268. "Nanotechnology and Inteligent Response: Their Impact in Biomaterials and Drug Delivery", Nanyang Technological University, Department of Materials Science and Engineering, Singapore, December 12, 2007.
269. "Advances in Biomaterials for Intelligent Biomedical and Pharmaceutical Systems", University of Puerto Rico at Mayagüez, Mayagüez, PR, March 6, 2008, *Merck Lecture*.
270. "Molecular Recognition using Intelligent Biomaterials", University of Massachusetts, Amherst, MA, May 6, 2008, *Rohm & Haas Lecture*.
271. "Recognition and Delivery: Thermodynamics and Kinetic Phenomena in the Design of Medical Microdevices", Naval Research Laboratory, Cente for Bio/Molecular Science & Engineering, Washington, DC, March 24, 2009, *Distinguished Lecture*
272. "Recognition and Delivery: The Next Generation of Medical Microdevices", MIT, Department of Chemical Engineering, Cambridge, MA, April 3, 2009, *Alan Michaels Lecture*.
273. "Recognition and Delivery: The Next Generation of Medical Microdevices", Duke University, Department of Chemical and Biological Engineering, Rolla, MO, April 15, 2009, *Missouri Academy Lecture*.
274. "Addressing Educational Problems in an Evolving, Global and Challenging Engineering World", Duke University, Department of Chemical and Biological Engineering, Rolla, MO, April 15, 2009, *Missouri Academy Lecture*.
275. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Micropatterning", Duke University, Department of Biomedical Engineering, Durham, NC, April 23, 2009, *Kewaunee Lecture*.
276. "Responsive Biomaterials and Feedback-Controlled Medical Devices for Protein Delivery, Molecular Imprinting and Microfabricated Systems", Department of Biomedical Engineering, University of California at Davis, Davis, CA, February 4, 2010, *Distinguished Lecturer*.
277. "Molecular and Cellular Aspects of Transmucosal Protein Delivery", Collège de France, Paris, France, March 15, 2010, *Distinguished Lecturer*.
278. "Responsive and Feedback-Controlled Materials for Protein Delivery, Molecular Imprinting and Microfabricated Systems, Imperial College, Department of Chemical Engineering, London, England, May 12, 2010, *Distinguished Lecturer*.
279. "Biomaterials and Drug Delivery Systems", MIT, Department of Chemical Engineering, Cambridge, MA, May 14, 2010, *Merrill Symposium*.
280. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognitive Devices", Northwestern Univesrity, Department of Chemical Engineering, Evanston, IL, February 10, 2011, *Eugene W. Skinner and Eugene P. Lautenschlager Memorial Lecture*.
281. "Intelligent Biomaterials for the Next Generation of Responsive Drug and Protein Delivery Systems", Auburn University, February 23, 2011, *Bashore Distinguished Lecture*.
282. "Mass Transfer in Drug Delivery and Cellular Biological Media", University of Houston, Houston, TX, March 4, 2011, *Alkiviades Payatakes Lecture*.
283. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognitive Devices", University of Delaware, Department of Chemical Engineering, Newark, DE, April 29, 2011, *Kurt Wohl Memorial Lecture*.
284. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive, Intelligent Medical Microdevices", ETH Zurich, Chemical Engineering Department, Zurich, Switzerland, September 26, 2011.
285. Centennial Lecture, Purdue University, School of Chemical Engineering, October 7, 2011.
286. "Intelligent Biomaterials for Protein Delivery, Molecular Imprinting and Recognitive Medical Devices" University of North Carolina , Eshelman School of Pharmacy and Department of Biomedical Engineering, Chapel Hill, NC, November 14, 2011, *UNC/Eisai Distinguished Lecture in Drug Delivery*.
287. "Novel Methods of siRNA Delivery", Eisai Co, Durham, NC, November 15, 2011.
288. "Intelligent Biomaterials for Responsive Delivery of Therapeutic Agents", Department of Chemical and Biomolecular Engineering, University of California, Berkeley, CA, April 2, 2012, *The Berkeley Lectures*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 193 of 218

289. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive Micro- and Nanodevices", Department of Chemical and Biomolecular Engineering, University of California, Berkeley, CA, April 4, 2012, *The Berkeley Lectures.*
290. "Intelligent Biomaterials for Responsive Delivery of Therapeutic Agents", RTI International, Research Triangle, NC, June 26, 2012.
291. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World: The Next Generation of Recognitive Micro- and Nanodevices", RTI International, Research Triangle, NC, June 26, 2012.
292. "Micro- and Nanotechnology in Drug Delivery", Corporate Research & Engineering - Materials Science, Kimberly-Clark Corp, Neenah, WI, August 2, 2012, *Extrapolations Lecture.*
293. "Hydrogels", National Academy of Engineering, October 2012, *Founders Award Lecture.*
294. "Advances in Intelligent and Recognitive Hydrogels for Treatment of Diabetes, Cancer and Multiple Sclerosis", College of Pharmacy, University of Ljubljana, Ljubljiana, Slovenia, December 5, 2012, *Distinguished Lecture.*
295. "New Frontiers in the Pharmaceutical and Medical Sciences: Improving Health Care through New Medical Devices and Treatments", University-wide Lecture, University of Ljubljana, Ljubljiana, Slovenia, December 5, 2012, *Honorary Doctoral Lecture.*
296. "Intelligent Protein Delivery Systems", Dainippon Sumitomo Pharma, Osaka, Japan, December 11, 2012, *Distinguished Lecture.*
297. "Intelligent Polymer Systems for the Delivery of Proteins, siRNA and Chemotherapeutics", Department of Pharmacy, Kobe Gakuin University, Kobe, Japan, December 13, 2012.
298. "New Frontiers in the Pharmaceutical and Medical Sciences: Advanced Intelligent Hydrogels for Treatment of Diabetes, Cancer and Multiple Sclerosis", College of Engineering, Michigan Tech, Houghton, MI, March 7, 2013, *Distinguished Lecture.*
299. "Intelligent and Diagnostic Therapeutic Systems: Advanced Biomaterials and Improved Health Care ", University of Buffalo, Department of Chemical Engineering, Buffalo, NY, April 23, 2013, *Ruckenstein Lecture.*
300. "New Frontiers in the Pharmaceutical and Medical Sciences: Advanced Intelligent Hydrogels for Protein Delivery", University of Illinois at Urbana, Department of Chemical and Biomolecular Engineering, Urbana, IL, April 25, 2013, *Parr Lecture.*
301. "Fundamentals and Applications of Controlled Release and Drug Delivery", Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia, May 23, 2013, *University Lecture.*
302. "Advances in Intelligent Hydrogels for Recognitive and Protein Delivery Systems", Institute of Bioengineering, School of Life Sciences & School of Engineering, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, July 4, 2013.
303. "Hydrogels, Intelligence and Therapeutic Systems: Is there a Future?", Department of Bioengineering, University of Washington, Seattle, WA, October 13, 2013, *Hoffman Lecture.*
304. "Molecular Imprinting and Recognitive Medical Devices", School of Engineering, University of Minho, Braga, Portugal, January 23, 2014.
305. "Hydrogels for Recognitive and Protein Delivery Systems", Bioengineering Department, University of California San Diego, CA, February 3, 2014, *Skalak Lecture.*
306. "Advances in Intelligent Hydrogels for Recognitive and Protein Delivery Systems", Department of Chemical and Biochemical Engineering, University of Iowa, Iowa City, IA, March 6, 2014, *Kammermeyer Lecture.*
307. "Intelligent and Recognitive Nanoscale Systems for New Therapeutic Applications", Louisiana Tech University, Ruston, LA, September 22, 2014, *Frontiers in Biomedical Research Lecture.*
308. "Biomedical Engineering Responding to Personal Needs", Louisiana Tech University, Ruston, LA, September 23, 2014 *Frontiers Lecture.*
309. "Responsive and Intelligent Biopolymers for Recognitive Systems, Biosensing and Proten Delivery", Department of Chemical Engineering, Columbia University, New York, NY, October 28, 2014, *Gaden Memorial Lecture.*
310. "Intelligent Delivery of Therapeutic Agents: A Tribute to Didi Sangalli and an Ever Changing Field", Department of Pharmaceutical Sciences, University of Milan, Milan, November 5, 2014, *Sangalli Lecture.*

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 194 of 218

311. "Intellligent/Recognitive Nanoscale Systems for New Therapeutic Applications", Dipartimento di Chimica, Materiali ed Ingegneria Chimica :Giulio Natta", Politecnico di Milano, Milan, Italy, November 7, 2014, *Giulio Natta Lecture*.

312. "Advances in Intelligent Biomaterials and Recognitive Systems, Biosensors and Protein Delivery Systems", Strategic Research Theme, Biomedical Engineering and Nanotechnology, University of Hong Kong, December 12, 2014.

313. "Advances in siRNA and Protein Delivery Through Smart Polymers", Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN, March 31, 2015, *Reilly Lecture 1*.

314. "Nanotechnology and Bioengineering in an Evolving Chemical Engineering World", Department of Chemical and Biomolecular Engineering, University of Notre Dame, Notre Dame, IN, March 31, 2015, *Reilly Lecture 2*.

315. "Thermodynamics of Intelligent Hydrogels for Recognitive and Protein Delivery Systems", Department of Chemical and Biochemical Engineering, Rutgers University, New Brunswick, NJ, April 21. 2015, *J&J Distinguished Lecture*.

316. "Multiresponsive Nanogels for the Delivery of Small Interfering RNA and Advanced Protein Therapeutic Agents", Department of Chemical Engineering, Purdue University, West Lafayette, IN, April 28, 2015, *50th Kelly Lecture 1*.

317. "Intelligent Polymer Hydrogels: From Obscure Molecular Structures to Useful Multifunctional Systems", Department of Chemical Engineering, Purdue University, West Lafayette, IN, April 29, 2015, *50th Kelly Lecture 2*.

318. "Advances in siRNA and Protein Delivery Through Smart Polymers", Chemical Engineering Department, City College of New York, CUNY, New York, NY, May 11, 2015, *Stanley Katz Lecture*.

319. "Smart Biomaterials for Diagnosis of Diseases and Improvement of the Quality of Life of Patients", Simson Querrey Institute for BioNanotechnology, Northwestern University, Evanston, IL, June 1, 2015, *Inaugural Lecture*.'

320. "Advances in Polymer Networls and Biomaterials", University of Patras, Patras, Greece, June 5, 2015, *Invited Doctoral Lecture*.

321. "Intelligent Nanoscale Biopolymers for Recognitive and Responsive Delivery of Drugs, Peptides and Proteins" Chinese Academy of Engineering, Beijing, China, March 28, 2015, *Distinguished Lecturer*.

322. "Intelligent Nanoscale Biopolymers for Recognitive and Responsive Delivery of Drugs, Peptides and Proteins ", Illinois Institute of Technology, Chicago, Illinois, *Pritzker Lecturer*, February 17, 2016.

323. "Advances in Protein and siRNA Delivery Through Smart Polymers" , Department of Chemical Engineering, Ohio State University, Columbus, OH, April 1, 2016, *Lowrie Lecturer* 1 "A Historical

324. "Perspective of Nanotechnology and Bioengineering in an Evolving Chemical Engineering World, " Department of Chemical Engineering, Ohio State University, Columbus, OH April 2, 2016, *Lowrie Lecturer* 2.

325. "Intelligent Nanoscale Biopolymers for Recognitive and Responsive Delivery of Drugs, Peptides and Proteins", University of California Davis, Davis, CA, College of Engineering, April 21, 2016, *Distinguished Lecturer*.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 195 of 218

Graduate Students and Researchers Supervised

Lakshminarayama Achar, M.S., Dow's Microbial Control business, Mumbai, India
Kristi Anseth, Ph.D., Professor, University of Colorado, Boulder, CO
Yen Bao, Ph.D.
Donald Barar, M.S., M.B.A., Georgia Pacific Resins, Inc., Elk Grove, CA
Barbara Barr (Howell), M.S., BP-Amoco Fabrics & Fibers, Atlanta, GA
Carolyn Bayer, Ph.D., Lecturer, University of Texas at Austin, Austin, TX
Cristi Bell (Huff), Ph.D., retired
Nicki Bergmann, Ph.D., CRO, San Antonio, TX
Ruggero Bettini, Ph.D., Professor, University of Parma, Italy
Christian Bindschaedler, Ph.D., Merck-Serono, Aubonne, Switzerland
Jay Blanchette, Ph.D., Assistant Professor of Chemical Engineering, University of Southe Carolina, Columbia.
Christopher Bowman, Ph.D., Chaired Professor and Head, University of Colorado, Boulder, CO
Lisa Brannon (Peppas), M.S., Ph.D., Professor, Biomedical Engineering, University of Texas, Austin, TX.
Christopher Brazel, M.S., Ph.D., Professor, University of Alabama, Tuscaloosa, AL
Petr Bures, Ph.D., Bayer, Pittsburgh, PA
William Bussing, M.S., BP Oil Co.,
Mark Byrne, M.S., Ph.D., Assistant Professor, Auburn University, Auburn, AL
Tiziana Canal, Ph.D., University of Trieste., Trieste, Italy
Daniel Carr, Ph.D., Ambermarle, Baton Rouge, LA
John Clegg
Guillaume Conrath, D.E.A., Ph.D., University of Paris, Paris, Italy
Heidi Culver
Raymond Davidson, M.S., Ph.D., Department of Computer Science, Purdue University, Calumet, IN
Alessia De Ascentiis, Ph.D., Cosmetic Co., Parma, Italy
Eric Dietz, Ph.D., Professor, Purdue University, West Lafayette, IN
Cristina Donini, Ph.D., Merck-Serono, Lugano, Switzerland
Christie Dorski, M.S., Westvaco, Pittsburgh, PA
Rashmi Drummond, M.S., at home, Sparta, NJ
Catherine Dubernet, Ph.D., Professor, University of Paris, Chatenay-Malabry, France
Terry Farmer, Ph.D., MBA, Dartmouth, NH
Omar Fisher, Ph.D., postdoctoral fellow, MIT, Cambridge, MA.
Diane Forbes
Aaron Foss, M.S., Ph.D., Medtronic, Minneapolis, MN.
Bruno Gander, Ph.D., Professor, E.T.H., Zurich, Switzerland
Todd Gehr, M.S., M.D., Professor and Chair of Nephrology, Medical College of Virginia, Richmond, VA
Linda Gudeman, M.S., Missionary, Pyatigorsk, Russia
Deepak Hariharan, Ph.D., Adhesives Research Inc., Glen Rock, PA
Ronald Harland, M.S., Ph.D., self-employed, Westwood NJ
Jennifer Harting (Ward), Ph.D., ExxonMobil, Baton Rouge, LA
David Henthorn, M.S., Ph.D. Associate Professor, St Louis University, St Louis, MO
Mary Elizabeth Hill, M.S. , Eastman Kodak Company, Rochester, NY
Zach Hilt, M.S., Ph.D., Associate Professor, University of Kentucky, Lexington, KY
Donald Hooker, M.S., Lt., U.S. Navy, Charleston, SC
Sarena Horava
Yanbin Huang, M.S., Ph.D. Associate Professor, Tsinghua University, Beijing, PR China.
Esmaiel Jabbari, Ph.D., Associate Professor, University of South Carolina, Columbia, SC
Alysa Joaquin
Melissa Kanzelberger, Ph.D., Purina, St Louis, MO
Nikhil Kavimandan, Ph.D., Novartis, NJ
Kelley Keys, M.S., Eli Lilly, Indianapolis, IN
Atul Khare, M.S., Ph.D., MBA, Baxter Healthcare Corporation, Round Lake, IL
Bumsang Kim, Ph.D., Assistant Professor, Yonsei University, Seoul, Korea
DukJoon Kim, Ph.D., Professor, Sung Kyun Kwan University, Suwon, Korea

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 196 of 218

John Klier, M.S., Ph.D., Dow Chemical Co., Midland, MI
Jennifer Knipe, PhD, Lawrence Livermore Laboratories
Michael Koetting, PhD, SmithKline
Richard Korsmeyer, M.S., Ph.D., Director, Pfizer Co., Groton, CT
Devdatt Kurdikar, Ph.D., Baxter Healthcare, Round Lake, IL
Myung Cheon Lee, M.S., Ph.D., Professor, Dongguk University, Seoul, Korea
Hunter Lauten, Ph.D., L'Oreal, NY.
William Leobandung, Ph.D., personal business, Jakarta, Indonesia.
Monica Little, M.S., 3M Company, St. Paul, MN
Jennifer Lopez, M.S., Eli Lilly and Co., Kansas City, MO
Anthony Lowman, Vice Provost, Temple University, Philadelphia, PA
Lucy Lucht (Hair), Ph.D., Lawrence Livermore Laboratories, Livermore, CA
Steven Lustig, M.S., Ph.D., E.I. duPont de Nemours, Wilmington, DE
Surya Mallapragada, Ph.D. , Head and Distinguished Professor, Iowa State University, Ames, IA
Steve Marek, Ph.D., Lecturer, University of Texas, Austin, TX
David Meadows, M.S., Ph.D., Alcon Laboratories, Inc., Ft. Worth, TX
Anthony Mikos, M.S., Ph.D., Chaired Professor, Rice University, Houston, TX
Donald Miller, Ph.D., Pfizer, Philadelphia, PA
Ruben Morones, Ph.D., postdoctoral fellow, Boston University, Boston, CA
Humphrey Moynihan, M.S., Ph.D., Westvaco, Covington, VA
Scott Napp, M.S., Ph.D., Atlas Copco Rotoflow, Inc., Gardena, CA
Balaji Narasimhan, Ph.D., Professor and Associate Dean, Iowa State University, Ames, IA
Jorge Olivares, M.S., Eli Lilly & Co., San Juan, Puerto Rico.
Ebru Oral, Ph.D., Assistant Professor, Harvard Medical School, Cambridge, MA
Don Owens, Ph.D., Sabic, Evansville, IN
Javier Pacheco-Gomez, M.S., Eli Lilly, Lafayette, IN
Bob Parker, Ph.D. , Associate Professor, University of Pittsburgh, Pittsburgh, PA
Jonathan Peters,
Kairali Podual, Ph.D., BioArray Solutions, Piscataway, NJ
Amey Puranik,
Catherine Reinhart (Stutts), M.S., at home, Corning, NY
Philip Ritger, M.S., Horizon Medical, Santa Ana, CA
Christian Robert, Ph.D., Government of Canton of Geneva, Geneva, Switzerland
Mary Rugger (am Ende), Ph.D., Pfizer, Groton, CT
Jennifer Sahlin, M.S., Ph.D., 3M Co., St. Paul, MN
Irma Sanchez, Ph.D., Associate Professor, Tecnologico de Monterrey, Monterrey, Mexico
Olivier Saslawski, D.E.A., Ph.D., LIPHA S.A., Lyons, France
Robert Scott, M.S., Ph.D., Ciba Vision, GA
Cody Schoener, PhD, Dow Chemical
Alec Scranton, Ph.D., Professor & Associate Dean, University of Iowa, Iowa City, IA
Lisa Schwarte (Runge), M.S., DuPont Electronics, Research Triangle Park, NC
Serge Segot-Chicq, D. Pharm., Roussel, UCLAF, Paris, France
Laura Serra, Ph.D., Madison, WI
Lindsey Sharpe,
Justin Shofner, Ph.D., Ambermarle, Baton Rouge, LA
Jürgen Siepmann, Ph.D., Professor, University of Lille, France
Joana Silva, PhD
Oya Sipahigil, Ph.D., Assistant Professor, Marmara University, Istanbul, Turkey
Robert Sorensen, M.S., Romeo, CO
David Spencer
Gianfranco Spizzirri, Ph.D., Assistant Professor, University of Calabria, Cosenza, Italy
Stephanie Steichen
Narsimhan Sundaram, M.S., Ph.D., Charleston, SC
Eva Swan (Miller), M.S., Pfizer, Philadelphia, PA
Eric Teillaud, D.E.A., Fournier Labs, Chenove, France

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 197 of 218

Madeline Torres-Lugo, M.S., Ph.D. Associate Professor, University of Puerto Rico, Mayaguez, PR
Andy Tsou, Ph.D., ExxonMobil, Houston, TX
Kent Urdahl, M.S. (Harvard), Houston TX
Jerôme van Straaten, CFPO, Venissieux, France
Jeff Wilson, Ph.D.
Shelia Wright, M.S., AK
Jianchu Wu, Ph.D., Quantum Chemicals, Chicago, IL
Wu Huang Michael Yang, Ph.D., Irvine, CA
Ming Shih Yen, Ph.D., San Diego, CA
Jing Zhang, Ph.D. , Givaudan Roure Flavors, Shanghai, PR China
Kenneth Zieminski, M.S., Ph.D. , 3M Co., St. Paul, MN

Jessica Alameda (Guingrich), M.D., Associate Professor, Medical School, University of Illinois, Peoria, IL
Greg Alber,
Gina Anderson, Lake Erie College of Osteopathic Medicine, Pittsburgh, PA
Asif Ansari, Ph.D. (Carnegie Mellon)
Kristi Anseth, Professor, University of Colorado, Boulder, CO
Deli Atkins (Schleiffarth), Monsanto Company, St. Louis, MO
Brian Basiaga,
Jennifer Bauerle, M.S. (Univ. Strasbourg), 3M Co., St. Paul, MN
Danielle Becker (Hestermann), Shipley Company, Marlborough, MA
Theresa Beers (McGee), M.S., (University of Houston), at home, Friendswood, TX
Carrie Beitler, Radian Corporation, Austin, TX
Robert Benner, Ph.D., (University of Minnesota), Sandia Labs, Albuquerque, NM.
Brad Berkowitz, Merck & Co., Inc., West Point, PA
Deepshikha Bhargava
Sam Bhargava, Ph.D. (University of Delaware), Madison, WI
Rachel Bigsby, B.S. , Indianapolis, IN
Mark Billian, Stanford, CA
Aaron Blanchard, doing PhD at Emory
Michelle Bland, B.S., 3M, Minneapolis, MN
Julia Blatnak, 3M Co., St. Paul MN
Kathy Blinstrub (Vanderheyden), E.I. duPont de Nemours, Green Bay, WI
Kelley Britton (Keys), M.S., Eli Lilly, Indianapolis, IN
Gail Bonney (Boyston), Indianapolis, IN
Kelli Bousum, Eli Lilly, Clinton, IN
Michelle Bridgewater (Knight), BF Goodrich, Avon Lake, OH
Adrian Brown, Marathon Oil, Indianapolis, IN
Donald Brown, M.D., FHP Inc., Westminster, CA
Cynthia Bugert, Mobil, Beaumont, TX
William Bundschuh, M.D., Duke University, Durham, N.C.
Steven Burdette, Ph.D., (University of Wisconsin), Corning, Inc., Corning, NY
Karen Butler, Novon Products Division, Morris Plaines, NJ
Michelle Butts, Wilmington, OH
Carrie Byrnes, Delco Electronics, Kokomo, IN
Steve Caltrider, Eli Lilly, Indianapolis, IN
William Carter, Anvil Corp., Bellingham, WA
Amy Carver (Mulesky), Bristol Myers Squibb, Evansville, IN
Kathy Ceperich, E. Chicago, IN
Brad Chadwell, B.S., Battelle, Columbus, OH
Candace Chang (Carter), US Nav. Avionics Ctr., Indianapolis, IN
Mark Cheesman, Merichem Co., Houston, TX
Shawn Cheesman, MBA (Univ. Minnesota), Entegris Corp., Minnepolis, MN
Tom Chiesl, Ph.D. Candidate, Northeastern University, Evanston, IL

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 198 of 218

Christi Chisamore, Lake Zurich, IL
Steven Clark, Ph.D., (Purdue University), Batch Processing Technologies, West Lafayette, IN
Jeannette Cobak (Holtman), M.S., (University of Toledo), Chrysler Corporation, Detroit, MI
Ann Cody (Junttila), Arco Petroleum, Anaheim, CA
Karen Coffey (Hahn), Indiana University Law School, Indianapolis, IN
James Coomes, Frito Lay, Dallas, TX
Martha Cox, Ingold Electrodes, Wilmington, MA
Thomas Daugherty, M.S., (University of Washington), Procter & Gamble, Cincinnati, OH
Neal Davenport, Radian Corporation, El Segundo, CA
Ernie Davis, Mobil Chemical Co., Beaumont, TX
Kris Dermody,Pfizer Inc., Terre Haute, IN
Philip DiGrazia, Spring, TX
Christie Dorski , M.S., Ph.D. , Westvaco, Pittsburgh, PA
Richard Drummond, Nabisco, NJ
Tom Dziubla, Ph.D. (Drexel university), Asst professor, Univ Kentucky, Lexington, KY
Dawn Edwards (Everidge), Eli Lilly, Clinton, IN
Irina Elkin, B.S., Ph.D. Candidate, M.I.T., Cambridge, MA
Brian Elliott, Ph.D. (University of Colorado), Boulder, CO
Lyn Eshelman, Ph.D. (Purdue University), Eastman Kodak, Rochester, NY
Halle Ewbank, Carmel, IN
Tony Fan, M.D. Student, Indiana University, Indianapolis, IN
Becky Ficek (Fredrickson), Ph.D. (Rice University), M.D. (Baylor), Pearland, TX
John Fithian, Allen-Bradley Co., Buffalo, NY
Paul Fithian, DuPont Polymers, Michigan City, IN
Linda Flosenzier, Ph.D. (Northwestern University), Eastman Kodak, Rochester, NY
Lisa Fowler, South Burlington, VT
Glenn Fox, M.S. (Purdue University), Ford Motor Company
Nancy Franson, M.S., Ph.D. (University of California, San Diego), Sterling Drug Inc. Rensselaer, NY
Kenneth Frederick, Ph.D., (University of Illinois), Exxon Research, Houston, TX
Clark Fuhs, Dataquest, Inc., San Jose CA
Kim Furman (Crawford), 3M Co., Hartford City, IN
Marcy Getoor (Lewis), MBA (Indiana University), Dow Brands, Indianapolis, IN
David Gobran, Ph.D., St. Paul, MN
Robert Goeltz, Chevron USA, Denver, CO
Ann Grosvenor, Ph.D., (University of Kentucky)
Chris Haak, Ph.D.,(University of Massachusetts), St. Paul, MN
Randy Haase, S.C. Johnson & Son, Inc., Racine, WI
Paula Hansen, M.S., (University of California, Berkeley), Dow Chemical Co., Oakland, CA
Ellen Harris (Adams), Air Products, Allentown, PA
Pat Harris, SC Johnson, Racine, WI
Sujata Harshvardhan, B.S., Merck, Westpoint, PA
Jennifer Harting (Ward), Ph.D., ExxonMobil, Baytown, TX
Gary Hartmann, ExxonMobil, Mount Belview, TX
Joan Havlin (Noyola), 3M, Minneapolis, MN
Rebecca Hays (Jessup), Horsell Graphic, Leeds, UK
Diana Hazaga (Jackson), EPA, Atlanta, GA
Michael Heglas, Glidden Co., Cleveland, OH
Matthew Helmkamp, Rohm & Haas, Houston, TX
Nancy Henkle (Burgess), M.B.A., (Stanford University), Hewlett-Packard, Cupertino, CA
Paul Henry, Joseph E. Seagram & Sons, Inc., Lawrenceburg, IN
Cory Henschen, Chicago, IL
David Henthorn, B.S. (Purdue), Ph.D. Candidate, Purdue University, West Lafayette, iN
Todd Hergenrader, Bisco, Inc., Chicago, IL
Laurie Hite, 3M, St. Paul, MN
Katherine Holbeck (Patterson), at home, Kennett Square, PA

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 199 of 218

Martha Honey (Kivlovitz), E.I. DuPont de Nemours, LaPorte, TX
John Howell, Dynatron/Bondo, Atlanta, GA
Gregg Howsmon, Ph.D. (Purdue University), Exxon, Baton Rouge, LA
Eric Hubert, M.D. Candidate, Indiana University, Indianapolis, IN
Tim Hudson, Eli Lilly, Indianapolis, IN
Charles Hughes, (deceased)
Michael Hurst, Quantum Chemicals, Clinton, IA
Tod Jilg, Hoechst Celanese, Rock Hill, SC
Amy Jines, Eli Lilly, Indianapolis, IN
Ashley Johnson, M.D. Candidate, Indiana University, Indianapolis, IN
Christy Johnson, Ph.D. (University of Michigan), IBM Co., Essex Junction, VT
Marion Johnson, Midland, MI
Kelly Jordan, Phillips Petroleum, Pasadena, TX
Shawn Kaleta, Fairfield, OH
Jasna Karagic, UOP, Des Plaines, IL
Kerry Kelly, M.S., (University of North Carolina), Lockport, IL
Lori Keneipp (Schrad), at home, Mishawaka, IN
Shari Kennett, Dow Chemical Co., Midland, MI
Rohit Khanna, Ph.D., (California Institute of Technology), Vice President, Waters Millipore Corp., Milford, MA
Inki Kim, Ph.D. Student, Arizona State University, Tempe, AZ
Dee Kinslow (Harycki), J.D., (University of Minnesota), Eli Lilly, Indianapolis, IN
Dimitri Kioussis, Ph.D. Candidate, University of Maryland, College Park, MD
Douglas Kline, Ph.D. (M.I.T.), Schering Plough, Kennilworth, NJ
Kyle Kollias, Bartlett, IL
Kathy Korowin (Whitehead), BASF, Wyandotte, MI
Jackie Kosmala, MBA (University of Minnesota), Wappingers Falls, NY
David Kramer, Chevron Research Company, Richmond, CA
Linda Lacerte, M.B.A. (Georgetown University), Arlington, VA
John Larson, Corning, Corning, NY
Cecilia Latchford (Marrese), Northbrook, IL
Rachel Lenox (Mace), M.D., (Vanderbilt University), Assistant Professor, Pediatrics, Vanderbilt University, Nashville, TN
Kristin Levin, Indianapolis, IN
Yolla Levitt, 3M, St. Paul, MN
Karen Lichtle (Buchanan), Goodyear Tire & Rubber Co., Greensburg, OH
Yelena Livshitz (Levitt), 3M Co., St. Paul, MN
Timothy Lohmann, Standard Oil (Ohio), Anchorage, AK
Leslie Lowe, Raleigh, NC
Amy Luttrell (Borcherding), Procter & Gamble, Cincinnati, OH
Scott Magee, Air Products, San Diego, CA
Lynette Malone, Union Carbide, Houston, TX
Linda Manning, Exxon, Baytown, TX
Kim Maroney, Indianapolis, IN
Mina Mazdai, Air Products Co., Allentown, PA
Drew McClay, B.S., IBM, Burlington, VT
Dona McCullum (Foster), M.S., (University of Minnesota), at home, Stow, OH
Michelle McFerrin (Anthony), MBA, Dell Computers, TX
Jean Meyer, MBA (University of Chicago), Tribune Properties, Chicago, IL
Zen Mogri, Ph.D. (University of Texas)
Neena Mongia (Tierney), Ph.D. (Princeton University)
Erin Moulesong, M.D. Student, Indiana University, Indianapolis, IN
Julia Mounts (Alexander), at home, Horsham, PA
Sandy Mui, Plano, TX
Mary Mulhern (Betts), Dublin, CA

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 200 of 218

Janet Murdock, Mt. View, CA
Teri Nagel (Carter), at home, Ferndale, WA
Lory Nelson (Hefele), McDonnell Douglas Astro. Company, Huntington Beach, CA
Vanessa Niemeier (Cochran), 3M Co., St. Paul, MN
Peggy Nowicki, Burbank, CA
Amy Ouellette,M.S. (Rice University)
Leo Owens, US Navy, Norfolk, VA
Stephen Padgett, Eastman Kodak, Rochester, NY
Edward Parsonage, Ph.D. (University of Minnesota), 3M, St. Paul, MN
Peter Pavlechko, Ph.D., (University of Texas), Tennessee Eastman, Kingsport, TN
Rachel Peck, B.S., MD Candidate, Johns Hopkins University, Baltimore, MD
Sylvie Peltier (Kiesel), IBM, Bedford, NH
Thomas Pembrook, Pembrook Associates, Syracuse, NY
Trissa Plouff (Whitesell), Elkhart, IN
Lori Pride, Glenview, IL
Kevin Rabinovitch, Mars Co. Hackettstown, NJ
Jennifer Ralston (Floyd), West Chester, OH
Terry Rave, M.B.A., (University of Cincinnati), Cincinnati, OH
David Rhoads, Ph.D., (Rice University), Houston, TX
Christopher Rhodes, M.S., (University of California, Berkeley), UOP, Lincolnwood, IL
Ursula Röcken (Bryan), Antioch, IL
Pat Robinson, GE Plastics, Pittsfield, MA
Mark Routt, Caltex Petroleum, Dallas, TX
Brian Saunders, Ph.D. (University of Wisconsin, Madison, WI), University of California, San Diego, CA
Carol Saunders (Harbaugh), Exxon, Baytown, TX
Keith Schafer, M.S., (Washington University), M&M/Mars, Hackettstown, NJ
Kay Schrand (Jackson), Eli Lilly & Co., Indianapolis, IN
Jill Scott, Air Products, Allentown, PA
Lisa Scranton, M.S. (Michigan State University), Iowa City, IA
Nitu Sekhon, M.S., Ph.D., (Carnegie Mellon University), General Electric, Schenectady, NY
Rob Senoff, Philadelphia, PA
Paul Shafer, Hill's Pet Nutrition, Richmond, IN
Sandip Shah, Cincinnati, OH
Atsmon Shahar, Alcon Labs, Ft. Worth, TX
Waleed Shalaby, Ph.D., M.D. (University of South Carolina), University of Pennsylvania Medical Center, Philadelphia, PA
Upma Sharma, Ph.D. Student, Princeton University, Princeton, NJ
Shannon Sharp, 3M Co., Nevada, MO
Connie Sheets, Procter & Gamble, Cincinnati, OH
Lisa Shieh, Ph.D. (MIT), M.D. (Harvard), Cambridge, MA
Sandra Shoup (Morrison), DynaClean Worldwide, Inc., Marion, IN
Frank Shuster, Quantum Chemical Co., Cincinnati, OH
Gavin Sinclair, Ph.D. (Carnegie Mellon), Assistant Professor, Purdue University, West Lafayette, IN
Jennifer Sinclair, Ph.D. (Princeton University), Professor, Purdue University, West Lafayette, IN
Kenneth Slight, M.B.A., (Harvard Business School), Cherry Hill, NJ
Jeff Smith, Exxon, Baytown, TX
Jennifer Smith, Amoco, Naperville, IL
Lisa Smith (Foster), Eli Lilly & Co., Indianapolis, IN
Michelle Smith, M.S., (Purdue University), M.B.A (University of Chicago), Rohm & Haas, Chicago, IL
Thomas Smith, Shell Oil Co., Norco, LA
Dennis Sopka, Skippack, PA
Thomas Speckhard, Ph.D., (University of Wisconsin), 3M Co., St. Paul, MN
Kerry Staller, Emery Chemicals, Cincinnati, OH
Shauna Stauffer, Mobil Oil Corporation, Beaumont, TX
Mark Stewart, DuPont Packaging & Industrial Polymers, Orange, TX

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 201 of 218

Jennifer Stewart (Whitman), Ph.D. Candidate, CalTech, Pasadena, CA
Barbara Swanson, Naperville, IL
Jennifer Swiger (Stringer), B.S. (Purdue University), at home, Indianapolis, IN
Tami Tadrowski (Franz), S.C. Johnson, Racine, WI
Donald Takahara, Ph.D., (Northwestern University), Dow Corning, Midland, MI
Tracy Tassone, Willow Springs, IL
Loy Tay, Singapore
Shawn Teague, M.D. (Indiana University), Indianapolis, IN
Jennifer Teske, Menomenee Falls, WI
Dave Thompson, Ph.D. (Michigan State University)
Tim Toennis, Aurora, IL
Trina Trakarnpan, du Pont, Marion, IN
Brian Tulloh, McKenzie & Co., Dallas, TX
Adam Turk, Ph.D. (Carnegie Mellon University)
Sarah Vakkalanka, M.D. (University of Cincinnati)
Nicholas Valkanas, Ph.D. (M.I.T.), Greece
David Vinson, Kemrez Chemicals, Toorak, Australia
Amelia Vrabel, Cupertino, CA
Curt Walker, 23rd Way Corps., New Knoxville, OH
Andy Walnoha, Carnegie, PA
Liz Wassmuth (Ernst), Reilly Industries, Indianapolis, IN
Jennifer Wetzel (Reinhart), Austin, TX
Jennifer Weyl (Cecil), M.D. (Indiana University), Loveland, CO
Diane Whirledge (Tennenhouse), Eli Lilly, Lafayette, IN
Jim Wiesler, M.S., (Northwestern Univ.), Eli Lilly, Lafayette, IN
Daphne Williams, (Winston), Overland Park, KS
Michele Williams (Dziaba), Kraft General Foods, Glenview, IL
Sheri Wilson, Greenwood, IN
Natalie Wisniewski, Ph.D. (Duke University), McKinsey & Co., Pittsburgh, PA
Mike Wythe, Pfizer Inc., Terre Haute, IN
Donna Zaikos, M.S. (University of Illinois), Indianapolis, IN
John Zoller, Akzo Chemie America, Pasadena, TX

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 202 of 218

Ph.D. and M.S. Theses Supervised

1. Larry A. Feig (with Prof. C.K. Colton, K.A. Smith and R.S. Lees) "*In-vivo* Penetration of Albumin Through the Arterial Wall in Acute Hypertension Studies," M.S. Thesis, Department of Chemical Engineering, M.I.T., 1976.
2. Todd W.B. Gehr: "Radiation Induced Copolymerization of Vinyl Acetate and N-Vinyl-2-pyrrolidone," M.S. Thesis, 1978.
3. William R. Bussing: "Improved Polystyrene Through Friedel-Crafts Polymerization and Crosslinking Methods," M.S. Thesis, 1978.
4. Ming-Shih Yen: (with Prof. Schoenhals), "A Study of Thermally-Induced Pumping of Carbon Dioxide through Natural Rubber Membranes," Ph.D. Thesis, School of Mechanical Engineering, 1979, ***Ph.D. Thesis No 1***.
5. Catherine T. Reinhart: "Characterization of and Solute Diffusion in Water-Swollen Membranes," M.S. thesis, 1980.
6. Kenneth F. Zieminski: "Transport and Relaxation Phenomena in Polymer-Diluent Systems Exhibiting State Transitions," M.S. Thesis, 1980.
7. Scott J. Napp: "Preparation, Characterization and Oxygen Transport of Glassy Copolymers of Methyl Methacrylate and Disiloxane Derivatives," M.S. Thesis, 1980.
8. Richard W. Korsmeyer: "Drug Diffusion in Swellable Polymer Systems," M.S. Thesis, 1980.
9. Donald T. Hooker, II: "Macromolecular Network Structure of Bituminous Coals: Analysis of Coal-Derived Products," M.S. Thesis, 1981.
10. Mary Elizabeth Hill-Lievense: "Macromolecular Network Structure of Bituminous Coals: Analysis of Molecular Weight Distribution of Coal Extracts and Coal-Derived Liquids," M.S. Thesis, 1981.
11. Eva A. Swan: "Mechanistic Aspects of Transport of Water Soluble Molecules Through Porous. Hydrophobic Polymers: A Study of Ethylene/Vinyl Acetate Based Systems," M.S. Thesis, 1981.
12. David L. Meadows: "Non-Equilibrium Thermodynamic Analysis of Solute Diffusion Through Polymer Membranes," M.S. Thesis, 1982.
13. G.W. Raymond Davidson, III: "Hematological Studies of Heparinized and Enzyme-Immobilized Polymeric Surfaces," M.S. Thesis, 1982.
14. Donald G. Barar: "Macromolecular Structure of Friedel-Crafts Crosslinked Polystyrene Particles," M.S. Thesis, 1982.
15. Lucy M.H. Lucht: "Macromolecular Network Structure of Coals: Interpretation of Equilibrium and Dynamic Swelling Experiments," Ph.D. Thesis, 1983, ***Ph.D. Thesis No 2***.
16. Humphrey J. Moynihan, "Molecular Theories of Solute Diffusion in Crosslinked Polymeric Membranes," M.S. Thesis, 1983.
17. Richard W. Korsmeyer, "Solute and Penetrant Diffusion in Swellable Polymers," Ph.D. Thesis, 1983, ***Ph.D. Thesis No 3.***
18. Donald R. Miller, "Surface Properties of Poly(Vinyl Alcohol-co-N-vinyl-2-Pyrrolidone) for Blood Compatibility Studies," Ph.D. Thesis, 1984, ***Ph.D. Thesis No 4***.
19. Barbara D. Barr-Howell, "Characteristics of Diffusion in Highly Crosslinked Macromolecular Networks," M.S. Thesis, 1984.
20. Christian Bindschaedler (with Prof. E. Doelker and Dr. R. Gurny) "Etude thermodynamique des microdispersions aqueuses d'acetate de cellulose et processus de formation de membranes semi-permeables: Characteristiques de permeabilite et application a des comprimes osmotiques," Department of Industrial Pharmacy, University of Geneva, Ph.D. Thesis, 1984, ***Ph.D. Thesis No 5.***
21. G.W. Raymond Davidson, III, "Dimensionless Analysis of Solute Release from Swellable Polymer Systems," Ph.D. Thesis, 1985, ***Ph.D. Thesis No 6.***
22. Antonios G. Mikos,"Kinetic Modeling of Suspension Copolymerization-Crosslinking Reactions," M.S. Thesis, 1985.
23. Ronald S. Harland, "Solute Diffusion through Semicrystalline Polymer Membranes," M.S. Thesis, 1985.
24. Steven R. Lustig, "Scaling Analysis and Mathematical Modeling of Solute and Penetrant Transport in Equilibrium Swollen and Dynamically Swelling Polymers," M.S. Thesis, 1985.
25. Kent G. Urdahl, "Cyclohexane Transport in Crosslinked Polystyrene," M.S. Thesis, 1985.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 203 of 218

26. Philip L. Ritger, "Anomalous Solvent Transport in Macromolecular Coal Networks," M.S. Thesis, 1985.
27. Serge Segot-Chicq "Mecanismes de liberation des principes actifs medicamenteux a partir des formes polymeriques a liberation controlee," Department of Pharmacy, University of Paris-XI, D. Pharm. Thesis, 1985, ***Ph.D. Thesis No 7.***
28. M. Lisa Brannon, "Preparation and Characterization of, and Preliminary Solute Transport Studies in Novel Asymmetric Poly(vinyl Alcohol) Membranes," M.S. Thesis, 1986.
29. John Klier, "Equilibrium and Dynamic Transport Properties of Swellable Polymers," M.S. Thesis, 1986.
30. Narsimhan Sundaram, "Investigation of Energetic Interactions Governing Solute Permeation in Amorphous Polymer Membranes," M.S. Thesis, 1986.
31. Frederic Touchard (with Prof. D. Duchene), "Mise au point et etude d' un systeme bioadhesif a base de metronidazole," Department of Pharmacy, University of Paris-XI, D.E.A. (M.S.) Thesis, 1986, ***Ph.D. Thesis No 8.***
32. Frederique Pothier-Lallemand (with Dr. J.P. Benoit), "Mise au point de microspheres d' agarose contenant du cisplatine," Department of Pharmacy, University of Paris-XI, D.E.A. thesis, 1986, ***Ph.D. Thesis No 9.***
33. Guillaume Conrath (with Dr. F. Falson-Rieg), "Modele d' etude experimentale d' un systeme transdermique," Department of Pharmacy, University of Paris-XI, D.E.A. Thesis, 1986, ***Ph.D. Thesis No 10***.
34. Bruno Gander (with Prof. E. Doelker and Dr. R. Gurny), "Etude de systemes monolithiques particulaires a liberation prolongee pour la voie orale a base de polymeres hydrophiles reticules," Department of Industrial Pharmacy, University of Geneva, Ph.D. Thesis, 1986, ***Ph.D. Thesis No 11***.
35. Christian Robert (with Prof. P.A. Buri), "Elaboration et characteristiques de microspheres de polymethacrylate d' hydroxyethyle a liberation prolongee," Department of Industrial Pharmacy, University of Geneva, Ph.D. Thesis, 1986, ***Ph.D. Thesis No 12.***
36. Hai-Shung Andy Tsou, "Water Transport into Epoxy Resins and Composites," Ph.D. Thesis, 1987, ***Ph.D. Thesis No 13***.
37. Catherine Dubernet (with Patrick Couvreur), University of Paris-XI, D.Sc. Thesis, 1988, ***Ph.D. Thesis No 14.***
37. M. Lisa Brannon, "Structural Characteristics and Swelling Behavior of pH-Sensitive Hydrogels," Ph.D. Thesis, 1988, ***Ph.D. Thesis No 15***.
38. Ronald S. Harland, "Synthesis, Characterization and Transport Studies of Hydrophilic/Hydrophobic Block and Graft Copolymer Membranes," Ph.D. Thesis, 1988, ***Ph.D. Thesis No 16***.
39. Antonios G. Mikos, "Fracture of and Adhesion Between Biological and Synthetic Macromolecular Materials," Ph.D. Thesis, 1988, ***Ph.D. Thesis No 17.***
40. Rashmi K. Drummond, "The Fibrinolytic Behavior of Streptokinase-Immobolized Poly(methacrylic acid-g-ethylene oxide)," M.S. Thesis, 1989.
41. John Klier, "Self-Associating Networks of Poly(methacrylic Acid-g-Ethylene Glycol)," Ph.D. Thesis, 1989, ***Ph.D. Thesis No 18***.
42. Jennifer Sahlin, "Characterization of Penetrant Transport into Epoxy Resins," M.S. Thesis, 1989.
43. Steven Lustig, "A Continuum Thermodynamics Theory for Transport in Polymer/Fluid Systems," Ph.D. Thesis, 1989, ***Ph.D. Thesis No 19***.
44. Alec B. Scranton, "Structure of Hydrophilic Polymer Networks Formed by Copolymerization/Crosslinking Reactions," Ph.D. Thesis, 1990, ***Ph.D. Thesis No 20***.
45. Jorge Olivares, "The Effect of Temperature Treatment on the Transport of Solvents in Coal," M.S. Thesis, 1990.
46. Olivier Saslawski (with Prof. P. Couvreur), "Systemes a liberation pulsee d' insuline a partir de matrices polymeriques hydrophiles," Department of Pharmacy, University of Paris-XI, D.Sc. Thesis, 1990, ***Ph.D. Thesis No 21***.
47. Myung Cheon Lee, "Investigation of the Diffusion and Mechanical Behavior of Epoxy Composites Upon Water Sorption," Ph.D. Thesis, 1991, ***Ph.D. Thesis No 22***.
48. Christopher N. Bowman, "Kinetic, Structural and Relaxational Aspects of Polymerizations of Multifunctional Monomers," Ph.D. Thesis, 1991, ***Ph.D. Thesis No 23.***
49. Cristi L. Bell, "Synthesis and Characterization of Superabsorbent Polyacrylates," M.S. Thesis, 1991.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 204 of 218

50. Jennifer J. Sahlin, "Polymer Chain Interdiffusion in Gel/Gel Adhesion," Ph.D. Thesis, 1992, ***Ph.D. Thesis No 24***.
51. Atul R. Khare, "Structure and Physical Behavior of pH-Sensitive Anionic Copolymeric Networks," Ph.D. Thesis, 1992, ***Ph.D. Thesis No 25.***
52. Jianchu Wu, "Solvent Diffusion and Dissolution of Glassy Polymers," Ph.D. Thesis, 1992, Ph.D. Thesis No 26.
53. Dukjoon Kim (with Prof. J. Caruthers), "Penetrant Transport in Glassy Polymers," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 27.***
54. Esmaiel Jabbari, "Modelling and Experimental Investigation of Interdiffusion at Compatible Polymer Interfaces with Dissimilar Properties," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 28.***
55. Deepak Hariharan, "Mathematical Modelling and Experimental Studies with Physiologically Sensitive Polymers," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 29.***
56. Mary T. am Ende, "Transport and Interaction of Ionizable Drugs and Proteins in Hydrophilic Polymers," Ph.D. Thesis, 1993, ***Ph.D. Thesis No 30***.
57. Lakshminarayana Achar, "Preparation, Characterization and Mucoadhesive Interactions of Poly(methacrylic acid) Copolymers" M.S. Thesis, 1993.
58. Linda F. Gudeman, "Environmentally Responsive Polymers for Membrane Processes," M.S. Thesis, 1994.
59. Christopher S. Brazel, "Synthesis and Characterization of pH- and Temperature-Sensitive Hydrogels for Controlled Release of Antithrombotic Agents," M.S. Thesis, 1994.
60. Cristi L. Bell, "Water and Solute Transport in Responsive Hydrogels of Poly(ethylene glycol) and Poly(methacrylic acid)," Ph.D. Thesis, 1994, ***Ph.D. Thesis No 31***.
61. J. Eric Dietz, "Influence of the Chemical Structure of Multifunctional Acrylates and Methacrylates on their UV Photopolymerization Kinetics, the Crosslinked Structure of the Ensuing Polymers, and their Physicochemical Properties," Ph.D. Thesis, 1994, ***Ph.D. Thesis No 32.***
62. Devdatt L. Kurdikar, "Polymerization Kinetics of Multifuntional Monomers, and Crosslinked Structure of the Resulting Polymers," Ph.D. Thesis, 1994, ***Ph.D. Thesis No 33.***
63. Robert A. Scott, "An Experimental Study of Acrylic Acid Solution Polymerization," M.S. Thesis, 1996.
64. Shelia L. Wright, "Size Exclusion Phenomena in Drug Transport Through Ionizable Hydrogels," M.S. Thesis, 1996.
65. Alessia deAscentis, Ph.D. Thesis, 1994, ***Ph.D. Thesis No 34***
66. Rugero Bettini, Ph.D. Thesis, 1994, ***Ph.D. Thesis No 35.***
65. Balaji Narasimhan, "Macromolecular Dynamics During Polymer Dissolution: Molecules Modeling and Experimental Characterization," Ph.D. Thesis, 1996, ***Ph.D. Thesis No 36.***
66. Surya Mallapragada, "Molecular Analysis and Experimental Investigation of Semicrystalline Polymers," Ph.D. Thesis, 1996, ***Ph.D. Thesis No 37***.
67. Christie Dorski, "Dynamic Behavior of Glucose-Responsive Poly(methacrylic acid-g-ethylene glycol) Hydrogels," M.S. Thesis, 1996.
68. Christopher S. Brazel, "Solute and Water Transport in Polymeric, Swelling-Controlled Release Systems," Ph.D. Thesis, 1997, ***Ph.D. Thesis No 38.***
69. Monica D. Little, "Poly(ethylene glycol) as a Mucoadhesion Promoter of Poly(acrylic acid) Microparticles," M.S. Thesis, 1997.
70. Lisa M. Schwarte, "Preparation and Characterization of pH-Sensitive, Cationic Hydrogels," M.S. Thesis, 1997.
71. Anthony M. Lowman, "The Dynamics of Complexation Graft Copolymers: Structural Analysis, NMR Copolymers: Structural Analysis, NMR Spectroscopy and their Implications for Biomedical Applications," Ph.D. Thesis, 1997, ***Ph.D. Thesis No 39.***
72. Kelley B. Keys, "Poly(ethylene glycol) Star Polymer Hydrogels," M.S. Thesis, 1998.
73. Robert A. Scott, "Highly Crosslinked Ionizable Acrylates: Polymerization Kinetics and Network Structure," Ph.D. Thesis, 1998, ***Ph.D. Thesis No 40***.
74. Kairali Podual, "Glucose-sensitive Cationic Hydrogels for Insulin Release," Ph.D. Thesis, 1998, ***Ph.D. Thesis No 41.***
75. Madeline Torres-Lugo, "Novel pH Sensitive Hydrogels for the Oral Delivery of Salmon Calcitonin," M.S. Thesis, 1999.

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 205 of 218

76. Christie M. Hassan, "Structure and Morphology of Poly(vinyl alcohol) Gels Prepared by Freezing and Thawing Processes," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 42.***
77. Aaron C. Foss, "Controlled Release of 5-Fluorouracil from Hydrogels," M.S. Thesis, 1999.
78. Robert S. Parker, "Model-based Analysis and Control for Biosystems," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 43.***
79. Jürgen Siepmann (with Prof. R. Bodmeier), "Polymer Controlled Drug Delivery Systems: Elucidation of Transport Mechanisms and Optimization of Release Patterns," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 44***.
80. Mette Ingemann, "Drug Delivery Systems for Oral Enzyme Administration," Ph.D. Thesis, 1999, ***Ph.D. Thesis No 45.***
81. Jing Zhang, "Structure and Morphology of Poly(methacrylic acid)/Poly(N-isopropyl acrylamide) Interpenetrating Polymeric Networks with pH and Temperature Sensitivity," Ph.D. Thesis, 2000, ***Ph.D. Thesis No 46.***
82. Jennifer Harting Ward, "Kinetic Simulation, Network Analysis and Biomedical Applications of PEG-Containing Network Polymers Synthesized from Free-Radical Polymerizations," Ph.D. Thesis, 2000, ***Ph.D. Thesis No 47.***
83. Javier Pacheco-Gomez, "Glucose Sensitive Hydrogel Membranes for Controlled Delivery of Insulin," M.S. Thesis, 2000.
84. Yanbin Huang (with Prof. I. Szleifer), "A Fundamental Study of Tethered Polymer Chains in Gel Systems," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 48***.
85. Petr Bures, "Structure and Morphology of Ionic Polymer Networks Modified with Poly(ethylene glycol)," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 49***.
86. Madeline Torres-Lugo, "Physicochemical Behavior and Cellular Interactions of Novel Oral Calcitonin Delivery Systems," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 50.***
87. William Leobandung, "Novel Chronopharmacological Drug Delivery Systems Based on Poly(ethylene glycol)-Containing Hydrogels for Protein Delivery," Ph.D. Thesis, 2001, ***Ph.D. Thesis No 51***.
88. Daphne N. Robinson, "Synthesis and Characterization of Poly(methacrylic acid-g-ethylene glycol) Nanospheres," M.S. Thesis, 2001.
89. Aaron Foss, "Development of Acrylic-Based Copolymers for Oral Protein Delivery," Ph.D. Thesis, 2002, ***Ph.D. Thesis No 52.***
90. Zachary Hilt, "A Microsensor Based on Microcantilevers Patterned with Environmentally Sensitive Hydrogels," M.S. Thesis, 2002.
91. Jennifer Lopez, "Cellular Evaluation of Transmucosal Insulin Delivery," M.S. Thesis, 2002.
92. Alexander Streubel, Ph.D. Thesis, 2002, ***Ph.D. Thesis No 53***.
93. Bumsang Kim, "Molecular Design of Environmentally Sensitive Complexation Hydrogels for Oral Protein Delivery," Ph.D. Thesis, 2002, ***Ph.D. Thesis No 54.***
94. Sasa Baumgartner, Ph.D. Thesis, 2002, ***Ph.D. Thesis No 55.***
95. Ebru Oral, "Recognitive Biocompatible Networks for Therapeutic and Diagnostic Devices," Ph.D. Thesis, 2002, ***Ph.D. Thesis No 56.***
96. Marcos Garcia, Ph.D. Thesis, 2002, ***Ph.D. Thesis No 57.***
97. Till Bussemer, "Oral Pulsatile Drug Delivery Systems," Ph.D. Thesis, 2003, ***Ph.D. Thesis No 58.***
98. Cristina Donini (with Prof. P. Colombo), 'Preparation and Characterization of Oral Drug Delivery Systems for the Administration of Proteins," Ph.D.Thesis, 2003, ***Ph.D. Thesis No 59***.
99. Oya Sipahigil (with Prof. A. Gürsoy), "In vitro and in vivo Evaluation of Low Molecular Weight Drugs Loaded with Crushed Particles Prepared from Poly(methacrylic acid) Grafted with Poly(ethylene glycol) ", Ph.D. Thesis, 2003, ***Ph.D. Thesis No 60.***
100. Mark Byrne, "Biomimetic Materials for Selective Recognition of Biomolecules: Recognitive Networks for Drug Delivery and Bionanotechnology", Ph. D. Thesis, 2003, ***Ph.D. Thesis No 61***.
101. Jay O. Blanchette, "Cellular and Molecular Evaluation of Oral Delivery Systems for Chemotherapeutic Agents", Ph. D. Thesis, 2004, ***Ph.D. Thesis No 62.***
102. J. Zachary Hilt, "Novel Micro- and Naoscale Doagnostic and Therapeutic Devices Based on Intelligent Polymer Networks", Ph. D. Thesis, 2004, ***Ph.D. Thesis No 63.***
103. David B. Henthorn, "Simulation and Study of Densely Crosslinked Polymeric Systems for Use as Biomaterials", Ph. D.Thesis, 2004, ***Ph.D. Thesis No 64.***

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 206 of 218

104. Nilkhil Kavimandan, "In vitro and In vivo Behavior of Insulin Delivery Systems Based on Poly(ethylene glycol)-Grafted Poly(methacrylic acid) Hydrogels", Ph.D. Thesis, 2005, ***Ph.D. Thesis No 65.***
105. Nicole M. Bergmann, "Molecularly Imprinted, Polyacrylamide Polymers and Copolymers with Specific Recognition for Serum Proteins", Ph.D. Thesis, 2005, ***Ph.D. Thesis No 66***.
106. Gianfranco Spizzirri (with Prof. N. Picci), "Polymers for Recognition, Targeting and Modified Release of Bioactive Molecules", Ph.D. thesis, 2005, ***Ph.D. Thesis No 67.***
107. Laura Serra (with Prof. J. Domenech), "Molecular Design of Intelligent Mucoadhesive Polymer Networks for the Controlled Release of Terapeutic Agents", Ph.D. thesis, 2006, ***Ph.D. Thesis No 68.***
108. Elena Losi (with Prof. P. Colombo), "Innovation of Oral Administration of Drugs: Assembly of Controlled Release Modules for Drug Delivery", PhD Thesis, 2006, ***Ph.D. Thesis No 69***.
109. Kristy M. Wood, "Hydrogels in Biology and Medicine: From Molecular Principles to Bionanotechnology", PhD Thesis, 2006, ***Ph.D. Thesis No 70.***
110. J. Brock Thomas (with Prof. J. McGinity), "Lightly Crosslinked Poly(ethylene glycol)-Tethered, pH Responsive Biomaterials", PhD Thesis, 2006, ***Ph.D. Thesis No 71.***
111. E. Hunter Lauten (with Prof. L. Brannon-Peppas), "Configurationally Imprinted Biomimetic Polymers with Specific Recognition for Oligopeptides " PhD Thesis 2006, ***Ph.D. Thesis No 72.***
112. F. Michael Marks, "Analysis of Poly(ethylene glycol)-Tethered Poly(acrylic acid) Networks for Mucoadhesive Applications", MS Thesis, 2006.
113. Donald E. Owens III (with Prof. R. Richards-Kortum), "Thermally-responsive Polymer Nanoparticles and Nanoshells as Intelligent Therapeutic Systems", PhD Thesis, 2006, ***Ph.D. Thesis No 73.***
114. Terry G. Farmer (with Prof. T. Edgar), "Intravenous Closed-Loop Glucose Control in Type I Diabetic Patients", PhD Thesis, 2007, ***Ph.D. Thesis No 74.***
115. Irma Yolanda Sanchez (with Prof. S. Martinez), "Evaluation of Hydrogel Materials for Insulin Delivery in Closed Lopp Treatment of Diabetes Mellitus", PhD Thesis, 2008, ***Ph.D. Thesis No 75.***
116. Jeffrey J. Wilson (with Jennifer Brodbelt), "development of Photodissociation methods for Biomolecule Analysis in a Quadropole Ion Trap Mass Spectrometer", PhD Thesis, 2008, ***Ph.D. Thesis No 76.***
117. Mamoru Fukuda (with Prof. J. McGinity), "Novel Approaches of Hot-Melt Extrusion Technique for Pharmaceutical Dosage Forms: Applications to Enhancement of Drug Solubility and Controlled Drug Release Systems", PhD Thesis, 2008, ***Ph.D. Thesis No 77.***
118. J. Ruben Morones (with Prof. W. Frey), "Development of an Opto-Thermally Responsive Nanocomposite with Potential Applications as Nanovalves for the In Vitro Single-Cell Addressable Delivery Systems", PhD Thesis, 2008, ***Ph.D. Thesis No 78.***
119. Omar Z Fisher, "Novel pH-Responsive Microgels and Nanogels a Intelligent Polymer Therapeutics", PhD Thesis, 2008, ***Ph.D. Thesis No 79.***
120. Daniel A. Carr, "Molecular Design of Biomaterial Systems for the Delivery of Therapeutic Proteins", PhD Thesis, 2008, ***Ph.D. Thesis No 80.***
121. Amber L. Doiron, "Microparticles and nanoparticles for the Magnetic Resonance Imaging of Atherosclerosis", PhD Thesis, 2008, ***Ph.D. Thesis No 81.***
122. Justin P. Shofner, "Oral Delivery of Protein-Transporter Bioconjugates Using Intelligent Complexation Hydrogels", PhD Thesis, 2009, ***Ph.D. Thesis No 82.***
123. Melissa A. Kanzelberger, "The Development of Oral Drug Delivery Systems Using PEGylated Insulin", PhD Thesis, 2009, ***Ph.D. Thesis No 83.***
124. Marta Gómez Burgaz, "Pharmaceutical Development of Novel Intragastric Clrithromycin Delivery Systems", PhD Thesis, 2009, ***Ph.D. Thesis No 84.***
125. Carolyn L. Bayer, "Conductive and recognitive Hydrogels for Biosensing Applications", PhD Thesis, 2009, ***Ph.D. Thesis No 85.***
126. Stephen R. Marek, "Intelligent Delivery via Enzyme-Active Hydrogels", PhD Thesis, 2009, ***Ph.D. Thesis No 86.***
127. Diana K. Snelling, "Biodegradable Microdevices for Biological Detection and Smart Therapy", PhD Thesis, 2010, ***Ph.D. Thesis No 87.***
128. Edgar Perez Herrero, "Protein imprinting by means of alginate based polymer microcapsules", PhD Thesis, 2010, ***Ph.D. Thesis No 88.***

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 207 of 218

129. Adam K. Ekenseair, "A Fundamental Investigation of Non-Fickian and Case II Penetrant Transport in Glassy Polymers", PhD Thesis, 2010, ***Ph.D. Thesis No 89.***
130. Martin L. Gran, "Metal-Polymer Nanoparticulate Systems for Externally Controlled Delivery", PhD Thesis, 2010, ***Ph.D. Thesis No 90.***
131. Margaret A. Phillips, "Polysaccharide Decoration of Complexation Hydrogel Networks for Oral Protein Delivery", PhD Thesis, 2011, ***Ph.D. Thesis No 91.***
132. David Kryscio, "Novel Insights into Macromolecularly Imprinted Polymers for the Specific Recognition of Protein Biomarkers", PhD Thesis, 2011, ***Ph.D. Thesis No 92.***
133. Coro Echeverria, "Development of Hybrid Thermosensitive Microgels: From Structure to Potential Applications", PhD Thesis, 2011, ***Ph.D. Thesis No 93.***
134. Cody Schoener, "Polymer Carriers with Amphiphilic Properties for the Oral Delivery of Therapeutic Agents for Cancer Treatment", PhD Thesis, 2011, ***Ph.D. Thesis No 94.***
135. Eileen Dawson, "Simultaneous, Single-carrier Delivery of Antigens and Immune-modulatory Molecules to Dendritic cells", PhD Thesis, 2013, ***Ph.D. Thesis No 95.***
136. William Liechty, " Tunable, responsive nanoscale hydrogels for intracellular delivery of small interfering RNA", PhD Thesis, 2013, ***Ph.D. Thesis No 96.***
137. Diane Forbes, "pH-Responsive Polymer Nanoparticles Synthesized Using ARGET ATRP", PhD Thesis, 2014, ***Ph.D. Thesis No 97.***
138. Brian Slaughter, "Temperature Responsive Hydrogels and Nanoparticles for Advanced Drug Delivery", PhD Thesis, 2014, ***Ph.D. Thesis No 98.***
139. Jennifer M. Knipe, "multi-responsive Microencapsulated Nanogels for the Oral Delivery of Small Interfering RNA", PhD Thesis, 2014, ***Ph.D. Thesis No 99.***
140. Amey Puranik, "Intelligent nanoscale Hydrogels for the Oral delivery of Hydrophobic Therapeutics", PhD Thesis, 2015, ***Ph.D. Thesis No 100.***
141. Michael C. Koetting, "Stimulus-Responsive Delivery Systems for Enabling the Oral Delivery of Protein Therapeutics Exhibiting High Isoelectric Point", PhD Thesis 2015, ***Ph.D. Thesis No 101.***
142. Jonathan Peters, "Composite Nanogels for the Triggerable Release of Chemotherapeutic Agents", PhD Thesis 2015, ***Ph.D. Thesis No 102.***
143. Giula Pasotti, Drug combination: pharmaceutical technologies applied to the manufacturing of combined dosage forms for oral administration, PhD Thesis 2015, ***Ph.D. Thesis No 103.***
144. Sarena Horava, Novel Carriers for Oral Delivery of Hemophiliac Factor IX, ***Ph.D. Thesis No 104.***
145. Stephanie Steichen, Design, Development and Optimization of Methacrylic Acid-Based pH-Responsive Hydrogels for the Oral Delivery of Model Protein Therapeutics, PhD Thesis 2016, ***Ph.D. Thesis No 105.***
146. Heid Culver, PhD Thesis 2017, ***Ph.D. Thesis No 106.***
147. Lindsey Sharpe, PhD Thesis 2017, ***Ph.D. Thesis No 107.***

Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 208 of 218

APPENDIX B

Materials Considered

EX	Description
2021	Wani, *et al.*, Plant antitumor agents. VI. The isolation and structure of taxol, a novel antileukemic and antitumor agent from Taxus brevifolia. J Am Chem Soc. 1971; 93(9):2325–7
2023	Chromatographic Techniques for the Characterization of Proteins: Physical Methods to Characterize Pharmaceutical Proteins, Springer Science and Business Media, New York, NY, 1995, Vol. 7:243–299
2024	Girard *et al.*, Separation of Human Serum Albumin Components by RP-HPLC and CZE and their Characterization by ESI-MS. Chromatographia. 1999; 49: S21–S27
2025	The Application of HPLC for Proteins, High Performance Liquid Chromatography: Principles and Methods in Biotechnology. John Wiley & Sons, Chichester, UK, 1996, 411–467
2026	Sparreboom *et al.*, Determination of paclitaxel in human plasma using single solvent extraction prior to isocratic reversed-phase high-performance liquid chromatography with ultraviolet detection. J. Chromatogr B. 1998; 705:159–164
2027	Martin *et al.*, Assay of paclitaxel (Taxol) in plasma and urine by high-performance liquid chromatography. J. Chromatogr B. 1998; 709:281–288
2028	Tian *et al.*, Degradation of Paclitaxel and Related Compounds in Aqueous Solutions I: Epimerization. J Pharm Sci. 2008; 97(3):1224–1235
2029	Tian *et al.*, Degradation of Paclitaxel and Related Compounds in Aqueous Solutions II: Nonepimerization Degradation Under Neutral to Basic pH Conditions. J Pharm Sci. 2008; 97(8):3100–3108
2030	Tian *et al.*, Degradation of Paclitaxel and Related Compounds in Aqueous Solutions III: Degradation Under Acidic pH Conditions and Overall Kinetics. J Pharm Sci. 2010; 99(3):1288–1298
2031	Pillai *et al.*, Pharmaceutical Glass Interactions: A Review of Possibilities. J Pharm Sci & Res. 2016; Vol. 8(2):103–111
2032	"Sticky Containers, Vanishing Drugs" http://blogs.sciencemag.org/pipeline/archives/2008/08/29/sticky_containers_vanishing_drugs (August 29, 2008)
2033	Mani *et al.*, Delivery of paclitaxel from cobalt–chromium alloy surfaces

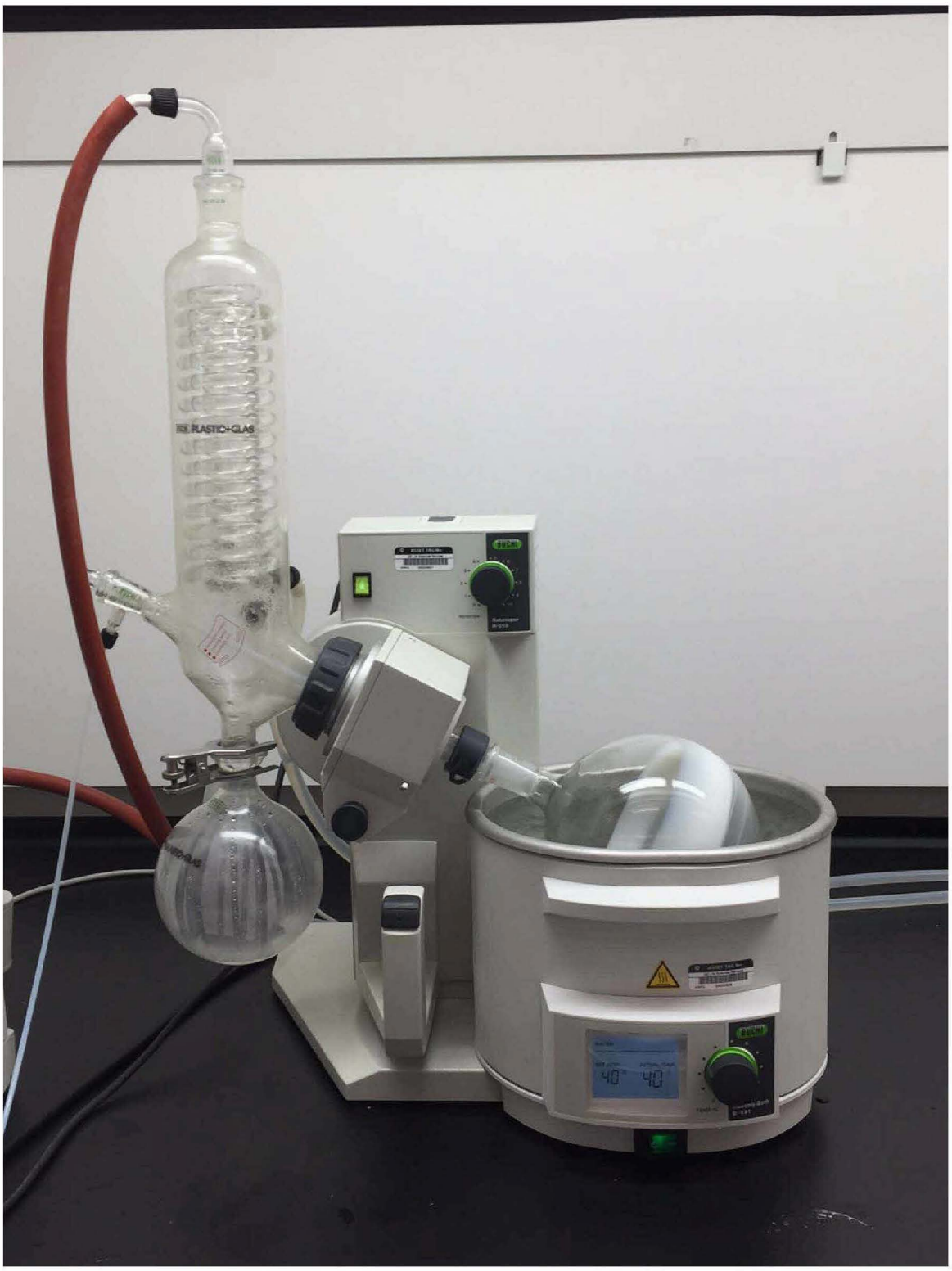
Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 210 of 218

Materials Considered

	without polymeric carriers. Biomaterials. 2010; 31(20):5372–5384
2034	Green *et al*., Measurement of paclitaxel and its metabolites in human plasma using liquid chromatography/ion trap mass spectrometry with a sonic spray ionization interface. Rapid Commun Mass Sp. 2006; 20(14):2183–2189
2035	Heldman *et al*., Paclitaxel Stent Coating Inhibits Neointimal Hyperplasia at 4 Weeks in a Porcine Model of Coronary Restenosis. Circulation. 2001; 103:2289–2295
2036	Fukazawa *et al*., Reduction of non-specific adsorption of drugs to plastic containers used in bioassays or analyses. J Pharmacol Tox Met. 2010; 61:329–333
2037	Hunz *et al*., Plasma And Tissue Pharmacokinetics Of Epirubicin And Paclitaxel In Patients Receiving Neoadjuvant Chemotherapy For Locally Advanced Primary Breast Cancer. Clin Pharmacol Ther. 2007; 81(5):659–668
2038	Pfeifer *et al*., Precipitation of paclitaxel during infusion by pump. Am J Hosp Pharm. 1993; 50:2518–2521
2039	Xu *et al*., Stability of paclitaxel in 5% dextrose injection or 0.9% sodium chloride injection at 4, 22, or 32 °C. Am J Hosp Pharm. 1994;51:3058–3060
2040	Trissel *et al*., Pharmaceutical properties of paclitaxel and their effects on preparation and administration. Pharmacotherapy. 1997; 17(5 Part 2):133S–139S
2041	Kattige, Long-term physical and chemical stability of a generic paclitaxel infusion under simulated storage and clinical-use conditions. Eur J Hosp Pharm-S P. 2006; 12(6):129–134
2042	Lee *et al*., Hydrotropic solubilization of paclitaxel: analysis of chemical structures for hydrotropic property. Pharmacol Res. 2003; 20(7):1022–1030
2043	Feng, *et al*., Effects of emulsifiers on the controlled release of paclitaxel (Taxol®) from nanospheres of biodegradable polymers. J Control Release. 2001; 71(1):53–69
2051	USP Monograph, Paclitaxel. 30(40):1279 http://www.pharmacopeia.cn/v29240/usp29nf24s0_m60190.html

APPENDIX C

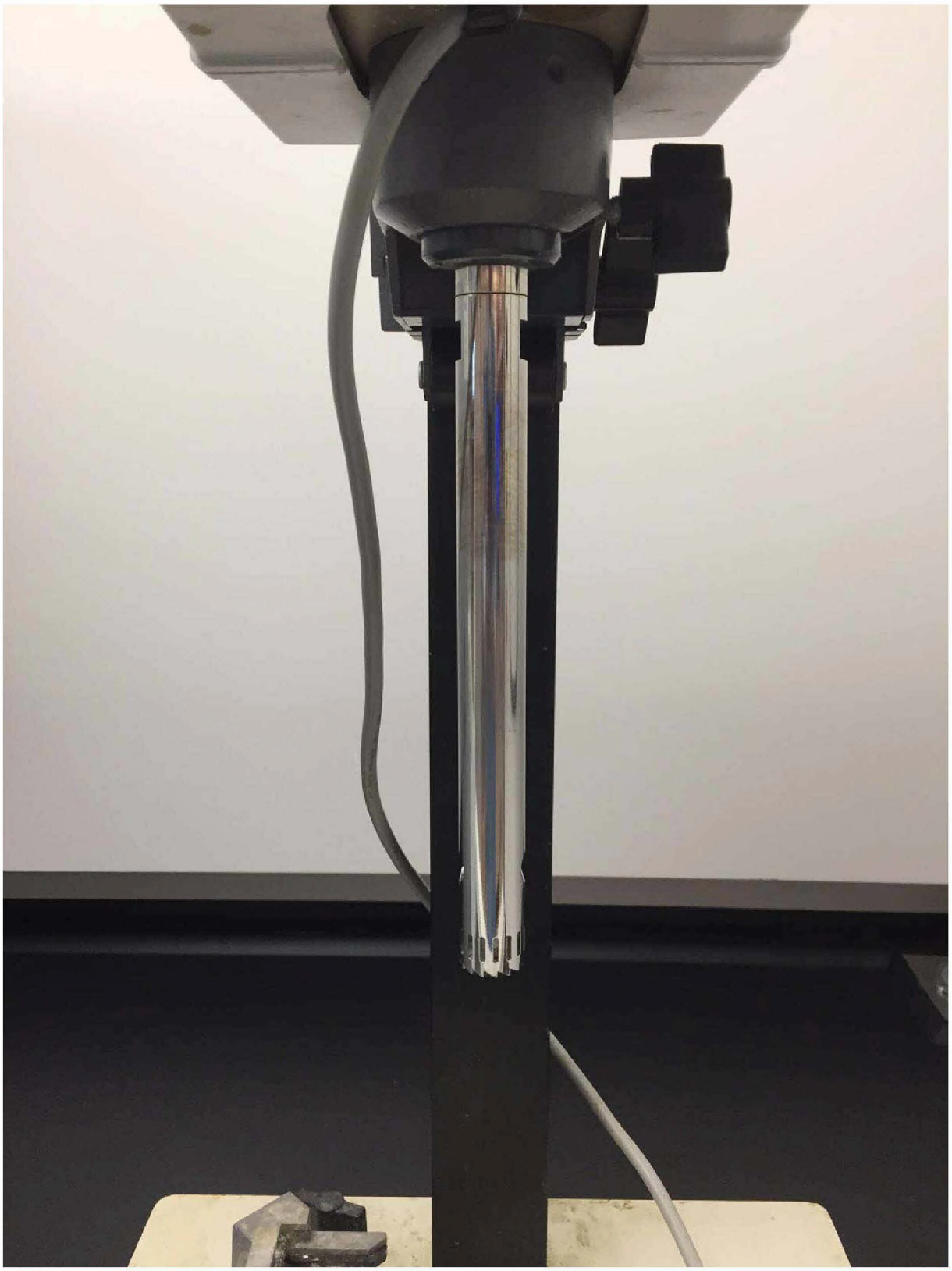
Figure 1. Buchi® Rotary Evaporator



APPENDIX D

Figure 2a. Virtis homogenizer

Figure 2b. Close-up image of impeller of Virtis homogenizer



Abraxis EX2001
Actavis LLC v.Abraxis Bioscience, LLC
IPR2017-01101; IPR2017-01103; IPR2017-01104
Page 216 of 218

APPENDIX E

Figure 3. Avestin high-pressure homogenizer