### **CURRICULUM VITAE**

### SAMUEL H. YALKOWSKY

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### **Education**

| <u>College</u>                | <u>Date</u> | <u>Degree</u> | <u>Major</u> |
|-------------------------------|-------------|---------------|--------------|
| College of Pharmacy           |             |               |              |
| Columbia University, New York | 1960-1965   | B.S.          | Pharmacy     |
| College of Pharmacy           |             |               |              |
| University of Michigan        | 1965-1969   | Ph.D.         | Pharm. Chem  |
|                               |             |               |              |

Dissertation Advisor: George Zografi

Dissertation Title: Potentiometric Titration of Some Acylcarnitines

## **Academic and Professional Appointments**

| Date         | Appointment                   | Organization                            |
|--------------|-------------------------------|---|
| 1982-Present | Professor of Pharmaceutical   | College of Pharmacy,                    |
|              | Sciences                      | University of Arizona, Tucson, Arizona  |
| 1975-1982    | Senior Research Scientist III | Pharmacy Research Unit,                 |
|              |                               | The Upjohn Company, Kalamazoo, Michigan |
| 1972-1975    | Research Scientist II         | Pharmacy Research Unit,                 |
|              |                               | The Upjohn Company, Kalamazoo, Michigan |
| 1969-1972    | Scientist I                   | Pharmacy Research Unit,                 |
|              |                               | The Upjohn Company, Kalamazoo, Michigan |

## **Current Research Interests**

- 1. The relationship between chemical structure and physicochemical properties.
- 2. The effect of the above on transport through synthetic and biological membranes.
- 3. Solubilization by surfactants, cosolvents, and complexing agnets.
- 4. Dosage form design.
- 5. Melting phenomena.



## **Academic Awards and Honors**

| Award   | <u>Date</u> |
|---|-------------|
| Recognition for Undergraduate Research                      | 1961-1963   |
| Rho Chi Award   | 1962        |
| Dean's List   | 1964-1965   |
| Harry Taub Memorial Fellowship                              | 1965        |
| Ebert Prize* (Publication #6)                               | 1973        |
| Ebert Prize* (Publication #15)                              | 1975        |
| Fellow, Academy of Pharmaceutical Sciences                  | 1980        |
| Geigy Visiting Professorship, Univ of Manchester            | 1984        |
| Fellow, American Association \ of Pharmaceutical Scientists | 1986        |
| Proctor and Gamble Award Symposium                          | 1989        |
| Proctor and Gamble Award Symposium                          | 2000        |
| Proctor and Gamble Award Symposium                          | 2001        |
| U of A Graduate Teaching and Mentoring Award                | 2001        |

<sup>\*</sup> Yearly award given to the author(s) of the most outstanding original research article in the Journal of Pharmaceutical Sciences.

Current Research Support
Granting Agency

| <b>Current Research Support</b>          |   |       |       |             |
|--|---|-------|-------|-------------|
| Granting Agency                          | Project Title and Number                | Begin | End   | Total \$_   |
| National Cancer Institute                | Development of dosage forms and         | 06-07 | 06-12 | \$1,963,561 |
|  | delivery systems for antitumor agents   |       |       |             |
|  | derivery systems for unividualist agent |       |       |             |
| Cempra Pharma                            | Formulation studies                     | 01-12 |       | 130,000     |
| Cempra i narma                           | 1 officiation stages                    | 01 12 |       | 150,000     |
| Previous Research Support                |   |       |       |             |
| Granting Agency                          | Project Title and Number                | Begin | End   | Total \$_   |
| Novartis                                 | Unspecified                             | 01-07 | 01-08 | \$20,000    |
| - 10 10 10 10 10 10 10 10 10 10 10 10 10 | 0.110 F 0.1110 B                        |       |       | +,          |
| Pfizer                                   | Unspecified                             | 01-07 | 01-08 | \$10,000    |
| 111201                                   | Onspecifica                             | 01 07 | 01 00 | Ψ10,000     |
| Abbott                                   | Evaluation of Pyrrolidone Dimer         | 01-07 | 01-08 | \$30,000    |
| 7100011                                  | Evaluation of 1 yrrondone Dimer         | 01-07 | 01-00 | \$50,000    |
| Proctor and Gambel                       | Technology Gift of 103 patents for      | 1-03  |       | 87,000,000  |
| Troctor and Gamber                       | cancer, AIDS and Hep C drugs            | 1-03  |       | 67,000,000  |
|  | cancer, AIDS and Tiep C drugs           |       |       |             |
| Dragter and Cambal                       | Davidanment of formulation for          | 01-03 | 01.05 | ¢1 200 000  |
| Proctor and Gambel                       | Development of formulation for          | 01-03 | 01-05 | \$1,200,000 |
|  | cancer, AIDS and Hep C drugs            |       |       |             |
|  |   |       |       |             |
| TheraQuest Biosciences                   | Development of Ketoprofen Salts         | 06-04 | 06-05 | \$30,000    |
|  |   |       |       |             |
| Novartis                                 | Unspecified                             | 01-05 | 01-06 | \$15,000    |
|  |   |       |       |             |
| Novartis                                 | Unspecified                             | 1-00  | 12-04 | 30,000      |
|  |   |       |       |             |



**Previous Research Support (Continued)** 

| Granting Agency                                 | Project Title  | Begin   | End      | Total \$  |
|---|--|---------|----------|-----------|
| Wyeth-Ayerst Laboratories                       | Precipitation of amiodarone                                    | 01-02   | 12-02    | \$150,000 |
| Novartis (Mexico)                               | Evaluation of cyclosporine formulations                        | 06-02   | 12-02    | \$ 30,000 |
| National Cancer<br>Institute                    | Development of dosage Forms and delivery systems for new drugs | 7-97    | 6-02     | 1,079,000 |
| Direct Therapeutics                             | Formulation development  | 1-01    | 12-01    | 45,000    |
| Johnson and Johnson                             | Formulation evaluation   | 1-01    | 12-01    | 30,000    |
| Wyeth Ayerst                                    | Evaluation of ampoules   | 11-01   | 10-02    | 45,000    |
| Zila  | Evaluation of oral anaesthetics                                | 9-01    | 12-01    | 20,000    |
| Research Corporation                            | Studies on Fluesterone   | 1/1/98  | 6/1/98   | 10,000    |
| Pharm Development Group                         | Formulation of Peptide   | 7/1/98  | 10/1/98  | 30,000    |
| Otsuka America<br>Pharmaceutical Company        | Formulation of OPC-41061<br>For Clinical Trials                | 1/1/98  | 7/1/98   | 60,300    |
| PhRMA   | Measurement of Vapor Pressure                                  | 9/1/97  | 8/31/99  | 25,500    |
| Pharmaceutical Research and Manufacturing Ass'n | Dynamic Determination of<br>Hemolysis                          | 9/1/97  | 8/31/98  | 5,500     |
| Otsuka America<br>Pharmaceutical Company        | Development of Dosage<br>Forms                                 | 1/1/97  | 4/1/98   | 50,000    |
| Parke Davis                                     | Evaluation of Dosage Forms                                     | 1/1/97  | 3/1/97   | 12,000    |
| Otsuka America<br>Pharmaceutical Company        | Development of Dosage Forms                                    | 6/1/96  | 1/1/97   | 30,000    |
| Knoll Pharmaceuticals                           | Formulation of Dexverapamil                                    | 6/1/93  | 1/1/96   | 72,000    |
| Knoll Pharmaceuticals                           | Phlebitic Evaluation of Prototype Formulation                  | 1/1/92  | 12/31/93 | 36,000    |
| Environmental Protection<br>Agency              | Estimation of Vapor Pressure                                   | 10/1/92 | 9/31/94  | 240,642   |



**Previous Research Support (Continued)** 

| Granting Agency                          | Project Title   | Begin    | End      | Total \$         |
|--|---|----------|----------|------------------|
| Wyeth-Ayerst Laboratories                | Formulation of Rapamycin Injection                                | 1/1/93   | 12/31/93 | 48,000           |
| Commission of the European Communities   | AQUASOL dATAbASE  | 7/1/93   | 6/30/94  | 34,347           |
| National Cancer<br>Institute             | Development of Dosage Forms and<br>Delivery Systems for New Drugs | 7/1/92   | 6/30/97  | 996,898          |
| The NutraSweet Company                   | Stabilization of Aspartame  | 6/1/90   | 5/31/91  | 55,000           |
| Nelson Research                          | Formulation of N0861  | 10/1/89- | 11/15/89 | 15,000           |
| Merrell Dow                              | Formulation of Terfenadine  | 9/1/88-  | 8/31/89  | 25,000*          |
| Environmental<br>Protection Agency       | Sorption and Partitioning of Hydrophobic Organic Compounds        | 7/15/87- | 7/14/89  | 200,000          |
| P.I.: R.C. Bales                         | CO-P.I.: S.H. Yalkowsky   |          |          | 60,000*          |
| Environmental<br>Protection Agency       | Sorption of Organic<br>Pollutants on Soil Systems                 | 8/15/87- | 8/14/89  | 200,000          |
| P.I.: S. Rao                             | CO-P.I.: S.H. Yalkowsky   |          |          | 69,000*          |
| U. S. Environmental<br>Protection Agency | Cosolvent Solubility<br>Contract 812581-01                        | 9/1/85-  | 2/28/87  | 153,237          |
| Lederle                                  | Formulation of Bisantrene   | 6/1/84-  | 5/30/85  | 25,000           |
| Department of Defense                    | Estimation of Melting Point                                       | 3/1/84-  | 2/30/86  | 160,000          |
| Environmental<br>Protection Agency       | Solubility Database   | 3/1/84-  | 3/30/86  | 168,000          |
| Travenol Laboratories                    | Low Temperature Solubility Studies                                | 1/1/84-  | 12/31/84 | 10,000           |
| Parenteral Drug Association              | Formulation of Insoluble Drugs                                    | 11/1/83- | 10/30/84 | 10,000           |
| University of Arizona<br>P.I.: M. Furst  | Otitis Media Prosthetic Device Co-P.I.: S.H. Yalkowsky            | 11/1/83- | 10/30/84 | 12,000<br>9,000* |
| National Cancer Institute                | Formulation of Insoluble Drugs                                    | 6/30/83- | 6/29/86  | 353,000          |
| Environmental Protection<br>Agency       | Predicton of Aqueous Solubilities<br>CO-Op CR-810771              | 6/1/83-  | 5/31/86  | 248,000          |
| P.I.: R. Pearlman                        | Co-P.I.: S.H. Yalkowsky   |          |          | 60,000*          |



### Symposia, Conferences, Short Courses and Lectureships

Academy of Pharmaceutical Sciences, Washington (1970

Academy of Pharmaceutical Sciences, Chicago (1972)

Academy of Pharmaceutical Sciences, Orlando (1976)

Guest Faculty Member, Arden House Conference on Preformulation Research (1976)

Guest Faculty Member, School of Solution Therapy and Thermodynamics, London, England (1977)

Academy of Pharmaceutical Sciences, Hollywood, Florida (1978)

Conference on Prodrugs, Land O'Lakes (1978)

Adjunct Associate Professor, University of Wisconsin (1979)

Academy of Pharmaceutical Sciences, Kansas City, MO (1979)

Gordon Conference, Environmental Sciences-Water, NH (1980)"

Academy of Pharmaceutical Sciences, San Antonio, TX (1981)

Environmental Protection Agency Workshop, San Antonio, TX (1981)

Adjunct Associate Professor, SUNY at Buffalo (1982)

Association of Environmental Engineering Professors' Workshop, Purdue University (1982)

Academy of Pharmaceutical Sciences, San Diego, CA (1982)

American Chemical Society, Washington, DC (1983) "Sorption of Organic Materials"

Gordon Conference, Medicinal Chemistry, NH (1983)

Geigy Visiting Professor, University of Manchester, Manchester, England (1984)

Workshop on Physical Properties, University of California, Irvine, CA (1986).

SETAC Meeting, Washington, DC (1986).

SETAC, Alexandria, VA (1986).

Arden House Workshop, New York (1987).

Visiting Scientist, Brookhaven National Laboratories, Upton, New York (1987)

Beilstein Workshop on the Estimation of Physical Data for Organic Compounds, Tyrol, Italy (1988)

North Eastern Region Pharmaceutical Association (1988)

Arden House Workshop, New York (1988)

Land O Lakes, International Industrial Pharmaceutical Research Conference (1988).

Pharm Tech Conference, New Jersey (1988)

International Workshop on QSAR in Environmental Toxicology Utrecht, The Netherlands (1990).

27 Congreso Nacional de Ciencias Farmaceuticas, Los Cabos, Mexico (1994)

American Association of Pharmaceutical Scientists, Seattle, (1996)

American Association of Pharmaceutical Scientists, Seattle, (2000)

Short Course on Solubility and Solubilization, Tucson, (2002)

Land o Lakes, Madison, (2002)

Short Course on Solubility and Solubilization, Ann Arbor, (2002)

QSAR Worksohp, Ottowa, (2002)

Short Course on Solubility and Solubilization, Tucson, (2003)

American Association of Pharmaceutical Scientists, Seattle, (2004)

Short Course on Solubility and Solubilization, Tucson, (2004)

Short Course on Solubility and Solubilization, Tucson, (2005)

Short Course on Solubility and Solubilization, Tucson, (2006)

Short Course on Solubility and Solubilization, Tucson, (2007)

Short Course on Solubility and Solubilization, Tucson, (2008)

Short Course on Solubility and Solubilization, Tucson, (2009)



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