CURRICULUM VITAE

S. David Kimball, Ph.D.
13 Charred Oak Lane
East Windsor, New Jersey 08520

(848) 932-4550 (Knightsbridge office) kimball@rutgers.edu
(732) 668-9647 (cell) sdavidkimball@gmail.com

RESEARCH EXPERIENCE

Rutgers University, Piscataway, NJ
Associate Vice President, Research Commercialization (2014-)
Associate Vice President, Translational Sciences (2013-)
Research Professor I (2011-)
Senior Scientific Advisor to the Vice President for Research (2012-2013)
Scientific Founder, Z53 Therapeutics (2016-)

Hydra Biosciences, Cambridge, MA
Consulting Chief Scientific Officer (2011-2012)
Chief Scientific Officer (2008-2011)
Ongoing tactical and strategic leadership of all drug discovery and development activities addressing Hydra's TRP ion channel targets for pain and inflammation. Responsibility for guiding and mentoring external research alliances.

Pharmacopeia, Inc., Princeton, NJ
Senior Vice President, Discovery and Nonclinical Development (2007-2008)
Responsibility for all drug discovery resources at Pharmacopeia (127 FTE), biology and chemistry, screening, external research alliances (35 FTE) and preclinical development.

Lexicon Pharmaceuticals, Princeton, NJ
Vice President, Medicinal Chemistry (2001-2007)
Responsible for chemistry resources within Lexicon Pharmaceuticals; Medicinal Chemistry Department includes process chemistry, analytical chemistry, combinatorial chemistry and lead optimization groups. Built and led department at Princeton site of 70 scientists, recruiting from top universities and pharma; managed chemistry outsourcing, delivered multiple compounds into clinical trials.

Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ
Research Fellow, Medicinal Chemistry (1982-2001)
Departments of Oncology & Cardiovascular Chemistry
Oncology: Cyclin Dependent Kinase working group co-chair; developed novel kinase inhibitor BMS-387032 (SNS-032) for solid tumors; Oncology Licensing Team. **Blood Coagulation**: Thrombin active site inhibitor working group co-chair; discovered reversible thrombin active site inhibitors for the treatment of venous and arterial thrombosis. **Cardiovascular Chemistry:** Led research group in the design and discovery of novel calcium antagonists for hypertension, anti-anginal and cardiotonic agents. **Antibiotics:** orally active monocyclic beta lactams.

EDUCATIONAL AND TEACHING EXPERIENCE

Department of Medicinal Chemistry
Rutgers University
Associate Member of Graduate Faculty (1989-2010)
Courses taught:
Advanced Medicinal Chemistry I
Advanced Medicinal Chemistry II

Ph.D. in Organic Chemistry/Chemical Biology
"Total Synthesis of Anthracyclinones"
SUNY at Stony Brook
1982

B.A. (with highest honors)
SUNY at Stony Brook
1978

Teaching and Research awards
SUNY Department of Chemistry Teaching Award 1980-81
SUNY President's Award - Excellence in Teaching 1982
BMS Excellence Award - Research Leadership 1996
BMS President's Award - Drug Formulation Team 1997
BMS President's Award - University Recruiting 1998

INVITED LECTURES

Caltech, Stanford University, University of California Berkeley, University of California Davis, University of California Los Angeles, Massachusetts Institute of Technology, Duke University, University of Innsbruck.
Organized and taught *Introduction to Medicinal Chemistry* at Bristol-Myers Squibb.
Drug Discovery & Development, Global Clinical Scholars Research Training Program - Harvard Medical School (2014 – present)

SELECT PROFESSIONAL ACTIVITIES

Board of Directors, Taxis Pharmaceuticals (2015–present)
Scientific Advisory Board, Genesis Biotechnology Group (2014–present)
ACS Pharma Leaders Meeting (2005-present)
Senior Scientific Advisor for Drug Discovery, Madera Biosciences (2011-present)
Brain Health Institute, Rutgers University (2011-present)
Long Range Planning Committee, ACS Division of Medicinal Chemistry (2012-2015)
Scientific Review Board, Alzheimer's Drug Discovery Foundation (2011-2013)
Faculty of 1000 (2010-2013)
Chair, Gordon Research Conference on Medicinal Chemistry, 2005
Chair, Princeton ACS Symposium, 2007
Organizer, Drug Discovery in the 21st Century Symposium, 2010

SELECT PUBLICATIONS

1. A.R. Blanden, X. Yu, A.J. Wolfe, J.A. Gilleran, D.J. Augeri, R.S. O'Dell, E.C. Olson, S.D. Kimball, T.J. Emge, L. Movileanu, D.R. Carpizo, S.N. Loh. Synthetic Metallochaperone ZMC1 Rescues Mutant p53 Conformation by Transporting Zinc into Cells as an Ionophore. *Molecular Pharmacology* **2015,** (87) 825-831.
2. X. Yu, A.R. Blanden, S. Narayanan, L. Jayakumar, D. Lubin, D. Augeri, S.D. Kimball, S.N. Loh, D.R. Carpizo. Small Molecule Restoration of Wildtype Structure and Function of Mutant p53 Using a Novel Zinc-metallochaperone Based Mechanism. *Oncotarget* **2015**, (5) 8879-8892.
3. Y. Bi, C.D. Dzierba, G. Kumi, C. Fink, Y. Garcia, M. Green, J. Han, S. Kwon, Y. Qiao, Y. Zhang, Y. Liu, G. Zipp, Z. Liang, R. Westphal, D. Kimball, J.J. Bronson, J.E. Macor. The Discovery of Potent Agonists for GPR88, an Orphan GPCR, for the Potential Treatment of CNS Disorders. *Bioorg. Med. Chem. Lett.* **2015,** *(25)* 1443-1447.
4. C.D. Dzierba, Y. Bi, B. Dasgupta, R. Hartz, V. Ahuja, G. Cianchetta, G. Kumi, L. Dong, A. Aleem, C. Fink, Y. Garcia, M. Green, J. Han, S. Kwon, Y. Qiao, J. Wang, Y. Zhang, Y. Liu, G. Zipp, Z. Liang, N. Burford, M. Ferrante, R. Bertekap, M. Lewis, A. Cacace, J. Grace, A. Wilson, R. Westphal, D. Kimball, K. Carson, J.J. Bronson, J.E. Macor. Design, Synthesis and Evaluation of Phenylglycinols and Phenyl Amines as Agonists of GPR88. *Bioorg. Med. Chem. Lett.* **2015,** *(25)* 1448-1452.
5. G. Zipp, J. Barbosa, M.A. Green, K. Terranova, C. Fink, S. Yu, A. Nouraldeen, A. Wilson, K. Savalieva, T. Lanthorn, S.D. Kimball. Novel Inhibitors of the High-Affinity L-Proline Transporter as Potential Therapeutic Agents for the Treatment of Cognitive Disorders. *Bioorg. Med. Chem. Lett.* **2014**, *submitted*.
6. H. Jin, A. Heim-Riether, Q. Han, Z.C. Shi, D. Hackley, S. Reed, J.P. Healy, H. Theis, S. Yu, R. Brommage, D. Powell, S.D. Kimball, D.P. Rotella. N-[4-(pyrazolo[3,4-d]pyrimidiny-1-yl)-aryl] acetamides as phosphodiesterase 7A inhibitors. *Bioorg. Med. Chem. Lett.* **2014**, *submitted*.
7. J.T. Bagdanoff, M.S. Donoviel, A. Nouraldeen, M. Carlsen, T.C. Jessop, J. Tarver, S. Aleem, L. Dong, H. Zhang, L. Boteju, J. Hazelwood, J. Yan, M. Bednarz, S. Layek, I.B. Owusu, S. Gopinathan, L. Moran, Z. Lai, J. Kramer, S.D. Kimball, P. Yalamanchili, W.E. Heydorn, K.S. Frazier, B. Brooks, P. Brown, A. Wilson, W.K. Sonnenburg, A. Main, K.G. Carson, T. Oravecz, D. J. Augeri. Inhibition of Sphingosine 1-Phosphate Lyase for the Treatment of Rheumatoid Arthritis: Discovery of (*E*)-1-(4-(1R,2S,3R)-1,2,3,4-Tetrahydroxybutyl)-1*H*-imidazol-2-yl)ethanone Oxime (LX2931) and (1R,2S,3R)-1-(2-(Isoxazoly-3-yl)-1*H*-imidazol-4-yl)butane-1,2,3,4-tetraol (LX2932). *J. Med. Chem.* **2010** *(53)* 8650-8662.
8. H. Jin, Z.-C. Shi, S.D. Kimball et al. (*S*)-2-Amino-3-(4-(2-amino-6-[*R*-2,2,2-trifluoro-1-(3'-methoxy-biphenyl-4-yl)-ethoxyl]-pyrimidin-4-yl)-phenyl)propionic Acid (LX1031): An Orally Active, First-in-Class Tryptophan

Hydroxylase Inhibitor for the Treatment of Irritable Bowel Syndrome. *J. Med. Chem.*, *submitted*.

9. R. Bakthavatchalam and S. D. Kimball. Modulators of TRP Ion Channels. *Annual Reports in Medicinal Chemistry* **2010** *(45)* 37-50.

10. T.C. Jessop, J.E. Tarver, M. Carlsen, A. Xu, J.P. Healy, A. Heim-Riether, Q. Fu, J.A. Taylor, D.J. Augeri, M. Shen, T.R. Stouch, R.V. Swanson, L.W. Tari, M. Hunter, I. Hoffman, P.E. Keyes, X-C. Yu, M. Miranda, Q. Liu, J.C. Swaffield, S.D. Kimball, A. Nouraldeen, A.G.E. Wilson, A. M. DiGeroge Foushee, K. Jhaver, R. Finch, S. Anderson, T. Oravecz, K.G. Carson. Lead Optimization and Structure-based Design of Potent and Bioavailable Deoxycytidine Kinase Inhibitors. Bioorg. Med. Chem. Lett. **2009** *(19)* 6784-6787.

11. J.E. Tarver, T.C. Jessop, M. Carlsen, D.J. Augeri, Q. Fu, J.P. Healy, A. Heim-Riether, A. Xu, J.A. Taylor, M. Shen, P.E. Keyes, S.D. Kimball, X-C. Yu, M. Miranda, Q. Liu, J.C. Swaffield, A. Nouraldeen, A.G.E. Wilson, R. Finch, K. Jhaver, A. M. DiGeroge Foushee, S. Anderson, T. Oravecz, K.G. Carson. 5-Fluorocytosine Derivatives as Inhibitors of Deoxycytidine Kinase. Bioorg. Med. Chem. Lett. **2009** *(19)* 6780-6783.

12. J.T. Bagdanoff, M.S. Donoviel, A. Nouraldeen, J. Tarver, Q. Fu, M. Carlsen, T. Jessop, H. Zhang, J. Hazelwood, H. Nguyen, S.D.P. Baugh, M. Gardyan, K.M. Terranova, J. Barbosa, J. Yan, M. Bednarz, S. Layek, J. Taylor, A.M. Digeroge-Foushee, S. Gopanithan, D. Bruce, T. Smith, L. Moran, E. O'Neill, J. Kramer, Z. Lai, S.D. Kimball, Q. Liu, W. Sun, S. Yu, J. Swaffield, A. Wilson, A. Main, K.G. Carson, T. Oravecz, D.J. Augeri. Inhibition of Sphingosine-1-Phosphate Lyase for the Treatment of Autoimmune Disorders. *J. Med. Chem.* **2009** *(52)* 3941-3953.

13. N.C. Goodwin, R. Mabon, B.A. Harrison, M.K. Shadoan, Z.Y. Almstead, Y. Xie, J. Healy, L.M. Buhring, C.M. DaCosta, J. Bardenhagen, F. Mseeh, Q. Liu, A. Nouraldeen, A.G.E. Wilson, S.D. Kimball, D.R. Powell, D.B. Rawlins. Novel L-Xylose Derivatives as Selective Sodium-Dependent Glucose Cotransporter 2 (SGLT2) Inhibitors for the Treatment of Type 2 Diabetes. *J. Med. Chem.* **2009** *(52)* 6201-6204.

14. B.A. Harrison, N.A. Whitlock, M.V. Voronkov, Z.Y. Almstead, K.J. Gu, R. Mabon, M. Gardyan, B.D. Hamman, J. Allen, S. Gopinathan, B. McKnight, M. Crist, Y. Zhang, Y. Liu, J. Zhou, N. Paten, Q. Liu, A.G.E. Wilson, S.D. Kimball, D.S. Rice, D.B. Rawlins. A Novel Class of LIM-kinase 2 Inhibitors for the Treatment of Ocular Hypertension and Associated Glaucoma. *J. Med. Chem* **2009** *(52)* 6515-6518.

15. Z.-C. Shi, A. Devasagayaraj, K. Gu, H Jin, B. Marinelli, L. Samala, S. Scott, T. Stouch, A. Tunoori, Y. Wang, Y. Zang, C. Zhang, S.D. Kimball, A.J. Main, W. Sun, Q. Yang, A. Nouraldeen, X.-Q. Yu, E. Buxton, S. Patel, N. Nguyen, J. Swaffield, D.R. Powell, A. Wilson, Q. Liu. Modulation of Peripheral Serotonin

Levels by Novel Tryptophan Hydroxylase Inhibitors for the Potential Treatment of Functional Gastrointestinal Disorders. *J. Med. Chem.* **2008** *(51)* 3684-3687.

16. B.E. Fink, A.V. Gavai, J.S. Tokarski, B. Goyal, R. Misra, H-Y. Xiao, S.D. Kimball, W-C. Han, D. Norris, T.E. Spires, D. You, M.M. Gottardis, M.V. Lorenzi, G.D. Vite. Identification of a Novel Series of Tetrahydrodibenzazocines as Inhibitors of 17β-hydroxysteroid dehydrogenase type 3. *Bioorg. Med. Chem. Lett.* **2006** *(16)* 1532-1536.

17. R.N. Misra, H.Y. Xiao, K.S. Kim, S. Lu, W.C. Han, S.A. Barbosa, J.T. Hunt, D.B. Rawlins, W. Shan, S.Z. Ahmed, L. Qian, B.C. Chen, R. Zhao, M.S. Bednarz, K.A. Kellar, J.G. Mulheron, R. Batorsky, U. Roongta, A. Kamath, P. Marathe, S. A. Ranadive, J. S. Sack, J.S. Tokarski, N.P. Pavletich, F.Y.F. Lee, K.R. Webster, S.D. Kimball. N-(Cycloalkylamino)acyl-2-aminothiazole Inhibitors of Cyclin-Dependent Kinase 2. N-[5-[[[5-(1,1-Dimethylethyl)-2-oxazolyl]methyl]thio]-2-thiazolyl]-4-piperidinecarboxamide (BMS-387032), a Highly Efficacious and Selective Antitumor Agent. *J. Med. Chem.* **2004** *(47)* 1719-1728.

18. R. N. Misra, H. Y. Xiao, D. K. Williams, K. S. Kim, S. Lu, K. A. Kellar, J. G. Mulheron, R. Batorsky, S. D. Kimball, F. Y. Lee, K. R. Webster. Synthesis and Biological Activity of N-Aryl-2-Aminothiazoles. Pan Inhibitors of Cyclin-Dependent Kinases. *Bioorg. Med. Chem. Lett.* **2004** *(14)* 2973-77.

19. R. N. Misra, H. Y. Xiao, D. B. Rawlins, W. Shan, K. A. Kellar, J. G. Mulheron, J. S. Sack, J. S. Tokarski, S. D. Kimball, K. R. Webster. 1H-Pyrazolo[3,4-b]pyridine Inhibitors of Cyclin-dependent Kinases. Highly Potent 2,6-Difluorophenacyl Analogues. *Bioorg. Med. Chem. Lett.* **2003** *(13)* 2405-2408.

20. R. N. Misra, D. B. Rawlins, H. Y. Xiao, W. Shan, I. Bursuker, K. A. Kellar, J. G. Mulheron, J. S. Sack, J. S. Tokarski, S. D. Kimball, K. R. Webster. 1*H*-Pyrazolo[3,4-b]pyridine Inhibitors of Cyclin-Dependent Kinases. *Bioorg. Med. Chem. Lett.* **2003** *(13)* 1133-1136.

21. W.G. Humphreys, M.T. Obermeier, S. Chong, S.D. Kimball, J. Das, P. Chen, R. Moquin, W.-C. Han, R. Gedamke, R.E. White, R.A. Morrison. Oxidative Activation of Acylguanidine Prodrugs: Intestinal Presystemic Activation in Rats Limits Absorption and can be Inhibited by Co-administration of Ketoconazole. *Xenobiotica*, **2003** *(33)* 93-106.

22. K.S. Kim, S.D. Kimball, R.N. Misra, D.B. Rawlins, J.T. Hunt, H.Y. Xiao, S. Lu, L. Qian, W.C. Han, W. Shan, T. Mitt, Z.W. Cai, M.A. Poss, H. Zhu, J.S. Sack, J.S. Tokarski, C.Y. Chang, N. Pavletich, A. Kamath, W.G. Humphreys, P. Marathe, I. Bursuker, K.A. Kellar, U. Roongta, R. Batorsky, J.G. Mulheron, D. Bol, C.R. Fairchild, F.Y. Lee, K.R. Webster. Discovery of Aminothiazole Inhibitors of Cyclin Dependent Kinase 2: Synthesis, X-ray Crystallographic Analysis and Biological Activities. *J Med Chem*. **2002** *(45)* 3905-3927.

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.