Curriculum Vitae

James W. Leahy

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Employment

Professor **August 2012 to present**
Department of Chemistry (College of Arts and Sciences), Department of Molecular Medicine (Morsani College of Medicine) and The Florida Center of Excellence for Drug Discovery and Innovation, University of South Florida, 3720 Spectrum Blvd. Suite 305, Tampa, FL 33612

Key responsibilities: Build a group of postdoctoral associates, graduate students and undergraduates engaged in world class research. Develop collaborative multidisciplinary efforts with other research groups aimed at the discovery of novel medicinal agents and potential drug candidates. Oversee the research of students and guide them to positions in the field. Obtain requisite grant funding in support of the group research efforts. Teach both graduate and undergraduate classes in the fields of medicinal and organic chemistry. Disseminate results of my research group through seminars and publications.

President **February 2011 to August 2012**
Leahy Consultants, leahyconsultants@sbcglobal.net

Key responsibilities: Provide expertise, research, competitive intelligence and due diligence for clients regarding drug discovery research methodology and opportunities.

Senior Director of Chemistry **July 2004 to February 2011**
Exelixis, Inc., 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94080-0511

Key responsibilities: Oversee multiple research groups performing medicinal chemistry on novel therapeutic targets. Manage multidisciplinary efforts aimed at discovering novel small molecule drug development candidates in oncology, metabolic disease, cardiovascular disease and infectious disease. Meet with potential corporate partners in an effort to develop collaborative business arrangements. Oversee the synthesis and development of twelve different development candidates that have resulted in ten IND applications to date. These candidates include:

XL184 (aka Cometriq®, aka Cabometyx™ aka cabozantinib) – a dual cMet/RET inhibitor approved for both medullary thyroid cancer and kidney cancer and currently in multiple phase III clinical trials,

XL518 (aka Cotellic®, aka cobimetinib) – a MEK inhibitor approved as a co-drug with Genentech's B-Raf inhibitor Zelboraf® for the treatment of metastatic melanoma,

XL550 (aka Esaxerenone®, aka CS-3150) – a selective MR antagonist currently in phase III clinical trials in Japan with Daiichi Sankyo,

XL880 (aka GSK1363089, aka foretinib) **–** a cMet inhibitor that has completed phase II clinical trials in conjunction with GlaxoSmithKline,

XL139 (aka BMS-833923) – a hedgehog pathway inhibitor that has completed phase II clinical trials with Bristol-Myers Squibb,

XL019 – a JAK2 selective inhibitor in phase II clinical trials,

XL820 – a cKit inhibitor in phase II clinical trials,

XL844 – a dual Chk1/Chk2 inhibitor in phase I clinical trials,

XL228 – an IGF1R inhibitor that shows considerable activity against resistant ABL mutants in phase I clinical trials,

XL541 – a selective S1P1R antagonist currently in preclinical development,

XL388 – a selective mTOR inhibitor currently in preclinical development.

For each of the aforementioned candidates, we were responsible for optimizing the biochemical and cellular activity, pharmacokinetic and pharmacodynamic properties, maximizing efficacy, development of the CMC synthetic route, generation of the non-GLP toxicology batch for dose range finding studies, ensure an adequate supply and coordinate the generation of the requisite GMP materials for the study and help compose the CMC components of the Investigational New Drug Application, including the chemistry portion of the Investigator's Brochure and the CMC component.

Director of Chemistry **August 1999 to June 2004**
Exelixis, Inc., 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94080-0511

Key responsibilities: Build the staffing of the chemistry group from 12 to its current size of 100. Build a combinatorial chemistry platform that has a capacity for 2MM compounds/year, and implement a production plan to utilize this platform. Help design and oversee construction of a new drug discovery building. Collaborate with HTS, discovery biology and pharmacology on 28 novel targets, and oversee lead optimization on each of these projects.

Director of Chemistry **January 1999 to August 1999**
MetaXen, Inc., 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94080-0511

Key responsibilities: Build the staffing of the chemistry group from 8 to its size of 15 prior to acquisition by Exelixis. Coordinate medicinal chemistry project in collaboration with Eli Lilly on the development of inhibitors of plasminogen activator inhibitor (PAI) 1. Build a collection of compounds for *Meta*Xen's proprietary work in predictive ADME profiling.

Group Leader, Medicinal Chemistry **June 1998 to January 1999**
MetaXen, Inc., 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94080-0511

Key responsibilities: Lead a medicinal chemistry effort on the development of PAI 1 inhibitors. Help design and oversee construction of a new drug discovery building. Coordinate move of entire team from Hayward to South San Francisco.

Joel H. Hildebrand Assistant Professor **July 1992 to June 1998**
Department of Chemistry, University of California, Berkeley, CA 94720

Key responsibilities: Build a group of postdoctoral associates, graduate students and undergraduates engaged in world class research. Teach both graduate and undergraduate classes in the field of organic chemistry. Oversee the research of students and guide them to

positions in the field. Obtain requisite grant funding in support of the group research efforts. Disseminate results of my research group through seminars and publications.

NIH Post-doctoral Research Associate **April 1990 to July 1992**
Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104

Key responsibilities: Develop a novel synthetic route to a series of natural and unnatural products, including latrunculin, rapamycin, penitrem D and a steroid-based peptidomimetic. Write papers and grant applications to support this work.

Education

Post-Doctoral Research Fellow: April 1990 to July 1992

University of Pennsylvania, Philadelphia, PA
Advisor: Professor Amos B. Smith, III
Area of Research: Natural Products Synthesis.

Graduate Studies: September 1984 to April 1990

Ph.D., Organic Chemistry, University of South Florida, Tampa, FL, March, 1990
Advisor: Professor Stewart W. Schneller
Dissertation Title: Benzo-Separated Purine Nucleosides and Related Compounds

Undergraduate Studies: September 1980 to April 1984

B.S., Chemistry, University of South Florida, Tampa FL

Consulting Positions

2009 to 2012 - Chicago Tri-Institutional Center for Chemical Methods and Library Development (External Advisory Board)
University of Chicago
Department of Chemistry
5735 South Ellis Avenue, SCL 332
Chicago, IL 60637

1997 to 1998 - Protein Design Laboratories
2375 Garcia Avenue
Mountain View, CA 94043

1995 to 1998 - California Brands Flavors
411 Pendleton Way
Oakland, CA 94621

Honors and Awards

2002 Outstanding Alumnus, University of South Florida
1997 Gaspar de Portolá Fellow
1995 National Science Foundation CAREER Award
1995 Research Corporation Cottrell Scholar
Joel H. Hildebrand Assistant Professor of Chemistry

Invited Talks

NSF Workshop on Organic Synthesis (July, 1995)
Berlex Pharmaceuticals (November, 1995)
Pacific Basin Conference (December, 1995)
Affymax Research Institute (January, 1996)
University of California, Davis (April, 1996)
Gordon Research Conference on Natural Products (July, 1996)
Gordon Research Conference on Heterocyclic Compounds (July, 1996)
Kodak (September, 1996)
Cornell University (September, 1996)
University of Rochester (September, 1996)
University of Georgia (October, 1996)
Emory University (October, 1996)
Auburn University (October, 1996)
University of Utah (November, 1996)
Northwestern University (November, 1996)
University of Chicago (November, 1996)
University of California, Santa Cruz (January, 1997)
University of California, Los Angeles (January, 1997)
University of California, Irvine (April, 1997)
Abbott Pharmaceuticals (April, 1997)
University of Oregon (May, 1997)
Eli Lilly and Company (May, 1997)
University of Girona (June, 1997)
University of Barcelona (June, 1997)
University of Rovira i Virgili (June, 1997)
University of Lleida (June, 1997)
Synthelabo (June, 1997)
Merck (August, 1997)
Hoffmann LaRoche (August, 1997)
Protein Design Laboratories (September, 1997)
University of South Florida (September, 1997)
Pfizer (September, 1997)
University of Connecticut (September, 1997)
Wayne State University (October, 1997)
Michigan State University (October, 1997)
Parke Davis (October, 1997)
Texas A&M University (October, 1997)
University of Texas (October, 1997)
Wesleyan University (January, 1998)
University of Houston (January, 1998)
Temple University (February, 1998)
University of Pennsylvania (February, 1998)
Yale University (February, 1998)
Wyeth Ayerst (February, 1998)
Indiana University (February, 1998)
Purdue University (February, 1998)
University of Illinois (February, 1998)
Ohio State University (March, 1998)

University of Louisville (March, 1998)
University of California, San Diego (March, 1998)
Scripps Research Institute (March, 1998)
Bristol-Myers Squibb (April, 1998)
Gordon Research Conference on Stereochemistry (June, 1998)
AxyS Pharmaceuticals (August, 1999)
Gordon Research Conference on Marine Natural Products (February, 2000)
Gordon Research Conference on Natural Products (July, 2000)
Drug Discovery in the 21st Century, ACS Short Course (October, 2001)
University of South Florida (April, 2002)
Oregon State University (April, 2002)
Drug Discovery in the 21st Century, ACS Short Course (October, 2002)
Gordon Research Conference on Combinatorial Chemistry (June, 2007)
International Conference on Organic Synthesis-17, Daejeon, Korea (June, 2008)
University of Chicago (April, 2010)
Cambridge Healthtech Institute's Drug Discovery Chemistry Conference (April, 2011)
Florida Southern College (September, 2013)
Auburn University (October, 2014)
International Chemical Congress of Pacific Basin Societies 2015 (December, 2015)
Global Health & Infectious Diseases Research-CDDI Symposium (May, 2017)
University of Florida (UF Drug Discovery Symposium, September, 2017)

Papers Presented at Professional Meetings

"The Synthesis of the Carbocyclic Derivative of *lin*-Benzo-Separated 2',3'-Dideoxyinosine," James W. Leahy and Stewart W. Schneller, Presented at the 8th International Roundtable on Nucleosides, Nucleotides and Their Biological Applications, Orange Beach, AL, October, 1988.

"The Synthesis of *lin*-Benzo-Separated Aristeromycin," James W. Leahy and Stewart W. Schneller, Presented at the 200th National Meeting of the American Chemical Society, Washington, DC, August, 1990. Abstract # MEDI 144.

"Studies Directed Towards the Total Synthesis of Rapamycin: Construction of a C29-C39 Fragment," Stephen M. Condon, John A. McCauley, Johnnie L. Leazer, Jr., Robert E. Maleczka, Jr., James W. Leahy and Amos B. Smith, III, Presented at the 33rd National Organic Chemistry Symposium, Bozeman, MT, June, 1993. Abstract # A-47.

"An Approach to the Total Synthesis of Penitrem D," Duke M. Fitch, Amos B. Smith, III, William M. Clark, Richard A. Hartz, Robert M. Strongin, Paul A. Sprengeler, James W. Leahy, Mitsuaki Ohta, Ernest G. Nolen, Frances R. Blase, John Haseltine, Jill Kingery-Wood, Ryuichi Shirai and Koji Okano, Presented at the 33rd National Organic Symposium, Bozeman, MT, June, 1993. Abstract # B-85.

"Studies Directed Towards the Total Synthesis of Rapamycin: Construction of a C13-C28 Fragment," Johnnie L. Leazer, Jr., Stephen M. Condon, James W. Leahy, Robert E. Maleczka, Jr., John A. McCauley and Amos B. Smith, III, Presented at the 33rd National Organic Chemistry Symposium, Bozeman, MT, June, 1993. Abstract # B-86.

"Rapamycin and Demethoxyrapamycin: Synthetic Studies," Amos B. Smith, III, Stephen M. Condon, Robert E. Maleczka, Jr., John A. McCauley, Johnnie L. Leazer and James W.

Leahy, Presented at the 207th National Meeting of the American Chemical Society, San Diego, CA, March, 1994. Abstract # ORGN 212.

"Progress Towards the Total Synthesis of the Hypocholesterolemic Spiroketal Zaragozic Acid A/Squalestatin 1," Linda Joy Brzezinski, Dinah D. Levy and James W. Leahy, Presented at the 207th National Meeting of the American Chemical Society, San Diego, CA, March, 1994. Abstract # ORGN 368.

"A Synthetic Approach to the Bioactive Polyene Natural Product Leucettamol A," Steven Urberg, Andrew I. McDonald and James W. Leahy, Presented at the 207th National Meeting of the American Chemical Society, San Diego, CA, March, 1994. Abstract # ORGN 369.

"Convenient Construction of Cyclopentanones via "Cyclopentannulation" of Carbonyls," David P. Provencal and James W. Leahy, Presented at the 207th National Meeting of the American Chemical Society, San Diego, CA, March, 1994. Abstract # ORGN 370.

"A Synthetic Approach to the Antitumor Macrolide Rhizoxin," James W. Leahy, Cristina Gardelli and Jennifer A. Lafontaine, Presented at the 30th Western Regional Meeting of the American Chemical Society, Sacramento, CA, October, 1994. Abstract # ORGN 119.

"Progress Towards the Total Synthesis of the Antitumor Macrolide Rhizoxin," James W. Leahy, Jennifer A. Lafontaine, David P. Provencal and Cristina Gardelli, Presented at the 209th National Meeting of the American Chemical Society, Anaheim, CA, April, 1995. Abstract # ORGN 203.

"Enantioselective Methods for the Synthesis of Carbocyclic *N*- and *C*-nucleosides," Stephen J. Boyer and James W. Leahy, Presented at the 210th National Meeting of the American Chemical Society, Chicago, IL, August, 1995. Abstract # MEDI 102.

"Methods for the Synthesis of Heterocyclic Natural Products," James W. Leahy, Presented at the Pacific Basin Conference, Honolulu, HI, December, 1995.

"A Convergent Approach to the Total Synthesis of the Hennoxazoles," Eric J. Zylstra, Miles Wan-Li She and James W. Leahy, Presented at the 212th National Meeting of the American Chemical Society, Orlando, FL, August 1996. Abstract # ORGN 203.

"An Approach to the Synthesis of Carbocyclic *C*- and *N*-nucleosides," Stephen J. Boyer and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 122.

"Phorboxazole Synthetic Studies: A Highly Convergent Approach to the C(33)-C(46) Portion," Linda Joy Brzezinski, Stephen J. Boyer, David C. Carroll and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 123.

"Progress Toward the Total Synthesis of the Potent Antitumor Macrolide Cryptophycin 1," Kevin M. Gardinier and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 125.

"An Endgame Protocol for the Total Synthesis of Rhizoxin," Jennifer A. Lafontaine, David P. Provencal and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 126.

"An Atom-Economical Strategy for the Synthesis of the Unique Alkaloid Leucettamol A," Katharine McElhone Green and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 127.

"Synthesis of the Central Core of Rhizoxin: Coupling Strategies for the Attachment of the Triene Segment," David P. Provencal, Cristina Gardelli, Jennifer A. Lafontaine and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 128.

"A Convergent Approach to the Total Synthesis of the Hennoxazoles," Eric J. Zylstra, Miles Wan-Li She and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 129.

"Cyclization Strategies in Organic Synthesis," David C. Carroll and James W. Leahy, Presented at the 32nd Western Regional Meeting of the American Chemical Society, San Francisco, CA, Abstract # ORGN 130.

"A Practical Asymmetric Baylis-Hillman Reaction and Use of the Scalemic Products," Sara Rafel, Linda Joy Brzezinski, Michael Piber and James W. Leahy, Presented at the 213th National Meeting of the American Chemical Society, San Francisco, CA, April, 1997. Abstract # ORGN 122.

"A Synthetic Approach to the Potent Antitumor Macrolide Cryptophycin 1," Kevin M. Gardinier and James W. Leahy Presented at the 213th National Meeting of the American Chemical Society, San Francisco, CA, April, 1997. Abstract # ORGN 406.

"Progress Toward the Total Synthesis of the Hennoxazoles," Eric J. Zylstra, Miles Wan-Li She and James W. Leahy, Presented at the 213th National Meeting of the American Chemical Society, San Francisco, CA, April, 1997. Abstract # ORGN 553.

"An Atom-Economical Strategy for the Synthesis of the Unique Alkaloid Leucettamol A," Katharine McElhone Green and James W. Leahy, Presented at the 213th National Meeting of the American Chemical Society, San Francisco, CA, April, 1997. Abstract # ORGN 554.

"Progress Toward the Total Synthesis of Rhizoxin," Jennifer A. Lafontaine, David P. Provencal and James W. Leahy, Presented at the 213th National Meeting of the American Chemical Society, San Francisco, CA, April, 1997. Abstract # ORGN 625.

"Progress Toward the Total Synthesis of the Phorboxazoles," Stephen J. Boyer, Linda Joy Brzezinski, David C. Carroll, Katharine E. McElhone and James W. Leahy, Presented at the 214th National Meeting of the American Chemical Society, Las Vegas, NV, September, 1997. Abstract # ORGN 272.

"Searching for New Leads for New Targets: Interfacing Combinatorial Chemistry with Functional Genomics and Drug Discovery," John M. Nuss and James W. Leahy, Presented at the 224th National Meeting of the American Chemical Society, Boston, MA, August, 2002. Abstract # CARB 047

"Potentiation of Daunorubicin in K562 (CML) Cells by EXEL-9844, A Novel Chk1/Chk2 Inhibitor," David J. Matthews, Frauke Bentzien, Chris Buhr, Paul Foster, James W. Leahy, Stefanie Mandl, Nicole Miller, Artur Plonowski and Scott Robertson, Presented at the 46th Annual Meeting of the American Society of Hematology, San Diego, CA, December 2004.

"Progress Toward an Enantiospecific Synthesis of Membranolide A and Analogs," Zachary Shultz, Ali Siddiqui and James W. Leahy, Presented at the 66th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October, 2014. Abstract # 533

"Synthesis and Antileishmanial Activity of Novel Hsp90 Inhibitors," Linda Barbeto, Ankush Kanwar, Piero Carletti Bonomo, Andrea Lemus, Brian A. Vesely, Tina S. Mutka,

Dennis E. Kyle and James W. Leahy, Presented at the 66th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October, 2014. Abstract # 719

"Synthesis of Two Novel Classes of Potential Antileishmaniasis Agents," Benjamin J. Eduful, Catherine Costa, Tina S. Mutka, Brian A. Vesely, Dennis E. Kyle and James W. Leahy, Presented at the 66th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October, 2014. Abstract # 720

"Progress Toward the Discovery of Novel Antiinfective Agents," Catherine Costa, Brian A. Vesely, Tina S. Mutka, Dennis E. Kyle, Benjamin J. Eduful and James W. Leahy, Presented at the 66th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October, 2014. Abstract # 1116

"Synthesis of Xanthurenic Acid Analogs as Tools for the Discovery of Novel Antimalarial Agents," Margarita M. Vanegas, Oleg Tsvyetayev, Anika Graham, Elizabeth A. Shald and James W. Leahy, Presented at the 66th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October, 2014. Abstract # 1119

"Novel Synthesis of (+)-Catechin Metabolites," Kevin W. Petersen, Andrea Lemus and James W. Leahy, Presented at the 250th National Meeting of the American Chemical Society, Boston, MA, August, 2015. Abstract # CHED 303.

"Synthesis of Potential Chaperone Inhibitors as Novel Antileishmaniasis Agents," James W. Leahy and Dennis Kyle, Presented at the International Chemical Congress of Pacific Basin Societies 2015, Honolulu, HI, December, 2015. Abstract # HLTH 598.

"Studies Aimed at the Synthesis of Hsp90 Inhibitors as Antileishmaniasis Agents," Linda Barbeto, James W. Leahy and Dennis Kyle, Presented at the 253rd National Meeting of the American Chemical Society, San Francisco, CA, April, 2017. Abstract # MEDI 74.

"Synthesis and Evaluation of Xanthurenic Acid Analogs for Impeding Transmission of *Plasmodium falciparum* from Host to Vector," Ankush Kanwar, James W. Leahy, Dennis Kyle and T. J. McGaha, Presented at the 253rd National Meeting of the American Chemical Society, San Francisco, CA, April, 2017. Abstract # MEDI 209.

"Synthesis of Novel Agents for the Treatment of Neurodegenerative Diseases," Benjamin J. Eduful, James W. Leahy, David Kang, Melissa Chin, Arianna Rashedi and Ousman Jallow, Presented at the 253rd National Meeting of the American Chemical Society, San Francisco, CA, April, 2017. Abstract # MEDI 505.

"Cyclization Strategies for the Total Synthesis of Biologically Active Natural Products," Zachary Shultz and James W. Leahy, Presented at the 253rd National Meeting of the American Chemical Society, San Francisco, CA, April, 2017. Abstract # ORGN 835.

Publications:

Organic Chemistry Student Solutions Manual, Douglas J. Raber, Nancy K. Raber, James W. Leahy and Ellen M. Salcines, West, St. Paul, 1988.

"The Synthesis of the Carbocyclic Derivative of *lin*-Benzo-separated 2',3'-Dideoxyinosine," James W. Leahy and Stewart W. Schneller, *Nucleosides and Nucleotides*, **1989**, *8*, 1081.

"Total Synthesis of the Latrunculins," Amos B. Smith, III, James W. Leahy, Ichio Noda, Stacy W. Remiszewski, Nigel J. Liverton and Regina Zibuck, *J. Am. Chem. Soc.* **1992**, *114*, 2995.

"The First Design and Synthesis of a Steroidal Peptidomimetic. The Potential Value of Peptidomimetics in Elucidating the Bioactive Conformation of Peptide Ligands," Ralph Hirschmann, Paul A. Sprengeler, Tomomi Kawasaki, James W. Leahy, William C. Shakespeare and Amos B. Smith, III, *J. Am. Chem. Soc.* **1992**, *114*, 9699.

"The Versatile Steroid Nucleus: Design and Synthesis of a Peptidomimetic Employing this Novel Scaffold," Ralph Hirschmann, Paul A. Sprengeler, Tomomi Kawasaki, James W. Leahy, William C. Shakespeare and Amos B. Smith, III, *Tetrahedron* **1993**, *49*, 3665.

"An End Game Strategy for the Construction of the G-H-I Rings of Penitrem D, A Tremorgenic Indole Alkaloid," Amos B. Smith, III, Mitsuaki Ohta, William M. Clark and James W. Leahy, *Tetrahedron Lett.* **1993**, *34*, 3033.

"Rapamycin Synthetic Studies. 1. Construction of the C(27)-C(42) Subunit," Amos B. Smith, III, Stephen M. Condon, John A. McCauley, James W. Leahy, Johnnie L. Leazer, Jr. and Robert E. Maleczka, Jr., *Tetrahedron Lett.* **1994**, *35*, 4907.

"Rapamycin Synthetic Studies. 2. Elaboration of the C(10)-C(26) Perimeter," Amos B. Smith, III, Robert E. Maleczka, Jr., Johnnie L. Leazer, Jr., James W. Leahy, John A. McCauley and Stephen M. Condon, *Tetrahedron Lett.* **1994**, *35*, 4911.

"Convenient Construction of Cyclopentanones via "Cyclopentannulation" of Carbonyls," David P. Provencal and James W. Leahy, *J. Org. Chem.* **1994**, *59*, 5496.

"An Unexpected Reversal of Stereochemistry in a Modification of the Rychnovsky Cyanohydrin Alkylation," Linda Joy Brzezinski, Dinah D. Levy and James W. Leahy, *Tetrahedron Lett.* **1994**, *35*, 7601.

"A Convenient Synthesis of (*S*)-3-Methyladipic Acid," James W. Leahy and Baohua Huang, *Synth. Commun.* **1994**, *24*, 3123.

"Total Synthesis of Rapamycin and Demethoxyrapamycin," Amos B. Smith, III, Stephen M. Condon, John A. McCauley, Johnnie L. Leazer, Jr., James W. Leahy and Robert E. Maleczka, Jr., *J. Am. Chem. Soc.* **1995**, *117*, 5407.

"Dichloroketene," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, pp 1714-9.

"Diphenylketene," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, pp 2225-6.

"N-Ethoxycarbonylphthalimide," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, pp 2357-8.

"2-Thiono-1,3-dioxol-4-ene," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, p. 4871.

"Tribromoacetyl Bromide," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, pp 4992-3.

"Trichloroacetyl Chloride," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, pp 5057-8.

"Trimethylselenonium Hydroxide," James W. Leahy in "The Encyclopedia of Reagents for Organic Synthesis," Leo Paquette, Ed., John Wiley and Sons, New York, **1995**, pp 5227-8.

"Rhizoxin Synthetic Studies. 1. Synthesis of the Right Hand [C(1) to C(9)] Portion via a "Pinwheel" Approach," Jennifer A. Lafontaine and James W. Leahy, *Tetrahedron Lett.* **1995**, *36*, 6029.

"Rhizoxin Synthetic Studies. 2. Synthesis of the Left Hand [C(10) to C(19)] and Polyene Fragments," David P. Provencal, Cristina Gardelli, Jennifer A. Lafontaine and James W. Leahy, *Tetrahedron Lett.* **1995**, *36*, 6033.

"Absolute Configuration of Phorboxazoles A and B from the Marine Sponge Phorbas sp. I. Macrolide and Hemiketal Rings," Philip A. Searle, Tadeusz F. Molinski, Linda Joy Brzezinski and James W. Leahy, *J. Am. Chem. Soc.* **1996**, *118*, 9422.

"A Unified Total Synthesis of the Immunomodulators (–)-Rapamycin and (–)-27-Deoxyrapamycin: Construction of the C(21–42) Perimeters," Amos B. Smith, III, Stephen M. Condon, John A. McCauley, Johnnie L. Leazer, Jr., James W. Leahy and Robert E. Maleczka, Jr., *J. Am. Chem. Soc.* **1997**, *119*, 947.

"A Unified Total Synthesis of the Immunomodulators (–)-Rapamycin and (–)-27-Deoxyrapamycin: Assembly of the Common C(1–20) Perimeter and Final Elaboration," Amos B. Smith, III, Stephen M. Condon, John A. McCauley, Johnnie L. Leazer, Jr., James W. Leahy and Robert E. Maleczka, Jr., *J. Am. Chem. Soc.* **1997**, *119*, 962.

"An Unexpected Rate Acceleration - Practical Improvements in the Baylis-Hillman Reaction," Sara Rafel and James W. Leahy, *J. Org. Chem.* **1997**, *62*, 1521.

"The Asymmetric Baylis-Hillman Reaction," Linda Joy Brzezinski, Sara Rafel and James W. Leahy, *J. Am. Chem. Soc.* **1997**, *119*, 4317.

"Carbocyclic Nucleoside Analogs. 1. Concise Enantioselective Synthesis of Functionalized Cyclopentanes and Formal Total Synthesis of Aristeromycin," Stephen J. Boyer and James W. Leahy, *J. Org. Chem.* **1997**, *62*, 3976.

"Enantiospecific Total Synthesis of the Potent Antitumor Macrolides Cryptophycins 1 and 8," Kevin M. Gardinier and James W. Leahy, *J. Org. Chem.* **1997**, *62*, 7098.

"The Asymmetric Baylis-Hillman Reaction as a Template in Organic Synthesis," Linda Joy Brzezinski, Sara Rafel and James W. Leahy, *Tetrahedron (Symposium in Print)* **1997**, *53*, 16423.

"Directed Methallylations as a Synthetic Route to 1,3-Polyols," Linda Joy Brzezinski and James W. Leahy, *Tetrahedron Lett.* **1998**, *39*, 2039.

"Enantiospecific Generation of Anti-Aldol Adducts via Conjugate Addition to 5-Methylene-1,3-dioxan-4-ones," Michael Piber and James W. Leahy, *Tetrahedron Lett.* **1998**, *39*, 2043.

"Reinvestigation of σ-Allyl Cations: High Level Ab Initio Quantum Mechanical Predictions," Kim K. Baldridge, James Leahy and Jay S. Siegel, *Tetrahedron Lett.* **1999**, *40*, 3503.

"The Enantioselective Total Synthesis of the Antitumor Macrolide Natural Product Rhizoxin D," Jennifer A. Lafontaine, David P. Provencal, Cristina Gardelli and James W. Leahy, *Tetrahedron Lett.* **1999**, *40*, 4145.

"Design, Synthesis and in Vitro Evaluation of Potent, Novel, Small Molecule Inhibitors of Plasminogen Activator Inhibitor-1," Adrian Folkes, S. David Brown, Lynne E. Canne, Jocelyn Chan, Erin Engelhardt, Sergey Epshteyn, Richard Faint, Julian Golec, Art Hanel, Patrick Kearney, James W. Leahy, Morrison Mac, David Matthews, Michael P. Prisbylla, Jason Sanderson, Reyna J. Simon, Zerom Tesfai, Nigel Vicker, Shouming Wang, Robert R. Webb and Peter Charlton, *Bioorg. Med. Chem. Lett.* **2002**, *12*, 1063.

"Absolute Configuration of Phorboxazole A C32-C43 Analogs by CD Exciton-Coupling of Allylic 2-Napthoate Esters," Tadeusz F. Molinski, Linda Joy Brzezinski and James W. Leahy, *Tetrahedron: Asymmetry* **2002**, *13*, 1013.

"The Enantioselective Total Synthesis of the Antitumor Macrolide Rhizoxin D," Jennifer A. Lafontaine, David P. Provencal, Cristina Gardelli and James W. Leahy, *J. Org. Chem.* **2003**, *68*, 4215.

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