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Education

1997 Ph.D. (Chemistry), Harvard University
1990 B.S. (Chemistry), University of California, Berkeley

Research and Professional Experience

2009 – present Professor, MIT, Department of Chemistry
2006 – 2009 Associate Professor, MIT, Department of Chemistry
2004 – 2006 Associate Professor (without tenure), MIT, Department of Chemistry
2002 – 2005 Paul M. Cook Career Development Chair
1999 – 2004 Assistant Professor, MIT, Department of Chemistry
1997 – 1999 Postdoctoral Fellow, Harvard University (Prof. Eric N. Jacobsen)
1991 – 1997 Graduate Student, Harvard University (Prof. Stuart L. Schreiber)
1990 – 1991 Fulbright Fellow, ETH Zürich, Switzerland (Prof. Steven A. Benner)
1988 – 1990 Undergraduate Research, UC Berkeley (Prof. Henry Rapoport)
1988 Summer Research Assistant, Eastman Kodak, Rochester, NY
1987 Co-op Research Assistant, ICI Americas, Richmond, CA

Honors, Awards, and Professional Activities

2008 – 2011 Petroleum Research Fund Advisory Board
2006 JSPS Invitation Fellowship
2004 Sloan Research Fellow
2004 GlaxoSmithKline Scholar Award
2003 Amgen Young Investigator Award
2002 Paul M. Cook Career Development Chair
2002 Boehringer Ingelheim New Investigator Award
2001 National Science Foundation CAREER Award
2000 3M Innovation Award
1997 – 1999 Postdoctoral Fellow, Cancer Research Fund, Damon Runyon-Walter Winchell Foundation
1991 – 1994 National Science Foundation Predoctoral Fellow
1991 – 1993 Certificate of Distinction in Teaching, Harvard University (3 times)
1990 – 1991 Fulbright Fellow (Swiss Universities Grant)
1990 Graduated with High Honors (Chemistry), UC Berkeley
1990 Saegbarth Prize (Undergraduate Research Excellence in Chemistry)
1990 Phi Beta Kappa
1988 – 1989 President's Undergraduate Fellow, UC Berkeley
1985 – 1989 Chancellor's Scholar, UC Berkeley
1986 – 1989 Eastman Kodak Scholar

Publications:

MIT

2009

Morten, C. J.; Jamison, T. F. "New Synthetic Strategies for the Stereocontrolled Synthesis of Substituted 'Skipped' Diepoxides," *Tetrahedron* **2009**, *in press*.

Trenkle, J. D.; Jamison, T. F. "Macrocyclization via Nickel-Catalyzed, Ester-Promoted, Epoxide-Alkyne Reductive Coupling: Total Synthesis of (-)-Gloeosporone," *Angew. Chem. Int. Ed.* **2009**, *48*, *in press*.

Morten, C. J.; Jamison, T. F. "Water Overcomes Methyl Group Directing Effects in Epoxide-Opening Cascades," *J. Am. Chem. Soc.* **2009**, *131*, 6678-6679.

McCarren, P. R.; Liu, P.; Cheong, P. H.-Y.; Jamison, T. F.; Houk, K. N. "Mechanism and Transition State Structures for Nickel-Catalyzed Reductive Alkyne-Aldehyde Coupling Reactions," *J. Am. Chem. Soc.* **2009**, *131*, 6654-6655.

Byers, J. A.; Jamison, T. F. "On the Synergism Between H₂O and a Tetrahydropyran Template in the Regioselective Cyclization of an Epoxy Alcohol," *J. Am. Chem. Soc.* **2009**, *131*, 6383-6385.

Ho, C.-Y.; Schleicher, K. D.; Jamison, T. F. "Catalytic Addition of Simple Alkenes to Carbonyl Compounds Using Group 10 Metal Catalysts," (review), *Synlett* **2009**, *20*, *in press*.

Vilotijevic, I.; Jamison, T. F. "Epoxide-Opening Cascades in Synthesis of Polycyclic Polyether Natural Products," (review), *Angew. Chem. Int. Ed.* **2009**, *48*, *in press*.

Van Dyke, A. R.; Jamison, T. F. "Template-Controlled Cyclizations and Cascades of Epoxy Alcohols: Synthesis of HIJK Rings of Gymnocin A," *Angew. Chem. Int. Ed.* **2009**, *48*, 4430-4432.

Xia, J.-B.; Jamison, T. F.; You, S.-L. "Monodentate Chiral Ferrocenyl Ligands," (book chapter), in *Ferrocenyl Ligands in Asymmetric Catalysis*, *in press*.

2008

Sparling, B. A.; Simpson, G. L.; Jamison, T. F. "Strategic use of nickel(0)-catalyzed enyne-epoxide reductive coupling towards the synthesis of (-)-cyatha-3,12-diene," *Tetrahedron* **2008**, 3270-3280.

Sparling, B. A.; Moslin, R. M.; Jamison, T. F. "SmI₂-Promoted Reformatsky-Type Coupling Reactions in Exceptionally Hindered Contexts," *Org. Lett.* **2008**, *10*, 1291-1294.

Ng, S.-S.; Ho, C.-Y.; Schleicher, K. D.; Jamison, T. F. "Nickel-Catalyzed Coupling Reactions of Alkenes," *Pure Appl. Chem.* **2008**, *80*, 929-939.

Ho, C.-Y.; Ohmiya, H.; Jamison, T. F. "Alpha Olefins as Alkenylmetal Equivalents in Catalytic Conjugate Addition Reactions," *Angew. Chem. Int. Ed.* **2008**, *47*, 1893-1895.

2007

Moslin, R. M.; Jamison, T. F. "Total Synthesis of (+)-Acutiphycin," *J. Org. Chem.* **2007**, *73*, 9736-9745.

Vilotijevic, I.; Jamison, T. F. "Epoxide-Opening Cascades Promoted by Water," *Science* **2007**, *317*, 1189-1192.

- News of the Week: Service, R. F. "Synthesis Mimics Natural Craftsmanship" *Science* **2007**, 317, 1157.
- Research Highlights: "Chemistry: A simple solution" *Nature* **2007**, 449, 5.
- News and Views: Inoue, M. "Organic chemistry: Zipper synthesis in water" *Nature* **2007**, 449, 667.
- Research highlights: Goodman, C. "Rings on the rungs" *Nature Chem. Bio.* **2007**, 3, 611.
- News of the Week: Halford, B. "When Organics Fail, Try Water" *Chem. Eng. News* **2007**, 85 (36), 7.
- News: Crow, J. M. "Toxins' synthesis secret cracked" *Chemistry World* **2007**, 4 (10), August 30.

Woodin, K. S.; Jamison, T. F. "Total Synthesis of Pumiliotoxins 209F and 251D via Late-Stage, Nickel-Catalyzed Epoxide-Alkyne Reductive Cyclization," *J. Org. Chem.* **2007**, 7451-6454.

Moslin, R. M.; Moslin, K. M.; Jamison, T. F. "Regioselectivity and Enantioselectivity in Nickel-Catalyzed Reductive Coupling Reactions of Alkynes," *Chem. Commun.* **2007**, 4441-4449.

Schleicher, K. D.; Jamison, T. F. "Nickel-Catalyzed Synthesis of Acrylamides From Alpha Olefins and Isocyanates," *Org. Lett.* **2007**, 9, 875-878.

Ho, C.-Y.; Jamison, T. F. "Highly Selective Coupling of Alkenes and Aldehydes Catalyzed by NHC-Ni-P(OPh)₃: Synergy Between a Strong σ -Donor and a Strong π -Acceptor," *Angew. Chem. Int. Ed.* **2007**, 46, 782-785.

Van Dyke, A. R.; Miller, K. M.; Jamison, T. F. "(R)-(-)-Neomenthylidiphenylphosphine in Nickel-Catalyzed Asymmetric Reductive Coupling of Alkynes and Aldehydes: Enantioselective Synthesis of Allylic Alcohols and α -Hydroxy Ketones," *Org. Synth.* **2007**, 84, 111-119.

2006

Moslin, R. M.; Jamison, T. F. "Highly Convergent Total Synthesis of (+)-Acutiphycin," *J. Am. Chem. Soc.* **2006**, 128, 15106-15107.

Langille, N. F.; Jamison, T. F. "Trans-Hydroalumination/Alkylation: One-Pot Synthesis of Trisubstituted Allylic Alcohols," *Org. Lett.* **2006**, 8, 3761-3764.

Ng., S.-S.; Ho, C.-Y.; Jamison, T. F. "Nickel-Catalyzed Coupling of Alkenes, Aldehydes, and Silyl Triflates," *J. Am. Chem. Soc.* **2006**, 128, 11513-11528.

Heffron, T. P.; Jamison, T. F. "Concerning Lewis Acid-Promoted, Directing Group-Free Epoxide Ring-Opening Cascades," *Synlett* **2006**, *Synlett Cluster on Cascade Reactions*, 2329-2333.

Ng, S.-S.; Jamison, T. F. "Nickel-Catalyzed Coupling of Terminal Allenes, Aldehydes, and Silanes," *Tetrahedron* **2006**, 62, *Symposium-in-Print, David W. C. MacMillan Tetrahedron Young Investigator Award*, 11350-11359.

Moslin, R. M.; Miller, K. M.; Jamison, T. F. "Directing Effects of Tethered Alkenes in Nickel-Catalyzed Coupling Reactions of 1,6-Enynes and Aldehydes," *Tetrahedron* **2006**, 62, *Symposium-in-Print, Recent Advances in Organonickel Chemistry*, 7598-7610.

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- Editor's Choice: Yeston, J. S. "A Guide to Achieving Closure," *Science* **2006**, *311*, 439.
- News of the Week: Halford, B. "Ladder Polyethers in a Snap," *Chem. Eng. News* **2006**, *84*(3), January 16, 2006, p. 8.

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2005

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- Editor's Choice: Yeston, J. S. "The Value of a Nickel," *Science* **2005**, *309*, 2139.

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Colby, E. A.; Jamison, T. F. "A Comparative Analysis of the Total Syntheses of the Amphidinolide T Natural Products," *Org. Biomol. Chem.* **2005**, *3*, 2675-2684.

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2004

Miller, K. M.; Jamison, T. F. "Ligand-Switchable Directing Effects of Tethered Alkenes in Nickel-Catalyzed Additions to Alkynes," *J. Am. Chem. Soc.* **2004**, *126*, 15342-15343.

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- Miller, K. M.; Luanphaisarnnont, T.; Molinaro, C.; Jamison, T. F. "Alkene-Directed, Nickel-Catalyzed Coupling Reactions of Alkynes," *J. Am. Chem. Soc.* **2004**, *126*, 4130-4131.
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2003

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- Miller, K. M.; Molinaro, C.; Jamison, T. F. "Catalytic Reductive Carbon-Carbon Bond-Forming Reactions of Alkynes," *Tetrahedron: Asym.* **2003**, *14*, invited contribution to special issue: "Asymmetric Syntheses on a Process Scale," 3619-3625.
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- Miller, K. M.; Huang, W.-S.; Jamison, T. F. "Catalytic Asymmetric Reductive Coupling of Alkynes and Aldehydes: Enantioselective Synthesis of Allylic Alcohols and α -Hydroxy Ketones," *J. Am. Chem. Soc.* **2003**, *125*, 3442-3443.
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2002 and earlier

- Skaggs, A. J.; Lin, E. Y.; Jamison, T. F. "Cobalt Cluster-Containing Carbonyl Ylides for Catalytic, Three-Component Assembly of Oxygen Heterocycles," *Org. Lett.* **2002**, *4*, 2277-2280.
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With Eric N. Jacobsen

- Thompson, C. F.; Jamison, T. F.; Jacobsen, E. N. "FR901464: Total Synthesis, Proof of Structure, and Evaluation of Synthetic Analogs," *J. Am. Chem. Soc.* **2001**, *123*, 9974-9983.
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With Stuart L. Schreiber

- Jamison, T. F.; Shambayati, S.; Crowe, W. E.; Schreiber, S. L. "Tandem Use of Cobalt-Mediated Reactions to Synthesize (+)-Epoxydictymene, a Diterpene Containing a *Trans*-Fused 5-5 Ring System," *J. Am. Chem. Soc.* **1997**, *119*, 4353-4363.
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With Henry Rapoport

- Jamison, T. F. and Rapoport, H. "(*S*)-N-(9-Phenylfluoren-9-yl)alanine and (*S*)-Dimethyl N-(9-Phenylfluoren-9-yl)aspartate," *Org. Synth.* **1992**, *71*, 226-235.
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Patents:

- Schreiber, S. L.; Standaert, R. F.; Fenteany, G.; Jamison, T. F.; "Lactacystin Analogs," **2005**, U.S. Patent No. 6,838,437.
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Fenteany, G.; Jamison, T. F.; Schreiber, S. L.; Standaert, R. F.; "Lactacystin Analogs," **2002**, U.S. Patent No. 6,458,825.

Jacobsen, E. N.; Schaus, S. E.; Dossetter, A. G.; Jamison, T. F.; "Asymmetric Cycloaddition Reactions" **2002**, U.S. Patent No. 6,369,223.

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