JAMES P. MORKEN

Louise and James Vanderslice Professor of Chemistry
Boston College
Department of Chemistry
Chestnut Hill, Massachusetts 02467
Tel: (617) 552-6290
e-mail: morken@bc.edu
https://www2.bc.edu/james-morken/

EDUCATION

- 1995-1997, Postdoctoral Fellow, Harvard University (Advisor: Stuart L. Schreiber)
- 1990-1995, Ph. D., Boston College (Advisor: Amir H. Hoveyda)
- 1985-1989, B. S. Chemistry, University of California at Santa Barbara (Advisor: Bruce Rickborn)

EMPLOYMENT

- 2014-present Louise and James Vanderslice and Family Professor of Chemistry
- 2006-2014, *Professor of Chemistry*, Boston College
- 2002-2006, *Associate Professor of Chemistry*, UNC Chapel Hill
- 1997-2002, *Assistant Professor of Chemistry,* UNC Chapel Hill
- 1990, *Associate Research Chemist.* ICI Americas, Inc., Agricultural Chemicals, Richmond, CA
- 1988-1989, *Analytical Chemist,* Central Coast Analytical Services, Santa Barbara, CA

HONORS AND AWARDS

- American Chemical Society, Arthur C. Cope Scholar Award, 2018
- Boston College Graduate School of Arts & Sciences Teaching and Mentoring Award, 2016
- Astra-Zeneca Excellence in Chemistry Award, 2002
- Bristol-Myers Squibb Award in Synthetic Organic Chemistry, 2002
- David and Lucile Packard Foundation Fellow in Science and Engineering, 1998-2003
- Dow Innovation Recognition Award, 2001-2002
- DuPont Young Professor Grantee, 1998-2001
- GlaxoSmithKline Scholars Award, 2001-2002
- National Science Foundation CAREER Award, 1998-2003
- Phillip and Ruth Hettleman Prize for Artistic and Scholarly Achievement, 2001
- Sloan Research Foundation Fellowship, 2002-2004
- National Science Foundation Postdoctoral Fellowship in Chemistry, 1995-1997
- ACS Organic Division Graduate Fellowship, Sponsored by Glaxo Research Labs, 1993

NATIONAL SERVICE

- ACS National Awards Selection Committee, 2016-2018
- NSF Research Proposal Review Committee, 2015-2019
- NIH SBCB Permanent Study Section Member, 2009-2013
- NIH BCMB Member Conflicts Study Section, October 2008
- NIH SBCB Ad Hoc Member, June 2008
- NIH SBCB Ad Hoc Member, October 2007
- NIH SBCA, SBCB, Special Emphasis Panel Study Section, July 2005
- Editorial Advisory Board, Journal of Combinatorial Chemistry, 2001- 2005
- NIH Med Chem Study Section, Ad-Hoc Review, June 2003
- Proposal Review for NSF, ACS-PRF, Research Corporation
- Manuscript Reviewer for *Journal of the American Chemical Society, Nature, Science, Journal of Organic Chemistry, Organic Letters, Tetrahedron Letters, Organometallics, Journal of Organometallic Chemistry, Angewandte Chemie, Chemistry European Journal* and *Synlett.*
- Session Chair for ACS Fall National Meeting, 2001
- ACS Project SEED Participant, 2003
- Organizing Committee, 2004 Southeastern Regional ACS Meeting, Frontiers in Chemistry Symposium

DEPARTMENTAL SERVICE

- Department Vice Chair, Spring 2017–Spring 2019
- Chair Organic Faculty Search Committee (hired Prof. Masayuki Wasa), Fall 2014
- Chair Organic Faculty Search Committee, Fall 2013
- Chair Organic Faculty Search Committee, Fall 2012
- Chair Organic Faculty Search Committee (hired Prof. Jeffrey Byers), Fall 2010
- Chair, Graduate Admissions Committee, 2006-2013
- Initiated EMERGE (with Dale Mahoney). Expanding Multicultural Engagement & Representation in Graduate Education: focused on increasing minority enrollment in BC Chemistry Department, 2008-2010
- Interim Chair Graduate Studies Committee, 2007-2008
- Alumni & Industrial Affairs Committee, 2006-Present

UNIVERSITY SERVICE

- University Promotions and Tenure Committee, Elected Spring 2017, Re-elected 2019.
- Beckman Scholars Steering Committee, 2018-present
- Integrated Sciences Center, Development Committee, 2014-Present
- Presidential Scholars Interviews, 2013
- Presidential Scholars Advisor, 2012-2016
- McCarthy Prize Selection Committee, 2010
- Chemistry Majors Course Advising, 2010-Present
- Ad Hoc Member Provost's Advisory Panel (for Paul Davidovits), Spring 2009
- Pre-major Advising to BC Freshman and Sophomores, 2008-2010

PEER-REVIEWED PUBLICATIONS (UNDERLINE DENOTES UNDERGRADAUTE CO-AUTHOR)

105. "Stereoselective Synthesis of Trisubstituted Alkenylboron Reagents by Boron-Wittig Reaction of Ketones," S. Namirembe, C. Gao, R. P. Wexler, J. P. Morken *Org. Lett.* **2019**, In Press.

104. "Reactions of Organoboron Compounds Enabled by Catalyst-Promoted Metalate Shifts," S. Namirembe, J. P. Morken *Chem. Soc. Rev.* **2019**, In Press.

103. "Site-Selective Mono-Oxidation of 1,2-Bis(boronates)," L. Yan, J. P. Morken *Org. Lett.* **2019**, *21*, 3760–3763.

102. "Catalytic Conjunctive Coupling of Carboxylic Acid Derivatives with 9- BBN-Derived Ate Complexes," C. Law, Y. Meng, S. M. Koo, J. P. Morken *Angew. Chem. Int. Ed.* **2019**, *131*, 6726–6730.

101. "Vinylidenation of Organoboronic Esters Enabled by a Pd-Catalyzed Metallate Shift," M. D. Aparece, C. Gao, G. J. Lovinger, J. P. Morken *Angew. Chem. Int. Ed.* **2019**, *57*, *58*, 592–595.

100. "Diastereoselective and Enantioselective Conjunctive Cross-Coupling Enabled by Boron Ligand Design," J. A. Myhill, C. A. Wilhelmsen, L. Zhang, J. P. Morken *J. Am. Chem. Soc.* **2018**, *140*, 15181–15185.

99. "Enantioselective Construction of Tertiary Boronic Esters by Conjunctive Cross-Coupling," J.A. Myhill, L. Zhang, G. J. Lovinger, J. P. Morken *Angew. Chem. Int. Ed.* **2018**, *24*, 12799–12803.

98. "A Protocol for Direct Stereospecific Amination of Primary, Secondary, and Tertiary Alkylboronic Esters," E.K. Edelstein, A. C. Grote, M. D. Palkowitz, J. P. Morken *Syn. Lett.* **2018**, *29*, 1749–1752.

97. "Synthesis and Stereochemical Assignment of Arenolide," X. Liu, C. Sun, S. N. Mlynarski, J. P. Morken *Org. Lett.* **2018**, *7*, 1898–1901.

96. "Carbohydrate/DBU Cocatalyzed Alkene Diboration: Mechanistic Insight Provides Enhanced Catalytic Efficiency and Substrate Scope," L. Yan, Y. Meng, F. Haeffner, R. M. Leon, M. P. Crockett, J. P. Morken *J. Am. Chem. Soc.* **2018**, *140*, 3663–3673.

95. "Enantioselective Synthesis of Nonracemic Geminal Silylboronates by Pt-Catalyzed Hydrosilation," A. A. Szymaniak, C. Zhang, J. R. Coombs, J. P. Morken *ACS Catal.* **2018**, *8*, 2897–2901.

94. "Ni-Catalyzed Enantioselective Conjunctive Coupling with C(sp3) Electrophiles: A Radical-Ionic Mechanistic Dichotomy," G. J. Lovinger and J. P. Morken *J. Am. Chem. Soc.* **2017**, *139*, 17293–17296.

93. "A Boron Alkylidene–Alkene Cycloaddition Reaction: Application to the Synthesis of Aphanamal," X. Liu, T. M. Deaton, F. Haeffner, J. P. Morken *Angew. Chem. Int. Ed.* **2017**, *56*, 11485–11489.

92. "Nickel-Catalyzed Enantioselective Conjunctive Cross-Coupling of 9-BBN Borates," M. P. Chierchia, C. Law, J. P. Morken *Angew. Chem. In. Ed.* **2017**, *56*, 11870–11874.

91. "Enantioselective Conjunctive Cross-Coupling of Bis(alkenyl)borates: A General Synthesis of Chiral Allylboron Reagents," E. K. Edelstein, S. Namirembe, and J. P. Morken *J. Am. Chem. Soc.* **2017**, *139*, 5027–5030.

90. "Pd-Catalyzed Conjunctive Cross-Coupling Between Grignard-Derived Boron "Ate" Complexes and C(sp^2) Halides or Triflates: NaOTf as a Grignard Activator and Halide Scavenger," G. J. Lovinger, M. D. Aparece, and J. P. Morken *J. Am. Chem. Soc.* **2017**, *139*, 3153–3160.

89. "Nickel-Catalyzed Asymmetric Kumada Cross-Coupling of Symmetric Cyclic Sulfates," M. S. Eno, A. Lu, and J. P. Morken *J. Am. Chem. Soc.* **2016**, *138*, 7824–7827.

88. "Modular, Catalytic Enantioselective Construction of Quaternary Carbon Stereocenters by Sequential Cross-Coupling Reactions," B. Potter, E. K. Edelstein, and J. P. Morken *Organic Letters* **2016**, *18*, 3286–3289.

87. "Carbohydrate-Catalyzed Enantioselective Alkene Diboration: Enhanced Reactivity of 1,2-Bonded Diboron Complexes," L. Fang, L. Yan, F. Haeffner, J. P. Morken *J. Am. Chem. Soc.* **2016**, *138*, 2508–2511.

86. "Catalytic Enantioselective Functionalization of Unactivated Terminal Alkenes," J. R. Coombs, J. P. Morken *Angew. Chem. Int. Ed.* **2016**, *55*, 2636–2649.

85. "Catalytic Conjunctive Cross-Coupling Enabled by Metal-Induced Metallate Rearrangement," L. Zhang, G. J. Lovinger, E. K. Edelstein, A. A. Szymaniak, M. P. Chierchia, J. P. Morken *Science* **2016**, *351*, 70–74.

84. "Hydroxyl-Directed Cross-Coupling: A Scalable Synthesis of Debromohamigeran E and Other Targets of Interest," T. P. Blaisdell, J. P. Morken *J. Am. Chem. Soc.* **2015**, *137*, 8712–8715.

83. "Branched/Linear Selectivity in Palladium-Catalyzed Allyl-Allyl Cross-Couplings: The Role of the Ligand," M. J. Ardolino, J. P. Morken *Tetrahedron* (Invited Submission for Tsuji 2014 Tetrahedron Prize) **2015**, *71*, 6409–6413.

82. "Synthesis of Vinyl Boronates from Aldehydes by a Practical Boron-Wittig Reaction," J. R. Coombs, L. Zhang, J. P. Morken *Org. Lett.* **2015**, *17*, 1708–1711.

81. "Enantioselective Hydroformylation of 1-Alkenes with Commercial Ph-BPE Ligand," Z. Yu, M. S. Eno, A. H. Annis, J. P. Morken *Org. Lett.* **2015**, *17*, 3264–3267.

80. "Diastereoselective Ni-Catalyzed 1,4-Hydroboration of Chiral Dienols," R. J. Ely, Z. Yu, J. P. Morken *Tetrahedron Lett.* (Invited Submission for H. Wasserman Memorial Issue) **2015**, *56*, 3402–3405.

79. "Nonracemic Allylic Boronates through Enantiotopic-Group-Selective Cross-Coupling of Geminal Bis(boronates) and Vinyl Halides," B. Potter, A. A. Szymaniak, E. K. Edelstein, J. P. Morken *J. Am. Chem. Soc.* **2014**, *136*, 17918–17921.

78. "Enantiomerically Enriched Tris(boronates): Readily Accessible Conjunctive Reagents for Asymmetric Synthesis," J. R. Coombs, L. Zhang, J. P. Morken *J. Am. Chem. Soc.* **2014**, *136*, 16140–16143.

77. "Enantioselective Carbocycle Formation through Intramolecular Pd-Catalyzed Allyl–Aryl Cross-Coupling," C. H. Schuster, J. R. Coombs, Z. A. Kasun, J. P. Morken *Org. Lett.* **2014**, *16*, 4420–4423.

76. "Simple Access to Elusive α-Boryl Carbanions and Their Alkylation: An Umpolung Construction for Organic Synthesis," K. Hong, X. Liu, J. P. Morken *J. Am. Chem. Soc.* **2014**, *136*, 10581–10584.

75. "Synthesis of (+)-Discodermolide by Catalytic Stereoselective Borylation Reactions," Z. Yu, R. J. Ely, J. P. Morken *Angew. Chem. Int. Ed.* **2014**, *53*, 9632–9636.

74. "Catalytic Bismetallative Multicomponent Couplings Reactions: Scope, Applications, and Mechanisms," H. Y. Cho, J. P. Morken *Chem. Soc. Rev.* **2014**, *43*, 4368–4380.

73. "Hydroxyl-Directed Stereoselective Diboration of Alkenes," T. P. Blaisdell, T. C. Caya, L. Zhang, A. Sanz-Marco, J. P. Morken *J. Am. Chem. Soc.* **2014**, *136*, 9264–9267.

72. "Congested C–C Bonds by Pd-Catalyzed Enantioselective Allyl–Allyl Cross-Coupling, a Mechanism-Guided Solution," M. J. Ardolino, J. P. Morken *J. Am. Chem. Soc.* **2014**, *136*, 7092–7100.

71. "Catalytic Stereospecific Allyl–Allyl Cross-Coupling of Internal Allyl Electrophiles with AllylB(pin)," H. Le, A. Batten, J. P. Morken *Org. Lett.* **2014**, *16*, 2096–2099.

70. "A Catalytic Enantiotopic-Group-Selective Suzuki Reaction for the Construction of Chiral Organoboronates," C. Sun, B. Potter, J. P. Morken *J. Am. Chem. Soc.* **2014**, *136*, 6534–6537.

69. "Asymmetric Synthesis From Terminal Alkenes by Diboration/Cross-Coupling Cascades," S. N. Mlynarski, C. S. Schuster, J. P. Morken *Nature* **2014**, *505*, 386–390.

68. "Stereocontrol in Palladium-Catalyzed Propargylic Substitutions: Kinetic Resolution to give Enantioenriched 1,5-Enynes and Propargyl Acetates," M. J. Ardolino, M. S. Eno, J. P. Morken *Adv. Synth. Catal.* **2013**, 3413–3419.

67. "Scope and Mechanism of the Pt-Catalyzed Enantioselective Diboration of Monosubstituted Alkenes," J. R. Coombs, F. Haeffner, L. T. Kliman, J. P. Morken *J. Am. Chem. Soc.* **2013**, *135*, 11222–11231.

66. "Catalytic Enantioselective Allyl–Allyl Cross-Coupling with a Borylated Allylboronate," H. Le, R. E. Kyne, J. P. Morken *Org. Lett.* **2013**, *15*, 1432–1435.

65. "Catalytic Enantioselective One-Pot Aminoborylation of Aldehydes: A Strategy for Construction of Nonracemic α-Amino Boronates," K. Hong, J. P. Morken *J. Am. Chem. Soc.* **2013**, *135*, 9252–9254.

64. "A Catalytic Enantioselective Tandem Allylation Strategy for Rapid Terpene Construction: Application to the Synthesis of Pumilaside Aglycon," G. E. Ferris, K. Hong, I. A. Roundtree, J. P. Morken *J. Am. Chem. Soc.* **2013**, *135*, 2501–2504.

63. "Direct Stereospecific Amination of Alkyl and Aryl Pinacol Boronates," S. N. Mlynarski, A. S. Karnes, J. P. Morken *J. Am. Chem. Soc.* **2012**, *134,* 16449–16451.

62. "Construction of 1,5-Enynes by Stereospecific Pd-Catalyzed Allyl–Propargyl Cross-Couplings," M. J. Ardolino, J. P. Morken *J. Am. Chem. Soc.* **2012**, *134*, 8770–8773.

61. "Ni- and Pd-Catalyzed Synthesis of Substituted and Functionalized Allylic Boronates," P. Zhang, I. A. Roundtree, J. P. Morken *Org. Lett.* **2012**, *14*, 1416–1419.

60. "Catalytic Enantioselective 1,2-Diboration of 1,3-Dienes: Versatile Reagents for Stereoselective Allylation," L. T. Kliman, S. N. Mlynarski, G. E. Ferris, J. P. Morken *Angew. Chem. Int. Ed.* **2012**, *51*, 521–524.

59. "Diastereocontrol in Asymmetric Allyl-Allyl Cross-Coupling: Stereocontrolled Reaction of Prochiral Allylboronates with Prochiral Allyl Chlorides," L. A. Brozek, M. J. Ardolino, J. P. Morken *J. Am. Chem. Soc.* **2011**, *133*, 16778–16781.

58. "Catalytic Enantioselective Diboration of Cyclic Dienes. A Modified Ligand with General Utility," K. Hong, J. P. Morken *J. Org. Chem.* **2011**, *76,* 9102–9108.

57. "Stereoselective Borylative Ketone-Diene Coupling," H.-Y. Cho, Z. Yu, J. P. Morken *Org. Lett.* **2011**, *13*, 5267–5269.

56. "Modular Monodentate Oxaphospholane Ligands: Utility in Highly Efficient and Enantioselective 1,4-Diboration of 1,3-Dienes," C. H. Schuster, B. Li, J. P. Morken *Angew. Chem. Int. Ed.* **2011**, *50*, 7906–7909.

55. "Enantioselective Construction of All-Carbon Quaternary Centers by Branch-Selective Pd-Catalyzed Allyl-Allyl Cross-Coupling," P. Zhang, H. Le, R. E. Kyne, J. P. Morken *J. Am. Chem. Soc.* **2011**, *133*, 9716–9719.

54. "Stereoselective Ni-Catalyzed 1,4-Hydroboration of 1,3-Dienes," R. J. Ely, J. P Morken *Org. Synth.* **2011**, *88*, 342–352.

53. "A Boron-Based Approach to the Asymmetric Synthesis of (+)-7-Deoxy-*trans*-dihydronarciclasine," S. L. Poe, J. P. Morken *Angew. Chem. Int. Ed.* **2011**, *50*, 4189–4192.

52. "Catalytic Enantioselective Conjugate Allylation of Unsaturated Methylidene Ketones," L. A. Brozek, J. D. Sieber, J. P. Morken *Org. Lett.* **2011**, *13*, 995–997.

51. "Enantioselective Synthesis of (-)-Sclerophytin A by a Stereoconverging Epoxide Hydrolysis," B. Wang, A. P. Ramirez, J. J. Slade, J. P. Morken *J. Am. Chem. Soc.* **2010**, *132*, 16380–16382.

50. "Ni(0)-Catalyzed 1,4-Selective Diboration of Conjugated Dienes," R. J. Ely, J. P. Morken *Org. Lett.* **2010**, *12*, 4348–4351.

49. "Allylation of Nitrosobenzene with Pinacol Allylboronates. A Regioselective Complement to Peroxide Oxidation," R. E. Kyne, M. C. Ryan, L. T. Kliman, J. P. Morken *Org. Lett.* **2010**, *12*, 3796–3799.

48. "Pd-Catalyzed Carbonylative Conjugate Addition of Dialkylzinc Reagents to Unsaturated Carbonyls," D. W. Custar, H. Le, J. P. Morken *Org. Lett.* **2010**, *12*, 3760–3763.

47. "Pd-Catalyzed Enantioselective Allyl−Allyl Cross-Coupling," P. Zhang, L. A. Brozek, J. P. Morken *J. Am. Chem. Soc.* **2010**, *132*, 10686–10688.

46. "Ni-Catalyzed Borylative Diene−Aldehyde Coupling: The Remarkable Effect of $P(SiMe_3)_3$," H.-Y. Cho, J. P. Morken *J. Am. Chem. Soc.* **2010**, *132*, 7576–7577.

45. "Regio- and Stereoselective Ni-Catalyzed 1,4-Hydroboration of 1,3-Dienes: Access to Stereodefined (*Z*)-Allylboron Reagents and Derived Allylic Alcohols," R. J. Ely, J. P. Morken *J. Am. Chem. Soc.* **2010**, *132*, 2534–2535.

44. "Pt-Catalyzed Enantioselective Diboration of Terminal Alkenes with $B_2(pin)_2$," L. T. Kliman, S. N. Mlynarski, J. P. Morken *J. Am. Chem. Soc.* **2009**, *131*, 13210–13211.

43. "Catalytic Enantioselective Allylation of Dienals through the Intermediacy of Unsaturated π-Allyl Complexes," P. Zhang, J. P. Morken *J. Am. Chem. Soc.* **2009**, *131*, 12550–12551.

42. "Asymmetric 1,4-Dihydroxylation of 1,3-Dienes by Catalytic Enantioselective Diboration," H. E. Burks, L. T. Kliman, J. P. Morken *J. Am. Chem. Soc.* **2009,** *131*, 9134–9135.

41. "Diastereoselective Construction of Functionalized Homoallylic Alcohols by Ni-Catalyzed Diboron-Promoted Coupling of Dienes and Aldehydes," H.-Y. Cho, J. P. Morken *J. Am. Chem. Soc.* **2008**, *130*, 16140–16141.

40. "Asymmetric Ni-Catalyzed Conjugate Allylation of Activated Enones," J. D. Sieber, S. Liu, J. P. Morken *J. Am. Chem. Soc.* **2008**, *130*, 4978–4983.

39. "Catalytic Enantioselective Diboration, Disilation and Silylboration: New Opportunities for Asymmetric Synthesis" (Review Article) H. E. Burks, J. P. Morken *Chem. Commun.* **2007**, 4717–4725.

38. "Development, Mechanism, and Scope of the Palladium-Catalyzed Enantioselective Allene Diboration," H. E. Burks, S. Liu, J. P. Morken *J. Am. Chem. Soc.* **2007**, *129*, 8766–8773.

37. "Catalytic Conjugate Addition of Allyl Groups to Styryl-Activated Enones," J. D. Sieber, S. Liu, J. P. Morken *J. Am. Chem. Soc.* **2007**, *129*, 2214–2215.

36. "Ethylene Oligomerization Catalyzed by a Unique Phosphine-oxazoline Pd(II) Complex. Propagation and Chain Transfer Mechanisms," M. D. Doherty, S. Trudeau, P. S. White, J. P. Morken, M. S. Brookhart *Organometallics* **2007**, *26*, 1261–1269.

35. "Catalytic, Diastereoselective Allylation of Oshima-Utimoto Products," R. A. Dueñes, J. P. Morken *Synlett* **2007**, 587–590.

34. "Modular Asymmetric Synthesis of 1,2-Diols by Single-Pot Allene Diboration/Hydroboration/Cross-Coupling," N. F. Pelz, J. P. Morken *Org. Lett.* **2006**, *8*, 4557–4559.

33. "StePHOX, A New Family of Optically Active, Tunable Phosphine-Oxazoline Ligands: Syntheses and Applications," S. Trudeau, J. P. Morken *Tetrahedron* **2006**, *62*, 11470–11475.

32. "Rh-Catalyzed Enantioselective Hydrogenation of Vinyl Boronates for the Construction of Secondary Boronic Esters," W. J. Moran, J. P. Morken *Org. Lett.* **2006**, *8*, 2413–2415.

31. "Pd-Catalyzed Tandem Asymmetric Allene Diboration/α-Aminoallylation," J. D. Sieber, J. P. Morken *J. Am. Chem. Soc.* **2006**, *128*, 74–75.

30. "Concatenated Catalytic Asymmetric Allene Diboration-Allylation-Functionalization," A. R. Woodward, H. E. Burks, L. M. Chan, J. P. Morken *Org. Lett.* **2005**, *7*, 5505–5507.

29. "Short and Efficient Total Synthesis of Fraxinellone Limonoids Using the Stereoselective Oshima-Utimoto Reaction," S. Trudeau, J. P. Morken *Org. Lett.* **2005**, *7*, 5465–5468.

28. "Rh-Catalyzed Enantioselective Diboration of Simple Alkenes: Reaction Development and Substrate Scope," S. Trudeau, J. B. Morgan, M. Shrestha, J. P. Morken *J. Org. Chem.* **2005**, *70*, 9538–9544.

27. "Studies in the Synthesis of the Inostamycin Natural Products: A Reductive Aldol / Reductive Claisen Approach to the C_{10}-C_{24} Ketone Fragment," N. O. Fuller, J. P. Morken *Org. Lett.* **2005**, *7*, 4867–4869.

26. "Asymmetric Synthesis of (-)-Dihydroxanthatin by the Stereoselective Oshima-Utimoto Reaction," M. A. Evans, J. P. Morken *Org. Lett.* **2005**, *7*, 3371–3373.

25. "Stereoselective Synthesis of Furans by the Pd-Catalyzed Oshima-Utimoto Reaction," M. A. Evans, J. P. Morken *Org. Lett.* **2005**, *7*, 3367–3370.

24. "Direct Formation of Synthetically Useful Silyl-Protected Aldol Adducts via the Asymmetric Reductive Aldol Reaction," N. O. Fuller, J. P. Morken *Synlett* **2005**, 1459–1461.

23. "Regioselective Homologation of Bis(boronate) Intermediates Derived from Rhodium Catalyzed Diboration of Simple Alkenes," D. M. Kalendra, R. A. Dueñes, J. P. Morken *Synlett* **2005**, 1749–1751.

22. "Palladium-Catalyzed Enantioselective Diboration of Prochiral Allenes," N. F. Pelz, A. R. Woodward, H. E. Burks, J. D. Sieber, J. P. Morken *J. Am. Chem. Soc.* **2004**, *126*, 16328–16329.

21. "Catalytic Enantioselective Hydrogenation of Vinyl Bis(boronates)," J. B. Morgan, J. P. Morken *J. Am. Chem. Soc.* **2004***, 126,* 15338–15339.

20. "Investigation of the Rh-Catalyzed Asymmetric Reductive Aldol Reaction. Expanded Scope Based on Reaction Analysis," A. E. Russell, N. O. Fuller, S. J. Taylor, P. Aurriset, J. P. Morken *Org. Lett.* **2004**, *6*, 2309–2312.

19. "Platinum-Catalyzed Tandem Diboration/Intramolecular Allylboration: Diastereoselective Access to Cyclohexanes Bearing 1,3-Diols," E. Ballard, J. P. Morken *Synthesis* **2004**, *9*, 1321–1324.

18. "Catalytic Asymmetric Carbohydroxylation of Alkenes by a Tandem Diboration/Suzuki Cross-Coupling/Oxidation Reaction," S. P. Miller, J. B. Morgan, F. J. Nepveux V, J. P. Morken *Org. Lett.* **2004**, *6*, 131–133.

17. "Rhodium-Catalyzed Enantioselective Diboration of Simple Alkenes," J. B. Morgan, S. P. Miller, J. P. Morken *J. Am. Chem. Soc.* **2003**, *125*, 8702–8703.

16. "Platinum-Catalyzed Tandem Diboration/Asymmetric Allylboration: Access to Nonracemic Functionalized 1,3-Diols," J. B. Morgan, J. P. Morken *Org. Lett.* **2003**, *5*, 2573–2575.

15. "Enantioselective Total Synthesis of Borrelidin," M. O. Duffey, A. LeTiran, J. P. Morken *J. Am. Chem. Soc.* **2003**, *125*, 1458–1459.

14. "Catalytic Diastereoselective Reductive Claisen Rearrangement," S. P. Miller, J. P. Morken *Org. Lett.* **2002**, *4*, 2743–2745.

13. "Isotopically Chiral Probes for *in situ* High-Throughput Asymmetric Reaction Analysis," M. A. Evans, J. P. Morken *J. Am. Chem. Soc*. **2002**, *124*, 9020–9021.

12. "Stereoselective Synthesis of *Trans* β-Lactams Through Iridium-Catalyzed Reductive Coupling of Imines and Acrylates," J. A. Townes, M. Evans, J. Quefflec, S. J. Taylor, J. P. Morken *Org. Lett.* **2002**, *4*, 2537–2540.

11. "Discovery of a Novel Synthetic Phosphatase from a Bead-Bound Combinatorial Library," S. Danek, J. Queffelec, J. P. Morken *Chem. Commun.* **2002**, 528–529.

10. "500 μm Diameter Beads as Single Reactors to Screen Organometallic Catalysts: Discovery of a New Supported Catalyst for the Hydrosilylation of Ketones," O. Lavastre, J. P. Morken *New J. Chem.* **2002**, *26*, 745–749.

9. "Enantio- and Diastereoselective Reductive Aldol Reactions with Iridium-Pybox Catalysts," C.-X. Zhao, M. O. Duffey, S. J. Taylor, J. P. Morken *Org. Lett.* **2001**, *3*, 1829–1831.

8. "Generation of E-Silylketene Acetals in a Rhodium-DuPhos Catalyzed Two-Step Reductive Aldol Reaction," C.-X. Zhao, J. Bass, J. P. Morken *Org. Lett.* **2001**, *3,* 2839–2842.

7. "Development of the First Catalytic Asymmetric Aldol-Tishchenko Reaction. Insight into the Catalyst Structure and Reaction Mechanism," C. M. Mascarenhas, S. P. Miller, J. P. Morken *Angew. Chem. Int. Ed. Engl.* **2001**, *40*, 601–603.

6. "Efficient Lewis Acid Catalyzed Intramolecular Cannizzaro Reaction," A. E. Russell, S. P. Miller, J. P. Morken *J. Org. Chem.* **2000,** *65*, 8381–8383.

5. "Rhodium-Catalyzed Enantioselective Reductive Aldol Reaction," S. J. Taylor, M. O. Duffey, J. P. Morken *J. Am. Chem. Soc.* **2000**, *122*, 4528–4529.

4. "Catalytic Diastereoselective Reductive Aldol Reaction: Optimization of Interdependent Reaction Variables by Arrayed Catalyst Evaluation," S. J. Taylor, J. P. Morken *J. Am. Chem. Soc.* **1999**, *121*, 12202–12203.

3. "Simple Metal-Alkoxides as Effective Catalysts for the Hetero Aldol-Tishchenko Reaction," C. M. Mascarenhas, M. O. Duffey, S. Y. Liu, J. P. Morken *Org. Lett.* **1999**, *1*, 1427–1429.

2. "Discovery of Novel Catalysts for Allylic Alkylation with a Visual Colorimetric Assay" O. Lavastre, J. P. Morken *Angew. Chem. Int. Ed. Engl.* **1999**, *38*, 3163–3165.

1. "Thermographic Selection of Effective Catalysts from an Encoded Polymer-Bound Library," S. J. Taylor, J. P. Morken *Science*, **1998**, *280*, 267–270.

NON-PEER-REVIEWED PUBLICATIONS

10. Invited Commentary: "Practically Simple Reactions Convert Hydrocarbons to Precious Chemicals," J. P. Morken *Nature* **2018**, *563*, 336–337.

9. Invited Commentary: "Organic Chemistry: Catalysis Marches On," J. P. Morken *Nature* **2014**, *508*, 324–325.

8. "Bismetallation and bismetallative reactions of alkenes, alkynes and allenes" J. P. Morken in *Comprehensive Organic Synthesis II* G. Molander, P. Knochel, Eds., Elsevier, **2014**.

7. "4,4,4',4',5,5,5',5'-Octamethyl-2,2'-bi-1,3,2-dioxaborolane" J. P. Morken, S. N. Mlynarski, G. E. Ferris in *Online Encyclopedia of Reagents for Organic Synthesis, Update*, Wiley, **2013**.

6. "Product Subclass 3: Diborane(4) Compounds," G. E. Ferris, S. N. Mlynarski, J. P. Morken in *Science of Synthesis, Knowledge Updates*, Georg Thieme: Stuttgart-New York, **2012**, *6*, 227–256.

5. "Bis(catecholato)diboron," J. P. Morken, D. M. Kalendra in *Encyclopedia of Reagents for Organic Synthesis*.

4. "Asymmetric Alkene Diboration: Novel Routes to Chiral Compounds," J. P. Morken *Specialty Chemicals Magazine* **2004**, *24*, 28.

3. "(S,S)-Me-DuPhos and (R,R)-Me-DuPhos," J. P. Morken, A. E. Russell, S. J. Taylor in *Electronic Encyclopedia of Reagents for Organic Synthesis*.

2. "Selection of Effective Acyl Transfer Catalysts from a Polymer-Bound Library Using Infrared Thermography," J. P. Morken, S. J. Taylor in *High-Throughput Synthesis, Principles and Practice*, I. Sucholeiki, Ed.; Marcel-Dekker: New York, **2001**.

1. "Chiral Titanocenes and Zirconocenes in Synthesis," A. H. Hoveyda, J. P. Morken in *Metallocenes*, Togni, A.; Halterman R., Eds.; VCH: Weinheim; **1998**, Vol. 2, 625.

PUBLICATIONS FROM GRADUATE AND POSTDOCTORAL STUDIES

11. "Exploring the Leucine-Proline Binding Pocket of Src-SH3 Domain with Structure Based, Split-Pool Synthesis," J. P. Morken, T. M. Kapoor, S. Feng, F. Shirai, S. L. Schreiber *J. Am. Chem. Soc.* **1998**, *120*, 30.

10. "Phosphine-Directed Stereo- & Regioselective Ni-Catalyzed Reactions of Grignard Reagents with Allylic Ethers," M. T. Didiuk, J. P. Morken, A. H. Hoveyda *Tetrahedron* **1998**, *54*, 1117–1130.

9. "Directed Regioselective Ni-catalyzed Alkylation and Hydride Addition of Ethers. A Remarkable Turnover in Regioselectivity," J. P. Morken, M. T. Didiuk, A. H. Hoveyda *Tetrahedron Lett.* **1996**, *37*, 3613–3616.

8. "Enantioselective C-C and C-H Bond Formation Mediated or Catalyzed by Chiral ebthi Complexes of Titanium and Zirconium," A. H. Hoveyda, J. P. Morken *Angew. Chem. Int. Ed. Engl.* **1996**, *35*, 1262–1281.

7. "Directed Regio- and Diastereoselective Nickel-Catalyzed Addition of Alkyl Grignard Reagents to Allylic Ethers," J. P. Morken, M. T. Didiuk, A. H. Hoveyda *J. Am. Chem. Soc.* **1995**, *117*, 7273–7274.

6. "Enantio-, Diastereo- and Regioselective Zirconium-Catalyzed Carbomagnesation of Cyclic Ethers With Higher Alkyls of Magnesium. Utility in Synthesis and Mechanistic Implications," M. T. Didiuk, C. W. Johannes, J. P. Morken, A. H. Hoveyda *J. Am. Chem. Soc.* **1995**, *117*, 7097–7104.

5. "Zirconium-Catalyzed Kinetic Resolution of Pyrans," J. P. Morken, M. T. Didiuk, M. S. Visser, A. H. Hoveyda *J. Am. Chem. Soc.* **1994**, *116*, 3123–3124.

4. "Zirconium-Catalyzed Asymmetric Carbomagnesation," J. P. Morken, M. T. Didiuk, A. H. Hoveyda *J. Am. Chem. Soc.* **1993**, *115,* 6997–6998.

3. "Regio- and Stereoselective Carbon-Carbon Bond Formation Through Transition Metal Catalysis. The Influence of Catalyst Chirality on Selective Ethylmagnesation of Chiral, Non-Racemic Alcohols and Ethers," A. H. Hoveyda, J. P. Morken *J. Org. Chem.* **1993,** *58,* 4237–4244.

2. "On the Mechanism of the Zirconium-Catalyzed Carbomagnesation of Alkenes. Efficient and Selective Catalytic Carbomagnesation with Higher Alkyls of Magnesium," A. H. Hoveyda, J. P. Morken, A. F. Houri, Z. Xu *J. Am. Chem. Soc.* **1992**, *114,* 6692–6697.

1. "Stereoselective Zirconium-Catalyzed Ethylmagnesation of Homoallylic Alcohols and Ethers. The Influence of Internal Lewis Bases on Substrate Reactivity," A. H. Hoveyda, Z. Xu, J. P. Morken, A. F. Houri *J. Am. Chem. Soc.* **1991**, *113*, 8950–8951.

PATENTS

- "Method and Apparatus for Screening Catalyst Libraries" J.P. Morken and S.J. Taylor, US Patent #6,242,262.
- "Catalyzed Enantioselective Transformations of Alkenes" J. P. Morken, J. B. Morgan, N. F. Pelz, S. P. Miller PCT: WO 2005/012209

INVITED SEMINARS & PLENARY LECTURES

- ShanghaiTech University, March 13, 2019
- Tongji University, March 12, 2019.
- Shanghai University, March 11, 2019.
- Dartmouth College, February 14, 2019.
- Auburn University; November 29, 2018.
- Boston University; October 29, 2018.
- 2018 Pfizer Chemistry Forum, Keynote Address; October 25, 2018.
- American Chemical Society, National Meeting, Cope Award Symposium, Boston, MA; August 21, 2018.
- 16th Boron in the Americas Meeting (BORAM), Boston College; June 26, 2018.
- 17th French-American Chemical Society Meeting, Orléans, France; June 6, 2018.
- 1st International Symposium on Synthetic Chemistry and Catalysis, Tsinghua University CBMS; May 23, 2018.
- 53rd Bürgenstock Conference on Stereochemistry; Brunnen, Switzerland; April 30, 2018.
- Indiana University; March 5, 2018
- University of York; January 10, 2018
- 51st Sheffield Stereochemistry Meeting; The University of Sheffield, January 9, 2018
- Indo-US Binational Workshop on Organometallic Chemistry; Lonavala, India; Dec. 7, 2017.
- India Institute of Technology, Bombay, Satellite Conference on Chemical Synthesis; Dec. 6, 2017.
- Duke University; Nov. 17, 2017.
- UNC Chapel Hill, *Slayton Evans Memorial Lectureship*; Nov. 16, 2017.
- Colorado State University; October 30, 2017.
- Cornell University; October 26, 2017.
- University of New Hampshire; October 24, 2017.
- Bristol-Myers Squibb, Princeton, NJ; July 18, 2017.
- Fudan University; July 7, 2017.
- WuXi AppTec, Ltd. Shanghai; July 6, 2017.
- Shanghai Institute of Organic Chemistry; July 5, 2017.
- University of Chicago; April 7, 2017.

- University of Rhode Island; February 27, 2017.
- University of California at Santa Barbara; January 18, 2017.
- Columbia University, *Bristol-Myers Squibb Lectureship*; January 12, 2017.
- Vertex Research Labs, Boston, MA; December 9, 2016.
- University of Connecticut; November 2, 2016.
- University of Washington; October 27, 2016.
- Amgen, Cambridge, MA; October 13, 2016.
- 7th International Forum on Homogeneous Catalysis, Hefei, China; October 7-10, 2016.
- University of Kansas; September 23, 2016.
- Virginia Tech; September 16, 2016.
- 11th International Symposium on Carbanion Chemistry; Roune, France; July 17-21, 2016.
- Organometallics Gordon Conference, Salve Regina College; July 10-14, 2016.
- Canadian Chemical Society, Organic Synthesis: Taming Complexity, Halifax, Canada; June 5-9, 2016.
- 5th Advances in Chemical Sciences Symposium (Sponsored by NEACS), Cambridge, MA; April 29, 2016.
- 1st Annual Catalysis in Chemistry Symposium (Sponsored by Apeiron), Cambridge, MA; April 28, 2016.
- Boehringer-Ingelheim Pharmaceuticals, Bridgefield, CT; March 15, 2016.
- Biogen Research Labs, Cambridge, MA; March 8, 2016
- 16th Brazilian Meeting on Organic Synthesis; November 15, 2015.
- University of Campinas; November 13, 2015.
- FAPESP-BIOTA International Symposium on Bioactive Metabolites, Sao Paulo, Brazil, November 12, 2015.
- Smith College; November 5, 2015.
- 28th Organic Chemistry Day, University of Missouri, April 11, 2015.
- University of Illinois at Urbana-Champaign, *Lilly Lectureship*, March 18, 2015.
- Abbvie Process Chemistry, Chicago, IL, March 17, 2015.
- GlaxoSmithKline, Waltham, MA; March 13, 2015.
- Massachusetts Institute of Technology; October 31, 2014.
- 36th Annual Princeton ACS Fall Organic Symposium; October 24, 2014.
- Boston Symposium on Organic & Bioorganic Chemistry, Keynote Lecture; October 8, 2014.
- Harvard University, September 22, 2014.
- Scripps Research Institute, *Aldrich Lectureship*, La Jolla, CA; September 12, 2014.
- Syngenta Research Labs, Jeallot's Hill, UK; April 17, 2014.
- University of Bristol, Bristol Synthesis Meeting; April 16, 2014.
- American Chemical Society, National Meeting, Symposium for A. Hoveyda; March 18, 2014.
- Wellesley College; February 14, 2014.
- Takeda Pharmaceuticals, Cambridge, MA; November 19, 2013.
- New Jersey Biotechnology Chemistry Consortium; November 14, 2013.
- American Chemical Society, Northeast Regional Meeting; October 24, 2013.
- Boston Regional Inorganic Chemistry Colloquium, Newburyport, MA; June 8, 2013.
- Exxon Research Labs, Baytown, TX; May 17, 2013.
- University of Houston; May 16, 2013.
- Association for Synthetic and Medicinal Chemistry, Moscow, Russia; May 8, 2013.
- Cubist Pharmaceuticals, Lexington, MA; April 23, 2013.
- Amgen Pharmaceuticals, San Francisco, CA; April 5, 2013.
- University of California at Santa Cruz; April 4, 2013.
- University of South Florida; January 24, 2013.
- Third Asymchem Fall Symposium, Tianjin, China; September 20-21, 2012.
- Peking University; September 19, 2012.
- Gordon Research Conference, Reactions and Processes; July 15-19, 2012.
- Abbott Research Labs, Abbott Park, IL; April 6, 2012.
- Princeton University, *Bristol-Myers Squibb Lectureship*; April 1, 2012.
- Syracuse University; March 24, 2012.
- BASF Boron Symposium, Tokyo, Japan; November 9-10, 2011.
- Symposium on Organic Catalysis and Synthesis, USTC, Hefei, China; October 21, 2011.
- University of Illinois at Chicago; October 18, 2011.
- Connecticut Organic Chemistry Symposium, Yale University; October 12, 2011.
- University of Delaware; March 9, 2011.

- University of Texas Southwestern Medical Center; November 30, 2010.
- BASF Boron Symposium, Ludwigshafen, Germany; June 15, 2010.
- Boston University; March 15, 2010.
- Dartmouth College; January 28, 2010.
- Astra-Zeneca, Waltham, MA; December 1, 2009.
- UNC Wilmington; October 16, 2009.
- Boronate Chemistry in the 21st Century, 237th National ACS Meeting, Salt Lake City; March 23, 2009.
- Brandeis University; March 16, 2009.
- Connecticut College, *Organic Syntheses Lectureship*; February 3, 2009.
- UT Austin; January 16, 2009.
- IMEBORON XIII, Platja d'Aro, Spain; Sept 21-25, 2008.
- Combinatorial Catalysis, 236th National ACS Meeting in Philadelphia, PA; Aug 20, 2008.
- Schering Plough, Union, NJ; July 8, 2008.
- Boston College, Organic Symposium; April 5, 2008.
- Merck Research Labs. Rahway, NJ; April 2, 2008.
- University of Nebraska at Lincoln; March 14, 2008.
- Texas Tech University; Feb 20, 2008.
- University of Basel; December 10, 2007.
- University of Bern; December 11, 2007.
- University of Fribourg; December 12, 2007.
- University of Lausanne; December 13, 2007.
- University of Geneva; December 14, 2007.
- Merck Research Labs, Boston, MA; April 27, 2007.
- Trinity College, Hartford, CN; February 2, 2007.
- Bowdoin College, Brunswick, ME; November 10, 2006.
- Association for Laboratory Automation, Boston, MA; June 16, 2004.
- Johns-Hopkins University, Baltimore, MD; April 11, 2006.
- Pennsylvania State University, University Park, PA; March 20, 2006.
- UC Irvine, Irvine, CA; January 25, 2006.
- Yale University, New Haven, CT; October 5, 2005.
- Boehringer-Ingelheim Pharmaceutical Institute, Ridgefield, CT; September 10, 2004.
- University of Alberta, Edmonton; May 2, 2005.
- University of Arizona; January 14, 2005.
- UC San Diego; November 15, 2004.
- Northwestern; September 30, 2004.
- Bristol-Myers Squibb, Syracuse, NY; August 11, 2004.
- Schering Plough Research Institute, Kenilworth, NJ; July 29, 2004.
- Merck, West Point, PA; April 30, 2004.
- Memorial Sloan Kettering Cancer Center; December 2, 2003.
- Chiral USA Conference, Chicago, IL; October 21, 2003.
- Cornell University; September 25, 2003.
- SUNY Buffalo; September 17, 2003.
- David and Lucile Packard Foundation Annual Meeting; September 5, 2003.
- GE Corporate Research and Development, Schenectady, NY; June 4, 2003.
- Bristol-Myers Squibb Chemistry Award Symposium; May 1, 2003.
- Colorado State University; April 14, 2003.
- University of Utah, Salt Lake City, UT; March 14, 2003.
- Indiana University; February, 24, 2003.
- University of Pittsburgh; February 13, 2003.
- Florida State University; January 28, 2003.
- Massachusetts Institute of Technology; January 9, 2003.
- University of Maryland; November 7, 2002.
- Wyeth Research Labs; November 3, 2002.
- Astra-Zeneca; October 16, 2002.
- GlaxoSmithKline; September 27, 2002.
- University of Rochester, Rochester, NY; September 13, 2002.

- Stanford University; September 3, 2002.
- Synexis, Durham, NC; June 6, 2002.
- University of Montreal Student Sponsored Symposium; May, 2, 2002.
- Merck, Rahway, NJ; March 14, 2002.
- Scripps, La Jolla, CA; March 7, 2002.
- Caltech, Pasadena, CA; March 6, 2002.
- University of Delaware, Newark, DE; February 13, 2002.
- GlaxoSmithKline, Research Triangle Park, NC; February 8, 2002.
- Boston College, Boston, MA; November 27, 2001.
- Harvard University, Cambridge, MA; November 26, 2001.
- ACS National Meeting. Symposia: *Organic Chemistry, The Future is Now*. Chicago, IL; August 27, 2001.
- NSF Workshop on Synthetic Organic Chemistry, Denver, CO; August 12, 2001.
- Bristol-Myers Squibb, Wallingford, CT; May 22, 2001.
- Dow Chemical, IRP Symposia, Charleston, WV; May 3, 2001.
- University of Chicago, Chicago, IL; April 1, 2001.
- Bristol-Myers-Squibb, Princeton, NJ; February 23, 2001.
- GE Corporate Research and Development, Schenectady, NY; February 7, 2001.
- University of Illinois at Urbana-Champaign, Urbana, IL; December 7, 2000.
- PacificChem, Symposia: New Strategies to Transition-Metal-Catalyzed Synthesis; December 14, 2000.
- University of Texas, Southwestern Medical Center, Dallas, TX; December 5, 2000.
- Merck, West Point, PA; November 6, 2000.
- Boston University, Boston, MA; September 18, 2000.
- Lilly Research Labs, Indianapolis, IN; August 1, 2000.
- Gordon Research Conference, *Organometallics*, Newport, RI; June 22, 2000.
- Gordon Research Conference, *Stereochemistry*, Newport, RI; June 11-16, 2000
- ACS National Meeting, *Combinatorial Chemistry and Catalysis*, San Francisco, CA; May, 26, 2000.
- Bristol-Myers Squibb, New Brunswick, DE; May 18, 2000.
- ACS Mid-Atlantic Meeting, *Symposia: High-Throughput Synthesis*; May 17, 2000.
- Pfizer, Inc., Groton, CT; May 16, 2000.
- UNC Greensboro, *Symposium on Recent Advances in Combinatorial Chemistry*; April 28, 2000.
- Stanford University, Palo Alto, CA; April 26, 2000.
- Florida Catalysis Conference, Gainesville, FL; April 19, 2000.
- Wake Forest University, Winston-Salem, NC; March 1, 2000.
- University of Wisconsin at Madison, Madison, WI; February 22, 2000.
- DuPont Pharmaceuticals, Wilmington, DE; November 9, 1999.
- University of California at Berkeley, Berkeley, CA; October 5, 1999.
- David and Lucile Packard Foundation Annual Meeting; September 9, 1999.
- University of Rennes, France, *Organometallics and Catalysis Symposium*; July, 16, 1999.
- Gordon Research Conference, *Bioorganic Chemistry*, Andover, NH; June 15, 1999.
- Canadian Chemical Society Meeting, *Combinatorial Chemistry,* Toronto, Canada; June 2, 1999.
- First Annual Boston College-Arqule Symposium on Combinatorial Chemistry, Boston, MA; May 28, 1999.
- Materials Research Society Meeting, *Combinatorial Chemistry,* Boston, MA; November 30, 1998.
- University of Rochester, Rochester, NY; October 23, 1998.
- Zeneca, Inc. Western Research Center, Richmond, CA; September 16, 1998.
- National Managed Health Care Congress, San Diego, CA; September 14, 1998.
- DuPont Central Research and Development, Wilmington, DE; May 20, 1998.

CURRENT RESEARCH GROUP (PH.D. STUDENTS AND THEIR FORMER INSTITUTION)

- Mark Aparece — B. S., M.S. Chemistry, DePaul University, 2014
- Elton Kativhu — B. S. Chemistry, Goucher College, 2018
- Matteo Chierchia — B. S. Chemistry, Bard College, 2014.
- Weiping Hu — B. S. Chemistry, Nanjing University, 2017.
- Seung Moh Koo — B. S. Carnegie Melon
- M.S. UC San Diego, 2015
- Zinnia Kong — B. S. Chemistry, Brandeis University, 2018.
- Chunyin Law — B. S., M.S. Chemistry, Illinois State University, 2015
- Gabriel Lovinger — B. S. Chemistry, University of Oregon, 2013.
- Yan Meng — B. S. Chemistry, Sichuan University, 2015.
- Jesse Myhill — B. S. Chemistry, Vassar College, 2015.
- Sheila Namirembe — B. S. Chemistry, Holy Cross, 2015.
- Alex Vendola, — B. S. Chemistry, Rowan University, 2017.
- Chris Wilhelmsen — B.S. UNC Wilmington
- M. S. Chemistry, Syracuse University, 2016.
- Peilin Xu — B. S. Chemistry, Peking University, 2017.
- Lu Yan — B. S. Chemistry, Xiamen University, 2014.
- Chenlong Zhang — B. S. Chemistry, University of Science and Technology of China, 2016.
- Xuntong Zhang — B. S. Chemistry, Nanjing Normal University, 2018

CURRENT RESEARCH GROUP (POSTDOCTORAL FELLOWS)

- none

CURRENT RESEARCH GROUP (UNDERGRADUATE STUDENTS AND GRADUATION YEAR)

- Jingjia Chen — BC 2020
- Johnny Wang — BC 2021
- Ryan Wexler — BC 2020

FORMER GRADUATE STUDENTS (GRADUATION YEAR AND CURRENT POSITION)

- Emma Edelstein — Ph.D. 2018. Research Scientist, Merck Research Labs, Boston, MA.
- Adam Szymaniak — Ph.D. 2018. Research Scientist, Enanta Pharmaceuticals, Watertown, MA.
- Xun Liu — Ph.D. 2018. Research Scientist, Incyte Pharmaceuticals, Wilmington, DE.
- Liang Zhang — Ph.D. 2017. Research Scientist, Amgen Research labs, Cambridge, MA.
- T. Maxwell Deaton — M. S. 2017. Graduate Student, University of South Carolina.
- Meredith Eno — Ph. D. 2017. Research Scientist, Blueprint Medicines, Cambridge, MA.
- Bowman Potter — Research Scientist, BAE Systems.
- John R. Coombs — Ph. D. 2015. Research Scientist, Bristol-Myers Squibb, New Brunswick, NJ.
- Tom Blaisdell — Ph. D. 2015. Research Scientist, Akebia Therapeutics, Cambridge, MA.
- Ally Annis — M. S. 2015. Analyst, Global Data Systems.
- Kai Hong — Ph. D. 2015. Postdoc, Scripps Research Institute (Jinquan Yu).
- Zhiyong Yu — Ph. D. 2014. Research Scientist, Incyte Pharmaceuticals, Wilmington, DE.
- Mike J. Ardolino — Ph. D. 2014. Research Scientist, Merck Research Labs, Boston, MA.
- Chris H. Schuster — Ph. D. 2014. Research Scientist, Merck Research Labs, Rahway, NJ.
- Hai T. Le — Ph. D. 2014. Research Scientist, Adesis.
- Scott N. Mlynarski — Ph. D. 2014. Research Scientist, AstraZeneca, Waltham, MA.
- Weng Chang — M. S. 2014. Research Associate, BioElectron Technology, Mountain View, CA.
- Thomas P. Caya — M. S. 2014. Research Scientist, Novartis, Cambridge, MA.
- Hee Yeon Cho — Ph. D. 2013. Assistant Professor, Loyola University Chicago.
- Grace E. Ferris — Ph. D. 2013. Assistant Professor of Chemistry, Lesley University, Cambridge, MA.
- Amanda Batten — M. S. 2015. Research Scientist, Gilead Pharmaceuticals.
- Robert E. Kyne — Ph. D. 2012. Senior Scientist, Celgene, Cambridge, MA.
- Robert J. Ely — Ph. D. 2012. Senior Scientist, Achaogen, San Francisco, CA.
- Ping Zhang — Ph. D. 2012. Research Scientist, Novartis, Cambridge, MA.
- Laura A. Brozek — Ph. D. 2012. Student, Boston University School of Law.
- Laura T. Kliman — Ph. D. 2012. Senior Flavor Scientist, Impossible Foods, San Francisco, CA.

- Heather Burks Ph. D. 2008. Research Scientist, Novartis, Cambridge, MA.
- Joshua D. Sieber Ph. D. 2008. Research Scientist, Boehringer Ingelheim, Ridgefield, CT.
- Li Yao M. S. 2008. Senior Research Engineer, 3M, St. Paul, MN.
- Andy Ommen M. S. 2006. Chemist, Sigma-Aldrich, Laramie, WY.
- Angela Woodward M. S. 2006. Research Scientist, DisperSol Technologies, Georgetown, TX.
- Nicholas Pelz M. S. 2006. Associate Scientist, Vanderbilt University Medical Center.
- Nathan Fuller Ph. D. 2005. Director of Chemistry, Rodin Therapeutics, Cambridge, MA.
- Michael A. Evans Ph. D. 2005. Senior Staff Scientist, Ashland Water Technologies, Wilmington, DE.
- Jeremy Morgan Ph. D. 2004. Associate Professor, UNC Wilmington.
- Diane Kalendra M. S. 2004. Research Associate, GlaxoSmithKline, Cary, NC
- Matthew Duffey Ph. D. 2003. Patent Agent, Wolf-Greenfield, Boston, MA.
- Shelley Danek Ph. D. 2003, J.D. 2008. Associate, Marshall, Gerstein, Borun, LLP, Chicago, IL.
- Steven Miller Ph. D. 2003. Principal Scientist, Merck Research Labs.
- Albert Russell Ph. D. 2003. Associate Professor and Department Head, Tuskegee University.
- Cheryl Mascarenhas Ph. D. 2002. Professor, Benedictine College, Chicago, IL.
- Steven Taylor Ph. D. 2002. Vice President of Research, Kintai Therapeutics, Cambridge, MA.
- Jennifer Townes M. S. 2001. Research Associate, Proctor and Gamble.
- Sonya Wright M. S. 1999. Examiner, US Patent Office.

FORMER POSTDOCTORAL FELLOWS (DATES AT BC AND CURRENT POSITION)

- Dr. Jason Shields 2015-2016. Research Scientist, Astra-Zeneca, Waltham, MA.
- Dr. Lichao Fang 2014-2015. Research Associate, Novartis Pharmaceuticals, Shanghai, China.
- Dr. Chunrui Sun 2013-2014. Senior Scientist, Merck Research Labs.
- Dr. Daniel Custar 2008-2011. Principle Scientist, Mersana Therapeutics.
- Dr. Bin Wang 2008-2010. Research Associate, Enanta Pharmaceuticals, Watertown, MA.
- Dr. Sarah Kobašlija 2008-2010. Senior Research Scientist, Aramco, Cambridge, MA.
- Dr. Armando Ramirez 2007-2008. US Patent Office.
- Dr. Wes Moran 2004-2005. Reader in Organic Chemistry, University of Huddersfield.
- Dr. Stephané Trudeau 2004-2005. Associate Director of R&D, OmegaChem, Quebec, Canada.
- Dr. C. Eric Ballard 2002-2004. Associate Professor, Tampa University.
- Dr. Pavan Kumar 2002-2004. Research Chemist, Gentara Pharmaceuticals, Philadelphia, PA.
- Dr. Maddali Rao 2002. Professor, Indian Institute of Technology, Kanpur.
- Dr. Arnaud Le Tiran 2001-2003. Director of Medicinal Chemistry, Servier, Paris, France.
- Dr. Cun-Xiang Zhao 2000-2002. Senior Research Scientist, Asymchem, Tianjin, China.
- Dr. Olivier Lavastre 1999-2000. University of Rennes/CNRS.

FORMER BOSTON COLLEGE UNDERGRADUATES RESEARCH ASSISTANTS (GRADUATE DATE & CURRENT POSITION)

- Chenpeng Gao BC 2019 Ph.D. Student, Boston College.
- Erin Bucci BC 2019 Vertex Pharmaceuticals, Boston.
- Andrea Grote BC 2018 M. D. Student, University of Southern California.
- Maximillian Palkowitz BC 2018 Ph.D. Student, Scripps Research Institute.
- Keats Ewing BC 2017. M.D. Student, New York Medical College.
- Lauren Beausoleil BC 2017. Law Student, Boston College School of Law.
- Robert Leon BC 2016. Ph.D. Student, Dartmouth College.
- Alexander Lu BC 2016. Ph.D. Student, UC Irvine.
- Alex Gilligan BC 2015. Graduate Student, Boston College Lynch School.
- Lora Manley BC 2015.
- Alex Karns BC 2013. Ph.D. UC Irvine, 2017. Vertex Pharmaceuticals, Boston.
- Samantha Goetz BC 2013. M.S. UC Irvine, 2015.
- Zachary Kasun BC 2013. Ph.D. Student, UT Austin.
- Ian Roundtree BC 2012. M.D./Ph.D. Student, University of Chicago.
- Justin Slade BC 2012. M.D. Student, Boston University.
- Richard Cooper BC 2011. Ph.D. UC Berkeley, 2016. Dow Chemical.
- Landon Durak BC 2010. Ph.D. University of Chicago, 2015. Takeda Pharmaceuticals, Boston.
- Michael Ryan BC 2010. Ph.D. Stanford University, 2016. Postdoc, University of Wisconsin.

RESEARCH FUNDING

Current Annualized Level of External Research Project Funding: $563,000
Average Annual Level of Support Over the Past 10+ Years: $542,096

- NIH R35 127140 (MIRA) (5/1/2018 – 4/30/2023)
  Title: "New Strategies in Catalytic Organic Synthesis with Organoboron Reagents"
  $563,000 costs per year.

- NIH GM R01 059417 (5/1/1999 – 7/31/2018)
  Title: "Catalytic Enantioselective Diboration Reactions"
  Subsumed by R35 127140

- NIH GM R01 064451 (7/1/2002 – 8/31/2017)
  Title: "Stereoselective Allyl-Allyl Coupling Reactions"; Original Title (2002-2010): "Stereoselective Reductive Condensation Reactions"

- NIH GM R01 118641 (1/1/2017 – 12/31/2020)
  Title: MIRA: "Development of Catalytic Conjunctive Coupling Reactions"
  Subsumed by R35 127140