MINGJI DAI, Ph.D.

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PROFESSIONAL EXPERIENCE

Assistant Professor
Department of Chemistry, Purdue University, August 13, 2012-Present
Member of
Center for Cancer Research, Purdue University, 2012-Present
Institute for Drug Discovery, Purdue University, 2013-Present
Purdue University Interdisciplinary Life Science Program (PULSe), 2013-Present
The Purdue Institute of Inflammation, Immunology, and Infectious Diseases (PI^4D), 2016-present

EDUCATION AND TRAINING

Postdoctoral Fellow, Broad Institute and Harvard University (with Prof. Stuart Schreiber), 2009-2012
Ph.D. Columbia University (with Prof. Samuel J. Danishefsky), 2009
Research Assistant, Peking University (with Profs. Jiahua Chen and Zhen Yang), 2002-2004
B.S. Peking University (with Profs. Jiahua Chen and Zhen Yang), 2002

TEACHING EXPERIENCE

Purdue University (Assistant Professor):
CHM 46200 – Intermediate Organic Chemistry, Spring of 2013-2017 (4.9/5.0, average student rate).
CHM 65100 – Advanced Organic Chemistry, Fall of 2013-2016 (4.1/5.0, average student rate).
Graduate Teaching Assistant: 2004-2008, Columbia University

AWARDS AND HONORS

- The 2017 Chinese-American Chemistry & Chemical Biology Professors Association (CAPA) Distinguished Junior Faculty Award.
- The 2016 Eli Lilly Grantee Award
- Selected by the EuCheMS Organic Division as one of the two speakers from the USA at the EuCheMS Organic Division Young Investigator Workshop 2016, Spain
- Selected by the ACS Organic Division as one of the speakers at the Young Academic Investigators Symposium at the Fall 2016 ACS meeting in Philadelphia.
- NSF CAREER Award, 2016 -2021.
- Award speaker at the JOC/OL Lectureship Award Symposium, 250th ACS National Meeting, Boston
- The 2015 Organic Letters Outstanding Author of the Year Lectureship Award, 2015
- ACS PRF Doctoral New Investigator Award (2015-2017)
- The Thieme Chemistry Journal Award, 2015
- Ralph W. and Grance M. Showalter Research Trust Award, 2013
- Ralph E. Powe Junior Faculty Enhancement Award, ORAU, 2013
- American Cancer Society Junior Investigator Award, Purdue Center for Cancer Research, 2012
- Dissertation (Ph. D. degree) awarded with distinction, Columbia University, 2009
- The 2009 Hammett Award for the most out-standing Ph.D. studies, Columbia University
- The 2009 Roche Award for Excellence in Organic Chemistry
- The Jack Miller Award for excellence in teaching by a graduate student, 2008, Columbia University
- The Guthikonda Fellowship in Organic Chemistry, 2007-2008, Columbia University
- The Bristol-Myers Squibb Graduate Fellowship in Synthetic Organic Chemistry, 2006-2007
- The Sylvia & Victor Fourman Fellowship, 2005-2006, Columbia University
- The honor of successful participants in the Challenge Cup Contest, 2000, Peking University
- The Guangcai Scholarship, 1998-1999, Peking University
- The Freshman Scholarship, 1998, Peking University
- The Outstanding Student, 1998-1999, Peking University
- The First Prize in the National Olympic Chemistry Contest Winter Camp, 1998, China

- Team member of the Chinese National Training Camp for the International Chemistry Olympiad, 1998
- The First Prize in the National Olympic Chemistry Contest, 1997 and 1996, China

PUBLICATIONS

50. Ye, Z.; Adhikari, S.; Xia, Y.*; Dai, M. J.* "Expedient Syntheses of *N*-Heterocycles via Intermolecular Amphoteric Diamination of Allenes" *Nature Communications*, **2018**, *9*, 721.

49. Li, Y.; Yin, X. L.; Dai, M. J.* "Catalytic Macrolactonizations for Natural Product Synthesis" *Nat. Prod. Rep.* **2017**, *34*, 1185-1192.
Featured as front cover.

48. Li, Y.; Dai, M. J.* "Total Syntheses of the Reported Structures of Curcusone I and J via Tandem Gold Catalysis" *Angew. Chem. Int. Ed.* **2017**, *56*, 11624.
Highlighted in: Synfacts **2017**, *13*, 1121.
Highlighted by X-MOL.

47. Yin, X.; Mohammad, H.; Eldesouky, H. E.; Abdelkhalek, A.; Seleem, M. N.;* Dai, M. J.* "Rapid Syntheses of Bicyclic Lactones via Palladium-Catalyzed Aminocarbonylative Lactonizations" *Chem. Commun.* **2017**, *53*, 7238-7241 (Invited contribution to the ChemComm Emerging Investigators Issue 2017).
Highlighted by X-MOL.

46. Mohammad, H.[†]; Kyei-Baffour, K.[†]; Younis, W.; Davis, D. C.; Eldesouky, H.; Seleem, M. N.;* Dai, M. J.* "Investigation of Aryl Isonitrile Compounds with Potent, Broad-spectrum Antifungal Activity" *Bioorg. Med. Chem*. **2017**, *25*, 2926-2931. ([†]*Equal contribution;* Invited contribution in honor of Professor Xiaoguang Lei's Tetrahedron Young Investigator Award 2017).

45. Gettys, K. E.; Ye, Z.; Dai, M. J.* "Recent Advances in Piperazine Synthesis" *Synthesis*, **2017**, *49*, 2589-2604 (Invited review article by Professor Dieter Enders).

44. Bai, Y.; Dexter, D. C.; Dai, M. J.* "Natural Product Synthesis via Palladium-Catalyzed Carbonylation" *J. Org. Chem.*, **2017**, *82*, 2319-2328 (Invited JOCSynopsis contribution by Professor Dale Poulter).

43. Brust, T. F.; Alongkronrusmee, D.; Soto-Velasquez, M.; Baldwin, T. A.; Ye, Z.; Dai, M. J.; Dessauer, C. W.; van Rijn, R. M.; Watts, V. J.* "Identification of a selective small molecule inhibitor of type 1 adenylyl cyclase activity with analgesic properties" *Science Signaling*, **2017**, *10*, eaah5381.
Highlighted in Science News Story.

42. Davis, D. C.; Haskins, C. W.; Dai, M. J.* "Radical Cyclopropanol Ring Opening Initiated Tandem Cyclizations for Efficient Synthesis of Phenanthridines and Oxindoles" *Synlett*, **2017**, *28*, 913-918 (Invited contribution for the special issue dedicated to the EuCheMS Young Investigator Workshop 2016).

41. Li, Y.; Wei, M.;[§] Dai, M. J.* "Gold Catalysis-Facilitated Rapid Synthesis of the Daphnane/Tigliane Tricyclic Core" *Tetrahedron*, **2017**, *73*, 4172-4177 (Invited contribution the "New Advances in Pericyclic Reactions" Symposium-in-Print guest-edited by Prof. Uttam Tambar; [§]*undergraduate student*).

40. Bai, Y.; Shen, X.;[§] Li, Y.; Dai, M. J.* "Total Synthesis of Spinosyn A via Carbonylative Macrolactonization" *J. Am. Chem. Soc.* **2016**, *138*, 10838-10841 ([§]*undergraduate student*).
Highlighted in: Synfacts **2016**, *12*, 1117.

39. Davis, D. C.; Walker, K. L.; Hu, C.; Zare, R. N.; Waymouth, R. M.*; Dai, M. J.* "Catalytic Carbonylative Spirolactonization of Hydroxycyclopropanols" *J. Am. Chem. Soc.* **2016**, *138*, 10693-10699.

38. Ziqing Lin, Lei Tan, Yang Yang, Mingji Dai, František Tureček*, Zheng Ouyang*, and Yu Xia*, "Gas-Phase Reactions of Cyclopropenylidene with Protonated Alkyl Amines", *Analyst* **2016**, 2412-2417.

37. Ye, Z.; Gettys, K. E.; Dai, M. J.* "Opportunities and Challenges for Direct C-H Functionalization of Piperazines" *Beilstein J. Org. Chem.* **2016**, *12*, 702-715. (Invited for the Thematic Series "C-H Functionalization/Activation in Organic Synthesis"; Guest Editor: Prof. Richmond Sarpong)

36. Ye, Z.; Gettys, K. E.; Shen, X.;[§] Dai, M. J.* "Copper-Catalyzed Cyclopropanol Ring-Opening C_{sp3}-C_{sp3} Cross-Coupling Reactions with (Fluoro)Alkyl Halides" *Org. Lett.* **2015**, *17*, 6074-6077. ([§]*undergraduate student*).

35. Chou, D. H.; Vetere A.; Choudhary, A.; Scully, S. S.; Tang, A.; Gomez, R.; Schenone, M.; Lundh, M.; Vital, T.; Comer, E.; Faloon, P. W.; Dančík, V.; Ciarlo, C.; Paulk, J.; Dai, M. J.; Reddy, C.; Donato, N.; Jaffe, J.; Clemons, P. C.; Palmer, M.; Carr, S. J.; Schreiber, S. L.; Wagner, B. K. "Small-Molecule inhibition of JAK-STAT signaling through the deubiquitinase USP9X" *J. Am. Chem. Soc.* **2015**, *137*, 7929-7934.

34. Davis, D. C[†]; Mohammad, H.[†]; Younis, W.; Creemer, C. N.;[§] Seleem, M. N.;* Dai, M. J.* "Discovery and Characterization of Aryl Isonitriles as A New Class of Compounds versus Methicillin- and Vancomycin-resistant *Staphylococcus aureus*" *Eur. J. Med. Chem.* **2015**, *101*, 384-390. ([†]*equal contribution;* [§]undergraduate student).

33. Ye, Z.; Dai, M. J.* "An Umpolung Strategy for the Synthesis of β-Aminoketones via Copper-Catalyzed Electrophilic Amination of Cyclopropanols" *Org. Lett.* **2015**, *17*, 2190-2193.
Highlighted by X-MOL.

32. Li, Y.;[†] Ye, Z.;[†] Bellman, T. M.; Chi, T.;[§] Dai, M. J.* "Efficient Synthesis of β-CF_3/SCF_3 Substituted Carbonyls via Copper-Catalyzed Electrophilic Ring-Opening Cross-Coupling of Cyclopropanols" *Org. Lett.* **2015**, *17*, 2186-2189. ([†]*equal contribution;* [§]undergraduate student).
Highlighted in: Synfacts **2015**, *11*, 677.
Highlighted by X-MOL.

31. Ye, Z.; Brust, T. F.; Watts, V. L.;* Dai, M. J.* "Palladium-Catalyzed Regio- and Stereoselective γ-Arylation of Tertiary Allylic Amines: Identification of Potent Adenylyl Cyclase Inhibitors" *Org. Lett.* **2015**, *17*, 892-895.

30. Bai, Y.; Dai, M. J.* "Strategies and Methods for the Synthesis of Anti-Cancer Natural Product Neopeltolide and Its Analogs" *Curr. Org. Chem.* **2015**, *19*, 871-885.

29. Lee, H. J.;[†] Zhang, W.;[†§] Zhang, D.; Yang, Y.; Liu, B.; Barker, E.; Buhman, K. K.; Slipchenko, L. V.; Dai, M. J.*; Cheng, J.-X.* "Assessing cholesterol storage in live cells and C. *elegans* by SRS imaging of phenyl-diyne cholesterol" *Sci. Rep.* **2015**, *5*, 7930 ([†]*equal contribution;* [§]undergraduate student)
The phenyl-diyne cholesterol probe developed in this paper has been requested by researchers from Finland, Spain, and United States to study cholesterol function.

28. Yang, Y.;[†] Bai, Y;[†] Sun, S.;[§] Dai, M. J.* "Biosynthetically Inspired Divergent Approach to Monoterpene Indole Alkaloids: Total Synthesis of Mersicarpine, Leuconodines B and D, Leuconoxine, Melodinine E, Leuconolam, and Rhazinilam" *Org. Lett.* **2014**, *16*, 6216-6219 ([†]*equal contribution;* [§]undergraduate student)
The 2015 Organic Letters Outstanding Author of the Year Lectureship Award winning paper.
Top 20 most read article in Organic Letters (Nov. 2014)
Highlighted in: Synfacts **2015**, *11*, 0353.

27. Zhang, W.;[†§] Haskins, C. W.;[†] Yang, Y.; Dai, M. J.* "Synthesis of Nitriles via Palladium-Catalyzed Water Shuffling From Amides to Acetonitrile" *Org. Biomol. Chem.* **2014**, *12*, 9109-9112. ([†]*equal contribution;* [§]undergraduate student)

26. Yang, Y.; Dai, M. J.* "Total syntheses of lyconadins: finding efficiency and diversity" *Synlett*, **2014**, *25*, 2093-2098 (invited Synpacts contribution).

25. Bai, Y.; Dexter, D. C.; Dai, M. J.* "Synthesis of tetrahydropyran/tetrahydrofuran-containing macrolides by palladium-catalyzed alkoxycarbonylative macrolactonizations" *Angew. Chem. Int. Ed.*, **2014**, *53*, 6519-6522.
Selected as VIP paper by Angewandte Chemie.
Featured as a Synform story **2014**, *A120 in Synfacts.*

Highlighted in Organic Chemistry Portal by Professor Douglass Taber (Oct. 27, 2014).

24. Yang, Y.; Haskins, C. W.; Zhang, W.;[§] Low, P. L.;[§] Dai, M. J.* "Divergent total syntheses of lyconadins A and C" *Angew. Chem. Int. Ed.*, **2014**, *53*, 3922-3925. ([§]undergraduate student)
Highlighted in Organic Chemistry Portal by Professor Douglass Taber (Nov. 24, 2014).
Highlighted in Amphoteros by Professor Andrei Yudin (Mar. 7, 2014)

Before Purdue:

23. Boskovic, Z. V.; Hussain, M. M.; Adams, D. J.; Dai, M. J., Schreiber, S. L. "Synthesis of piperlogs and analysis of their effects on cells" *Tetrahedron*, **2013**, *69*, 7759-7767.
Special issue to honor Professor Paul Wender on his receipt of the 2012 Tetrahedron Prize for Creativity in Organic Chemistry.

22. Hartwell, K. A.; Miller, P. G.; Mukherjee, S.; Kahn, A. R.; Stewart, A. L.; Logan, D. J.; Negri, J. M.; Duvet, M.; Järås, M.; Puram, R.; Dancik, V.; Al-Shahrour, F.; Kindler, T.; Tothova, Z.; Chattopadhyay, S.; Hasaka, T.; Narayan, R.; Dai. M. J.; Huang, C.; Shterental, S.; Chu, L. P.; Haydu J. K.; Shieh, J. H.; Steensma, D. P.; Munoz, B.; Bittker, J.; Shamji, A. F.; Clemons, P.; Tolliday, N. J.; Carpenter, A. E.; Gilliland, D. G.; Stern, A. M.; Moore, M. A. S.; Scadden, D. T.; Schreiber, S. L.; Ebert, B. L.; Golub, T. R. "Niche-based screening identifies small-molecule inhibitors of leukemia stem cells" *Nat. Chem. Bio.* **2013**, *9*, 840-848.

21. Dai. M. J.;* Boskovic, Z. "Ruthenium complex of *N,N',N"*,-trimethyl-1,4,7 triazacyclononane and ruthenium complexes of cis-diaquabis (6,6'-dichloro-2,2'-bipyridine)", first update, *Handbook of Reagents for Organic Synthesis: Catalytic Oxidation Reagents* (Ed. Fuchs, P. L.), Wiley, **2013**, 561-565.

20. Adams, D. J.;[†] Dai, M. J.;[†] Pellegrino, G.; Wagner, B. K.; Stern, A. M.; Shamji, A. F.; Schreiber, S. L. "Synthesis, Cellular Evaluation, and Mechanism of Action of Piperlongumine Analogs" *Proc. Natl. Acad. Sci. USA,* **2012***, 109,* 15115-20. ([†]*equal contribution*)

19. Peng, F.; Dai, M. J.; Angeles, A. R.; Danishefsky, S. J. "Permuting Diels-Alder and Robinson Annulation Stereopatterns" *Chem. Sci.* **2012**, *3*, 3076-80.
The 4th most-Accessed Article: August, 2012.

18. Wang, Z.; Dai, M. J.; Park, P. K.; Danishefsky, S. J. "Synthetic studies toward (+)-cortistatin A" *Tetrahedron,* **2011**, *67*, 10249-60.
Special issue dedicated to Professor Gilbert Stork's 90th birthday.

17. Luo, T.; Dai, M. J.; Zheng, S-L.; Schreiber, S. L. "Synthesis of α-Pyrones by Gold-Catalyzed Coupling Reactions" *Org. Lett.* **2011**, *13*, 2834-6.

16. Hayden, A. E.; DeChancie, J.; George, A. H.; Dai, M. J.; Yu, M. L.; Danishefsky, S. J.; Houk, K. N "Origins of the Regioselectivities in the Diels−Alder Reactions of Vinylindenes with 1,4-Quinone Monoketal and Acrolein Dienophiles" *J. Org. Chem.* **2009**, *74*, 6770-6.

15. Dai, M. J.; Danishefsky, S. J. "An oxidative dearomatization cyclization model for cortistatin A" *Heterocycles* **2009**, 77, 157.
Special issue dedicated to Dr. Keiichiro Fukumoto's 75th birthday.

14. Dai, M. J.; Krauss, J. I.; Danishefsky, S. J. "Total synthesis of Spirotenuipesines A and B" *J. Org. Chem.* **2008**, *73*, 9576-83.
Special issue in the memory of Professor A. I. Meyers.

13. Dai, M. J.; Wang, Z.; Danishefsky, S. J. "A novel α,β-unsaturated nitrone-aryne [3+2] cycloaddition and its application in the synthesis of the cortistatin core" *Tetrahedron Lett.* **2008**, *49,* 6613-6.

12. Dai, M. J.; Danishefsky, S. J. "A concise synthesis of the cortistatin core" *Tetrahedron lett.* **2008**, *49,* 6610-2.

11. Lei, X. G.; Dai, M. J.; Hua, Z. H.; Danishefsky, S. J. "Biomimetic total synthesis of tricycloillicinone and mechanistic studies toward the rearrangement of prenyl phenyl ethers" *Tetrahedron lett.* **2008**, *49*, 6383-5.

10. Li. Z. T.; Gao, Y. X.; Tang, Y. F.; Dai, M. J.; Wang G. X.; Wang, Z. D.; Yang, Z. "Total synthesis of crisamicin A" *Org. Lett.* **2008**, *10*, 3017-20.

9. Dai, M. J.; Danishefsky, S. J. "The total synthesis of spirotenuipesines A and B" *J. Am. Chem. Soc.* **2007**, *129*, 3498-9.
   The 3rd most-Accessed Articles: January-March, 2007; the 6th most-Accessed Articles: 2007; Highlighted by JACS Virtual Issue "The Synthesis of Biologically Active Natural Products" *J. Am. Chem. Soc.* **2008**, *130*, 6654; Highlighted by *Synfacts*, **2007**, *08*, 0783.

8. Dai, M. J.; Sarlah, D.; Yu, M. L.; Danishefsky, S. J.; Jones, G. J.; Houk, K. N. "Highly selective Diels-Alder reactions of directly connected enyne dienophiles" *J. Am. Chem. Soc.* **2007**, *129*, 645-57. Highlighted by *Organic Chemistry Portal* ID: J48-Y2007-0160.

7. Liu, Y. X.; Lu, K.; Dai, M. J.; Wang, K.; Wu, W. Q.; Chen, J. H.; Quan, J. M.; Yang, Z. "An efficient one-pot asymmetric synthesis of biaryl compounds *via* Diels-Alder/retro-Diels-Alder cascade reactions" *Org. Lett.* **2007**, *9*, 805-8.

6. Tang, Y. F.; Zhang, Y. D.; Dai, M. J.; Luo, T. P.; Deng, L. J.; Chen, J. H.; Yang, Z. "A highly efficient synthesis of the FGH ring of micrandilactone A: Application of thioureas as ligands in the Co-catalyzed Pauson-Khand reaction and Pd-catalyzed carbonylative annulation" *Org. Lett.* **2005**, *7*, 885-8.

5. Liang, B.; Dai, M. J.; Chen. J. H.; Yang, Z. "Copper-free Sonogashira coupling reaction with $PdCl_2$ in water under aerobic conditions" *J. Org. Chem.* **2005**, *70*, 391-3.
   The 10th most-Accessed Articles: January-March, 2005; the 12th most-Accessed Articles: 2005; Highlighted by *Organic Chemistry Portal* ID: J42-Y2005-090.

4. Xiong, Z.-C.; Wang, N.-D.; Dai, M. J.; Li, A.; Chen. J. H.; Yang, Z. "Synthesis of novel palladacycles and their application in the Heck and Suzuki reaction under aerobic conditions" *Org. Lett.* **2004**, *6*, 3337-40.

3. Dai, M. J.; Liang, B.; Wang, C. H.; You, Z. J.; Xiang, J.; Dong, G. B.; Chen. J. H.; Yang, Z. "A novel thiourea ligand applied in Heck, Suzuki and Suzuki carbonylative reactions" *Adv. Synth. Catal.* **2004**, *346*, 1669.

2. Dai, M. J.; Liang, B.; Wang, C. H.; Chen. J. H.; Yang, Z. "Synthesis of a novel C_2-symmetric thiourea and its application in the Pd-catalyzed cross-coupling reactions with arenediazonium salts under aerobic conditions" *Org. Lett.* **2004**, *6*, 221-4.

1. Dai, M. J.; Wang, C. H.; Dong, G. B.; Xiang, J.; Luo, T. P.; Liang, B.; Chen. J. H.; Yang, Z. "Development of thiourea-based ligands for the palladium-catalyzed bis(methoxycarbonylation) of terminal olefins" *Eur. J. Org. Chem.* **2003**, 4346.

PATENTS

10. "New Method for Heterocycle Synthesis" Ye, Z.; Dai, M. J. *US Provisional Application* filed (US, 62/547,127)

9. "Novel Lactones" Dai, M. J.; Seleem, M.; Yin, X. *US Provisional Application* filed (US, 62/488,884).

8. "Aryl Isonitrile Compounds as Potent and Broad-Spectrum Antifungal Compounds" Dai, M. J.; Seleem, M.; Kyei-Baffour, K.; Mohammad, H. T. *US Provisional Application* filed (US, 62/143,031).

7. "Antimicrobial Treatment" Dai, M. J.; Seleem, M.; Kyei-Baffour, K. *US Provisional Application* filed (US, 62/514,985).

6. "Natural Product Derived Adenylyl Cyclase Inhibitors for Chronic Pain and Opioid Dependence" Watts, V. J.; Dai, M. J.; van Rijn, R. M. *US Provisional Application* filed (US, 62/395,372).

5. "New Methods for Trifluoromethylation and Trifluoromethylthiolation" Dai, M. J.; Li, Y.; Ye, Z. *US Provisional Application* filed (US, 62/146,965).

4. "Adenylyl Cyclase Inhibitors for Neuropathic and Inflammatory Pain Treatment" Dai, M. J.; Watts, V. J. *US Provisional Application* filed (US, 62/116,686).

Issued:

3. "Aryl Isonitriles as A New Class of Antimicrobial Compounds" Seleem, M.; Dai, M. J.; Davis, D. C.; Mohammad, H. T. *U.S. Pat. Appl. Publ.* **2016**, US 20160287550 A1; Application Number: US 15/090619.

2. "Nontoxic Raman Tags for Study of Cell Functions" Dai, M. J.; Cheng, J.-X. *U.S. Pat. Appl. Publ.* **2016**, US 20160068562 A1; Application Number: US 14/850,949.

1. "Preparation of oligomers of piperlongumine and/or piperlongumine analogs as antitumor agents" Adams, D. J.; Dai, M. J.; Schreiber, S. L.; Hussain, M. M.; Boskovic, Z. V. *U.S. Pat. Appl. Publ.* **2014**, US 20140024639 A1; Application Number: US 13/946,959.

SEMINAR AND LECTURE PRESENTATIONS

85. The Inaugural BioHub Chemistry Symposium, Waltham, MA, August 17, 2018
84. Nankai University, Tianjin, May 24, 2018
83. The 2018 International Synthetic Biologicals Conference, Tongji Medical School, Wuhai, China, May 20-22, 2018
82. Eli Lilly Grantee Symposium, Indianapolis, March 12, 2018
81. FloHet Conference, Gainesville, Florida, March 4-7, 2018
80. University of Rhode Island, College of Pharmacy, Kingston, Rhode Island, February 2, 2018
79. University of Delaware, Newark, November 11, 2017
78. Indiana University, Bloomington, November 6, 2017
77. University of Central Florida, Orlando, October 13, 2017
76. University of Florida, Gainesville, October 12, 2017
75. Kansas State University, Manhattan, September 28, 2017
74. University of Illinois Chicago, Chicago, September 19, 2017
73. University of New Mexico, Albuquerque, September 8, 2017
72. Heterocyclic Compounds - Gordon Research Conference, Salve Regina University, Newport, RI, June 2017
71. Shandong University, Jinan, China, May 31, 2017
70. Ocean University of China, Qingdao, China, May 24, 2017
69. Baylor University, Dallas, May 11, 2017
68. University of Texas Southwestern Medical Center, Dallas, May 10, 2017
67. Northeastern University, Boston, May 3, 2017
66. Brandeis University, Waltham/Boston, May 2, 2017
65. Boston University, Boston, May 1, 2017
64. Vanderbilt University, Nashville, April 24, 2017
63. Southern Illinois University, invited speaker for the 3rd biannual Meyers Symposium for Organic Chemistry, April 22, 2017
62. University of Colorado Boulder, Boulder, April 17, 2017
61. Wayne State University, Detroit, March 29, 2017
60. University of Michigan, Ann Arbor, March 28, 2017
59. Dow AgroSciences, the Greater Indianapolis Organic Seminar (GIOSS), Indianapolis, March 20-21, 2017
58. Columbia University, New York, March 16, 2017
57. Princeton University, Princeton, March 15, 2017
56. Rice University, Houston, March 8, 2017
55. University of Houston, Houston, March 7, 2017
54. The Scripps Research Institute, February 17, 2017
53. University of Illinois Urbana-Champaign, February 9, 2017
52. Ohio State University, January 31, 2017
51. Duke University, Durham, January 24, 2017
50. University of North Carolina, January 23, 2017
49. University of Wisconsin, Madison, January 20, 2017
48. California Institute of Technology, Pasadena, November 17, 2016
47. University of California, Irvine, November 16, 2016
46. University of California, Santa Barbara, October 28, 2016
45. University of California, Los Angeles, October 27, 2016

44. University of California, Berkeley, October 11, 2016
43. University of Pittsburgh, Pittsburgh, October 6, 2016
42. Iowa State University, Ames, September 23, 2016
41. University of Iowa, Iowa City, September 22, 2016
40. The EuCheMS Organic Division Young Investigator Workshop, Spain, September 2016
39. The Young Academic Investigators Symposium, National ACS Meeting, Philadelphia, August 2016
38. Eli Lilly, Indianapolis, Indiana, August 16, 2016
37. Medical School of Peking University, Beijing, China, June 2016
36. South University of Science and Technology of China, Shenzhen, China, June 2016
35. The 12th Sino-US Chemistry Professors Conference, Guangzhou, China, June 2016
34. Sun Yat-Sen University, Guangzhou, China, June 2016
33. Sichuan University, Chengdu, China, June 2016
32. CERM 2016, the 47th Central Regional ACS Meeting, May 2016
31. College of Veterinary Medicine, Purdue University, March 2016
30. Olivet Nazarene University, Bourbonnais, IL, March 2016
29. Georgia State University, Atlanta, Georgia, March 2016
28. University of Cincinnati, Cincinnati, Ohio, March 2016
27. University of South Florida, Tampa, FL, March 2016
26. IUPUI, Indianapolis, IN, February 2016
25. Center for Cancer Research, Purdue University, January 2016
24. Department of Medicinal Chemistry and Molecular Pharmacology, Purdue Univ., November 2015
23. PACIFICHEM, Honolulu, Hawaii, December 2015
22. The 2015 Organic Letters Outstanding Author of the Year Lectureship, the fall ACS national meeting, Boston, MA, August 2015 (Award Speaker)
21. Natural Products - Gordon Research Conference, Andover, NH, July 2015
20. East Lake International Forum, Tongji Medical College, HUST, China, June 2015
19. Shanghai Institute of Organic Chemistry, CAS, Shanghai, China, June 2015
18. The 11th Sino-US Chemistry Professors Conference, Suzhou, China, June 2015
17. Tsinghua University, Beijing, China, June 2015
16. Peking University, College of Chemistry and Molecular Engineering, Beijing, China, June 2015
15. University at Albany-SUNY, Albany, NY, April 2015
14. Hamilton College, Clinton, NY, April 2015
13. The 8th Singapore International Chemistry Conference, Singapore, December 2014
12. Indiana University School of Medicine, Indianapolis, IN, March 2014
11. The ACS-Student Affiliates at Purdue University, West Lafayette, IN, February 2014
10. Purdue University, Center for Cancer Research, West Lafayette, IN, October 2012

Before Purdue:

9. Harvard University, the Kishi Group, Cambridge, MA, March, 2011
8. Harvard University, CCB student/postdoc seminar, Cambridge, MA, February, 2011
7. Peking University Shenzhen Graduate School, Shenzhen, China, September, 2010
6. The Hong Kong University of Science and Technology, Hong Kong, China, August 2010
5. The 2009 *Roche Symposium: Excellence in Chemistry*, Nutley, New Jersey, June 2009
4. Sloan-Kettering Institute for Cancer Research, New York, November 2008
3. The 2007 Wyeth/Columbia Research Workshop, Columbia University, New York, May 2007
2. 9th Bristol-Meyers Squibb Chemistry Awards Symposium, Lawrenceville, New Jersey, May 2007
1. The 2006 Wyeth/Columbia Research Workshop, Columbia University, New York, May 2006

SERVICE

Department and University Service Activities

- Chair, HC Brown Symposium, 2018
- Internal Advisory Board Member of Purdue Institute for Drug Discovery, 2016-2017
- Member of Corporate and Industrial Relations Advisory Committee, 2017-present
- Member of the Graduate Student Recruitment Committee, 2016-present
- Member of Organic/Medicinal Chemistry Faculty Recruiting Committee, 2017
- Member of Department Executive Committee, 2015-2017

- Member of Organic Faculty Recruiting Committee, 2012-2013
- Member of Brown Research Award Committee: 2013-2014
- Member of Undergraduate Committee, 2013-2014
- Session Chair, HC Brown Symposium, 2013-2016
- Session Chair, Negishi-Brown Symposium, 2014-2015
- Member of Inorganic Faculty Recruiting Committee, 2014-2015
- Member of Drug Discovery Faculty Recruiting Committee, 2014-2015
- Poster Judge: Purdue Graduate Student Government Spring 2013 Career Fair
  HC Brown Symposium, 2013-2016
  Negishi-Brown Symposium, 2014-2015
- University NMR committee, 2014-2015

Service Activities Outside of Purdue

- Inaugural Editorial Board of iScience (by Cell Press), 2017-present
- Guest Editor: Current Organic Chemistry, Thematic Issue "Harnessing Molecular Strain in Organic Synthesis and Related Fields".
- Grant Referee:
  NSF Panel Reviewer (2017-present)
  Purdue University Center for Cancer Research Pilot Grants (2013-)
  Member of the American Cancer Society Institutional Research Grant Review Committee (2015-)
  The American Chemical Society, Petroleum Research Foundation (2015-)
- Conference Chair/Discussion Leader/Presider:
  Session chair: the 8th Singapore International Chemistry Conference, Singapore, December 2014
  Session chair: East Lake International Forum, Tongji Medical College, HUST, China, June 2015
  Session chair: Natural Products - Gordon Research Conference, Andover, NH, July 2015.
  Session chair: ACSCERM2016 – "Organic Synthesis of Bioactive Molecules", May 2016
  ACSCERM2016 – "Organic Chemistry and Catalysis", May 2016
  Symposium presider: National ACS meeting, Philadelphia, "Metal-Mediated Reactions & Synthesis", August 2016
  Session chair: FloHet 2018 at the University of Florida, March 2018
- Conference Organizer: the ACSCERM2016 meeting (*47th Annual Central Regional Meeting of the ACS,* Cincinnati, May 18-21, 2016) on "Organic Synthesis of Bioactive Molecules"
- Manuscript Referee: Reviewed over 170 manuscripts for about 20 different journals, including *JACS*, *Angew. Chem. Int. Ed.*, *Nat. Commun.*, *ACS Catal.*, *Org. Lett.*, *Chem. Commun.*, *J. Org. Chem.*, *J. Med. Chem.*, *BMC*, *BMCL*, *Tetrahedron*, *Tetrahedron Letters*, etc.
- International Student Representative, 2006-2008, Chemistry Department, Columbia University
- President of Columbia Synthesis Literacy Group, Chemistry Department, Columbia University

OUTREACH ACTIVITIES

- Faculty mentor, Purdue Section's American Chemical Society Project SEED program, 2013-present
- Hosted study tables (non-course related) at the Purdue Black Culture Center, 2013 & 2014
- Spoke at the American Cancer Society Relay for Life of Franklin County, Indiana, 2014
- Provided lecture notes describing stories of natural products and natural product synthesis to share with 22 high school teachers through the program of *Integrating STEM* in the Lafayette School Corporation.
- Presented at the American Chemical Society-Student Affiliates at Purdue University

AFFILIATIONS

- American Chemical Society (ACS), 2005-present
- Chinese-American Chemistry & Chemical Biology Professors Association (CAPA), 2015-present
- American Association for the Advancement of Science (AAAS), 2012-present
- The New York Academy of Sciences (NYAS), 2004-2009