

Curriculum Vitae
Phil S. Baran

Appointment: Scripps Research
Professor, Department of Chemistry
10550 North Torrey Pines Road, BCC-436
La Jolla, California 92037
Telephone: (858) 784-7373
Facsimile: (858) 784-7575
Email: pbaran@scripps.edu
Website: www.scripps.edu/chem/baran/

January, **2013** Darlene Shiley Professor of Chemistry

April, **2009** Member, Skaggs Institute for Chemical Biology

June, **2008** Professor of Chemistry

July, **2006** Associate Professor of Chemistry (with Tenure)

June, **2003** Assistant Professor of Chemistry

Date/Place of Birth: 10 Aug 1977 / Denville, NJ, USA

Citizenship: United States

Education

2001 – 2003 Postdoctoral Associate
Advisor: Professor E.J. Corey
Harvard University, Cambridge, Massachusetts

1997 – 2001 Ph.D. Graduate Student in Chemistry

Advisor: Professor K.C. Nicolaou
The Scripps Research Institute, La Jolla, California

1995 – 1997 B.S. with Honors in Chemistry
Advisor: Professor D.I. Schuster
New York University, New York, New York

1991 – 1995 Simultaneous high school graduation from Mt. Dora High School and
A.A. degree with honors, Lake Sumter Community College, Florida

Awards

- Inhoffen Medal, 2019
- Manchot Research Professorship, 2017
- Member, The National Academy of Sciences, 2017
- Emanuel Merck Lectureship, 2017
- Blavatnik National Laureate in Chemistry, 2016
- ACS Elias J. Corey Award, 2016
- Member, American Academy of Arts and Sciences, 2015
- College of Arts and Science Alumni Distinguished Service Award, New York University, 2015
- Reagent of the Year Award (EROS), 2015
- Mukaiyama Award, 2014
- MacArthur Fellowship, 2013
- Royal Society of Chemistry Synthetic Organic Chemistry Award, 2013
- Fellow, Royal Society of Chemistry, 2013
- Fellow, AAAS, 2012 – Present
- ACS San Diego Section Distinguished Scientist Award, 2012
- ISHC Katritzky Heterocyclic Chemistry Award, 2011
- Thieme-IUPAC Prize in Synthetic Organic Chemistry, 2010
- ACS Award in Pure Chemistry, 2010
- Raymond and Beverly Sackler Prize in the Physical Sciences, 2009
- National Fresenius Award, ACS, 2007
- Novartis Lecturer, 2007 – 2008

- Hirata Gold Medal, 2007
- Pfizer Award for Creativity in Organic Synthesis, 2006
- Beckman Foundation Fellow, 2006 – 2008
- Alfred P. Sloan Foundation Fellow, 2006 – 2008
- BMS Unrestricted “Freedom to Discover” Grant, 2006 – 2010
- NSF CAREER Award, 2006 – 2010
- Eli Lilly Young Investigator Award, 2005 – 2006
- AstraZeneca Excellence in Chemistry Award, 2005
- DuPont Young Professor Award, 2005
- Roche Excellence in Chemistry Award, 2005
- Amgen Young Investigator Award, 2005
- Searle Scholar Award, 2005
- GlaxoSmithKline Chemistry Scholar Award, 2005 – 2006

Awards (Pre- and Post-Doctoral)

- ACS Nobel Laureate Signature Award in Chemistry, 2003
- National Institutes of Health Post-Doctoral Fellowship Award, Harvard, 2001 – 2003
- Hoffmann-La Roche Award for Excellence in Organic Chemistry, 2000
- Lesly Starr Shelton Award for Excellence in Chemistry Graduate Studies, Scripps, 2000
- National Science Foundation Pre-Doctoral Research Fellowship Award, Scripps, 1998 – 2001
- William and Sharon Bauce Family Foundation Fellowship Award, Scripps, 1997
- Dean’s Undergraduate Research Fund Award in Chemistry, NYU, 1996 – 1997
- George Granger Brown Award for Excellence in Chemistry, NYU, 1996 – 1997
- College of Art and Sciences Scholarship, NYU 1995 – 1997
- Herman and Margaret Sokol Chemistry Fellowship, NYU, 1995 – 1997

Editorial and Editorial Advisory Boards

1. International Advisory Board, *Angewandte Chemie*, 2014 – 2016
2. Advanced Synthesis and Catalysis Academic Advisory Board, 2014 – present

3. Editorial Advisory Board, *J. Am. Chem. Soc.*, 2015 – 2016
4. Editorial Advisory Board, *ACS Central Science*, 2015 – present
5. Associate Editor, *J. Am. Chem. Soc.*, 2016 – present

Professional Activities

1. NIH Study Section Member, SBC-B, 2008 – 2012
2. NIH Study Section Member, CMLD Special emphasis panel, July 2008
3. NIH Study Section Member, ad-hoc, SBC-B, June 2005
4. Scripps Graduate Student Admissions Committee, 2004 – 2011
5. Discussion Chair, GRC (Heterocycles), July 2006
6. Co-Chair, ACS Western Regional Meeting, 2007
7. Scripps Academic Advisory Committee, 2009 – Present
8. Shanghai Institute of Organic Chemistry, International Evaluation Committee Member, 2013

Consulting

1. Bristol-Myers Squibb (exclusive, all sites), 2005 – present
2. DuPont, 2007 – present
3. TetraPhase (Scientific Advisory Board), 2007 – 2009
4. TEVA, 2010 – present
5. Eisai (Scientific Advisory Board), 2012 – present
6. Sirenas Marine Discovery (Co-founder and consultant), 2012 – present
7. Boehringer Ingelheim Pharmaceuticals, Inc., 2012 - present

8. Abide Therapeutics (Scientific Advisory Board and consultant), 2013 – present
9. AsymChem (Scientific Advisory Board and consultant), 2013 – present
10. AstraZeneca, 2013 – present
11. Kemxtree (Scientific Advisory Board), 2015 – present
12. Vividion Therapeutics (Co-founder and consultant), 2016 – present
13. Gilead, 2018 – present
14. Galileo Biosystems, Inc. 2020 - present

Publications

1. Kanda, Y.; Ishihara, Y.; Wilde, N.; Baran, P.S. Two-Phase Total Synthesis of Taxanes: Tactics and Strategies. *J. Org. Chem.* **2020**. Just Accepted.
2. Gnaim, S.; Takahira, Y.; Wilke, H. C.; Yao, Z.; Li, K.; Delbrayelle, D.; Echeverria, P. -G.; Vantourout, J. C.; Baran, P. S. Electrochemically Driven Desaturation of Carbonyl Compounds. *ChemRxiv.* **2020**. Preprint.
3. McClymont, K. S.; Wang, F.-Y.; Minakar, A.; Baran, P. S.; Total Synthesis of (-)-Maximiscin. *J. Am. Chem. Soc.* **2020**, 142, 19, 8608 – 8613.
4. Flood, D. T.; Knouse, K. W.; Vantourout, J. C.; Sanchez, B. B.; Sturgell, E. J.; Chen, J. S.; Baran, P. S.; Dawson, P. E. Synthetic Elaboration of Native DNA by RASS (SENDR) *ChemRxiv.* **2020**, Preprint.
5. Kanda, Y.; Nakamura, H.; Umemiya, S.; Puthukanoori, R. K.; Appala, V. R. M.; Gaddamanugu, G. K.; Paraselli, B. R.; Baran, P. S. Two-Phase Synthesis of Taxol®. *J. Am. Chem. Soc.* **2020**, 142, 10526 – 10533.
6. Kawamata, Y.; Baran, P. S. Electrosynthesis: Sustainability Is Not Enough. *Joule*, **2020**, Just Accepted.
7. Flood, D. T.; Kingston, C.; Vantourout, J. C.; Dawson, P. E.; Baran, P. S. DNA Encoded Libraries: A Visitor's Guide. *Isr. J. Chem.* **2020**, 60, 1 – 14.

8. Xu, D.; Rivas-Bascón, N.; Padial, N. M.; Knouse, K. W.; Zheng, B.; Vantourout, J. C.; Schmidt, M. A.; Eastgate, M. D.; Baran, P. S. Enantiodivergent Formation of C–P Bonds: Synthesis of P-Chiral Phosphines and Methyl-phosphonate Oligonucleotides. *J. Am. Chem. Soc.* **2020**, *142*, 5785 – 5792.
9. Flood, D. T.; Zhang, Z. Fu, Z. Zhao, Z.; Asai, S.; Sanchez, B.; Strugell, E. J.; Vantourout, J. C.; Richardson, P.; Flanagan, M. E.; Piotrowski, D. W.; Kölmel, D. K.; Wan, J.; Chang, Y.; Wang, Z.; Chen, J.; Baran, P. S.; Dawson, P. RASS-Enabled S/P–C and S–N Bond Formation for DEL Synthesis. *Angew. Chem. Int. Ed.* **2020**, doi:10.1002/anie.201915493
10. Reisberg, S. H.; Gao, Y.; Walker, A. S.; Helfrich, E. J. N.; Clardy, J.; Baran, P. S. Total synthesis reveals atypical atropisomerism in a small-molecule natural product, tryptorubin A. *Science* **2020**, *367*, 458 – 463.
11. Kingston, C.; Palkowitz, M. D.; Takahira, Y.; Vantourout, J. C.; Peters, B. K.; Kawamata, Y.; Baran, P. S. A Survival Guide for the "Electro-curious" *Acc. Chem. Res.* **2020**, *53*, 72 – 83.
12. Barton, L. M.; Edwards, J. T.; Johnson, E. C.; Bukowski, E. J.; Sausa, R. C.; Byrd, E. F. C.; Orlicki, J. A.; Sabatini, J. J.; Baran, P. S. Impact of Stereo- and Regiochemistry on Energetic Materials. *J. Am. Chem. Soc.* **2019**, *141*, 12531 – 12535.
13. Xiang, J.; Shang, M.; Kawamata, Y.; Lundberg, H.; Resiberg, S.; Chen, M.; Mykhailiuk, P.; Beutner, G.; Collins, M.; Davies, A.; Del Bel, M.; Gallego, G.; Spangler, J.; Starr, J. T.; Yang, S.; Blackmond, D.; Baran, P. S. Hindered Dialkyl Ether Synthesis via Electrogenated Carbocations. *Nature*. **2019**, *573*, 398 – 402.
14. Flood, D. T.; Asai, S.; Zhang, X.; Wang, J.; Yoon, L.; Adams, Z. C.; Dillingham, B. C.; Sanchez, B.; Vantourout, J. C.; Flanagan, M. E.; Piotrowski, D. W.; Richardson, P.; Green, S.; Shenvi, R.; Chen, J.; Baran, P. S.; Dawson, P. Expanding Reactivity in DNA-Encoded Library Synthesis via Reversible Binding of DNA to an Inert Quaternary Ammonium Support. *J. Am. Chem. Soc.* **2019**, *141*, 9998 – 10006.
15. Ni, S.; Padial, N. M.; Kingston, C.; Vantourout, J. C.; Schmitt, D. C.; Edwards, J. T.; Kruszyk, M.; Merchant, R. R.; Mykhailiuk, P. K.; Sanchez, B.; Yang, S.; Perry, M.; Gallego, G. M.; Mousseau, J. J.; Collins, M. R.; Cherney, R. J.; Lebed, P. S.; Chen, J. S.; Qin, T.; Baran, P. S. A Radical Approach to Anionic Chemistry: Synthesis of Ketones, Alcohols, and Amines. *J. Am. Chem. Soc.* **2019**, *141*, 6726 – 6739.
16. Takahira, Y.; Chen, M.; Kawamata, Y.; Mykhailiuk, P.; Nakamura, H.; Peters, B. K.; Reisberg, S. H.; Li, C.; Chen, L.; Hoshikawa, T.; Shibuguchi, T.; Baran, P. S. Electrochemical C(sp³)-H Fluorination. *Synlett*, **2019**, *30*, 1178-1182.

17. Kawamata, Y.; Vantourout, J. C.; Hickey, D. P.; Bai, P.; Chen, L.; Hou, Q.; Qiao, W.; Barman, K.; Edwards, M. A.; Garrido-Castro, A. F.; deGruyter, J. N.; Nakamura, H.; Knouse, K.; Qin, C.; Clay, K. J.; Bao, D.; Li, C.; Starr, J. T.; Garcia-Irizarry, C.; Sach, N.; White, H. S.; Neurock, M.; Minter, S. D.; Baran, P. S. Electrochemically Driven, Ni-Catalyzed Aryl Amination: Scope, Mechanism, and Applications. *J. Am. Chem. Soc.* **2019**, *141*, 6392 – 6402.
18. Peters, B. K.; Rodriguez, K. X.; Reisberg, S. H.; Beil, S. B.; Hickey, D. P.; Kawamata, Y.; Collins, M.; Starr, J.; Chen, L.; Udyavara, S.; Klunder, K.; Gorey, T. J.; Anderson, S. L.; Neurock, M.; Minter, S. D.; Baran, P. S. Scalable and Safe Synthetic Organic Electroreduction Inspired by Li-Ion Battery Chemistry. *Science*. **2019**, *363*, 838 – 845.
19. Shang, M.; Feu, K. S.; Vantourout, J. C.; Barton, L. M.; Osswald, H. L.; Kato, N.; Gagaring, K.; McNamara, C. W.; Chen, G.; Hu, L.; Ni, S.; Fernández-Canelas, P.; Chen, M.; Merchant, R. R.; Qin, T.; Schreiber, S.; Melillo, B.; Yu, J. –Q.; Baran, P. S. Modular Stereocontrolled C β –H/C α –C Activation of Alkyl Carboxylic Acids. *ChemRxiv* **2019**.
20. Nakamura, H.; Yasui, K.; Kanda, Y.; Baran, P. S. 11-Step Total Synthesis of Teleocidins B-1-B-4. *J. Am. Chem. Soc.* **2019**, *141* (4) 1494 – 1497.
21. Chen, T. –G.; Zhang, H.; Mykhailiuk, P. K.; Merchant, R. R.; Smith, C. A.; Qin, T.; Baran, P. S. Quaternary Centers via Ni-Catalyzed Cross-Coupling of Tertiary Carboxylic Acids and Aryl Zinc Reagents. *Angew. Chem. Int. Ed.* **2019**, *58*, 2454 – 2458
22. Chi, H.; Stratton, T. P.; Baran, P. S. Concise Total Synthesis of Herquines B and C. *JACS*. **2019**, *141*, 29 – 32.
23. Kingston, C.; Wallace, M.; Allentoff, A. J.; deGruyter, J.; Chen, J.; Gong, S.; Bonacorsi, S. Jr.; Baran, P. S. Direct Carbon Isotope Exchange Through Decarboxylative Carboxylation. *JACS*. **2019**, *141*, (2) 774 – 779.
24. Smith, J.; Dixon, J.; deGruyter, J. N.; Baran, P. S. Alkyl Sulfinates: Radical Precursors Enabling Drug Discovery. *J. Med. Chem.* **2018**, ASAPs.
25. Ni, S.; Garrido-Castro, A. F.; Merchant, R. R.; deGruyter, J. N.; Schmitt, D. C.; Mousseau, J. J.; Gallego, G. M.; Yang, S.; Collins, M. R.; Qiao, J. X.; Yeung, K.; Langley, D. R.; Poss, M. A.; Scola, P. M.; Qin, T.; Baran, P. S. A General Amino Acid Synthesis Enabled by Innate Radical Cross-Coupling, *Angew. Chem. Int. Ed.* **2018**, *57*, 14560 – 14565.
26. Wang, J.; Shang, M.; Lundberg, H.; Feu, K. S.; Hecker, S. J.; Qin, T.; Blackmond, D. G.; Baran, P. S. Cu-Catalyzed Decarboxylative Borylation. *ACS Catal.* **2018**, *8*, 9537 – 9542.

27. Knouse, K. W.; deGruyter, J. N.; Schmidt, M. A.; Zheng, B.; Vantourout, J. C.; Kingston, C.; Mercer, S. E.; McDonald, I. M.; Olson, R. E.; Zhu, Y.; Hang, C.; Zhu, J.; Yuan, C.; Wang, W.; Park, P.; Eastgate, M. D.; Baran, P. S. Unlocking P(V): Reagents for Chiral Phosphorothioate Synthesis. *Science*, **2018**, 361, 6408, 1234 – 1238.
28. Smith, J. M.; Hardwood, S. J.; Baran, P. S. Radical Retrosynthesis. *Acc. Chem. Res.* **2018**, 51, 1807 – 1817.
29. Chen, T. –G.; Barton, L. M.; Lin, Y.; Tsien, J.; Kossler, D.; Bastida, I.; Asai, S.; Bi, C.; Chen, J. S.; Shan, M.; Fang, H.; Fang, F. G.; Choi, H. –W.; Hawkins, L.; Qin, T.; Baran, P. S. Building C(sp³)-rich Complexity by Combining Cycloaddition and C – C Cross Coupling Reactions. *Nature*. **2018**, 560, 350 – 354.
30. Merchant, R. R.; Oberg, K. M.; Lin, Y.; Novak, A. J. E.; Felding, J.; Baran, P. S. Divergent Synthesis of Pyrone Diterpenes via Radical Cross Coupling. *J. Am. Chem. Soc.* **2018**, 140, 7462 – 7465.
31. Wang, J.; Lundberg, H.; Asai, S.; Martin-Acosta, P.; Chen, J. S.; Brown, S.; Farrell, W.; Dushin, R. G.; O'Donnell, C. J.; Ratnayake, A. S.; Richardson, P.; Liu, Z.; Qin, T.; Blackmond, D. G.; Baran, P. S. Kinetically Guided Radical-Based Synthesis of C(sp³)- C(sp³) Linkages on DNA. *PNAS*. **2018**, 115, E6404.
32. Baran, P. S. Natural Product Total Synthesis: As Exciting as Ever and Here to Stay. *J. Am. Chem. Soc.* **2018**, 140, 4751 – 4755.
33. Chu, H.; Dunstl, G.; Felding, J.; Baran, P. S. Divergent synthesis of thapsigargin analogs. *Biorg. Med. Chem. Lett.* **2018**, 28, 2705 – 2707.
34. Peters, D.; Romesberg, F. E.; Baran, P. S. Scalable Access to Arylomycins via C-H Functionalization Logic. *J. Am. Chem. Soc.* **2018**, 140, 2072 – 2075.
35. Merchant, R. R.; Edwards, J. T.; Qin, T.; Kruszyk, M. M.; Bi, C.; Che, G.; Bao, D-H.; Qiao, W.; Sun, L.; Collins, M. R.; Gallego, G. M.; Mousseau, J. J.; Nuhant, P.; Baran, P. S. Modular Radical Cross-coupling with Sulfones enables access to sp³-rich (fluoro)alkylated scaffolds. *Science*, **2018**, 360, 75 – 80.
36. Parker, C. G.; Kuttruff, C. A.; Galmozzi, A.; Jorgensen, L.; Yeh, C-. H.; Hermanson, D. J.; Wang, Y.; Artola, M.; McKerrall, S. J.; Josyln, C. M.; Norremark, B.; Dunstl, G.; Felding, J.; Saez, E.; Baran, P. S.; Cravatt, B. F. Chemical Proteomics Identifies SLC25A20 as a Functional Target of the Ingenol Class of Actinic Keratosis Drugs. *ACS Cent. Sci.* **2017**, 3, 1276 – 1285.

37. deGruyter, J. N.; Malins, L. R.; Wimmer, L.; Clay, K. J.; Lopez-Ogalla, J.; Qin, T.; Cornella, J.; Liu, Z.; Che, G.; Bao, D.; Stevens, J. M.; Qiao, J. X.; Allen, M. P.; Poss, M. A.; Baran, P. S. CITU: A Peptide and Decarboxylative Coupling Reagent, *Org. Lett.* **2017**, 18, 6196.
38. Yan, M.; Kawamata, Y.; Baran, P. S. Synthetic Organic Electrochemical Methods since 2000: On the Verge of a Renaissance. *Chem. Rev.* **2017**, 117, 13230.
39. Li, C.; Kawamata, Y.; Nakamura, H.; Vantourout, J. C.; Liu, Z.; Hou, Q.; Bao, D.; Starr, J. T.; Chen, J.; Yan, M.; Baran, P. S. Electrochemically Enabled, Ni-Catalyzed Amination, *Angew. Chem. Int. Ed.* **2017**, 56, 13088 – 13093.
40. Yan, M.; Kawamata, Y.; Baran, P. S. Synthetic Organic Electrochemistry: Calling all Engineers, *Angew. Chem. Int. Ed.* **2017**, 56, 2 – 9.
41. Trammell, R.; See, Y.; Herrmann, A. T.; Xie, N.; Diaz, D. E.; Siegler, M. A.; Baran, P. S. Garcia-Bosch, I. Decoding the Mechanism of Intramolecular Cu-Directed Hydroxylation of sp³ C-H Bonds, *J. Org. Chem.* **2017**, 82, 7887 – 7904.
42. deGruyter, J. N.; Malins, L. R.; Baran, P. S. Residue-Specific Peptide Modification: A Chemist's Guide, *Biochemistry*, **2017**, 56, 3863 – 3873.
43. Smith, J. M.; Qin, T.; Merchant, R. R.; Edwards, J. T.; Malins, L. R.; Liu, Z.; Che, G.; Shen, Z.; Shaw, S. A.; Eastgate, M. D.; Baran, P. S. Decarboxylative Alkynylation, *Angew. Chem. Int. Ed.* **2017**, 56, 1 – 6.
44. Kawamata, Y.; Yan, M.; Liu, Z.; Bao, D. –H; Chen, J.; Starr, J.; Baran, P. S. Scalable, Electrochemical Oxidation of Unactivated C-H Bonds, *J. Am Chem Soc.* **2017**, 139, 7448 – 7451.
45. Edwards, J. T.; Merchant, R. R.; McClymont, K. S.; Knouse, K. W.; Qin, T.; Malins, L. R.; Vokits, B.; Shaw, S. A.; Bao, D. H.; Wei, F. L.; Zhou, T.; Eastgate, M. D.; Baran, P. S. Decarboxylative Alkenylation, *Nature* **2017**, 545, 213 – 218.
46. Li, C.; Wang, J.; Barton, L. M.; Yu, S.; Tian, M.; Peters, D. S.; Kumar, M.; Yu, A. W.; Johnson, K. A.; Chatterjee, A. K.; Yan, M.; Baran, P. S. Decarboxylative Borylation, *Science* **2017**, 356, eaam7355.
47. Malins, L. R.; deGruyter, J. N.; Robbins, K. J.; Scola, P.N.; Eastgate, M.; Ghadiri, M. R.; Baran, P. S. Peptide Macrocyclization Inspired by Non-Ribosomal Imine Natural Products, *J. Am. Chem. Soc.* **2017**, 139, 5233 – 5241.

48. Sandfort, F.; O'Neill, M. J.; Cornella, J.; Wimmer, L.; Baran, P. S. Alkyl-(Hetero)Aryl Bond Formation via Decarboxylative Cross-Coupling: A Systematic Analysis, *Angew. Chem. Int. Ed.* **2017**, *56*, 3319 – 3323.
49. Lopchuk, J. M.; Fjelbye, K.; Kawamata, Y.; Malins, L. R.; Pan, C. M.; Gianatassio, R.; Wang, J.; Prieto, L.; Bradown J.; Brandt, T. A.; Collins, M. R.; Elleraas, J.; Ewanicki, J.; Farrell, W.; Fadeyl, O. O.; Gallego, G. M.; Mousseau, J. J.; Oliver, R.; Sach, N. W.; Smith, J. K.; Spangler, J. E.; Zhu, H.; Zhu, J.; Baran, P. S. Strain-Release Heteroatom Functionalization: Development, Scope, and Stereospecificity, *J. Am. Chem. Soc.* **2017**, *139*, 3209 – 3226.
50. Lo, J. C.; Kim, D.; Pan, C. M.; Edwards, J. T.; Yabe, Y.; Gui, J.; Qin, T.; Gutierrez, S.; Giacoboni, J.; Smith, M. W.; Holland, P. L.; Baran, P. S. Fe-Catalyzed C-C Bond Construction from Olefins via Radicals, *J. Am. Chem. Soc.* **2017**, *139*, 2484 – 2503.
51. Chu, H.; Smith, J.M.; Felding, J.; Baran, P.S. Scalable Synthesis of (–)-Thapsigargin, *ACS Cent. Sci.* **2017**, *3*, 47 – 51.
52. Qin, T.; Malins, L. R.; Edwards, J. T.; Merchant, R. R.; Novak, A. J. E.; Zhong, J. Z.; Mills, R. B.; Yan, M.; Yuan, C.; Eastgate, M. D.; Baran, P. S. Nickel-Catalyzed Barton Decarboxylation and Giese Reactions: A Practical Take on Classic Transforms, *Angew. Chem. Int. Ed.* **2016**, *129*, 266 – 271.
53. Tian, M.; Yan, M.; Baran, P. S. 11-Step Total Synthesis of Ariasamines, *J. Am. Chem. Soc.* **2016**, 14234 – 14237.
54. Yan, M.; Lo, J. C.; Edwards, J.T.; Baran, P. S. Radicals: Reactive Intermediates with Translational Potential, *J. Am. Chem. Soc.* **2016**, *138*, 12692 – 12714.
55. Toriyama, F.; Cornella, J.; Wimmer, L.; Chen, T.-G.; Dixon, D. D.; Creech, G.; Baran, P. S. Redox-Active Esters in Fe-Catalyzed C – C Coupling, *J. Am. Chem. Soc.* **2016**, 11132 – 11135.
56. Cernijenko, A.; Risgaard, R.; Baran, P. S. 11-Step Total Synthesis of (-) Maoecrystal V, *J. Am. Chem. Soc.* **2016**, *138*, 9425 – 9428.
57. Wang, J.; Qin, T.; Chen, T. G.; Wimmer, L.; Edwards, J. T.; Cornella, J.; Vokits, B.; Shaw, S. A.; Baran, P. S. Nickel-Catalyzed Cross Coupling of Redox-Active Esters with Boronic Acids, *Angew. Chem. Int. Ed.* **2016**, *55*, 9676-9679.
58. Horn, E. J.; Rosen, B. R.; Baran, P. S. Synthetic Organic Electrochemistry: An Enabling and Innately Sustainable Method, *ACS Cent. Sci.* **2016**, *2*, 302 – 308.

59. Yuan, C.; Jin, Y.; Wilde, N. C.; Baran, P. S. Short, Enantioselective Total Synthesis of Highly Oxidized Taxanes, *Angew. Chem. Int. Ed.* **2016**, *55*, 8280-8284.
60. Martinez L. P.; Umemiya S.; Wengryniuk S. E.; Baran P. S. 11-Step Total Synthesis of Pallambins C and D, *J. Am. Chem. Soc.* **2016**, *138*, 24, 7536-7539.
61. Quesnelle, C. A.; Gill, P.; Kim, S. H.; Chen, L.; Zhao, Y.; Fink, B. E.; Saulnier, M.; Frennesson, D.; DeMartino, M. P.; Baran, P. S.; Gavai, A.V. A Practical Approach for Enantio- and Diastereocontrol in the Synthesis of 2,3-Disubstituted Succinic Acid Esters: Synthesis of the pan-Notch Inhibitor BMS-906024, *Synlett* **2016**, *27*, A-E.
62. Qin, T.; Cornella, J.; Li, C.; Malins, L. R.; Edwards, J. T.; Kawamura, S.; Maxwell, B. D.; Eastgate, M. D.; Baran, P.S. A General Alkyl-Alkyl Cross-coupling Enabled by Redox-active Esters and Alkylzinc Reagents, *Science* **2016**, *352*, 6287, 801 – 805.
63. Horn, E. J.; Rosen, B. R.; Chen, Y.; Tang, J.; Chen, K.; Eastgate, M.D.; Baran, P. S. Scalable and Sustainable Electrochemical Allylic C-H Oxidation, *Nature* **2016**, *533*, 7601, 77 – 81.
64. Kawamura, S.; Chu, H.; Felding, J.; Baran, P. S. Nineteen-Step Total Synthesis of (+)-Phorbol, *Nature* **2016**, *532*, 90 – 93.
65. Cornella, J.; Edwards, J. T.; Qin, T.; Kawamura, S.; Wang, J.; Pan, C. M.; Gianatassio, R.; Schmidt, M.; Eastgate, M. D.; Baran, P. S. Practical Ni-catalyzed Aryl-Alkyl Cross-coupling of Secondary Redox-active Esters, *J. Am. Chem. Soc.* **2016**, *138*, 2174-2177.
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67. O'Brien, A. G.; Luca, O. R.; Baran, P. S.; Blackmond, D. G. In Situ FTIR Spectroscopic Monitoring of Electrochemically Controlled Organic Reactions in a Recycle Reactor, *React. Chem. Eng.* **2016**, *1*, 90-95.
68. Jin, Y.; Yeh, C. H.; Kuttruff, C. A.; Jorgensen, L.; Dünstl, G.; Felding, J.; Natarajan, S. R.; Baran, P. S. C-H Oxidation of Ingenanes Enables Potent and Selective Protein Kinase C Isoform Activation, *Angew. Chem. Int. Ed.* **2015**, *54*, 14044 – 14048.
69. Feng, Y.; Holte, D.; Zoller, J.; Umemiya, S.; Simke, L. R.; Baran, P. S. Total Synthesis of Verruculogen and Fumitremorgin A Enabled by Ligand-Controlled C-H Borylation, *J. Am. Chem. Soc.* **2015**, *137*, 10160 – 10163.

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Educational Short Courses

1. Celgene, Heterocyclic Chemistry, **2009 – 2010**.
2. Genentech, Heterocyclic Chemistry, **2014**.

Books

1. Ishihara, Y.; Montero, A.; Baran, P.S. *The Portable Chemist's Consultant: A Survival Guide for Discovery, Process, and Radiolabeling*. Macintosh Publishing, 2013. (electronic book) Link: <https://itunes.apple.com/us/book/portable-chemists-consultant/id618463142?ls=1>

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1. Gianatassio, R.; Ishihara, Y.; Baran, P. S. Sodium 1,1-Difluoroethanesulfinate. In *Encyclopedia of Reagents for Organic Synthesis*; Paquette, L. A., Ed.; Wiley: Chichester, 2014, DOI: 10.1002/047084289X.rn01783.
2. Nicolaou, K. C.; Montagnon, T.; Baran, P. S.; Uyanik, M.; Ishihara, K. 1,2-Benziodoxol-3(1H)-one, 1-Hydroxy, 1-oxide. In *Encyclopedia of Reagents for Organic Synthesis*; Paquette, L. A., Ed.; Wiley: Chichester, 2014, DOI: 10.1002/047084289X.rn01787.
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5. Ishihara, Y.; Gianatassio, R.; Baran, P. S. Zinc Trifluoromethanesulfinate. In *Encyclopedia of Reagents for Organic Synthesis*; Paquette, L. A., Ed.; Wiley: Chichester, 2014, DOI: 10.1002/047084289X.rn01786.
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4. Baran, P.S. Carlos F. Barbas, III (1964-2014). *Angew. Chem. Int. Ed.* **2014**, *53*, 9704 – 9705. (Obituary).
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8. Yan, M; Baran, P. S. Drug Discovery: Fighting evolution with chemical synthesis. *Nature* **2016**, *533*, 326-327.

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2. Li, J.J.; Limberakis, C.; Pflum, D.A. *Modern Organic Synthesis in the Laboratory*, Oxford Press, **2006**
3. Li, J.J. *Name Reactions*, Springer, 3rd edition, **2006**
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Named and Plenary Lectureships and Visiting Professorships

1. Closs Lecturer, University of Chicago, Chicago, IL (January, 2005)
2. Plenary Lecturer, Roche Excellence in Chemistry Symposium, Nutley, NJ (May, 2005)
3. Visiting Professor, University of Strasbourg, Alsace, France (2 lectures, July, 2005)
4. Plenary Lecturer, Amgen Young Investigators Symposium, Thousand Oaks, CA (September, 2005)
5. Plenary Lecturer, GlaxoSmithKline Chemistry Scholars Symposium, Chapel Hill, NC (September, 2005)
6. Plenary Lecturer, AstraZeneca Award & Symposium, Wilmington, DE (October, 2005)
7. Foster Lecturer, University of New York, Buffalo, NY (December, 2005)
8. Bristol-Myers Squibb Lecturer, Princeton University, Princeton, NJ (March, 2006)
9. Novartis Lecturer, Boston University, Boston, MA (March, 2006)
10. Pfizer Lecturer, Harvard University, Boston, MA (April, 2006)
11. Plenary Lecturer, CMB Cyprus '06, Cyprus (May, 2006)
12. Plenary Lecturer, Visions in Chemistry Symposium, Bridgewater, NJ (May, 2006)
13. Plenary Lecturer, Roche Symposium, University of Colorado, Denver, CO (June, 2006)
14. Plenary Lecturer, ORCHEM Conference, Bad Nauheim, Germany (September, 2006)
15. Plenary Lecturer, University of Western Ontario Symposium, Ontario, Canada (November, 2006)
16. Merck Frosst Lecturer, Merck Frosst, Montreal, Quebec, Canada (November, 2006)
17. Merck Frosst Lecturer, University of Toronto, Toronto, Ontario, Canada (November, 2006)
18. Plenary Lecturer, Hirata Memorial Lecture, Nagoya, Japan (February, 2007)

19. Abbott Lecturer, University of California, Berkeley, Berkeley, CA (March, 2007)
20. Roche Lecturer, Colorado State University, Fort Collins, CO (March, 2007)
21. National Fresenius Award Symposium, 23rd ACS Meeting, Chicago, IL (March, 2007)
22. Abbot Lecturer, University of California, Berkeley, Berkeley, CA (March, 2007)
23. Plenary Lecturer, Bürgenstock Conference on Stereochemistry, Geneva, Switzerland (April, 2007)
24. Keynote Speaker, Pfizer, Groton, CT (August, 2007)
25. Keynote Speaker, Pfizer Green Chemistry Symposiums, La Jolla, CA (December, 2007)
26. National Fresenius Award Lecture, Purdue University, West Lafayette, IN (January, 2008)
27. Plenary Lecturer, Sheffield Stereochemistry Meeting, Sheffield, United Kingdom (January, 2008)
28. Abbott Lecturer, University of Kansas, Lawrence, KS (February, 2008)
29. Plenary Lecturer, Chemistry as a Life Sciences Symposium, Newark, NJ (March, 2008)
30. Abbott Lecturer, University of Notre Dame, Notre Dame, IN (April, 2008)
31. Plenary Lecturer, Lilly Symposium, Madrid, Spain (April, 2008)
32. Rothchild Lecturer, University of Rochester, Rochester, NY (May, 2008)
33. Plenary Lecturer, BOSS Symposium, Ghent, Belgium (July, 2008)
34. LEO Pharma Lecturer, Technical University of Denmark, Copenhagen, Denmark (July, 2008)
35. Novartis Lecturer, Novartis, Emeryville, CA (August, 2008)
36. Merck Lecturer, IASOC Conference, Ischia, Naples, Italy (September, 2008)
37. Merck-Frosst Lecturer, Université de Montréal, Montreal, Quebec, Canada (October, 2008)
38. Eli Lilly Lecturer, Yale University, New Haven, CT (November, 2008)
39. Novartis Lecturer, Cambridge University, Cambridge, United Kingdom (March, 2009)
40. Plenary Lecture, Munich Synthesis Fest, University of Munich, Munich, Germany (March, 2009)
41. Plenary Lecturer, 9th Bristol Synthesis Meeting, University of Bristol, Bristol, United Kingdom (March, 2009)

42. Distinguished Lecture Series, Genomics Institute of the Novartis Research Foundation, La Jolla, CA (March, 2009)
43. Sackler Prize Symposium, Tel Aviv University, Tel Aviv, Israel (May, 2009)
44. Plenary Lecture, National Organic Symposium, Boulder, CO (June, 2009)
45. Lecture Series, ICIQ Summer School, Tarragona, Spain (July, 2009)
46. Plenary Lecturer, Princeton American Chemical Society Symposium, Princeton, NJ (September, 2009)
47. Plenary Lecturer, Johnson Symposium, Stanford University, Palo Alto, CA (October 2009)
48. Plenary Lecturer, Welch Conference, Houston, TX (October, 2009)
49. Plenary Lecturer, IKCOC-11, Kyoto, Japan (November, 2009)
50. Japan Society for the Promotion of Science Fellowship Lecturer, University of Tokyo, Tokyo, Japan (November, 2009)
51. Plenary Lecturer, Visions in Organic Chemistry, Copenhagen, Denmark (January, 2010)
52. Plenary Lecturer, Frontiers in Biomedical Research Symposium, Indian Wells, CA (February, 2010)
53. Boehringer-Ingelheim Lecturer, University of Ottawa, Ontario, Canada (March, 2010)
54. Inaugural Lecturer of the Student Selected Seminar Series, Indiana University, Bloomington, IN (March, 2010)
55. Plenary Award Lecture, 239th National Meeting of the American Chemical Society, San Francisco, CA (March, 2010)
56. Francis Clifford Phillips Lecture, University of Pittsburgh, Pittsburgh, PA (April, 2010)
57. Plenary Lecturer, Balticum Organicum Syntheticum, Riga, Latvia (June, 2010)
58. Plenary Lecturer, IUPAC's 18th International Conference on Organic Synthesis, Bergen, Norway (August, 2010)
59. Keynote Lecturer, Gregynog Meeting, Wales, United Kingdom (September, 2010)
60. Life Science Lecturer, Bayer Schering Pharma AG, Berlin and Wuppertal, Germany (September, 2010)
61. Fuson Visiting Professor, University of Illinois, Urbana, IL (October, 2010)
62. Chemistry Graduate Student Society Distinguished Speaker, University of British Columbia, Vancouver, British Columbia, Canada (October, 2010)
63. Joel C. Huff Lecturer, Harvard University, Cambridge, MA (October, 2010)
64. Bristol-Myers Squibb Lecturer in Organic Chemistry, University of Michigan, Ann Arbor, MI (December, 2010)

65. Plenary Lecturer, Indian Organic Chemistry Conference, Goa, India (December, 2010)
66. Scynexis Lecturer, The University of North Carolina at Chapel Hill, Chapel Hill, NC (March, 2011)
67. Senior Speaker, American Chemical Society Meeting, Organic Division, Anaheim, CA (March, 2011)
68. AstraZeneca Distinguished Lecturer, Université de Sherbrooke, Sherbrooke, Quebec, Canada (May, 2011)
69. Plenary Lecturer, 17th European Symposium on Organic Chemistry, Crete, Greece (July, 2011)
70. AstraZeneca École Polytechnique Lecturer, Palaiseau, France (July, 2011)
71. Plenary Award Lecturer, 23rd International Congress on Heterocyclic Chemistry, Glasgow, Scotland (August, 2011)
72. Plenary Lecturer, 52nd American Society of Pharmacology Meeting, San Diego, CA (August, 2011)
73. Plenary Lecturer, 14th Brazilian Meeting on Organic Synthesis, Brasília, Brazil (September, 2011)
74. Plenary Lecturer, Symposium on Advanced Organic Synthesis and Catalysis, Hefei, China (October, 2011)
75. Keynote Lecturer, Vertex Day, University of California, Irvine, Irvine, CA (October, 2011)
76. Plenary Lecturer, 21st Symposium on Optically Active Compounds, Tokyo, Japan (November, 2011)
77. Plenary Lecturer, 13th Florida Heterocyclic and Synthetic Conference, Gainesville, FL (March, 2012)
78. Lecturer for the Frontiers in Chemistry Lecture Series, Case Western Reserve University, Cleveland, OH (March, 2012)
79. Lecturer, 2012 Medicinal Chemistry Colloquium Series, Gilead, Foster City, CA (March, 2012)
80. Lecturer for the Frontiers in Chemical Research Lecture Series, Texas A&M University, College Station, TX (April, 2012)
81. Plenary Lecturer, French American Chemical Society XIV Meeting, Nantasket, MA (June, 2012)
82. Plenary Lecturer, 24th Organic Chemistry Biannual Meeting of the Spanish Royal Chemical Society, San Sebastián, Spain (July, 2012)
83. Plenary Lecturer, RSEQ Organic Chemistry Symposium, Santiago de Compostela, Spain (July, 2012)
84. Plenary Lecturer, Gordon Research Conference, Organic Reaction and Processes, Smithfield, RI (July, 2012)
85. Plenary Lecturer, National American Chemical Society Meeting, Philadelphia, PA (August, 2012)
86. Plenary Lecturer, The 6th Takeda Science Foundation Symposium on Pharma Sciences, Osaka, Japan (September, 2012)
87. Howard Memorial Lecturer, Sydney University, University of New South Wales, Sydney, Australia (September, 2012)

88. Plenary Lecturer, 10th Lilly Research Awards for Graduate Students, Madrid, Spain (September, 2012)
89. Student Invited Speaker, Virginia Polytechnic Institute and State University, Blacksburg, VA (November, 2012)
90. Plenary Lecturer, Creativity Award Symposium for K.C. Nicolaou, NJ (November, 2012)
91. Plenary Lecturer, Novartis Chemical Sciences Lectureship, UT Southwestern Medical Center, Dallas, TX (December, 2012)
92. Student Invited Speaker, University of Houston, Houston, TX (December, 2012)
93. Lilly Lecturer 2013, Imperial College London, London, United Kingdom (January, 2013)
94. Samuel M. McElvian Academic Lecturer in Organic Chemistry, University of Wisconsin, Madison, WI (January, 2013)
95. Plenary Lecturer, E.B. Hershberg Award Symposium to honor Bruce Maryanoff, New Orleans, LA (April, 2013)
96. Plenary Lecturer, Bristol-Myers Squibb Symposium, Princeton, NJ (April, 2013)
97. Plenary Lecturer, Sackler Symposium, Tel Aviv, Israel (June, 2013)
98. Keynote Lecturer, Tetrahedron Conference, Vienna, Italy (June, 2013)
99. Plenary Lecturer, Synthesis in Organic Chemistry Symposium, University of Oxford, Oxford, United Kingdom (July, 2013)
100. Student Invited Organic Seminar Speaker, Harvard University, Cambridge, MA (August, 2013)
101. Plenary Lecturer, Princeton University, Princeton, NJ (September, 2013)
102. Plenary Lecturer, Pharmaron Symposium, Beijing, China (September, 2013)
103. Bristol-Myers Squibb Lecturer, Columbia University, New York, NY (January, 2014)
104. George Büchi Visiting Lecturer in Organic Chemistry for 2013-2014, Massachusetts Institute of Technology, Cambridge, MA (February, 2014)
105. Organic/Bristol-Myers Squibb Lecturer, U.C. Berkeley, Berkeley, CA (April, 2014)
106. Plenary Speaker, Institute of Chemical Research of Catalonia, Tarragona, Spain (July, 2014)
107. Plenary Lecturer, 2nd International Symposium on Natural Product Synthesis and Process Methods for Drug Manufacture, Nanjing University, China (September, 2014)
108. Mukaiyama Award Lecturer, The Committee of The Society of Synthetic Organic Chemistry, Fukuoka, Kyusyu, Japan (September, 2014)

109. 2014 Aldrich-UCLA Lecturer, Organic Colloquium, University of California, Los Angeles, Los Angeles, CA (October, 2014)
110. Plenary Lecturer, AbbVie Global Synthesis Summit, North Chicago, IL (October, 2014)
111. Plenary Speaker, Pauling Medal Award Symposium, Bellingham, WA (October, 2014)
112. The Ferrier Lecturer, Victoria University, Wellington, New Zealand (December, 2014)
113. Plenary Speaker, Royal Australian Chemical Institute National Congress, Adelaide, Australia (December, 2014)
114. 2015 5-College Lectures in Chemistry, Smith College, Northampton, MA (March, 2015)
115. Paul Gassman Memorial Seminar Speaker, Canisius College, Buffalo, NY (March, 2015)
116. Plenary Speaker, 32nd Annual HC Brown Lectures, Purdue University, West Lafayette, IN (April, 2015)
117. Morris S. Kharasch Visiting Professor, University of Chicago, Chicago, IL (April, 2015)
118. Bristol-Myers Squibb Lecturer, University of Pennsylvania, Philadelphia, PA (May, 2015)
119. College of Arts and Science Alumni Distinguished Service Award Recipient at the CAS Baccalaureate Graduation Ceremony, New York University, New York, NY (May, 2015)
120. Plenary Speaker, 15th Annual Symposium on Molecular Discovery, Boston University, Boston, MA (June, 2015)
121. Plenary Speaker, Yale University, New Haven, CT (June, 2015)
122. Plenary Speaker, Professor Stephen L. Buchwald's 60th Birthday, Massachusetts Institute of Technology, Cambridge, MA (August, 2015)
123. Plenary Speaker, International Society of Heterocyclic Chemistry Congress, Santa Barbara, CA (August, 2015)
124. Plenary Speaker, C&EN Virtual Symposium, Advances in Drug Discovery & Development, Virtual (September, 2015)
125. Plenary Speaker, 2015 Bristol-Myers Squibb Lecturer, Boston College, Chestnut Hill, MA (October, 2015)
126. Plenary Speaker, World ACD, San Diego, CA (October, 2015)
127. Bohlmann Lecturer, Institut für Chemie at the Technische Universität Berlin, Berlin, Germany (November, 2015)
128. Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis by a Young Investigator, Society's 251st ACS National Meeting, San Diego, CA (March, 2016)
129. Actelion Sandmeyer Lecturer, Actelion Pharmaceuticals Ltd., Allschwil, Switzerland (November, 2016)

130. EROS Reagent of the Year Lecturer, University of Basel, Basel, Switzerland (November, 2016)
131. Emanuel Merck Lectureship, TU Darmstadt, Darmstadt, Germany (May, 2017)
132. Keynote Speaker, Gordon Research Conference, New London, NH (August, 2017)
133. Plenary Speaker, IKA Works, Inc., ACS 254th National Meeting, Washington, D.C. (August, 2017)
134. Keynote Speaker, Pfizer, Groton, CT (October, 2017)
135. Keynote Speaker, Lilly Grantee Symposium, Indianapolis, IN (March, 2018)
136. Keynote Speaker, Gordon Research Conference, Newport, RI (June, 2018)
137. Tetrahedron Chair Lectureship, BOSS XVI, Brussels, Belgium "*Lecture: Studies in Natural Product Synthesis*" (July 2018)
138. Tetrahedron Chair Lectureship, BOSS XVI, Brussels, Belgium "*Lecture: Translational Chemistry - part 1*" (July, 2018)
139. Tetrahedron Chair Lectureship, BOSS XVI, Brussels, Belgium "*Lecture: Translational Chemistry - Part 2*" (July, 2018)
140. Tetrahedron Chair Lectureship, BOSS XVI, Brussels, Belgium "*Lecture: Electrifying Synthesis*" (July, 2018)
141. Keynote Speaker, The 44th Future Lecture Series, Beijing, China (September, 2018)
142. Keynote Speaker, 14th Winter Conference on Medicinal and Bioorganic Chemistry, Steamboat Springs, CO (January, 2019)
143. Inaugural Lecturer, 21st Annual Perspectives on Science, Point Loma Nazarene University, San Diego, CA (February, 2019)
143. Inhoffen Lecturer, Braunschweig, Germany (April, 2019)
144. Plenary Speaker, 9th Pacific Symposium on Radical Chemistry, Pacific Grove, CA (June, 2019)
145. Plenary Speaker, 20th European Symposium on Organic Chemistry, Vienna, Austria (July, 2019)
146. Keynote Speaker, Gordon Research Conference, Andover, NH (August, 2019)
147. Keynote Speaker, Karle Symposium, University of Michigan, Ann Arbor, MI (August, 2019)

Research Presentations

1. Pfizer, St. Louis, MO (March, 2004)
2. Gordon Research Conference, Heterocyclic Compounds, Newport, RI (July, 2004)
3. San Diego Section of American Chemical Society, La Jolla, CA (August, 2004)

4. Pfizer, Ann Arbor, MI (September, 2004)
5. University of Michigan, Ann Arbor, MI (September, 2004)
6. Microwave Assisted Organic Synthesis Symposium, La Jolla, CA (October, 2004)
7. University of California, Los Angeles, Los Angeles, CA (November, 2004)
8. DuPont, Wilmington, DE (November, 2004)
9. Abbott Laboratories, Chicago, IL (February, 2005)
10. University of California, Santa Cruz, Santa Cruz, CA (March, 2005)
11. Brandeis University, Boston, MA (April, 2005)
12. Millenium Pharmaceuticals, Cambridge, MA (April, 2005)
13. Novartis, Cambridge, MA (April, 2005)
14. Eisai Pharmaceuticals, Cambridge, MA (April, 2005)
15. University of California, Los Angeles, Los Angeles, CA (May, 2005)
16. Schuster Symposium, New York University, New York, NY (June, 2005)
17. National Science Foundation Synthesis Workshop, Lake Arrowhead, CA (June, 2005)
18. Eli Lilly and Co., Indianapolis, IN (July, 2005)
19. International Conference Heterocyclic Chemistry Lecture, Palermo, Italy (July, 2005)
20. GlaxoSmithKline, Philadelphia, PA (August, 2005)
21. Bristol-Myers Squibb Pharmaceutical Research Institute, Lawrenceville, NJ (September, 2005)
22. Bristol-Myers Squibb Pharmaceutical Research Institute, Hopewell, NJ (September, 2005)
23. Kyoto Pharmaceutical University, Kyoto, Japan (September, 2005)
24. Tokyo Institute of Technology, Tokyo, Japan (September, 2005)
25. Tokyo University of Science, Tokyo, Japan (September, 2005)
26. Pennsylvania State University, State College, PA (November, 2005)

27. Hoffmann La Roche, Palo Alto, CA (December, 2005)
28. University of Wisconsin, Madison, WI (January, 2006)
29. Bristol-Myers Squibb, Process Research, East Brunswick, NJ (January, 2006)
30. University of California, Santa Barbara, Santa Barbara, CA (February, 2006)
31. University of Illinois, Urbana, IL (February, 2006)
32. University of Texas, Dallas, TX (February, 2006)
33. Lexicon Pharmaceuticals, Princeton, NJ (March, 2006)
34. Merck Research Laboratories, Whitehouse Station, NJ (March, 2006)
35. Pfizer La Jolla, San Diego, CA (March, 2006)
36. University of Alabama, Tuscaloosa, AL (March, 2006)
37. University of Utah, Salt Lake City, UT (April, 2006)
38. Brigham Young University, Provo, UT (April, 2006)
39. Searle Scholars Annual Meeting, Chicago, IL (April, 2006)
40. Cytokinetics, Inc., San Francisco, CA (April, 2006)
41. Genentech, San Francisco, CA (April, 2006)
42. Stanford University, Palo Alto, CA (April, 2006)
43. Scios Pharmaceuticals, San Francisco, CA (April, 2006)
44. Gilead, San Francisco, CA (April, 2006)
45. University of California, Irvine, Irvine, CA (April, 2006)
46. Schering-Plough Research Institute, Kenilwood, NJ (May, 2006)
47. Scripps Institute of Oceanography, Fenical Symposium, San Diego, CA (June, 2006)
48. Gordon Research Conference, Newport, RI (July, 2006)

49. Tokushima Pre-symposium – Natural Product Chemistry, Tokushima, Japan (July, 2006)
50. IUPAC International Conference on Biodiversity and Natural Products, Kyoto, Japan (July, 2006)
51. IUPAC Post-symposium, Sendai, Japan (July, 2006)
52. Helsinki University of Technology, Espoo, Finland (September, 2006)
53. University of Marburg, Marburg, Germany (September, 2006)
54. Max-Planck-Institute, Mulheim/Ruhr, Germany (September, 2006)
55. Schering Berlin, Berlin, Germany (September, 2006)
56. Johnson & Johnson, La Jolla, CA (December, 2006)
57. Eli Lilly, Madrid, Spain (January, 2007)
58. Columbia University, New York, NY (February, 2007)
59. Texas A&M University, College Station, TX (March, 2007)
60. Massachusetts Institute of Technology, Cambridge, MA (March, 2007)
61. 1st Annual Chemistry Graduate Student Seminar, University of Connecticut, Storrs, CT (March, 2007)
62. University of Missouri, Columbia, MI (April, 2007)
63. Amgen, Cambridge, MA (April, 2007)
64. Boston College, Boston, MA (May, 2007)
65. Sepracor, Marlborough, MA (May, 2007)
66. Bristol-Myers Squibb Symposium, New Brunswick, NJ (May, 2007)
67. Heterocyclic Compounds Gordon Research Conference, Newport, RI (June, 2007)
68. GlaxoSmithKline, Madrid, Spain (July, 2007)
69. Natural Products Gordon Research Conference, Tilton, NH (July, 2007)
70. Boston American Chemical Society Symposium, Joulie 80th Birthday Celebration, Boston, MA (August, 2007)
71. Beckman Young Investigator Symposium, Irvine, CA (August, 2007)

72. CSS Symposium, Wyeth, Collegeville, PA (September, 2007)
73. Johnson & Johnson PRD, Spring House, PA (October, 2007)
74. Novartis, Cambridge, MA (October, 2007)
75. POCC, University of Pennsylvania, Philadelphia, PA (October, 2007)
76. DuPont, Newark, DE (October, 2007)
77. Schering-Plough, Cambridge, MA (October, 2007)
78. California Institute of Technology, Organic Chemistry Seminar, Pasadena, CA (November, 2007)
79. Sanofi-Aventis, Frankfurt, Germany (January, 2008)
80. Novartis, Basel, Switzerland (January, 2008)
81. Novartis, Vienna, Austria (January, 2008)
82. Novartis, Horsham, United Kingdom (January, 2008)
83. GlaxoSmithKline, Harlow, United Kingdom (January, 2008)
84. AstraZeneca R&D Charnwood, Loughborough, UK (January, 2008)
85. Instituto de Química Orgánica General, Madrid, Spain (January, 2008)
86. 13th Biennial Eli Lilly Grantee Symposium, Indianapolis, IN (March, 2008)
87. University of Southern California, Los Angeles, CA (March, 2008)
88. Searle Scholars Annual Meeting, Chicago, IL (April, 2008)
89. Memorial Sloan-Kettering Cancer Center, New York, NY (May, 2008)
90. Bristol-Myers Squibb Symposium, New Brunswick, NJ (May, 2008)
91. Merck, Boston, MA (May, 2008)
92. Pfizer, Sandwich, Kent, United Kingdom (July, 2008)
93. Merck, West Point, PA (August, 2008)
94. Amgen, San Francisco, CA (August, 2008)

95. Exelixis, San Diego, CA (September, 2008)
96. IRBM, Merck, Rome, Italy (September, 2008)
97. AstraZeneca, Boston, MA (October, 2008)
98. Takeda, San Diego, CA (November, 2008)
99. New York University, New York, NY (January, 2009)
100. Genomics Institute of the Novartis Research Foundation, La Jolla, CA (March, 2009)
101. Université Pierre et Marie Curie, Paris, France (March, 2009)
102. Lecture Series, Swiss Federal Institute of Technology, Lausanne, Switzerland (April, 2009)
103. Lecture Series, Swiss Federal Institute of Technology, Basel, Switzerland (April, 2009)
104. Lecture Series, Swiss Federal Institute of Technology, Geneva, Switzerland (April, 2009)
105. Vitae Pharmaceuticals, Fort Washington, PA (July, 2009)
106. Beckman Young Investigators Symposium, Irvine, CA (August, 2009)
107. Boehringer-Ingelheim Pharmaceuticals, Ridgefield, CT (October, 2009)
108. Northwestern University, Evanston, IL (February, 2010)
109. University of Minnesota, Minneapolis, MN (March, 2010)
110. Boehringer-Ingelheim, Laval, Quebec, Canada (March, 2010)
111. GlaxoSmithKline, Upper Merion, PA (March, 2010)
112. Heterocyclic Compounds Gordon Research Conference, Newport, RI (June, 2010)
113. Celgene Research, San Diego, CA (July, 2010)
114. Stereochemistry Gordon Research Conference, Newport, RI (August, 2010)
115. Bristol-Myers Squibb, Wallingford, CT (September, 2010)
116. Syngenta, Jealott's Hill, Berkshire, United Kingdom (September, 2010)
117. UCB Pharma, Slough, United Kingdom (September, 2010)

118. Firmenich, Geneva, Switzerland (September, 2010)
119. The University of Delaware, Newark, DE (October, 2010)
120. The University of Texas at Austin, Austin, TX (November, 2010)
121. L.S. Skaggs Biomedical Symposium, La Jolla, CA (November, 2010)
122. AstraZeneca, Mölndal, Sweden (January, 2011)
123. Pfizer, Cambridge, MA (May, 2011)
124. Abbott Laboratories, Abbott Park, IL (June, 2011)
125. Vertex Pharmaceuticals, San Diego, CA (June, 2011)
126. PA Biotech Center, Doylestown, PA (June, 2011)
127. Eisai, Boston, MA (August, 2011)
128. GlaxoSmithKline Scholar Symposium, Raleigh, NC (September, 2011)
129. The Scripps Research Institute, Scripps Florida, Jupiter, FL (September, 2011)
130. SIOC, Shanghai, China (October, 2011)
131. SIMM, Shanghai, China (October, 2011)
132. WUXI, Shanghai, China (October, 2011)
133. Novartis, Shanghai, China (October, 2011)
134. Albany Molecular Research Inc. Albany, NY (November, 2011)
135. Dow AgroSciences, Indianapolis, IN (March, 2012)
136. Merck Research Laboratories, Boston, MA (March, 2012)
137. Pfizer, San Diego, CA (May, 2012)
138. Millennium Pharmaceuticals, Boston, MA (June, 2012)
139. Broad Institute of MIT and Harvard, Cambridge, MA (July, 2012)
140. Merck Serono, Darmstadt, Germany (August, 2012)

141. Sanofi-Aventis, Frankfurt, Germany (August, 20102)
142. AsymChem Fall Symposium, Tianjin, China (October, 2012)
143. Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China (October, 2012)
144. Jiaotong University, Shanghai, China (October, 2012)
145. 5th International Forum on Homogeneous Catalysis, SIOC, Shanghai, China (October, 2012)
146. 1st International Symposium of C-H Activation, Peking University, Beijing, China (October, 2012)
147. University of Chicago, Department Colloquium, Chicago, IL (December, 2012)
148. Dart NeuroScience, San Diego, CA (April, 2013)
149. 23rd Annual Meeting on Structural Biology, San Jose del Cabo, Mexico (May, 2013)
150. Merck, Rahway, NJ (July, 2013)
151. AstraZeneca, Alderley Park, UK (July, 2013)
152. GlaxoSmithKline, Stevenage, UK (July, 2013)
153. Eisai, United Kingdom (July, 2013)
154. Academia Sinica, Taiwan, China (September, 2013)
155. Asymchem Inc., Tianjin, China (September, 2013)
156. Boehringer-Ingelheim, Ridgefield, CT (October, 2013)
157. LEO Ingenol Science Day, LEO Pharma A/S, Ballerup, Denmark (February, 2014)
158. Celgene, San Diego, CA (March, 2014)
159. Marine Natural Products Gordon Research Conference, Ventura, CA (March, 2014)
160. "Advances in C-H Functionalization" Symposium, American Chemical Society National Meeting, Dallas, TX (March, 2014)
161. "MEDI Awards" Symposium, American Chemical Society National Meeting, Dallas, TX (March, 2014)
162. "Award Symposium to Honor Amir Hoveyda," American Chemical Society National Meeting, Dallas, TX (March, 2014)
163. Jewish Federation of San Diego FED Talks, San Diego, CA (March, 2014)

164. Bristol-Myers Squibb Symposium, Princeton, NJ (May, 2014)
165. Johnson & Johnson, San Diego, CA (June, 2014)
166. AstraZeneca, Waltham, MA (October, 2014)
167. Hewitt Foundation Symposium, San Diego, CA (January, 2015)
168. GlaxoSmithKline, King of Prussia, PA (March, 2015)
169. Temple University, Philadelphia, PA (May, 2015)
170. Teva Global Research and Development, West Chester, PA (May, 2015)
171. Gordon Research Conference, New London, NH (June, 2015)
172. San Diego Bio-Pharma Conference, San Diego, CA (June, 2015)
173. AstraZeneca, Waltham, MA (August, 2015)
174. Teva Pharmaceutical Scholars Symposium, Boston, MA (August, 2015)
175. Kevli Symposium, Boston, MA (August, 2015)
176. American Chemical Society, Boston, MA (August, 2015)
177. International Society of Heterocyclic Chemistry, Santa Barbara, CA (August, 2015)
178. Bristol-Myers Squibb Symposium, Princeton, NJ (September, 2015)
179. Northern Section of the ACS Process Symposium, Boston Harbor, MA (October, 2015)
180. Asymchem Inc., Tianjin, China (October, 2015)
181. SIOC, Shanghai, China (October, 2015)
182. WuHan University, WuHan, China (October, 2015)
183. Harvard University, Cambridge, MA (November, 2015)
184. Pacificchem Symposium on Strategies and Tactics in Complex Molecule Synthesis, Honolulu, HI (December, 2015)
185. C-H Functionalization Symposium, Pacificchem, Honolulu, HI (December, 2015)
186. Symposium on Innovative Strategies for the Synthesis of Nitrogen Heterocycles, Honolulu, HI (December, 2015)

187. Genentech, South San Francisco, CA (February, 2016)
188. Emory University, Novartis Lecture, Atlanta, GA (April, 2016)
189. Gilead Sciences, Inc., San Francisco, CA (August, 2016)
190. Inception Sciences, San Diego, CA (August, 2016)
191. Asymchem, Inc., Tianjin, China (October, 2016)
192. University of Basel, Basel, Switzerland (November, 2016)
193. Binghamton University, Binghamton, NY (December, 2016)
194. Student Invited Speaker, Duke University, Durham, NC (April, 2017)
195. Eli Lilly, Madrid, Spain (July, 2017)
196. Student Invited Speaker, 254th ACS National Meeting, Graduate Symposium (August, 2017)
197. Alkermes, Waltham, MA (August, 2017)
198. Blueprint Medicines, Cambridge, MA (August, 2017)
199. Celgene, Inc., Summit, NJ (August, 2017)
200. Asymchem, Inc., Tianjin, China (September, 2017)
201. Nankai University, Tianjin, China (September, 2017)
202. Yale University, New Haven, CT (October, 2017)
203. University of Delaware, Wilmington, DE (October, 2017)
204. Stockholm University, Stockholm, Sweden (January, 2018)
205. LEO Pharma, Copenhagen, Denmark (January, 2018)
206. H. Lundbeck A/S, Copenhagen, Denmark (January, 2018)
207. The Torkil Holm Symposium, Copenhagen, Denmark (January, 2018)
208. 255th ACS National Meeting, E.J Corey Symposium, New Orleans, LA (March, 2018)
209. Cornell University, Baker Symposium, Ithaca, NY (May, 2018)

210. Electrochemical Society, Seattle, WA (May, 2018)
211. University of CA, Los Angeles, (June, 2018)
212. Merck, Rahway, NJ (June, 2018)
213. Novartis, San Diego, CA (June, 2018)
214. UCB Bio Pharma, Brussels, Belgium (July, 2018)
215. Syngenta, Jealott's Hill, UK (July, 2018)
216. GlaxoSmithKline, Stevenage, UK (July, 2018)
217. HitGen Ltd., Chengdu, China (September, 2018)
218. YingDe Lecture, Peking University, Beijing, China (September, 2018)
219. Asymchem, Inc., Tianjin, China (September, 2018)
220. Vertex, San Diego, CA (October, 2018)
221. 257th ACS National Meeting, Derek Horton Symposium, Orlando, FL (March, 2019)
222. 257th ACS National Meeting, Innovative Green Chemistry, Orlando, FL (March, 2019)
223. Beilstein Electrochemistry Symposium, Mainz, Germany (April, 2019)
224. Gordon Research Conference, Newport, RI (June, 2019)
225. IUPAC World Chemistry Congress, Paris (July, 2019)
226. 257th ACS National Meeting, Strained Ring Symposium, San Diego, CA (August, 2019)
227. 257th ACS National Meeting, Smissman Award, San Diego, CA (August, 2019)
228. Colorado State University, Williams Distinguished Lectureship, Fort Collins, CO (October, 2019)
229. IKA Works, EChem Webinar (April, 2020)
230. Cambridge University, Virtual Webinar (May , 2020)