

Scott A. Snyder, Ph.D.
Curriculum Vitae – DOB: 12/14/1976

Professional Experience

Current Appointment: The University of Chicago
Department of Chemistry
5735 South Ellis Avenue
Searle Chemistry Laboratory
Chicago, IL 60615

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Professor of Chemistry, September 2015–present
Associate Chair, July 2018–present
Faculty Director of Biotechnology Professional Education, December 2018–present

Past Appointments: Columbia University, Department of Chemistry
Associate Professor of Chemistry, untenured, July 2011–August 2013
Assistant Professor of Chemistry, August 2006 – June 2011

The Scripps Research Institute, Department of Chemistry
Associate Professor of Chemistry, tenured, Sept. 2013–August 2015

Education

2004 – 2006 NIH Postdoctoral Associate
Advisor: Professor E. J. Corey
Harvard University, Cambridge, MA

1999 – 2004 NSF, Pfizer, and Bristol-Myers Squibb Doctoral Fellow in Chemistry
Advisor: Professor K. C. Nicolaou
The Scripps Research Institute, La Jolla, CA

1995 – 1999 B. A. with highest honors in Chemistry, *Summa Cum Laude*, valedictorian
Advisor: Professor J. Hodge Markgraf
Williams College, Williamstown, MA

Awards (Independent Career)

- Visiting Professor, IIT–Bombay, 2019
- Swiss Chemical Society Lectureship, 2018
- Llewellyn John and Harriet Manchester Quantrell Award for Excellence in Undergraduate Teaching, University of Chicago, 2017
- The Chemical Record Lectureship, 2013
- Amgen Young Investigator Award, 2012
- Arthur C. Cope Scholar Award from the American Chemical Society, 2011
- DuPont Young Professor Award, 2011
- Alfred P. Sloan Foundation Research Fellowship, 2010
- Bristol-Myers Squibb Unrestricted Grant in Synthetic Organic Chemistry, 2010
- Eli Lilly Grantee Award, 2009

- Japan Society for the Promotion of Science Fellowship, 2009
- Cottrell Scholar Award from the Research Corporation for Science Advancement, 2009
- Columbia University Presidential Teaching Award, 2009
- NSF CAREER Award, 2009
- Synthesis/Synlett Journal Award, 2008
- Camille and Henry Dreyfus New Faculty Award, 2006
- Eli Lilly New Faculty Award, 2006
- Amgen New Faculty Award, 2006

Awards (High School, Undergraduate, and Pre- and Postdoctoral)

- National Institutes of Health Postdoctoral Fellowship, 2004
- Bristol-Myers Squibb Graduate Fellowship in Synthetic Organic Chemistry, 2003
- Lesly Starr Shelton Award for Excellence in Chemistry Graduate Studies at TSRI, 2003
- Graduate fellowship from Pfizer, Inc., 2002
- Best Talk Prize at the annual TSRI graduate retreat, 2002
- National Science Foundation Predoctoral Fellowship, 1999
- Elected to Associate Membership in Sigma Xi, 1999
- John Sabin Adriance Prize at Williams College, 1999
- Frank C. Goodrich Prize at Williams College, 1999
- Barry M. Goldwater Science and Engineering Fellowship, 1998
- Elected to the Williams College Chapter of Phi Beta Kappa, 1998
- Pfizer Undergraduate Summer Research Fellowship in Synthetic Organic Chemistry, 1997
- Harold H. Warren Prize at Williams College, 1996
- Semifinalist in the Westinghouse Science Talent Search, 1995
- National Finalist in the United States Chemistry Olympiad, 1995

Research Publications (in reverse chronological order)

71. C. A. Taylor, Y.-A. Zhang, S. A. Snyder. The Enantioselective Total Synthesis of Laurendecumallene B. *Chem. Sci.* **2020**, in revision.
70. C. J. F. Cole, L. Fuentes, S. A. Snyder. Asymmetric Pyrone Diels–Alder Reactions Enabled by Dienamine Catalysis, *Chem. Sci.* **2020**, <https://doi.org/10/1039/C9SC05738B>.
69. H. Yi, P. Hu, S. A. Snyder. Development and Elucidation of a Pd-Based Cyclization–Oxygenation Sequence for Natural Product Synthesis. *Angew. Chem. Int. Ed.* **2019**, *58*, <https://doi.org/10.1002/anie.201913730>
68. S. Ozog, N. D. timberlake, K. Hermann, O. Garijo, K. G. Haworth, G. Shi, C. M. Glinkerman, L. E. Schefter, S. D’Souza, E. Simpson, G. Sghia-Hughes, R. L. Carillo, D. L. Boger, H.-P. Kiem, I. Slukvin, B. Y. Ryu, B. P. Sorrentino, J. E. Adair, S. A. Snyder, A. A. Compton, B. E. Torbett. Resveratrol Trimer Enhances Gene Delivery to Hematopoietic Stem Cells by Reducing Antiviral Restriction at Endosomes. *Blood* **2019**, *134*, 1298.
67. J. M. Eagan, K. S. Kanyiva, M. Hori, S. A. Snyder. Total Synthesis, Reactivity, and Structural Clarification of Lindenatriene. *Tetrahedron* **2019**, *75*, 3145.
 - Invited submission in honor of Prof. Ryan Shenvi’s TYIA Award
66. Y.-A. Zhang, N. Yaw, S. A. Snyder. A General Synthetic Approach for the Laurencia Family of Natural Products Empowered by a Potentially Biomimetic Ring Expansion. *J. Am. Chem. Soc.* **2019**, *141*, 7776.
65. Z. Zhou, A. X. Gao, S. A. Snyder. The Total Synthesis of (+)-Arborisidine. *J. Am. Chem. Soc.* **2019**, *141*, 7715.

64. P. Hu, H. M. Chi, K. C. DeBacker, X. Gong, J. H. Keim, I. T. Hsu, S. A. Snyder. Quaternary Centre-Guided Synthesis of Polycyclic Terpenes. *Nature* **2019**, 569, 703.
63. M. Yang, F. Yin, H. Fujino, S. A. Snyder. The Total Synthesis of Chalcitrin. *J. Am. Chem. Soc.* **2019**, 141, 4515.
62. V. G. Lisnyak, T. Lynch-Colameta, S. A. Snyder. Mannich-type Reactions of Cyclic Nitrones: Effective Methods for the Enantioselective Synthesis of Piperidine-containing Alkaloids. *Angew. Chem. Int. Ed.* **2018**, 57, 15162.
 - Featured in *Synfacts* **2018**, 1305.
61. C. J. F. Cole, H. M. Chi, K. C. DeBacker, S. A. Snyder. Synthesis of Enhanced, Isolable Disulfanium Salts and their Application to Thiiranium-Promoted Polyene Cyclizations. *Synthesis* **2018**, 50, 4351.
 - Invited submission in honor of Prof. Scott E. Denmark
60. P. Gan, J. Pitzen, P. Qu, S. A. Snyder. Total Synthesis of the Caged Indole Alkaloid Arboridinine Enabled by *Aza*-Prins and Metal-Mediated Cyclizations. *J. Am. Chem. Soc.* **2018**, 140, 919.
 - Featured in *Synfacts* **2018**, 339.
59. Q. Ye, P. Qu, S. A. Snyder. Total Syntheses of Scaparovins B, C, and D Enabled by a Key C–H Functionalization. *J. Am. Chem. Soc.* **2017**, 139, 18428.
 - Featured in *Synfacts* **2018**, 227.
58. F. Schevenels, M. Shen, S. A. Snyder. Isolable and Readily Handled Halophosphonium Pre-reagents for Hydro- and Deuteriohalogenation. *J. Am. Chem. Soc.* **2017**, 139, 6329.
57. P. Hu, S. A. Snyder. Enantiospecific Total Synthesis of the Highly Strained (–)-Presilphiperfolan-8-ol via a Pd-Catalyzed Tandem Cyclization. *J. Am. Chem. Soc.* **2017**, 139, 5007.
 - Featured in *Synfacts* **2017**, 564.
56. M. W. Smith, Z. Zhou, A. X. Gao, T. Shimbayashi, S. A. Snyder. A 7-Step Formal Asymmetric Total Synthesis of Strictamine via an Asymmetric Propargylation and Metal-Mediated Cyclization. *Org. Lett.* **2017**, 19, 1004.
55. F. T. Schevenels, M. Shen, S. A. Snyder. Alkyldisulfanium Salts: Isolable, Electrophilic Sulfur Reagents Competent for Polyene Cyclizations. *Org. Lett.* **2017**, 19, 2.
54. M. Shen, M. Kretschmer, Z. G. Brill, S. A. Snyder. Strategies for the Total Synthesis of Diverse Bromo-Chamigrenes. *Org. Lett.* **2016**, 18, 5018.
53. T. L. Rosenberry, P. K. Martin, A. J. Nix, S. A. Wildman, J. Cheung, S. A. Snyder, R. X. Tan. Hopeahainol A Binds Reversibly at the Acetylcholinesterase (AChE) Peripheral Site and Inhibits Enzyme Activity with a Novel Higher Order Concentration Dependence. *Chemico-Biological Interactions*, **2016**, in press, doi/10.1016/j.cbi.2016.05.032.
52. A. X. Gao, T. Hamada, S. A. Snyder. The Enantioselective Total Synthesis of Exochomine. *Angew. Chem. Int. Ed.* **2016**, 55, 10301.
 - Featured in *Synfacts* **2016**, 1002.
51. P. Gan, M. W. Smith, N. R. Braffman, S. A. Snyder. Pyrone Diels–Alder Routes to Indolines and Hydroindolines: Syntheses of Gracilamine, Mesembrine, and □-Mesembrenone. *Angew. Chem. Int. Ed.* **2016**, 55, 3625.

50. J. M. Eagan, M. Hori, J. Wu, K. S. Kanyiva, S. A. Snyder. Synthesis and Applications of *iso*-Hajos–Parrish Ketones. *Angew. Chem. Int. Ed.* **2015**, *54*, 7842.
49. A. M. Levinson, P. J. Milner, S. A. Snyder. Studies in Selective 6-Membered Bromoether Formation via Bromonium and Thiiranium-induced Cyclizations. *Tetrahedron Lett.* **2015**, *56*, 3553.
 - Invited submission in honor of Prof. Harry Wasserman
48. T. C. Sherwood, A. H. Trotta, S. A. Snyder. A Strategy for Complex Dimer Formation When Biomimicry Fails: Synthesis of 10 Coccinellid Alkaloids. *J. Am. Chem. Soc.* **2014**, *136*, 9743.
 - Covered in *Chemistry World* magazine
 - Featured in *Synfacts* **2014**, 903.
47. N. E. Wright, A. M. ElSohly, S. A. Snyder. Syntheses of Cyclotriveratrylene Analogues and Their Long Elusive Triketone Congeners. *Org. Lett.* **2014**, *16*, 3644.
46. T. H. Jepsen, S. B. Thomas, Y. Lin, C. I. Stathakis, I. de Miguel, S. A. Snyder. Harnessing Quinone Methides: Total Synthesis of (±)-Vaticanol A. *Angew. Chem. Int. Ed.* **2014**, *53*, 6747.
 - Selected by the editors as a Hot Paper
 - Featured in *Synfacts* **2014**, 784.
45. N. E. Wright, S. A. Snyder. 9-Membered Carbocycle Formation: Development of Distinct Friedel–Crafts Cyclizations and Application to a Scalable Total Synthesis of (±)-Caraphenol A. *Angew. Chem. Int. Ed.* **2014**, *53*, 3409.
 - Featured in *Synfacts* **2014**, 448.
44. D. R. Griffith, L. Botta, T. G. St. Denis, S. A. Snyder. Explorations of Unique Caffeic Acid Derivatives: Total Syntheses of Rufescenolide, Yunnaneic Acids C and D, and Studies toward Yunnaneic Acids A and B. *J. Org. Chem.* **2014**, *79*, 88.
43. M. W. Smith, S. A. Snyder. A Concise Synthesis of (+)-Scholarisine A Empowered by a Unique C-H Arylation. *J. Am. Chem. Soc.* **2013**, *135*, 12964.
 - One of the top 10 most downloaded papers for September 2013
 - Featured in *Synfacts* **2013**, 1143; selected by editors as “Synfact of the Month”
 - Covered in *Chemistry World* magazine
42. A. P. Brucks, D. S. Treitler, S.-A. Liu, S. A. Snyder. Explorations into the Potential of Chiral Sulfonium Reagent to Effect Asymmetric Halonium Additions to Isolated Alkenes. *Synthesis* **2013**, *45*, 1886.
 - Invited submission in honor of Prof. Scott Denmark’s 60th birthday
41. A. M. ElSohly, D. A. Wespe, T. J. Poore, S. A. Snyder. An Efficient Approach to the Securinega Alkaloids Empowered by Cooperative *N*-Heterocyclic Carbene/Lewis Acid Catalysis. *Angew. Chem. Int. Ed.* **2013**, *52*, 5789.
40. D. S. Treitler, Z. Li, M. Krystal, M. Krystal, N. A. Meanwell, S. A. Snyder. Evaluation of HIV-1 inhibition by stereoisomers and analogues of the sesquiterpenoid hydroquinone peyssonol A. *Bioorg. Med. Chem. Lett.* **2013**, *23*, 2192.
39. S. A. Snyder, A. P. Brucks, D. S. Treitler, I. Moga. Concise Synthetic Approaches for the Laurencia Family: Formal Total Syntheses of (±)-Laurefucin and (±)-*E*- and (±)-*Z*-Pinnatifidenyne. *J. Am. Chem. Soc.* **2012**, *134*, 17714.
 - One of the top 5 most downloaded papers for October 2012

38. S. A. Snyder, S. B. Thomas, A. C. Mayer, S. P. Breazzano. Total Syntheses of Hopeanol and Hopeahainol D Empowered by a Chiral Bronsted-acid Induced Pinacol Rearrangement. *Angew. Chem. Int. Ed.* **2012**, *51*, 4080.
 - Highlighted in *Totally Synthetic* column of *Chemistry World* magazine
37. S. A. Snyder, Z. G. Brill. Structural Revision and Total Synthesis of Caraphenol B and C. *Org. Lett.* **2011**, *13*, 5524.
36. S. A. Snyder, D. S. Treitler, A. P. Brucks, W. I. Sattler. A General Strategy for the Stereocontrolled Preparation of Diverse 8- and 9-Membered *Laurencia*-type Bromoethers. *J. Am. Chem. Soc.* **2011**, *133*, 15898.
35. S. A. Snyder, N. E. Wright, J. J. Pflueger, S. P. Breazzano. Total Syntheses of Heimiol A, Hopeahainol D, and Constrained Analogues. *Angew. Chem. Int. Ed.* **2011**, *50*, 8629.
34. S. A. Snyder, A. Gollner, M. I. Chiriach. Regioselective Reactions for Programmable Resveratrol Oligomer Synthesis. *Nature* **2011**, *474*, 461.
 - Highlighted in *Chemistry and Engineering News* as News of the Week
 - Highlighted in *Nature: Chemistry*, *Chemistry World*, and several newspapers
33. S. A. Snyder, D. A. Wespe, J. M. von Hof. A Concise, Stereocontrolled Total Synthesis of Rippertenol. *J. Am. Chem. Soc.* **2011**, *133*, 8850.
 - Highlighted in *Totally Synthetic* column of *Chemistry World* magazine
 - One of the Five Most Accessed Articles for May 2011
32. S. A. Snyder, F. Kontes, A. M. ElSohly. Mechanistic Investigations of the Cyclocondensation Step of the Knorr Pyrrole Synthesis. *Heterocycles* **2011**, *84*, 265.
 - Invited submission in honor of Prof. Albert Padwa's 75th Birthday
31. S. A. Snyder, F. Kontes. Synthetic Studies of Biomimetic Diels–Alder Processes towards the Helicterin Family of Natural Products. *Isr. J. Chem.* **2011**, *51*, 378.
 - Invited submission for a Special Issue on the Total Synthesis of Natural Products
30. S. A. Snyder, D. S. Treitler. Synthesis of Et₃SBr•SbCl₅Br and its use in Biomimetic Brominative Polyene Cyclizations. *Organic Syntheses* **2011**, *88*, 54.
29. S. A. Snyder, A. M. ElSohly, F. Kontes. Synthetic and Theoretical Investigations of Myrmecarin Biosynthesis. *Angew. Chem. Int. Ed.* **2010**, *49*, 9693.
28. S. A. Snyder, D. S. Treitler, A. P. Brucks. Simple Reagents for Direct Halonium-induced Polyene Cyclizations. *J. Am. Chem. Soc.* **2010**, *132*, 14303.
27. S. A. Snyder, T. C. Sherwood, A. G. Ross. Total Syntheses of Dalesconol A and B. *Angew. Chem. Int. Ed.* **2010**, *49*, 5146.
 - Selected by the editors as a Hot Paper
 - Highlighted in *Chemistry and Engineering News* in the July 5th, 2010 issue
 - Highlighted in *Nature: Chemical Biology* in the August 2010 issue
 - Reviewed in *Angew. Chem. Int. Ed.* **2011**, *50*, 4068.
26. S. A. Snyder, D. S. Treitler, A. Schall. A Two-step Mimic for Direct, Asymmetric Bromonium- and Chloronium-induced Polyene Cyclizations. *Tetrahedron* **2010**, *66*, 4796.
 - Invited submission in honor of Prof. Brian M. Stoltz' TYIA Award
25. S. A. Snyder, D. S. Treitler. Et₃SBr•SbCl₅Br: An Effective Reagent for Direct, Bromonium-induced Polyene Cyclizations. *Angew. Chem. Int. Ed.* **2009**, *48*, 8039.

- Selected by the editors as a Hot Paper
24. S. A. Snyder, Z. Tang, R. Gupta. Enantioselective Total Synthesis of (–)-Napyradiomycin A1 Via Asymmetric Chlorination of an Isolated Olefin, *J. Am. Chem. Soc.* **2009**, *131*, 5744.
 - One of the most accessed articles for April 2009
 - Featured in *Synfacts* **2009**, 1186.
 - One of the 20 most accessed articles for 2009
 23. S. A. Snyder, S. P. Breazzano, A. G. Ross, Y. Lin, A. L. Zografos. Total Synthesis of Diverse Carbogenic Complexity within the Resveratrol Class from a Common Building Block, *J. Am. Chem. Soc.* **2009**, *131*, 1753.
 - Covered as a chapter in the textbook *Classics in Total Synthesis III*
 - Reviewed in *Angew. Chem. Int. Ed.* **2011**, *50*, 586.
 - Reviewed in *Nature: Chem. Biol.* **2011**, *7*, 865.
 22. S. A. Snyder, F. Kontes. Explorations into Neolignan Biosynthesis: Total Synthesis of Helicterin B, Helisorin, and Helisterculin A from a Common Intermediate, *J. Am. Chem. Soc.* **2009**, *131*, 1745.
 - Reviewed in *Tetrahedron* **2010**, *66*, 2235.
 - Reviewed in *Angew. Chem. Int. Ed.* **2011**, *50*, 4068.
 21. S. A. Snyder, A. L. Zografos, Y. Lin. Total Synthesis of Resveratrol-based Natural Products: A Chemoselective Solution. *Angew. Chem. Int. Ed.* **2007**, *46*, 8186.
 - One of the most accessed articles for October 2007
 - Featured in *Synfacts* **2008**, 219; selected by editors as “Synfact of the Month”
 20. S. A. Snyder, E. J. Corey. Regioselective Aldol Condensations of a Cholestanone-derived Dialdehyde: New Twists on a Classic Reaction. *Tetrahedron Lett.* **2006**, *47*, 2083.
 19. S. A. Snyder, E. J. Corey. Concise Total Syntheses of Palominol, Dolabellatrienone, \square -Araneosene, and Isoedunol via an Enantioselective Diels–Alder Macrobicyclization. *J. Am. Chem. Soc.* **2006**, *128*, 740.
 18. K. C. Nicolaou, S. A. Snyder, D. A. Longbottom, A. Z. Nalbandian, X. Huang. New Uses for the Burgess Reagent in Chemical Synthesis: Methods for the Facile and Stereoselective Formation of Sulfamidates, Glycosylamines, and Sulfamides. *Chem. Eur. J.* **2004**, *10*, 5581.
 17. K. C. Nicolaou, J. Hao, M. V. Reddy, P. B. Rao, G. Rassias, S. A. Snyder, X. Huang, D. Y.-K. Chen, W. E. Brenzovich, N. Giuseppone, A. O’Brate, P. Giannakakou. Chemistry and Biology of Diazonamide A: Second Total Synthesis and Biological Investigations. *J. Am. Chem. Soc.* **2004**, *126*, 12897.
 16. K. C. Nicolaou, D. Y.-K. Chen, X. Huang, T. Ling, M. Bella, S. A. Snyder. Chemistry and Biology of Diazonamide A: First Total Synthesis and Confirmation of the True Structure. *J. Am. Chem. Soc.* **2004**, *126*, 12888.
 15. K. C. Nicolaou, S. A. Snyder, N. Giuseppone, X. Huang, M. Bella, M. V. Reddy, P. B. Rao, A. E. Koumbis, A. O’Brate, P. Giannakakou. Studies Towards Diazonamide A: Development of Hetero Pinacol Macrocyclization Cascade for the Construction of the Bis-Macrocyclic Framework of the Originally Proposed Structure. *J. Am. Chem. Soc.* **2004**, *126*, 10174.
 14. K. C. Nicolaou, S. A. Snyder, X. Huang, K. B. Simonsen, A. E. Koumbis, A. Bigot. Studies Towards Diazonamide A: Initial Synthetic Forays Towards the Originally Proposed Structure. *J. Am. Chem. Soc.* **2004**, *126*, 10162.

13. K. C. Nicolaou, S. A. Snyder, A. Z. Nalbandian, D. A. Longbottom. A New Method for the Stereoselective Synthesis of \square - and \square -Disposed Glycosylamines Using the Burgess Reagent. *J. Am. Chem. Soc.* **2004**, *126*, 6234.
12. K. C. Nicolaou, P. B. Rao, J. Hao, M. V. Reddy, G. Rassias, X. Huang, D. Y.-K. Chen, S. A. Snyder. The Second Total Synthesis of Diazonamide A. *Angew. Chem. Int. Ed.* **2003**, *42*, 1753.
11. K. C. Nicolaou, D. A. Longbottom, S. A. Snyder, A. Z. Nalbandian, X. Huang. A New Method for the Synthesis of Non-Symmetrical Sulfamides Using Burgess-Type Reagents. *Angew. Chem. Int. Ed.* **2002**, *41*, 3866.
10. K. C. Nicolaou, M. Bella, D. Y.-K. Chen, X. Huang, T. Ling, S. A. Snyder. Total Synthesis of Diazonamide A. *Angew. Chem. Int. Ed.* **2002**, *41*, 3495.
9. K. C. Nicolaou, X. Huang, S. A. Snyder, P. B. Rao, M. Bella, M. V. Reddy. A Novel Regio- and Stereoselective Synthesis of Sulfamidates from 1,2-Diols Using Burgess and Related Reagents: A Facile Entry into \square -Amino Alcohols. *Angew. Chem. Int. Ed.* **2002**, *41*, 834.
8. K. C. Nicolaou, X. Huang, N. Giuseppone, P. B. Rao, M. Bella, M. V. Reddy, S. A. Snyder. Construction of the Complete Aromatic Core of Diazonamide A via a Novel Hetero Pinacol Macrocyclization Cascade Reaction. *Angew. Chem. Int. Ed.* **2001**, *40*, 4705.
7. K. C. Nicolaou, S. A. Snyder, K. B. Simonsen, A. E. Koumbis. Model Studies Towards Diazonamide A: Synthesis of the Heterocyclic Core. *Angew. Chem. Int. Ed.* **2000**, *39*, 3473.
6. K. C. Nicolaou, A. E. Koumbis, S. A. Snyder, K. B. Simonsen. Novel Reactions Initiated by Titanocene Methylidenes: Deoxygenation of Sulfoxides, *N*-Oxides, and Selenoxides. *Angew. Chem. Int. Ed.* **2000**, *39*, 2529.
5. K. C. Nicolaou, S. A. Snyder, A. Bigot, J. A. Pfefferkorn. Solution and Solid Phase Synthesis of Functionalized 3-Arylbenzofurans via a Novel Cyclofragmentation Pathway. *Angew. Chem. Int. Ed.* **2000**, *39*, 1036.
4. J. H. Markgraf, P. K. Sangani, R. J. Manalansan, S. A. Snyder, R. P. Thummel. Strained Heterocyclic Systems: The Menschutkin Reaction. *J. Chem. Res. (S)* **2000**, 561.
3. S. A. Snyder, D. A. Vosburg, M. G. Jarvis, J. H. Markgraf. Intramolecular Hetero Diels–Alder Routes to \square -Carboline Alkaloids. *Tetrahedron* **2000**, *56*, 5329.
2. J. H. Markgraf, S. A. Snyder, D. A. Vosburg. A Concise Route to Isocanthin-6-one. *Tetrahedron Lett.* **1998**, *39*, 1111.
1. F. Cao, R. Eckert, C. Elfgang, J. M. Nitsche, S. A. Snyder, D. F. Hulser, K. Willecke, B. J. Nicholson. A quantitative analysis of connexin-specific permeability differences of gap junctions expressed in HeLa transfectants and *Xenopus* oocytes. *J. Cell Sci.* **1998**, *111*, 31.

Books

5. T. W. G. Solomons, C. B. Fryhle, S. A. Snyder, *Organic Chemistry, 12th Edition*, John Wiley and Sons, Hoboken, **2016**, p. 1124.
4. S. A. Snyder (Volume Editor), *Science of Synthesis: Applications of Domino Transformations in Organic Synthesis*, Georg Thieme Verlag, **2015**, p. 1200.

3. P. J. Beuning, D. Z. Besson, S. A. Snyder. *Teach Better, Save Time, and Have More Fun: A Guide to Teaching and Mentoring in Science*, Research Corporation for Science Advancement, **2014**, p. 139.
2. T. W. G. Solomons, C. B. Fryhle, S. A. Snyder, *Organic Chemistry, 11th Edition*, John Wiley and Sons, Hoboken, **2013**, p. 1248.
1. K. C. Nicolaou, S. A. Snyder. *Classics in Total Synthesis II: More Targets, Strategies, Methods*, Wiley-VCH, Weinheim, **2003**, p. 639.

Review Articles

9. S. A. Snyder. Strategies and Tactics for the Synthesis of Complex Alkaloids. *Chimia* **2017**, *71*, 802.
8. S. A. Snyder, A. M. ElSohly, F. Kontes. Synthetic Approaches to Oligomeric Natural Products. *Natural Products Reports*, **2011**, *28*, 897.
7. S. A. Snyder, D. S. Treitler, A. P. Brucks. Halonium-induced Cyclization Reactions. *Aldrichimica Acta*. **2011**, *44*, 27.
6. M. Welsch, S. A. Snyder, B. R. Stockwell. Privileged Scaffolds for Library Design and Drug Discovery. *Curr. Opin. Chem. Biol.* **2010**, *14*, 347.
5. K. C. Nicolaou, S. A. Snyder. Chasing Molecules That Were Never There: Misassigned Natural Products and the Role of Chemical Synthesis in Modern Structure Elucidation. *Angew. Chem. Int. Ed.* **2005**, *44*, 1012.
4. K. C. Nicolaou, S. A. Snyder. The Essence of Total Synthesis. *Proc. Nat. Acad. Sci. U.S.A.* **2004**, *101*, 11929.
3. K. C. Nicolaou, T. Montagnon, S. A. Snyder. Tandem Reactions, Cascade Sequences, and Biomimetic Strategies in Total Synthesis. *Chem. Commun.* **2003**, 551.
2. K. C. Nicolaou, S. A. Snyder. Cascade Reactions in Total Synthesis: Recent Advances. *L'Actualité Chimique* **2003**, 83.
1. K. C. Nicolaou, S. A. Snyder, T. Montagnon, G. E. Vassilikogiannakis. The Diels–Alder Reaction in Total Synthesis. *Angew. Chem. Int. Ed.* **2002**, *41*, 1668.

Book Chapters

7. A. X. Gao, S. B. Thomas, S. A. Snyder. Pinacol and Semi-Pinacol Rearrangements in Total Synthesis. In *Molecular Rearrangements for Organic Synthesis* (Ed. C. Rojas), Wiley-VCH, **2015**, pp. 3–33.
6. S. A. Snyder, A. M. Levinson. Polyene Cyclizations. In *Comprehensive Organic Synthesis, Vol. II* (Ed. G. Molander), Elsevier, **2014**, in press/online.
5. S. A. Snyder. Strategies for the Controlled Synthesis of Oligomeric Natural Products. In *Recent Advances in Polyphenol Research, Vol. 3* (Ed. V. Cheynier, P. Sarni-Manchado, S. Quideau), Wiley-Blackwell, Chichester, **2012**, 311–351.
4. S. A. Snyder, A. P. Brucks. Asymmetric Halonium Addition to Olefins. In *Asymmetric Synthesis – The Essentials, Vol. 2* (Ed. M. Christmann, S. Bräse), Wiley-VCH, Weinheim, **2012**, 147–155.

3. S. A. Snyder. Synthetic Approaches to the Resveratrol-based Family of Oligomeric Natural Products. In *Biomimetic Organic Synthesis* (Ed. E. Poupon and B. Nay), Wiley-VCH, Weinheim, **2011**, pp. 695 – 721.
2. K. C. Nicolaou, S. A. Snyder. The Olefin Metathesis Reaction in Complex Molecule Construction. In *Handbook of Metathesis* (Ed. R. H. Grubbs), Wiley-VCH, Weinheim, **2003**, pp. 323 – 337.
1. K. C. Nicolaou, H. J. Mitchell, S. A. Snyder. Synthesis of Complex Carbohydrates: Everninomicin 13,384-1. In *Carbohydrate-based Drug Discovery* (Ed. C.-H. Wong), Wiley-VCH, Weinheim, **2003**, pp. 215 – 252.

Other Contributions

8. S. A. Snyder. Book review: Design and Strategy in Organic Synthesis. *Angew. Chem. Int. Ed.* **2014**, 53, 3547.
7. S. A. Snyder. Book review: Heterocycles in Natural Product Synthesis. *Angew. Chem. Int. Ed.* **2012**, 51, 1307.
6. S. A. Snyder. News and Views: Making Nematodes Nervous. *Nature: Chemistry* **2011**, 3, 422.
5. S. A. Snyder. News and Views: Symmetrizing the Non-symmetric. *Nature* **2010**, 465, 560.
4. S. A. Snyder. Book review: Classics in Stereoselective Synthesis. *Chirality* **2010**, 22, 542.
3. S. A. Snyder. Book review: Arrow Pushing in Organic Chemistry. *Angew. Chem. Int. Ed.* **2009**, 48, 640.
2. K. Pors, F. W. Goldberg, C. P. Leamon, A. C. Rigby, S. A. Snyder, R. A. Falconer. The Changing Landscape of Cancer Drug Discovery: A Challenge to the Medicinal Chemist of Tomorrow. *Drug Discovery Today* **2009**, 14, 1045.
1. S. A. Snyder. From Abyssomicin to Zaragozic Acid: Chemical Synthesis and Drug Innovation; Meeting review of the International Symposium on Chemistry, Biology, and Medicine held at Paphos, Cyprus, May 28–June 1, 2006. *Angew. Chem. Int. Ed.* **2006**, 45, 4714.

Selected Pending/Issued Patents

6. S. A. Snyder, D. S. Treitler, A. P. Brucks, A. Gollner, M. I. Chiriac, N. E. Wright, J. J. Pflueger, S. P. Breazzano. Preparation of Halonium Compounds Useful for Unique Cyclizations of Polyenes. Provisional patent application filed on 9/14/10. U.S. Patent application filed on 9/13/11. U. S. Patent Number 2010403406P.
5. S. A. Snyder, T. C. Sherwood, A. G. Ross, H. Oh, S. Ghosh. Synthesis of Potent Immunosuppressant Agents Dalesconol A and B and Analogs Thereof. Provisional patent application filed on 2/18/10. U.S. Patent application filed on 2/18/2011. U. S. Patent Number 2010338551P.
4. S. A. Snyder, S. P. Breazzano, A. G. Ross, Y. Lin, A. L. Zografos. Synthesis of Resveratrol-based Natural Products as Fungicides, Sunscreens and for Treatment of Skin Cancer. Provisional patent application filed on 8/17/07. U.S. Patent application filed on 8/16/08. U.S. Patent Number 2009038731.

3. K. C. Nicolaou, D. Longbottom, S. A. Snyder, X. Huang. Synthesis of Non-Symmetrical Sulfamides Using Burgess-Type Reagents. Provisional patent application filed on 10/12/02. International patent application filed on 10/14/03. U.S. Patent Number 2004138448 [*Chem. Abst.* **2004**, *141*, 123636]
2. K. C. Nicolaou, S. A. Snyder, X. Huang, P. Bheema Rao. Synthesis of Diazonamide A Core. International patent application filed on 6/18/02. Published on 12/24/03. World Patent Number 03/106438 [*Chem. Abst.* **2004**, *140*, 59932]
1. K. C. Nicolaou, S. A. Snyder, X. Huang. Synthesis of Sulfamides. Provisional patent application filed on 2/7/02. International patent application filed on 2/7/03. Published on 8/14/03. World Patent Number 03/066549 [*Chem. Abst.* **2003**, *139*, 197488]

Invited Lectures

1. Brock University, Department of Chemistry, St. Catharines, Canada (September 2007)
2. ESF-COST High-Level International Conference on Natural Products: Chemistry, Biology, and Medicine, Acquafredda di Maratea, Italy (May 2008)
3. University of Rome "La Sapienza," Rome, Italy (May 2008)
4. Merck Research Laboratories-IRBM, Pomezia, Italy (May 2008)
5. NSF Synthesis Workshop, Holderness, NH (June 2008)
6. Gordon Research Conference on Natural Products, Tilton, NH (July 2008)
7. Rutgers University, Department of Chemistry, New Brunswick, NJ (September 2008)
8. International Symposium on Organic Synthesis and Drug Discovery, Nanjing, China (October 2008)
9. Zhejiang University, Department of Chemistry, Hangzhou, China (October 2008)
10. Shanghai Institute of Organic Chemistry, Shanghai, China (October 2008)
11. National Tsinghua University, Department of Chemistry, Beijing, China (October 2008)
12. Peking University, Department of Chemistry, Beijing, China (October 2008)
13. Emory University, Department of Chemistry, Atlanta, GA (October 2008)
14. University of New Mexico, Department of Chemistry, Albuquerque, NM (December 2008)
15. American Association for Cancer Research-American Chemical Society National Meeting, New Orleans, LA (February 2009)
16. Schering-Plough, Department of Chemical Research, Kenilworth, NJ (March 2009)
17. University of Chicago, Department of Chemistry, Chicago, IL (March 2009)
18. Bristol-Myers Squibb, Discovery Chemistry, Wallingford, CT (March 2009)
19. Texas Tech University, Department of Chemistry, Lubbock, TX (April 2009)
20. University of Texas–Arlington, Department of Chemistry, Arlington, TX (April 2009)
21. Bristol-Myers Squibb, Process Chemistry, New Brunswick, NJ (April 2009)
22. Bristol-Myers Squibb, Discovery Chemistry, Lawrenceville, NJ (April 2009)
23. Merck Research Laboratories, Discovery Chemistry, West Point, PA (May 2009)
24. Gordon Research Conference on Combinatorial Chemistry: High Throughput Chemistry and Chemical Biology, New London, NH (June 2009)
25. Eli Lilly and Company, Discovery and Process Chemistry, Indianapolis, IN (June 2009)
26. Gordon Research Conference on Organic Reactions and Processes, Providence, RI (July 2009)
27. GlaxoSmithKline, Process Chemistry, King of Prussia, PA (July 2009)
28. GlaxoSmithKline, Discovery Chemistry, Collegeville, PA (July 2009)
29. University of Alabama–Tuscaloosa, Department of Chemistry, Tuscaloosa, AL (September 2009)
30. Vanderbilt University, Department of Chemistry, Nashville, TN (September 2009)
31. Vitae Pharmaceuticals, Discovery Chemistry, Fort Washington, PA (October 2009)
32. The College of William and Mary, Department of Chemistry, Williamsburg, VA (October 2009)
33. Swarthmore College, Department of Chemistry, Swarthmore, PA (October 2009)
34. Yale University, Department of Chemistry, New Haven, CT (October 2009)

35. University of Kansas, Department of Chemistry, Lawrence, KS (November 2009)
36. University of Illinois–Urbana-Champaign, Department of Chemistry, Urbana, IL (November 2009)
37. Australian National University, Canberra, Australia (December 2009)
38. Australian Commonwealth Scientific and Research Organization (CSIRO), Melbourne, Australia (December 2009)
39. National Institutes of Health, Chemical Interest Group, Bethesda, MD (December 2009)
40. University of Tokyo, Graduate School of Pharmaceutical Science, Tokyo, Japan (January 2010)
41. RIKEN, Tokyo, Japan (January 2010)
42. Tokyo University of Science, Tokyo, Japan (January 2010)
43. Tohoku University, Department of Chemistry, Sendai, Japan (January 2010)
44. Kyoto University, Department of Chemistry, Kyoto, Japan (January 2010)
45. Osaka University–Suita Campus, Department of Chemistry, Osaka, Japan (January 2010)
46. Osaka University–Toyonaka Campus, Department of Chemistry, Osaka, Japan (January 2010)
47. Waseda University, Department of Chemistry, Tokyo, Japan (January 2010)
48. West Virginia University, Department of Chemistry, Morgantown, WV (February 2010)
49. Merck Research Laboratories, Process Chemistry, Rahway, NJ (March 2010)
50. Hunter College, Department of Chemistry, New York, NY (April 2010)
51. GlaxoSmithKline, Discovery Chemistry, Research Triangle Park, Raleigh, NC (June 2010)
52. ACS New England Regional Meeting, Cope Scholar Symposium in honor of Prof. John Porco, Potsdam, NY (June 2010)
53. DuPont, Crop Sciences Department, Wilmington, DE (June 2010)
54. University of Delaware, Department of Chemistry, Newark, DE (June 2010)
55. WuXi AppTec, Shanghai, China (August 2010)
56. Shanghai Institute of Organic Chemistry, Department of Chemistry, Shanghai, China (August 2010)
57. China Novartis Institutes for Biomedical Research, Shanghai, China (August 2010)
58. East China Normal University, Department of Chemistry, Shanghai, China (August 2010)
59. ChemPartner, Chemical Discovery Group, Shanghai, China (August 2010)
60. University of Hong Kong, Department of Chemistry, Hong Kong, China (August 2010)
61. Peking University at Shenzhen, Department of Chemistry, Shenzhen, China (August 2010)
62. Chinese University of Hong Kong, Department of Chemistry, Hong Kong, China (August 2010)
63. University of Texas–Southwestern Medical Center, Department of Chemistry, Dallas, TX (September 2010)
64. City College of New York, Department of Chemistry (October 2010)
65. Colorado State University, Department of Chemistry, Boulder, CO (October 2010)
66. University of Ottawa, Department of Chemistry, Ottawa, Canada (October 2010)
67. University of California–San Diego, Department of Chemistry, San Diego, CA (November 2010)
68. ETH, Department of Chemistry, Zurich, Switzerland (November 2010)
69. Max Planck Institute–Mulheim, Department of Chemistry, Mulheim, Germany (November 2010)
70. University of Zurich, Department of Chemistry, Zurich, Switzerland (November 2010)
71. University of Basel, Department of Chemistry, Basel, Switzerland (November 2010)
72. University of Strasbourg, Department of Chemistry, Strasbourg, France (November 2010)
73. University of Göttingen, Department of Chemistry, Göttingen, Germany (November 2010)
74. Bayer Pharmaceuticals, Department of Medicinal Chemistry, Wuppertal, Germany (November 2010)
75. New Jersey Biotechnology Consortium Symposium, Princeton, NJ (December 2010)
76. Harvard University, Department of Chemistry, Woodward Lecture Series in Organic Chemistry, Cambridge, MA (February 2011)
77. Brandeis University, Department of Chemistry, Waltham, MA (February 2011)

78. Cornell University, Department of Chemistry, Ithaca, NY (March 2011)
79. Georgia State University, Department of Chemistry, Atlanta, GA (April 2011)
80. Hoffman–LaRoche, Department of Medicinal Chemistry, Nutley, NJ (April 2011)
81. University of Illinois–Chicago, Department of Chemistry, Chicago, IL (May 2011)
82. University of Southern California, Department of Chemistry, Los Angeles, CA (May 2011)
83. California Institute of Technology, Department of Chemistry and Chemical Engineering, Pasadena, CA (May 2011)
84. University of California–Los Angeles, Department of Chemistry, Los Angeles, CA (May 2011)
85. Stanford University, Department of Chemistry, Palo Alto, CA (June 2011)
86. Biodura, Department of Medicinal Chemistry, Beijing, China (June 2011)
87. University of Minnesota, Department of Medicinal Chemistry, Minneapolis, MN (July 2011)
88. AstraZeneca, Department of Medicinal Chemistry, Mölndal, Sweden (August 2011)
89. Pfizer, Department of Medicinal Chemistry, Groton, CT (September 2011)
90. Massachusetts Institute of Technology, Department of Chemistry, Cambridge, MA (September 2011)
91. Princeton University, Department of Chemistry, Princeton, NJ (October 2011)
92. University of California – Irvine, Department of Chemistry, Irvine, CA (October 2011)
93. Queen’s College, Department of Chemistry, New York, NY (November 2011)
94. Columbia University, Department of Chemistry, New York, NY (December 2011)
95. University of Toronto, Department of Chemistry, Student Invited Speaker, Toronto, Canada (October 2011)
96. University of Indiana – Bloomington, Department of Chemistry, Bloomington, IN (November 2011)
97. AstraZeneca, Discovery Chemistry, Waltham, MA (January 2012)
98. Iowa State University, Department of Chemistry, Ames, IA (January 2012)
99. Eli Lilly and Company, Biennial Grantee Symposium, Indianapolis, IN (March 2012)
100. Colby College, Department of Chemistry, Waterville, ME (April 2012)
101. Bristol-Myers Squibb Grantee Symposium, Lawrenceville, NJ (April 2012)
102. University of Science and Technology of China, Department of Chemistry, Hefei, China (May 2012)
103. Suzhou University, Department of Chemistry, Suzhou, China (May 2012)
104. International Chirality Conference, Dallas, TX (June 2012)
105. Arthur C. Cope Scholar Award Symposium, ACS National Meeting, Philadelphia, PA (August 2012)
106. Nanjing University, Department of Chemistry Nanjing, China (September 2012)
107. Michigan State University, Department of Chemistry, East Lansing, MI (October 2012)
108. Amgen Young Investigators Symposium, Thousand Oaks, CA (October 2012)
109. University of California – Santa Barbara, Department of Chemistry (October 2012)
110. University of Helsinki, Department of Chemistry, Helsinki, Finland (November 2012)
111. ACS North Jersey Section, Award Symposium honoring K. C. Nicolaou for his 2012 Award for Creativity in Molecular Design and Synthesis, New Brunswick, NJ (November 2012)
112. Abbott Laboratories, Process Chemistry Department, Chicago, IL (January 2013)
113. The Scripps Research Institute, Jupiter, FL (January 2013)
114. Texas A & M University, Department of Chemistry, College Station, TX (February 2013)
115. Institute for Chemical Synthesis and Biological Chemistry, Nanjing, China (March 2013)
116. Council for Chemical Research Annual Meeting, Washington, DC (May 2013)
117. Gordon Research Conference on Natural Products (July 2013)
118. Celgene, Discovery Chemistry, San Diego, CA (August 2013)
119. Sanofi-Aventis, Discovery Chemistry, Frankfurt, Germany (August 2013)
120. 24th International Society for Heterocyclic Chemistry Conference, Shanghai, China (September 2013)
121. Lundbeck, Discovery Chemistry, Copenhagen, Denmark (January 2014)
122. SUNY – Stony Brook, Department of Chemistry, Stony Brook, NY (February 2014)
123. Teijin Pharma, Discovery Chemistry, Tokyo, Japan (March 2014)
124. Eisai, Discovery Chemistry, Tsukuba, Japan (March 2014)

125. Boehringer-Ingelheim, Process Chemistry, Ridgefield, CT (April 2014)
126. 5th European Workshop in Drug Synthesis, Siena, Italy (May 2014)
127. Florida Atlantic University, Department of Chemistry, Boca Raton, FL (September 2014)
128. University of Pittsburgh, Department of Chemistry, Pittsburgh, PA (September 2014)
129. University of Montreal, Department of Chemistry, Montreal, Canada (October 2014)
130. Kunming Institute of Botany, Department of Chemistry, Kunming, China (October 2014)
131. East China University of Science and Technology, Department of Chemistry, Shanghai, China (October 2014)
132. Trinity College Dublin, Werner Chemical Society, Dublin, Ireland (November 2014, student-invited talk)
133. St. Jude Children's Research Hospital, Institute Seminar Series, Memphis, TN (November 2014)
134. Rice University, Department of Chemistry, Houston, TX (November 2014)
135. University of Cape Town, Department of Chemistry, Cape Town, South Africa (December 2014)
136. University of Chicago, Department of Chemistry, Chicago, IL (December 2014)
137. Shanghai Institute of Organic Chemistry, Department of Chemistry, Shanghai, China (January 2015)
138. Memorial Sloan-Kettering Cancer Center, Institute Seminar Series, New York, NY (March 2015)
139. University of Bordeaux, Department of Chemistry, Bordeaux, France (March 2015)
140. University of Lyon, Department of Chemistry, Lyon, France (March 2015)
141. AstraZeneca, Discovery Chemistry, Macclesfield, England (April 2015)
142. Syngenta, Department of Chemistry, Jealott's Hill, England (April 2015)
143. University of Colorado – Boulder, Department of Chemistry, Boulder, CO (April 2015)
144. ACS Florida Area Meeting and Exposition – Tampa, FL (April 2015)
145. South University of Science and Technology of China – Shenzhen, China (October 2015)
146. Lanzhou University, Department of Chemistry, Lanzhou, China (October 2015)
147. Xi'an Jiantong University – Frontier Institute of Science and Technology, Xi'an, China (October 2015)
148. 5th International Symposium on Organic Synthesis and Drug Design, Nanjing, China (October 2015)
149. Brigham Young University, Department of Chemistry, Provo, UT (November 2015)
150. Pacificchem, Molecular Function of Natural Products Symposium, Honolulu, HI (December 2015)
151. CBI Mini-Symposium, University of Chicago (April 2016)
152. Albert I. Meyers Symposium, Colorado State University, Boulder, CO (May 2016)
153. ACS-SERM Symposium on the Organic Synthesis of Bioactive Molecules, Cincinnati, OH (May 2016)
154. Chemical Biology Summer School, Villars, Switzerland (August 2016)
155. Chicago Organic Symposium, Chicago, IL (October 2016)
156. K. C. Nicolaou 70th Birthday Symposium, Rice University, Department of Chemistry (October 2016)
157. Tohoku University, Department of Chemistry, Sendai, Japan (November 2016)
158. Waseda University, Department of Chemistry, Tokyo, Japan (November 2016)
159. Chubu University, Department of Chemistry, Nagoya, Japan (November 2016)
160. International Symposium of Integrated Synthesis–10 (ISONIS-10), Awaji Island, Japan (November 2016)
161. 21st International Conference on Organic Synthesis, IIT Bombay (December 2016)
162. Vanderbilt University Chemical Biology Program, Nashville, TN (March 2017)
163. Gilead/University of Washington, Department of Chemistry, Seattle, Washington (March 2017)
164. Purdue University, Department of Chemistry, Purdue, IN (April 2017)
165. Eli Lilly and Company, Department of Medicinal Chemistry, Indianapolis, IN (May 2017)

166. Sichuan University, State Key Laboratory of Biotherapy and Cancer Treatment, Chengdu, China (July 2017)
167. Lanzhou University, Cuiying Honors College, Lanzhou, China (July 2017)
168. Northwest University, Department of Chemistry and Materials Science, Xi'an, China (July 2017)
169. University of Alberta, Department of Chemistry, Edmonton, Canada (September 2017)
170. Chiba University, Department of Chemistry, Chiba, Japan (February 2018)
171. University of Tokyo, Department of Pharmaceutical Sciences, Tokyo, Japan (February 2018)
172. University of Nagoya, Department of Chemistry, Nagoya, Japan (February 2018)
173. E. J. Corey 90th Birthday Symposium, Bristol-Myers Squibb, Princeton, NJ (April 2018)
174. Illinois Institute of Technology, Department of Chemistry, Chicago, IL (April 2018)
175. SuChem 2018, Sustainable Chemistry for Health, Environment, and Materials, CSIR-IICT Hyderabad, India (August 2018)
176. ChemVeda, Hyderabad, India (August 2018)
177. Shaanxi Normal University, Department of Chemistry, Xi'an, China (August 2018)
178. University of Basel, Swiss Chemical Society Lectureship, Department of Chemistry, Basel, Switzerland (September 2018)
179. EPFL, Swiss Chemical Society Lectureship, Department of Chemistry, Lausanne, Switzerland (September 2018)
180. University of Fribourg, Swiss Chemical Society Lectureship, Department of Chemistry, Fribourg, Switzerland (September 2018)
181. University of Bern, Swiss Chemical Society Lectureship, Department of Chemistry, Bern, Switzerland (September 2018)
182. University of Geneva, Swiss Chemical Society Lectureship, Department of Chemistry, Geneva, Switzerland (September 2018)
183. University of Zurich, Swiss Chemical Society Lectureship, Department of Chemistry, Zurich, Switzerland (September 2018)
184. Syngenta, Department of Chemistry, Stein, Switzerland (September 2018)
185. Tianjin University, Department of Chemistry, Tianjin, China (October 2018)
186. Columbia University, Department of Pharmacology, New York, NY (June 2019)
187. Lanzhou University, Department of Chemistry, Lanzhou, China (July 2019)
188. Verde Valley School, Verde Valley Ideas Symposium, Sedona, AZ (September 2019)
189. Incyte Pharmaceuticals, Medicinal Chemistry Division, Wilmington, DE (October 2019)
190. Loyola University, Department of Chemistry, Chicago, IL (November 2019)
191. IIT-Bombay, Department of Chemistry, Mumbai, India (December 2019)
192. 20th National Organic Symposium Trust Conference, Udaipur, India (December 2019)
193. PI Industries, Udaipur, India (December 2019)
194. Syngenta, Goa, India (December 2019)
195. ChemVeda, Hyderabad, India (December 2019)
196. CSIR-IICT, Department of Chemistry, Hyderabad, India (December 2019)

Named/Plenary/Keynote/Award Lectures

1. Kalypsys Lectureship, Young Investigators in Natural Product Synthesis, Western Regional ACS Meeting, San Diego, CA (October 2007)
2. Sino-American Symposium on Organic Synthesis and Drug Development, Xuzhou Normal University, Xuzhou, China (October 2008)
3. 6th Novartis Lectureship, Boston University, Department of Chemistry, Boston, MA (February 2009)
4. 3rd Annual NESACS/RSC/IUPAC Advances in Chemical Sciences Symposium, Cambridge, MA (April 2009)
5. 22nd Organic Chemistry Day Symposium, University of Missouri-Columbia, St. Louis, MO (April 2009)
6. 4th Banff Symposium on Organic Chemistry, Banff, Canada (October 2009; student invited talk)
7. 30th RACI Symposium, University of Sydney, Sydney, Australia (December 2009)

8. 34th RACI Symposium, University of Melbourne, Melbourne, Australia (December 2009)
9. 6th Hirata Memorial Lecture Symposium, Nagoya University, Nagoya, Japan (January 2010)
10. 21st Frontiers in Chemistry Symposium, The Scripps Research Institute, La Jolla, CA (February 2010)
11. ACS Award in Pure Chemistry Symposium in honor of Prof. Phil S. Baran, ACS National Meeting, San Francisco, CA (March 2010)
12. 10th Anglo-Norman Organic Chemistry Symposium, University of Southampton, Southampton, England (April 2010)
13. University of Pennsylvania, Department of Chemistry, Franklin Medal Award Symposium, Philadelphia, PA (April 2011)
14. 7th Sino-US Symposium on Organic Chemistry, Guizhou University, Guiyang, China (June 2011)
15. The International Symposium on Physical Organic Chemistry and Synthetic Materials, Nankai University, Beijing, China (July 2011)
16. 4th International Symposium on Advances in Synthetic and Medicinal Chemistry, St. Petersburg, Russia (August 2011)
17. 1st Aldrich Lectureship, University of California – Berkeley, Department of Chemistry, Berkeley, CA (October 2011)
18. Eli Lilly Lectureship, Northwestern University, Department of Chemistry, Evanston, IL (February 2012)
19. 3rd International Symposium on Organic Synthesis and Drug Design, Changzhou, China (May 2012)
20. 13th Belgian Organic Synthesis Symposium (BOSS), Leuven, Belgium (July 2012)
21. 26th International Conference on Polyphenols, Florence, Italy (July 2012)
22. International Conference on Functional Molecules in Nature, Nanjing, China (September 2012)
23. International Conference on Natural Products Chemistry, Chongqing, China (September 2012)
24. ICIQ Summer School, Tarragona, Spain (July 2013)
25. Armenian Chemistry Frontiers Symposium, Yerevan, Armenia (August 2013)
26. 2nd Torkil Holm Symposium, Copenhagen, Denmark (January 2014)
27. The 2014 Chemical Record Lectureship, Nagoya, Japan (March 2014)
28. 1st Aldrich Lectureship, Rice University, Department of Chemistry, Houston, TX (April 2014)
29. IUPAC 28th International Symposium on the Chemistry of Natural Products/8th International Conference on Biodiversity, Shanghai, China (October 2014)
30. ACS/SACI Binational Organic Chemistry Conference/Frank Warren Conference, Stellenbosch, South Africa (December 2014)
31. Organic Division of the French Chemical Society Spring Meeting, Paris, France (March 2015)
32. Bristol Synthesis Symposium, Bristol, England (April 2015)
33. 2nd EOC Conference on the Efficient Chemical Synthesis of Complex Molecules, Nankai University, Tianjin, China (July 2015)
34. 2016 Gregynog Synthesis Workshop, Gregynog, Scotland (September 2016)
35. 3rd International Symposium on Natural Product Synthesis and Process Methods for Drug Manufacture (October 2016)
36. Abbvie Scholars Symposium, Chicago, IL (July 2017)
37. Swiss Chemical Society – Syngenta Symposium 2017, Stein, Switzerland (October 2017)
38. 2nd International Symposium on Frontiers of Natural and Biomimetic Drugs, Beijing, China (October 2018)
39. Hart Symposium, The Ohio State University, Department of Chemistry, Columbus, OH (October 2019)

Courses Taught

Chemistry G8148/G4148: Modern Synthetic Reactions, Columbia University
 Chemistry C3046: Advanced Organic Chemistry II, Columbia University
 Chemistry C3443: Organic Chemistry I, Columbia University
 Chemistry C3444: Organic Chemistry II, Columbia University
 TSY121: Classics in Total Synthesis, The Scripps Research Institute

Chemistry 221: Organic Chemistry II, The University of Chicago
Chemistry 222: Organic Chemistry III, The University of Chicago
Chemistry 232: Honors Organic Chemistry III, The University of Chicago
Chemistry 323: Tactics of Organic Synthesis, The University of Chicago

Professional Activities

Journal Editorial/Advisory Boards

The Chemical Record, Member of International Advisory Board (January 2011–Present)
Chirality, Editorial Board (January 2012–December 2014)

Manuscript Referee

Accounts of Chemical Research (September 2008–Present)
ACS Chemical Biology (September 2009–Present)
Angewandte Chemie, International Edition (July 2007–Present)
Bioorganic and Medicinal Chemistry Letters (May 2007–Present)
Chemical Communications (August 2008–Present)
Chemical Science (April 2011–Present)
Chemical Society Reviews (October 2007–Present)
Chemistry: A European Journal (December 2007–Present)
ChemMedChem (September 2010–Present)
European Journal of Organic Chemistry (March 2008–Present)
Molecules (July 2010–Present)
Nature (January 2008–Present)
Nature: Chemistry (September 2008–Present)
Nature: Communications (January 2012–Present)
Organic and Biomolecular Chemistry (January 2007–Present)
Organic Letters (October 2006–Present)
Journal of the American Chemistry Society (August 2006–Present)
Journal of Organic Chemistry (January 2007–Present)
Journal of Medicinal Chemistry (January 2010–Present)
Journal of Molecular Catalysis: Part A (July 2007–Present)
Proceedings of the National Academy of Sciences (November 2010–Present)
Synlett (September 2008–Present)
Synthesis (February 2012–Present)
Synthetic Communications (January 2010–Present)
Tetrahedron (April 2008–Present)
Tetrahedron Letters (August 2007–Present)

Grant Reviewer

United States–Israel Binational Science Foundation (December 2006)
American Chemical Society Petroleum Research Fund (November 2007–Present)
Austrian Science Fund (February 2008, September 2009, September 2012)
Dutch Technology Foundation (November 2008)
National Science Foundation, mail review (June 2009–Present)
Research Corporation for Science Advancement (June 2010–Present)
Hong Kong Science and Technology Grants (February 2011–Present)
Science Foundation Ireland (September 2011–Present)

National Committee/Study Panel Service

NSF Graduate Research Fellowship Panel, Chemistry II (February 2007)
NSF Graduate Research Fellowship Panel, Chemistry II (February 2008)
NSF Graduate Research Fellowship Panel, Chemistry II (February 2009)
NIH Challenge Grants Panel 5, BCMG (June 2009)
NSF Graduate Research Fellowship Panel, Chemistry II, Panel Chair (March 2010)

NIH Synthetic and Biological Chemistry Study Panel A, ad hoc member (June 2010)
NSF CAREER Grants Panel in Synthetic Organic Chemistry (October 2010)
NDSEG Graduate Research Fellowship Panel, Chemistry (February 2011)
NIH F04A-W(20)L Fellowship Panel (July 2014)
American Cancer Society Grant Panel (January 2016)
NIH F04A-W(20)L Fellowship Panel (March 2016)
American Cancer Society Grant Panel (June 2017)

Columbia University Service – Department Level

Graduate Admissions Committee, Department of Chemistry (July 2006–August 2010)
Undergraduate Committee, Department of Chemistry (July 2007–July 2010; August 2011–June 2013); Executive Secretary of the Undergraduate Committee (January 2008–August 2008)
Space and Services Committee, Department of Chemistry (July 2010–July 2011)
Invited Lecturer, First-year Seminars in Chemistry (January 2007, January 2008, February 2009, February 2010, February 2011, February 2012)
Invited Lecturer, REU/High School Summer Program, Lecture on Graduate School and Fellowship Applications (July 2008, July 2009, July 2010, July 2011, July 2012)

Columbia University Service – University Level

Executive Committee, Faculty of Arts and Sciences (July 2007–May 2010); elected position
Rabi Scholars Selection Committee (January 2008, January 2011, January 2012)
Café Scientifique Presenter (December 2007)
Café Science Presenter (December 2010)
Invited Lecturer, Columbia College Admissions Department, Days on Campus Master Class, (April 2008, April 2009)
Invited Lecturer, Columbia College Admissions Department, Science Invitational Master Class, (July 2009)
Invited Lecturer, Columbia Science Review, Lecture on Graduate School and Fellowship Applications (February 2009, October 2009)
Invited Lecturer, New York Academy of Sciences, Lecture on Lab Money Management (November 2009)
Laboratory Design University Committee (July 2011–September 2011)
Columbia College Committee on Science Instruction (October 2011–January 2013)

The Scripps Research Institute

Graduate Admissions Committee (September 2013–August 2015), Co-Chair for 2015 applications
Florida Curriculum Committee (March 2014– August 2015)
REU Program Admissions Committee (February 2014)
Invited Lecturer, Florida Outreach Steering Committee, Philanthropy (November 2013)
Invited Lecturer, REU/High School Summer Program, Lecture on Graduate School and Fellowship Applications (August 2013)
Invited Lecturer, North Palm Beach Rotary Club, Philanthropy (November 2014)
Invited Lecturer, Palm Beach Yacht Club, Philanthropy (November 2014, March 2015)
Invited Lecturer, TSRI Careers and Postdoctoral Services, Academic Careers Roundtable (January 2015)
Invited Lecturer, PNC Bank Roundtable Lunch (February 2015)

The University of Chicago – Department Level

Appointments and Promotions Committee (September 2015–June 2018)
Graduate Admissions Committee (September 2015–August 2016)
Safety Committee, Chair (September 2016–August 2016)
Teaching Matters Committee, Chair (July 2018–Present)
Graduate Program Committee, Chair (July 2018–Present)
Associate Chair (July 2018–Present)

The University of Chicago – University Level

University-wide Student Disciplinary Committee (September 2017–Present; faculty chair, July 2018–Present)

College Council (September 2017–Present)

Faculty Director of Biotechnology Professional Education (December 2019–Present)

Invited Lecturer, Trustee Retreat, Chicago, IL (September 2018)

Invited Lecturer, NSF Predoctoral Fellowships, Chicago, IL (September 2018, September 2019)

Consulting/Scientific Advisory Boards

Vitae Pharmaceuticals, Fort Washington, PA (October 2009–Present)

ChemVida, SAB Member (May 2017–Present)

Several law firms

Selected External Financial Support/Unrestricted Awards

ACS Arthur C. Cope Scholar Award (August 2012, unrestricted)

Amgen New Faculty Award (September 2006, unrestricted)

Amgen Young Investigator Award (April 2012, unrestricted)

Alfred P. Sloan Research Fellowship (February 2010, unrestricted)

Bristol–Myers Squibb Grantee Award (January 2011, unrestricted)

Cosmetics Company A, Licensing Agreement

Cosmetics Company B, Licensing Agreement

DuPont Agricultural Division, Licensing Agreement

DuPont Young Professor Award (September 2011, unrestricted)

Eli Lilly New Faculty Award (September 2006, unrestricted)

Eli Lilly Grantee Award (October 2009, unrestricted)

NBC Studios, Law and Order: SVU, Technical Consulting

Sigma-Aldrich, Licensing Agreement

Completed Grant Support

Camille and Henry Dreyfus New Faculty Award, September 2006–September 2011

“The Chemistry and Biology of the Napyradiomycins”

American Chemical Society Petroleum Research Fund, Type G, January 2008–December 2009

“The Development of New Halogenation Reactions of Broad Utility”

National Institutes of Health (R01-GM084994), March 2009–August 2015

“The Chemistry and Biology of Resveratrol-based Oligomers”

National Science Foundation – CAREER Award (CHE-0844593), June 2009–May 2014

“The Chemistry and Biology of Halogenated Natural Products”

Cottrell Scholar Award, Research Corporation for Science Advancement, July 2009–July 2013

“Achieving Synthetic Control When Nature Abandons Selectivity”

•Supplemental education program (with Co-PIs P. Beuning and D. Besson)

Current Grant Support

National Institutes of Health (R01-GM132570), April 2019–March 2023

“Utilizing Non-Functionalized Terpenes to Develop Novel Strategies and Chemoselective Transformations”

Sole PI

(\$1,212,300 total; \$800,000 direct, \$412,300 indirect)

National Institutes of Health (R01-GM124295), July 2017–June 2020
“Catalysis of Tin-Free Radical Reactions Under H₂”

Co-PI (sub-recipient) with J. R. Norton, Columbia University
(\$303,184 total; \$199,652 direct, \$103,531 indirect)