STEPHEN F. MARTIN

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Education

University of New Mexico (BS, 1968)
Princeton University (PhD, 1972)
University of Munich (Alexander von Humboldt Postdoctoral Fellow, 1972-73)
Massachusetts Institute of Technology (NIH Postdoctoral Fellow, 1973-74)

Employment

University of Texas – Assist. Professor (1974-80); Assoc. Professor (1980-86); Professor (1986-2024)
NuvoNuro, Inc. – President and co-founder (2023-present)

Selected Honors and Awards

National Institutes of Health Research Career Development Award 1980-85
American Cyanamide Academic Awardee, 1986
Alexander von Humboldt Prize, 1995
Arthur C. Cope Scholar Award, 1996
Novartis Chemistry Award, 1997
Ta-Shue Chou Foundation Award (Academica Sinica), 2000
M. June and J. Virgil Waggoner Regents Chair of Chemistry, 2000-2024
Japan Society for the Promotion of Science Award, 2001
Wyeth Research Award, 2003
Fellow of Institute of Cellular and Molecular Biology, University of Texas, 2003-2004
Fellow of American Association for the Advancement of Science 2005-
International Society of Heterocyclic Chemistry (ISHC) Senior Award, 2013
Herbert C. Brown Lecturer Award, 2014
Ernest Guenther Award in the Chemistry of Natural Products (ACS), 2017
Designated as Fellow of the American Chemical Society, 2018
Gund-Harrington Scholar Award, 2019-2023

Selected Other Professional Recognition and Activities

NIH Medicinal Chemistry Study Section, 1983-87
Symposium Executive Officer for 31st National Organic Symposium, 1989
Executive Committee, Division of Organic Chemistry ACS, 1988-1990
Member of Editorial Advisory Board of "Progress in Heterocyclic Chemistry", 1988-1996
Visiting Professor, University of Paris VI, Fall 1990
Visiting Professor, National Taiwan University, Spring 1991
Member of Board of Editors, *Organic Synthesis*, 1991-1999
Member of Advisory Board, *Organic Synthesis*, 1999-
Consultant, Procter and Gamble, 1992-1998
Consultant, Elan Pharmaceutical (formerly Athena Neurosciences), 1992-2005
Regional Editor for the Americas of *Tetrahedron*, 1992-2019
Executive Board of Editors of Tetrahedron Publications, 1992-2019
Fellow Royal Society of Chemistry, 1996–present
Executive Committee, Division of Organic Chemistry ACS, 1998-2000
Visiting Professor, University of Versailles, 1999
Consultant for Abbott Laboratories, 2000-2005
Visiting Professor, University of Bordeaux, 2004
Consultant ICOS Corporation, 2003-2007
Chair, Department of Chemistry and Biochemistry, 2004-2008
Organizer of 9th Tetrahedron Symposium, Berkeley, CA, 2008
Adjunct Professor, UTMB School of Medicine 2005-2009
Co-Founder of Texas Institute for Drug and Diagnostic Development, 2005-2014
Member, Science Foundation Ireland Chemistry Review Panel, Research Frontiers Program, 2007-2009
Member, Keystone Symposium Advisory Board 2007-2008
Member, Thieme-IUPAC Prize in Synthetic Organic Chemistry Selection Committee, 2008
Member, Advisory Board of International Society of Heterocyclic Chemistry, 1992-1994 and 2011-2014
Member, EVISE User Advisory Board, 2010-2015
Member, Promotion and Tenure Committee, Jackson School of Geological Sciences, 2011-2014
Chairman, Executive Board of Tetrahedron Publications, 2013–2018
Chair, Canvassing Committee, Herbert C. Brown Award for Research in Synthetic Methods, 2013-2015

Memberships

Honorary and Professional Societies - Phi Beta Kappa, Phi Kappa Phi, Kappa Mu Epsilon, Sigma Xi, American Chemical Society, Royal Society of Chemistry (London)

Books

1. R. M. Roberts, J. C. Gilbert, and S. F. Martin. *Experimental Organic Chemistry: A Miniscale Approach*, Philadelphia: Saunders College Publishing, 1994, xxvi + 777 pp.
2. R. M. Roberts, J. C. Gilbert, and S. F. Martin, *Pre-Lab Exercises for Experimental Organic Chemistry: A Miniscale Approach* Philadelphia: Saunders College Publishing, 1994, 130 pp.
3. R. M. Roberts, J. C. Gilbert, and S. F. Martin, *Instructor's Manual for Experimental Organic Chemistry: A Miniscale Approach* Philadelphia: Saunders College Publishing, 1994, iv + 330 pp.
4. J. C. Gilbert and S. F. Martin. *Experimental Organic Chemistry: A Miniscale and Microscale Approach*, 2nd. Ed., Philadelphia: Saunders College Publishing, 1998, xxiv + 723 pp.
5. J. C. Gilbert and S. F. Martin, *Pre-Lab Exercises for Experimental Organic Chemistry: Miniscale and Microscale Approaches* Philadelphia: Saunders College Publishing, 1998, 130 pp.
6. J. C. Gilbert and S. F. Martin, *Instructor's Manual for Experimental Organic Chemistry: Miniscale and Microscale Approaches,* Philadelphia: Saunders College Publishing, 1998, iv + 330 pp.
7. S.F. Martin and J. C. Gilbert *^{1}H NMR Spectra of Simple Molecules*, a CD-ROM, Philadelphia: Saunders College Publishing, 1998.
8. J. C. Gilbert and S. F. Martin, *Experimental Organic Chemistry: A Miniscale & Microscale Approach*, 3rd. Ed., Philadelphia: Harcourt College Publishers, 2002, xxiv+ 820 pp.
9. J. C. Gilbert and S. F. Martin, *Student Tools CD,* Philadelphia: Harcourt College Publishers, 2002.
10. J. C. Gilbert and S. F. Martin, *Instructor's Manual to Accompany Experimental Organic Chemistry: A Miniscale Approach* Philadelphia: Saunders College Publishing, 2002, xii + 316 pp.
11. J. C. Gilbert and S. F. Martin, *Experimental Organic Chemistry: A Miniscale & Microscale Approach*, 4th Ed., Thomson, Brooks/ColePhiladelphia: 2006, xxi+ 927 Diastereoselective addition of monoorganocuprates to a chiral fumarate: reaction development and application to natural product synthesis pp.
12. J. C. Gilbert and S. F. Martin, *Experimental Organic Chemistry: A Miniscale & Microscale Approach*, 5th Ed., Thomson, Brooks/ColePhiladelphia: 2010.
13. J. C. Gilbert and S. F. Martin, *Experimental Organic Chemistry: A Miniscale & Microscale Approach*, 6th Ed., Thomson, Brooks/ColePhiladelphia: 2015.

Patent Applications

1. Martin, S, F.; Granger, B. A.; Hergenrother, P. J.; Knezevic, C. E.; Parkinson, E. I. "Novel Anticancer Agents from the Diverted Total Synthesis of Actinophyllic Acid. U.S. Provisional Patent Application 61/844,738; filed July 10, 2013.
2. Martin, S. F.; Sahn, J. J.; Scott, L.; Pierce-Shimomura, J. T. "Compounds and methods for treating cancer, neurological disorders, ethanol withdrawal, anxiety, depression, and neuropathic pain." U.S. Provisional Patent Application US 61/846,234; filed July 15, 2013; WO2015009742A2, 2015.
3. Martin, S. F.; Sahn, J. J.; Meis, A. R. "Novel Inhibitors of *Trypanosoma brucei* Methionyl t-RNA Synthetase (Tb MetRS) for the Treatment of African Tyrpanosomiasis." UTSB.P1028US.P1; Application No. PCT/US2015/038974; filed 14 July 2015.
4. Martin, S. F.; Sahn, J. J.; Hodges, T. R., "Piperazinyl Norbenzomorphan Compounds and Methods for Using the Same." US 62/243,568 (provisional patent filed October 19, 2015. (6752MAR)
5. Martin, S. F.; Sahn, J. J. "Sigma Receptor Binders. 1." US 62/329,578 (provisional patent filed 4/29/2016).

6. Martin, S. F.; Sahn, J. J.; Wood, M. D. "Sigma Receptor Binders. 2." US 62/329,864 (provisional patent filed 4/29/2016); WO 2017/190107; PCT/US2017/030296.
7. Martin, S. F.; Sahn, J. J.; Linkens, K. T. "Sigma Receptor Binders. 3." US 62/329,869 (provisional patent filed 4/29/2016). WO 2017/190109; PCT/US2017/030300
8. Assaf, A.; Schmidt, H. R.; Wood, M. D.; Sahn, J. J.; Martin, S. F.; Kruse, A. C. "Methods of Treatment for Cancer, Sterol Homeostasis, and Neurological Diseases" (provisional patent filed 2/23/2017) US 62/462,435
9. Martin, S. F.; Sahn, J. J. "Selective Sigma-2 Receptor Ligands as Modulators of TMEM97". (PCT application filed 5/17/23; US2023067129)

Publications [h-index = 78 (Google Scholar); **h-index = 64** (Web of Science**)**]

358. V. M. Hong, A. D. Rade, S. M. Yan, A. Bhaskara, M. S. Yousuf, M. Chen, S. F. Martin, D. J. Liebl, T. J. Price, and B. J. Kolber, *eNeuro* **2024**, *11*, ENEURO.0488-23.2024. Loss of Sigma-2 Receptor/TMEM97 Is Associated with Neuropathic Injury-Induced Depression-Like Behaviors in Female Mice.
357. G. D. Walby, Q. Gu, H. Yang, and S. F. Martin, *Bioorganic Chem.* **2024**, *145*, 107191. Structure-Affinity Relationships of Novel σ_2R/TMEM97 Ligands.
356. M. S. Yousuf, J. J. Sahn, H. Yang, E. T. David, S. Shiers, D. M. Royer, C. D. Garcia, J. Zhang, V. M. Hong, A. Ahmad, B. J. Kolber, D. J. Liebl, S. F. Martin, T. J. Price *Proc. Natl Acad. Sci (USA)* **2023**, *120*, e2306090120. Validation of σ_2R/TMEM97 as a neuropathic pain target: Specificity, human expression and mechanism of action.
355. Y. Lu, Q. Gu, and S. F. Martin *Eur. J. Med. Chem.* **2023**, *257*, 115488. Structure-Affinity Relationships of Stereoisomers of Norbenzomorphan-Derived σ_2R/TMEM97 Modulators.
354. H. Wang, Z. Peng, Y. Li, J. J. Sahn, T. R. Hodges, T.-H. Chou, Q. Liu, X. Zhou, S. Jiao, V. Porciatti, D. J. Liebl, S. F. Martin, R. Wen, *Sci. Rep. (Nature)* **2022**, *12*: 20753. σ_2R/TMEM97 in retinal ganglion cell degeneration.
353. J. Jin, N. Arbez, J. J. Sahn, Y. Lu, K. T. Linkens, T. R. Hodges, A. Tang, R. Wiseman, S. F. Martin, and C. A. Ross, *ACS Chem. Neurosci.* **2022**, *13*, 2852. Neuroprotective Effects of σ_2R/TMEM97 Receptor Modulators in Neuronal Model of Huntington's Disease. (PMID: 36108101; PMCID: PMC954794)
352. M. D. Wood, J. J. Sahn, and S. F. Martin, *Eur. J. Med. Chem.* **2022**, *243:*114696. Targeting σ_2R/TMEM97 Receptors with Novel Aminotetralins.
351. G. D. Walby and S. F. Martin, *Eur. J. Med. Chem*. **2022**, *235*, 114310. Preparation and Evaluation of Sigma Receptor Binding Affinities of Novel Analogs of 2-Aryl Piperidines.
350. S. F. Martin, *Acc. Chem. Res.* **2022***, 55*, 2397. Invited article. Bridging Known and Unknown Unknowns: From Natural Products and Their Mimics to Unmet Needs in Neuroscience.
349. Z. Wang and S. F. Martin, *Chem. Eur. J.* **2022**, e202200311. Design, Synthesis and Evaluation of Novel Carbazole-Derived Photocages.
348. Z. Wang and S. F. Martin, *Tetrahedron* **2021**, *103*, 132551. Concise Stereoselective and Stereodivergent Syntheses of (±)-Melicolones A and B. *invited article*
347. M. D. Wood, D. W. Klosowski, and S. F. Martin *Tetrahedron* **2021**, *89*, 132150. Tandem Vinylogous Mannich and Hetero Diels-Alder Reactions: Concise Total Synthesis of (±)-Alstoscholarisine E. *invited article.*
346. S. G. Quadir, S. M. Tanino, C. D. Rohl, J. J. Sahn, E. J. Yao, L. dos Reis Cruz, P. Cottone, S. F. Martin, V. Sabino, *Neuropharmacol.* **2021**, *184*, 108409. The Sigma-2 Receptor / Transmembrane protein 97 (σ_2R/TMEM97) Modulator JVW-1034 Reduces Heavy Alcohol Drinking and Associated Pain States in Male Mice.
345. G. A. Abeykoon, J. J. Sahn, and S. F. Martin *Tetrahedron Lett.* **2021**, *66*, 152828. Novel Substituted Triazolo Benzodiazepine Scaffolds to Explore Chemical Space.

344. L. T. Lepovitz and S. F. Martin, *J. Org. Chem.* **2021**, *86*, 10946. Biomimetically Inspired, One-Step Synthesis of Exotine A and Exotine B; *selected for special issue on natural product synthesis*

343. S. Blumberg and S. F. Martin, *ARKIVOC*, **2021**, part v, 7. Racemic or enantioselective osmium-catalyzed dihydroxylation of olefins under near-neutral conditions.

342. Z. Wang and S. F. Martin, *Org. Lett*. **2020**, *22*, 9071. Concise Syntheses of (±)-Melicolone A and (±)-Melicolone B. *Highlighted in SYNFACTS: Synfacts* **2021**, *17*, 0219. *Also featured in Org. Chem. Highlights: Methods for Carbocyclic Construction.*

341. D. L. Cramer, J. Tian, B. Cheng, J. H. Clements, R. M. Wypych, and S. F. Martin, *Eur. J. Med. Chem.* **2020**, *208*:112771. Some Thermodynamic Effects of Varying Nonpolar Surfaces in Protein-Ligand Interactions. (PMCID: PMC7680455; PMID: 32916312)

340. L. T. Lepovitz, A. R. Meis, S. M. Thomas, J. Wiedeman, A. Pham, K. Mensa-Wilmot, and S. F. Martin, *Tetrahedron* **2020**, *76*:131086. Design, synthesis, and evaluation of novel anti-trypanosomal compounds.

339. R. M. Wypych, S. R. LaPlante, P. W. White, and S. F. Martin *Eur. J. Med. Chem.* **2020**, *192*:112195. Structure-Thermodynamics Relationships of Hepatitis C Viral NS3 Protease Inhibitors.

338. A. M. Goodnough, J. J. Sahn, and S. F. Martin *Tetrahedron Lett.* **2020**, *61*:151777. Facile Entry to Substituted 2-Arylpiperidines via an Aza-Sakurai Reaction.

337. M. D. Wood, D. W. Klosowski, and S. F. Martin *Org. Lett.* **2020**, *22*, 786. Stereoselective Synthesis of (±)-Alstoscholarisine E.

336. L. T. Lepovitz and S. F. Martin, *Tetrahedron* **2019**, *75*:130637. Diversity-Oriented Synthesis of Bioactive Azaspirocycles.

335. E Vázquez-Rosa, M. R. Watson, J. J. Sahn, T. R. Hodges, R. E. Schroeder, C. J. Cintrón-Pérez, M.-K. Shin, T. C. Yin, J. L. Emery, S. F. Martin, D. J. Liebl, A. A. Pieper, *ACS Chem. Neurosci.* **2019**, *10*, 1595. Neuroprotective Efficacy of a Novel Sigma 2 Receptor/TMEM97 Modulator (DKR-1677) after Traumatic Brain Injury.

334. L. T. Lepovitz and S. F. Martin, *Org. Lett.* **2018***, 20,* 7875. Biomimetically-Inspired Synthesis of Exotine A. *Among top ten downloaded articles for December 2018.*

333. S. Blumberg and S. F. Martin, *Tetrahedron,* **2018**, *74*, 4981. "Toward the Total Synthesis of Citreamicin η: Synthesis of the Pentacyclic Core and GAB-Ring Annelation Model Studies."

332. C. Dockendorff, D. Gandhi, I. H. Kimball, K. S. Eum, R. Rusinova, H. Ingolfsson, R. Kapoor, T. Peyear, M. W. Dodge, S. F. Martin, R. W. Aldrich, O. S. Andersen, J. T. Sack, *Biochemistry*, **2018**, *57*, 2733. "Synthetic analogs of the snail toxin 6-bromo-2-mercaptotryptamine dimer (BrMT) reveal that lipid bilayer perturbation does not underlie its modulation of voltage-gated potassium channels."

331. D. W. Klosowski, J. C. Hethcox, D. H. Paull, C. Fang, J. R. Donald, C. R. Shugrue, A. D. Pansick, and S. F. Martin, *J. Org. Chem.* **2018**, *83*, 5954. "Enantioselective Halolactonization Reactions using BINOL-derived Bifunctional Catalysts: Methodology, Diversification, and Applications." *(Highlighted in SYNFACTS **2018**, 790)*

330. T. R. Hodges, N. Benjamin, S. F. Martin, *Tetrahedron* **2018** *74*, 3329. "Concise Approach to the Syntheses of (±)-Gliocladin C and Related Diketopiperazine Alkaloids."

329. K. Linkens, H. R. Schmidt, J. J. Sahn, A. C. Kruse, and S. F. Martin, *Eur. J. Med. Chem.* **2018**, *151*, 557. "Investigating isoindoline, tetrahydroisoquinoline, and tetrahydrobenzazepine scaffolds for their sigma receptor binding properties."

328. D. W. Klosowski and S. F. Martin *Org Lett.* **2018**, *20*, 1269. "Synthesis of (+)-Disparlure via Enantioselective Iodolactonization."

327. L. L. Scott, J. J. Sahn, A. Ferragud, R. C. Yen, P. N. Satarasingh, M. D. Wood, T. R. Hodges, T. Shi, B. A. Prakash, K. M. Friese, A. Shen, J. T. Pierce, V. Sabino, S. F. Martin, *Neuropsychopharmacology,* **2018**, *43*, 1867. "Novel small molecule modulator of σ2R/Tmem97 reduces alcohol withdrawal-induced behaviors."

326. D. W. Klosowski and S. F. Martin, *SynLett*, **2018**, *29*, 430. “Synthesis of Enantioenriched Cyclohexene Fragments for Kibdelone C.” (invited paper). *Featured on cover of special issue of journal.*

325. E. Ghanem, S. Long, S. Rodenbusch, R. Shear, J. Beckham, K. Procko, L. DePue, K. Stevenson, J. Robertus, S. Martin, B. Holliday, R. A. Jones, E. Anslyn, S. Simmons, *J. Chem. Ed.* **2018**, *95*, 248. "Teaching through Research: Alignment of Core Chemistry Competencies and Skills within a Multidisciplinary Research Framework".

324. S. Mondal, E. Hegarty, J. J. Sahn, L. L. Scott, S. K. Gökçe, C. Martin, N. Ghorashian, P. N. Satarasinghe, S. Iyer, W. Sae-Lee, T. R. Hodges, J. T. Pierce, S. F. Martin, and A. Ben-Yakar, *ACS Chem. Neurosci.* **2018**, *9*, 1014. High-Content Microfluidic Screening Platform Used To Identify σ2R/Tmem97 Binding Ligands that Reduce Age-Dependent Neurodegeneration in C. elegans SC_APP Model."

323. S. F. Martin, "Natural Products and Their Mimics as Targets of Opportunity for Discovery." *J. Org. Chem.* **2017**, *82*, 10757. *Featured as ACS Editor's Choice article for 2017.*

322. C. Dockendorff, D. Gandhi, I, Kimball, K. S. Eum, R. Rusinova, H. Ingolfsson, R. Kapoor, T. Peyear, S. F. Martin, R. W. Aldrich, O. S. Andersen, J. Sack, *Biophys. J.* **2017**, *112*, 246A-247A. "Lipid Bilayer Perturbation by the Snail Toxin 6-Bromo-2-Mercaptotryptamine Dimer does not Account for its Modulation of Voltage-Gated Potassium Channels."

321. J. J. Sahn, G. L. Mejia, P. R. Ray, S. F. Martin, T. J. Price, *ACS Chem. Neurosci.* **2017**, *8*, 1801. "Sigma 2 Receptor/Tmem97 Agonists Produce Long Lasting Antineuropathic Pain Effects in Mice." *Featured in multiple news highlights: See Pharmafocus, September 2017, Vol 19 (7), p 8.*

320. A. Alon, H. R. Schmidt, M. D. Wood, J. J. Sahn, S. F. Martin, A. C. Kruse, *Proc. Natl. Acad. Sci (USA)*, **2017**, *114*, 7160. "Identification of the gene that codes for the σ2 receptor." *Featured in PNAS Commentary: Proc. Natl. Acad. Sci (USA)*, **2017**, *114*, 6888.

319. T. R. Hodges, N. Benjamin, S. F. Martin, *Org. Lett.* **2017**, *19*, 2254. "Synthesis of Gliocladin C and Related Alkaloids."

318. R. Yu, X. Chen, S. F. Martin, and Z. Wang, *Org. Lett.* **2017**, *19*, 1808. “Differentially Substituted Phosphines via Decarbonylation of Acylphosphines.”

317. J. J. Sahn, T. R. Hodges, and S. F. Martin, *ACS Med. Chem. Lett.* **2017**, *8*, 455. "Norbenzomorphan Scaffold: Chemical Tool for Modulating Sigma Receptor-Subtype Selectivity."

316. S. Blumberg and S. F. Martin, *Org. Lett.* **2017**, *19,* 790. "Synthesis of the pentacyclic core of citreamicin η."

315. B. Yi, J. J. Sahn, P. M. Ardestania, A. K. Evans, L. Scott, J. Z. Chan, S. Iyer, A. Crisp, G. Zuniga, J. Pierce-Shimomura, S. F. Martin, M. Shamloo, *J. Neurochem* **2017**, *140,* 561doi: 10.1111/jnc.13917. "Small molecule modulator of sigma 2 receptor is neuroprotective and reduces cognitive deficits and neuroinflammation in experimental models of Alzheimer’s disease."

314. J. J. Sahn, T. Hodges, J. Chan, and S. F. Martin *ChemMedChem* **2016**, *11*, 556. "Norbenzomorphan Framework as a Novel Scaffold for Generating Sigma 2 Subtype Selective Ligands."

313. B. Cheng, J. D. Sunderhaus, and S. F. Martin *Tetrahedron* **2015**, *71*, 7323. "Applications of Ring Closing Metathesis. Total Synthesis of (±)-Pseudotabersonine." (invited paper)

312. J. C. Hethcox, C. S Shanahan, and S. F. Martin, *Tetrahedron* **2015**, *71*, 6361. "Diastereoselective addition of monoorganocuprates to a chiral fumarate: reaction development and application to natural product synthesis." (invited paper)

311. D. Knueppel, J. Yang, B. Cheng, D. Mans, and S. F. Martin, *Tetrahedron* **2015**, *71*, 5741. "Total Synthesis of the Aglycone of IB-00208." (invited paper)

310. S. Blumberg and S. F. Martin *Tetrahedron Lett*. **2015**, *56*, 3674. "4-(Phenylazo)diphenylamine (PDA): A universal indicator for the colorimetric titration of strong bases, Lewis acids, and hydride reducing agents." (invited paper)

309. J. Yang, D. Knueppel, B. Cheng, D. Mans, and S. F. Martin, *Org. Lett.* **2015**, *17,* 114. "Approaches to Polycyclic 1,4-Dioxygenated Xanthones. Application to Total Synthesis of the Aglycone of IB-00208."

308. Z. Bian, C. C. Marvin, M. Pettersson, and S. F. Martin, *J. Am. Chem. Soc.* **2014**, *136*, 14184. "Enantioselective Total Syntheses of Citrinadins A and B. Stereochemical Revision of their Assigned Structures."

307. S. Hardy and S. F. Martin, *Tetrahedron* **2014**, *70*, 7142. "Multicomponent, Mannich-type assembly process for generating novel, biologically active 2-arylpiperidines and derivatives."

306. J. J. Sahn, B. A. Granger, and S. F. Martin *Org. Biomol. Chem.* **2014**, *12*, 7659. "Evolution of a Strategy for Preparing Bioactive Small Molecules by Sequential Multicomponent Assembly Processes, Cyclizations, and Diversification."

305. J. M. Myslinski, J. H. Clements, and S. F. Martin, *Biorg. Med. Chem. Lett.* **2014**, *24*, 3164. "Protein-Ligand Interactions: Probing the Energetics of a Putative Cation-π Interaction."

304. B. A. Granger, I. T. Jewett, J. D. Butler, and S. F. Martin, *Tetrahedron* **2014***, 70*, 4094. "Concise Total Synthesis of (±)-Actinophyllic Acid."

303. S. F. Martin, *Adv. Heterocyclic Chem.* **2013**, *110*, 73. "Strategies for the Synthesis of Alkaloids and Novel Nitrogen Heterocycles."

302. J. M. Myslinski, J. H. Clements, J. E. DeLorbe, and S. F. Martin *ACS Med Chem Lett.* **2013**, *4*, 1048. "Protein-Ligand Interactions: Thermodynamic Effects Associated with Increasing the Length of an Alkyl Chain."

301. B. A. Granger, Z. Wang, K. Kaneda, Z. Fang, and S. F. Martin *ACS Combi. Sci.* **2013**, *15*, 379. "Multicomponent Assembly Processes for the Synthesis of Diverse *Yohimbine* and *Corynanthe* Alkaloid Analogs."

300. B. A. Granger, I. T. Jewett, J. D. Butler, B. Hua, C. E. Knezevic, E. I. Parkinson, P. J. Hergenrother, and S. F. Martin, *J. Am. Chem. Soc.* **2013**, *135*, 12984. "Synthesis of (±)-Actinophyllic Acid and Analogs: Applications of Cascade Reactions and Diverted Total Synthesis."

299. Z. Bian, C. C. Marvin, and S. F. Martin, *J. Am. Chem. Soc.* **2013**, *135*, 10886. "Enantioselective Total Synthesis of (–)-Citrinadin A and Revision of its Stereochemical Structure." *(Highlighted in C&EN, July 29, 2013, p 28; vol 91, issue 30)*

298. C. S. Shanahan, C. Fang, N. O. Fuller, J. Dietz, B. Ludolph, D. H. Paull, and S. F. Martin, *Tetrahedron* **2013**, *69*, 7592. "The Evolution of a Dipolar Cycloaddition Strategy as Applied to an Asymmetric Formal Total Synthesis of the Stemofoline Alkaloids."

297. T.-H. Fu, W. T. McElroy, M. Shamszad, R. W. Heidebrecht, Jr., B. Gulledge, and S. F. Martin, *Tetrahedron* **2013**, *69*, 5588. "Studies toward welwitindolinones: Formal syntheses of *N*-methylwelwitindolinone C isothiocyanate and related natural products."

296. J. C. Hethcox, C. S Shanahan, and S. F. Martin, *Tetrahedron Lett.* **2013**, *54*, 2074. "Total Synthesis of (-)-Dihydroprotolichesterenic Acid via Asymmetric Conjugate Addition to Chiral Fumarates."

295. S. F. Martin and J. H. Clements, *Annu. Rev. Biochem.* **2013**, *82*, 267. "Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."

294. C. Fang, D. H. Paull, J. C. Hethcox, C. R. Shugrue, and S. F. Martin, *Org. Lett.* **2012***, 14*, 6290. "Enantioselective Iodolactonizations of Disubstituted Olefinic Acids Using a Bifunctional Catalyst to Form Stereogenic C–I Bonds."

293. C. Fang, C. S. Shanahan, D. H. Paull, and S. F. Martin, *Angew. Chem. Int. Ed.* **2012**, *51,* 10596. "Enantioselective Formal Total Syntheses of Didehydrostemofoline and Isodidehydrostemofoline via a Novel Catalytic Dipolar Cycloaddition Cascade.″ (Highlighted in *SYNFACTS* **2012**, 1280.)

292. J. J. Sahn and S. F. Martin, *ACS Combi. Sci.* **2012**, *14*, 496. "Expedient Synthesis of Norbenzomorphan Library via Multicomponent Assembly Process Coupled with Ring-Closing Reactions." (Most read article of Q3 2012 in *ACS Combi. Sci.*)

291. T.-h. Fu, W. T. McElroy, M. Shamszad, and S. F. Martin *Org. Lett*. **2012**, *14*, 3834. "Formal Syntheses of Naturally Occurring Welwitindolinones."

290. D. H. Paull, C. Fang, J. R. Donald, A. D. Pansick, and S. F. Martin, *J. Am. Chem. Soc.* **2012**, *134*, 11129. "Bifunctional Catalyst Promotes Highly Enantioselective Bromolactonizations to Generate Stereogenic C–Br Bonds." (Highlighted in C&EN, July 9, 2012, p 29; vol 90, issue 28)

289. A. L. Nichols, P. Zhang, and S. F. Martin, *Tetrahedron*, **2012**, *68,* 7591. "Concise approach to 1,4-dioxygenated Xanthones via Novel application of the Moore rearrangement."

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28. S. F. Martin, G. W. Phillips, T. A. Puckette and J. A. Colapret, *J. Am. Chem. Soc.* **1980**, *102*, 5866. "Geminal Acylation-Alkylation at a Carbonyl Carbon *via* Regiospecifically Generated Metalloenamines."

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25. S. F. Martin, *Tetrahedron* **1980**, *36*, 419. "Methodology for the Construction of Quaternary Carbon Centers."

24. S. F. Martin, *Synthesis* **1979**, 633. "Synthesis of Aldehydes, Ketones, and Carboxylic Acids from Lower Carbonyl Compounds by C-C Coupling Reactions."

23. S. F. Martin, T. Chou and C. Tu, *Tetrahedron Lett.* **1979**, 3823. "Intramolecular [4+2] Cycloaddition Reactions of Enamines and Enamides."

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21. S. F. Martin and S. R. Desai, *J. Org. Chem.* **1978**, *43*, 4673. "Heteroatom-Substituted Butadienylphosphonium Salts as Reagents. A New Synthesis of 2-Ethoxycyclohexadienes and Cyclohexenones."

20. S. F. Martin and G. W. Phillips, *J. Org. Chem.* **1978**, *43*, 3792. "Homologation-Alkylation of Carbonyl Compounds *via* Regiospecifically Generated Metalloenamines."

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16. S. F. Martin and M. T. DuPriest, *Tetrahedron Lett.* **1977**, 3925. "Reactions of Allylpyrrolidine Carbanions with Electrophiles. A New, Homoenolate Equivalent."

15. S. F. Martin and P. J. Garrison, *Tetrahedron Lett.* **1977**, 3875. "A Facile Procedure for the Synthesis of α,β-Unsaturated Aldehydes by Three Carbon Homologation."

14. S. F. Martin and S. R. Desai, *J. Org. Chem.* **1977**, *42*, 1664. "2-Ethoxyallylidene Triphenylphosphorane. A New Reagent for Cyclohexenone Annulation."

13. S. F. Martin, T. S. Chou and C. W. Payne, *J. Org. Chem.* **1977**, *42*, 2520. "Carbonyl Homologation with α-Substitution. A New Synthesis of 4,4-Disubstituted Cyclopent-2-enones."

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11. S. F. Martin, *J. Org. Chem.* **1976**, *41*, 3337. "Carbonyl Homologation with α-Substitution. A New Approach to Spiroannelation."

10. S. F. Martin and R. Gompper, *J. Org. Chem.* **1974**, *39*, 2814. "A Facile Method for the Transformation of Ketones into α-Substituted Aldehydes."

9. E. C. Taylor and S. F. Martin, *J. Am. Chem. Soc.* **1974**, *96*, 8095. "A General Method for Alkylation and Alkenylation of Heterocycles."

8. E. C. Taylor, M. L. Chittenden and S. F. Martin, *Heterocycles* **1973**, *1*, 59. "A General Procedure for the Synthesis of Epoxy-Alkylated and Acylated Heterocycles."

7. E. C. Taylor and S. F. Martin, U.S. Patent No. 3,989,691. "Preparation of *Cinchona* Alkaloid Intermediates."

6. E. C. Taylor, S. F. Martin, Y. Maki and G. P. Beardsley, *J. Org. Chem.* **1973**, *38*, 2238. "Pteridines, XXVII. A New Synthetic Route to Pteridines and 7-Azapteridines."
5. E. C. Taylor and S. F. Martin, *J. Org. Chem.* **1972**, *37*, 3958. "Synthesis of Some 7-Aryl-6-azapteridines from 1,2,4-Triazine Intermediates."
4. E. C. Taylor and S. F. Martin, *J. Am. Chem. Soc.* **1972**, *94*, 6218. "A Facile Synthesis of Quinine and Related *Cinchona* Alkaloids."
3. E. C. Taylor and S. F. Martin, *J. Am. Chem. Soc.* **1972**, *94*, 2874. "A Facile Method for Alkylation and Alkenylation of Heterocycles."
2. E. C. Taylor and S. F. Martin, *J. Org. Chem.* **1970**, *35*, 3792. "A New Synthesis of *as*-Triazines and Pyrimido[4,5-*e]-as*-triazines (6-Azapteridines)."
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Invited Lectures

1. Texas Synthesis Symposium, Winedale, TX, November 1974; "New Approaches to Geminal Alkylation."
2. Texas Synthesis Symposium, Winedale, TX, November 1975; "New Approaches to Spiroannelation."
3. Texas Synthesis Symposium, Windedale, TX, November 1976; "New Methods for Annulations."
4. 173rd ACS Meeting, New Orleans, LA, March 1977; "Functionalized Allylidene Triphenylphosphoranes. New Reagents for Organic Synthesis."
5. University of Texas, San Antonio, TX, April 1977; "New Approaches to Geminal Alkylations for Natural Products Synthesis."
6. Texas Eastman, Longview, TX, August 1977; "New Approaches to Geminal Alkylations for Natural Products Synthesis."
7. Texas A&M University, College Station, TX, September 1977; "New Synthetic Methods for Geminal Alkylations."
8. University of Indiana, Bloomington, IN, September 1977; "New Approaches to Geminal Alkylations."
9. 174th ACS Meeting, Chicago, IL, September 1977; "A Total Synthesis of Racemic Acorone and Related Spirocyclic Sesquiterpenes."
10. Texas Synthesis Symposium, Windedale, TX, November 1977; "General Methods of Alkaloid Synthesis. Total Synthesis of Racemic *O*-Methyljoubertiamine."
11. Wesleyan University, Middletown, CT, July 1978; "Recent Applications of New Methodology for Geminal Alkylations."
12. Hoffmann-La Roche, Inc., Nutley, NJ, July 1978; "New Methodology for the Construction of Quarternary Carbon Centers."
13. Pfizer, Inc., Groton, CT, July 1978; "New Approaches to Geminal Alkylations."
14. Gordon Reseach Conference on Natural Products, New Hampton, NH, July 1978; "Facile Synthesis of the *Sceletium* Alkaloids O-Methyljoubertiamine and Mesembrine."
15. University of Houston, Houston, TX, September 1978; "New Methodology for Geminal Alkylations."
16. Texas Synthesis Symposium, Winedale, TX, November 1978; "Intramolecular [4+2] Cycloaddition Reactions of Enamines and Enamides."
17. ACS/CSJ Chemical Congress, Honolulu, HA, April 1979; "Total Synthesis of Racemic O-Methyljoubertiamine and Racemic Mesembrine."
18. Mead-Johnson Pharmaceutical, Evansville, IN, April 1979; "New Methodology for Natural Products Synthesis."
19. 10th Workshop on Organic Synthesis and Natural Products Chemisry, Pingree Park, CO, June 1979; "General Methods of Alkaloid Synthesis via Intramolecular Cycloaddition Reactions of Eamines and Enamides."
20. Gordon Research Conference on Natural Products, New Hampton, NH, July 1979; "General Methods of Alkaloid Synthesis. Intramolecular [4+2] Cycloaddition Reactions of Enamines and Enamides."
21. McNeil Laboratories, Fort Washington, PA, September 1979; "General Methodology for the Synthesis of Natural Products."
22. 178th ACS National Meeting, Washington, DC, September 1979; "General Methods for Alkaloid Synthesis. Intramolecular [4+2] Cycloaddition Reactions of Enamines and Enamides."
23. Texas Synthesis Symposium, Winedale, TX, November 1979; "Approaches Toward the Total Synthesis of Pretazettine."

24. Port Aransas Marine Science Institute, Port Aransas, TX, January 1980; "Nitrogen Containing Natural Products."
25. Sandoz, Hanover, NJ, February 1980; "New Methodology for the Synthesis of Alkaloids."
26. Princeton University, Princeton, NJ, February 1980; "General Methods for Alkaloid Synthesis."
27. East Texas State University, Commerce, TX, March 1980; "Total Synthesis of Mesembrine."
28. 179th ACS National Meeting, Houston, TX, March 1980; "Novel Intramolecular [4+2] Cycloaddition Reactions of Enamines and Enamides."
29. Tulane University, New Orleans, LA, April 1980; "General Methods for Alkaloid Synthesis."
30. Gordon Research Conference on Reactions and Processes, New Hampton, NH, July 1980; "Intramolecular [4+2] Cycloaddition Reactions for the Construction of Nitrogen Heterocycles."
31. E.I. DuPont, Central Research, Wilmington, DE, August 1980; "General Strategies for Alkaloid Synthesis."
32. Second Chemical Congress of the North American Continent, Las Vegas, NV, August 1980; "General Methods for Alkaloid Synthesis via Intramolecular [4+2] Cycloaddition Reactions."
33. The Upjohn Company, Kalamazoo, MI, September 1980; "General Strategies for Alkaloid Synthesis."
34. Wayne State University, Detroit, MI, September 1980; "Applications of Intramolecular [4+2] Cycloadditions to Alkaloid Synthesis."
35. Smith, Kline and French Company, Philadelphia, PA, October 1980; "Novel Approaches to Natural Products."
36. University of Pensylvania, Philadelphia, PA, October 1980; "General Strategies for Alkaloid Synthesis."
37. University of New York at Binghampton, Binghampton, NY, November 1980; "New Synthetic Methodology."
38. University of Rochester, Rochester, NY, November 1980; "Recent Progress in the Total Synthesis of Natural Products."
39. Eastman Kodak, Rochester, NY, November 1980; "General Methods for the Construction of Heterocycles."
40. University of New York at Stony Brook, Stony Brook, NY, November 1980; "Recent Applications of Intramolecular [4+2] Cycloadditions."
41. Texas Synthesis Symposium, Winedale, TX, November 1980; "Intramolecular Cycloadditions."
42. University of California, Los Angeles, CA, October 1981; "General Strategies for the Synthesis of Natural Products."
43. University of California, Irvine, CA, October 1981; "Applications of Intramolecular [4+2] Cycloadditions to Alkaloid Synthesis."
44. University of California, San Diego, CA, October 1981; "Recent Advances in Alkaloid Synthesis."
45. University of California, Riverside, CA, October 1981; "Recent Applications of Intramolecular [4+2] Cycloadditions."
46. University of California, Santa Barbara, CA, October 1981; "Alkaloid Synthesis via Intramolecular Cycloadditions."
47. Texas Christian University, Ft. Worth, TX, November 1981; "Novel Strategies for Natural Product Synthesis."
48. University of New Mexico, Albuquerque, NM, November 1981; "General Methodology for the Synthesis of Natural Products."
49. Texas Synthesis Symposium, Winedale, TX, November 1981; "General Synthetic Methods."
50. University of Texas, Austin, TX, January 1982; "Novel Approaches to Natural Products."

51. University of California, Berkeley, CA, February 1981; "Recent Advances in the Synthesis of Heterocyclic Natural Products."
52. Stanford Research Institute, Menlo Park, CA, February 1982; "Recent Advances in the Synthesis of Heterocyclic Natural Products."
53. Gordon Research Conference on Reactions and Processes, New Hampton, NH, July 1982; "A Novel Approach to Tirandamycic Acid."
54. Fourth International Conference on Organic Synthesis, Tokyo, Japan, August 1982; "A Novel Synthetic Approach to the Taxane Diterpenes."
55. Kyushu University, Fukuoka, Japan, Kyushu Symposium on Organic Synthesis, September 1982; "Recent Advances in the Total Synthesis of Natural Products."
56. Nagasaki University, Nagasaki, Japan, September 1982; "Recent Progress in the Total Syntheses of the *Amaryllidaceae* Alkaloids."
57. Hiroshima University, Hiroshima, Japan, Hiroshima Symposium on Organic Synthesis, September 1982; "Recent Advances in the Total Synthesis of Natural Products."
58. Ehime Universiy, Matsuyama, Japan, September 1982; "Novel Approaches to Heterocyclic Natural Products."
59. The University of Tokyo, Tokyo, Japan, September 1982; "Applications of Pericyclic Reactions to the Synthesis of Natural Products."
60. Tokyo Institute of Technology, Tokyo, Japan, September 1982; "Applications of Pericyclic Reactions to the Synthesis of Natural Products."
61. Duke University, Durham, NC, November 1982; "Recent Progress Toward Alkaloid Natural Products."
62. Burrows Wellcome Research, Triangle Park, NC, November 1982; "Recent Progress in the Synthesis of Heterocyclic Natural Products."
63. University of North Carolina, Raleigh, NC, November 1982; "Recent Advances in the Total Synthesis of Natural Products."
64. Emory University, Atlanta, GA, November 1982; "Applications of Pericyclic Reactions to the Synthesis of Natural Products."
65. Georgia Tech, Atlanta, GA, November 1982; "Applications of Pericyclic Reactions to the Synthesis of Natural Products."
66. Texas Synthesis Symposium, Winedale, TX, November 1982; "Recent Advances in the Total Synthesis of Natural Products."
67. Baylor University, Waco, TX, January 1983; "Applications of [4+2] Cycloadditions to the Syntheses of Alkaloid Natural Products."
68. 185th ACS National Meeting, Seattle, WA, March 1983; "Furans as Useful Intermediates for the Syntheses of Oxygenated Natural Products."
69. Gordon Conference on Heterocyclic Chemistry, New Hampton, NH, July 1983; "Recent Advances in the Synthesis of Heterocyclic Natural Products."
70. 186th ACS National Meeting, Washington, DC, August 1983; Intramolecular [4+2] Cycloadditions of Some Trienic Amides. A Novel Approach to the Synthesis of Reserpine.
71. The Upjohn Company, Kalamazoo, MI, October 1983; "Perspectives in Organic Synthesis."
72. University of Florida, Gainesville, FL, October 1983; "General Approaches to the Synthesis of Heterocyclic Natural Products."
73. University of South Florida, Tampa, FL, October 1983; "Recent Progress in the Total Synthesis of Heterocyclic Natural Products."
74. Miami University, Miami, FL, October 1983; "General Strategies for the Synthesis of Heterocyclic Natural Products."

75. Abbott Laboratories, Chicago, IL, November 1983; "Recent Progress in the Synthesis of Heterocyclic Natural Products."
76. Texas Synthesis Symposium, Winedale, TX, November 1983; "Recent Progress in the Synthesis of Heterocyclic Natural Products."
77. New Mexico State University, Las Cruces, NM, December 1983; "General Strategies for the Synthesis of Heterocyclic Natural Products."
78. Tenth MONA Symposium on Natural Products and Medicinal Chemisry, Mona, Jamaica, January 1984; "General Methods for the Asymmetric Synthesis of Oxygenated Natural Products via Furanoid Intermediates."
79. University of British Columbia, Vancouver, BC, January 1984; "General Approaches to the Synthesis of Heterocyclic Natural Products."
80. University of Washington, Seattle, WA, January 1984; "Novel Strategies for the Synthesis of Heterocyclic Natural Products."
81. Oregon State University, Corvallis, OR, January 1984; "Recent Advances in the Total Synthesis of Natural Products."
82. University of Texas, Department of Medicinal Chemistry, Austin, TX, February 1984; "Total Synthesis of Biologically Active Natural Products."
83. Revlon Health Care Group, Tuckahoe, NY, February 1984; "Recent Progress in the Total Synthesis of Alkaloids."
84. Sterling-Winthrop Institute, Renssalaer, NY, March 1984; "Recent Progress in the Synthesis of Biologically Active Natural Products."
85. Rennsalaer Polytechnic Institute, Renssalaer, NY, March 1984; "General Strategies for the Synthesis of Heterocyclic Natural Products."
86. 187th ACS National Meeting, St. Louis, MO, April 1984; "Furans as Key Intermediates for the Asymmetric Syntheses of Oxygenated Natural Products."
87. University of Mississippi, Oxford, MS, April 1984; "Recent Advances in Natural Product Synthesis."
88. Hoffmann-LaRoche, Nutley, NJ, May 1984; "General Strategies for the Synthesis of Heterocyclic Natural Products."
89. Columbia University, New York, NY, June 1984; "Recent Progress in the Synthesis of Natural Products."
90. 19th National Medicinal Chemistry Symposium/ACS, Tucson, AZ, June 1984; "General Synthetic Approaches to Heterocyclic Natural Products."
91. Fifth International Conference on Organic Synthesis, Freiburg, West Germany (August 1984); "Intramolecular Diels-Alder Reactions as a General Strategy for the Total Synthesis of Indole Alkaloids."
92. University of Kaiserslautern, Kaiserslautern, West Germany (August 1984); "Recent Advances in the Total Synthesis of Heterocyclic Natural Products."
93. Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, September 1984; "General Strategies for the Synthesis of Heterocyclic Natural Products."
94. University of Munich, Munich, West Germany, September 1984; "General Methods for the Synthesis of Heterocyclic Natural Products."
95. University of Vienna, Vienna, Austria, September 1984; "Recent Advances in the Total Synthesis of Natural Products."
96. Smith-Kline-Beckmann, Philadelphia, PA, October 1984; "General Methods for the Syntheses of Natural Products."
97. University of Pennsylvania, Philadelphia, PA, October 1984; "Recent Progress in the Synthesis of Heterocyclic Natural Products."

98. Mead Johnson Pharmaceuticals, Evansville, IN, October 1984; "Recent Developments in the Total Synthesis of Heterocyclic Natural Products."
99. Pennsylvania State University, State College, PA, October 1984; "General Strategies for the Syntheses of Biologically Active Natural Products."
100. Texas Synthesis Symposium, Winedale, TX, November 1983; "Total Synthesis of Racemic Reserpine."
101. Texas Tech University, Lubbock, TX, December 1984; "Novel Methods for the Synthesis of Biologically Active Natural Products."
102. 40th Southwest Regional Meeting, ACS, Lubbock, TX, December 1984; "Recent Advances in the Stereselected Synthesis of Natural Products."
103. 1984 International Chemical Congress of Pacific Basin Societies, Honolulu, HA, December 1984; "Application of Anionic Oxy-Cope Rearrangements to the Synthesis of Taxane Diterpenes."
104. 189th ACS National Meeting, Miami Beach, FL, April 1985; "The Total Syntheses of (±)-Reserpine and Related Alkaloids."
105. University of Montreal, Montreal, Canada, August 1985; "Recent Advances in the Synthesis of Alkaloid Natural Products."
106. Tenth International Congress of Heterocyclic Chemisry, University of Waterloo, Ontario, Canada, August 1985; "Recent Applications of Intramolecular Diels-Alder Reactions to Alkaloid Synthesis."
107. University of Illinois, Urbana, IL, September 1985; "The Total Synthesis of (±)-Reserpine and Related Alkaloids."
108. Searle Research and Development, Skokie, IL, September 1985; "Methods and Applications in Asymmetric Synthesis."
109. duPont, Central Research, Wilmington, DE, September 1985; "Recent Advances in the Synthesis of Complex Natural Products."
110. International Sympsoium on Organic Chemistry of Medicinal Natural Products (IUPAC), Shanghai, China, November 1985; "Recent Applications of Intramolecular Diels-Alder Reactions to the Total Syntheses of Indole Alkaloids."
111. Third International Kyoto Conference on New Aspects of Organic Chemistry, Kyoto, Japan, November 1985; "Recent Applications of Intramolecular Diels-Alder Reactions to the Total Syntheses of Indole Alkaloids."
112. Kyoto Symposium on Bioorganic Chemistry, Kyoto University, November 1985; "The Total Synthesis of (±)-Reserpine."
113. Osaka University, Faculty of Pharmaceutical Sciences, Osaka, Japan, November 1985; "New Strategies for the Total Synthesis of Complex Natural Products."
114. Kobe University, Japan, November 1985; "General Methods for Alkaloid Synthesis. The Total Synthesis of (±)-Reserpine."
115. University of So. Carolina, Columbia, SC, December 1985; "General Strategies for the Synthesis of Architecturally Complex Natural Products."
116. 11th Mona Symposium on Natural Products and Medicinal Chemisry, Mona, Jamaica, January 1986; "Recent Applications of Intramolecular Diels-Alder Reactions to the Total Synthesis of Reserpine and Related Alkaloids."
117. The University of Virginia, Charlottesville, VA, February 1986; "Recent Progress in the Total Syntheses of Heterocyclic Natural Products."
118. Princeton Universiy, Princeton, NJ, March 1986; "General Strategies for the Synthesis of Natural Products."
119. The Squibb Institute for Medical Research, Princeton, NJ, March 1986; "Recent Advances in the Total Synthesis of Alkaloid Natural Products."

120. E.R. Squibb & Sons, New Brunswick, NJ, March 1986; "Recent Advances in the Total Synthesis of Alkaloid Natural Products."
121. Anaquest, Murray Hill, NJ, March 1986; "Recent Applications of Cycloaddition Reactions to the Synthesis of Complex Natural Products."
122. University of California, Berkeley, CA, July 1986; "Vignettes from the Total Syntheses of Complex Natural Products."
123. VIth International Conference on Organic Synthesis (IUPAC), Moscow, USSR, August 1986; "Application of Anionic Oxy-Cope Rearrangements to the Total Synthesis of Taxane Diterpenes."
124. University of Texas at San Antonio, San Antonio, TX, September 1986, "Recent Progress in the Total Syntheses of Natural Products."
125. Ciba-Geigy, Summit, NJ, September 1986, "Applications of Pericyclic Reactions to the Total Synthesis of Natural Products."
126. University of Chicago, Chicago, IL, October 1986, "Applications of Sigmatropic Rearrangements and Cycloadditions to Natural Products Synthesis."
127. University of Nebraska, Lincoln, NE, October 1986, "General Strategies for the Synthesis of Complex Natural Products."
128. Texas Synthesis Symposium, Winedale, TX, October 1986, "Applications of Intramolecular Diels-Alder Reactions to the Total Synthesis of Indole Alkaloids."
129. Northwestern University, Evanston, IL, November 1986, "Recent Progress in the Total Syntheses of Heterocyclic Natural Products."
130. G.D. Searle and Company, Skokie, IL, November 1986, "Recent Progress in the Total Syntheses of Heterocyclic Natural Products."
131. Lederle Laboratories, Pearl River, NY, December 1986, "Recent Advances in the Total Synthesis of Natural Products."
132. University of Texas at Arlington, Arlington, TX, April 1987, "Applications of [4+2]- and [3+2]-Cycloadditions to the Total Synthesis of Natural Products."
133. 193rd National ACS Meeting, Denver, CO, April 1987, "Strategies for the Stereoselective Total Syntheses of Complex Natural Products."
134. University of California, Santa Cruz, CA, May 1987, "Recent Advances in the Total Synthesis of Indole Alkaloids."
135. Molecular Design, Ltd., San Leandro, CA, May 1987, "Novel Approaches to the Total Synthesis of Heteroyohimboid and Corynantheoid Alkaloids."
136. Syntex, Palo Alto, CA, May 1987, "Recent Advances in the Total Synthesis of Complex Natural Products."
137. Stanford Research Institute, Menlo Park, CA, May 1987, "Recent Advances in the Total Synthesis of Natural Products."
138. Stanford University, Stanford, CA, May 1987, "Recent Progress in the Total Synthesis of Architecturally Complex Natural Products."
139. Gordon Research Conference on Natural Products, New Hampton, NH, July 1987, "Finding the Hidden Furan. An Approach to the Total Synthesis of Erythronolide A."
140. Lederle Laboratories, Pearl River, NY, August 1987, "Design of General Strategies for the Synthesis of Heterocyclic Natural Products."
141. Fourth International Conference on Chemistry and Biotechnology of Biologically Active Natural Products, Budapest, Hungary, August 1987, "General Strategies for the Synthesis of Biologically Active Natural Products."
142. 11th International Congress of Heterocyclic Chemistry, Heidelburg, W. Germany, August 1987, "A Novel Approach to the Asymmetric Synthesis of the Seco Acid of Erythronolide A via Furan Intermediates."

143. Hoffmann LaRoche Inc., Basel, Switzerland, August 1987, "Creative Approaches to the Synthesis of Architecturally Complex Natural Products."
144. Smith-Kline-French, Philadelphia, PA, November 1987, "Recent Advances in the Total Synthesis of Heterocyclic Natural Products."
145. University of Alabama, University, AL, November 1987, "A General Strategyy for the Synthesis of Highly Oxygenated Natural Products."
146. University of Indiana, Bloomington, IN, November 1987, "General Strategies for the Asymmetric Synthesis of Oxygenated Natural Products."
147. Third International Symposium on Natural Products, Karachi, Pakistan, January 1988, "General Strategies for the Asymmetric Synthesis of Oxygenated Natural Products."
148. Abbott Laboratories, Chicago, IL, February 1988, "The Total Synthesis of the Seco-Acids of Erythronolides A and B."
149. Rocky Mountain Regional American Chemical Society Meeting, Las Vegas, NV, March 1988, "General Strategies for the Asymmetric Synthesis of Oxygenated Natural Products."
150. University of Minnesota, Minneapolis-St. Paul, MN, March 1988, "Recent Progress in the Total Synthesis of Highly Oxygenated Natural Products."
151. University of Iowa, Iowa City, IA, April 1988, "Applications of Intramolecular Diels-Alder Reactions to Problems in Alkaloid Synthesis."
152. E.I. duPont de Nemours and Co., Wilmington, DE, April 1988, "Some Recent Developments in Phospholipid Chemistry."
153. Princeton University, Princeton, NJ, May 1988, "General Strategies for the Asymmetric Synthesis of Highly Oxygenated Natural Products."
154. Wyeth-Ayerst, Princeton, NJ, May 1988, "Recent Progress in the Total Synthesis of Heterocyclic Natural Products."
155. Merck, Sharp & Dohme, Rahway, NJ, May 1988, "Recent Progress in the Total Synthesis of Heterocyclic Natural Products."
156. Schering Plough, Bloomfield, NJ, May 1988, "Recent Advances in the Total Synthesis of Complex Natural Products."
157. Center for Natural Products Chemistry (CNRS), Gif-Sur-Yvette, France, June 1988, "Recent Advances in the Total Synthesis of Highly Oxygenated Natural Products."
158. École Normale Supierior, Paris, France, June 1988, "General Strategies for the Asymmetric Synthesis of Highly Oxygenated Natural Products."
159. VIIth IUPAC Conference on Organic Synthesis, Nancy, France, July 1988, "An Efficacious Route to the Erythromycin Antibiotics."
160. NutraSweet, Chicago, IL, October 1988, "A Highly Efficient Entry to the Erythromycin Antibiotics."
161. Boston University, Boston, MA, October 1988, "A General Approach to Oxygenated Natural Products."
162. Massachusetts Institute of Technology, Boston, MA, October 1988, "A General Approach to Oxygenated Natural Products."
163. Japanese National Conference on "Advanced Molecular Conversions", Kyoto, Japan, November 1988, "General Strategies for the Synthesis of Architecturally Complex Natural Products." (Invited Lecturer)
164. Fourth International Kyoto Conference on New Aspects of Organic Chemistry, Kyoto, Japan, November 1988, "Concise Asymmetric Syntheses of the Seco-Acids of Erythronolides A and B."
165. RIKEN Institute of Physical and Chemical Research, Tokyo, Japan, November, 1988, "A General Synthetic Entry to Architecturally Complex Antibiotics."

166. University of Texas at Dallas, Health Science Center, Dallas, TX, February, 1989. "A General Approach to Oxygenated Natural Products."
167. Trinity University, San Antonio, TX, February 1989. "Novel Strategies for the Synthesis of Indole Alkaloids via Intramolecular Diels-Alder Reactions."
168. Sandoz Pharmaceutical Co., Hanover, NJ, March 1989. "A General Approach to Architecturally Complex Oxygenated Natural Products."
169. University of Utah, Salt Lake City, UT, March 1989. "A General Strategy for the Asymmetric Synthesis of Architecturally Complex Oxygenated Natural Products."
170. Hoffmann LaRoche Pharmaceuticals, Nutley, NJ, April, 1989. "A General Strategy for the Asymmetric Synthesis of Architecturally Complex Oxygenated Natural Products."
171. Rutgers University, New Brunswick, NJ, April, 1989. "Recent Advances in the Total Synthesis of Oxygenated Natural Products."
172. Cornell University, Ithaca, NY, May, 1989. "A General Strategy for the Asymmetric Synthesis of Architecturally Complex Oxygenated Natural Products."
173. Alcon Laboratories, Ft. Worth, TX, May, 1989. "Recent Advances in the Asymmetric Synthesis of Architecturally Complex Oxygenated Natural Products."
174. French American Chemical Society Meeting, Paris, France, June 1989. "Recent Applications of Intramolecular Hetero Diels-Alder Reactions to the Total Synthesis of Indole Alkaloids."
175. 12th International Congress on Heterocyclic Chemistry, Jerusalem, Israel, August, 1989. "Furans and Hydropyrans as Key Intermediates for the Asymmetric Synthesis of Natural Products." (Invited Lecturer)
176. University of California, San Diego, October, 1989. "Recent Progress in the Total Synthesis of Highly Oxygenated Natural Products."
177. University of California, Riverside, October, 1989. "General Strategies for the Synthesis of Heterocyclic Natural Products."
178. University of California, Irvine, October, 1989. "A General Strategy for the Asymmetric Synthesis of Architecturally Complex Oxygenated Natural Products."
179. University of New Mexico. November, 1989. "General Strategies for the Synthesis of Heterocyclic Natural Products."
180. International Chemical Congress of Pacific Basin Societies, December, 1989. "General Strategies for the Asymmetric Synthesis of Oxygenated Natural Products."
181. Texas A & M University, College Station, March, 1990. "Recent Progress in the Total Synthesis of Highly Oxygenated Natural Products."
182. North Carolina State University (Glaxo Lecturer), Raliegh, NC, March, 1990. "General Strategies for the Asymmetric Synthesis of Oxygenated Natural Products."
183. Pfizer Pharmaceuticals, Groton, CN, April, 1990. "General Strategies for the Asymmetric Synthesis of Oxygenated Natural Products."
184. Bristol-Meyers Squibb, Princeton, NJ, May, 1990. "General Strategies for the Asymmetric Synthesis of Heterocyclic Natural Products."
185. Hoechst-Roussel Pharmaceuticals, NJ, June, 1990. "Recent Progress in the Total Synthesis of Highly Oxygenated Natural Products."
186. Gordon Research Conference on Stereochemistry, Salve Regina College, RI, July 1990. "Stereoselective Synthesis of Natural Products."
187. The Royal Institute of Technology, Stockholm, Sweden, July 1990. "Recent Progress in the Total Synthesis of Highly Oxygenated Natural Products."
188. 8th International Conference on Organic Synthesis, Helsinki, Finland, July, 1990. "A Novel Macrolactonization Approach to the Erythromycin Antibiotics."

189. Abbott Laboratories, Abbott Park, IL, August 1990. "Design of Novel Peptide Mimics"
190. National ACS Meeting, Washington DC, August, 1990. "General Strategies for theTotal Synthesis of Heterocyclic Natural Products."
191. University of Paris VI, Paris, France September, 1990. "Progress in the Total Synthesis of Highly Oxygenated Natural Products."
192. University of Orsay, Orsay, France September, 1990. "Design of Stereoselective Reactions and Strategies for Synthesis."
193. Ecole Nationale Superieur de Chemie, Paris, Paris, France September, 1990. "Stereoselective Reactions for the Synthesis of Natural Products."
194. Roussel UCLAF, Romaineville, France, September, 1990. "Stereoselective Reactions for the Synthesis of Natural Products."
195. University of Lyon, Lyon, France, September, 1990. "Stereoselective Reactions for the Synthesis of Natural Products."
196. University of Marseille, Marseille, France, September, 1990. "Design and Development of Stereoselective Reactions for the Synthesis of Complex Natural Products."
197. The University of Texas, Austin, TX, October, 1990. "Recent Progress in Irrational Retrosynthetic Design."
198. Austin College, Sherman, TX, November, 1990. "Progress in Irrational Retrosynthetic Design." (Robert A. Welch Foundation Lectureship)
199. Stephen F. Austin State College, Nagadoches, TX, November, 1990. "Progress in Irrational Retrosynthetic Design." (Robert A. Welch Foundation Lectureship)
200. Sam Houston State University, Huntsville, TX, November, 1990. "Progress in Irrational Retrosynthetic Design." (Robert A. Welch Foundation Lectureship)
201. 2nd French-American Chemical Society Meeting, Captiva Island, FL. January, 1991. "Strategies for the Asymmetric Synthesis of Heterocyclic Natural Products." (Plenary Lecturer)
202. Rice University, Houston, TX, January, 1991. "Strategies and Tactics Inspired by Problems in Total Synthesis of Natural Products".
203. Sterling Drug, Valley Forge, PA, March, 1991. "Recent Advances in the Asymmetric Synthesis of Highly Oxygenated Natural Products."
204. Tsing Hua Symposium on Chemistry, Hsinchu, Taiwan, April, 1991. "Strategies for the Stereoselective Synthesis of Natural Products." (Plenary Lecturer)
205. 1991 International Chemical Conference, Taipei: Synthetic Chemistry, Taipei, Taiwan (ROC), April, 1991. "Strategies for the Stereoselective Synthesis of Natural Products." (Plenary Lecturer)
206. Academia Sinica, Taipei, Taiwan (ROC), April, 1991. "Design and Synthesis of Biologically Active Pseudopeptide Ligands."
207. National Taiwan University, Taipei, Taiwan (ROC), April, 1991. "Recent Advances in the Asymmetric Synthesis of Highly Oxygenated Natural Products."
208. Merck & Co, Westpoint, PA., June, 1991. "Recent Advances in the Stereoselective Synthesis of Heterocyclic Natural Products."
209. American Society of Pharmacognosy, National Meeting, Chicago, IL, July, 1991. "Recent Advances in the Asymmetric Synthesis of Highly Oxygenated Natural Products." (Plenary Lecturer)
210. Givaudan Pharmaceuticals, Dubendorf, Switzerland August, 1991. "Design of Synthetic Methods for Natural Product Synthesis."
211. 33rd IUPAC Congress, Budapest, Hungary, August, 1991. "Synthesis of Highly Oxygenated Natural Products." (Keynote Lecturer)

212. Princeton ACS Fall Organic Chemistry Symposium, Princeton, NJ, October, 1991. "Recent Advances in the Synthesis of Biologically Active Natural and Non-natural Products." (Plenary Lecturer)
213. Boehringer Ingelhein, Ridgefield, CN, November, 1991. "Tactics and Strategies for the Synthesis of Natural Products."
214. Procter and Gamble, Cincinatti, OH, December, 1991. "Novel Design Strategies for Peptide Mimics."
215. Colorado State University, Ft. Collins CO, March, 1992. "Recent Advances in the Total Synthesis of Natural Products."
216. University of Colorado, Boulder CO, March 1992. "Recent Advances in the Total Synthesis of Natural Products."
217. National ACS Meeting, San Francisco CA, April 1992. "Catalytic Asymmetric Cyclopropanations: Methods and Novel Applications to Peptide Mimetics." (Plenary Lecturer)
218. SRI International, Menlo Park, CA May 1992. "Recent Advances in the Design of Novel Peptide Mimics."
219. Burroughs Wellcome, Research Triangle NC, May, 1992. "Synthesis of Rationally Designed, Biologically Active Substances."
220. 75th Canadian Chemical Conference, Edmonton, Alberta, Canada, June, 1992. "Total Synthesis of Complex Antibiotics." (Plenary Lecturer)
221. 23rd Medicinal; Chemistry Symposium, Buffalo NY, June, 1992. "Rational Design of Nonpeptide Ligands for Biological Receptors." (Plenary Lecturer)
222. University of TromsØ, TromsØ, Norway, July 1992. "Design and Synthesis of Inhibitors of Phospholipase C.
223. 18th IUPAC Symposium on Natural Products, Strasbourg, France, September, 1992. "Recent Progress toward the Total Synthesis of Erythromycin."
224. Synaptic Pharmaceuticals, Paramus, NJ, September, 1992. "Vignettes in Alkaloid Synthesis".
225. American Cyanamide, Princeton, NJ, September, 1992. "Vignettes in Alkaloid Synthesis".
226. Proctor and Gamble, Cincinatti, OH, September, 1992. "Recent Advances in Peptide Mimicry".
227. Colorado State University, Ft. Collins, CO October, 1992. "Vignettes in Alkaloid Synthesis".
228. Northwestern Fall Chemical Symposium, Evanston, IL October, 1992. "Recent Advances in Asymmetric Cyclopropanations and Their Applications to Problems in Peptide Mimetics."
229. 28th Mexican National Congress, Puerto Vallarta, Mexico. November, 1992."Recent Progress in the Total Synthesis of Alkaloid Natural Products." (Plenary Lecturer)
230. Eli Lilly and Co., Indianapolis, IN, November, 1992. "Recent Advances in Peptide Mimicry".
231. 13th Enzyme Mechanism Conference, Key Largo FL, January, 1993. "Design and Synthesis of Inhibitors of Phospholipase C."
232. University of Louisville, Louisville, KY, February, 1993. "Recent Advances in Peptide Mimicry."
233. 10th Marvel Symposium, Tuscon, AZ, March 1993. "Recent Progress in the Design and Synthesis of Novel Peptide Mimics." (Plenary Lecturer)
234. Glaxo Pharmaceuticals, Research Triangle Park, NC, April, 1993. "General Strategies for the Synthesis of Complex Alkaloids."
235. Wayne State University, Detroit, MI April, 1993. "General Strategies for the Synthesis of Complex Alkaloids."
236. Parke-Davis Pharmaceuticals, Ann Arbor, MI April, 1993. "General Strategies for the Synthesis of Complex Alkaloids."
237. University of Pennnsylvania, Philadelphia, PA, May, 1993. "Design and Synthesis of Novel Peptide Mimics."

238. Bristol-Meyers/Squibb, New Brunswick, NJ. May, 1993. "General Strategies for the Synthesis of Complex Alkaloids."
239. 14th International Congress on Heterocyclic Chemistry, Antwerp, Belgium, August 1993. "General Strategies for the Synthesis of Heterocyclic Natural Products." (Plenary Lecture)
240. Pfizer Ltd. Sandwich, Kent, UK, August 1993. "Recent Advances in Alkaloid Synthesis."
241. Sandoz Pharmaceutical Symposium on Organic Synthesis, Southbury, CN, August 1993. "Manzamine A. A Playground for the Design and Development of New Synthetic Organic Chemisry."
242. Univesity of Michigan, Ann Arbor, Mich, September 1993. "Asymmetric Cyclopropanations in the Synthesis of Biologically Active Targets."
243. Marion Merril Dow Pharmaceuticals, Cincinatti, OH. September 1993. "Asymmetric Cyclopropanations in the Synthesis of Biologically Active Targets."
244. Iowa State University, Ames IA. October 1993. "General Strategies for the Synthesis of Complex Alkaloids."
245. Upjohn Company, Kalamazoo, Mich., October 1993. "Asymmetric Cyclopropanations and Peptide Mimicry."
246. University of Texas, Austin, TX. November 1993. "Mechanistic Enzymology and the Organic Chemist. A Tale of Phospholipase C.
247. Ethyl Corporation, Baton Rouge, LA. November 1993. "General Strategies for the Synthesis of Heterocyclic Natural Products."
248. Utah State University, Logan, UT, March 1994. "General Strategies for the Synthesis of Complex Alkaloid Natural Products."
249. University of Utah, Salt Lake City, UT, March 1994. "General Strategies for the Synthesis of Complex Alkaloid Natural Products."
250. Genentech, South San Francisco, CA, May 1994. "Applications of Asymmetric Cyclopropanations to Peptide Mimicry."
251. Athena Neurosciences, South San Francisco, CA, May 1994. "Applications of Asymmetric Cyclopropanations to Peptide Mimicry."
252. Lederle Laboratories, Pearl River, NY. South San Francisco, CA, May 1994. "Applications of Asymmetric Cyclopropanations to Peptide Mimicry."
253. Hoffmann LaRoche, Nutley, NJ, June 1994. "Applications of Asymmetric Cyclopropanations to Peptide Mimicry."
254. Zeneca Pharmaceuticals, Macclesfield, Chesire, UK, June, 1994. "Applications of Asymmetric Cyclopropanations to Peptide Mimicry."
255. University of Ferarra, Ferarra, Italy, July, 1994. "Recent Advances in the Synthesis of Complex Alkaloids."
256. 4th International Conference on Antibiotics, Nashville, IN, September 1994. Plenary Lecture; "Recent Advances in the Total Synthesis of Biologically Active Natural Products."
257. Abbott Laboratories, North Chicago, IL, October 1994. CAPD Lecture; "General Strategies for Alkaloid Synthesis."
258. Selectide Corp., Tucson, AZ, October 1994. "Reactions for Combinatorial Synthesis."
259. SmithKline Beecham, Philadelphia, PA. November 1994. "General Strategies for Alkaloid Synthesis."
260. Regis University, Denver, CO. November 1994. "Applications of Organic Synthesis to Problems in Medicinal Chemistry."
261. Texas A&M University, College Station, TX January 1995. "Applications of Stereoselective Additions to Modern Bioorganic Chemistry."

262. Medicinal and Bioorganic Chemistry Conference, Steamboat Springs, CO, January 1995. "Applications of Stereoselective Additions to Problems in Bioorganic Chemistry." (Plenary Lecture)
263. Ciba Geigy, Summit NJ, March 1995, "Recent Advances in Peptide Mimicry."
264. Kowa Pharmaceuticals, Tokyo, Japan March, 1995 "General Strategies for the Synthesis of Alkaloid Natural Products."
265. Daiichi Pharmaceuticals, Tokyo, Japan March, 1995 "General Strategies for the Synthesis of Alkaloid Natural Products."
266. 115th Meeting of Pharmaceutical Society of Japan, Sendai, Japan March 1995 Plenary Lecture; "General Strategies for the Synthesis of Complex Natural Products."
267. University of Sherbrooke, Sherbrook, Canada April 1995. "Applications of Stereoselective Additions to Problems in Bioorganic Chemistry." (Merck-Frosst Lecturer)
268. Merck-Frosst Pharmaceuticals, Montreal, Canada April 1995. "Applications of Stereoselective Additions to Problems in Bioorganic Chemistry."
269. University of California, Berkeley, CA, April 1995. Sandoz Agro Lecturer; "Recent Vignettes in Alkaloid Synthesis."
270. 12th Lakeland Symposium, Grasmere, UK. May 2011. Plenary Lecturer. "Recent Vignettes in Alkaloid Synthesis.""
271. Technische Universität München, Munich, Germany, June 1995. "Recent Advances in the Design of Novel Peptide Mimics."
272. Ludwig Maximillian Universität, Munich, Germany, June 1995. "General Strategies for the Synthesis of Alkaloid Natural Products."
273. Technische Universität München, Munich, Germany, July 1995. "Recent Vignettes in Alkaloid Synthesis."
274. Humboldt Universität, Berlin, Germany, July, 1995. "General Strategies for the Synthesis of Complex Alkaloid Natural Products."
275. Technische Universität, Berlin, Germany, July, 1995. "General Strategies for the Synthesis of Complex Alkaloid Natural Products."
276. Universität Freiburg, Freiburg, Germany, August, 1995. "Recent Studies of Phospholipase C."
277. Byk Gulden, Konstanz, Germany, August, 1995. "Recent Advances in the Design of Novel Peptide Mimics"
278. 18th Gulf Coast Chemistry Conference, Pensacola Beach, FL, September, 1995. "General Strategies for the Synthesis of Architecturally Complex Alkaloid Natural Products." (Plenary Lecture)
279. University of California, Irvine, CA, September, 1995. "General Strategies for the Synthesis of Architecturally Complex Alkaloid Natural Products."
280. International Congress of Pacific Basin Societies, Honolulu, HA, December 1995. "General Strategies for the Synthesis of Alkaloid Natural Products." (Plenary Lecture)
281. Baylor University, Waco, TX March 1996, "Applications of Organic Synthesis to Biooganic Chemistry."
282. Synaptic Pharmaceuticals, Paramus, NJ, April, 1996. "Recent Advances in Peptide Mimetics."
283. Syracuse University, Syracuse, NY, April, 1996. "Recent Progress in the Synthesis of Biofunctional Molecules." (Bristol Myers Squibb Lecturer)
284. University of Delaware, Newark, Del, May, 1996. "Recent Advances in the Synthesis of Complex Alkaloid Natural Products."
285. Rhone Poulenc-Rorer, Collegeville, PA, June, 1996. "Recent Advances in Peptide Mimetics."
286. GlaxoWellcome, Stevenage, UK, June, 1996. "Recent Progress in the Synthesis of Complex Natural Products."

287. 11th International Conference on Organic Synthesis, Amsterdam, Netherlands, July, 1996. "General Strategies for the Synthesis of Alkaloid Natural Products." (Plenary Lecture)
288. Gordon Research Conference on Reactions and Processes, New Hampton, VT, July 1996. "Recent Progress in the Synthesis of Biofunctional Molecules."
289. Boehringer Ingelheim, Ridgefield, CN, August, 1996. "Recent Progress in the Synthesis of Biologically Active Natural and Unnatural Products."
290. 212th National ACS Meeting, Orlando, FL, August, 1996. "Recent Progress in the Synthesis of Bioactive Molecules." (Arthur C. Cope Scholar Awardee)
291. Bayer Corporation, West Haven, CN, September, 1996. "Recent Progress in the Synthesis of Biologically Active Natural and Unnatural Products."
292. SW ACS Meeting, Houston, TX, October, 1996. "General Strategies for the Synthesis of Bioactive Molecules."
293. Schering-Plough, Kenilworth, New Jersey, November, 1996. "General Strategies for the Synthesis of Bioactive Molecules."
294. Athena Neuroscience, South San Francisco, CA January 1997. "Recent Applications of Vinylogous Mannich Reactions."
295. Novartis Pharma, Basel, Switzerland, April 1997. Recipient of Novartis Chemistry Lectureship; "Recent Advances in the Total Synthesis of Complex Natural Products"
296. University of Basel, Basel, Switzerland, April, 1997. "Recent Advances in Peptide Mimics."
297. 15th International Symposium, Synthesis in Organic Chemistry, Oxford, UK, July 1997, "General Strategies for the Synthesis of Architecturally Complex Molecules." (Plenary Lecturer)
298. Technische Universität München, München, Germany, July 1997, "Recent Advances in the Synthesis of Alkaloids."
299. R. W. Johnson, Spring House, PA, September 1997, "Recent Advances in the Synthesis of Architecturally Complex Molecules"
300. G. D. Searle, Chicago, IL, October 1997, "Recent Applications of Vinylogous Mannich and Aldol Reactions."
301. DuPont Merck Pharmaceuticals, Wilmington, DE October 1997, "Recent Advances in the Synthesis of Architecturally Complex Molecules".
302. Loughborough Organic Synthesis Symposium, Loughborough, UK, October 1997, "Recent Advances in the Synthesis of Bioactive Molecules" (Plenary Lecturer)
303. Astra Charnwood Pharmaceuticals, October 1997, "Recent Advances in Peptide Mimics."
304. Princeton University, November 1997, "Recent Advances in the Synthesis of Biofunctional Targets"
305. Fifth Chemical Congress of North America, Cancun, Mexico, November 1997, "General Strategies for the Synthesis of Bioactive Molecules" (Plenary Lecturer)
306. BioPharma Symposium, University of Texas, Austin, TX February 1998, "Strategies for Design and Synthesis of Bioactive Ligands."
307. 33rd EUCHEM Conference on Stereochemistry, Bürgenstock, Switzerland April, 1998, Recent Advances in the Total Synthesis of Biofunctional Molecules" (Plenary Lecturer)
308. Pfizer Pharmaceutical Co, Groton, CN, May, 1998. "Recent Advances in the Synthesis of Heterocyclic Natural Products"
309. ICSN Symposium, Gif-sur-Yvette, France, June, 1998, "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products". (Plenary Lecturer)
310. Gordon Research Conference on Natural Products, Henniker, NH, July, 1998, "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products".

311. Bristol Meyers Squibb Pharmaceuticals, Princeton, NJ, July, 1998. “Recent Advances in the Synthesis of Complex Heterocyclic Natural Products”
312. National ACS Meeting, Boston, MA August, 1998. “Strategies for the Synthesis of Heterocyclic Natural Products.”
313. Université Catholique de Louvain, Louvain-la-Neuve, Belgium, September, 1998. “Frontiers in Bio-Organic Chemistry”. (Plenary Lecturer)
314. Eli Lilly, Co.Indianapois, IN September, 1998. “Strategies for the Synthesis of Complex Heterocyclic Natural Products.”
315. University of New Mexico, Albuquerque, NM, November, 1998. “Strategies for the Synthesis of Complex Heterocyclic Natural Products.”
316. Merck Research Laboratories, Rahway, NJ, November, 1998. “Strategies for the Synthesis of Complex Heterocyclic Natural Products.”
317. Merck Research Laboratories, Westpoint, PA, November, 1998. “Strategies for the Synthesis of Complex Heterocyclic Natural Products.”
318. Elan Pharmaceuticals, San Francisco, CA, December, 1998. “Total Synthesis of Manzamine A.”
319. University of California, San Diego, CA, December, 1998. “Strategies for the Synthesis of Complex Heterocyclic Natural Products.”
320. Biogen Pharmaceuticals, Boston, MA, May, 1999. “Recent Advances in Peptide Mimics.”
321. Massachusetts Institute of Technology, Boston, MA, 1999. "Recent Advances in Indole Alkaloid Synthesis".
322. University of Versailles, Versailles, France, June, 1999. 1. “Strategies for the Synthesis of Complex Heterocyclic Natural Products” and 2. "Recent Advances in Alkaloid Synthesis".
323. GECO XXXX Symposium, La Rochelle, France, August, 1999. “Strategies for the Synthesis of Complex Heterocyclic Natural Products.” (Plenary Lecturer)
324. RiboGene, San Francisco, CA. September, 1999. "Recent Applications of Peptide Mimics"
325. ISIS Pharmaceuticals, Carlsbad, CA October, 1999. "Recent Advances in Conformationally-Constrained Peptide Mimics"
326. University of California, Los Angeles, CA October, 1999. "Recent Advances in Alkaloid Synthesis".
327. Ludwig Maximillian University, Munich, Germany, November, 1999. "Recent Advances in the Synthesis of Alkaloid Natural Products".
328. Technical University, Munich, Germany, November, 1999. "Recent Advances in the Synthesis of Heterocyclic Natural Products".
329. Ligand Pharmaceuticals, San Diego, CA, December, 1999. "Recent Applications of Peptide Mimics"
330. National Taiwan University, Taipei, Taiwan, February 2000. "Peptide Mimics as Probes of Ligand-Protein Interactions."
331. National Sun Yet-sen University, Kaoshung, Taiwan, February 2000. "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
332. Academia Sinica, Taipei, Taiwan, February 2000. "Recent Progress in the Synthesis of Alkaloid Natural Products.
333. Boston College University, Boston, MA, March 2000. "A General Strategy for the Synthesis of C-Aryl Glycosides."
334. Montana State University, Bozeman, MT, May, 2000 (Distinguished Visiting Organic Lecturer). "Adventures in Alkaloid Synthesis."
335. Montana State University, Bozeman, MT, May, 2000 (Distinguished Visiting Organic Lecturer). "A General Strategy for the Synthesis of C-Aryl Glycosides."

336. AstraZeneca Pharmaceuticals, Wilmington, DE, May 2000, "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
337. Gordon Research Conference on Heterocyclic Chemistry, Newport, RI, July 2000, "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
338. Abbott Laboratories, Chicago, IL, August 2000, "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
339. Sphinx Pharmaceuticals, Durham, NC. August, 2000, "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
340. University of Minnesota, Minneapolis, MN, September, 2000. "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
341. University College London, England. September, 2000. "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
342. Merck Research Laboratories, Terlings Park, Harlow, England. September, 2000. "A Novel and General Strategy for the Synthesis of C-Aryl GlycosideAntibiotics."
343. University of Glasgow, Glasgow, Scotland. September, 2000. "General Strategy for the Synthesis of C-Aryl Glycoside Natural Products."
344. Symposium On Latest Trends in Organic Synthesis, Gainsville, FL. October, 2000. "A Novel and General Strategy for the Synthesis of C-Aryl GlycosideAntibiotics."
345. Symposium on Heterocycles: Synthesis and Applications. (Plenary Lecturer), London, England. November, 2000. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
346. Elan Pharmaceuticals, South San Francisco, February 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
347. University of Puerto Rico, San Juan, PR, May 2001. "Recent Advances in the Synthesis of Heterocyclic Natural Products."
348. Canadian Chemical Society Meeting, Montreal, Queebec, May 2001. (Plenary Lecturer) "General Strategies for the Synthesis of Bioactive Molecules."
349. Pfizer Summer Chemistry Symposium, Sandwich, Kent, UK, July 2001. (Plenary Lecturer) "General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
350. Tokyo University, Tokyo, Japan, July, 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
351. Nagoya University, Nagoya, Japan, August 2001. "Recent Progress in the Synthesis of Heterocyclic Natural Products."
352. Sankyo Pharmaceutical Co., Tokyo, Japan, August 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
353. Tokyo Institute of Technology, Tokyo, Japan, August 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
354. Sendai Post ICHC Symposium, Sendai, Japan, August 2001. (Plenary Lecturer) "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
355. Hiroshima University, Hiroshima, Japan, August 2001. "Recent Progress in the Synthesis of Heterocyclic Natural Products."
356. Nagasaki University, Nagasaki, Japan, August 2001. "Recent Advances in the Synthesis of Heterocyclic Natural Products."
357. Kyoto University, Kyoto, Japan, August 2001. "Recent Advances in the Use of Heterocycles in Natural Product Synthesis."
358. Takeda Pharmaceutical Co., Osaka, Japan, August 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."

359. Osaka University, Osaka, Japan, August 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
360. University of Montreal, Montreal, Canada, October 2001. "A Novel and General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
361. Merck-Frosst Pharmaceuticals, Montreal, Canada October 2001. "Gerneral Strategies for the Synthesis of Heterocyclic Natural Products."
362. Bayer Central Research, Leverkusen, Germany, October 2001. "General Approaches to Complex C-Aryl Glycoside Antibiotics."
363. Elan Pharmaceuticals, South San Francisco, February 2002. "Recent Advances in the Synthesis of Natural Products."
364. FACS-IX Symposium, St. Malo, France, June 2002. (Plenary Lecture) "General Strategy for the Synthesis of C-Aryl Glycoside Antibiotics."
365. International Conference on Organic Synthesis-14, Christchurch, New Zealand, July 2002. (Plenary Lecture) "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
366. University of Sydney, Sydney, Australia, July 2002. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
367. Macquarie University, Sydney, Australia, July 2002. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
368. Bristol Myers-Squibb, Wallingford, CN, September 2002. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
369. Yale University, New Haven, CN, September 2002. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
370. University of Illinois, Urbana, IL, October 2002. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
371. Array BioPharma, Boulder, CO. November 2002. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
372. Purdue University, Lafayette, IN. April 2003."Peptide Mimics: To Constrain or Not To Constrain?"
373. Merck Research Laboratories, Rahway, NJ. May 2003."Vignettes in Alkaloid Synthesis: Variations in Mannich and Metathesis Reactions."
374. Wyeth Research, Princeton, NJ. May 2003. "Applications of Ring Closing Metathesis to Alkaloid Synthesis."
375. Elan Pharmaceuticals, San Francisco, CA. June 2003. "Metal Catalyzed Substitution Reactions."
376. Leeds University, Leeds, UK. June 2003. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
377. University of Liverpool, Liverpool, UK. June 2003. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
378. University of Manchester, Manchester UK. June 2003. "Applications of Ring Closing Metathesis to Alkaloid Synthesis."
379. Astra Zeneca, Manchester, UK. June 2003. "Peptide Mimics: To Constrain or Not To Constrain?"
380. Tetrahedron Symposium, Oxford, UK. July 2003. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
381. Natural Products Gordon Research Conference. July 2003. "Applications of Ring Closing Metathesis to Alkaloid Synthesis."
382. University of Rio de Janiero, Brazil. August 2003. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
383. 10th Brazilian Meeting on Organic Synthesis, Sao Pedro, Brazil. August 2003. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."

384. Indiana University, Bloomington, IN October 2003. "Ring Closing Metathesis as a Construct for Alkaloid Synthesis."
385. Columbia University, New York City, NY. October 2003. "Applications of Ring Closing Metathesis to Alkaloid Synthesis."
386. Wyeth Research, Pearl River, NY. October 2003. "Peptide Mimics and Molecular Bondage: To Constrain or Not To Constrain?"
387. ICOS Corporation, Bellevue, WA. Oct 2003. "Peptide Mimics and Molecular Bondage: To Constrain or Not To Constrain?"
388. IKCOC-9 Symposium, Kyoto, Japan. November 2003. "Advances in the Synthesis of Heterocyclic Natural Products."
389. Kyoto Pharmaceutical University, Kyoto, Japan. November 2003. "Applications of Ring Closing Metathesis to Alkaloid Synthesis."
390. Elan Pharmaceuticals, San Francisco, CA. December 2003. "Peptide Mimics and Molecular Bondage: To Constrain or Not To Constrain?
391. The University of Texas, Austin, TX January 2004. "Peptide Mimics: To Constrain or Not To Constrain?"
392. Birbeck College/UCL, London, England April 2004. "Peptide Mimics. Are Conformational Constraints Really Worth the Energy."
393. Abbott Laboratories, Abbott Park, IL April 2004. "Peptide Mimics. Are Conformational Constraints Really Worth the Energy."
394. Wyeth Research, Pearl River, NY. April 2004. "Molecular Recognition and Preorganization. Are Conformational Constraints Really Worth the Energy."
395. Amgen Corporation, Thousand Oaks, CA. May 2004. "Molecular Recognition and Preorganization. Are Conformational Constraints Really Worth the Energy."
396. Colorado University-Roche Synthesis Symposium, Boulder, Colo. June 2004. "Ring Closing Metathesis as a Construct for Alkaloid Synthesis."
397. European Institute of Chemistry and Biology, Bordeaux, France. June 2004. "Molecular Recognition and Preorganization. Are Conformational Constraints Really Worth the Energy."
398. Université Bordeaux 1, Bordeaux, Fance. June 2004. "Evolution of a General Strategy for the Synthesis of C-Aryl Glycosides."
399. Université Bordeaux 1, Bordeaux, Fance. June 2004. "Ring Closing Metathesis as a Construct for Alkaloid Synthesis."
400. European Institute of Chemistry and Biology, Bordeaux, France. June 2004. "Applications of Maqnnich and Vinylogous Mannich Reactions to Alkaloid Synthesis."
401. International Conference on Organic Synthesis-15, Nagoya, Japan, August 2004 (Invited Lecture) "Ring Closing Metathesis as a Construct for Alkaloid Synthesis."
402. Abbott Laboratories, Abbott Park, IL, October 2004. "Frontiers in Organic Synthesis. Part 1"
403. Abbott Laboratories, Abbott Park, IL, October 2004. "Frontiers in Organic Synthesis. Part 2"
404. Abbott Laboratories, Abbott Park, IL, October 2004. "Frontiers in Organic Synthesis. Part 3"
405. Abbott Laboratories, Abbott Park, IL, October 2004. "Frontiers in Organic Synthesis. Part 4"
406. Wayne State University, Detroit, MI, October 2004. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth The Energy?"
407. University of Toronto, Toronto, Ontario, Canada, October 2004. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth The Energy?"
408. International Conference on “Chemistry Biology Interface: Synergistic New Frontiers”, New Delhi, India. November 2004. Plenary Lecture, "Preorganization in Biological Systems: Are Conformational Constraints Really Worth The Energy?"

409. Technical University of Munich, Munich, Germany, January 2005. Structural and Energetic Consequences of Preorganization in Protein-Ligand Interactions."
410. Hoffmann La-Roche, Nutley, NJ. February 2005. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth The Energy?"
411. ICOS Corporation, Bellevue, Washington, March 2005. "Recent Advances in Arylations of Heteroatom and Carbon Nucleophiles."
412. Notre Dame University, South Bend, Indiana March 2005, Reilly Lecturer. "Making Things. Meeting Challenges in Organic Synthesis."
413. Notre Dame University, South Bend, Indiana March 2005, Reilly Lecturer. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth The Energy?"
414. Notre Dame University, South Bend, Indiana March 2005, Reilly Lecturer. "Applications of Mannich Reactions and Ring Closing Metathesis to Problems in Alkaloid Synthesis."
415. University of Michigan, Ann Arbor, MI, May 2005. "Applications of Ring Closing Metathesis Reactions to Alkaloid Synthesis.
416. BMOS-11, Canela, Brazil, August 2005. "Contemporary Organic Synthesis. Part 1"
417. BMOS-11, Canela, Brazil, August 2005. "Contemporary Organic Synthesis. Part 2"
418. BMOS-11, Canela, Brazil, August 2005. "Contemporary Organic Synthesis. Part 3"
419. BMOS-11, Canela, Brazil, August 2005. "Contemporary Organic Synthesis. Part 4"
420. Vertex Pharmaceuticals, Inc., Boston, MA. September 2005. "Applications of Transition Metal-Catalyzed Reactions to Organic Synthesis."
421. Sanofi-Aventis, Tucson, AR; September 2005. "Progress in the Synthesis of Heterocyclic Natural Products."
422. Boehringer-Ingelheim Pharmaceutical Co. Ridgefield, CT, October, 2005. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
423. Scios Incorporated, Mountainview, CA; November, 2005. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
424. University of Zürich, Zürich, Switzerland; January 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
425. ETH, Zürich, Switzerland; January 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
426. Hoffmann La-Roche, Basel, Switzerland; Janurary 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
427. Sanofi-Aventis, Frankfurt, Germany; February 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
428. ACS Meeting, Atlanta, GA; March 2006. Plenary Lecture "Recent Applications of Olefin Metathesis to Natural Product Synthesis".
429. Sunesis Pharmaceuticals, Inc., South San Francisco, CA April 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
430. Berlex Biosciences, Richmond, CA May 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
431. 89th Canadian Chemical Conference, Halifax, Nova Scotia Canada, May 2006. Plenary Lecture. "Recent Advances in the Total Synthesis of Alkaloid Natural Products."
432. ICOS 16, Merida, Yucatan, Mexico, June 2006. Plenary Lecture. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
433. Schering-Plough Research Institute, Kenilworth, NJ; September 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"

434. Pfizer, Inc. Groton, CT; September 2006. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
435. BASF, Ludwigshafen, Germany; November, 2006. "Tactics and Strategies for the Synthesis of Natural Products."
436. Hoffmann La-Roche, Palo Alto, CA January 2007. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
437. Vertex Pharmaceuticals, UK, February 2007. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
438. New Jersey Section Meeting of American Chemical Society, Piscataway, NJ. May 2007. Plenary Lecturer "Strategies for the Synthesis of Heterocyclic Natural Products."
439. Gordon Research Conference on Combinatorial Chemistry, New London, NH, June 2007, Plenary Lecturer, "Aspects of Protein-Ligand Interactions: What are the Energetic Consequences of Ligand Preorganization?"
440. Gordon Research Conference on Natural Products, Tilton, NH, July 2007, Plenary Lecturer, "Recent Progress in Natural Product Synthesis."
441. University of Rochester, Rochester, NY September 2007. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
442. University of York, York, UK December 2007. "Recent Advances in the Synthesis of Heterocyclic Natural Products."
443. University of Leeds, Leeds, UK December 2007. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
444. Glaxo Smith Kline, Tonbridge, UK April 2008. "Recent Advances in the Synthesis of Heterocyclic Natural Products."
445. Bristol Synthesis Meeting, University of Bristol, Bristol UK, April 2008. "Recent Advances in the Synthesis of Heterocyclic Natural Products."
446. UCB Celltech, Slough, UK April 2008. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
447. Brigham Young University, Provo Utah, April 2008. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
448. ICOS-17, Daejon, South Korea, June 2008, Plenary Lecturer. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
449. ACS Student Meeting, University of Texas, Austin TX September 2008. "Going to the Dance: Encounters Between Small and Large Molecules."
450. ACS ProSpectives 2008 National Conference, September 2008, Boston, MA. Plenary Lecturer. "Recent Advances in the Synthesis of Heterocyclic Natural Products."
451. Hong Kong University, Hong Kong, P.R. China, November 2008. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
452. Chinese University of Hong Kong, Hong Kong, P.R. China, November 2008. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
453. Shanghai Institute of Organic Chemistry, Shanghai, P. R. China, November 2008. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
454. Fudan University, Shanghai, P. R. China, November 2008. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
455. WuXi Pharma Tech, Shanghai, P. R. China, November 2008. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
456. Imperial College, London, England, November 2008. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"

457. Eli Lilly, Erl Wood, England, November 2008. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
458. University of Dortmund/Max Planck Institute, December 2008, Dortmund, Germany. GDCh Lecturer, "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
459. Santa Clara University, Santa Clara, CA, January 2009. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
460. 10th Florida Heterocyclic and Synthesis Conference, University of Florida, Gainsville, FL. March 2009. Plenary Lecturer. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
461. Zing Natural Products Conference, Antigua, March 2009. Plenary Lecturer. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
462. University of Manchester, Manchester UK, April 2009. "Preorganization in Biological Systems: Are Conformational Constraints Really Worth the Energy?"
463. University of Leeds, Leeds, UK, April 2009. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
464. Schering-Plough Research Institute, Cambridge, MA, May 2009. "Vignettes from the Total Synthesis of Natural Products."
465. Gordon Research Conference on Heterocycles, Newport, RI, July 2009. Plenary Lecturer. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
466. University of New Hampshire, Durham, NH. Dr. John and Mary LaMattina Family Lectureship. September 2009. "Correlating Structure and Energetics in Protein-Ligand Interactions: Paradigms and Paradoxes."
467. Scripps Research Institute-Florida, Jupiter, FL. October 2009. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
468. University of Kansas, Lawrence, KA November 2009. "Correlating Structure and Energetics in Protein-Ligand Interactions: Paradigms and Paradoxes."
469. Kyoto University, Kyoto, Japan November 2009. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
470. Technical University of Munich, Munich, Germany, December 2009. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
471. Gordon Research Conference on Peptides, Ventura, CA, March 2010. "Correlating Structure and Energetics in Protein-Ligand Interactions: Paradigms and Paradoxes."
472. Washington University at St Louis, St Louis, MO April 2010. "Correlating Structure and Energetics in Protein-Ligand Interactions: Paradigms and Paradoxes."
473. Keystone Meeting on Computer Aided Drug Design, Whistler, BC, Canada April 2010. "Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
474. Peking University, Beijing, China. June 2010. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
475. Nankai University, Tianjin, China June 2010. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
476. Boehringer-Ingelheim (Canada), Montreal, Canada. September 2010. "Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
477. University of Alberta, Edmonton, Alberta Canada. Boehringer-Ingelheim Lecturer, September 2010. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
478. Rutgers, The State University of New Jersey, Piscataway, NJ, November 2010. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."

479. 2010 International Chemical Congress of Pacific Basin Societies, Honolulu, HI, December 2010. Plenary Lecture. "Inventing and Applying New Strategies for Diversity-Oriented Synthesis
480. University of Leeds, Leeds, UK, February 2011. "Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
481. Open Eye Modeling Symposium Santa Fe, NM. March 2011. Plenary Lecturer. " Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
482. University of California, Santa Cruz, Santa Cruz, CA. March 2011. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
483. Marquette University, Milwaukee, WI, April 2011. Haberman Lecturer. "Correlating Energetics and Structure in Protein-Ligand Interactions: In Search of Entropy."
484. University of California, San Diego, CA. April 2011. "Recent Advances in the Synthesis of Biologically-Active, Heterocyclic Natural Products"
485. Scripps Research Institute, San Diego, CA. April 2011. "Recent Advances in the Synthesis of Biologically-Active, Heterocyclic Natural Products"
486. 20th Lakeland Symposium, Grasmere, UK. May 2011. Plenary Lecturer. "Recent Advances in the Synthesis of Biologically-Active, Heterocyclic Natural Products"
487. Twelfth Tetrahedron Symposium, Barcelona, Spain. June 2011. Plenary Lecturer. "Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
488. University of Utah, Salt Lake City, UT September 2011. “Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
489. Temple University, Philadelphia, PA April 2012. “Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
490. University of Pennsylvania, Philadelphia, PA April 2012. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
491. University of Toronto, Totonto, ON, Canada August 2012. "Recent Advances in the Synthesis of Complex Heterocyclic Natural Products."
492. University of North Carolina, Chapel Hill, NC, February 2013. “Correlating Energetics and Structure in Protein-Ligand Interactions: Paradigms and Paradoxes."
493. 245th ACS National Meeting, New Orleans, LA. Plenary Lecture, Guenther Award Symposium. April 2013. "Some recent advances in the synthesis of heterocyclic natural products."
494. 245th ACS National Meeting, New Orleans, LA. (with B. Granger and J. Butler), April 2013. "Total synthesis of (±)-actinophyllic acid."
495. 245th ACS National Meeting, New Orleans, LA. (with K. Procko), April 2013. " Transforming general chemistry laboratory into a research-centered curriculum."
496. 245th ACS National Meeting, New Orleans, LA. (with A. Mahmood, P. Ly, A. Beckham, S. Jin, K. Procko, and J. Clements), April 2013."Binding thermodynamics of para-substituted phenols to the mouse major urinary protein."
497. 245th ACS National Meeting, New Orleans, LA. (with C. Ching, B. Hua, K. Ryman, J. Jordan, K. Procko), April 2013. "Effects of ligand basicity on protein binding and thermodynamics."
498. Gordon Research Conference on Heterocycles, Newport, RI, June 2013. Plenary Lecturer. "Recent Progress toward the Synthesis of Complex Heterocyclic Natural Products."
499. Gordon Research Conference on Natural Products, Andover, NH, July 2013. Plenary Lecturer. "Recent Progress toward the Synthesis of Complex Heterocyclic Natural Products."
500. 24th International Society of Heterocyclic Chemistry Congress, Shanghai, China, September 2013. Award Lecture. "Synthesis and Biology of Heterocyclic Natural Products."
501. University of Wisconsin, Madison WI. October 2013. "Synthesis and Biology of Heterocyclic Natural Products."

502. University of Iowa, Iowa City, IA March 2014. "Synthesis and Biology of Heterocyclic Natural Products."
503. 247th ACS National Meeting, Dallas, TX. March 2014. (with J. Chan, J. Pierce-Shimomura, L. L. Scott, J. J. Sahn) " Investigating sigma 2 receptor ligands for the targeted therapeutics of Alzheimer's disease by utilizing a novel C. elegans model of AD."
504. Herbert C. Brown Symposium, Purdue University. Lafayette, IN. April 2014. "Synthesis and Biology of Heterocyclic Natural Products."
505. University of California, San Diego, CA. May 2014. "Probing Molecular Recognition Phenomena between Small Molecules and Proteins."
506. University of Stuttgart, Stuttgart, Germany. 18th Thieme Lecture in Organic and Bioorganic Chemistry. October 2014. "Synthesis and Biology of Heterocyclic Natural Products and Their Analogs."
507. University of Aachen, Aachen, Germany. October 2014. "Synthesis and Chemical Biology of Heterocyclic Natural Products and Related Compounds."
508. Technical University of Munich, Munich, Germany. October 2014. "Synthesis and Chemical Biology of Heterocyclic Natural Products and Related Compounds."
509. 249th ACS National Meeting, Denver, CO. March 2015 (with J. Chan, J. J. Sahn, L. L. Scott, J. Pierce-Shimomura) " Exploiting the Sigma-2 receptor as a therapeutic target for cancer and various CNS diseases."
510. Student Affiliate Chapter, American Chemical Society, April 2015. "Synthesis and Chemical Biology of Heterocyclic Natural Products and Related Compounds."
511. 16th Tetrahedron Symposium, Berlin, Germany, June 2015. "Synthesis and Chemical Biology of Heterocyclic Natural Products and Related Compounds."
512. Dart Neuroscience, San Diego, CA July 2015, "Synthesis and Biology of Heterocyclic Natural Products."
513. Society for Neuroscience National Meeting, Chicago, October 2015 (invited talk). "Development of novel therapeutics targeting Sig2R/PGRMC1 for Alzheimer's Disease."
514. University of Texas, San Antonio, October, 2015. "Synthesis and Chemical Biology of Heterocyclic Natural Products and Related Compounds."
515. 16th Tetrahedron Symposium–Asia Shanghai, China November 2015. "Synthesis and Chemical Biology of Heterocyclic Natural Products and Related Compounds."
516. 2016 CIDD Drug Discovery Symposium, University of Texas Health Science Center, San Antonio, TX. June 2016. "Progress toward a Novel Approach to Treat Neurodegenerative Diseases."
517. Gilead Sciences, Foster City, CA. July 2016. "Exploring the Interface of Heterocyclic Chemistry and Neurodegenerative Disease."
518. Johnson & Johnson, San Diego, CA. September 2016. "Exploring the Interface of Heterocyclic Chemistry and Neurodegenerative Disease."
519. University of Iowa, Iowa City, IA. October, 2016. "Exploring the Interface of Heterocyclic Chemistry and Neurodegenerative Disease."
520. 2016 Texas FreshAIR Conference on Neuroscience, Austin, TX. October 2016. "Novel Approach to Treat Neurodegenerative Diseases and Neurological Disorders."
521. Beijing University, Beijing, China. November, 2016. "Journey from Alkaloids to Neurodegenerative Disease."
522. Beijing University of Technology, Beijing, China. November, 2016. "Journey from Natural Products to Unmet Medical Needs in Neuroscience."
523. Sichuan University, Chengdu, China. November, 2016. "Journey from Alkaloids to Neurodegenerative Disease."

524. Shanghai Institute of Organic Chemistry, Peking, China. November, 2016. "Journey from Alkaloids to Neurodegenerative Disease."
525. Harvard University, Cambridge, MA. December 2016. "Novel Approach to Treat Neurodegenerative Diseases and Neurological Disorders."
526. University of Miami, Miami, FL. December 2016. "Novel Approach to Treat Neurodegenerative Diseases and Neurological Disorders."
527. FUSION Conference on Drug Discovery, Cancun, Mexico. February, 2017. "Applications of Chemistry to Unmet Medical Needs in Neuroscience."
528. ACS National Meeting, San Francisco, CA. April 2017. "Journey from Natural Products to Unmet Medical Needs in Neuroscience."
529. Fortress Biotech, Boston, MA. April, 2017. "New Mechanistic Approach to Treat Traumatic Brain Injury."
530. TexSynIII Conference, UT Southwestern, Dallas, TX. May 2017. "Problems in Synthesis and Unmet Medical Needs in Neuroscience."
531. Cedars-Sinai Medical Center, Los Angeles, CA. May, 2017. "Applications of Chemistry to Unmet Medical Needs in Neuroscience."
532. 18th Tetrahedron Symposium, Melbourne, Australia. July 2017. "Problems in Synthesis and Unmet Needs in Neuroscience."
533. University of Texas, Dean's Scholars, September, 2017. "Gap Jumping: Solving Problems at the Interface of Chemistry and Neuroscience."
534. University of Texas, ACS Student Affiliates, October, 2017. "Gap Jumping: Solving Problems at the Interface of Chemistry and Neuroscience."
535. University of Texas Medical Branch, Galveston, TX October, 2017. "Applications of Chemistry to Address Unmet Medical Needs in Neuroscience."
536. Johns Hopkins University, Baltimore, MD April 2018. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
537. University of Maryland, College Park, MD. April 2018. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
538. Southwestern University, Georgetown, TX. April 2018. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
539. Bascom Palmer Eye Institute, Miami, FL. June 2018. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
540. University of Texas, Arlington TX. September 2018. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
541. University of Texas, Austin TX. October 2018. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
542. Society for Neuroscience, National Meeting. San Diego CA, November 2018. "Small Molecule Modulators of σ2R/Tmem97 Reduce Alcohol Withdrawal-Induced Behaviors."
543. Society for Neuroscience, National Meeting. San Diego CA, November 2018. Targeting σR/TMEM97 to Address Unmet Medical Needs in Neuroscience.
544. University of North Texas Health Science Center, Ft. Worth, TX. January 2019. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
545. FUSION Conference on Drug Discovery, Nassau, Bahamas. February, 2019. "Jumping Gaps in Science: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
546. Austin Community College, Austin, TX. April 2019. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."

547. Princeton University, Edward C. Taylor Memorial Symposium, May 2019."Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
548. Shanghai University, November 2019. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
549. East China Normal University, November 2019. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
550. Shanghai Institute of Organic Chemistry, November 2019. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
551. Texas State University, February 2020. "Gap Jumping: From Natural Product Synthesis to Addressing Unmet Medical Needs in Neuroscience."
552. University of New York at Buffalo, October 2020. "Gap Jumping: Using Chemistry to Address Unmet Medical Needs in Neuroscience."
553. ACS National Meeting, April 2021. "Bridging Unknown Unknowns: From Natural Products to Unmet Needs in Neuroscience."
554. University of Notre Dame, October 2021. Warren Lecturer. "Bridging Unknown Unknowns: From Natural Products to Unmet Needs in Neuroscience."
555. Harrington Discovery Institute, May 2022. "New Approach for Neuroprotection of Photoreceptors by Targeting σ_2R/TMEM97"
556. Regional MALTO Meeting, University of Houston, A. Nelson Voldeng Memorial Lecture. "Bridging Known and Unknown Unknowns: From Natural Products to Unmet Needs in Neuroscience"
557. Gordon Research Conference on Natural Products, Andover, NH, August 2023. Plenary Lecturer. " "Bridging Unknown Unknowns. An Unpredicted Journey From Natural Products to Unmet Needs in Neuroscience"
558. The University of Texas at Austin, Austin TX, February 2024. Invited. "Bridging Unknown Unknowns. Random Walk From Natural Products to Unmet Needs in Neuroscience"
559. 18th Annual Pain Therapeutics Summit, Boston, MA, Oct 2024. Plenary Lecturer. "Discovery and Development of TMEM97 Modulators to Treat Neuropathic Pain"
560. The University of Texas at Austin, Austin TX, Oct 2024 Anslyn, Iverson, Sessler Lectureship in Chemistry. Bridging Unknown Unknowns. "Erratic Journey from Natural Products to Unmet Needs in Neuroscience"