

PAUL E. FLOREANCIG

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PROFESSIONAL CHRONOLOGY AND EDUCATION

Professor of Chemistry University of Pittsburgh	2010-present
Associate Professor of Chemistry University of Pittsburgh	2005-2010
Assistant Professor of Chemistry University of Pittsburgh	1999-2005
NIH Postdoctoral Fellow Department of Chemistry, California Institute of Technology Research Advisor: Professor Peter B. Dervan	1997-1999
Ph.D. Chemistry Stanford University, Stanford, CA Thesis Title: "The Development of a Strategy for the Synthesis of Taxol and Taxol Analogs" Research Advisor: Professor Paul A. Wender	1991-1997
Chemistry Research Assistant Pulmonary Group, Eli Lilly and Co., Indianapolis, IN Supervisor: Dr. Michael J. Sofia	1989-1991
M.S. Chemistry Yale University, New Haven, CT Research Advisor: Professor Frederick E. Ziegler	1986-1989
B.S. Chemistry Indiana University, Bloomington, IN Research Advisor: Professor Paul A. Grieco	1982-1986

TEACHING EXPERIENCE

Honors Organic Chemistry 1 (CHEM 730)	
Fall 2009	17 students
Fall 2010	23 students
Fall 2011	27 students
Fall 2012	43 students
Fall 2014	13 students
Fall 2015	21 Students
Fall 2016	23 students
Honors Organic Chemistry 2 (CHEM 0740)	
Spring 2010	17 students
Spring 2011	17 students
Spring 2012	27 students

Spring 2013	40 students
Spring 2014	19 students
Spring 2015	13 students
Spring 2016	21 students
Spring 2017	23 students
Organic Chemistry 1 (Chemistry 0310)	
Fall 1999	188 students
Fall 2000	155 students
Fall 2002	200 students
Fall 2004	220 students
Spring 2006	140 students
Fall 2017	223 students
Fall 2018	224 students
Organic Chemistry 2 (Chemistry 0320)	
Spring 2001	120 students
Spring 2004	135 students
Spring 2005	145 students
Fall 2008	140 students
Spring 2018	170 students
Advanced Organic Chemistry 1 (Chemistry 2310)	
Fall 2007	26 students
Fall 2006	31 students
Fall 2005	16 students
Advanced Organic Chemistry 2 (Chemistry 2320)	
Spring 2002	15 students
Spring 2003	19 students
Organic Spectroscopy (Chemistry 1380/2380)	
Spring 2008	20 students
Spring 2009	17 students
Photochemistry and Electron Transfer (Chemistry 3320)	
Fall 2003	22 students
Undergraduate Research (Chemistry 1500)	
1999-present	20 students

AWARDS

David and Tina Bellet Teaching Award, 2015
Faculty Honor Roll, University of Pittsburgh, 2003
Research Innovation Award, Research Corporation, 2001
NIH Postdoctoral Fellowship, 1997
Roche Award for Excellence in Organic Chemistry, 1995
Eli Lilly Fellowship, 1994-1995

INDEPENDENT PUBLICATIONS

76) Caplan, S. M.; Floreancig, P. E. "Total Synthesis of Divergolides E and H" *Angew. Chem., Int. Ed.* **2018**, *57*, 15866-15870. DOI: 10.1002/anie.201810336.

- 75) Qin, Q.; Xie, Y.; Floreancig, P. E. "Diarylmethane Synthesis through Re_2O_7 -Catalyzed Bimolecular Dehydrative Friedel–Crafts Reactions" *Chem. Sci.* **2018**, *9*, 8528-8534. DOI: 10.1039/C8SC03570A.
- 74) Hanna, R. D.; Naro, Y.; Deiters, A.; Floreancig, P. E. "Potent and Readily Accessible Bistramide A Analogs through Diverted Total Synthesis" *Chem. Eur. J.* **2018**, *24*, 16271-16275. DOI:10.1002/chem.201804417.
- 73) Yang, F.; Li, Y.; Floreancig, P. E.; Li, X.; Liu, L. "Copper-Catalyzed Oxidative Cross-Dehydrogenative Coupling of 2H-Chromenes and Terminal Alkynes" *Org. Biomol. Chem.* **2018**, *16*, 5144-5149. DOI: 10.1039/c8ob00949j.
- 72) Morales-Rivera, C. A.; Floreancig, P. E.; Liu, P. "Predictive Model for Oxidative C–H Functionalization Reactivity with 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone" *J. Am. Chem. Soc.* **2017**, *139*, 17935-17944. DOI: 10.1021/jacs.7b08902.
- 71) Rohrs, T. M.; Qin, Q.; Floreancig, P. E. " Re_2O_7 -Mediated Dehydrative Cyclization Reactions: Application to the Total Synthesis of Herboxidiene and an Analog" *Angew. Chem., Int. Ed.* **2017**, *56*, 10900-10904. DOI: 10.1002/anie.201705924.
- 70) Hanna, R. D.; Naro, Y.; Deiters, A.; Floreancig, P. E. "Alcohol, Aldehyde, and Ketone Liberation and Intracellular Cargo Release through Peroxide-Mediated α -Boryl Ether Fragmentation" *J. Am. Chem. Soc.* **2016**, *138*, 13353-13360. DOI: 10.1021/jacs.6b07890.
- 69) Peh, G. R.; Floreancig, P. E. "Convergent One-Pot Oxidative [n+1] Approaches to Spiroacetal Synthesis" *Org. Lett.* **2015**, *17*, 3750-3753. DOI: 10.1021/acs.orglett.5b01736.
- 68) Xie, Y.; Floreancig, P. E. "Polyethers in From Biosynthesis to Total Synthesis", Zografos, A. L., Ed. Wiley.
- 67) Sun, S.; Li, C.; Floreancig, P. E.; Lou, H.; Liu, L. "Highly Enantioselective Catalytic Cross-Dehydrogenative Coupling of N-Carbamoyl Tetrahydroisoquinolines and Terminal Alkynes" *Org. Lett.* **2015**, *17*, 1684-1687. DOI: 10.1021/acs.orglett.5b00447.
- 66) Han, X.; Floreancig, P. E. "Spiroacetal Formation through Telescoped Cycloaddition and Carbon–Hydrogen Bond Functionalization: Total Synthesis of Bistramide A" *Angew. Chem., Int. Ed.* **2014**, *53*, 11075-11078. DOI: 10.1002/anie.201406819.
- 65) Floreancig, P. E. "Structure Inspires a New Method that Delivers the Synthesis of Natural Products and Analogs in the Pederin Family" in *Strategies and Tactics in Organic Synthesis* Harmata, M., Ed. Elsevier, 2015, pp 183-205.
- 64) Xie, Y.; Floreancig, P. E. "Allylic Alcohol Transposition-Based Heterocycle Synthesis Using Traceless Trapping Groups" *Angew. Chem., Int. Ed.* **2014**, *53*, 4926-4929. DOI: 10.1002/anie.201402010.
- 63) Lu, C.; Su, X.; Floreancig, P. E. "Stereocontrolled Cyanohydrin Ether Synthesis through Chiral Bronsted Acid-Mediated Vinyl Ether Hydrocyanation" *J. Org. Chem.* **2013**, *78*, 9366-9376. DOI: 10.1021/jo4016002.
- 62) LaPorte, M. G.; Tsegay, S.; Hong, K. B.; Lu, C.; Fang, C.; Wang, L.; Xie, X.-Q.; Floreancig, P. E. "Construction of a Spirooxindole Amide Library through Nitrile Hydrozirconation-Acylation-Cyclization Cascade" *ACS Comb. Sci.* **2013**, *15*, 344-349. DOI: 10.1021/co4000387.
- 61) Cui, Y.; Villafane, L. A.; Clausen, D. J.; Floreancig, P. E. "Bimolecular Coupling Reactions through Oxidatively Generated Aromatic Cations: Scope and Stereocontrol" *Tetrahedron* **2013**, *69*, 7618-7626. DOI: 10.1016/j.tet.2013.05.011.
- 60) Han, X.; Peh, G. R.; Floreancig, P. E. "Prins-Type Cyclization Reactions in Natural Product Synthesis" *Eur. J. Org. Chem.* **2013**, 1193-1208. DOI: 10.1002/ejoc.201201557.
- 59) Xie, Y.; Floreancig, P. E. "Cascade Approach to Stereoselective Polycyclic Ether Formation: Epoxides as Trapping Agents in the Transposition of Allylic Alcohols" *Angew. Chem., Int. Ed.* **2013**, *52*, 625-628. DOI: 10.1002/anie.201208132.
- 58) Wu, C.-Y.; Feng, Y.; Cardenas, E. R.; Williams, N.; Floreancig, P. E.; De Brabander, J. K.; Roth, M. G. "Psymberin: Structure–Activity Relationships, Biochemical Studies, and Genetics Identify the Mode of Action of Psymberin" *J. Am. Chem. Soc.* **2012**, *134*, 18998-19003.
- 57) Peh, G. R.; Floreancig, P. E. "Cyclopropane Compatibility with Oxidative Carbocation Formation: Total Synthesis of Clavosolide A" *Org. Lett.* **2012**, *14*, 5614-5617. DOI: 10.1021/ol302744t.

- 56) Han, X.; Floreancig, P. E. "Synthesis of Bridged Inside-Outside Bicyclic Ethers through Oxidative Transannular Cyclization Reactions" *Org. Lett.* **2012**, *14*, 3808-3811. DOI: 10.1021/ol301720u.
- 55) Clausen, D. J.; Floreancig, P. E. "Aromatic Cations from Oxidative Carbon-Hydrogen Bond Cleavage in Bimolecular Carbon-Carbon Bond Forming Reactions" *J. Org. Chem.* **2012**, *77*, 6574-6582. DOI: 10.1021/jo301185h.
- 54) Mosey, R. A.; Floreancig, P. E. "Isolation, Biological Activity, and Medicinal Chemistry of the Pederin/Mycalamide Family of Natural Products" *Nat. Prod. Rep.* **2012**, *29*, 980-995. DOI: 10.1039/c2np20052j.
- 53) Mosey, R. A.; Floreancig, P. E. "Versatile Approach to α -Alkoxy Carbamate Synthesis and Stimulus-Responsive Alcohol Release" *Org. Biomol. Chem.* **2012**, *10*, 7980-7985. DOI: 10.1039/c2ob26571k
- 52) Cui, Y.; Floreancig, P. E. "Synthesis of Sulfur-Containing Heterocycles through Oxidative Carbon-Hydrogen Bond Functionalization" *Org. Lett.* **2012**, *14*, 1720-1723. DOI: 10.1021/ol3002877.
- 51) Cui, Y.; Balachandran, R.; Day, B. W.; Floreancig, P. E. "Synthesis and Biological Evaluation of Neopeltolide and Analogs" *J. Org. Chem.* **2012**, *77*, 2225-2235. DOI: 10.1021/jo2023685.
- 50) Minami, S. S.; Sun, B. G.; Popat, K.; Kauppinen, T.; Pleiss, M.; Zhou, Y.; Ward, M. E.; Floreancig, P.; Mucke, L.; Desai, T.; Gan, L. "Selective Targeting of Microglia by Quantum Dots" *J. Neuroinflamm.* **2012**, *9*, Article 22. DOI: 10.1186-2094-9-22.
- 49) Brizgys, G. J.; Jung, H. H.; Floreancig, P. E. "Stereoselective Piperidine Synthesis through Oxidative Carbon-Hydrogen Bond Functionalization of Enamides" *Chem. Sci.* **2012**, *3*, 438-442. DOI: 10.1039/c1sc00670c.
- 48) Wan, S.; Wu, F.; Rech, J. C.; Green, M. E.; Balachandran, R.; Horne, W. S.; Day, B. W.; Floreancig, P. E. "Total Synthesis of Pederin, Psymberin, and Highly Potent Analogs" *J. Am. Chem. Soc.* **2011**, *133*, 16668-16679. DOI: 10.1021/ja207331m.
- 47) Xie, Y.; Floreancig, P. E. "Stereoselective Heterocycle Synthesis through a Reversible Allylic Alcohol Transposition and Nucleophilic Addition Sequence" *Chem. Sci.* **2011**, *2*, 2423-2427. DOI: 10.1039/c1sc00570g.
- 46) Zaware, N.; LaPorte, M. G.; Farid, R.; Liu, L.; Wipf, P.; Floreancig, P. E. "Diversity-Oriented Synthesis of a Library of Tetrahydropyrones Using Oxidative Carbon-Hydrogen Bond Activation and Click Chemistry" *Molecules* **2011**, *16*, 3648-3662. DOI: 10.3390/molecules16053648.
- 45) Clausen, D. J.; Wan, S.; Floreancig, P. E. "Total Synthesis of the Protein Phosphatase 2A Inhibitor Lactodehydrothysiferol" *Angew. Chem., Int. Ed.* **2011**, *50*, 5178-5181. DOI: 10.1002/anie.201007757.
- 44) Wu, F.; Green, M. E.; Floreancig, P. E. "Total Synthesis of Pederin and Analogs" *Angew. Chem., Int. Ed.* **2011**, *50*, 1131-1134. DOI: 10.1002/anie.201006438.
- 43) Liu, L.; Floreancig, P. E. "Stereoselective Heterocycle Synthesis through Oxidative Carbon-Hydrogen Bond Activation" *Curr. Opin. Drug Disc. Devel.* **2010**, *13*, 733-747. ISSN: 2040-3437.
- 42) Lu, C.; Xiao, Q.; Floreancig, P. E. "Stereoselective Synthesis of Spirooxindole Amides through Nitrile Hydrozirconation" *Org. Lett.* **2010**, *12*, 5112-5115. DOI: 10.1021/ol102246d.
- 41) Liu, L.; Floreancig, P. E. "2,3-Dichloro-5,6-dicyano-1,4-benzoquinone-Catalyzed Reactions Employing MnO₂ as a Stoichiometric Oxidant" *Org. Lett.* **2010**, *12*, 4686-4689. DOI: 10.1021/ol102078v.
- 40) Fang, H.; Xiao, Q.; Wu, F.; Floreancig, P. E. Weber, S. G. "Rapid Catalyst Screening by a Continuous-Flow Microreactor Interfaced with High Throughput Analytical Capacity" *J. Org. Chem.* **2010**, *75*, 5619-5626. DOI: 10.1021/jo100981e.
- 39) Liu, L.; Floreancig, P. E. "Stereoselective Synthesis of Tertiary Ethers through Geometrical Control of Highly Substituted Oxocarbenium Ions" *Angew. Chem., Int. Ed.* **2010**, *49*, 5894-5897. DOI: 10.1002/anie.201002281.
- 38) Cui, Y.; Tu, W.; Floreancig, P. E. "Total Synthesis of Neopeltolide and Analogs" *Tetrahedron* **2010**, *66*, 4867-4873. Submitted on invitation for a special issue to commemorate Brian Stolz for receiving the Tetrahedron Young Investigator Award. DOI: 10.1016/j.tet.2010.03.066.

- 37) Liu, L.; Floreancig, P. E. "Synthesis of Structurally and Stereochemically Diverse Tetrahydropyrans through Oxidative Carbon–Hydrogen Bond Activation" *Angew. Chem., Int. Ed.* **2010**, *49*, 3069–3072. Designated as a "Hot Paper". DOI: 10.1002/anie.201000033.
- 36) Poniatowski, A. J.; Floreancig, P. E. "Radical Cation Fragmentation Reactions in Organic Synthesis" in *Carbon-Centered Free Radicals and Radical Cations: Structure, Reactivity, and Dynamics*; Forbes, M. D. E., Ed.; John Wiley and Sons, Inc.: Hoboken, NJ, 2010.
- 35) Floreancig, P. E. "Highly Convergent Synthesis of Peluroside A" *Angew. Chem., Int. Ed.* **2009**, *48*, 7739–7739. (Highlight article on a synthesis by Evans and co-workers). DOI: 10.1012/anie200903480.
- 34) Jung, H. H.; Floreancig, P. E. "Mechanistic Analysis of Oxidative C–H Cleavages Using Inter- and Intramolecular Kinetic Isotope Effects" *Tetrahedron* **2009**, *65*, 10830–10836. DOI: 10.1016/j.tet.2009.10.088
- 33) Liu, L.; Floreancig, P. E. "Cyclization Reactions through DDQ-Mediated Vinyl Oxazolidone Oxidation" *Org. Lett.* **2009**, *11*, 3152–3155. DOI: 10.1021/ol901188q.
- 32) Zhang, Li, Xiao, Q.; Ma, C.; Xie, X.; Floreancig, P. E. "Construction of a Bicyclic β -Benzyloxy and β -Hydroxy Amide Library from Nitriles through a Multicomponent Cyclization Reaction" *J. Comb. Chem.* **2009**, *11*, 640–644. DOI: 10.1021/cc800200h.
- 31) Tu, W.; Floreancig, P. E. "Oxidative Carbocation Formation in Macrocycles: Synthesis of the Neopeltolide Macrocyclic" *Angew. Chem., Int. Ed.* **2009**, *48*, 4567–4571. Designated as a "Hot Paper". DOI: 10.1002/anie.200901489.
- 30) DeBenedetto, M. V.; Green, M. E.; Wan, S.; Park, J.-H.; Floreancig, P. E. "Multicomponent Synthesis of α -Branched Amides" *Org. Lett.* **2009**, *11*, 835–838. DOI: 10.1021/ol802764j.
- 29) Green, M. E.; Rech, J. C.; Floreancig, P. E. "Total Synthesis of Theopederin D" *Angew. Chem., Int. Ed.* **2008**, *47*, 7317–7320. DOI: 10.1002/anie.200802548.
- 28) Tu, W.; Liu, L.; Floreancig, P. E. "Diastereoselective Tetrahydropyrone Synthesis through Transition Metal-Free Oxidative Carbon–Hydrogen Bond Activation" *Angew. Chem., Int. Ed.* **2008**, *47*, 4184–4187. DOI: 10.1002/anie200706002.
- 27) Xiao, Q.; Floreancig, P. E. "One Pot Synthesis of Bicyclic β -Alkoxy Amides from Cyanohydrin Ethers" *Org. Lett.* **2008**, *10*, 1139–1142. DOI: 10.1021/ol8000409.
- 26) Wan, S.; Green, M. E.; Park, J.-H.; Floreancig, P. E. "Multicomponent Approach to the Synthesis of Oxidized Amides through Nitrile Hydrozirconation" *Org. Lett.* **2007**, *9*, 5385–5388. DOI: 10.1021/ol702184n.
- 25) Jung, H. H.; Seiders, J. R., II; Floreancig, P. E. "Oxidative Cleavage in the Synthesis of Complex Molecules: Synthesis of the Leucascandrolide A Lactone" *Angew. Chem., Int. Ed.* **2007**, *46*, 8464–8467. DOI: 10.1002/anie.200702999.
- 24) Jung, H. H.; Floreancig, P. E. "Gold-Catalyzed Synthesis of Oxygen- and Nitrogen-Containing Heterocycles from Alkynyl Ethers: Application to the Total Synthesis of Andrachcinidine" *J. Org. Chem.*, **2007**, *72*, 7359–7366. DOI: 10.1021/jo071225w.
- 23) Poniatowski, A. J.; Floreancig, P. E. "Synthesis of the C₁–C₁₅ Fragment of Apicularen A through a Regioselective Electron Transfer Initiated Cyclization Reaction" *Synthesis* **2007**, 2291–2296. DOI: 10.1055/s-2007-983776.
- 22) Tu, W.; Floreancig, P. E. "Intramolecular Electron Transfer Initiated Cation and Radical Formation through Carbon–Carbon Bond Activation" *Org. Lett.* **2007**, *9*, 2389–2392. DOI: 10.1021/ol070850k.
- 21) Wan, S.; Gunaydin, H.; Houk, K. N.; Floreancig, P. E. "An Experimental and Computational Approach to Defining Structure/Reactivity Relationships for Intramolecular Addition Reactions to Bicyclic Epoxonium Ions" *J. Am. Chem. Soc.* **2007**, *129*, 7915–7923. DOI: 10.1021/ja0709674.
- 20) Floreancig, P. E. "Development and Applications of Electron Transfer Initiated Cyclization Reactions" *Synlett*, **2007**, 191–203 (invited review). DOI: 10.1055/s-2007-968021.
- 19) Jung, H. H.; Floreancig, P. E. "Gold-Catalyzed Heterocycle Synthesis Using Homopropargylic Ethers as Latent Electrophiles" *Org. Lett.* **2006**, *8*, 1949–1951. DOI: 10.1021/ol060574u.
- 18) Rech, J. C.; Floreancig, P. E. "Concise and Stereoselective Synthesis of the N₇–C₂₅ Fragment of Psymberin" *Org. Lett.* **2005**, *7*, 5175–5178. DOI: 10.1021/ol0520267.

- 17) Kumar, V. S.; Wan, S.; Aubele, D. L.; Floreancig, P. E. "Oxidatively-generated electrophiles as initiators of epoxide cascade cyclization processes" *Tetrahedron: Asymm.* **2005**, *16*, 3570-3578. (invited manuscript). DOI: 10.1016/j.tetasy.2005.08.055.
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- 15) Aubele, D. L.; Wan, S.; Floreancig, P. E. "Total Synthesis of Dactylolide through an Efficient Sequential Peterson Olefination and Prins Cyclization Reaction" *Angew. Chem., Int. Ed.* **2005**, *44*, 3485-3488. DOI: 10.1002/anie.200500564.
- 14) Liu, H.; Wan, S.; Floreancig, P. E. "Oxidative Cyclorelease from Soluble Polymer Scaffolds" *J. Org. Chem.* **2005**, *70*, 3814-3818. DOI: 10.1021/jo0480951.
- 13) Wang, L.; Floreancig, P. E. "Investigations of the Scope and Mechanism of the Tandem Hydroesterification/Lactonization Reaction" *Org. Lett.* **2004**, *6*, 4207-4210. DOI: 10.1021/ol048378f.
- 12) Lee, C. A.; Floreancig, P. E. "Studies in Multidrug Resistance Reversal: A Rapid and Stereoselective Synthesis of the Dihydroagarofuran Ring System" *Tetrahedron Lett.* **2004**, *45*, 7193-7196. DOI: 10.1016/j.tetlet.2004.08.041.
- 11) Wang, L.; Seiders, J. R., II; Floreancig, P. E. "Structure-Reactivity Relationships in Oxidative Carbon-Carbon Bond Forming Reactions: A Mild and Efficient Approach to Stereoselective Syntheses of 2,6-Disubstituted Tetrahydropyrones" *J. Am. Chem. Soc.* **2004**, *126*, 12596-12603. DOI: 10.1021/ja046125b.
- 10) Wang, L.; Floreancig, P. E. "Synthesis of the C16-C35 Spiroketal Unit of Integramycin Using Olefin Hydroesterification as a Linchpin Reaction" *Org. Lett.* **2004**, *6*, 569-572. DOI: 10.1021/ol036339i.
- 9) Aubele, D. L.; Rech, J. C.; Floreancig, P. E. "Catalytic Aerobic Generation of Acyliminium Ions through Electron Transfer Mediated Carbon-Carbon Bond Activation" *Adv. Synth. Catal.* **2004**, *346*, 359-366. (invited manuscript). DOI: 10.1002/adsc.200303173.
- 8) Aubele, D. L.; Lee, C. A.; Floreancig, P. E. "The "Aqueous" Prins Reaction" *Org. Lett.* **2003**, *5*, 4521-4523. DOI: 10.1021/ol0359259.
- 7) Floreancig, P. E. "N-Methylquinolinium Hexafluorophosphate" in *Electronic Encyclopedia of Reagents for Organic Synthesis*; Paquette, L. A., Ed.; Wiley.
- 6) Rech, J. C.; Floreancig, P. E. "An Oxidative Entry into the Amido Trioxadecalin Ring System" *Org. Lett.* **2003**, *5*, 1495-1498. DOI: 10.1021/ol034273l.
- 5) Seiders, J. R., II; Wang, L.; Floreancig, P. E. "Tuning Reactivity and Selectivity in Electron Transfer Initiated Cyclization Reactions: Applications to Carbon-Carbon Bond Formation" *J. Am. Chem. Soc.* **2003**, *125*, 2406-2407. DOI: 10.1021/ja029139v.
- 4) Aubele, D. L.; Floreancig, P. E. "Oxidative Synthesis of Cyclic Acyl Aminals through Carbon-Carbon σ -Bond Activation" *Org. Lett.*, **2002**, *4*, 3443-3446. DOI: 10.1021/ol026548m.
- 3) Kumar, V. S.; Aubele, D. L.; Floreancig, P. E. "Electron Transfer Initiated Heterogenerative Cascade Cyclizations: Polyether Synthesis under Non-Acidic Conditions" *Org. Lett.*, **2002**, *4*, 2849-2852. DOI: 10.1021/ol0261074.
- 2) Kumar, V. S.; Aubele, D. L.; Floreancig, P. E. "Aerobic Organocatalytic Photoinitiated Arene Oxidations: Application to Electron Transfer Initiated Cyclization Reactions" *Org. Lett.* **2001**, *3*, 4123-4125. DOI: 10.1021/ol016996f.
- 1) Kumar, V. S.; Floreancig, P. E. "Electron Transfer Initiated Cyclizations: Cyclic Acetal Synthesis through Carbon-Carbon σ -Bond Activation" *J. Am. Chem. Soc.* **2001**, *123*, 3842-3843. DOI: 10.1021/ja015526d.

PRIOR PUBLICATIONS

- 8) Floreancig, P. E.; Swalley, S. E.; Trauger, J. W.; Dervan, P. B. "Recognition of the Minor Groove of DNA by Hairpin Polyamides Containing α -Substituted β -Amino Acids" *J. Am. Chem. Soc.* **2000**, *122*, 6342-6350.

- 7) Wender, P. A.; Badham, N. F.; Conway, S. P.; Floreancig, P. E.; Glass, T. E.; Houze, J. B.; Krauss, N. E.; Lee, D.; Marquess, D. G.; McGrane, P. L.; Meng, W.; Natchus, M. G.; Shuker, A. J.; Sutton, J. C.; Taylor, R. E. "The Pinene Path to Taxanes. 6. A Concise Stereocontrolled Synthesis of Taxol" *J. Am. Chem. Soc.* **1997**, *119*, 2757-2758.
- 6) Wender, P. A.; Badham, N. F.; Conway, S. P.; Floreancig, P. E.; Glass, T. E.; Granicher, C.; Houze, J. B.; Janichen, J.; Lee, D.; Marquess, D. G.; McGrane, P. L.; Meng, W.; Mucciari, T. P.; Muhlebach, M.; Natchus, M. G.; Paulsen, H.; Rawlins, D. B.; Satkofsky, J.; Shuker, A. J.; Sutton, J. C.; Taylor, R. E.; Tomooka, K. "The Pinene Path to Taxanes. 5. Stereocontrolled Synthesis of a Versatile Taxane Precursor" *J. Am. Chem. Soc.* **1997**, *119*, 2755-2756.
- 5) Sawyer, J. S.; Bach, N. J.; Baker, S. R.; Baldwin, R. F.; Borromeo, P. S.; Cockerham, S. L.; Fleisch, J. H.; Floreancig, P. E.; Froelich, L. L.; Jackson, W. T.; Marder, P.; Palkowitz, J. A.; Roman, C. R.; Saussy, D. L.; Schmittling, E. A.; Silbaugh, S. A.; Spaethe, S. M.; Stengel, P. W.; Sofia, M. J. "Synthetic and Structure-Activity Studies on Acid-Substituted 2-Arylphenols – Discovery of 2-[2-Propyl-3-[3-[2-ethyl-4-(4-fluorophenyl)-5-hydroxyphenoxy]-propoxy]phenoxy]benzoic Acid, A High Affinity Leukotriene B-4 Receptor Antagonist" *J. Med. Chem.* **1995**, *38*, 4411-4432.
- 4) Wender, P. A.; Floreancig, P. E.; Glass, T. E.; Natchus, M. G.; Shuker, A. J.; Sutton, J. C. "Toward the Synthesis of Taxol and Its Analogs – Incorporation of Nonaromatic C-Rings in the Pinene Pathway" *Tetrahedron Lett.* **1995**, *36*, 4939-4942.
- 3) Sawyer, J. S.; Baldwin, R. F.; Sofia, M. J.; Floreancig, P. E.; Marder, P.; Saussy, D. L.; Froelich, L. L.; Silbaugh, S. A.; Stengel, P. W.; Cockerham, S. L.; Jackson, W. T. "Biphenyl-Substituted Xanthenes – Highly Potent Leukotriene B-4 Receptor Antagonists" *J. Med. Chem.* **1993**, *36*, 3982-3984.
- 2) Sofia, M. J.; Floreancig, P. E.; Bach, N. J.; Baker, S. R.; Cockerham, S. L.; Fleisch, J. H.; Froelich, L. L.; Jackson, W. T.; Marder, P.; Saussy, D. L.; Spaethe, S. M.; Stengel, P. W.; Silbaugh, S. A. "O-Phenylphenols – Potent and Orally-Active Leukotriene B-4 Receptor Antagonists" *J. Med. Chem.* **1993**, *36*, 3978-3981.
- 1) Sofia, M. J.; Floreancig, P. E.; Jackson, W. T.; Marder, P.; Saussy, D. L.; Silbaugh, S. A.; Cockerham, S. L.; Froelich, L. L.; Roman, C. R.; Stengel, P. W.; Fleisch, J. H. "Acid Unit Modifications of 1,2,4,5-Substituted Hydroxyacetophenones and the Effect on *in vitro* and *in vivo* LTB(4) Receptor Antagonism" *Bioorg. Med. Chem. Lett.* **1993**, *3*, 1147-1152.

RESEARCH GROUP

Current

Qi Qin	5 th Year Graduate Student
Shelby Anderson	4 th Year Graduate Student
Cephas Afeke	4 th Year Graduate Student
Austin Asari	4 th Year Graduate Student
Ian Kaigh	3 rd Year Graduate Student
Freddie Rodriguez del Sol	3 rd Year Graduate Student
Jean-Marc Lawrence	2 nd Year Graduate Student
Kurt De Fiebre	1 st Year Graduate Student
Jenna Miller	1 st Year Graduate Student
Aidan Cole	Undergraduate

Previous

Ramsey Hanna	Graduate student (Currently a postdoc at the NIH)
Xun Han	Graduate Student (Currently a postdoc at the University of Colorado)
GuangRong Peh	Graduate Student (Currently employed at GSK, Singapore)
Youwei Xie	Graduate Student (Currently a professor at Huazhong University of Science and Technology)
Yubo Cui	Graduate Student (Currently employed at St. Gobain Performance Plastics)

Chunliang Lu	Graduate Student (Currently at Novartis, Shanghai)
R. Adam Mosey	Postdoctoral Scholar (Currently an associate professor at Lake Superior State University)
Dane Clausen	Graduate Student (Currently at Merck)
Hyung Hoon Jung	Graduate Student (Current location unknown)
Gediminas Brizgys	Masters Student (Currently employed at Gilead Pharmaceuticals)
Fanghui Wu	Postdoctoral Scholar (Currently at PPG)
Leu Liu (PhD)	Graduate Student (Currently a professor at Shandong University)
Wangyang Tu (PhD)	Graduate Student (Currently employed at Johnson and Johnson, Shanghai)
Alexander Poniatowski (PhD)	Graduate Student (Currently a lecturer at the University of Michigan)
Qing Xiao	Postdoctoral Scholar (Currently employed at Chemical Abstracts)
Michael Green (PhD)	Graduate Student (Currently employed at Pfizer)
Shunagyi Wan (PhD)	Graduate Student (Currently employed at WuXi pharmaceuticals)
Jason Rech (PhD)	Graduate Student (Currently the Managing Director at the Michigan Center for Therapeutic Innovation)
Danielle Aubele (PhD)	Graduate Student (Currently employed at Myokardia Pharmaceuticals)
Christopher Lee (PhD)	Graduate Student (Currently employed at Ariad Pharmaceuticals)
John Seiders, II (PhD)	Graduate Student (Currently on the faculty at Franklin and Marshall College)
Lijun Wang (PhD)	Graduate Student (Currently employed at Merck)
Louis Villafane	Masters Student (Currently employed at Solvay Chemicals)
Jennifer Smotryski	Masters Student (Currently employed at Merck)
Hua Liu	Postdoctoral Associate (Currently employed at Chemical Abstracts)
Kazuki Iwaya	Postdoctoral Associate
V. Satish Kumar	Postdoctoral Associate (Currently employed at Biocryst Pharmaceuticals)
Viktor Polites	Undergraduate Student (Currently a graduate student at the University of Pennsylvania)
Tinting Dai	Undergraduate Student (Currently a graduate student at Stanford University)
Raymond Velky	Undergraduate Student (Currently a pharmacy student at the University of Pittsburgh)
Daniel Glazier	Undergraduate Student (Currently a graduate student at the University of Wisconsin)
Akira Shimizu	Undergraduate Student (Currently a graduate student at Stanford University)
Stephanie Garrell	Undergraduate Student (Currently employed at PPG)
Suzanne Pincipe	Undergraduate Student (Currently employed at Watson Standard)
James Cregg	Undergraduate Student (Currently a graduate student at Stanford University)
Mikkel DeBenedetto	Undergraduate Student (Currently employed at Sanofi)
Christopher Pickell	Undergraduate Student
Christopher Greco	Undergraduate Student
Hugh Burgoon	Undergraduate Student (Currently employed at Lexicon Pharmaceuticals)
Harit Vora	Undergraduate Student (Currently at C4 Therapeutics)

Gregory Vaslowski
Dmitri Skliar
Ethan Quirin
Nikisha Bent
Rebecca Koenig

Undergraduate Student
Undergraduate Student
Undergraduate Student
Howard Hughes Undergraduate Research Fellow
NSF REU Fellow

INVITED PRESENTATIONS

- 114) Trinity University, October , 2018.
- 113) Duke University, October, 2017.
- 112) North Carolina State University, October, 2017.
- 111) Princeton University, October 2017.
- 110) Gilead Pharmaceuticals, June, 2017.
- 109) National Organic Symposium, Davis, CA, June, 2017.
- 108) University of Pennsylvania, April, 2017.
- 107) Purdue University, October, 2016.
- 106) Gordon Research Conference on Natural Products, July, 2016.
- 105) Central Regional Meeting of the American Chemical Society, May 2016.
- 104) Butler University, April 2016.
- 103) Eli Lilly and Co., April, 2016.
- 102) Shanghai Institute of Organic Chemistry, May 2015.
- 101) Nanjing University, May 2015.
- 100) University of Science and Technology of China, May 2015.
- 99) Shan Dong University, May 2015.
- 98) Tianjin University, May 2015.
- 97) Muhlenberg College, October 2014.
- 96) University of Rochester, October 2014.
- 95) Louisiana State University, March 2014.
- 94) Xavier University, New Orleans, March 2014.
- 93) American Chemical Society National Meeting, Dallas, TX, March 2014.
- 92) University of Minnesota, November 2013.
- 91) Macalester College, November 2013.
- 90) North Dakota State University, November 2013.
- 89) College of William and Mary, October 2013.
- 88) James Madison University, October 2013.
- 87) Qingdao Agricultural University, May 2013.
- 86) Shan Dong University, May 2013.
- 85) East China Normal University, May 2013.
- 84) Heng Rui Pharmaceuticals, Shanghai, May 2013.
- 83) WuXi Pharmaceuticals, Shanghai, May 2013.
- 82) Shanghai Institute of Organic Chemistry, May 2013.
- 81) Pfizer, Groton, CT, July 2012.
- 80) West Virginia University, November, 2011.
- 79) University of Texas, October, 2011.
- 78) University of North Carolina School of Pharmacy, May, 2011.
- 77) University of New Hampshire, May, 2011.
- 76) Flow Chemistry Congress, Boston, MA, April, 2011.
- 75) Delaware State University, April, 2011.
- 74) Symposium on Green Chemistry, Pacificchem, Honolulu, Hawaii, December, 2010.
- 73) Duquesne University, November, 2010.
- 72) Gordon Conference on Organic Reactions and Processes, Smithfield, RI, July 2010.
- 71) Bristol Myers Squibb, Wallingford, CT, May, 2010.
- 70) Hampton University, February, 2010.
- 69) Brigham Young University, November, 2009.
- 68) University of Utah, November, 2009.
- 67) Duquesne University, September, 2009.
- 66) Brazilian Conference on Organic Synthesis, Sao Carlos, Brazil, September 2009.
- 65) Gordon Conference on Natural Products, Tilton, NH, July 2009.

- 64) Gordon Conference on Combinatorial Chemistry, New London, NH, June 2009.
- 63) Williams College, May, 2009.
- 62) Zing Conference on Natural Products, Antigua, March, 2009.
- 61) University of Manchester, Manchester UK, September 2008.
- 60) Novartis, Emoryville, CA, June, 2008.
- 59) Amgen, South San Francisco, CA, June, 2008
- 58) University of Ottawa, June, 2008.
- 57) Bucknell University, March, 2008.
- 56) Indiana University, February, 2008.
- 55) Lehigh University, October, 2007.
- 54) University of Kansas, February, 2007.
- 53) Messiah College, November, 2006.
- 52) Theravance Pharmaceuticals, November, 2006.
- 51) Rigel Pharmaceuticals, August, 2006.
- 50) International Symposium on Radical Ion Chemistry, Rome, Italy, July 2006.
- 49) Schering-Plough Research Institute, July, 2006.
- 48) Portland State University, March, 2006.
- 47) Rutgers University, February, 2006.
- 46) Symposium on Free Radical Reactions, Pacificchem, Honolulu, Hawaii, December, 2005.
- 45) North Carolina State University, September, 2005.
- 44) Kyoto University, March, 2005.
- 43) International Symposium on Organic Electron Transfer Chemistry Directed Toward Organic Synthesis, Osaka, Japan, March 2005.
- 42) Proctor and Gamble Pharmaceuticals, January, 2005.
- 41) University of Pittsburgh, October, 2004.
- 40) Bristol Myers Squibb, October, 2004.
- 39) University of Pittsburgh, Senior Vice Chancellor's Research Seminar, September, 2004.
- 38) Amgen, Cambridge, MA, July, 2004.
- 37) University of California, Berkeley, May, 2004.
- 36) Scripps Research Institute, May, 2004.
- 35) Roche Palo Alto, May, 2004.
- 34) Stanford University, May, 2004.
- 33) Genentech, May, 2004.
- 32) University of Delaware, April, 2004.
- 31) Elan Pharmaceuticals, March, 2004.
- 30) University of Colorado, February, 2004.
- 29) Colorado State University, February, 2004.
- 28) Boston College, January, 2004.
- 27) University of Texas, Southwest Medical Center, December, 2003.
- 26) University of Chicago, December, 2003.
- 25) Northwestern University, December 2003.
- 24) University of Notre Dame, December 2003.
- 23) University of California, San Diego, November, 2003.
- 22) University of California, Los Angeles, November, 2003.
- 21) California Institute of Technology, November, 2003.
- 20) University of Illinois, Chicago, November, 2003.
- 19) University of Missouri, October, 2003.
- 18) Washington University, St. Louis, October, 2003.
- 17) Princeton University, October, 2003.
- 16) Columbia University, October, 2003.
- 15) University of North Carolina, October, 2003.
- 14) Duke University, October, 2003.
- 13) Midwest Regional American Chemical Society Meeting, Pittsburgh, PA, October 2003.
- 12) West Virginia University, September, 2003.
- 11) Gordon Research Conference on Organic Reactions and Processes, Bristol, RI, July, 2003.
- 10) Gordon Research Conference on Free Radicals, Holderness, NH, July, 2003.

- 9) National Science Foundation Workshop on Organic Synthesis, Pacific Grove, CA, July, 2003.
- 8) Eli Lilly and Co., June, 2003.
- 7) Dow Agrosiences, June, 2003.
- 6) Emory University, April, 2003.
- 5) University of Michigan, December, 2002.
- 4) Pennsylvania State University, October, 2002.
- 3) University of Rochester, October, 2002.
- 2) International Conference on Radical Ions, Heigenbrücken, Germany, June, 2002.
- 1) Gordon Research Conference on Stereochemistry, Newport, RI, June, 2002.

COMMITTEES

Dietrich School Nominating Committee, 2016-2017
University Tenure Committee, 2009-2010
University Research Committee, 2007-2008
Organic Division Chair, 2007-2017
Senior Faculty Search Committee, 2008-2009
Organic Faculty Search, Chair, 2007
Undergraduate Curriculum Committee, 2005-2006, 2010-2011
Faculty Long Range Development Committee, 2003-2006
Howard Hughes Undergraduate Research Committee, 2003-2004
Safety Committee, 1999-2003, Chair, 2000-2001
Graduate Admissions Committee, 2001-2006, 2009-present, Chair 2006, 2011- 2015, 2018
Seminar Committee, 1999-2000

RESEARCH SUPPORT

Current

Stereoselective Synthesis through Allylic Alcohol Transposition and Trapping
9/01/15-8/31/19

Source: National Institutes of Health
Total amount: \$1,131,820

Sustainable Organic Synthesis through Aerobic Carbon-Hydrogen Bond Functionalization Reactions

in no cost extension

Source: National Science Foundation
Total amount: \$450,000

Pending

Oxoammonium Salts in the Development of Green Synthetic Protocols
Source: National Science Foundation

Conditional Control of Drug Function Through α -Boryl Ether Oxidation
Source: National Institutes of Health