

Glenn Christopher Micalizio, Ph.D.

Department of Chemistry
Dartmouth College
6128 Burke Hall
Hanover, NH 03755

Phone: cell -
office - (603) 646-0276
e-mail: glenn.c.micalizio@dartmouth.edu

EDUCATION AND EXPERIENCE

- 2013-present** Dartmouth College, New Hampshire Professor of Chemistry
Dartmouth Hitchcock Medical Center, Investigator at the Norris Cotton Cancer Center and Member of the Cancer Biology and Therapeutics Program
- 2021-2022** Asteroid Therapeutics: Co-Founder, SAB member/consultant
(An ARCH Venture Partners startup company)
- 2008-2013** The Scripps Research Institute, Associate Professor with Tenure
- 2003-2008** Yale University, Assistant Professor
- 2001-2003** Harvard University, Postdoctoral Fellow (Mentor: Prof. Stuart L. Schreiber)
- 1996-2001** University of Michigan, Ph.D. (Mentor: Prof. William R. Roush)
- 1994-1996** Ciba-Geigy/Novartis (Summit, NJ), Drug Discovery
- 1992-1996** Ramapo College, B.S. Chemistry

AWARDS AND HONORS

- 2020** International Society of Heterocyclic Chemistry Lecturer, FloHet
- 2017** Frontiers in Chemistry Lectureship, Western Michigan University
- 2013** Endowed Chair: New Hampshire Professor of Chemistry at Dartmouth College
- 2013** Lilly Lecturer, Harvard University
- 2013** Warner Lambert Lecturer, Wayne State University
- 2008** Visions in Chemistry Award – Sanofi Aventis
- 2008** Grandpierre Lecturer, Columbia University
- 2007** Boehringer Ingelheim New Investigator Award
- 2007** University of Michigan Kasimir Fajans Award in Chemistry
- 2007** Lilly Distinguished Lecturer, Colorado State University
- 2006** Lilly Grantee Award
- 2006** American Cancer Society Research Scholar Award
- 2006** Yale University Junior Faculty Fellowship in the Natural Sciences
- 2005** Beckman Young Investigator Award
- 2004** Thieme Chemistry Journals Award

2003	Lilly New Faculty Award
2002	Pfizer Fellow of the Natural Products Gordon Research Conference
2001-2003	Helen Hay Whitney Foundation Postdoctoral Fellowship
2001	NIH Postdoctoral Fellowship (declined)
2000-2001	Rackham Predoctoral Fellow (University of Michigan)
1999-2000	American Chemical Society Division of Organic Chemistry Fellow
1999	Roche Award for Excellence in Organic Chemistry
1996	American Institute of Chemists Award
1996	American Chemical Society Award

PUBLICATIONS

- (91) H. T. Wai, **G. C. Micalizio**, "Progress Toward the De Novo Asymmetric Synthesis of Euphanes" *Org. Lett.* **2022**, *24*, *accepted*.
- (90) A. R. Bucknam, **G. C. Micalizio**, "Asymmetric De Novo Synthesis of a Cucurbitane Triterpenoid: Total Synthesis of Octanorcucurbitacin B" *J. Am. Chem. Soc.* **2022**, *144*, *accepted*.
- (89) J. M. Nicholson, A. B. Millham, A. R. Bucknam, L. E. Markham, X. I. Sailors, **G. C. Micalizio**, "A General Enantioselective and Stereochemically Divergent Four-Stage Approach to Fused Tetracyclic Terpenoid Systems" *J. Org. Chem.* **2022**, *87*, 3352-3362.
- (88) L. E. Markham, J. D. Tolbert, F. J. Kull, C. R. Midgett, **G. C. Micalizio**, "An Enantiodefined and Conformationally Constrained Fatty Acid Mimetic and Potent Inhibitor of ToxT" *ACS Med. Chem. Lett.* **2021**, *12*, 1493-1497.
- (87) Z. A. Shalit, L. Valdes, W. S. Kim, **G. C. Micalizio**, "From an *ent*-Estrane, Through a *nat*-Androstane, to the Total Synthesis of the Marine-Derived $\Delta^{8,9}$ -Pregnene (+)-03219A" *Org. Lett.* **2021**, *23*, 2248-2252.
- (86) A. B. Millham, C. P. Bhatt, **G. C. Micalizio**, "From Metallacycle-Mediated Annulative Cross-Coupling to Steroidal Tetracycles Through Intramolecular C9–C10 Bond Formation" *Org. Lett.* **2020**, *22*, 6595-6599.
- (85) K. Du, M. A. Kier, Z. D. Stempel, V. Jeso, A. Rheingold, **G. C. Micalizio**, "Synthesis of Anhydroryanodol", *J. Am. Chem. Soc.* **2020**, *142*, 12937-12941.

- As of January 25, 2022, this manuscript has an Altmetric score of 11, placing it in the 87th percentile of all 18,248,093 research outputs across all sources. Overall, "it's in the top 25% of all research outputs ever tracked by Altmetric."

- Highlighted in Synfacts by Prof. Erick M. Carreira (ETH): DOI: 10.1055/s-0040-1705831.

- (84) R. Karmakar, A. Rheingold, **G. C. Micalizio**, “Studies Targeting Ryanodol Result in an Annulation Reaction for the Synthesis of a Variety of Fused Carbocycles” *Org. Lett.* **2019**, *21*, 6126-6129.
- (83) R. M. Leon, D. Ravi, J. S. An, C. L. del Genio, A. Rheingold, A. B. Gaur, **G. C. Micalizio**, “Synthesis of C14-Desmethylene Corialactone D and the Discovery of Inhibitors of Nerve Growth Factor-Mediated Neurite Outgrowth” *Org. Lett.* **2019**, *21*, 3193-3197.
- (82) W. S. Kim, Z. A. Shalit, S. Nguyen, E. Schoepke, A. Eastman, T. P. Burris, A. B. Gaur, **G. C. Micalizio**, “A Synthesis Strategy for Tetracyclic Terpenoids Leads to Agonists of ER β ” *Nature Commun.* **2019**, *10*, article #2448 (DOI: [10.1038/s41467-019-10415-6](https://doi.org/10.1038/s41467-019-10415-6)).
- Covered in news stories by: EurkAlert!, Phys.org, 7th Space Family Portal, Technology Networks, Lab Manager, Environmental News Network, Long Room, and True Viral News.
 - As of January 25, 2022, this manuscript has an Altmetric score of 58, placing it in the 97th percentile of the 19,867,404 research outputs tracked. Overall, it’s “in the top 5% of all research outputs ever tracked by Altmetric.”
- (81) A. B. Millham, M. J. Kier, R. M. Leon, R. Karmakar, Z. D. Stempel, **G. C. Micalizio**, “A Complementary Process to Pauson–Khand-type Annulation Reactions for the Construction of Fully Substituted Cyclopentenones” *Org. Lett.* **2019**, *21*, 567-570.
- (80) K. Du, M. J. Kier, A. Rheingold, **G. C. Micalizio**, “Toward the Total Synthesis of Ryanodol via Oxidative Alkyne–1,3-Diketone Annulation: Construction of a Ryanoid Tetracycle” *Org. Lett.* **2018**, *20*, 6457-6461.
- Selected as an “ACS Editors’ Choice” article.
 - “One of the top ten” most read publication in *Organic Letters* in October of 2018.
- (79) H. T. Wai, K. Du, J. Anesini, W. S. Kim, A. Eastman, **G. C. Micalizio**, “Synthesis and Discovery of Estra-1,3,5(10),6,8-pentaene-2,16 α -diol” *Org. Lett.* **2018**, *20*, 6220-6224.
- (78) Invited Article in Honor of Professor Gordon Gribble:
- Z. A. Shalit, **G. C. Micalizio** “A Highly Chemo-, Regio-, and Stereoselective Metallacycle-Mediated Annulation Between a Conjugated Enyne and an Ene-Diyne” *Arkivoc*, **2018**, 132-138.
- (77) W. S. Kim, K. Du, A. Eastman, R. P. Hughes, **G. C. Micalizio** “Synthetic *nat*- or *ent*-steroids in as few as five chemical steps from epichlorohydrin” *Nat. Chem.* **2018**, *10*, 70-77.
- Covered in news stories by: News-medical.net, Phys.org, drug discovery and development mag, UPI, EurekAlert, Science Codex, Biocompare, technologynetworks.com, Long Room, Science Newsline, The Medical

News, Health Medicinet, Bionity, bioengineer.org, bionity.com, Breitbart, Medicalnewser.com, ADC Voice, Iran Daily, BrightSurf.com, and drug target review.

- As of January 25, 2022, this manuscript has an Altmetric score of 92, placing it in the 98th percentile of the 11,874,340 research outputs tracked. Overall, it's "in the top 5% of all research outputs ever tracked by Altmetric."
- Featured on the cover of *Nature Chemistry*.

(76) N. F. O'Rourke, Mu A.; H. N. Higgs, A. Eastman, **G. C. Micalizio** "Function-Oriented Studies Targeting Pectenotoxin 2: Synthesis of the GH-Ring System and a Structurally Simplified Macrolactone" *Org. Lett.* **2017**, *19*, 5154-5157.

- Selected as an *ACS Editors' Choice* manuscript.

(75) M. J. Kier, R. M. Leon, N. F. O'Rourke, **G. C. Micalizio** "Synthesis of Highly Oxygenated Carbocycles by Stereoselective Coupling of Alkynes to 1,3- and 1,4-Dicarbonyl Systems" *J. Am. Chem. Soc.* **2017**, *139*, 12374-12377.

- As of January 25, 2022, this manuscript has an Altmetric Attention Score of 6, placing it in the 78th percentile of the 11,727,438 research outputs tracked.

(74) X. Cheng, **G. C. Micalizio** "The Application of Metallacycle-mediated Cross-coupling to the Synthesis of Neurotrophic *seco*-Prezizaane Natural Products" *invited Chapter in Strategies and Tactics in Organic Synthesis vol. 13*, **2017**, 35-54.

(73) **G. C. Micalizio**, H. Mizoguchi "The Development of Alkoxide-Directed Metallacycle-Mediated Annulative Cross-Coupling Chemistry" *invited Review* in an issue dedicated to Professors Stuart L. Schreiber and K. C. Nicolaou for their receipt of the Wolf Prize – *Isr. J. Chem.* **2017**, *57*, 228-238.

(72) H. Mizoguchi, **G. C. Micalizio** "Synthesis of Angularly Substituted *trans*-Fused Decalins through a Metallacycle-Mediated Annulative Cross-Coupling Cascade" *Angew. Chem. Int. Ed.* **2016**, *55*, 13099-13103.

(71) **G. C. Micalizio**, N. F. O'Rourke, M. J. Kier "Metallacycle-mediated Cross-Coupling in Natural Product Synthesis" *invited Report – Tetrahedron*, **2016**, *72*, 7093-7123.

(70) J. S. Cassidy, H. Mizoguchi, **G. C. Micalizio** "Acceleration of Metallacycle-mediated Alkyne–Alkyne Cross-coupling with TMSCl" *Tetrahedron Lett.* **2016**, *57*, 3848-3850.

- Graphical abstract selected to appear on the cover of the journal.

(69) C. Aquino, S. N. Greszler, **G. C. Micalizio** "Access to the Cortistatin Pentacyclic Core by Alkoxide-Directed Metallacycle-Mediated Annulative Cross-Coupling" *Org. Lett.* **2016**, *18*, 2624-2627.

- (68) N. F. O'Rourke, **G. C. Micalizio** "Cyclopropenes in Metallacycle-Mediated Cross-Coupling with Alkynes: Convergent synthesis of highly substituted vinylcyclopropanes" *Org. Lett.* **2016**, *18*, 1250-1253.

- Selected by the Editorial Board to be featured in *Synfacts*: **2016**, *12*(05): 0521 (DOI: 10.1055/s-0035-1561993).
- Included in ACS Organic Chemistry Highlights (Dec. 12, 2016 - www.organic-chemistry.org/Highlights/2016/12December.shtml).

- (67) X. Cheng, **G. C. Micalizio** "Synthesis of Neurotrophic Seco-prezizaane Sesquiterpenes (*1R,10S*)-2-oxo-3,4-dehydroneomajucin, (*2S*)-hydroxy-3,4-dehydroneomajucin, and (-)-jjadifenin" *J. Am. Chem. Soc.* **2016**, *138*, 1150-1153.

- As of January 25, 2022, this manuscript has an Altmetric score of 103, placing it in the 98th percentile of the 15,776,943 research outputs. Overall, it's "in the top 5% of all research outputs ever tracked by Altmetric."
- Featured - *J. Am. Chem. Soc. Spotlight*: <http://pubs.acs.org/doi/pdf/10.1021/jacs.6b00793>.
- Selected by the Editorial Board to be featured in *Synfacts*: **2016**, *12*(04): 0336 (DOI: 10.1055/s-0035-1561830).

- (66) H. Mizoguchi, **G. C. Micalizio** "Synthesis of Highly Functionalized Decalins via Metallacycle-Mediated Cross-Coupling" *J. Am. Chem. Soc.* **2015**, *137*, 6624-6628.

- As of January 22, 2022, this manuscript has an Altmetric score of 45, placing it in the 97th percentile of 12,312,400 research outputs tracked by Altmetric. Overall, "it's in the top 5% of all research outputs ever tracked by Altmetric."

- (65) **G. C. Micalizio**, S. Hale "Reaction Design, Discovery, and Development as a Foundation to Function-Oriented Synthesis" *Acc. Chem. Res.* (*invited*), **2015**, *48*, 663-673.

- As of January 25, 2022, this manuscript has an Altmetric score of 14, placing it in the 92nd percentile of 12,315,683 research outputs tracked by Altmetric. Overall, "it's in the top 10% of all research outputs ever tracked by Altmetric."

- (64) *Invited Article in Honor of the Memory of Professor Harry Wasserman:*

W. S. Kim, C. Aquino, Mizoguchi, H.; **G. C. Micalizio** "LiOO*t*-Bu as a Terminal Oxidant in a Titanium-Mediated [2+2+2] Reaction Cascade" *Symposium-in-Print, Tetrahedron Lett.* **2015**,

56, 3557-3559.

- (63) X. Cheng, **G. C. Micalizio** “An Annulation Reaction for the Synthesis of Cross-Conjugated Triene-containing Hydroindanes from Acyclic Precursors” *Org. Lett.* **2014**, *16*, 5144-5147.
- Selected by the Editorial Board to be featured in *Synfacts*: **2015**, *11*(01): 0071 (DOI: 10.1055/s-0034-1379649).
- (62) V. Jeso, C. Aquino, X. Cheng, H. Mizoguchi, M. Nakashige, **G. C. Micalizio**, “Direct Synthesis of Angularly Substituted Trans-fused Hydroindanes by Convergent Coupling of Acyclic Precursors” *J. Am. Chem. Soc.* **2014**, *136*, 8209-8212.
- As of January 25, 2022, this manuscript has an Altmetric score of 9, placing it in the 87th percentile of 12,312,400 research outputs tracked by Altmetric. Overall, “it’s in the top 25% of all research outputs ever tracked by Altmetric.”
 - Highlighted as a JACS Spotlight: *J. Am. Chem. Soc.* **2014**, *136*, 8837-8838.
- (61) *Invited review: Comprehensive Organic Synthesis II*
- G. C. Micalizio** “Early Transition Metal-Mediated Reductive Coupling Reactions” In: *Comprehensive Organic Synthesis*, 2nd edition; Gary A. Molander and Paul Knochel (eds.), Oxford: Elsevier; **2014**; Vol. 5; pp. 1660-1737.
- (60) X. Li, V. Jeso, S. Heyward, G. S. Walker, R. Sharma, **G. C. Micalizio**, M. D. Cameron, “Characterization of T-5 N-oxide Formation as the First Highly Selective Measure of CYP3A5 Activity” *Drug Metabolism and Disposition*, **2014**, *42*, 334-342.
- (59) D. P. Canterbury, O. Kubo, K. N. Scott, J. L. Cleveland, **G. C. Micalizio**, “Synthesis of C11-Desmethoxy Soraphen A_{1a}: A natural product analog that inhibits acetyl-CoA carboxylase” *ACS Med. Chem. Lett.* **2013**, *4*, 1244-1248.
- (58) D. Yang, **G. C. Micalizio**, “Stereochemical Lability of Azatitanacyclopropanes and an Efficient Dynamic Kinetic Resolution in Reductive Cross-Coupling Reactions with Allylic Alcohols” *Chem. Commun.* **2013**, *49*, 8857-8859.
- (57) V. Jeso, S. Iqbal, P. Hernandez, M. D. Cameron, H. Park, P. V. LoGrasso, **G. C. Micalizio** “Synthesis of Benzoquinone Ansamycin-Inspired Macrocyclic Lactams from Shikimic Acid” *Angew. Chem. Int. Ed.* **2013**, *52*, 4800-4804.
- (56) V. Jeso, C. Yang, M. D. Cameron, J. L. Cleveland, **G. C. Micalizio** “Synthesis and Structure–Activity Relationships of Lehualide B – A Marine-derived Natural Product with Potent Anti-Multiple Myeloma Activity” *ACS Chemical Biology*, **2013**, *8*, 1241-1252.
- (55) V. Jeso, **G. C. Micalizio** “Relay catalysis at a boron centre” *Nature (News and Views)* **2013**,

494, 179-181.

- (54) M. Sarkar, B. D. Pascal, C. Steckler, C. Aquino, **G. C. Micalizio**, T. Kodadek, M. J. Chalmers “Decoding Split-and-Pool Combinatorial Libraries with Electron Transfer Dissociation Tandem Mass Spectrometry” *J. Am. Soc. Mass Spec.* **2013**, *24*, 1026-1036.
- (53) O. Kubo, D. P. Canterbury, **G. C. Micalizio** “Synthesis of the C1-C26 Hexacyclic Subunit of Pectenotoxin 2” *Org. Lett.* **2012**, *14*, 5748-5751.
- (52) D. Yang, **G. C. Micalizio** “Synthesis of Alkaloid (–)-205B via Stereoselective Reductive Cross-Coupling and Intramolecular [3+2] Cycloaddition” *J. Am. Chem. Soc.* **2012**, *134*, 15237-15240.
- As of January 22, 2022, this manuscript has an Altmetric score of 10, placing it in the 90th percentile of 4,507,072 research outputs tracked by Altmetric. Overall, “it’s in the top 10% of all research outputs ever tracked by Altmetric.”
 - Included in ACS-Organic Chemistry Highlights (April 29, 2013; <http://www.organic-chemistry.org>).
 - Selected by the Editorial Board to be featured in *Synfacts*: **2012**, *8*(12): 1281 (DOI: 10.1055/s-0032-1317548).
- (51) P. S. Diez, **G. C. Micalizio** “Convergent Synthesis of Deoxypropionates” *Angew. Chem. Int. Ed.* **2012**, *51*, 5152-5156.
- Included in ACS-Organic Chemistry Highlights (February 25, 2013; <http://www.organic-chemistry.org>).
- (50) S. N. Greszler, H. A. Reichard, **G. C. Micalizio**, “Asymmetric Synthesis of Dihydroindanes by Convergent Alkoxide-Directed Metallacycle-Mediated Bond Formation” *J. Am. Chem. Soc.* **2012**, *134*, 2766-2774.
- (49) M. Z. Chen, **G. C. Micalizio** “Three-Component Coupling Sequence for the Regiospecific Synthesis of Substituted Pyridines” *J. Am. Chem. Soc.* **2012**, *134*, 1352-1356.
- Included in ACS-Organic Chemistry Highlights (October 15, 2012; <http://www.organic-chemistry.org>).
 - Selected by the Editorial Board to be featured in *Synfacts*: **2012**, *8*(03): 0253 (DOI: 10.1055/s-0031-1290283).
 - Highlighted in ChemistryViews:

http://www.chemistryviews.org/details/news/1425891/New_Route_to_Pyridines.html
- (48) C. Aquino, M. Sarkar, M. J. Chalmers, K. Mendez, T. Kodadek, **G. C. Micalizio** “A Biomimetic Polyketide-Inspired Approach to Small Molecule Ligand Discovery” *Nature Chem.* **2012**, *4*, 99-104.

- As of January 25, 2022, this manuscript has an Altmetric score of 6, placing it in the 77th percentile of 20,027,474 research outputs tracked by Altmetric. Overall, “it’s in the top 25% of all research outputs ever tracked by Altmetric.”
- Highlighted in *Nature Chemistry* as a News & Views article: J. Aubé, “Small-molecule libraries: Naturally inspired oligomers” *Nature Chem.* **2012**, *4*, 71-72.
- Highlighted in SciBX **4**(48): “High throughput identification of chiral oligomers of pentenoic amides (COPAs) as protein ligands” doi: 10.1038/scibx.2011.1362.
- Selected and Highlighted by the Faculty of 1000 (F1000).
- Highlighted in Chemical & Engineering News – “A Look Back”, December 23, 2013, pg 32-35.

(47) *Invited review: Science of Synthesis – Knowledge Updates 2012/4*

G. C. Micalizio “Titanium-Mediated Reductive Cross-Coupling (Intermolecular Metallacycle-Mediated C–C Bond Formation)” *Science of Synthesis*, **2012**, 33-97.

(46) D. Yang, **G. C. Micalizio**, “Convergent and Stereodivergent Synthesis of Complex 1-Aza-7-Oxabicyclo[2.2.1]heptanes” *J. Am. Chem. Soc.* **2011**, *133*, 9216-9219.

(45) M. A. Tarselli, K. M. Raehal, A. K. Brasher, C. Groer, M. D. Cameron, L. M. Bohn, **G. C. Micalizio**, “Synthesis of Conolidine, a Potent Non-Opioid Analgesic for Tonic and Persistent Pain” *Nature Chem.* **2011**, *3*, 449-453.

- As of January 25, 2022, this manuscript has an Altmetric score of 24, placing it in the 94th percentile of the 19,315,352 research outputs tracked by Altmetric. Overall, “it’s in the top 10% of all research outputs ever tracked by Altmetric.”
- Highlighted in *Nature* (News & Views): S. E. Reisman, “New Lead for Pain Treatment” *Nature* **2011**, *473*, 458-459.
- Recognized as a Top 10 Science Business Story for 2011 – Science Business: <http://sciencebusiness.technewslit.com/?p=7618> (ranked #2).

(44) V. Jeso, L. Cherry, T. K. Macklin, S. C. Pan, P. V. LoGrasso, **G. C. Micalizio** “Convergent Synthesis and Discovery of a Natural Product-Inspired Paralog-Selective Hsp90 Inhibitor” *Org. Lett.* **2011**, *13*, 5108-5111.

(43) D. P. Canterbury, **G. C. Micalizio**, “Convergent Route to the CDEF Tetracycle of Pectenotoxin-2” *Org. Lett.* **2011**, *13*, 2384-2387.

(42) *Invited Perspective Article:*

H. A. Reichard, **G. C. Micalizio**, "Metallacycle-Mediated Cross-Coupling with Substituted and Electronically Unactivated Alkenes" *Chem. Sci.* **2011**, *2*, 573-589.

(41) Invited Article in Honor of Professor Harry Wasserman:

D. Yang, J. K. Belardi, **G. C. Micalizio**, "Generation of quaternary centers by reductive cross-coupling: shifting of regioselectivity in a subset of allylic alcohol-based coupling reactions" *Tetrahedron Lett.* **2011**, *52*, 2144-2147.

(40) M. Z. Chen, M. McLaughlin, M. Takahashi, M. A. Tarselli, D. Yang, S. Umemura, **G. C. Micalizio**, "Preparation of Stereodefined Homoallylic Amines from the Reductive Cross-Coupling of Allylic Alcohols with Imines" *J. Org. Chem.* **2010**, *75*, 8048-8059.

(39) V. Jeso, **G. C. Micalizio**, "Total Synthesis of Lehualide B by Allylic Alcohol-Alkyne Reductive Cross-Coupling" *J. Am. Chem. Soc.* **2010**, *132*, 11422-11424.

- Included in ACS-Organic Chemistry Highlights (May 30, 2011; <http://www.organic-chemistry.org>).

(38) P. S. Diez, **G. C. Micalizio**, "Chemoselective Reductive Cross-Coupling of 1,5-Diene-3-ols with Alkynes: A Facile Entry to Stereodefined Skipped Trienes" *J. Am. Chem. Soc.* **2010**, *132*, 9576-9578.

- Included in ACS-Organic Chemistry Highlights (May 30, 2011; <http://www.organic-chemistry.org>).

(37) D. P. Canterbury, **G. C. Micalizio**, "Polyketide Assembly by Alkene-Alkyne Reductive Cross-Coupling: Spiroketals Through the Union of Homoallylic Alcohols" *J. Am. Chem. Soc.* **2010**, *132*, 7602-7604.

- Included in ACS-Organic Chemistry Highlights (November 29, 2010; <http://www.organic-chemistry.org>).

(36) T. K. Macklin, **G. C. Micalizio**, "Convergent and Stereospecific Synthesis of Skipped Polyenes and Polyunsaturated Fatty Acids" *Nature Chem.* **2010**, *2*, 638-643.

- Highlighted in Chemical & Engineering News Concentrates, May 31, **2010**, pg 51.

(35) M. Takahashi, **G. C. Micalizio**, "Concerning the Potential Reversibility of Carbometalation in Akoxide-directed Ti(O*i*-Pr)₄-mediated Reductive Cross-Coupling of Homoallylic Alcohols with Aromatic Imines" *Chem. Commun.* **2010**, *46*, 3336-3338.

(34) Invited Article in Honor of Professor Brian Stoltz (Tetrahedron Young Investigator Award):

A. U. Barlan, **G. C. Micalizio**, "The Regio- and Stereochemical Course of Reductive Cross-Coupling Reactions Between 1,3-Disubstituted Allenes and Vinylsilanes: Synthesis of Z-Dienes" *Tetrahedron*, **2010**, *66*, 4775-4783.

- (33) H. A. Reichard, M. McLaughlin, M. Z. Chen, **G. C. Micalizio**, "Regioselective Reductive Cross-Coupling Reactions of Unsymmetrical Alkynes" *Eur. J. Org. Chem.* **2010**, 391-409.
- (32) D. Yang, **G. G. Micalizio**, "A Convergent Stereoselective Synthesis of Quinolizidines and Indolizidines: Chemoselective Coupling of 2-Hydroxymethyl Substituted Allylic Silanes with Imines" *J. Am. Chem. Soc.* **2009**, *131*, 17548-17549.
- Selected by the Editorial Board to be featured in *Synfacts*: **2010(02)**: 0205 (DOI: 10.1055/s-0029-1219211).
- (31) S. Umemura, M. McLaughlin, **G. C. Micalizio**, "Convergent Synthesis of Stereodefined Exo-alkylidene- γ -Lactams from β -Halo Allylic Alcohols" *Org. Lett.* **2009**, *11*, 5402-5405.
- (30) M. Z. Chen, **G. C. Micalizio**, "A Two-Step, Three-Component Coupling Process for the Synthesis of Highly Substituted Piperidines: Exploring the Utility of a Unique Regioselective Cross-Coupling Reaction of Conjugated Alkynes" *Org. Lett.* **2009**, *11*, 4982-4985.
- (29) M. A. Tarselli, **G. C. Micalizio**, "Aliphatic Imines in Titanium-Mediated Reductive Cross-Coupling: Unique Reactivity of $\text{Ti}(\text{O}i\text{-Pr})_4/n\text{-BuLi}$ " *Org. Lett.* **2009**, *11*, 4596-4599.
- Selected by the Editorial Board to be featured in *Synfacts*: **2010(01)**: 0083 (DOI: 10.1055/s-0029-1218435).
- (28) Featured Article – Journal of Organic Chemistry:
- L. J. Perez, H. L. Shimp, **G. C. Micalizio**, "Stereoselective Synthesis of Trisubstituted (*E,E*)-1,3-Dienes by the Site-Selective Reductive Cross-Coupling of Internal Alkynes with Terminal Alkynes: A New Fragment Coupling Reaction for Natural Product Synthesis" *J. Org. Chem.* **2009**, *74*, 7211-7219.
- (27) H. L. Shimp, **G. C. Micalizio**, "A Formal Total Synthesis of Dictyostatin" *Tetrahedron*, **2009**, *65*, 5908-5915.
- (26) M. Takahashi, M. McLaughlin, **G. C. Micalizio**, "Complex Allylation by the Direct Cross-Coupling of Imines with Unactivated Allylic Alcohols" *Angew. Chem. Int. Ed.* **2009**, *48*, 3648-3652.
- Selected by the Editorial Board to be featured in *Synfacts*: **2009(07)**: 0750 (DOI: 10.1055/s-0029-1217281).
- (25) T. K. Macklin, **G. C. Micalizio**, "Total Synthesis and Structure Elucidation of (+)-Phorbacin C" *J. Am. Chem. Soc.* **2009**, *131*, 1392-1393.
- Included in ACS-Organic Chemistry Highlights (January 13, 2009; <http://www.organicchemistry.org>).
 - Selected by the Editorial Board to be featured in *Synfacts*: **2009(08)**: 0826 (DOI: 10.1055/s-0029-1217577).

- (24) J. K. Belardi, **G. C. Micalizio**, "Conversion of Allylic Alcohols to Stereodefined Trisubstituted Alkenes: A Complementary Process to the Claisen Rearrangement" *J. Am. Chem. Soc.* **2008**, *130*, 16870-16872.
- Included in ACS-Organic Chemistry Highlights (June 8, 2009).
 - Selected by the Editorial Board to be featured in *Synfacts*: **2009**(03): 0312 (DOI: 10.1055/s-0028-1087706).
- (23) H. A. Reichard, J. C. Rieger, **G. C. Micalizio**, "Total Synthesis of Callystatin A by Titanium-mediated Reductive Alkyne–Alkyne Cross-Coupling" *Angew. Chem. Int. Ed.* **2008**, *47*, 7837-7840.
- Selected by the Editorial Board to be featured in *Synfacts*: **2009**(04): 0355 (DOI: 10.1055/s-0028-1088082).
- (22) J. K. Belardi, **G. C. Micalizio**, "Total Synthesis of Macbecin I" *Angew. Chem. Int. Ed.* **2008**, *47*, 4005-4008.
- Selected by the Editorial Board to be featured in *Synfacts*: **2008**(11): 1131 (DOI: 10.1055/s-0028-1083421).
- (21) Invited Article in Honor of Professor John Hartwig (Tetrahedron Young Investigator Award):
- H. L. Shimp, A. Hare, M. McLaughlin, **G. C. Micalizio**, "Allene-alkyne cross-coupling for stereoselective synthesis of substituted 1,4-dienes and cross-conjugated trienes" *Tetrahedron*, **2008**, *64*, 3437-3445 and 6831-6837.
- (20) Cluster Article Invited by Professor Hisashi Yamamoto:
- M. McLaughlin, H. L. Shimp, R. Navarro, **G. C. Micalizio** "Regio- and Stereoselective Direct Cross-Coupling of Imines with Allenic Alcohols" *Synlett*, **2008**, 735-738.
- (19) Feature Article Invited by Professor Dr. Dieter Enders:
- L. Perez, **G. C. Micalizio** "Titanium-Mediated Fragment Union Processes in Complex Molecule Synthesis: Development of a Branched Reaction Pathway of High Step Economy for the Synthesis of Complex and Diverse Polyketides" *Synthesis*, **2008**, 627-648.
- (18) F. Kolundzic, **G. C. Micalizio**, "Synthesis of Substituted 1,4-Dienes by Direct Alkylation of Allylic Alcohols" *J. Am. Chem. Soc.* **2007**, *129*, 15112-15113.
- Selected by the Editorial Board to be featured in *Synfacts*: **2008**(03): 0301 (DOI: 10.1055/s-2008-1042735).
- (17) M. Takahashi, **G. C. Micalizio**, "Regio- and Stereoselective Cross Coupling of Substituted Olefins and Imines. A Convergent Stereoselective Synthesis of Saturated 1,5-Aminoalcohols and Substituted Piperidines" *J. Am. Chem. Soc.* **2007**, *129*, 7514-7516.

- Included in ACS-Organic Chemistry Highlights (November 12, 2007; <http://www.organic-chemistry.org>).

- Selected by the Editorial Board to be featured in *Synfacts*: **2007**(09): 0951 (DOI: 10.1055/s-2007-968847).

- (16) H. L. Shimp, **G. C. Micalizio**, "An Alkoxide-Directed Alkyne–Allene Cross-Coupling for Stereoselective Synthesis of 1,4-Dienes" *Chem. Commun.* **2007**, 4531-4533.
- (15) M. McLaughlin, M. Takahashi, **G. C. Micalizio**, "An Alkoxide Directed Intermolecular [2+2+1] Annulation: A Three-Component Coupling Reaction for the Synthesis of Tetrasubstituted α,β -Unsaturated γ -Lactams" *Angew. Chem. Int. Ed.* **2007**, 46, 3912-3914.
- (14) H. A. Reichard, **G. C. Micalizio**, "A Site- and Stereoselective Intermolecular Alkene–Alkyne Coupling Process" *Angew. Chem. Int. Ed.* **2007**, 46, 1440-1443.
- (13) J. K. Belardi, **G. C. Micalizio**, "Studies on the Syntheses of Benzoquinone Ansamycin Antibiotics. Syntheses of the C(5)-C(15) Subunits of Macbecin I, Geldanamycin and Herbimycin A" *Org. Lett.* **2006**, 8, 2409-2412.

- Highlighted in ACS-Organic Chemistry Highlights (February 26, 2007).

- (12) A. B. Bahadoor, **G. C. Micalizio**, "Studies in Macrolide Antibiotic Synthesis: The Role of Tethered Alkoxides in Titanium Alkoxide-mediated Regioselective Reductive Coupling Reactions" *Org. Lett.* **2006**, 8, 1181-1184.
- (11) J. Ryan and **G. C. Micalizio**, "An Alkoxide-directed Carbometalation of Internal Alkynes" *J. Am. Chem. Soc.* **2006**, 128, 2764-2765.

- Selected by the Editorial Board to be featured in *Synfacts*: **2006**(05): 0491 (DOI: 10.1055/s-2006-934422).

- (10) H. L. Shimp and **G. C. Micalizio**, "Group 4 Metals in Polyketide Synthesis: A Convergent Strategy for the Synthesis of Polypropionate-Derived (*E,E*)-Trisubstituted 1,3-Dienes" *Org. Lett.* **2005**, 7, 5111-5114.
- (9) A. B. Bahadoor, A. Flyer, **G. C. Micalizio**, "A Pentenyl Dianion-based Strategy for Convergent Synthesis of Ene-1,5-diols" *J. Am. Chem. Soc.* **2005**, 127, 3694-3695.

Publications as a Graduate Student and Postdoctoral Fellow: (not including PhD thesis)

- (8) J.-N. Heo, **G. C. Micalizio**, W. R. Roush, "Enantio- and Diastereoselective Synthesis of Cyclic β -Hydroxy Allylsilanes via Sequential Aldehyde γ -Silylallylboration and Ring Closing Metathesis Reactions" *Org. Lett.* **2003**, 5, 1693.
- (7) **G. C. Micalizio** and S. L. Schreiber, "An Alkynylboronic Ester Annulation: Development of Synthetic Methods For Application to Diversity-Oriented Organic Synthesis" *Angew. Chem. Int. Ed.* **2002**, 41, 3272.
- (6) **G. C. Micalizio** and S. L. Schreiber, "A Boronic Ester Annulation Strategy for Diversity-Oriented Organic Synthesis" *Angew. Chem. Int. Ed.* **2002**, 41, 152.

- (5) **G. C. Micalizio** and W. R. Roush, "Studies on the Synthesis of Pectenotoxin II: Synthesis of a C(11)-C(26) Fragment Precursor via [3+2]-Annulation Reactions of Chiral Allylsilanes" *Org. Lett.* **2001**, 3, 1949.
- (4) W. R. Roush, A. N. Pinchuk, **G. C. Micalizio**, "[*(E)*- γ -(Dimethylphenylsilyl)-allyl]diisopinocampheylborane: a highly enantioselective reagent for the synthesis of *anti*- β -hydroxy-allylsilanes" *Tetrahedron Lett.* **2000**, 41, 9413.
- (3) **G. C. Micalizio**, W. R. Roush, and A. N. Pinchuk, "Synthesis of the C(29)-C(45) E-F Bis-Pyran Subunit of Spongistatin 1 (Altohyrtin A)" *J. Org. Chem.* **2000**, 65, 8730.
- (2) **G. C. Micalizio** and W. R. Roush, "A Three-Component Coupling Strategy for Tetrahydrofuran Synthesis: Application of the Diisopropyl Tartrate Modified (*E*)- γ -Dimethylphenylsilyl-allylboronate as an α,γ -Allyl Dianion Equivalent" *Org. Lett.* **2000**, 2, 461.
- (1) **G. C. Micalizio** and W. R. Roush, "Towards the Synthesis of Spongistatin 1: Diastereoselective Synthesis of the C(36)-C(45) Subunit" *Tetrahedron Lett.* **1999**, 40, 3351.

PATENT APPLICATIONS FILED:

- (8) Glucocorticoid Receptor Modulators. (PCT/US2021/031308; WO2021226465A1 – November 11, 2021)
- (7) Androgen Receptor Modulators. (Application #: 62/990,008; WO2021188415A1 – September 23, 2021).
- (6) C19 Scaffolds and Steroids and Methods of Use and Manufacture Thereof. (PCT/US19/49743; WO2020051329A1 – March 12, 2020).
- (5) Novel Steroids, C19 Scaffolds, and Methods of Manufacture. *Provisional Patent Application Filed September 11, 2018* (Application #: 62/728,163).
- (4) Novel Steroids and Methods of Manufacture. *Patent Application Publication filed August 16, 2018* (Application #: PCT/IB2018/056205), published June 25, 2020 (Pub. No: US 2020/0199171 A1; WO2019035061A1 – February 21, 2019).
- (3) Methods of Making and Using Synthetic Enantiodefined Polycyclic Ring Compounds. *Provisional Patent Application filed August 16, 2017* (Ref. #: 107231-000004 / Dartmouth-004-PRO; Application #: 62/605,551).
- (2) 61/531,810 – filed 9/7/11: Chiral Compounds of Varying Conformational Rigidity and Methods of Synthesis PCT, Int. Appl. (2013), US20140271488 A1, WO 2013036753 A1 20130314 (licensed by Opko and GlaxoSmithKline).
- (1) 61/426,023 – filed 12/22/10: Synthesis of Conolidine and Discovery of a Potent Non-Opioid Analgesic for Pain, Int. Appl. (2012), WO 2012088402 A1 20120628.

PATENTS GRANTED:

- (1) Micalizio, G. C.; Kodadek, T.; Sarkar, M. *Chiral Oligomeric Pentenoate Amides as Bio-Oligomer Mimetics*; US 9,963,481 B2 – Issued May 8, 2018.

CONSULTING:

- (1) Covington & Burling LLP: Pharmaceutical Intellectual Property (2016 – 2019)
 (2) Locke Lord LLP: Pharmaceutical Intellectual Property (2017 – 2020)
 (3) Katten Muchin Rosenman UK LLP (2020 – present)
 (4) Arent Fox LLP (2020)
 (5) McAndrews, Held & Malloy, Ltd. (2021 – present)
 (6) Asteroid Therapeutics (2021 – 2022)

PHARMACEUTICAL COLLABORATIONS:

- (1) GlaxoSmithKline – (2016 – 2018) DNA encoded libraries of polyketide/peptoid-inspired oligomers
 (2) Asteroid Therapeutics – (2021 – 2022) Synthetic chemistry for targeted applications

COMPLETE RESEARCH FUNDING HISTORY

Grants as Principal Investigator:

Current Funding:

NIH-R35 (MIRA: Maximizing Investigators' Research Award) \$2,634,250
"Metallacycle-mediated Coupling in Stereoselective Synthesis"
 Role: PI
 (replaced GM124004 and GM080266)

Previous Funding:

- NIH-R01 GM124004 *"Studies in Natural Product Synthesis"* \$1,152,181
 Role: PI
 National Institutes of Health – NIGMS R01 (GM124004) (2017-2021)
- NIH-R01: GM133844-01 \$2,050,000
 Targeting the IKK-Binding Domain of NEMO for Inhibitor Discovery
 Role: Co-Investigator (PI: Pelligrini)
 Required to leave project after accepting the NIH-R35 award.
- NIH-R01 GM080266 *"Stereoselective Synthesis via Metallacycle-Mediated Bond Construction"*
 Role: PI
 National Institutes of Health – NIGMS R01 (GM80266) (2016-2020) \$1,393,204
- National Institutes of Health – NIGMS R01 (GM80266) (2012-2016) \$1,623,600
Stereoselective Synthesis via Metallacycle-Mediated Bond Construction

Role: PI

- *“Synthesis and Validation of Novel Cyclin Dependent Kinase Inhibitors as Potential Anticancer Drugs”*
 Role: PI (along with Alan Eastman, Scott Gerber, and Dale Mierke)
 Munck-Pfefferkorn Grant (Dartmouth College) \$100,000
 Norris Cotton Cancer Center Seed Funding (Geisel School of Medicine) \$50,000
- *“Synthesis and Anticancer Activity of Novel Pectenotoxins” (2016 – 2018)* \$193,954
 Role: PI (along with Alan Eastman from Geisel)
 Provost Seed Funding – Dartmouth College
- *Mr. Donald Bell (philanthropic donation)* \$20,000
 Fall 2016 and Spring 2017 – interest in small molecule neurotrophic agents
- *Norris Cotton Cancer Center – Seed funding (2015 – 2016)* \$25,000
 National Cancer Institute *“Synthesis and Anticancer Activity of Novel Pectenotoxins”*
 Role: PI (along with Alan Eastman from Geisel)
- *James and Esther King Biomedical Research Foundation* \$1,199,600
 (10KG-09) (2010-2013)
A Future for Natural Product-Inspired Hsp90 Inhibitors in the Search For Clinically Relevant Chemotherapeutic Agents
 Role: PI
- *Fidelity Biosciences Research Initiative (2011 – 2013)* \$532,000
 Role: PI
- *National Institutes of Health – NIGMS R01 (GM80266) (2007 – 2012)* \$1,408,218
Class II Directed Carbometalation Processes for Heterocycle Synthesis
 Role: PI
- *National Institutes of Health – NIGMS R01 (GM80266-04S1) (2009 – 2010)* \$318,019
 Role: PI
- *Pfizer – SFP (2009 – 2010)* \$46,250
Dissociated Modulators of the Glucocorticoid Receptor
(funds for a postdoctoral associate for one year)
 Role: PI
- *American Cancer Society Research Scholar Award (2006)* \$720,000
A High-order Hetero-oligomerization for Polyketide Synthesis
 Role: PI
- *Lilly Grantee Award (2006)* \$100,000
Unrestricted Research Grant
- *Boehringer Ingelheim New Investigator Award (2007)* \$70,000
Research grant to support a postdoctoral associate for two years
- *Boehringer Ingelheim Award (2006)* \$25,000
Unrestricted Research Grant

- American Chemical Society, Petroleum Research Fund – Award Type G (2006) \$35,000
*Metal Alkoxide-Mediated Regio- and Stereoselective C–C Bond
Forming Reactions for Complex Molecule Synthesis*
Role: PI

- Beckman Young Investigator Award (2005) \$264,000
*Stereochemically-Gated Polycyclization Reactions for Fused Polyether
Synthesis*

- Boehringer Ingelheim Award (2005) \$25,000
Unrestricted Research Grant

- Lilly New Faculty Award (2003) \$10,000
Unrestricted Research Grant

INVITED PRESENTATIONS

- 1) June 1999 Hoffman-La Roche – Nutley, NJ (Excellence in Organic Chemistry –
Mini Symposium)
- 2) June 2001 37th National Organic Symposium – Bozeman, MT
- 3) July 2002 51st Natural Products Gordon Research Conference – Tilton, NH
- 4) September 2002 ACS ProSpectives Conference–Combinatorial Chemistry– Leesburg, VA
- 5) November 2002 Massachusetts Institute of Technology – Cambridge, MA
- 6) November 2002 Boston College – Newton, MA
- 7) December 2002 University of Chicago – Chicago, IL
- 8) December 2002 University of Illinois – Urbana–Champagne, IL
- 9) December 2002 Harvard University – Cambridge, MA
- 10) January 2003 University of California, Irvine – Irvine, CA
- 11) January 2003 Merck Research Laboratories – West Point, PA
- 12) June 2005 Crompton Corporation – ACS– local section – Middlebury, CT
- 13) August 2005 Beckman Young Investigator Symposium – Irvine, CA
- 14) May 2006 Brown University – Providence, RI
- 15) May 2006 Bayer Pharmaceuticals – West Haven, CT
- 16) June 2006 Eli Lilly Pharmaceuticals – Indianapolis, IN
- 17) June 2006 Gordon Research Conference: *Stereochemistry* – Newport, RI
- 18) July 2006 Gordon Research Conference: *Heterocycles* – Newport, RI
- 19) July 2006 Eisai Research Institute – Andover, MA
- 20) July 2006 Gordon Research Conference: *Natural Products* – Tilton, NH
- 21) August 2006 Beckman Young Investigator Symposium – Irvine, CA
- 22) September 2006 Connecticut College – New London, CT
- 23) September 2006 University of Connecticut – Storres, CT
- 24) October 2006 University of Michigan – Ann Arbor, MI
- 25) October 2006 Wayne State University – Detroit, MI
- 26) October 2006 Wesleyan University – Middletown, CT
- 27) October 2006 Monmouth University – West Long Branch, NJ
- 28) February 2007 Bristol Myers-Squibb – Wallingford, CT
- 29) May 2007 University of Delaware – Newark, DE
- 30) May 2007 Scripps Research Institute – Jupiter, FL
- 31) June 2007 NSF Workshop on Organic Synthesis – Estes Park, CO
- 32) August 2007 Boehringer Ingelheim – Ridgefield, CT

- 33) August 2007 American Chemical Society, Young Investigator Symposium – Boston, MA
- 34) September 2007 The Scripps Research Institute – La Jolla, CA
- 35) September 2007 Ohio State University – Columbus, OH
- 36) October 2007 University of Utah – Salt Lake City, UT
- 37) October 2007 Memorial Sloan-Kettering Cancer Center – New York, NY
- 38) October 2007 Florida State University – Tallahassee, FL
- 39) October 2007 CalTech – Pasadena, CA
- 40) November 2007 University at Buffalo – SUNY – Buffalo, NY
- 41) November 2007 UT Southwestern – Dallas, TX
- 42) December 2007 Merck – Rahway, NJ
- 43) February 2008 Amgen – Cambridge, MA
- 44) February 2008 Schering-Plough – NJ
- 45) March 2008 Cornell University – Ithaca, NY
- 46) March 2008 University of Illinois – Urbana, IL
- 47) April 2008 University of Rochester – Rochester, NY
- 48) April 2008 Pfizer – Groton, CT
- 49) April 2008 University of Colorado – Boulder, CO
- 50) May 2008 Bristol Myers-Squibb – Princeton, NJ
- 51) May 2008 Merck – West Point, PA
- 52) July 2008 Gordon Research Conference – Stereochemistry – Newport, RI
- 53) October 2008 Georgia Tech – Atlanta, GA
- 54) April 2009 Northwestern University – Evanston, IL
- 55) June 2009 Johnson & Johnson – SanDiego, CA
- 56) June 2009 Roche – Nutley, NJ
- 57) October 2009 University of Miami – Coral Gables, FL
- 58) December 2009 Florida Atlantic University – Boca Raton, FL
- 59) January 2010 The University of Pennsylvania – Philadelphia, PA (student invited speaker)
- 60) September 2010 Emory University – Atlanta, GA
- 61) September 2010 University of South Florida – Tampa, FL
- 62) February 2011 Boston University – Boston, MA
- 63) May 2011 Florida American Chemical Society Meeting – Innisbrook, FL
- 64) June 2011 Amgen – Thousand Oaks, CA
- 65) June 2011 University of California, Santa Barbara – Santa Barbara, CA
- 66) March 2012 Florida State University – Tallahassee, FL
- 67) March 2012 FAMU – Tallahassee, FL
- 68) April 2012 Brigham Young University – Provo, UT
- 69) April 2012 Rutgers University – New Brunswick, NJ
- 70) May 2012 The Scripps Research Institute – La Jolla, CA
- 71) July 2012 Gordon Research Conference – Natural Products – Andover, NH
- 72) October 2012 Dartmouth College – Hanover, NH
- 73) October 2012 University of Houston – Houston, TX
- 74) November 2012 University of Florida – Gainesville, FL
- 75) November 2012 Dartmouth College – Hanover, NH
- 76) March 2013 AbbVie Pharmaceuticals – Chicago, IL
- 77) June 2013 Gordon Research Conference – Heterocycles – Newport, RI
- 78) September 2013 DuPont – Newark, DE
- 79) October 2013 Loyola University – Chicago, IL
- 80) October 2013 University of Illinois at Chicago – Chicago, IL
- 81) November 2013 Virginia Tech, Highlands in Chemistry Seminar – Blacksburg, VA
- 82) June 2014 GlaxoSmithKline Pharmaceuticals – Waltham, MA
- 83) October 2015 Fairfield University – Fairfield, CT
- 84) December 2015 Binghamton University (SUNY) – Binghamton, NY

- 85) February 2016 The Ohio State University – Columbus, OH
 86) March 2016 University of Louisville – Louisville, KY
 87) December 2016 University of California, Merced – Merced, CA
 88) March 2017 Clark University – Worcester, MA
 89) November 2017 Baylor University – Waco, TX
 90) November 2018 University de Montréal – Montréal, Canada
 91) November 2018 University of Nevada – Reno, NV
 92) May 2019 Miami University of Ohio – Oxford, OH
 93) June 2019 Geisel School of Medicine, bioMT (institute for biomolecular targeting) – Hanover, NH
 94) October 2019 University of North Carolina – Chapel Hill, NC
 95) November 2019 College of the Holy Cross – Worcester, MA
 96) January 2020 Norris Cotton Cancer Center, Cancer Biology and Therapeutics Meeting
 Geisel School of Medicine – Lebanon, NH
 97) October 2020 Rutgers University Medical School (Department of Pharmacology)
 Rutgers University Department of Medicinal Chemistry
 Rutgers University Department of Chemistry and Chemical Biology
 – New Brunswick and Newark, NJ
 98) November 2021 Oxford University – London, UK

Named Lectureships and Symposia:

- 99) January 2007 Connecticut Organic Chemistry Symposium – New Haven, CT
 100) March 2007 Ziegler Symposium, Yale University – New Haven, CT
 101) September 2007 Lilly Distinguished Lecturer, Colorado State University – Ft. Collins, CO
 102) March 2008 Lilly Grantee Symposium, Eli Lilly – Indianapolis, IN
 103) April 2008 Grandpierre Lecturer, Columbia University – New York, NY
 104) May 2008 Visions in Chemistry Symposium, Sanofi-Aventis – Bridgewater, NJ
 105) October 2008 Pfizer Symposium, University of Toronto – Toronto, ON Canada
 106) October 2008 *Fajans Award Colloquium, University of Michigan – Ann Arbor, MI*
 107) April 2010 “Organic Chemistry Day” Symposium, University of Missouri – Columbia, MO
 108) March 2013 Warner Lambert Lecturer, Wayne State University – Detroit, MI
 109) April 2013 Lilly Lecturer, Harvard University – Cambridge, MA
 110) July 2014 Keynote Speaker – 26th International Conference on Organometallic Chemistry
 Sapporo, Japan
 111) July 2014 “Organometallics: A Key for Innovation in Organic Synthesis” Symposium at
 Okayama University, Okayama, Japan
 112) May 2016 University of the Basque Country – Workshop on Asymmetric Synthesis and
 Catalysis – Bilbao, Spain (cancelled)
 113) July 2016 Enabling Technology for Reactions and Processes – Telluride Science
 Research Center, Telluride, CO
 114) November 2017 Frontiers in Chemistry Lectureship (sponsored by Kalexsyn) – Western
 Michigan University, Kalamazoo, MI
 115) May 2019 Dreyfus Symposium (honoring Professors Gordon Gribble and Peter A. Jacobi)
 Dartmouth College, Hanover, NH
 116) March 2020 *International Society of Heterocyclic Chemistry Lecturer* – Florida Heterocyclic
 and Synthetic Conference (FloHet); Gainesville, FL

TEACHING

Fall 2003	Chemistry 423/523	"Synthetic Methods in Organic Chemistry" (Yale)
Fall 2004	Chemistry 423/523	"Synthetic Methods in Organic Chemistry" (Yale)
Spring 2005	Chemistry 125	"Freshman Organic Chemistry" (Yale)
Fall 2005	Chemistry 423/523	"Synthetic Methods in Organic Chemistry" (Yale)
Spring 2006	Chemistry 221	"The Organic Chemistry of Life Processes" (Yale)
Fall 2006	Chemistry 423/523	"Synthetic Methods in Organic Chemistry" (Yale)
Spring 2007	Chemistry 221	"The Organic Chemistry of Life Processes" (Yale)
Fall 2008	Chemistry 227	"Comprehensive Organic Chemistry II" (Yale)
Fall 2009	Chemistry	"Modern Organic Synthesis" (TSRI, with Dale Boger)
Fall 2010	Chemistry	"Modern Organic Synthesis" (TSRI, with Dale Boger)
Fall 2011	Chemistry	"Modern Organic Synthesis" (TSRI, with Dale Boger)
Fall 2013	Chemistry 103	"Special Topics: Organic Synthesis" (Dartmouth)
Winter 2014	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)
Spring 2014	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Winter 2015	Chemistry 157	"Special Topics: Natural Product Synthesis" (Dartmouth)
Winter 2015	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Spring 2015	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)
Fall 2015	Chemistry 152	"Advanced Org. Synthesis and Mechanism" (Dartmouth)
Fall 2015	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Winter 2016	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Spring 2016	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)
Winter 2017	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Winter 2017	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Spring 2017	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)
Winter 2018	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Spring 2018	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Spring 2018	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)
Fall 2018	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Winter 2019	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Spring 2019	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)
Winter 2020	Chemistry 52	"Organic Chemistry II" (Dartmouth)
Spring 2020	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Fall 2020	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Fall 2020	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Fall 2021	Chemistry 262	"Seminar in Organic Chemistry" (Dartmouth)
Winter 2022	Chemistry 153	"Natural Product Synthesis" (Dartmouth)
Spring 2022	Chemistry 58	"Honors Organic Chemistry II" (Dartmouth)

COMMITTEES AND SERVICE

Yale:

2003-2007	Graduate Student Admissions Committee
2003-2007	Instrument Committee
2004-2007	Safety Committee
2005-2007	Chairman of the Connecticut Organic Chemistry Symposium Committee
2005-2006	Junior Faculty Search Committee
2005-2008	Co-director of the Center for Genomics and Proteomics
2005-2007	Organic Seminar Series Coordinator

The Scripps Research Institute:

2008-2013 Graduate Student Admissions Committee
 2010-2013 Florida Theme Committee

Dartmouth College:

2013-2014 Faculty Search Committee
 2013-2015 Chair of the Safety Committee - Chair
 2013-2016 Department of Chemistry Space Allocation Committee
 2014-present Freshman advising
 2014-2015 Department of Chemistry Strategic Planning Committee
 2015-2016 Committee on the Faculty[†]
 2015-2016 Department of Chemistry Graduate Student Advising Committee (GSAC)
 2016-2019 Committee on the Faculty Procurement Task Force
 2016-2019 Department of Chemistry Budget, Facilities & Planning Committee
 2017 Apparatus Shop Committee (ad hoc member)
 2017-2018 Scholarly Innovation and Advancement Awards Committee
 2017-2018 Environmental Health & Safety Search Committee for Senior Associate Director
 2017-2019 Senior Faculty Search Committee – Department of Chemistry (Chair)
 2017-2021 Department of Chemistry Curriculum Committee
 2018-2020 Committee on Priorities^{††} (Dartmouth College)
 2019-2020 Department of Chemistry – Graduate Student Advising Committee (GSAC)
 2019-2021 Campus Climate and Culture Initiative (C3I) “Policies in Action” working group
 (appointed by the Provost)
 2019 NSF Center for Selective C-H Functionalization, Site Visit Panel (Emory
 University)

[†] The Committee on the Faculty has as its main charge: “To review matters regarding compensation, leave programs, sponsored activities, institutional support for faculty research and scholarship, use of faculty time, and other matters which affect the professional development and well-being of the Faculty.”

^{††} The Committee on Priorities has as its main charge: “To formulate, articulate, and promote the Faculty’s priorities in relation to the allocation of resources, the objectives on which resource allocation is based, and those commitments or expenditures that have significant budgetary effects.”

2021-2022 Department of Chemistry – Budget, Facilities, & Planning
 2021-2022 Department of Chemistry – Graduate Student Advisory Committee (GSAC)
 2021-2022 Ad-hoc advisory group regarding Dartmouth Policies associated with consulting and Intellectual Property (appointed by the Associate Provost)

Outside of Academic Appointments:

2006-2021 Alumni Advisory Board to the School of Theoretical and Applied Sciences of Ramapo College of New Jersey
 2008 NIH Study Section – SBCA: ad hoc member
 2012-2019 External Advisory Committee for the Florida A&M University Research Centers in Minority Institutions (RCMI) Program
 2014 NIH Study Section – SBCB: ad hoc member
 2014 NSF Review Panel
 2015 NSF Review Panel (CAREER award panel)

2016	NIH Study Section – ZRG1 BCMB-T: ad hoc member (July)
2018	Evaluator for ACS Petroleum Research Fund
2018	NSF Review Panel (January 2018)
2018	NIH special emphasis panel for review of R01 applications (July 2018)

Refereeing activities: Routinely serve as a referee for manuscripts related to organic synthesis.

Examples include the Journal of the American Chemical Society, Organic Letters, The Journal of Organic Chemistry, Angewandte Chemie, Nature Chemistry, Nature, Science, Science Advances, Chemistry a European Journal, European Journal of Organic Chemistry, Tetrahedron, and Tetrahedron Letters.

RESEARCH GROUP MEMBERS

Graduate Students: (current)

(1) Adam Millham	B.A. College of the Holy Cross
(2) Htoo Tint Wai	B.A. Smith College
(3) Zachary Stempel	B.S. University of Connecticut
(4) Lauren Markham	B.S. Baylor University
(5) Joshua Nicholson	B.A. College of the Holy Cross
(6) Andrea Bucknam	B.A. College of the Holy Cross

Postdoctoral Students: (current)

(1) Timothy Fazekus	Ph.D. University of North Carolina, Chapel Hill (Mentor: Prof. Erik Alexanian) B.S. Boston College
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Undergraduate Students: (current)

– None –

Former Graduate Students:

(1) Adilah Bahadoor, Ph.D.	Ph.D. 2008:	Yale University
	2005 – 2006:	Novartis Graduate Student Fellow
	2006 – 2007:	Pfizer Graduate Student Fellow
	2008 – 2011:	Infinity Pharmaceuticals
	2013 – 2016:	NSERC Visiting Research Fellow

- 2016 – present: National Research Council Canada
- (2) Justin Belardi, Ph.D. Ph.D. 2009: Yale University
2009 – 2012: Merck Research Laboratories
2012 – 2016: Knopp Biosciences
2016 – present: Central Catholic High School
- (3) Chinmay Bhatt M.S. 2022: Dartmouth College
- (4) James Cassidy, M.S. M.S. 2018: Dartmouth College
2018 – present: Gilead Sciences, Inc.
- (5) Ming Chen, Ph.D. Ph.D. 2012: The Scripps Research Institute
2012-2014: NIH Postdoctoral Fellow at the University of Pennsylvania with Professor Amos Smith
2014 – 2020: Pfizer Inc.
2020 – present: Vertex Pharmaceuticals
- (6) Richard Hughes, M.S. M.S. 2008: Yale University
2008 – present: Novartis Institute for Biomedical Research
- (7) Laszlo Hunyadi, M.S. M.S. 2006: Yale University
2006 – 2007: Research Associate, Rib-X Pharmaceuticals
DVM 2011: College of Veterinary Medicine at Cornell University
2011 – 2015: Resident equine medicine – UC Davis
2015 – present: Equine Veterinarian in Weatherford, TX
- (8) Matthew Kier, Ph.D. Ph.D. 2020: Dartmouth College
B.S. 2016: Goucher College
M.S. 2010: University of California—Irvine
2020 – present: Hansoh Bio Pharmaceuticals
- (9) Wan Shin Kim, Ph.D. Ph.D. 2019: Dartmouth College
2019: Postdoctoral associate
(Micalizio laboratory, Dartmouth College)
2019 – present: Boehringer Ingelheim Pharmaceuticals
- (10) Ken-Shing Law, M.S. M.S. 2006: Yale University
- (11) Robert Leon, Ph.D. Ph.D. 2021: Dartmouth College
2021 – present: Enanta Pharmaceuticals
- (12) Martin McLaughlin, Ph.D. Ph.D. 2010: Yale University
2010 – 2012: NIH Postdoctoral Fellow with Professor Erick Carreira (ETH)
2012 – present: BASF (Germany)
- (13) Lark Perez, Ph.D. Ph.D. 2008: Yale University
2006 – 2007: Novartis Graduate Student Fellow
2008 – 2012: Postdoctoral study with Professor Semmelhack at Princeton University

- 2012 – present: Associate Professor Rowan University
- (14) Holly Reichard, Ph.D. Ph.D. 2010: Yale University
2010 – 2012: Envoy Pharmaceuticals
2012 – present: Takeda Pharmaceuticals
- (15) Jude Rieger, M.S. M.S. 2007: Yale University
2007 – present: Fairfield, CT – High school teacher
- (16) Maria Ruggiero, M.S. M.S. 2006: Yale University
2006 – present: Fairfield, CT – High school teacher
- (17) Jamie Ryan, M.S. M.S. 2006: Yale University
2010 – present: Unilever HPC
- (18) Zachary Shalit, Ph.D. Ph.D. 2022: Dartmouth College
- (19) Heidi Shimp, Ph.D. Ph.D. 2008: Yale University
2006 – 2007: Bristol Myers-Squibb Graduate Student Fellow
2008 – present: Bristol Myers-Squibb
- (20) Masayuki Takahashi, Ph.D. Ph.D. 2010: Yale University
2010 – 2012: NIH Postdoctoral Fellow with Professor William R. Roush (TSRI)
2012 – present: Otsuka Pharmaceuticals

Former Postdoctoral Associates:

- (1) Claudio Aquino 2009 – 2016
Ph.D. 2008 Università Degli Studi Di Napoli Federico II
(Mentor: Professor Ettore Novellino)
2016 – present: DiCE Molecules
- (2) Allan Barlan, Ph.D. 2008 – 2009
Ph.D. 2008: University of Chicago
(Mentor: Professor Hisashi Yamamoto)
2010 – present: Defense Intelligence Agency
- (3) Daniel Canterbury, Ph.D. 2010-2013
Ph.D. 2008: University of Rochester
(Mentor: Professor Alison Frontier)
2013 – present: Pfizer Inc.
- (4) Xiayun Cheng, Ph.D. 2013 – 2015
Ph.D. 2013 University of Vermont
(Mentor: Professor Stephen P. Waters)
2015 – present Pfizer Inc.
- (5) Kang Du, Ph.D. 2016 – 2020
Ph.D. 2016 Shanghai Institute of Organic Chemistry, Chinese

- Academy of Sciences (Mentor: Professor Wenjun Tang)
2020 – present: Assistant Professor – Westlake University
- (6) Stephen Greszler, Ph.D. 2010 – 2012
Ph.D. 2010: University of North Carolina
(Mentor: Professor Jeffrey Johnson)
2012 – present: AbbVie
- (7) Valer Jeso, Ph.D. 2010-2014
Ph.D. 2009: The Scripps Research Institute
(Mentor: Professor K. C. Nicolaou)
2014 – present GlaxoSmithKline
- (8) Rajdip Karmakar 2017 – 2020
Ph.D. 2017 University of Illinois, Chicago
(Mentor: Professor Daesung Lee)
2020 – present TCG Lifesciences
- (9) Ozora Kubo, Ph.D. 2011 – 2013 JSPS-sponsored postdoctoral fellow
Ph.D. 2011 Osaka University
(Mentor: Professor Hiromichi Fujioka)
2013 – present: Rohto Pharmaceuticals
- (10) Todd Macklin, Ph.D. 2007 – 2010
Ph.D. 2007: Queens University
(Mentor: Professor Victor Snieckus)
2010 – 2012: Envoy Pharmaceuticals
2012 – 2014: Takeda Pharmaceuticals
2017 – present: Kirkland & Ellis LLP (scientific advisor)
- (11) Haruki Mizoguchi 2013 – 2017
Ph.D. 2013 Hokkaido University (Japan)
(Mentor: Prof. Hideaki Oikawa and Prof. Hiroki Oguri)
2017 – present: Assistant Professor Okayama University (Japan)
- (12) Natasha O'Rourke 2015 – 2018
Ph.D. 2014 University of Victoria (Canada)
(Mentor: Professor Jeremy E. Wulff)
2018 – present: Takeda Pharmaceuticals
- (13) Subhas Chandra Pan, Ph.D. 2010 – 2011
Ph.D. 2008: Max-Planck-Institut Für Kohlenforschung, Mülheim an
der Ruhr
(Mentor: Professor Benjamin List)
2008-2009: Postdoctoral at Harvard University with Professor
E.J. Corey)
2011 – present: Professor IIT – Guwahati
- (14) Matthew Scheideman, Ph.D.

- 2005 – 2007
Ph.D. 2005: University of Michigan
(Mentor: Professor Edwin Vedejs)
2005-2007: Rudolph Anderson Postdoctoral Fellow
2007-2013: Rib-X Pharmaceuticals
2013 – 2016: Otsuka Pharmaceuticals
2016 – present: Cooley LLP
- (15) Rosa Taboada, Ph.D. 2004 – 2005
Ph.D. 2004: University of Connecticut
(Mentor: Professor Amy Howell)
2004 – 2005: Rudolph Anderson Postdoctoral Fellow
- (16) Michael Tarselli, Ph.D. 2009 – 2010
Ph.D. 2009: University of North Carolina
(Mentor: Professor Michael Gagné)
2011 – 2014: Principal Scientist at Biomedisyn
2014 – present: Novartis Institutes for Biomedical Research (NIBR)
- (17) Emily Tarsis, Ph.D. 2011 – 2012
Ph.D. 2011: Duke University (Mentor: Professor Don Coltart)
2012 – 2014: Assistant Professor Nova Southeastern University –
Boca Raton, FL
2015 – present: Senior Lecturer in Chemistry, Connecticut College
- (18) Dexi Yang, Ph.D. 2009 – 2014
Ph.D. 2008: The Ohio State University
(Mentor: Professor David J. Hart)
2014 – current Merck Research Laboratories

Former Undergraduate Students:

- (1) Alec Flyer, Ph.D. 2003 – 2004
B.S. 2004 Yale University
Ph.D. 2009 Department of Chemistry and Chemical Biology,
Harvard University (Mentor: Andrew G. Myers)
2009 – present: Research Scientist at Novartis
currently: Investigator III, Global Discovery Chemistry, Novartis
Institutes for Biomedical Research
- (2) Brian Trantow, Ph.D. 2006 – 2007 Pfizer Undergraduate Summer Fellowship (2006)
B.S. 2007 Yale University
Ph.D. 2013 Chemistry, Stanford University
(Mentor: Paul A. Wender)
2013: Putnam Associates, Inc. (Life Sciences Consultant)
currently: BluePrint Research Group
- (3) Raul Navarro, Ph.D. 2006 – 2008
B.S. 2008: Yale University
2006: STARS Undergraduate Summer Fellowship
Ph.D. 2013 California Institute of Technology

(Mentor: Sarah Reisman)
 2013 – 2017: Postdoctoral Fellow, Stanford University
 (Mentor: Professor Tom Wandless)
 2017 – present Assistant Professor, Occidental College

(4) Jason Anesini 2017
 B.S. 2018: Binghamton University
 2018 – present: Harvard University – (Mentor: Andrew G. Myers)
 Department of Chemistry and Chemical Biology

From Dartmouth:

(1) Daniel Malinowski Dartmouth College ('15) – Columbia University Department of Chemistry
 (graduate study)
 (2) David Clossey Dartmouth College ('16) – Attending Harvard Medical School
 (3) Taylor Watson Dartmouth College ('16)
 (4) Yu Zhu (Emma) Mei Dartmouth College ('17)
 (5) Ethan Isaacson Dartmouth College ('18)
 (6) Cannon Wille Dartmouth College ('17) – Consulting at Bain & Company
 (7) Christine Park Dartmouth College ('17) – Duke School of Medicine
 (8) Mustafa Nasir-Moin Dartmouth College ('19)
 (9) Phoebe Cunningham Dartmouth College ('20) – Attending UPenn School of Medicine
 (10) Lucas C. Valdes Dartmouth College ('20) – Harvard Department of Chemistry and
 Chemical Biology (graduate study)
 (11) Zachary Milestone Dartmouth College ('20) – Attending Emory University School of
 Medicine

ACADEMIC MENTORS:

Postdoctoral Mentor: Stuart L. Schreiber
 Morris Loeb Professor
 Department of Chemistry and Chemical Biology
 Harvard University

The Broad Institute
 Founding Core Member
 7 Cambridge Center
 Cambridge, MA 02142

Phone: (617) 714-7080
 e-mail: stuart_schreiber@harvard.edu

Graduate Mentor: William R. Roush
 Professor of Chemistry
 Executive Director of Medicinal Chemistry
 Associate Dean, Kellogg School of Science and Technology

The Scripps Research Institute, Florida
130 Scripps Way #3A2
Jupiter, FL 33458

Phone: (561) 228-2450
e-mail: roush@scripps.edu

As of January 1, 2018: Executive Vice President of Chemistry
IFM Therapeutics LLC
lfmthera.com