

Katherine Nalani Maloney

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ACADEMIC POSITIONS

Point Loma Nazarene University	
<i>Associate Professor of Chemistry</i>	2014-present
<i>Assistant Professor of Chemistry</i>	2012-2014
Harvey Mudd College	
<i>Assistant Professor of Chemistry</i>	2009-2011

EDUCATION AND EXPERIENCE

Cancer Therapeutics Training (CT2) Postdoctoral Fellowship	2006-2009
Scripps Institution of Oceanography/UCSD	
Advisor: Professor William Fenical	
Isolation and structure elucidation of bioactive compounds from marine actinomycetes	
Ph.D. in Chemistry and Chemical Biology	2000-2006
Cornell University	
Advisor: Professor Jon Clardy	
Dissertation title: Biologically active natural products from plants and their endophytes	
B.S. in Chemistry, <i>summa cum laude</i>	1996-2000
Pacific Lutheran University	
Advisor: Professor Duane Swank	
Synthesis and characterization of copper halide dimers ligated by substituted pyridines	
Undergraduate Researcher, NSF-REU	Summer 1999
University of Washington	
Advisor: Tomikazu Sasaki	
Multi-step organic synthesis of a modified carbohydrate ligand	

TEACHING

2012-	Point Loma Nazarene University	
	<ul style="list-style-type: none"> • CHE 294L, Organic Chemistry I Laboratory • CHE 304, Organic Chemistry II • CHE 304L, Organic Chemistry II Laboratory • CHE 351, Organic Structure Elucidation • CHE 351L, Organic Structure Elucidation Laboratory • CHE 370, Instrumental Analysis • CHE 370L, Instrumental Analysis Laboratory 	Fall 2012-2015 Spring 2012-2017 Spring 2012-2017 2012, 2013, 2015 2012, 2013, 2015 2012, 2013, 2015 2012, 2013, 2015
2009-2011	Harvey Mudd College:	
	<ul style="list-style-type: none"> • Chem 23S, General Chemistry: Structure • Chem 199, Seminar • Chem 56, Carbon Compounds • Chem 58, Carbon Compounds Laboratory • Chem 111, Organic Chemistry Laboratory • Chem 21, General Chemistry • Chem 25, General Chemistry Laboratory 	Fall 2010, 2011 Spring 2010-Fall 2011 Spring 2010, 2011 Spring 2010, 2011 Fall 2009-2011 Fall 2009 Fall 2009
2004-2006	<i>Teaching Fellow, 'Molecules of Life' (Science Core course), Harvard University</i>	
2000-2001	<i>Teaching Assistant, 'Organic Chemistry for the Life Sciences,' Cornell University</i>	
1998-2000	<i>Chemistry Tutor and Grader, Pacific Lutheran University</i>	

RESEARCH STUDENT MENTORING*PLNU*

Oscar Alvarado (PLNU Biology-Chemistry '14; DC student at Southern California Univ. of Health Sciences)	2012-2013
Jason Chari (Cornell Univ. Biostatistics '17)	2016
Brent Chicoine (PLNU Biology-Chemistry '15)	2013
Taylor Davis [§] (PLNU Biology-Chemistry '14; MD student at UC Irvine)	2012-2014
Sydney Davis (PLNU Biology-Chemistry '18)	2016-
Lindsey D'Elia (PLNU Biology-Chemistry '17)	2015-2016
Eunice Granados (PLNU Biology-Chemistry '14; Alere Inc.)	2014
Elizabeth Maloney (Pacific Lutheran Univ. Economics, Math, & Computer Science '16; PhD student in Economics, UC Irvine)	2012, 2016
Morgan Papineau [§] (PLNU Biology-Chemistry '17)	2015-
Jordan Reader (PLNU Biology-Chemistry '15; DO student at Univ. of New England)	2013-2014
Jonathan Sawada (PLNU Biology-Chemistry '17)	2015-2016
Lindsay Semmler [§] (PLNU Biology-Chemistry '16)	2015-2016
Matthew Steinhaus (PLNU Biology-Chemistry '15; MD student at UC Irvine)	2013-2014

[§]Denotes PLNU honors project student

HMC

Thomas Aldrich* (HMC Chemistry '12; NSF GRFP Fellow in Chemistry, Northwestern)	2010-2012
Kyle Chakos (HMC Engineering '13)	2010
Alix Chan (HMC Chemistry & Biology '12; PhD student in Chemical Biology, Harvard Medical School)	2011
William Chen (HMC Mathematical Biology '12)	2010
Jonathan 'Chance' Crompton (HMC Chemistry '13)	2011
Brian Fielder (HMC Chemistry '14)	2010-2011
Millie Fung* (HMC Chemistry & Biology '11; PhD student in Chemistry, UC Irvine)	2010-2011
Katie Near* (HMC Chemistry '10; NSF GRFP Fellow in Chemistry, Stanford)	2009-2010
Bethany Okada (HMC Chemistry '13; PhD student in Chemistry, Princeton)	2011
Caitlin Olmsted* (HMC Chemistry '10)	2009-2010
Emily Putnam (HMC Chemistry & Biology '12)	2010
Kim Quach (HMC Chemistry '12; PhD student in Chemistry, Yale)	2011
Jessie Roy* (HMC Chemistry '11; MS in Biology, Georgia Tech)	2010-2011
Kathryn Schmiedicke* (HMC Biology '11)	2010-2011
Vincent Shieh (HMC Chemistry & Biology '12)	2010
Camille Sultana* (HMC Chemistry '10; PhD student in Chemistry, UCSD)	2009-2010

*Denotes HMC senior thesis student

PUBLICATIONS

* Undergraduate student co-authors

1. Aldrich, T. J.*; Rolshausen, P.; Roper, M. C.; Reader, J. M.*; Steinhaus, M. J.*; Rapticavoli, J.; Vosburg, D. A.; Maloney, K. N. "Radicinin from *Cochliobolus* sp. inhibits *Xylella fastidiosa*, the causal agent of Pierce's Disease of grapevine" *Phytochemistry* **2015**, *116*, 130-137.
2. Sun, P.; Maloney, K. N.; Nam, S.-J.; Haste, N. M.; Raju, R.; Aalbersberg, W.; Jensen, P. R.; Nizet, V.; Hensler, M. E.; Fenical, W. "Fijimycins A-C, three antibacterial etamycin-class depsipeptides from a marine-derived *Streptomyces* sp." *Bioorg. Med. Chem.* **2011** *19* (22), 6557-6562.
3. Udworthy, D. W.; Gontang, E. A.; Jones, A. C.; Schultz, A. W.; Sorrels, C. M.; Winter, J. M.; Yang, J. Y.; Beauchemin, N.; Capson, T. L.; Clark, B. R.; Esquenazi, E.; Eustáquio, A. S.; Freel, K.; Gonzalez, D. J.; Gerwick, L.; Gerwick, W. H.; Liu, W.-T.; Malloy, K. L.; Maloney, K. N.; Nett, M.; Nunnery, J. K.; Penn, K.; Prieto-Davo, A.; Simmons, T. L.; Weitz, S.; Wilson, M. C.; Tisad, L. S.; Dorrestein, P. C.; Moore, B. S. "Significant natural product biosynthetic potential of actinorhizal symbionts of the genus *Frankia*, as revealed by comparative genomic and proteomic analyses." *Appl. Environ. Microb.* **2011** *77* (11), 3617-3625.
4. Choi, Y.; Jermihov, K.; Nam, S.; Sturdy, M.; Maloney, K.; Qiu, X.; Main, M.; Mesecar, A. D.; Pauli, G. F.; Fenical, W.; Pezzuto, J. M.; van Breemen, R. R. "Screening natural products for inhibitors of quinone reductase-2 using ultrafiltration LC-MS." *Anal. Chem.* **2011** *83* (3), 1048-1052.

5. Murphy, B. T.; Maloney, K. N.; Fenical, W., **2011**, Marine Microorganisms. In *Natural Products: Phytochemistry and Pharmacognosy*. Pezzuto, J. M.; Kato M. J., Eds.; in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Paris, France.
6. Haste, N. M.; Perera, V.; Maloney, K. N.; Tran, D. N.; Jensen, P. R.; Fenical, W.; Nizet, V.; Hensler, M. E. "Activity of the streptogramin antibiotic etamycin against methicillin-resistant *Staphylococcus aureus*." *J. Antibiot.* **2010** 63 (5), 219-224.
7. Maloney, K. N.; MacMillan, J. B.; Kauffman, C. A.; Jensen, P. R.; DiPasquale, A. G.; Rheingold, A. L.; Fenical, W. "Lodopyridone, a structurally-unprecedented alkaloid from a marine actinomycete." *Org. Lett.* **2009** 11 (23), 5422-5424.
8. Maloney, K. N.; Fujita, M.; Eggert., U. S.; Schroeder, F. C.; Field, C. M.; Mitchison, T. J.; Clardy J. "Actin-aggregating cucurbitacins from *Physocarpus capitatus*." *J. Nat. Prod.* **2008** 71 (11), 1927-1929.
9. Maloney, K. N.; Hao, W.; Xu, J.; Gibbons, J.; Hucul, J.; Roll, D.; Brady, S. F.; Schroeder, F. C.; Clardy, J. "Phaeosphaeride A, a selective inhibitor of STAT3-dependent signaling isolated from an endophytic fungus." *Org. Lett.* **2006** 8 (18), 4067-4070.
10. Smith, P. L.; Maloney, K. N.; Pothen, R. G.; Clardy, J.; Clapham, D. E. "Bisandrographolide from *Andrographis paniculata* activates TRPV4 channels." *J. Biol. Chem.* **2006** 281 (40), 29897-29904.
11. Hieronymus, H.; Lamb, J.; Ross, K. N.; Clement, C.; Peng, X. P.; Rodina, A.; Nieto, M.; Du, J.; Stegmaier, K.; Raj, S. M.; Maloney, K. N.; Clardy, J.; Hahn, W. C.; Chiosis, G.; Golub T. R. "Gene expression signature-based chemical genomic prediction identifies novel class of HSP90 pathway modulators." *Cancer Cell* **2006** 10 (4), 321-330.
12. Maloney, K. N. "Book Review: Natural Products Isolation, Second Edition. Satyajit D. Sarker, Zahid Latif, and Alexander I. Gray, Editors. Humana Press." *Chemical Educator* **2006** 11 (2), 146-147.

PATENT APPLICATION

1. Clardy, J. C.; Maloney, K. N.; Schroeder, F. C. Bioplastics based on polymers extracted from cultured media of carbohydrates and a fungus. *PCT Int. Appl.* (2009), WO 2009045719 A2 20090409.

PRESENTATIONS

* Undergraduate student co-authors

1. Maloney, K. N. "The curious case of *Sarcophyton glaucum*: Capricious natural products chemist or victim of mistaken identity?" Portland Section Meeting, American Chemical Society. Portland, 1 December, 2016.
2. Papineau, M.*; D'Elia, L.*; Rolshausen, P. E.; Roper, M. C.; Maloney, K. N. "Bioassay-guided isolation of secondary metabolite inhibitors of *Xylella fastidiosa* produced by endophytic fungi." 251st National Meeting, American Chemical Society. San Diego, 15 March, 2016.
3. Semmler, L.*; Sawada, J.*; Steinhaus, M.*; Reader, J.*; Rolshausen, P. E.; Roper, C.; Ropicavoli, J.; Maloney, K. N. "Synthesis of a water-soluble radicinin derivative for use as an antibacterial agent in grapevines." 251st National Meeting, American Chemical Society. San Diego, 14 March, 2016.
4. Maloney, K. N. "Saving the wine grapes: Radicinin from the endophyte *Cochliobolus* sp. inhibits *Xylella fastidiosa*, the causal agent of Pierce's Disease of grapevine," Seminar presented to the Natural Product Affinity Group (NPAG) at Scripps Institution of Oceanography. La Jolla, 8 May, 2015.
5. Steinhaus, M.*; Reader, J.*; Rouffet, M.; Aldrich, T.*; Rolshausen, P.; Roper, M.; Maloney, K. "Synthesis of derivatives of the natural product radicinin that inhibit the plant pathogen *Xylella fastidiosa*," 249th National Meeting, American Chemical Society. Denver, 24 March, 2015.
6. Davis, T. S.*; Alvarado, O. A.*; Chicoine, B. J. A.*; Okada, B. K.*; Quach, K.*; Brayton, C.*; Maloney, K. N.; McFadden, C. S. "Analysis of secondary metabolites from cryptic species of *Sarcophyton glaucum* suggests a genetic explanation for previously observed variation," 247th National Meeting, American Chemical Society. Dallas, 16 March, 2014.
7. Yang, J.-i.; Roper, C.; Borneman, J.; Gloer, J.; Maloney, K.; Rolshausen, P. "Characterization of the fungal microbial community inhabiting grapevine: Identification of a biocontrol agent for Pierce's Disease." 113th General Meeting, American Society of Microbiology. Denver, 21 May, 2013.
8. Davis, T.*; Alvarado, O.*; Okada, B.*; Quach, K.*; Shieh, V.*; Brayton, C.*; Maloney, K. N.; McFadden, C. S. "Analysis of secondary metabolite chemistry among the soft coral *Sarcophyton* species *glaucum*, *gemmatum*, and *trocheliophorum*." 38th West Coast Biological Sciences Undergraduate Research Conference. San Diego, 20 April, 2013.
9. Aldrich T.*; Maloney, K. N.; Rolshausen, P. E.; Roper, C. "Synthesis and biological evaluation of radicinin derivatives against *Xylella fastidiosa*, a bacterial pathogen of grapevines." 243rd National Meeting, American Chemical Society. San Diego, 26 March, 2012.

10. Chan A.*; Brown A.*; Roy J.*; McFadden C. S.; Maloney K. N. "The relative role of physical versus chemical defenses in soft corals of the genus *Sinularia*." 243rd National Meeting, American Chemical Society. San Diego, 26 March, 2012.
11. Okada, B.*; Quach, K.*; Brayton, C.*; Shieh, V.*; McFadden, C. S.; Maloney, K. N. "Identification of cryptic species accounts for the seemingly idiosyncratic secondary metabolism of *Sarcophyton glaucum* specimens collected in Palau." 243rd National Meeting, American Chemical Society. San Diego, 26 March, 2012.
12. Fielder, B. C.*; Fung, M. H.*; Olmsted, C. M.*; Maloney, K. N. "Isolation and characterization of antibiotic depsipeptides produced by endophytic fungi from *Ribes viburnifolium*." 52nd Annual Meeting, American Society of Pharmacognosy. San Diego, 1 August, 2011.
13. Aldrich T.*; Rolshausen, P. E.; Roper, C.; Maloney, K. N. "Discovery of natural product inhibitors of *Xylrella fastidiosa* from endophytic fungi." 52nd Annual Meeting, American Society of Pharmacognosy. San Diego, 1 August, 2011.
14. Quach, K.*; Okada, B.*; Brayton, C.*; Shieh, V.*; McFadden, C. S.; Maloney, K. N. "Variation in secondary metabolite chemistry among cryptic species of the soft coral *Sarcophyton glaucum*." 52nd Annual Meeting, American Society of Pharmacognosy. San Diego, 1 August, 2011.
15. Aldrich T.*; Rolshausen, P. E.; Roper, C.; Maloney, K. N. "Progress toward the discovery of natural product inhibitors of *Xylrella fastidiosa* from endophytic fungi." 241st National Meeting, American Chemical Society. Anaheim, 27 March 2011.
16. Roy, J. S.*; Brown, A.*; McFadden, C. S.; Maloney, K. N. "Trade-offs between the physical and chemical defenses of *Sinularia* soft corals." 241st National Meeting, American Chemical Society. Anaheim, 28 March 2011.
17. Fung, M. H.*; Olmsted, C. M.*; Maloney, K. N. "Progress toward the isolation and structure elucidation of antibiotic compounds produced by an endophytic fungus from *Ribes viburnifolium*." 241st National Meeting, American Chemical Society. Anaheim, 28 March 2011.
18. Maloney, K. N. "Mother Nature's medicine cabinet: Discovering new drugs at the bottom of the ocean, in the tallest trees of the rainforest, and everywhere in between." Keynote Speech at BE WiSE Overnight at the Sea Life Aquarium. Carlsbad, 1 May 2009; invited back for Keynote Speech at BE WiSE Overnight at the Birch Aquarium. La Jolla, 30 April 2010.
19. Maloney, K. N.; Nam, S.-J.; Gaudêncio, S.; MacMillan, J. B.; Sturdy, M.; Pegan, S.; Mesecar, A.; Choi, Y.; van Breemen, R.; Fenical, W.; Pezzuto, J. "X-ray crystallography- and mass spectrometry-based screens of natural product mixtures reveal potent and structurally novel quinone reductase 2 inhibitors from marine sediment bacteria." 100th Annual Meeting, American Association for Cancer Research. Denver, 20 April 2009.
20. Maloney, K. N.; MacMillan, J.; Choi, Y.; van Breemen, R.; Kauffman, C. A.; Fenical, W. "Lodopyridone, a selective ligand for quinone reductase 2 from a marine-derived *Saccharomonospora* sp." 42nd Western Regional Meeting, American Chemical Society. Las Vegas, 26 September 2008.

21. Maloney, K. N.; MacMillan, J. B.; Kauffman, C. A.; Jensen, P. R.; Fenical, W. "The Iodopyridones: Modified peptides from a marine-derived *Saccharomonospora* sp." 7th Joint Meeting of AFERP, ASP, GA, PSE & SIF. Athens, 7 August, 2008.
22. Maloney, K. N. "New medicines from marine bacteria." Saturday Science Club for Girls at the Reuben H. Fleet Science Center. San Diego, 13 October 2007.
23. Maloney, K. N.; Fenical, W.; Clardy, J. "A natural products research program for implementation at a primarily undergraduate institution." 234th National Meeting, American Chemical Society. Boston, 20 August 2007.
24. Maloney, K. N.; Eggert, U.; Mitchison, T. J.; Smith, P. L.; Clapham, D. E.; Bayliss, P.; Roberts, T.; Clardy, J. "Academic screens of plant extracts yield new structures and new probes for biology." 46th Annual Meeting, American Society of Pharmacognosy. Corvallis, July 2005.
25. Maloney, K. N.; Schroeder, F. C.; Fujita, M.; Eggert, U.; Shaw, J.; Clardy, J. "High throughput screening of natural product extracts for cancer drug discovery." Symposium Celebrating Diversity in Organic Chemistry, Pfizer Global Research & Development. Groton, 17 September 2004.
26. Maloney, K. N.; Sasaki, T. "Synthesis of a Multivalent Carbohydrate Ligand." 219th National Meeting, American Chemical Society. San Francisco, 26 March 2000.
27. Maloney, K. N.; Swank, D. "Crystallographic Structure Determination of a CuBr₂•pyridine Complex." Summer Research Symposium, MJ Murdock Charitable Trust. Nampa, 7 November 1998.

EXTERNAL GRANTS

CDEA UC Pierce's Disease Research Grant, co-PI 2017-2019
 (with PI Philippe Rolshausen and co-PI Caroline Roper, UC Riverside)
 Greenhouse evaluation of grapevine microbial endophytes and fungal natural products for control of Pierce's Disease.
 Submitted

USDA Citrus Disease Research and Extension (CDRE) Program, co-investigator 2017-2021
 (with PD Caroline Roper and co-Is Robert Turgeon, Georgios Vidalakis, Philippe Rolshausen, Greg McCollum, David Jassby, Pieter Dorrestein, James Borneman and Jonathan Kaplan)
 Deployment of a Spectrum of Bactericides to Cure and Prophylactically Treat Citrus Huanglongbing.
 \$5,112,000 (\$131,207 for my part)

CDEA UC Pierce's Disease Research Grant, co-PI 2016-2017
 (with PI Philippe Rolshausen and co-PIs Caroline Roper and James Borneman, UC Riverside)
 Greenhouse evaluation of grapevine microbial endophytes and fungal natural products for control of Pierce's Disease.

\$94,402 (\$17,759 for my part)

NSF Scholarships in Science Technology Engineering and Math (S-STEM), PI 2015-2020
 (with co-PIs Maria Zack, Dawne M. Page, Lorinda Carter, and Paul Schmelzenbach)
 Scholarships to Support STEM majors Computational Sciences Minors
 \$576,750

CDFA UC Pierce's Disease Research Grant, co-PI 2014-2016
 (with PI Philippe Rolshausen and co-PI Caroline Roper, UC Riverside)
 Greenhouse Evaluation of Grapevine Fungal Endophytes and Fungal Natural
 Products Antagonistic to *Xylella fastidiosa* for Control of Pierce's Disease.
 \$175,007 (\$31,990 for my part)

NIH AREA (R15), collaborator 2013-2016
 (PI David Cummings, PLNU Dept of Biology)
 Capture and characterization of self-transmissible plasmids from urban wetlands
 encoding clinically relevant antibiotic resistance genes
 \$415,334 (\$6,700 for my part)

CDFA UC Pierce's Disease Research Grant, cooperater 2012-2014
 (PI Philippe Rolshausen, University of California, Riverside)
 Field and greenhouse evaluations of grapevine fungal endophytes and fungal
 natural products antagonistic to *Xylella fastidiosa* for control of Pierce's Disease
 \$162,086

Research Corporation Multiple Investigator-Cottrell College Science Awards, PI 2010-2012
 (with Catherine McFadden, HMC Dept of Biology)
 Variation in secondary metabolite chemistry among cryptic species of the soft coral
 Sarcophyton, a source of bioactive cembranoids
 \$75,000

American Society of Pharmacognosy Research Starter Grant, PI 2010
 Discovery of natural product inhibitors of *Xylella fastidiosa* from endophytic fungi
 \$5,000

CDFA UC Pierce's Disease Research Grant, cooperater 2010-2012
 (PI Philippe Rolshausen, University of California, Riverside)
 Control of Pierce's disease with fungal endophytes of grapevines antagonistic to
Xylella fastidiosa
 \$101,804 (\$1,500 for my part)

National Science Foundation Research Experiences for Undergraduates, contributor 2010-2013
 (PI Karl Haushalter, Harvey Mudd College)
 REU: Expanding Chemistry Research Opportunities for Undergraduates at
 Harvey Mudd College
 \$225,279

<i>Arnold and Mabel Beckman Foundation Beckman Scholars Program, contributor</i> (co-PIs David Vosburg and Robert Drewell, Harvey Mudd College) Beckman Scholars Institutional Award to Harvey Mudd College \$77,200	2010-2013
<i>National Science Foundation Major Research Instrumentation, co-PI</i> MRI: Acquisition of a Liquid Chromatograph-Ion Trap Mass Spectrometer for Undergraduate Research and Research Training \$234,310	2009
<i>National Science Foundation Major Research Instrumentation, collaborator</i> (PI Mary Hatcher-Skeers, Joint Science Department of the Claremont Colleges) MRI: Acquisition of a 500 MHz NMR to Support Teaching and Research with Undergraduates \$483,521	2009
<i>Merck/AAAS Undergraduate Science Research Program, contributor</i> (co-PI's David Vosburg and Robert Drewell, Harvey Mudd College) Molecular Logic of Biological Systems \$60,000	2009-2012

HONORS AND FELLOWSHIPS

Cancer Therapeutics Training Fellowship, UCSD Moores Cancer Center	2007-2009
Certificate of Distinction in Teaching, Harvard University	2006, 2005
American Chemical Society Travel Award	2005
American Society of Pharmacognosy Lynn Brady Travel Award	2005
NSF Graduate Research Fellowship	2001-2004
Herman & Margaret Sokol Fellowship	2001
Cornell University Graduate Fellowship	2000-2001
American Institute of Chemists Award (top chemistry senior)	2000
NSF REU Fellowship, University of Washington	1999
Barry Goldwater Scholarship	1998-2000
Olsen Fellowship for Undergraduate Research, PLU Department of Chemistry	1997-1998
Robert C. Byrd Scholarship	1996-2000
PLU Academic Scholarship	1996-2000

SERVICE

2015-2017	Alternate Councilor, ACS Division of Organic Chemistry Executive Committee (<i>member of Awards, Membership, and Nomination Committees</i>)
2015-2016	2016 Organic Chemistry Examination Committee, ACS Division of Chemical Education Examinations Institute (<i>write 2016 ACS Organic Chemistry examination</i>)
2015-2016	Faculty Development Committee, PLNU (<i>one year appointment</i>)
2015	NSF Panelist (S-STEM program)
2015	Expert Reviewer, ACS Petroleum Research Fund Undergraduate New Investigator Research Grant program

- 2015 Expert Reviewer, North Carolina Biotechnology Center Biotechnology Research Grant program
- 2015 Enrollment Management Committee, PLNU (*one year appointment*)
- 2015 Commencement Honor Guard, PLNU
- 2015 Student Success Collaborative (SSC) Department Representative, PLNU
- 2013- Pre-Health Committee, PLNU (*conduct sophomore and junior pre-med interviews; provide feedback on application materials*)
- 2013- Computing and Information Services liaison for the Chemistry Department, PLNU
- 2013- Goldwater Faculty Representative, PLNU (*assist PLNU students applying for the Barry Goldwater Scholarship and coordinate final application submission*)
- 2008- Manuscript Reviewer: *Organic Letters; Journal of Natural Products; Marine Drugs*
- 2012-2016 Honors Project Committees
- 2016-17, Morgan Papineau
 - 2015-16, Marcela Bucardo (advisor Dale Shellhamer)
 - 2015-16, Lindsay Semmler
 - 2015-16, Connor Voss (advisor Matthieu Rouffet)
 - 2014-15, Hannah Quinn (advisor Mike McConnell)
 - 2013-14, Taylor Davis
 - 2013-14, William Frye (advisor David Cummings)
 - 2012-13, Zachary Sedillo and Jack Rusing (advisor Mike Dorrell)
- 2013-2014 Faculty Status Committee, PLNU (*elected for one-year position*)
- 2012-2014 Member-At-Large, ACS Division of Organic Chemistry Executive Committee (*Chaired Membership Committee; member of Graduate Fellowship, Membership, and Communications Committees; headed up Social Media initiative*)
- 2013 Faculty Mentor, PLNU First Year Experience
- 2013 Search Committee, PLNU Chemistry Department
- *Spring 2013, Failed tenure-track faculty search in inorganic chemistry*
 - *Spring 2013, Chemistry stockroom manager search leading to hire of Dr. Tracey Schalnat*
 - *Fall 2013, Tenure-track faculty search in inorganic chemistry and biochemistry leading to hires of Dr. Laurance Beauvais and Dr. Ariane Jansma*
- 2010-2011 Academic Affairs Committee, Harvey Mudd College
- 2010-2011 Assessment Committee, Harvey Mudd College
- 2010-2011 Seminar Coordinator, HMC Department of Chemistry
- 2008-2011 Workshop Leader, WEST Conference, Harvey Mudd College
- 2010 NSF Panelist (MRI program)
- 2006-2009 Program Co-Chair, San Diego Expanding Your Horizons Conference
- 2009, 2010 Keynote Speaker, BE WiSE Overnight
- 2009 Judge (AWIS), Greater San Diego Science and Engineering Fair
- 2007, 2008 Assistant Event Captain, San Diego Science Olympiad
- 2007, 2008 Volunteer, National Ocean Sciences Bowl
- 2007 Presenter, Reuben H. Fleet Saturday Science Club for Girls
- 2004-2005 Mentor, Boston Latin School Science Mentor Program
- 2003-2005 Emergency Department Volunteer, Brigham & Women's Hospital
- 2001, 2002 Transportation Chair, Cornell Expanding Your Horizons Conference
- 2000 Session Leader, Cornell University Materials Science Workshop
- 1998 Volunteer Tutor, Keithley Middle School 'Extra Innings' Program

PROFESSIONAL MEMBERSHIPS

American Chemical Society (Division of Organic Chemistry Executive Committee, Organic Chemistry Examination Committee)

American Society of Pharmacognosy (Younger Members Committee)

Council on Undergraduate Research