

*Curriculum Vitae***Lisa R. Moore**

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 Department of Biology (207) 780-4596 (lab)
 University of Southern Maine Email: lrmoore @ maine.edu
 96 Falmouth St., Sci 476B (C wing)
 Portland, ME 04103

Education:

1983-1987 University of Oregon, B.S. *magna cum laude* (Biochemistry)
 1987-1989 St. John's College Graduate Institute, M.A. (Liberal Education)
 1990-1997 Massachusetts Institute of Technology, Ph.D. (Civil and Environmental Engineering)

Employment and Positions:

Feb-July 2015 Visiting Research Fellow, Paulsen Laboratory, Department of Chemical and Biomolecular Sciences, Macquarie University
 2012 - 2013 Chair, Department of Biological Sciences, University of Southern Maine
 2012 - present Professor, Department of Biological Sciences, University of Southern Maine
 2009 - present Adjunct Graduate Faculty, University of Maine, Orono, ME
 2008 - present Honors Faculty, University of Southern Maine
 2006 - 2012 Associate Professor, Department of Biological Sciences, University of Southern Maine
 Spring 2008 Visiting Scientist, Giovannoni Laboratory, Oregon State University
 2001 - present Graduate Faculty of University of Southern Maine
 2000 - 2006 Assistant Professor, Department of Biology, University of Southern Maine
 1998-2000 Postdoctoral Associate, Department. of Civil and Environmental Engineering
 Massachusetts Institute of Technology
 summer 1998 Instructor, Department of Biology
 University of Massachusetts at Boston
 fall 1997 Instructor, Department of Civil and Environmental Engineering
 Massachusetts Institute of Technology
 1990-1997 Graduate Research Assistant, Department of Civil and Environmental Engineering,
 Massachusetts Institute of Technology
 1991-1992 Teaching Assistant, Department of Civil and Environmental Engineering
 Massachusetts Institute of Technology
 1990, Jan-Jun Research Technician, Chisholm Lab, Department of Civil and Environmental
 Engineering
 Massachusetts Institute of Technology
 1989-1990 Research Technician, Millipore Corporation
 1988-1989 Research Technician, Department of Pharmacology
 Georgetown University Medical School
 1985-1987 Undergraduate research assistant, James Weston Lab, University of Oregon
 summer 1985 Summer Research Fellow, Neurological Sciences Institute, Portland, OR

Professional Memberships:

American Society of Limnology and Oceanography, since 1993
 American Society of Microbiology, since 2000
 Australian Society of Microbiology, since 2013
 Phycological Society of America
 Scholars Strategy Network (<http://www.scholarsstrategynetwork.org/>), member 2013
 Union of Concerned Scientists, since 2001
 Council on Undergraduate Research, since 2001

Mainly Women in Science, 2000-2005 (Vice-President, 2002-2005)
 Phi Beta Kappa, inducted 1987
 Sigma Xi, associate member, nominated 1994

Publications

In preparation:

- H. A. Wright, K. Callnan, Martin Ostrowski, Ian Paulsen, **L.R. Moore**. Biogeographical analysis of picoplankton populations across the Patagonian shelf-break during Austral Summer. In prep.
- Hsin-Hui Wu, **Lisa R. Moore**, Carrine Blank, Joan Slonczewski, Gail Gasparich, Marcia Ackerman, Daniel Barich, Hong Cui. A Natural Language Processing and Supervised Learning based text mining tool for extracting Microbe Phenomic Information. In prep.
- K. Roache-Johnson, M. Ackerman, J. Harvey, S. Lovelace, **L.R. Moore**. Diversity in phycoerythrin physiology in low-light adapted ecotypes of the marine cyanobacterium *Prochlorococcus*. In prep.

Peer-reviewed publications (followed by the number of citations based on Google Scholar Advanced Search on 17 Dec 2014):

- Paul M Berube, Steven J Biller, Alyssa G Kent, Jessie W Berta-Thompson, Sara E Roggensack, Kathryn Roache-Johnson[^], Marcia Ackerman[#], **Lisa R Moore**, Joshua D Meisel, Daniel Sher, Luke R Thompson, Lisa Campbell, Adam C Martiny, and Sallie W Chisholm. 2014. Physiology and evolution of nitrogen acquisition in *Prochlorococcus*. ISME Journal, (28 October 2014). doi:10.1038/ismej.2014.211. [^]USM student, [#]Southern Maine Community College student (3)
- Steven Biller, Paul Berube, Jessica Berta-Thompson, Libusha Kelly, Sara Roggensack, Lana Awad, Kathryn Roache-Johnson[^], Huiming Ding, Stephen J. Giovannoni, Gabrielle Rocap, **Lisa R. Moore**, Sallie W. Chisholm. 2014. Genomes of diverse isolates of the marine cyanobacterium *Prochlorococcus*. Scientific Data, 1, Article number: 140034. doi:10.1038/sdata.2014.34. [^]USM student (5)
- N. Ahlgren, A. Noble, A. Patton, K. Roache-Johnson[^], L. Jackson[^], D. Robinson[^], C. McKay, **L.R. Moore**, M. Saito, G. Rocap. 2014. The unique trace metal and mixed layer conditions of the Costa Rica upwelling dome support a distinct and dense community of *Synechococcus*. Limnology and Oceanography, 59(6), 2014, 2166-2184. doi: 10.4319/lo.2014.59.6.2166. [^]USM student (4)
- Burleigh JG, Alphonse K, Alverson AJ, Bik HM, Blank C, Cirranello AL, Cui H, Daly M, Dietterich TG, Gasparich G, Irvine J, Julius M, Kaufman S, Law E, Liu J, **Moore LR**, O'Leary MA, Passarotti M, Ranade S, Simmons NB, Stevenson DW, Thacker RW, Theriot EC, Todorovic S, Velazco PM, Walls RL, Wolfe JM, Yu M. 2013. Next-generation phenomics for the Tree of Life. PLOS Currents Tree of Life. Edition 1. doi: 10.1371/currents.tol.085c713acafc8711b2ff7010a4b03733. (12)
- E.A. Nahas Reistetter, K.M. Krumhardt[^], K. Callnan[^], K. Roache-Johnson[^], J.K. Saunders, **L.R. Moore** & G. Rocap 2013. Effects of phosphorus starvation versus limitation on the marine cyanobacterium *Prochlorococcus* MED4 II: gene expression. Environmental Microbiology. Article first published online: 6 MAY 2013, DOI:10.1111/1462-2920.12129. [^]USM student (7)
- K. Krumhardt^{*^}, K. Callnan^{*^}, K. Roache-Johnson[^], T. Swett[^], D. Robinson[^], E.A. Nahas Reistetter, J.K. Saunders, G. Rocap, **L.R. Moore** 2013. Effects of phosphorus starvation versus limitation on the marine cyanobacterium *Prochlorococcus* MED4 I: uptake physiology. Environmental Microbiology. Article first published online: 6 FEB 2013, DOI:10.1111/1462-2920.12079. ^{*}these authors contributed equally to this work; [^]USM student (8)
- B.A.S. Van Mooy, H.F. Fredricks, B.E. Pedlar, S.T. Dyhrman, D.M. Karl, M. Koblizek, M.W. Lomas, T.J. Mincer, **L.R. Moore**, T. Moutin, M.S. Rappe, E.A. Webb 2009. Phytoplankton in the ocean use non-phosphorus lipids in response to phosphorus scarcity, Nature 458: 69-72, doi:10.1038/nature07659. (254)
- L.R. Moore**^{*}, A. Coe^{*}, E. R. Zinser, M. A. Saito, M. B. Sullivan, D. Lindell, K. Frois-Moniz, T. Swett[^], J. Waterbury, S. W. Chisholm 2007. Culturing the marine cyanobacterium, *Prochlorococcus*.

- Limnology and Oceanography: Methods 5: 353-362. *these authors contributed equally to this work; ^USM student (76)
- L.R. Moore***, M. Ostrowski*, D. J. Scanlan, K. Feren[^], T. Sweetsir[^] 2005. Ecotypic variation in phosphorus-acquisition mechanisms within marine picocyanobacteria, Aquatic Microbial Ecology 39: 257-269. *these authors contributed equally to this work; ^USM student (109)
- L.R. Moore**, A. Post, G. Rocap and S.W. Chisholm 2002. Utilization of different nitrogen sources by the marine cyanobacteria, *Prochlorococcus* and *Synechococcus*, Limnol. Oceanogr. 47: 989-996. (312)
- L.R. Moore** and S.W. Chisholm 1999. Ecotypic differentiation in Photophysiology among isolates of the marine cyanobacterium *Prochlorococcus*. Limnol. Oceanogr. 44: 628-638. (213)
- G. Rocap, **L.R. Moore** and S.W. Chisholm 1999. Molecular phylogeny of *Prochlorococcus* ecotypes. pp. 107-116. In Marine Cyanobacteria, Bulletin del-Institut Oceanographique, Monaco, special issue 19, Charpy & Larkum (eds). (14)
- L.R. Moore***, G. Rocap* and S.W. Chisholm 1998. Physiology and phylogeny of distinct ecotypes of *Prochlorococcus* coexisting in the oceanic euphotic zone. Nature 393: 464-467. (accompanied by News and Views article by Fuhrman & Campbell, Microbial microdiversity, Nature 393: 410-411.) *these authors contributed equally to this work (528)
- L.R. Moore**, R. Goericke and S.W. Chisholm 1995. Comparative physiology of *Synechococcus* and *Prochlorococcus*: influence of light and temperature on growth, pigments, fluorescence and absorptive properties. Mar. Ecol. Prog. Ser. 116: 259-275. (463)
- S.W. Chisholm, S.L. Frankel, R. Goericke, R.J. Olson, B. Palenik, J.B. Waterbury, **L. West-Johnsrud**[#], E.R. Zettler 1992. *Prochlorococcus marinus nov. gen. nov. sp.*: an oxyphototrophic marine prokaryote containing divinyl chlorophyll *a* and *b*. Arch. Microbiol. 157: 297-300. # former name (330)
- K. Morrison-Graham, **L. West-Johnsrud**[#], and J. A. Weston 1990. Extracellular matrix from normal but not *Steel* mutant mice enhances melanogenesis of cultured mouse neural crest cells. Dev. Biology 139: 299-307. # former name (52)
- J. A. Blendy, L. J. Grimm, D. C. Perry, **L. West-Johnsrud**[#], and K. J. Kellar 1990. Electroconvulsive shock differentially increases binding to alpha-1 adrenergic receptor subtypes in discrete regions of rat brain. J. Neurochem. 10(8): 2580-2586. # former name (29)
- B. H. Pubols, Jr., H. Hirata, and **L. West-Johnsrud**[#] 1989. Somatotopic organization of forelimb representation in cervical enlargement of raccoon dorsal horn. J. Neurophys. 61(1): 126-137. # former name (7)

Invited publications:

- L.R. Moore** 2013 Why Americans need to know more about biology and genomics in the new technological era. Scholars Strategy Network Basic Facts, <http://www.scholarsstrategynetwork.org/>.
- L.R. Moore** 2013 More mixotrophy in the marine microbial mix. Proceedings of National Academies of Science/PNAS 110(21): 8323-8324; published ahead of print May 10, 2013, doi:10.1073/pnas.1305998110 (3)
- L.R. Moore** 2010. *Prochlorococcus* and Other Photosynthetic Picoplankton. In: Encyclopedia of Life Sciences (ELS). John Wiley & Sons, Ltd: Chichester. doi: 10.1002/9780470015902.a0022840 (2)
- Mitchell, B., Bricaud, A., Carder, K., Cleveland, J., Ferrari, G., Coulg, R., Kahru, M., Kishino, M., Maske, H., Moisan, T., **Moore, L.**, Nelson, N., Phinney, D., Reynolds, R., Sosik, H., Stramski, D., Tassan, S., Trees, C., Weidemann, A., Wieland, J. and Vodacek, A. 2000. Determination of spectral absorption coefficients of particles, dissolved material and phytoplankton for discrete water samples. In: Fargion, G.Mueller, J. (Eds.) Ocean Optics Protocols for Satellite Ocean Color Sensor Validation, Revision 2, pp.125-153. NASA, Greenbelt, Maryland.

Meeting abstracts (since 2005):

- Endara, L.; C.E. Blank; G. Burleigh; A. Cirranello; H. Cui; M. Daly; G. Gasparich; M. Arce Hernandez; J. Irvine; **L. Moore**; T. Dietterich; J. Liu; S. Kaufman; M. Lam; M. O'Leary; M. Passarotti; J. Robalino; N. Simmons; J. Slonczewski, D. Stevenson; R. Thacker; E. Theriot; S. Todorovic; R. Walls; P. Velazco; E. H. Wu; A. Yu. 2014. Next-generation phenomics for the Tree of Life. TDWG 2014 Annual Conference (talk by LE)
- Josef Uyeda, Carrine Blank, **Lisa Moore**, Luke Harmon. 2014. Billion year old rate shifts in microbial evolution. Evolution 2014 meeting. (talk by JU)
- CE Blank, Hsin-Hui Wu, H Cui, **LR Moore**, G Burleigh, J Liu, and GE Gasparich. 2014. AVAToL microbial phenomics: An ontology and natural language processing tools to facilitate trait evolution studies for the archaeal domain of life. Evolution 2014 meeting. (talk by CEB & HW)
- CE Blank, **LR Moore**, H Cui, E Hsin-Hui Wu, G Burleigh, J Liu, JL Slonczewski, D. Barich, and GE Gasparich. 2014. AVAToL microbial phenomics: developing a microbial ontology and natural language processing tools to automate the study of the evolution of microbial traits. Abstract submitted to the Joint Aquatic Sciences Meeting, Portland, OR (talk by CEB)
- N.A. Ahlgren, A. Noble, A. Patton, K. Roache-Johnson[^], L. Jackson[^], D. Robinson[^], **L.R. Moore**, M. Saito, G. Rocap. 2013 The unique trace metal and macronutrient conditions of the Costa Rica upwelling dome upwelling support a distinct and dense community of *Synechococcus*. Ocean Science 2014 meeting (talk by NAA). [^]USM student
- LR Moore**, C Blank, JG Burleigh, H Cui, G Gasparich, J Liu, S Ranade. 2013. Next Generation Microbial Phenomics, Australian Association for Microbiology Annual Scientific Meeting (poster).
- K Roache-Johnson[^], A Lorrain[^], RD Harper[^], **LR Moore**. 2013. Ecotype-specific Physiology of Low Light *Prochlorococcus* Strains, Australian Association for Microbiology Annual Scientific Meeting (talk by LRM). [^]USM student
- S. Ranade, H. Cui, **L. Moore**, C. Blank, G. Gasparich, J. G. Burleigh. 2013. "A preliminary analysis of application of Stanford Parser and OSCAR4 for parsing and annotating microbial descriptions." submitted to iEvoBio conference.
- J. Thompson, G. Kettler, S. Biller, J. Miller, **L. Moore**, S.W. Chisholm. 2013. "The *high light inducible* genes of the marine cyanobacterium *Prochlorococcus*: A diverse dynamic, high-copy-number gene family." Boston Bacterial Meeting 2013.
- K Roache-Johnson[^], P Jacobs[^], A Lorrain[^], **LR Moore**. 2011. Looking for Physiological Diversity among Low Light-Adapted *Prochlorococcus* Isolates, ASLO Aquatic Sciences meeting (talk by KRJ). [^]USM student
- HA Wright[^] and **LR Moore**. 2010. Spatial and temporal distribution of marine picophytoplankton within the Patagonian Large Marine Ecosystem, Ocean Sciences Meeting (talk by HAW). [^]USM student
- G Rocap, BL Nunn, E Reistetter, K Callnan[^], K Krumhardt[^], K Roache Johnson[^], D Goodlett, R Morris, **LR Moore**. 2010. Phosphorus stress in *Prochlorococcus*: Physiology, Gene Expression and Proteomics, Ocean Sciences Meeting (poster). [^]USM student
- E. A. Nahas, **Moore, LR**, Krumhardt, K[^]; Roache-Johnson, K; Callnan, K[^]; Rocap, G. 2009. Physiological responses of *Prochlorococcus* MED4 to short-term phosphorus starvation and long-term phosphorus limitation, ASLO Ocean Sciences meeting (talk by EAN). [^]USM student
- L.R. Moore**, K. Krumhardt[^], L. Jackson[^], G. Rocap, K. Roache-Johnson, D. Robinson[^], D. Hardy[^]. 2008. Physiological response of *Prochlorococcus* in P-limited chemostats and on-deck nutrient enrichment experiments, *Prochlorococcus* 20th Anniversary Colloquium (poster). [^]USM student
- B.A.S. Van Mooy, Fredricks H.F., **Moore L.R.**, and Zinser E.R. 2008, The glycerolipid composition of *Prochlorococcus* reflects niche adaptation in the upper ocean, *Prochlorococcus* 20th Anniversary Colloquium (talk by BVM). [^]USM student
- Ahlgren, N. A., **L. Moore**, K. A. Noble. M. Saito and G. Rocap. 2008. Changes in picocyanobacterial community structure across transitions from oligotrophic to upwelling regions off of Costa Rica. *Prochlorococcus* 20th Anniversary Colloquium (talk by NAA).

- N. Ahlgren, **L.R. Moore** and G. Rocap. Changes in picocyanobacterial community structure across transitions from oligotrophic to upwelling regions off of Costa Rica. ASM General Meeting 2008. (talk by NAA).
- L.R. Moore**, G. Rocap, K. Krumhardt[^], L. Jackson[^], D. Robinson[^], K. Roache-Johnson, D. Hardy[^]. 2008. Physiological response of *Prochlorococcus* in P-limited chemostats and on-deck nutrient enrichment experiments, Ocean Sciences Meeting (talk by LRM). [^]USM student
- L.R. Moore**, D. Robinson[^], D. Hardy[^], K. Krumhardt[^]. 2007. Phosphate uptake kinetics of *Prochlorococcus* MED4 grown in phosphorus-limited chemostat cultures, Frontiers in Integrative Biology Research Workshop (poster)
- Van Mooy, B., A. H. Devol, H. F. Fredricks, **L. R. Moore**, T. Moutin, G. Rocap, E. A. Webb. Glycolipid membranes relieve marine picocyanobacteria of a major requirement for phosphate. ASLO Summer 2005 Meeting abstract.
- Roache-Johnson, K. H.[^], N. Poulton, M. E. Sieracki, **L. R. Moore**. A cell-specific detection method for quantifying alkaline phosphatase activity (APA) in marine picoplankton using ELF-97 in conjunction with flow cytometry. ASLO 2005 Aquatic Sciences Meeting abstract.

Invited Talks:

- 2015 Department of Chemistry& Biomolecular Sciences, Macquarie University, Sydney
- 2015 School of Biotechnology and Biomolecular Sciences Seminar series, University of New South Wales, Sydney
- 2015 Joint Academic Microbiology Seminars (JAMS) 2015 Symposium, Sydney, New South Wales
- 2015 University of Technology, Trends In Environmental Research Seminars, Sydney
- 2015 Hawkesbury Institute for the Environment, University of Western Sydney seminar
- 2015 Dept of Plant Sciences, Australian National University seminar, Canberra, Australia
- 2014 Marine Sciences Program seminar series, University of New England
- 2011 Department of Biological Sciences graduate seminar series, USM
- 2010 Department of Applied Medical Science seminar series, USM
- 2010 USM Pinelands Conference, USM
- 2010 Bigelow Laboratory for Ocean Sciences, Maine
- 2008 Biology Seminar series, Southern Maine Community College
- 2007 ScienceCorps Summer Institute, USM
- 2007 Graduate School of Oceanography, University of Rhode Island
- 2005 Woods Hole Oceanographic Institution, Biogeochemistry seminar series
- 2005 Osher Lifelong Learning Institute class on Science at USM, Oceans
- 2004 Department of Biology, University of Massachusetts, Dartmouth
- 2003 Department of Plant and Microbial Biology, University of California, Berkeley
- 2002 Mainly Women in Science Seminar Series, Southern Maine Technical College
- 2001 Darling Marine Center Summer Seminar Series, University of Maine at Orono
- 2001 Biosciences Research Institute of Southern Maine
- 2001 PROMOLEC Symposium, Paris, FRANCE
- 2001, Parsons Laboratory Aquatic Sciences Seminar Series, MIT
- 1999
- 1999 Dept of Biology, Ecology & Evolutionary Biology Program, University of Oregon
- 1996 NASA/SeaWiFS Bio-optical Workshop, Scripps Institute of Oceanography
- 1995 Biological Oceanography Seminar Series, Woods Hole Oceanographic Institution
- 1993 *Prochlorococcus* Workshop, Station Biologique de Roscoff, FRANCE

Conference and Workshop Contributions (not listed in abstracts above):

- 2015 CMB summer course on Marine Microbial Ecology, Sydney Institute of Marine Sciences, Sydney, New South Wales, guest lecture, Isolating and culturing marine picophytoplankton such as *Prochlorococcus*

- 2008 American Society for Microbiology Annual Meeting, poster
 2008 *Prochlorococcus*Fest 2008; oral and poster presentations
 2007 Frontiers in Integrative Biology Research Interdisciplinary Workshop, Montana State University, poster
 2004 Bigelow Laboratory for Ocean Sciences, Advanced Aquatic Cytometry Workshop, Sept 14, 2004
 2004 Gordon Research Conference on Marine Microbes, Station Biologique de Roscoff, France
 2004 2004 Joint Ocean Research Conference, “Comparative Phosphorus Physiology of *Prochlorococcus* Isolates”, oral presentation
 2001 The VIIIth Cyanobacterial Workshop “A Signal Event”
 1998 The VIth Cyanobacterial Workshop “Exploring the Cyanobacterial Genome”, Asilomar Conference Center
 1997 International Symposium on Marine Cyanobacteria and related Organisms, Paris, FRANCE
 1995 Gordon Research Conference on Applied and Environmental Microbiology
 1995 Boston Bacterial Meeting, Harvard University
 1995, 1993 The Oceanography Society, Annual Meeting
 Since 1991 American Society of Limnology and Oceanography, annual meeting, oral and poster presentations

Oceanographic Cruises:

- R/V KNORR, Costa Rica Dome, Pacific (2005)
 R/V CAPE HATTERAS, Sargasso Sea (1994)
 R/V COLUMBUS ISELIN, Sargasso Sea (1993)
 R/V OCEANUS, Sargasso Sea (1991)

Grants awarded:

- 2014 Australian Department of Education, Endeavor Executive Fellowship, Macquarie University, Sydney, Australia
 2014 NSF Special Creativity Extension to “Collaborative and RUI: Next Generation Phenomics for the Tree of Life”
 2012 NSF Environmental Biology, “Collaborative and RUI: Next Generation Phenomics for the Tree of Life”
 2011 NSF Emerging Frontiers to attend AVAToL Ideas Lab Workshop, “Ecophysiological Highlighting of the Microbial Tree of Life”
 2009 NSF Biological Oceanography, “RUI: High throughput culturing and ecophysiological analyses of low light adapted *Prochlorococcus* ecotypes”
 2008 NSF Biological Oceanography, “SGER: Southern and Coastal Extent of Picophytoplankton Populations in the South Pacific”
 2008 Maine NASA EPSCoR Research Infrastructure Development, “Developing Multidisciplinary Astrobiology Research Infrastructure Through Exploration of Extreme Environments at the Intersection of Maine’s Metal Mining Past and the Gulf of Maine”, co-PI with Monroe Duboise and Karen Moulton, USM
 2008 NSF Research Opportunity Award, “High Throughput Culturing of the Marine Cyanobacterium *Prochlorococcus*, supplement to Steve Giovannoni’s NSF Microbial Observatories Grant
 2006 USM Faculty Senate Research Award, “Determining whether nitrate utilizing *Prochlorococcus* really exist”
 2005 NSF Biological Oceanography Grant, “Collaborative Research and RUI: Assessing phosphorus-status in *Prochlorococcus* through kinetics and molecular approaches in chemostats and natural populations”, co-PI with Gabrielle Rocap, U. Washington

2004	USM Faculty Senate Research Award, “Microorganisms in Anchialine Ponds”
2003	USM Research Assistance Fund for undergraduate research
2003	SENCER financial support for active teaching in BIO 105K
2002	AAAS/NSF Women's International Science Collaboration (WISC) Grant
2002	USM Faculty Senate Research Award
2001	Pilot Research Program Award, Biosciences Research Institute of Southern Maine
Fall 2000	Center for Teaching Grant, University of Southern Maine

Honors

2009	Nominated for USM Outstanding Faculty Involvement Award, Spring
2005	USM Faculty Senate Award for Excellence in Scholarship
1993-1994	Volvo/MIT Award for Environmental Research
1987	standard bearer for University of Oregon graduation ceremony
1985-1987	Starr Scholarship, University of Oregon
1985	Neurological Sciences Institute Summer Fellowship, Portland, OR

Teaching:

Biological Principles I (Bio105) – usually teach each Fall semester
 Microbiology and Microbiology Lab (now Bio281, 282; was writing intensive as Bio311, 312) – teach each Spring
 Biological Principles I Lab (Bio106)
 Microbial Ecology and Lab (Bio515, 516; cross-listed as advanced undergraduate class)
 Graduate Seminar (Bio621; cross-listed as advanced undergraduate class):
 Human Microbiome (Fall 2013)
 Global Climate Change (Fall 2009)
 Topics in Microbial Ecology (Fall 2008)
 Topics in Biological Oceanography (Fall 2005)
 Marine Microbial Ecology (Fall 2004)
 Bioinformatics (Bio499/599; cross-listed with computer science, COS470/570, and as advanced undergraduate class) – co-taught with Dr. Clare Bates Congdon, Computer Science
 Interdisciplinary Inquiry in the Sciences of the Human Body (Hon201) – in USM’s Honors Program, co-taught with Dr. George Caffentzis, Philosophy, and Dr. Elizabeth Vella, Psychology

Other University and Professional Activities:

Ad hoc reviewer for scientific journals, among them: Nature, Proceedings of National Academy of Science, International Society for Microbial Ecology Journal, Limnology and Oceanography, Applied and Environmental Microbiology, Microbiology and Molecular Biology Review (MMBR), Deep-Sea Research, Marine Ecology Progress Series, Continental Shelf Review, Journal of Phycology, Aquatic Microbial Ecology, Frontiers in Aquatic Microbiology
 Ad hoc reviewer of grant proposals for NSF, NASA, and Israel Science Foundation,
 Reviewer on NSF review panels (Office of Polar Programs, Oct 2001; Microbial Interactions and Processes Program, Mar 2008; Major Research Instrumentation/Ocean Technology, May 2011)
 Participant in a variety of science education workshops: USM Infusing Creativity in STEM Disciplines, 2014; DNA Learning Center’s Genomic Approaches in BioSciences Workshop, 2012; AACU meeting, “Next Generation STEM Learning: Investigate, Innovate, Inspire”, 2012; DOE JGI Undergraduate Research Program in Microbial Genome Annotation, 2012; USM’s Teaching for Sustainability: The Maine Watersheds Project, 2008; STEM Institute through Maine Campus Compact, summer 2006; SENCER Summer Institute team participant, 2003; DNA Learning Center’s Bioinformatics Workshop for Biology Teaching Faculty, 2002
 Serve as a mentor to undergraduate and graduate students in research, each of whom have participated by presenting posters at USM’s Thinking Matters Conference, 2004 - 2013

New Research Laboratory design committee, Chair, AY2013-2014
 USM Honors Program self-study committee, AY2013-2014
 Established Tom Knight Biology Scholarship for outstanding undergraduates in biology, 2013
 Biology Department Curriculum Review committee, 2012 - 2014
 Organized a meeting of faculty from all the USM Science Departments with Dr. Eric Gaze from Bowdoin College to discuss his new Quantitative Reasoning instrument for freshman.
 Organized USM-wide Earth Day 2013 seminar by Herb Childress on “Wicked Problems, Interdisciplinary Education, and Civic Engagement in STEM and Beyond”
 Search Committee for Microbiologist Lecturer at USM, Spring 2013
 USM College of Science, Technology and Health Governance Document committee, 2011-2013
 USM Senior Research Advisory Group, 2010-2012
 USM Research Council, 2010-2011
 Hosted Upward Bound students in my Bio311 lecture, Spring 2011, Fall 2012
 Attended USM Majors Fair at York County Community College in Wells, Spring 2011
 Search Committee for USM Student Success Center Advisors, 2009
 Served as mentor to Introductory Chemistry Lab (CHY 116) independent research projects, Spring 2010 - 2012
 Honors Faculty Council sub-committee on Director evaluation procedure, Spring 2010
 USM Faculty Senate, Math and Science representative, 2009 - 2011
 USM Radiation Safety Committee, since 2005; committee Chair 2007-2012
 Organized the operations of the Radiation Core Facility & Flow Cytometer Core Facility in the New Wing of the Science Bldg
 Attended National Collegiate Honors Council annual meeting in Denver, 2007
 Served on John Ricci Undergraduate Fellowship committee, Spring 2007
 New Faculty Orientation, faculty resource person, Fall 2006
 New Faculty Mentor, 2006-2007, 2010-2011
 Student Success Committee, 2006-2007
 Curriculum development for science courses in USM’s Honors Program, 2007
 Consulting scientist on NASA Astrobiology Science and Technology Instrument Development Program, “Development of a robotically-operated miniature cytometer for astrobiology field and flight experiments”, Lynn Rothschild, PI, pending
 Participating scientist on NSF funded project “Acquisition of a Multi-User Seagoing Cell Sorting Laboratory”, 2005, Mike Sieracki, PI
 Participant on NSF funded project, “Expanding Undergraduate Research Opportunities at the University of Southern Maine: An Undergraduate Research Center Planning Grant Proposal”, Tom Newton, PI, 2004-2006
 Participant in Maine Mathematics and Science Teaching Excellence Collaborative (MMSTEC), an NSF funded project, Dick Stebbins, PI, 2002-2005
 Invited Lecturer and participant in Advanced Aquatic Cytometry Workshop, Bigelow Laboratory for Ocean Sciences, Sept 2004
 Participated as a science advisor for MIT’s Traveling Research Environmental Xperiences (TREX 2004 and 2005) in Hawaii.
 Microbiology Lab Renovation Committee - helped with obtaining funds and planning for the renovations, designing the actual changes to the room, ordering and organizing equipment and laboratory, Spring 2003 – Fall 2005
 Participated in Ocean Genomes Workshop, Feb 20, 2004
 Graduate Coordinator for MS Program in Biology, Fall 2002 – Summer 2005
 Panelist for Science and Democracy Symposium, USM Russell Chair, Fall 2002
 Center for Teaching, Project 100, University of Southern Maine (2000-2003)
 Mentor for Girl’s E Mentoring in Science, Engineering & Technology (GEM-SET), US Department of Labor, Women’s Bureau (2001-2002)

Research Science Institute mentor for high school student research project (1999)

Student Advising in research:

Undergraduates: 15 since 2005 (7 women; 2 with disabilities; 1 from Morocco; 1 from Somalia)

Honors Thesis: co-supervised 3 (all women)

Koch, BA '12, "The Wolves of North America"

Cronin, BS '13, "More than just a pretty face: An in-depth exploration of how birds are smarter than you think"

Derby, BS '13, "The USM Dominican Republic Health Outreach Program: An Important Model of Interprofessional Education"

Graduate Thesis: supervised 6 (all women)

Roache-Johnson, MS '05, "A Cell-Specific Detection Method for Rapid Assessment of Phosphorus Stress in Marine Phytoplankton and Bacterioplankton"

Krumhardt, MS '07, "Phosphate and ATP uptake kinetics of *Prochlorococcus* MED4 grown in Phosphorus-limited chemostat cultures"

Callnan, MS '09, "Phosphorus Uptake Comparison between Marine Picoplankton"

Perry, MS '10, "Culture-dependent Physiology Studies of Bacterial Isolates at Callahan Mine"

Wright, MS '10, "Biogeographical Analysis of Picoplankton Populations across the Patagonian Shelf Break during Austral Summer"

Roache-Johnson, MS '13, "Characterization of Phycoerythrin Physiology in Low-Light Adapted *Prochlorococcus* Ecotypes"

Advisory committees for other graduate students: 11 since 2005