



WOODS HOLE OCEANOGRAPHIC INSTITUTION

Tracy John Mincer

Marine Microbiologist and Chemist
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Education:

B.S. Chemistry/Biochemistry, University of California, San Diego. Spring, 1995
Ph.D. Oceanography, Scripps Institution of Oceanography, University of California, San Diego. Advisor, Professor William H. Fenical. Degree awarded Fall 2004

Professional Experience:

Staff Research Associate I/II, University of California San Diego, Department of Biology, Laboratory of Professor Donald R. Helinski. Spring 1995 -- Fall 1998
Postdoctoral Associate/Lecturer, Massachusetts Institute of Technology. Advisor, Professor Edward F. DeLong. October, 2004-- March, 2008
Assistant/Associate Scientist, Woods Hole Oceanographic Institution, Department of Marine Chemistry and Geochemistry, June 2008 – Present

Selected Awards and Recognition:

Pre--doctoral Fellowship, Living Oceans Foundation: \$ 25,000/year fellowship (Fall 2001 – Spring 2004) covering stipend and expenses, 36 months of support
Faculty of 1000, Biology, “Exceptional,” “Must Read” or “Recommended” critical recognition for 4 peer--reviewed publications, indicated below

Professional Affiliations:

Association for the Sciences of Limnology and Oceanography (ASLO) 2012--present
American Society for Microbiology (ASM) 2014--present
American Chemical Society (ACS) 2016--present

Research Interests:

- Microbial Interactions
- Volatile Hydrocarbon Production
- Natural Products Discovery and Microbial Chemical Ecology
- Chemical ecology of microbes: chemical communication, host--microbiome interactions, and deterrence of grazing
- Applications of chemical ecology for drug--discovery and biotechnology
- Mining and bioengineering of natural microbial ‘feedstocks’ for development of therapeutic small molecules and enzymes

Patents Awarded:

1. “Marine actinomycete taxon for drug and fermentation product discovery.”
Inventors: **Mincer, T. J.**; Jensen, P. R. & Fenical, W. H.
United States Patent number: 7,144,723
Issued: December 5, 2006
2. “Salinosporamides and methods for use thereof”
Inventors: Feling, R. H., **Mincer, T. J.**; Jensen, P. R. & Fenical, W. H.
United States Patent number: 7,176,233
Issued: February 13, 2007

Patent Applications:

1. **Mincer, T. J.**, Whalen, K. E., LaPlante, K. L., Deering, R., & Rowley, D. C. "Small Molecule Growth Inhibitors of Microbial Pathogens" Filed, November 8, 2016. U.S. Provisional Patent Application No. 62/419,112
2. **Mincer, T. J.**, Whalen, K. E. "Methods and Compositions for Increasing Antibiotic Activity" Full--US Patent Filed, July 13, 2015. US Application Number 14797951. *(Recently granted and in negotiation)*

Academic Leadership:

Invited Editor, Special Issue of Marine Drugs: "Antibacterial Marine Pharmacology" • Editorial Board Member-- *Frontiers in Microbiology* • Ad Hoc Reviewer: National Science Foundation • Panelist and Proposal Reviewer for National Institutes of Health-- International Cooperative Biodiversity Group program • Reviewer: Maryland Sea Grant;; California Sea Grant • Reviewer for: *Proceedings of the National Academy of Sciences, Applied and Environmental Microbiology, Aquatic Microbial Ecology, The ISME Journal, Environmental Microbiology, Environmental Microbiology Reports, Geomicrobiology Journal, Deep Sea Research, Limnology and Oceanography, Marine Pollution Bulletin, FEMS Microbial Letters, Journal of Chemical Ecology.*

Current and Recent Major External Research Support:

- American Chemistry Council, Mincer (Co--PI with 3 other collaborators) 08/01/17--07/31/19
Plastic Marine Debris Fragmentation, Density, and Deposition
\$150,000 (funded)
- NOAA, Marine Debris Program, Mincer (PI) 08/01/17--07/31/19
Assessment of Plastic Marine Debris Export Mechanisms and Risk to Sea Scallop Fisheries of the Mid--Atlantic Bight
\$385,380 (funded)
- NIAID--NIH, R21 AI119311, Mincer (PI) 07/01/15--06/30/17
Discovery and development of RND pump inhibitors from marine microbial sources
\$159,238
- Flatley Discovery Lab, Mincer (PI) 08/25/11--06/24/16
Microbial Bioactive Natural Products from the Marine Environment
\$1,532,917
- Gordon and Betty Moore Foundation, Mincer (Co--PI with 4 other collaborators) 10/09/12--09/30/15
Infochemical Control of Microbial Interactions and Nutrient Cycling in the North Atlantic \$2,423,000
- OCE--1131415, National Science Foundation, Mincer (PI) 09/01/11--08/31/14
Microbial Supply and Demand of Methanol in the Marine Euphotic Zone
\$493,910
- OCE--1155671, National Science Foundation, Mincer (PI) 03/01/12--02/28/15
Microbial Interactions with Marine Plastic Debris: Diversity, Function and Fate
\$247,908

Peer--Reviewed Publications:

*corresponding or co--corresponding author;; †advisee in Mincer Laboratory

41. Datta, M. S., Almada, A. A., Baumgartner, M., **Mincer, T. J.**, Tarrant, A. M., Polz, M. F. "Inter--individual variability in copepod microbiomes reveals bacterial networks linked to host physiology." *Re--Submitted: The ISME Journal*, May 2017.

40. Becker, C., Hughen, K., **Mincer, T. J.**, Ossolinski, J., Weber, L., Apprill, A. "Localized impact of aquaculture effluent on coral reef water nutrients and microorganisms" *Accepted*, February 2017, Aquaculture Environmental Interactions.
39. De Tender, C., Schlundt, C., Devriese, L., Zettler, E., **Mincer, T. J.**, Amaral--Zettler, L. A., R., "A review of comparative microscopy and molecular--based methods to characterize "Plastisphere" communities" *In Press*, February 2017, Analytical Methods.
38. Lee, M. D., Walworth, N. G., McParland, E. M., Fu, F. U., **Mincer, T. J.**, Levine, N. M., Hutchins, D. A., Webb, E. A. "The Trichodesmium consortium: species--level conservation and genomic signatures of co--dependency" *The ISME Journal*, 2017, 11(8), 1813--1824. doi:10.1038/ismej.2017.49.
37. Zhao, S.[†], Danley, M., Ward, J. E., Li, D., **Mincer, T. J.*** "An approach for extraction, characterization and quantitation of microplastic in natural marine snow using Raman microscopy" Published online, October 2016, Analytical Methods, 2017, 9, 1470 -- 1478, DOI: 10.1039/C6AY02302A
36. Krupke, A., Ossolinski, J. E., Hmelo, L. R., **Mincer, T. J.**, Van Mooy, B. A. S. "Quorum sensing plays a complex role in regulating the enzyme hydrolysis activity of microbes associated with sinking particles in the ocean." *Frontiers in Microbiology*, April, 2016 3:55. doi: 10.3389/fmars.2016.00055
35. Gamal, A. E., Agarwal, V., Diethelm, S., Rahman, I., Schorn, M. A., Sneed, J. M., Louie, G. V., Whalen, K. E.[†], **Mincer, T. J.**, Noel, J. P., Paul, V. J., Moore, B. S. "Biosynthesis of coral settlement cue tetrabromopyrrole in marine bacteria by a uniquely adapted brominase--thioesterase enzyme pair" *Proceedings of the National Academy of Sciences* (2016) vol. 113 no. 14, 3797--3802, doi: 10.1073/pnas.1519695113
34. Harvey, E. L., Deering, R. W., Rowley, D. C., Johnson, M. D., **Mincer, T. J.**, Whalen, K. E.[†] "A bacterial quorum--sensing precursor induces mortality in the marine coccolithophore, *Emiliana huxleyi*" *Frontiers in Microbiology*, February 2016. doi: <http://dx.doi.org/10.3389/fmicb.2016.00059>
33. **Mincer, T. J.*** and Aicher, A. C.[†] "Methanol Production by a Broad Phylogenetic Array of Marine Phytoplankton" *PLoS ONE* (2016) 11(3):e0150820. doi:10.1371/journal.pone.0150820
32. Poulson--Ellestad, K. L.[†], Harvey, E. L., Johnson, M. D., **Mincer, T. J.*** "Exometabolomic profiling of the coccolithophore *Emiliana huxleyi* in response to grazing by the dinoflagellate *Oxyrrhis marina*" *Frontiers in Marine Science*, January 2016. doi: <http://dx.doi.org/10.3389/fmars.2016.00001>
31. **Mincer, T. J.***, Zettler, E. R. and Amaral--Zettler, L. A. "Biofilms on Plastic Debris and Their Influence on Marine Nutrient Cycling, Productivity, and Hazardous Chemical Mobility" Chapter in the *Handbook of Environmental Chemistry. Volume: Hazardous Chemicals Associated with Plastics in the Environment*. Editors: Hideshige Takada and Hrisi K. Karapanagioti. H. Takada, H.K. Karapanagioti (eds.), DOI 10.1007/698_2016_12, Springer International Publishing Switzerland 2016
30. Amaral--Zettler, L. A., Zettler, E. R., Slikas, B., Boyd, G. D.[†], Melvin, D. W.[†], Morrall, C. E., Proskurowski, G., and **Mincer, T. J.*** "The Biogeography of the Plastisphere: Implications for policy" *Frontiers in Ecology and the Environment*, volume 13 (10): 541--546 (2015). doi:10.1890/150017
29. Walworth, N., Pfreundt, U., Nelson, W. C., **Mincer, T.**, Heidelberg, J. F., Fu, F., Waterbury, J. B., del Rio, T. G., Goodwin, L., Kyrpides, N. C., Land, M. L., Woyke, T.,

- Hutchins, D. A., Hess, W. R., Webb, E. A. "Trichodesmium genome maintains abundant, widespread noncoding DNA in situ, despite oligotrophic lifestyle" Proceedings of the National Academy of Sciences, volume 112 (14), pp 4251--4256 (2015)
doi:10.1073/pnas.1422332112
28. Whalen, K. E.[†], Poulson--Ellestad, K. L.[†], Deering, R. W., Rowley, D. C., **Mincer, T. J.***
"Enhancement of antibiotic activity against multidrug resistant bacteria by the efflux pump inhibitor, 3,4--dibromopyrrole--2,5--dione, isolated from a *Pseudoaltermonas* sp." Journal of Natural Products, volume 78 (3), pp 402--412 (2015) doi: 10.1021/np500775e
 27. Schmidt V.T., Reveillaud J., Zettler E., **Mincer T. J.**, Murphy L. and Amaral--Zettler L.A.
"Oligotyping reveals community level habitat selection within the genus *Vibrio*." Frontiers in Microbiology, 5:563 (2014) doi: 10.3389/fmicb.2014.00563
 26. Apprill, A.[†], Robbins, J., Eren, A. M., Pack, A. A., Reveillaud, J., Mattila, D., Moore, M., Niemeyer, M., Moore, K. M. T., **Mincer, T. J.*** "Humpback whale populations share a core skin bacterial community: towards a health index for marine mammals?" (2014) 9(3): e90785. doi:10.1371/journal.pone.0090785, PLoS ONE.
 25. Wuchter, C., Banning, E., **Mincer, T. J.**, Drenzek, N. J., Coolen, M. J. L., "Microbial diversity and methanogenic capability of Antrim Shale formation waters from recently fractured wells." Frontiers in Microbiology, 4:367. (2014) doi: 10.3389/fmicb.2013.00367
 24. Zettler, E. R., **Mincer, T. J.***, Amaral--Zettler, L., "The unnatural history of the 'Plastisphere': Microbes on plastic marine debris." Environmental Science and Technology, Volume 47: Pages 7137--7146, June 2013.
 23. Bayer, T., Neave, M., Alsheikh--Hussain, A., Aranda, M., Yum, L., **Mincer, T. J.**, Hughen, K., Apprill, A.[†], Voolstra, C. "The microbiome of the Red Sea coral *Stylophora pistillata* is dominated by tissue--associated *Endozoicomonas* bacteria" Applied and Environmental Microbiology, Volume 79: pages 4759--4762, July 2013.
 22. Apprill, A.[†], Hughen, K., & **Mincer, T. J.** "Major similarities in the bacterial communities associated with lesioned and healthy *Fungiidae* corals." Environmental Microbiology, Volume 15: pages 2063--2072, July 2013.
 21. Cordero, O. X., Wildschutte, H., Kirkup, B., Proehl, S., Ngo, L., Hussain, F., Le Roux, F., **Mincer, T. J.**, & Polz, M. F. "Ecological Populations of Bacteria Act as Socially Cohesive Units of Antibiotic Production and Resistance." Science, Volume 337, pages 1228--1231, September 2012.
 20. Hmelo, L. R., Van Mooy, B.A.S. & **Mincer, T. J.*** "Characterization of bacterial epibionts on the cyanobacterium *Trichodesmium*." Aquatic Microbial Ecology, Volume 67, pages 1--14, July 2012.
 19. Van Mooy, B. A. S., Hmelo, L. R., Sofen, L. E., Campagna, S. R., May, A. L., Dyhrman, S. T., Heithoff, A., Webb, E. A., Momper, L. & **Mincer, T. J.** "Quorum sensing control of phosphorus acquisition in *Trichodesmium* colonies." (2012) The ISME Journal, 6, 422--429.
 18. Hmelo, L. R., **Mincer, T. J.** & Van Mooy, B.A.S. "Possible influence of bacterial quorum sensing on the hydrolysis of sinking particulate organic carbon in marine environments." (2011) Environmental Microbiology 6, 682--688.
 17. Van Mooy, B. A. S., Fredricks, H. F., Pedler, B. E., Dyhrman, S. T., Karl, D. M., Koblížek, M., Lomas, M., **Mincer, T. J.**, Moore, L. R., Moutin, T., Rappé, M. and Webb, E. A. "Phytoplankton in the oligotrophic ocean substitute phospholipids in response to phosphorus scarcity." (2009) Nature 458, 69--72. **Must Read Faculty of 1000 rating**

16. **Mincer T. J.**, Church M. J., Taylor L. T., Preston C., Karl D. M., DeLong E. F. "Quantitative distribution of presumptive archaeal and bacterial nitrifiers in Monterey Bay and the North Pacific Subtropical Gyre." (2007) *Environmental Microbiology* 9, 1162--1175.
15. Frigaard, N. U., Martinez, A., **Mincer, T. J.** & DeLong, E. F. "Proteorhodopsin lateral gene transfer between marine planktonic Bacteria and Archaea" (2006) *Nature* 439, 847--50. **Exceptional Faculty of 1000 rating**
14. Hallam, S. J., **Mincer, T. J.**, Schleper, C., Preston, C. M., Roberts, K., Richardson, P. M. & DeLong, E. F. "Environmental genomic reconstruction of potential carbon assimilation and ammonia oxidation pathways in marine Crenarchaeota" (2006) *PLoS Biology* 4, 520--536.
13. DeLong, E. F., Preston, C. M., **Mincer, T.**, Rich, V., Hallam, S. J., Frigaard, N. U., Martinez, A., Sullivan, M. B., Edwards, R., Brito, B. R., Chisholm, S. W. & Karl, D. M. "Community genomics among stratified microbial assemblages in the ocean's interior" (2006) *Science* 311, 496--503. **Recommended Faculty of 1000 rating**
12. **Mincer, T. J.**, Jensen, Paul R., & Fenical, William H. "Targeted amplification of specific actinomycete 16S ribosomal gene sequences from marine sediments using a nested PCR technique." (2005) *Applied and Environmental Microbiology* 71, 7019--28.
11. Maldonado, L. A., Fenical, W., Jensen, P. R., Kauffman, C. A., **Mincer, T. J.**, Ward, A. C., Bull, A. T. & Goodfellow, M. "Salinispora arenicola gen. nov., sp. nov. and Salinispora tropica sp. nov., obligate marine actinomycetes belonging to the family Micromonosporaceae" (2005) *International Journal of Systematic Evolution and Microbiology* 55, 1759--66.
10. Jensen, P. R., **Mincer, T. J.**, Williams, P. G. & Fenical, W. H. "Marine actinomycete diversity and natural product discovery" (2005) *Antonie Van Leeuwenhoek* 87, 43--8.
9. Jensen, P. R., Gontang, E., Mafnas, C, **Mincer, T. J.** & Fenical, W. H. "Culturable marine actinomycete diversity from tropical Pacific Ocean sediments." *Environmental Microbiology* (2005) 7, 1039--48.
8. **Mincer, T. J.**, Spycere, A., Jensen, P. R. & Fenical, W. H. "Phylogenetic and secondary metabolite analyses of marine bacteria belonging to the genus Saprospira." (2004) *Current Microbiology* 49, 300--7.
7. Jensen, P. R., **Mincer, T. J.**, Fenical, W. H. "The true potential of the marine microorganism." *Current Drug Discovery* (2003) 17--19.
6. Feling, R. H., Buchanan, G. O., **Mincer, T. J.**, Jensen, P. R. & Fenical, W. H. "Salinosporamide A, a potent proteasome inhibitor from a novel microbial source." (2003) *Angewandte Chemie, International Edition* 42, 355--7.
5. **Mincer, T. J.**, Jensen, P. R., Kauffman, C. A. & Fenical, W. H. "Widespread and persistent populations of a major new marine actinomycete taxon in ocean sediments." (2002) *Applied and Environmental Microbiology* 68, 5005--11. **Exceptional Faculty of 1000 rating**
4. Zhong, Z., Caspi, R., **Mincer, T.**, Helinski, D., Knauf, V., Boardman, K., Wilkinson, J. E., Shea, T., DeLoughery, C. & Toukdarian, A. "A 50--kb plasmid rich in mobile gene sequences isolated from a marine Micrococcus." (2002) *Plasmid* 47, 1--9.
3. Johnson, E. P., **Mincer, T.**, Schwab, H., Burgin, A. B. & Helinski, D. R. "Plasmid RK2 ParB protein: Purification and nuclease properties." (1999) *Journal of Bacteriology* 181, 6010--8.

2. Sobecky, P. A., **Mincer, T. J.**, Chang, M. C., Toukdarian, A. & Helinski, D. R. "Isolation of broad--host--range replicons from marine sediment bacteria." (1998) *Applied and Environmental Microbiology* 64, 2822--30.
1. Sobecky, P. A., **Mincer, T. J.**, Chang, M. C. & Helinski, D. R. "Plasmids isolated from marine sediment microbial communities contain replication and incompatibility regions unrelated to those of known plasmid groups." (1997) *Applied and Environmental Microbiology* 63, 888--95.

Other Publications:

- Linda Amaral--Zettler, Erik Zettler, Tracy Mincer. "Welcome to the Plastisphere: ocean--going microbes on vessels of plastic" *The Conversation* (a collaboration between editors and academics to provide informed news analysis and commentary.) Published: July 18, 2013.

This was an invited contribution to the high--quality online journal 'The Conversation' after the publication of [24]. This outreach effort was a collaborative document and received much positive online commentary by the general public and subsequent contact from policy makers.

Professional Talks and Academic Panels (Since at WHOI) (*scheduled to be performed):

- *Invited speaker, Princeton University, Princeton NJ. Environmental Geology & Geochemistry Seminar (EGGS) Lecture Series. "The Curious Path and Importance of Methanol in Geochemical Cycling." March 30, 2017.
- Invited speaker, colloquium at the NASA Goddard Space Flight Center, Greenbelt MD. "Perspectives on the 'Unnatural History' of Plastic Marine Debris." November 16, 2016
- Invited speaker, Canadian Society for Chemistry (CSC) 2016 Conference, Halifax "Taking a closer look at phytoplankton interactions with heterotrophic bacteria: Basic science complementing discovery of pharmacologically relevant metabolites." June 5--9, 2016.
- Invited speaker, Gordon Research Conference on Marine Natural Products, "Listening in on Microbial Chemical Conversations in the Phycosphere." March 6--11, 2016.
- Invited speaker, University of Minnesota. "Microbial efflux pump inhibitors from natural sources: pharmacologically important molecules with potential ecological relevance in microbial interactions." November 19, 2015.
- Invited speaker, University of Massachusetts, Dartmouth. "Life in the Phycosphere-- a Natural Products Perspective." October 28, 2015.
- Invited speaker, "Methanol Production by a Broad Phylogenetic Array of Marine Phytoplankton" Marine Microbiology Seminar Series, Rutgers University. October 26, 2015.
- Invited speaker, University of Wisconsin, Madison, School of Pharmacy seminar series, April 13, 2015. "Microbial efflux pump inhibitors from natural sources;; pharmacologically important molecules with potential ecological relevance"
- Invited speaker, University of Chicago, Department of Geology seminar series, April 10, 2015. "Oxygenated volatile organic carbon species evolved from phytoplankton: a conserved phenomenon linked to photobiology"
- ASLO, Granada, Spain, February 2015 Oral Presentation and session Organizer and Co--Chair. "Ethylene production and response in marine phytoplankton: a potential universal signal"
- Invited speaker, University of Maryland, Horn Point Laboratory Seminar Series, December 3, 2014. "Methanol production by phytoplankton: biogeochemical significance and implications for microbial interactions"

- Invited speaker, Scripps Institution of Oceanography, University of California, San Diego. Marine Ecology Seminar Series, Special Invitation by Biology Department Graduate Students. “Microbial Interactions with Plastic Marine Debris: An Unnatural History” April 23, 2014.
- Invited speaker, University of Connecticut, Marine Sciences, Avery Point, Connecticut. Spring 2014 Seminar Series. “Microbial Interactions with Plastic Marine Debris: An Unnatural History” March 28, 2014.
- ASLO 2014 Ocean Sciences Meeting, Honolulu, HI, February, 24, 2014. Oral Presentation and session Organizer and Co--Chair. “Investigation Of Microbial Adherence And Virulence Factors Associated With Open--Ocean Derived Plastic Marine Debris: *Vibrio* Bacteria as a Model System.”
- Invited speaker, Massachusetts Institute of Technology, Microbial Systems Seminar Series. “Production of Methanol by a Wide Phylogenetic Range of Phytoplankton” May 8, 2013.
- Invited speaker, William and Mary--Virginia Institute of Marine Science, Environmental Chemistry Seminar. “Microbial interactions with plastic debris in the marine water column” November 9, 2012.
- Invited speaker, University of Southern California. “Determining the supply side of methylotrophy” February 24, 2011.
- Invited speaker, University of Rhode Island, Graduate School of Oceanography, February 7, 2010. Talk Title: “Deciphering the supply side of methylotrophy”
- Invited speaker, Massachusetts Maritime Academy, April 9, 2010. Talk Title: “Marine Natural Products”
- Invited speaker, University of Rhode Island, Graduate School of Oceanography, “Marine microbial natural products discovery” December 16, 2009
- Invited speaker, University of North Carolina, Chapel Hill. “Particle Associated Microbes in the Marine Water Column: Unique Communities or Random Epibionts?” November 5, 2008.
- Invited speaker, Gordon Conference on Oceans and Human Health, June 29 -- July 4, 2008, Tilton, New Hampshire. Talk Title: “Identifying Potential Threats and Benefits to Human Health from the Ocean Using Genomic Tools”

Scientific and Community Outreach:

- Mentor of Falmouth MA Science Fair Student project, Falmouth Academy student Brianna Feldott (this student received Honorable Mention and a Special Award in the local competition and First Place and a Special Award at the regional level)
- Mentor of Falmouth MA Science Fair Student project, Falmouth High School student Catherine Stark (this student received First Place in the local and Second Place in the regional competitions as well as First Place at the Massachusetts State Science and Engineering Fair).
- Student Spaceflight Experiments Program: sponsor of project by students from Montachusett Technical High School, Montachusett MA. This project titled “Effect of *Arthrobacter* on polyethylene decomposition rate in microgravity” successfully sent to the International Space Station on the first SpaceX Dragon Mission October 28, 2012.

Supervision at WHOI:

Staff Supervisor:

- Misty Miller, Research Assistant II, full--time October 2009 – April 2010 (Currently a Nurse Practitioner)
- Kristen Rathjen, Research Assistant III/ Associate II, full--time November 2011--July 2014 (Currently part--time technical staff at WHOI)
- Athena Aicher, Research Assistant I/II, full--time March 2012--March 2015 (Currently enrolled at the International Yacht Restoration School)

- Hilary Ranson, Research Assistant I/II, January 2013--May 2013 Part--time – Full time May 2013-- May 2015 (Currently a Ph.D. candidate at University of Rhode Island)
- Dr. Kristen Whalen, Research Associate III, November 2012– Present – Full time (Recently accepted a faculty position at Haverford College, PA, School of Biology)
- Catherine Stark, Part--time lab helper, June--August 2013 (Recently graduated from Yale and pursuing post--graduate studies in biochemistry at U.C. Berkeley)
- Alex Flynn--Carroll, Research Assistant II, July 2015--present– Full time

Academic Advising:

- Shiye Zhao, Guest Student, Ph. D. candidate, East China Normal Univ. Shanghai, China, September 2014—present
- Dr. William Orsi, Guest Investigator, University of Maryland, Horn Point, September 2014-- December 2015 (Currently faculty at University of Munich, Germany)
- Elena Perry, WHOI Summer Student Fellow – Summer 2014 (Currently a Ph.D. candidate at CalTech)
- Dr. Kelsey Poulson--Ellestad, Postdoctoral Researcher, June 2013—June 2015 (Dr. Poulson--Ellestad is currently Faculty in the Biochemistry Department at Roosevelt University, Chicago, IL)
- Vincent Guzzetta, WHOI Summer Student Fellow, May--August 2013. (currently technical staff in a biomedical laboratory at University of Chicago)
- Athena Aicher, Guest Student, June--July 2011
- Dr. Emelia DeForce, Guest Investigator, July 2011 (Currently a group leader in the biotechnology sector)
- Alex Flynn--Carroll, Undergraduate Guest Student, May--August 2011 (Currently a technician in my laboratory)
- Dr. John LaFleur, M.D. – University of Massachusetts MD/PhD candidate Guest Student, September 2009--January 2011 (Currently practicing General Medicine)
- Tanner Miller, WHOI Winter Undergraduate Fellow, January 2010—and, WHOI Summer Undergraduate Fellow May--August, 2010 (Currently an MD practicing Internal Medicine)
- Paige Roberts, WHOI Summer Guest Student, May--August 2010 (Currently technical staff in a biotechnology laboratory at U.C. Santa Barbara)
- Emmanuel Vázquez, WHOI Summer Guest Student, January – April 2010 (Currently a Ph.D. candidate at University of Wisconsin, School of Pharmacy)
- Dr. Amy Apprill – WHOI Postdoctoral Scholar Fellow, September 2009--December 2011 (Dr. Apprill is now a member of the WHOI Marine Chemistry and Geochemistry Scientific Staff)
- Rose Kantor – WHOI Summer Student Fellow – Summer 2009 (Currently a Ph.D. candidate at U.C. Berkeley, Dept. of Plant and Microbial Biology)

Professional Activities:

WHOI (Non Education Related):

Marine Chemistry and Geochemistry Safety Committee 2011--present

Reviewer: Ocean Life Institute Grant Proposal Panel, 2012

Outside WHOI (Other than Attendance at Society/National Meetings):

- VII Nicaraguan Biotechnology Conference Marine Biodiversity and Genomics in Central America May 8 & 9, 2014 Talk title: “A Natural History Approach to Natural Products: Microbial Chemical Ecology Aiding Drug--Discovery”— Invited presenter and special Advisory Panel Participant May 10, 2014.
- Panelist/Reviewer, NIH--International Cooperative Biodiversity Group Study Section, April 2014, Chevy Chase, MD.

Participation in Education:

Teaching:

- Invited Lecturer: Johnson and Wales University, Providence RI, March 28, 2016. “The Importance of Oceanography, Chemistry and Microbiology in the Quality of Seafood.” Two, three hour lectures to faculty chefs, food scientists, and students at one of the premier culinary schools in the United States.
- Invited organizer and Instructor: NSF--PEER Nicaraguan Biotechnology Marine Biodiversity and Genomics Workshop Organizer August 17--23, 2014. Five--day lecture and workshop on cultivation of diverse microbes, merging biotechnology and chemical ecology.
- Guest Lecturer: MIT/WHOI Marine Organic Chemistry, April 11, 2013, “Marine Toxins and Natural Products”
- Invited Lecturer: Massachusetts Maritime Academy, April 9, 2010. “Marine Natural Products”
- Co--Instructor: MIT/WHOI 7.439: Topics in Marine Microbiology, Fall 2009, Functional Analyses of Microbial Communities: Insights into Activities, Pathways, and Interactions
- Guest Lecturer: MIT/WHOI Marine Organic Chemistry, 4--23--09, “Marine Toxins and Natural Products”
- MIT 1.018/7.30J Fall 2007, Lead Teaching Assistant and alternate Instructor, Ecology I – The Earth System

Education and Academic Service:

- WHOI MC&G Postdoctoral Fellowship Committee Representative 2014--2015
- MIT--WHOI Joint Program Ph. D. Thesis Committee Member (6 total): Oscar Sosa (2012--2016), Amalia Aruda (2011--2015), Kathleen Munson (2010--2014), Laura Hmelo (2008--2010), Kristen Pangallo, (2008--2010), Annette Hynes (2008--2009)
- MIT--WHOI Joint Program Ph. D. Thesis Defense Chair (2 total): Jessie Kneeland (2011), Adam Rivers (2009)
- MIT--WHOI Joint Program Marine Chemistry and Geochemistry Student Faculty Mentor, 2010--2011
- WHOI Summer Undergraduate Fellow Department Coordinator – 2010--2012
- MIT--WHOI Joint Program JCCO General Exam Coordinator, 2010--2011
- MIT--WHOI Joint Program first year student JCCO Advisor, 2010
- Marine Chemistry and Geochemistry Summer Student Fellow Representative, 2010--2013
- MIT--WHOI Joint Program Student Generals Paper Reviewer for 4 Ph. D. candidate students

Cruise and Field Participation:

R/V Alpha Helix, Bering Sea, AK, September – October 1999, 27 days

R/V Seward Johnson, Bahamas, July, 2000, 14 days

R/V Seward Johnson, Bahamas, July, 2001, 14 days

R/V Seward Johnson, Bahamas, July, 2002, 14 days

M/Y Golden Shadow, Sea of Cortez, Mexico, March – April 2000, 21 days

M/Y Golden Shadow, US Virgin Islands, January 2001, 14 days

R/V Kilo Moana, Hawaii, USA, HOT--179 cruise, March, 2006, 5 days

R/V Clifford Barnes, Co--Chief Scientist, cruise number 2009--043, June, 2009;; Clayoquot Sound, Vancouver B.C., 10 days

R/V Kilo Moana, Co--Chief Scientist, July, 2010;; Station ALOHA (KM 10--13)

R/V Knorr, April, 2012, Woods Hole MA to Bermuda (KN207--01), 14 days

Summer, 2013: Weekly sampling of Great Sippewissett Salt Marsh, Falmouth MA

Fall, 2014: Monthly sampling of Quissett Beach, Falmouth MA

Summer, 2015: Weekly sampling of Great Sippewissett Salt Marsh, Falmouth MA

Published Presentation Abstracts (since 2010) (*Presenter, *Advisee in Mincer Laboratory):

Harvey, E. L.;; Poulson--Ellestad, K.*;; **Mincer, T.**;; Van Mooy, B.;; Bidle, K. D.;; Johnson, M.;; "The Combined Influence of Morphology and Chemistry in Mediating Heterotrophic Protist Grazing Interactions" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Zettler, E. R.;; **Mincer, T. J.**;; Slikas, B.;; Boyd, G. *;; Melvin, W. *;; Fields, J.;; Saleem, K.;; Dooley, K.;; Amaral--Zettler, L. A.;; "Microbe--Microbe, Microbe--Animal Interactions in the Plastisphere" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Taylor, S.;; Cramer, K.;; Dooley, K.;; Lourie, W. *;; **Mincer, T. J.**;; Amaral--Zettler, L. A.;; Zettler, E. R.;; "Short--Term Microbial Community Assembly on Plastic Marine Debris: Evidence from Experimental Colonization Studies in the Waters of Woods Hole, MA, USA" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Poulson--Ellestad, K. L. *;; Harvey, E. L.;; Ranson, H. J. *;; Johnson, M. D.;; **Mincer, T. J.**;; "Listening in on Coccolithophore--Grazer Interactions" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Ranson, H. J. *;; Poulson--Ellestad, K. *;; **Mincer, T. J.**;; "Production of Sialic Acids by Diatoms and their Associated Bacteria: Implications for Diatom--Bacteria Interactions" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Mincer, T. J.*;; Poulson--Ellestad, K. L. *;; Ranson, H. J. *;; "Ethylene Production and Response in Marine Phytoplankton: a Potential Universal Signal" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Van Mooy, B. A.;; Bidle, K. D.;; Dyhrman, S. T.;; Johnson, M. D.;; **Mincer, T. J.**;; Vardi, A.;; "Connections Between Infochemical Communication and Upper Ocean Elemental Import and Export" Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, Grenada, Spain, February 2015.

Mincer, T. J.*, Johnson, M. D., Flynn--Carroll, A. *, Sharma, R. S., Wildschutte, H., Polz, M. "Indole as a Mediator of Protozoan Grazing of Bacteria: A New Role for a Multifaceted Infochemical" 2014 American Society for Microbiology, Boston, MA, May 17--20, 2014.

Whalen, K. E. *, Ranson, H. J. *, **Mincer, T. J.** "Identification of Novel Small Molecules Secreted by Marine Bacteria with Bactericidal Activity against Multidrug--Resistant Gram--Negative Pathogens" 2014 American Society for Microbiology, Boston, MA, May 17--20, 2014.

Ranson, H. J. *, Rathjen, K. *, Poulson--Ellestad, K. *, **Mincer, T. J.** "Optimization of Marine--Derived Microbial Crude Extract Production for Natural Product Discovery" 2014 American Society for Microbiology, Boston, MA, May 17--20, 2014.

Aicher, A. C. *, **Mincer, T. J.** "Volatile Organic Molecule Production by Cyanobacteria and Eukaryotic Phytoplankton" 2014 American Society for Microbiology, Boston, MA, May 17--20, 2014.

Poulson--Ellestad, K. L. [†], Harvey, E. L., Rathjen, K. [†], Johnson, M. D., **Mincer, T. J.** "Sound the Alarm: Listening in on Predator--Prey Interactions among Marine Protists" 2014 American Society for Microbiology, Boston, MA, May 17--20, 2014.

Aruda--Almada, A., Baumgartner, M., **Mincer, T. J.**, Tarrant, A. "Impacts of Copepod Host Physiology on Its Associated Microbial Communities" 2014 American Society for Microbiology, Boston, MA, May 17--20, 2014.

Mincer, T. J.^{*}, Guzzetta, V. [†], Slikas, B., Zettler, E. R., Amaral--Zettler, L. A. Investigation of Microbial Adherence and Virulence Factors Associated With Open--Ocean Derived Plastic Marine Debris: *Vibrio* Bacteria As A Model System. ASLO 2014 Ocean Sciences Meeting, Honolulu, HI, February, 24, 2014. ^{*}Oral Presentation and session Organizer and Co--Chair.

Mincer, T. J.^{*} "Production of Methanol by Phytoplankton: Implications for Epibiont Interactions" ASLO 2013 Aquatic Sciences Meeting, New Orleans, LA, February, 20, 2013. ^{*}Oral Presentation.

Zettler, E. R., **Mincer, T. J.**, Proskurowski, G., Amaral--Zettler, L. A. The "Plastisphere": A new and expanding habitat for marine protists. 56th meeting of the Phycological Society of America. July 12--16, 2011.

Apprill, A. [†], Robbins, J. **Mincer, T. J.**, Pack, A. A., Mattila, D. K. Specificity of the humpback whale microbiome across geographically distinct populations. 19th Biennial Conference on the Biology of Marine Mammals. Tampa, FL. Nov. 28 -- Dec. 2, 2011.

Apprill A. [†], Huguen K., **Mincer T. J.** Bacterial communities associated with healthy and lesioned corals in comparison to reef water biogeochemistry. ASLO Meeting, February 14 -- 18, 2011, San Juan, Puerto Rico.

Proskurowski, G., **Mincer, T. J.**, Amaral--Zettler, L. A., Zettler, E. R., DeForce, E. [†], Aicher, A. [†], Moret--Ferguson, S., Lavender--Law, K. "Microbial Biofouling of Plastic Marine Debris." Fifth International Marine Debris Conference, March 20--25, 2011. Honolulu, Hawaii. ^{*}Oral presentation

K. M. Munson, C. H. Lamborg, **T. J. Mincer**, M. H. Bothner, J. S. Harkness. "The Importance of Biological Demethylation of Mercury Cycling in a Coastal Pond." Aquatic Sciences Meeting of the American Society of Limnology and Oceanography, San Juan, Puerto Rico, February 2011.

Apprill A. [†], Miller T., Huguen K., **Mincer T. J.** Quantification of SSU rRNA gene copies from Archaea, Bacteria and Eukarya in mixed templates of nucleic acids from marine environments. Marine Microbes Gordon Research Conference, July 4 -- 9, 2010, Tilton, NH.