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EDUCATION

Ph.D. Civil & Environmental Engineering, Massachusetts Institute of Technology, 2008

Advisor: Sallie W. Chisholm

B.A. Environmental & Evolutionary Biology *summa cum laude*, Dartmouth College, 2002

POSITIONS HELD

Assistant Professor, Dept. Geophysical Sciences, Univ. of Chicago, 2012-present

Agouron Postdoctoral Fellow, MIT & Caltech, 2009-2011

Advisor: Dianne K. Newman

HONORS AND AWARDS

Sloan Research Fellow in Ocean Sciences, 2014

Best Paper Award (Welander, Coleman et al. 2010 *PNAS*), Organic Geochemistry Division, The Geochemical Society

Agouron Geobiology Postdoctoral Fellowship, 2008

Best Poster Award, Metagenomics 2007, San Diego, CA

SELECTED PUBLICATIONS

Howe A, Ringus DL, Moormann S, Owens S, **Coleman ML**, Meyer F, Chang EB. Divergent responses of viral and bacterial communities in the gut microbiome to dietary perturbations in mice. *In review*.

Gibbons SM, Gilbert JA, **Coleman ML**. Multidimensional disturbance regimes support the intermediate disturbance hypothesis. *In review*.

Weitz JS, Stock CA, Wilhelm SW, Bourouiba L, Buchan A, **Coleman ML**, Follows MJ, Fuhrman JA, Jover LF, Lennon J, Middelboe M, Sonderegger DL, Suttle CA, Taylor BP, Thingstad TF, Wilson WH, Wommack KE. A multitrophic model to quantify the effects of marine viruses on microbial food webs and ecosystem processes. *ISME J*.

Gibbons SM, Jones E, Bearquiver A, Blackwolf F, Roundstone W, Scott N, Hooker J, Madsen R, **Coleman ML**, and Gilbert JA. 2014. Human and environmental impacts on Tongue River sediment microbial communities. *PLoS One* 9(5): e97435. doi:10.1371/journal.pone.0097435

Ricci JN, **Coleman ML**, Welander PV, Sessions AL, Summons RE, Spear JR, and Newman DK. 2014. Diverse capacity for 2-methylhopanoid production correlates with a specific ecological niche. *ISME Journal* 8:675-684. doi: 10.1038/ismej.2013.191

Waldbauer JR, Rodrigue S, **Coleman ML**, and Chisholm SW. 2012. Transcriptome and proteome dynamics of a light-dark synchronized bacterial cell cycle. *PLoS One* 7(8): e43432. doi:10.1371/journal.pone.0043432

Coleman ML and SW Chisholm. 2010. Ecosystem-specific selection pressures revealed through comparative population genomics. *Proc Natl Acad Sci*, 107:18634-18639.

Welander PV*, **Coleman ML***, Sessions AL, Summons RE, Newman DK. 2010. Identification of a methylase required for 2-methylhopanoid production and implications for the interpretation of sedimentary hopanes. *Proc Natl Acad Sci* 107:8537-8542. (*contributed equally)

Zinser ER, Lindell D, Johnson ZI, Futschik ME, Steglich C, **Coleman ML**, Wright MA, Rector T, Steen R, McNulty N, Thompson LR, Chisholm SW. 2009. Choreography of the transcriptome, photophysiology, and cell cycle of a minimal photoautotroph, *Prochlorococcus*. *PLoS ONE* 4(4): e5135. doi:10.1371/journal.pone.0005135

Sullivan MB, **Coleman ML**, Quinlivan V, Rosenkrantz JE, Tan G, Lee JA, Waterbury JB, Bielawski JP, Chisholm SW. 2008. Portal protein diversity and phage ecology. *Environ. Microbiol.* 10:2810-2823.

- Frias-Lopez J, Shi Y, Tyson GW, **Coleman ML**, Schuster SC, Chisholm SW, DeLong EF. 2008. Microbial community gene expression in ocean surface waters. *Proc. Natl. Acad. Sci.* 105:3805-3810.
- Kettler G, Martiny AC, Huang K, Zucker J, **Coleman ML**, Rodrigue S, Chen F, Ferriera S, Johnson J, Lapidus A, Church GM, Chisholm SW. 2007. Patterns and implications of gene gain and loss during the evolution of *Prochlorococcus*. *PLoS Genetics* 3(12):e231.
- Lindell D, Jaffe JD, **Coleman ML**, Futschik ME, Axmann IM, Rector T, Kettler G, Sullivan MB, Steen R, Hess WR, Church GM, and Chisholm SW. 2007. Genome-wide expression dynamics of a marine virus and its host reveal features of co-evolution. *Nature* 449:83-86.
- Coleman ML** and SW Chisholm. 2007. Code and context: *Prochlorococcus* as a model for cross-scale biology. *Trends Microbiol.* 15:398-407.
- Martiny AC*, **Coleman ML***, Chisholm SW. 2006. Phosphate acquisition genes in *Prochlorococcus* ecotypes: evidence for genome-wide adaptation. *Proc. Natl. Acad. Sci.* 103:12552-12557. (*contributed equally)
- Coleman ML**, Sullivan MB, Martiny AC, Steglich C, Barry KL, DeLong E, Chisholm SW. 2006. Genomic islands and the ecology and evolution of *Prochlorococcus*. *Science* 311:1768-1770.
- Sullivan MB, **Coleman ML**, Weigle P, Rohwer F, Chisholm SW. 2005. Three *Prochlorococcus* cyanophage genomes: signature features and ecological interpretation. *PLoS Biol.* 3(5):e144.
- Rocap G, Larimer FW, Lamerdin J, Malfatti S, Chain P, Ahlgren NA, Arellano A, **Coleman M**, Hauser L, Hess WR, Johnson ZI, Land M, Lindell D, Post AF, Regala W, Shah M, Shaw SL, Steglich C, Sullivan MB, Ting CS, Tolonen A, Webb EA, Zinser ER, Chisholm SW. 2003. Genome divergence in two *Prochlorococcus* ecotypes reflects oceanic niche differentiation. *Nature* 424:1024-7.

BOOK CHAPTERS

- Newman DK and Coleman ML. Molecular methods in geomicrobiology. In: Ehrlich HL, Newman DK, Gorby YA, eds. *Geomicrobiology*. 6th edition. Boca Raton, FL: CRC Press/Taylor & Francis Group, 2015: pp. TBD.

SYNERGISTIC ACTIVITIES

- Session Co-Organizer, Joint Aquatic Sciences Meeting 2014, "Life at Low Nutrients", Portland, OR
Working Group: Ocean Viral Dynamics, National Institute for Mathematical and Biological Synthesis (NIMBioS), 2012-2014
- Session Co-Organizer, International Association of Great Lakes Research 2013, "Large Lake Microbial Ecology," Lafayette, IN
- Steering Committee and Lecturer, "Environmental Virology: A Workshop on Experimental Methods, Informatic Tools, and Theory," January 2013, Tucson, AZ
- Session Co-Organizer, Ocean Sciences 2012, "Biodiversity, Biogeochemistry and Ecology: Establishing Linkages Between Molecular Diversity and Ecosystem Functioning," Salt Lake City
- Panelist: NASA Exobiology, NSF Biological Oceanography
- Reviewer for *PNAS*, *Environmental Microbiology*, *The ISME Journal*, *BMC Genomics*, *Molecular Ecology*, *Frontiers in Microbiology*, *FEMS Microbiology Ecology*
- Ad-hoc reviewer for NSF Biological & Chemical Oceanography, Geobiology, Dimensions of Biodiversity

PROFESSIONAL MEMBERSHIPS

- American Society for Limnology and Oceanography, International Society for Microbial Ecology, American Society for Microbiology