

CURRICULUM VITAE

Education:

Bachelors of Arts in Biology with Minor in Music, Boston University, 1996-1999.

Masters of Arts in Marine Biology, Boston University Marine Program in Woods Hole, 1999-2002.

Ph.D. Candidate, Dept. of Marine Sciences, University of NC in Chapel Hill, 2002 – present.

Research Interests:

Microbial ecology, biogeochemistry, geomicrobiology, ecosystem ecology, molecular biology, microbiology, biocomplexity; controls on structure and metabolism of marine microbial communities, microbial nutrient and energy cycling, methanogenesis, acetogenesis, chemosynthesis, deep sea sediments and oceanic crustal habitats.

Publications:

Novak M, Lever M, Valiela I (2001) Top-down vs. bottom-up controls of microphytobenthic standing crop: role of mud snails and nitrogen supply in the littoral of Waquoit Bay estuaries. *Biol Bull* 201:292-294.

Lever MA (2002) Controls of microphytobenthic biomass in Waquoit Bay, MA: the importance of nutrients, grazers and seasonality, Masters thesis, Boston University Marine Program, Woods Hole.

Lever MA, Valiela I (2005) Response of microphytobenthic biomass to experimental nutrient enrichment and grazer exclusion at different land-derived nitrogen loads. *Mar Ecol Prog* 294:117-129.

Dhillon A, Lever M, Lloyd K, Sogin ML, Teske A (2005) Methanogen diversity evidenced by molecular characterization of methyl coenzyme M reductase A (*mcrA*) genes in hydrothermal sediments of the Guaymas Basin. *Appl Environ Microbiol* 71:4592-4601.

Fisher AT, Urabe T, Klaus A and the Expedition 301 Scientists (2005) The hydrogeologic architecture of basaltic oceanic crust: compartmentalization, anisotropy, microbiology, and crustal-scale properties on the eastern flank. *Proc IODP* 301.

Biddle JF, Lipp JS, Lever MA, Lloyd K, Sørensen K, Anderson R, Fredricks HF, Elvert M, Kelly TJ, Schrag DP, Sogin ML, Brenchley JE, Teske A, House CH, Hinrichs K-U (2006) Novel heterotrophic Archaea dominate sedimentary subsurface ecosystems off Peru. *Proc Natl Acad Sci USA* 103:3846-3851.

Inagaki F, Nunoura T, Nakagawa S, Teske A, Lever M, Lauer A, Suzuki M, Takai K, Delwiche M, Colwell FS, Nealson KH, Horikoshi K, D'Hondt SL, Jørgensen BB (2006) Biogeographical distribution and diversity of microbes in methane hydrate-bearing deep marine sediments, on the Pacific Ocean Margin. *Proc Nat Acad Sci, USA* 103:2815-2820.

Lever MA, Alperin MJ, Engelen B, Inagaki F, Nakagawa S, Steinsbu B, Teske A (2006) Trends in basalt and sediment core contamination during IODP Expedition 301. *Geomicrobiol J* 23:517-530.

Nakagawa S, Inagaki F, Suzuki Y, Steinsbu BO, Lever MA, Takai K, Engelen B, Sako

- Y, Wheat CG, Horikoshi K (2006) Microbial community in black rust exposed to hot ridge flank crustal fluids 72:6789-6799.
- Engelen B, Zieglmüller K, Wolf L, Köpke B, Gittel A, Treude T, Nakagawa S, Inagaki F, Lever MA, Steinsbu BO, Cypionka H. Fluids from the ocean crust support microbial activities within deep biosphere. *Geomicrobiol J*, in press.
- Lever MA, Heuer V, Morono Y, Masui N, Inagaki F, Hinrichs K-U, Teske A. Isotopic and molecular evidence for autotrophic acetogenesis at IODP Site 1301, in prep.
- Lever MA, Heuer V, Morono Y, Masui N, Hinrichs K-U, Teske A, Inagaki F. Ubiquitous distribution of methanogens and anaerobic methanotrophs in subseafloor sediments and basalts of IODP Site 1301, in prep.
- Blair J, Lever MA, Teske A. High diversity of Planktomycetes in surface sediments of the Chilean shelf: molecular evidence for anaerobic ammonia oxidation, in prep.

Abstracts:

- Lever MA, Teske A (2005) Deep marine subsurface microbial communities of the Peru Trench: sulfate reducers, methanogens, and unknowns. *Astrobiol* 5:259 (Biennial Meeting of NASA Astrobiology Institute, Boulder, CO, April 10-14, 2005, Poster, Abstract #558)
- Lever MA, Teske A (2006) Trends in basalt and sediment core contamination during IODP Expedition 301 (NASA Astrobiology Science Conference, Washington, DC, March 26-31, 2006, Oral presentation, Abstract #95)
- Lever MA, Teske A (2007) Vertical distribution of methanogens, methanotrophs, and active Archaea in deep subsurface sediments of the Peru Trench as evaluated from functional genes (*mcrA*) and 16S rRNA profiles (Aquatic Sciences Meeting of American Society of Limnology and Oceanography, Santa Fe, NM, February 4-9, 2007, Oral Presentation, Abstract #5407)
- Lever MA, Inagaki F (2007) Vertical distribution of methane-producing Archaea in sediment and underlying basalt of the Juan de Fuca Ridge Flank. NSF-East Asia and Pacific Summer Institute Japan 2007 Project, poster presentation.
- Lever MA, Alperin MJ, Teske (2007) Life at the thermodynamic limit: the methanogen and methanotroph community of the Peru Trench. International workshop on minimum energy requirements of life, Aarhus, Denmark, October 21-24, 2007. Poster presentation.

Awards:

- Sounds Conservancy Grant, Quebec-Labrador Foundation, 2001, \$1,000.
- NSF Scholarship for participation in Microbial Diversity at Marine Biological Laboratory, Woods Hole, MA, 2002, \$2,000.
- IODP Expedition 301 Post-cruise Funding, U.S. Science Support Program, 2004, \$23,663.
- Schlanger Ocean Drilling Fellowship, IODP, U.S. Science Support Program, 2006-2007, \$28,000.
- NSF-East Asia and Pacific Summer Institute fellowship, 2007.
- University of North Carolina at Chapel Hill – Dissertation Completion Fellowship, August 2007 – May 2008, \$13,000.

Teaching experience:

- Mentor of Research Experience for Undergraduates summer student Melissa Novak, Woods

Hole, 2001.

Teaching assistant for Marine Ecology course at UNC, Chapel Hill, 2003.

Mentor of German visiting students Daniela Kalhöffer and Laura Wehrmann (ICBM, Oldenburg Germany) on summer project in Chapel Hill, NC, June-August 2005.

Mentor of Justin Blair on undergraduate research project, UNC Chapel Hill (May 2006 – present).

Mentor of Duke Cheston on undergraduate research project, UNC Chapel Hill (May-August, 2007).

International experience:

Participation in Integrated Ocean Drilling Program Expedition 301 to the Juan de Fuca Ridge flanks in June-August, 2004.

Participation in NSF/OCE/ODP-cruise “Life in subseafloor sediments of the South Pacific Gyre”, December 16, 2006 – January 27, 2007.

Participation in NSF-East Asia and Pacific Summer Institute at JAMSTEC working with Fumio Inagaki in Kochi, Japan, 2007.

Participation in Benguela Upwelling Area Cruise on RV Meteor, April 13-May 14, 2008.

Further professional activities:

CEO of Ctrl+Alt+Del, LLC (January, 2006-August, 2007), which organizes and coordinates ‘Signal – The Southeast Electronic Music Festival’ (www.signalfest.com).

DJ, tuba and synthesizer performer, event organizer and promoter of electronic music events.