

## Melody R. Lindsay, Ph.D. - Curriculum Vitae

### Research Scientist

Address: Bigelow Laboratory for Ocean Sciences, East Boothbay, ME 04544

Phone: 808.389.5636 Email: [mlindsay@bigelow.org](mailto:mlindsay@bigelow.org) [Google Scholar](#)

**Research Interests:** My research interests in **geomicrobiology** are focused on the metabolic potential and contributions of microbial communities to biogeochemical cycles. I use novel, state of the art techniques to generate and analyze genomic and phenomic information of microbial community diversity and function within an evolutionary framework, integrated with geochemical and physical aspects in "extreme" environments. My ongoing funded research aims to quantify respiration of single cells in the **deep biosphere** (including sediment-hosted ecosystems), detect **microbial activity**, and reveal **genomic information**. I apply my methods and findings to **astrobiology** to better understand how life on Earth functions, and how life might function on other ocean worlds.

**Keywords:** geomicrobiology, astrobiology, genetic potential, deep biosphere, anaerobic microbiology, chemosynthetic metabolisms, single cell genomics, active respiration, biogeochemical cycling

### Professional Experience:

2023 – current	<b>Research Scientist</b> , Bigelow Laboratory for Ocean Sciences
2019 – 2022	<i>Postdoctoral Scientist</i> , Bigelow Laboratory for Ocean Sciences Advisors: Dr. Beth Orcutt & Dr. David Emerson
2013 – 2019	<i>NASA Earth and Space Science Fellow &amp; Graduate Research/Teaching Assistant</i> Montana State University Advisor: Dr. Eric S. Boyd
2011 – 2013	<i>Undergraduate Researcher</i> , Princeton University Advisor: Dr. Tullis C. Onstott
2010	<i>REU</i> , NASA Astrobiology Institute at the University of Hawaii
2009 – 2010	<i>Undergraduate Researcher</i> , Princeton University/Bermuda Institute of Ocean Sciences

### Education:

2013 – 2019	Ph.D., Microbiology, Montana State University, Bozeman, MT <i>Thesis:</i> "Geomicrobiology of Hydrogen in Yellowstone Hot Springs"
2009 – 2013	A.B., Ecology and Evolutionary Biology; Certificate in Musical Performance; Princeton University, Princeton, NJ <i>Thesis:</i> "The Microbes of Moria: Characterization of active microbial members in the subsurface environment of the Witwatersrand Basin"

### Peer-Reviewed Publications:

#### Submitted/In Review:

- (25) **M.R. Lindsay\***, T. D'Angelo, E. Goodell\*\*, J.H. Munson-McGee, M. Herring\*\*, M. Budner\*\*, J.M. Brown, G. Gavelis, C. Mascena, L.C. Lubelczyk, N.J. Poulton, R. Stepanauskas, B.N. Orcutt, D. Emerson. Laminarin stimulates single cell rates of sulfate reduction while oxygen inhibits transcriptomic activity in coastal marine sediment. *In Review at the ISME Journal*. \*Corresponding Author. \*\*Mentored undergraduate student.
- (24) M. Sinnesael, B.Th. Karatsolis, P.N. Pearson, A. Biais, S.R. Hemming, L.J. LeVay, Y. Cui, A. Di Chiara, J.P. Dodd, T. Dunkley Jones, D. Dwyer, D.E. Eason, S.A. Friedman, K. Hochmuth, H.E. Ibrahim, C. Jasper, S. Lee, D.E. LeBlanc, **M.R. Lindsay**, D.D. McNamara, S.E. Modestou, B.J. Murton, S. O'Connell, G. Pasquet,

- S.-P. Qian, Y. Rosenthal, S. Satolli, T. Suzuki, T. Thulasi, B.S. Wade, N.J. White, T. Wu, A.Y. Yang, R.E. Parnell-Turner. Rapid intensification of North Atlantic Deep Water 3.6 million years ago. *In Review at Nature*.
- (23) K.M. Fecteau, K.M. Weeks, R.V. Debes II, T.J. Barnes, K.J. Robinson, J.J. Nye, **M.R. Lindsay**, E.S. Boyd, E.L. Shock. Photoautotrophy by the purple non-sulfur bacterium *Rhodopila globiformis* in an acidic, moderately sulfidic warm spring. *In Review at Environmental Microbiology*.
- In Press/Published:*
22. **M.R. Lindsay\***, T. D'Angelo, J.H. Munson-McGee, A. Saidi-Mehrabad, M. Devlin, J. McGonigle, E. Goodell\*\*, M. Herring\*\*, L. Lubelczyk, C. Mascena, J. Brown, G. Gavelis, J. Liu, D.J. Yousavich, S.D. Hamilton-Brehm, B.P. Hedlund, S. Lang, T. Treude, N.J. Poulton, R. Stepanauskas, D.P. Moser, D. Emerson, B.N. Orcutt. Species-resolved, single-cell respiration rates reveal dominance of sulfate reduction in a deep continental subsurface ecosystem. (2024) *PNAS*. <https://www.pnas.org/doi/10.1073/pnas.2309636121>. \*Corresponding Author. \*\*Mentored undergraduate student.
21. K. Sims, C.M. Messa, S. Scott, A. Parsekian, A. Miller, A.L. Role, T.Pw. Moloney, E.L. Shock, J.B. Lowenstern, R.B. McCleskey, M. Charette, B.J. Carr, S. Pasquet, H. Heasler, C. Jaworowski, W.S. Holbrook, **M.R. Lindsay**, D.R. Colman, E.S. Boyd. The dynamic influence of subsurface geological processes on the assembly and diversification of thermophilic microbial communities in continental hydrothermal systems. (2023) *Geochimica et Cosmochimica Acta*. <https://www.sciencedirect.com/science/article/pii/S0016703723004957>
20. T. D'Angelo, J. Goordial, **M.R. Lindsay**, J. McGonigle, A. Booker, D. Moser, R. Stepanauskas, B.N. Orcutt. Replicated life-history patterns and subsurface origins of the bacterial sister-phyla Nitrospirota and Nitrospinota. (2023) *The ISME Journal*. <https://www.nature.com/articles/s41396-023-01397-x>.
19. J.H. Munson-McGee\*, **M.R. Lindsay\***, E. Sintes, J.M. Brown, T. D'Angelo, J. Brown, L.C. Lubelczyk, P. Tomko, D. Emerson, B.N. Orcutt, N.J. Poulton, G.J. Herndl, R. Stepanauskas. Decoupling respiration rates and abundance in marine prokaryoplankton. (2022) *Nature*. \*These authors contributed equally to this project and should be considered co-first authors. <https://www.nature.com/articles/s41586-022-05505-3>.
18. K.M. Fecteau, E.S. Boyd, **M.R. Lindsay**, M.J. Amenabar, K.J. Robinson, R.V. Debes II, E.L. Shock. Cyanobacteria and Algae Meet at the Limits of the Habitat Ranges in Moderately Acidic Hot Springs. (2021) *JGR Biogeosciences*. <https://doi.org/10.1029/2021JG006446>
17. D.R. Colman, **M.R. Lindsay**, A. Harnish, E.M. Bilbrey, M.J. Selensky, M.J. Amenabar, K.M. Fecteau, R.V. Debes II, M.B. Stott, E.L. Shock, E.S. Boyd. (2021) Seasonal hydrologic and geologic forcing drive hot spring geochemistry and microbial biodiversity. *Environmental Microbiology*. <https://doi.org/10.1111/1462-2920.15617>
16. M. Kanik, M. Munro-Ehrlich, M. Fernandes-Martins, D. Payne, K. Gianoulis, L. Keller, A. Kubacki, **M.R. Lindsay**, B. Baxter, M. Vanden Berg, D. Colman, E. Boyd. (2020) Unexpected abundance and diversity of phototrophs in mats from morphologically diverse microbialites in Great Salt Lake, Utah. *Applied and Environmental Microbiology*. [doi:10.1128/AEM.00165-20](https://doi.org/10.1128/AEM.00165-20)
15. **M.R. Lindsay**, E.C. Dunham, and E.S. Boyd. Microbialites of Great Salt Lake. (2020). In Great Salt Lake: Biology of a terminal lake in the age of change. B.K. Baxter and J.K. Butler, Editors. Springer-Verlag. [Link](#).
14. D.R. Colman, **M.R. Lindsay**, M.J. Amenabar, M.C. Fernandes Martins\*\*, E.R. Roden, E.S. Boyd. (2020). Phylogenomic analysis of novel Diaforarchaea is consistent with sulfite but not sulfate reduction in volcanic environments on early Earth. *The ISME Journal*. \*\*Mentored undergraduate student. [doi:10.1038/s41396-020-0611-9](https://doi.org/10.1038/s41396-020-0611-9).

13. E.C. Dunham, E.M. Fones, **M.R. Lindsay**, C. Steuer, N. Fox, M. Willis, A. Walsh, D.R. Colman, B.K. Baxter, D. Mogk, D. Bowen, D. Lageson, E.S. Boyd. (2019). An Ecological Perspective on Dolomite Formation in Great Salt Lake, Utah. *Frontiers in Earth Science*. doi: [10.3389/feart.2020.00024](https://doi.org/10.3389/feart.2020.00024).
12. D.R. Colman, **M.R. Lindsay**, M.J. Amenabar, E.S. Boyd (2019). The Intersection of Geology, Geochemistry, and Microbiology in Continental Hydrothermal Systems. *Astrobiology*. doi: [10.1089/ast.2018.2016](https://doi.org/10.1089/ast.2018.2016).
11. D. Payne, E.C. Dunham, E. Mohr, I. Miller, A. Arnold, R. Erickson, E.M. Fones, **M.R. Lindsay**, D.R. Colman, E.S. Boyd. (2019). Geologic legacy spanning >90 years explains unique Yellowstone hot spring geochemistry and biodiversity. *Environmental Microbiology*. doi: [10.1111/1462-2920.14775](https://doi.org/10.1111/1462-2920.14775).
10. **M.R. Lindsay**, D.R. Colman, M.J. Amenabar, K.E. Fristad, K.M. Fecteau, R.V. Debes, J.R. Spear, E.L. Shock, T.M. Hoehler, E.S. Boyd. (2019). Probing the Geological Source and Biological Fate of Hydrogen in Yellowstone Hot Springs. *Environmental Microbiology*. doi:[10.1111/1462-2920.14730](https://doi.org/10.1111/1462-2920.14730).
9. D.R. Colman, **M.R. Lindsay**, E.S. Boyd. (2019). Mixing of end-member fluids supports hyperdiverse chemosynthetic hydrothermal communities. *Nature Communications*. doi:[10.1038/s41467-019-08499-1](https://doi.org/10.1038/s41467-019-08499-1).
8. **M.R. Lindsay**, R.E. Johnston\*\*, B.K. Baxter, E.S. Boyd. (2019). Effects of Salinity on Microbialite-Associated Production in Great Salt Lake, Utah. *Ecology*. 100(3):1-14. doi: [10.1002/ecy.2611](https://doi.org/10.1002/ecy.2611).  
\*\*Mentored undergraduate student.
7. **M.R. Lindsay**, M.J. Amenabar, K.M. Fecteau, R.V. Debes, M.C. Fernandes-Martins\*\*, K.E. Fristad, H. Xu, T.M. Hoehler, E.L. Shock, and E.S. Boyd. (2018). Subsurface Processes Influence Oxidant Availability and Chemoautotrophic Hydrogen Metabolism in Yellowstone Hot Springs. *Geobiology*. 16:674-692. doi:[10.1111/gbi.12308](https://doi.org/10.1111/gbi.12308). \*\*Mentored undergraduate student.
6. S. Poudel, E. Dunham, **M.R. Lindsay**, M. Amenabar, E. Fones, D. Colman, E.S. Boyd. (2018). Origin and Evolution of Flavin-Based Electron Bifurcating Enzymes. *Frontiers of Microbiology*. doi: [10.3389/fmicb.2018.01762](https://doi.org/10.3389/fmicb.2018.01762).
5. R.S. Hindshaw, **M.R. Lindsay**, and E.S. Boyd. (2017). Diversity and abundances of microbial eukaryotes in stream sediments from Svalbard. *Polar Biology*. doi:[10.1007/s00300-017-2106-3](https://doi.org/10.1007/s00300-017-2106-3).
4. **M.R. Lindsay**, C. Anderson, N. Fox, G. Scofield, J. Allen, E. Anderson, L. Bueter, S. Poudel, K. Sutherland, J. H. Munson-McGee, J. van Norstrand, J. Zhou, J.R. Spear, B.K. Baxter, D. Lageson, and E.S. Boyd. (2017). Microbialite response to an anthropogenic salinity gradient in Great Salt Lake, Utah. *Geobiology*. 15(1):131-145. Chosen for cover image. doi: [10.1111/gbi.12201](https://doi.org/10.1111/gbi.12201).
3. M.C.Y. Lau, T.L. Kieft, K. Olukayode, B. Linage-Alvarez, E. van Heerden, **M.R. Lindsay**, C. Magnabosco, W. Wang, J.B. Wiggins, L. Guo, D.H. Perlman, S. Kyn, H.H. Shwe, R.L. Harris, Y. Oh, M.J. Yi, R. Purtschert, G.F. Slater, S. Ono, S. Wei, L. Li, B. Sherwood Lollar, T.C. Onstott. (2016). An oligotrophic deep-subsurface community dependent on syntrophy is dominated by sulfur-driven autotrophic denitrifiers. *Proceedings of the National Academy of Sciences*. 113(49): E7927-E7936. doi: [10.1073/pnas.1612224113](https://doi.org/10.1073/pnas.1612224113).
2. R.S. Hindshaw, S.Q. Land, **M.R. Lindsay**, and E.S. Boyd. (2016). Origin and temporal variability of unusually low  $\delta^{13}\text{C}$ -DOC values in two high Arctic catchments. *Journal of Geophysical Research: Biogeosciences*. 121: 1073-1085. doi: [10.1002/2015JG003303](https://doi.org/10.1002/2015JG003303).
1. R.S. Hindshaw, T.H.E. Hinton, E.S. Boyd, **M.R. Lindsay**, and E.T. Tipper. (2015). Influence of glaciation on mechanisms of mineral weathering in two high Arctic catchments. *Chemical Geology*, 420: 37-50. doi: [10.1016/j.chemgeo.2015.11.004](https://doi.org/10.1016/j.chemgeo.2015.11.004).

### **Other Publications/Products**

Parnell-Turner, R., Briais, A., LeVay, L., and the **Expedition 395 Scientists**. (2025). Reykjanes Mantle Convection and Climate. Proceedings of the International Ocean Discovery Program, 395. International Ocean Discovery Program. <https://doi.org/10.14379/iodp.proc.395.2025>

Parnell-Turner, R., Briais, A., LeVay, L., and the **Expedition 395 Scientists**. (2024). Expedition 395 Preliminary Report: Reykjanes Mantle Convection and Climate. International Ocean Discovery Program. <https://doi.org/10.14379/iodp.pr.395.2024>

**M.R. Lindsay**, R.E. Johnston, B.K. Baxter, E.S. Boyd. Effects of salinity on microbialite-associated production in Great Salt Lake, Utah: Photo Gallery. *Bulletin of the Ecological Society of America*. April 2019.

**M.R. Lindsay**. "Great Salt Lake: Productive on Many Levels". *Friends of Great Salt Lake Newsletter*. Summer 2017, volume 25. URL: <https://fogsl.org/news-and-archives/newsletter-archive>.

"Living Rock from the Great Salt Lake". Part of permanent exhibit at the Natural History Museum of Utah. Salt Lake City, July 2016 to present.

### ***Funded Research:***

#### *Current Awards:*

- 2024-2025     Bigelow Kickstarter Fund. **PI Lindsay: Muddy Microbes: Assessment of microbial degradation potential for PFAS in Maine coastal sediments**. \$49,701.67. PI: Christoph Aeppli.
  
- 2024-2027     NSF GEOPaths (2245648). **Co-I Lindsay: GP-IN: Communities of Aquatic Sciences in Teaching and Learning (COASTAL) Research Partnerships for Equity**. \$399,932; \$49,081 to Bigelow. PI: Karis Jones, Co-I's: Nadia Harvieux, Amy Sheldon.
  
- 2024-2025     US Science Support Program for IODP Expedition 395 (subaward from NSF OCE-1450528). **PI Lindsay: Post expedition award for Melody Lindsay**. \$10,909 subaward.
  
- 2023-2025     NASA Exobiology (80NSSC23K1355). **PI Lindsay: Pilot Study: Active-Life Detection Technologies and Lineage-Resolved Microbial Process Rates in an Ocean World Analog Subsurface Ecosystem**. \$551,254 award. Co-Is: Ramunas Stepanauskas, Nicole Poulton, Beth Orcutt.
  
- 2022-2024     US Science Support Program for IODP Expedition 395C/384 (subaward from NSF OCE-1450528). **PI Lindsay: Post expedition award for Melody Lindsay**. \$17,956 subaward.

#### *Submitted\* Proposals Pending Review:*

- 2025-2026\*     *US Science Support Program: Novel Projects. PI Lindsay: Legacy Data and Cores - Microencapsulation of cells, viruses, and other genomic material in Gardar Drift Sediments: Towards a comprehensive view of deep subseafloor biology. \$49,952 to Bigelow. Submitted October 2024.*
  
- 2025-2028\*     *NASA Habitable Worlds. Co-I Lindsay: Are cryodust particles an icy niche for microbial life? PI: Alex Michaud, The Ohio State University. Step-1 submitted November 2024, encouraged for step-2 submission.*
  
- 2025-2028\*     *NSF Systematics and Biodiversity Cluster. PI Lindsay: PurSUiT: Revealing the life-history patterns, systematics, and biogeography of cryptic microbial lineages through novel single-*

*cell phenomics and genomics. \$746,577 to Bigelow. Co-Is: David Emerson, Ramunas Stepanauskas, Nicole Poulton. Submitted August 2024.*

**2025-2028\*** *NSF MRI. Co-I Lindsay: Track 2, Acquisition of a high-throughput workflow for environmental single cell genomics. PI: Ramunas Stepanauskas. Submitted November 2024.*

**2026-2029\*** *NASA Interdisciplinary Consortia for Astrobiology. Co-I Lindsay: How Earth's ocean world informs other ocean worlds?: Leveraging scientific discoveries from the International Ocean Discovery Program. PI: Bum Soo Kim, NASA Johnson Space Center. \$355,309 to Bigelow. Step-1 submitted September 2024, encouraged for step-2 submission.*

**Past Awards:**

**2023-2024** US Science Support Program for IODP Expedition 395 (subaward from NSF OCE-1450528). **PI Lindsay: Expedition participation funds for Melody Lindsay.** \$46,488 subaward.

**2022-2023** JGI Community Sciences Program, DOE. **Co-PI Lindsay: Ecology and adaptation of microorganisms immured in the West Antarctic Ice Sheet: Sequencing of single cell genomes, library preparation.** ~\$25,000 in-kind value. PI: Alex Michaud.

**2020-2021** US Science Support Program for IODP (subaward from NSF OCE-1450528). **PI Lindsay: Participation of Melody Lindsay as science party member on IODP Expedition 395C** (deferred 2020 but completed Summer 2021). \$15,035 subaward.

**2016-2019** NASA Earth and Space Sciences Graduate Fellowship: Planetary Sciences. **Co-PI Lindsay: Graduate Student: Linking hydrogen metabolism with primary production in early Earth analogue mineral-supported ecosystems.** \$120,000 total. PI: Eric Boyd.

**2018** JGI Community Sciences Program, DOE. **Co-PI Lindsay: Linking subsurface geologic processes and microbial diversification: sequencing of 12 metagenomes, library preparation.** ~\$5,000 in-kind value. PI: Daniel Colman.

**Fellowships, Scholarships and Awards Received:**

<b>2023</b>	2022 SiYuan-Ocean Emerging Leader - International Center for Deep Life Investigation
<b>2021</b>	Rodney L. White Postdoctoral Fellowship - Bigelow Laboratory for Ocean Sciences
<b>2020</b>	Travel Grant - Europa and Ocean World <i>In Situ</i> Science Workshop
<b>2020</b>	Travel Grant - Demystifying the IODP proposal process for early career scientists
<b>2016-2019</b>	NASA Earth and Space Science Fellowship – Planetary Science Research
<b>2018</b>	Student Travel Grant – ACA Astrobiology Grand Tour 2018
<b>2017-2018</b>	Doyle W. Stephens Award – Friends of Great Salt Lake
<b>2017</b>	International Society for Subsurface Microbiology Travel Grant
<b>2016-2017</b>	Beverly Ferguson Graduate Student Award – MBI Department
<b>2016</b>	Funding for the 2016 NASA/ESA Astrobiology Summer School
<b>2015</b>	SETI Institute Student Travel Grant (AbSciCon 2015)
<b>2015</b>	Thermal Biology Institute Turner Foundation Student Award
<b>2012-2013</b>	Princeton University ODOC Senior Thesis Award
<b>2012</b>	American Geophysical Union Travel Grant

2012 Princeton University Ecology/Evolutionary Biology Research Grant  
2009 Davidson Fellow Laureate Scholarship Award

**Research Experience/Cruises:**

2024 Lead for sediment core sampling - Research Cruises on R/V Bowditch to Gulf of Maine sampling locations  
2023 Science Party Member - Inorganic geochemist/microbiologist - Research Cruise IODP Exp. 395, on JOIDES Resolution  
2023 Co-Chief Scientist in Training, Remote Participation - TN-421, on R/V Thompson  
Chief Scientist: Dr. Beth Orcutt  
2021\* Science Party - Research Cruise IODP Exp. 395C, on JOIDES Resolution  
\*Deferred to 2021 from 2020, then carried out remotely  
2019 Research Cruise AT42-11, on R/V Atlantis with ROV Jason II  
Chief Scientist: Dr. Beth Orcutt  
2013-2019 Numerous research trips to Yellowstone National Park hot springs  
2017 Field work in New Zealand hot springs  
2016 Research on/in Alaskan backcountry mud volcanoes  
2014-2018 Numerous research trips to Great Salt Lake, Utah  
2012 Research in Witwatersrand Basin gold and diamond mines, South Africa

**Service & Synergistic activities:**

Recent reviewer for the following journals:

*JGR Biogeosciences, Applied and Environmental Microbiology, The ISME Journal, ISME Communications, Frontiers in Microbiology, Geobiology, mSystems, Geomicrobiology, Ecosphere, Plant Systematics and Evolution, Environmental Microbiology.*

Recent reviewer for NASA (various PSD panels as panel group chief, panelist, and external reviewer) and NSF (as external reviewer) proposals.

Committee Service:

Current (and past) Steering Committee Representative for NfoLD: NASA Network for Life Detection  
Current Steering Committee Representative for NOW: NASA Network for Ocean Worlds

Bigelow Education committee member

Postdoctoral (2020-2022); Research Scientist/DEI Liaison Representative (2023 to current)

From the Top Musicians and the Environment Initiative (2024 - current) - mentorship of student project ideas and development.

Session Convener for:

2023 AGU: OS019 - Multidisciplinary Approaches in Scientific Ocean Drilling to Investigate Interactions Within the Earth System.  
2022 Astrobiology Science Conference (AbSciCon): Life Detection in Deep Biosphere Earth Analog Environments (Chair).  
2019 Astrobiology Science Conference (AbSciCon): Anaerobic Biospheres: Past and Present.

**Teaching Experience:**

2021-2022 Laboratory Teaching Instructor for CH385B: Ocean Biogeochemistry on a Changing Planet, Colby College. Sea Change Semester 2021 and 2022.

2018	Co-instructor for BIOM494: Senior Capstone class in Microbiology, Montana State University.
2017	Teaching assistant for BIOM494: Senior Capstone class in Microbiology, Montana State University.
2015	Head Teaching Assistant for BIOM360: General Microbiology. Department of Microbiology and Immunology, Montana State University – Overall Instructor Rating: 4.95/5.00.
2014	Co-Teaching Assistant for BIOM360: General Microbiology. Department of Microbiology and Immunology, Montana State University – Overall Instructor Rating: 4.88/5.00.
2014-2016	MAP (Montana Apprenticeship Program). Mentored Native American High School Students in a summer immersion program which aims to increase underrepresented high school students entering STEM fields.

**Students Mentored:**

2024	Aidan Loth B.A. student at Colby College, Sea Change Semester Independent Research Project: <i>Patterns of deep microbial biomass in North Atlantic Sediments.</i>
2023	Michael Budner B.A. student at Northeastern College, Co-op student Project: <i>Fixation of fluorogenic proxy for environmental microbial activity.</i>
2022	Amy Doiron B.A. student at Southern Maine Community College Project *co-advised: <i>Examining how iron cycling microbes affect phosphorus availability in the Arctic.</i>
2022	Melissa Herring B.A. student at Northeastern College, Co-op student. Project: <i>Utilization of a fluorogenic probe to detect and measure microbial life in a deep subsurface aquifer.</i>
2021-2022	Elizabeth Baker B.A. student at Bowdoin College, Bigelow REU. Project: <i>Patterns in deep biomass associated with sediment in the Reykjanes Ridge-Plume System</i>
2021	Eliza Goodell B.A. student at Oberlin College Project: <i>Establishing methods to quantify microbial activity across diverse environments</i>
2021	Anne Sternberg B.A. student at Colby College Project: <i>Quantifying microbial activity in Maine Coastal Sediments</i>
Mentored as a part of graduate research led by Dr. Eric S Boyd at Montana State University:	
2018-2019	Maria Michelotti B.S. student at Montana State University Project: <i>Culturing active H<sub>2</sub> oxidizers from Yellowstone hot springs</i>
2017-2018	Rachel Johnston B.S. student at Montana State University

	Project: <i>Effects of Salinity on Microbialite-Associated Production in Great Salt Lake</i>
2017-2018	Evan Bilbrey B.S. student at Montana State University Project: <i>Quantifying use of geochemical electron acceptors</i>
2016-2018	Maria Clara Fernandes Martins B.S. student at Montana State University Currently a Ph.D. student at MSU Project: <i>Growing chemosynthetic microbes from Yellowstone hot springs</i>
2014-2016	C. Andrew Dyson B.S. student at Montana State University Project: <i>Cultivation-based approach to quantifying H<sub>2</sub> metabolizing organisms in Smoke Jumper Hot Springs, Yellowstone</i>
2015	Kevin Glover B.S. student at Whitworth University Project: <i>Subglacial microbial iron utilization, Robertson Glacier</i>
2015	Marjorie Shinn B.S. student at Montana State University Project: <i>Cultivation-based approach to quantifying H<sub>2</sub> metabolizing organisms in Roadside Hot Springs, Yellowstone</i>
2014-2015	Cade Comstock B.S. student at Montana State University
2014	Zorah Maserati Masters student from Germany
2014	Joshua Thiel B.S. student at Westminster College Project: <i>Mercury methylating microbes in Lake Powell</i>
2014	Heather Rosler High School Student from Flathead Reservation
2013-2015	Jayme Feyhl-Buska Presidential Scholar at Montana State University

***Selected Presentations: (\* indicates invited talk or seminar)***

2024	*Invited Seminar at Boston University, Biogeosciences Department
2024	*Invited Union Session talk at AGU 2024, Washington D.C.
2024	Astrobiology Science Conference, Providence, RI
2024	*Invited talk at NASA-Ocean Drilling workshop, Washington D.C.
2023	*Invited presentation at AGU 2023, San Francisco, CA.
2023	*Invited talk at IC-DLI seminar, Virtual
2022	*Invited talk at Gordon Research Conference - Geobiology, Ventura, CA
2022	International Society for Microbial Ecology, Lausanne, Switzerland
2022	Astrobiology Science Conference, Atlanta, GA
2022	Association for the Sciences of Limnology and Oceanography, Virtual
2022	*Rutgers University Marine Sciences Seminar, New Brunswick, NJ
2021	*Center for Dark Energy Biosphere Investigations Meeting, Marina, CA
2021	*NFOLD Steering Committee Meeting, Virtual
2021	*Great Salt Lake Institute Salty Science Series, Virtual

2020	Bigelow Laboratory Science Seminar Series, East Boothbay, ME
2020	IODP Expedition 395 Summer Workshop, Virtual
2019	Center for Dark Energy Biosphere Investigations Meeting, Marina, CA
2019	EPSCoR National Conference, Columbia, SC
2018	*Lake Bonneville Geologic Conference, Salt Lake City, UT
2018	*Great Salt Lake Issues Forum Meeting, Salt Lake City, UT
2018	*Gordon Research Seminar on Geobiology, Galveston, TX
2018	Gordon Research Conference on Geobiology, Galveston, TX
2017	International Society for Subsurface Microbiology, Rotorua, New Zealand
2017	Astrobiology Science Conference, Mesa, AZ
2016	*Great Salt Lake Issues Forum, Salt Lake City, UT
2015	Astrobiology Science Conference, Chicago, IL
2012	American Geophysical Union Meeting, San Francisco, CA