BRANDI KIEL REESE

ASSOCIATE PROFESSOR
University of South Alabama
Department of Marine Sciences
Mobile, AL 36688
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SENIOR MARINE SCIENTIST
Dauphin Island Sea Lab
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Dauphin Island, AL 36528
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EDUCATION

2011 Ph.D. **Oceanography** Texas A&M University College Station, TX
Dissertation: "Linking Geochemistry to Molecular Microbial Ecology in a Coastal Hypoxic Zone"

2007 M.S. **Soil & Water Sciences** University of California Riverside, CA
Thesis: "Sulfur Biogeochemistry of the Salton Sea, California"

2001 B.S. **Geology** Southern Methodist University Dallas, TX
Concentration: Biogeochemistry

PROFESSIONAL APPOINTMENTS

Associate Professor 2020 - Present
Department of Marine Sciences
University of South Alabama

Senior Marine Scientist
Dauphin Island Sea Lab 2020 - Present

Research Associate 2020 - Present
Texas A&M University-Corpus Christi

Assistant Professor
Department of Life Sciences 2015 - 2020
Department of Physical and Environmental Sciences
Texas A&M University-Corpus Christi

Visiting Scholar and Hanse-Wisenschaftskolleg Fellow 2015 - 2018
University of Bremen

Post-Doctoral Fellow
NASA Astrobiology Institute, Univ. of Southern California 2013 - 2015
Center for Dark Energy Biosphere Investigations, Univ. of Southern California 2011 - 2013

Graduate Assistant Researcher 2007 - 2011
Texas A&M University, College Station, TX

Graduate Student Researcher 2005 - 2007
University of California, Riverside, CA

Project Manager / Project Geologist 2001 - 2007
All Environmental Inc. (AEI) Consultants

PUBLICATIONS (* Kiel Reese Lab student)

26. Patrick, C.J., L. Yeager, F. Carvallo, V. Congdon, K.H. Dutton, M. Fisher, A. Hardison, J.D. Hogan, J. Hosen, X. Hu, **B. Kiel Reese**, S. Kinard, J.S. Kominoshi, X. Lin, Z. Liu, P.A. Montagna, S.C. Pennings, L. Walker, C.A. Weaver. M. Wetz. 2019. A Systems-Level Analysis of Coastal Ecosystem Responses to Hurricane Impacts. Estuaries and Coasts. DOI 10.1007/s12237-019-00690-3

25. Mullis, M.M. *, I. Rambo, B.J. Baker, **B. Kiel Reese**. 2019. Ecological roles and diversity of antimicrobials in nature. Frontiers in Microbiology: Antimicrobials, Resistance and Chemotherapy. DOI: 10.3389/fmicb.2019.02518

24. Jangir, J., A.A., Karbelkar, N.M. Beedle, L.A. Zinke *, G. Wanger, C.M. Anderson, **B. Kiel Reese**, J.P. Amend, and M.Y. El-Naggar. 2019. *In situ* electrochemical studies of the terrestrial deep subsurface biosphere at the Sanford Underground Research Facility, South Dakota, USA. Frontiers in Energy Research: Bioenergy and Biofuels. DOI: 10.3389/fenrg.2019.00121

23. Sobol, M.S.*, T. Hoshino, T. Futagami, F. Inagaki, **B. Kiel Reese**. 2019. Draft genome sequences of *Penicillium* spp. from deeply buried oligotrophic sediment. Microbiology Resource Announcements. DOI: 10.1128/MRA.01613-18

22. Bird, J.T., E.D. Tague, L.A. Zinke*, J.M. Schmidy, A.D. Steen, **B. Kiel Reese**, I.P.G. Marshall, G. Webster, A. Weightman, H.F. Castro, S.R. Campagna, K.G. Lloyd. 2019. Uncultured microbial phyla suggest mechanisms for multi-thousand-year subsistence in Baltic Sea sediments. mBio. DOI: 10.1128/mBio.02376-18

21. Pohlner, M., L. Dlugosch, B. Wemheuer, H.J. Mills, B. Engelen, **B. Kiel Reese**. 2019. The majority of *Rhodobacteraceae* in marine sediments belong to uncultured genera: A molecular approach to link their distribution to environmental conditions. Frontiers in Aquatic Microbiology. DOI: 10.3389/fmicb.2019.00659

20. Zinke, L.A.*, C. Glombitza, J.T. Bird, H. Røy, B. Barker Jørgensen, K.G. Lloyd, J.A. Amend, **B. Kiel Reese**. 2018. Climate influences microbial organic matter degradation in Baltic Sea sediments. Applied and Environmental Microbiology. DOI: 10.1128/AEM.02164-18

19. Zinke, L.A.*, **B. Kiel Reese**, J. McManus, C.G. Wheat, B.N. Orcutt, J. Amend. 2018. Sediment microbial communities influenced by cool hydrothermal fluid migration. Frontiers in Extreme Microbiology. 9:1249. DOI: 10.3389/fmicb.2018.01249

18. Sheik, C.S., **B. Kiel Reese (co-first author)**, K.I. Twing, J.B. Sylvan, S.L. Grim, M.O. Schrenk, M.L. Sogin, F. Colwell. 2018. Identification and removal contaminant sequences from genomic databases: Lessons from the Census of Deep Life. Frontiers in Microbiology. DOI: 10.3389/fmicb.2018.00840

17. **Kiel Reese, B.K.**, L.A. Zinke*, M.S. Sobol*, D.E. LaRowe, B.N. Orcutt, X. Zhang, U. Jaekel, F. Wang, H.J. Mills, T. Dittmar, J.P. Amend, K.J. Edwards, P.R. Girguis. 2018. Nitrogen cycling potential of active bacteria within oligotrophic sediment of the Mid-Atlantic Ridge flank. Geomicrobiology Journal. 35(6): 468-483. DOI: 10.1080/01490451.2017.1392649

16. Zinke, L.A.[*], M.M. Mullis[*], J.T. Bird, I.P.G. Marshall, B. Barker Jørgensen, K.G. Lloyd, J.P. Amend, **B. Kiel Reese**. 2017. Thriving or Surviving? Evaluating active microbial guilds in Baltic Sea sediment. Environmental Microbiology Reports. 9(5): 528-536. DOI: 10.1111/1758-2229.12578 **(Top 20 most read paper in Environmental Microbiology Reports)**

15. Momper, L.M., **B. Kiel Reese**, L.A. Zinke[*], G. Wanger, M.R. Osburn, D. Moser, and J.P. Amend. 2017. Major phylum-level differences between porefluid and host rock bacterial communities in the terrestrial deep subsurface. Environmental Microbiology Reports. DOI: 10.1111/1758-2229.12563

14. **Kiel Reese, B.K.**, J. Koester, J.B. Kirkpatrick, T. Konotchick, L.Z. Allen, and C. Dziallas. How extreme is extreme? A review of life in extreme environments. 2015. Eco-DAS X Symposium Proceedings. Waco, TX: Association for the Sciences of Limnology and Oceanography. 5:69–87. DOI: 10.4319/ecodas.2014.978-0-9845591-4-5.69

13. Kieft, T., T. Onstott, L. Ahonen, V. Aloisi, F. Colwell, B. Engelen, S. Fendrihan, E. Gaidos, U. Harms, I. Head, J. Kallmeyer, **B. Kiel Reese**, L. Lin, P. Long, D. Moser, H. Mills, P. Sar, D. Schulze-Makuch, H. Stan-Lotter, D. Wagner, P. Wang, F. Westall and M. Wilkins. 2015. Workshop to develop deep-life continental scientific drilling projects. Scientific Drilling 19: 43-53. DOI:10.5194/sd-19-43-2015

12. Momper, L.M., **B. Kiel Reese (co-first author)**, G. Carvalho, P. Lee, and E.A. Webb. 2014. Characterization of a novel cohabitation between two diazotrophic Cyanobacteria. ISME Journal. 9(4):882. DOI:10.1038/ismej.2014.186.

11. Orcutt, B.N., D.E. LaRowe, K.G. Lloyd, H. Mills, W. Orsi, **B. Kiel Reese**, J. Sauvage, J.A. Huber, and J. Amend. 2014. ODP Deep Biosphere Research Workshop report–a synthesis of recent investigations, and discussion of new research questions and drilling targets. Scientific Drilling. 17: 61-66

10. **Reese, B.K.**, A.D. Witmer, S. Moller, J.W. Morse, and H.J. Mills. 2013. Molecular assays advance understanding of sulfate reduction despite cryptic cycles. Biogeochemistry. 118(1): 307-319. DOI: 10.1007/s10533-013-9933-2

9. Orcutt, B., D. LaRowe, J.F. Biddle, F.S. Colwell, B.T. Glazer, **B. Kiel Reese**, J. Kirkpatrick, H.J. Mills, J.B. Sylvan. 2013. Microbial activity in the deep biosphere: Progress and prospects. Frontiers in Extreme Microbiology. 4:189. DOI: 10.3389/fmicb.2013.00189

8. **Reese, B.K.**, H.J. Mills, S.E. Dowd, and J.W. Morse. 2013. Benthic biogeochemistry of microbial iron and sulfate reduction in the Gulf of Mexico hypoxic zone. Geomicrobiology. 30:160-172

7. Bianchi, T.S., F. Garcia-Tigreros, S. Yvon-Lewis, M. Shields, H.J. Mills, D. Butman, C. Osburn, P. Raymond, C. Shank, S.F. DiMarco, N. Walker, **B. Kiel Reese,** R. Mullins, A. Quigg, G. R. Aiken, and E.L. Grossman. 2013. Enhanced transfer of terrestrially-derived carbon to the atmosphere in a flooding event. Geophysical Research Letters. DOI:10.1029/2012GL054145

6. Mills, H.J., **B. Kiel Reese**, A. Shepard, N. Riedinger, S. Dowd, Y. Morono, and F. Inagaki. 2012. Characterization of metabolically active bacterial populations in subseafloor Nankai Trough sediments above, within and below the sulfate-methane transition zone. Frontiers in Extreme Microbiology. 3:113. DOI: 10.3389/fmicb.2012.000113

5. Mills, H.J., **B. Kiel Reese**, and C. St. Peter. Characterization of microbial population shifts during sample storage. 2012. Frontiers in Extreme Microbiology. 3:49. DOI: 10.3389/fmicb.2012.00049

4. **Reese, B.K.**, D.W. Finneran, H.J. Mills, M.-X. Zhu, and J.W. Morse. 2011. Examination and refinement of the determination of aqueous hydrogen sulfide by the methylene blue method. Aquatic Geochemistry. 17(4):567-582. DOI:10.1007/s10498-011-9128-1

3. **Reese, B.K.** and M.A. Anderson. 2009. Dimethyl sulfide production in a hypersaline eutrophic lake, Salton Sea, California. Limnology and Oceanography. 54: 250–261

2. **Reese, B.K.**, M.A. Anderson, and C. Amrhein. 2008. Hydrogen sulfide production and volatilization in a polymictic eutrophic lake, Salton Sea, California. Science of the Total Environment. 406:205-218

1. Parker, D.R., A.L Seyfferth, and **B.K. Reese.** 2008. Synoptic survey of perchlorate in groundwater: A synoptic survey of "pristine" sites in the coterminuous United States. Environmental Science and Technology. 42:1465-1471

PUBLICATIONS IN REVIEW/IN PRESS

Kiel Reese, B., M.S. Sobol[*], M. Bowles, K.-U. Hinrichs Redefining the Subsurface Biosphere: Characterization of Fungi Isolated from Energy-Limited Marine Deep Subsurface Sediment. Applied and Environmental Microbiology. *In Review*.

PUBLICATIONS IN PROGRESS

Weisend, R.E. [*], M.M Mullis[*], **B. Kiel Reese**. High throughput culturing of microbial communities from Mid-Atlantic Ridge sediment and crustal fluids using Fluorescently Activated Cell Sorting (FACS).

B. Kiel Reese, J. Roque Rosell, L.A. Zinke[*], M.S. Sobol[*], T. Aiglsperger. Iron bioavailability in sedimented layers of foraminiferal sand and clayey nannofossil ooze from west of the Mid-Atlantic Ridge.

FUNDING

Development of High Throughput Culturing Technique to Target Uncultivated Sedimentary Microorganisms. PI: B. Kiel Reese. Texas Reaserch Development Fund. **$5,000** (2019, 1 year)

MRI: Acquisition of a GC triple quadrupole mass spectrometer for Environmental and Biogeochemical research. PI: J. Conkle (PI), Co-PIs: H.A. Abdulla, B. Kiel Reese, L. Zhang. National Science Foundation. **$222,141** (2018, 1 year)

Mangrove Expansion Alters Sediment and Water Quality and Affects Biodiversity in Texas Wetlands. PI: B. Kiel Reese. National Academies of Sciences. **$17,170** (2018, 1 year)

Supplemental Research Experience for Undergraduates (REU) to RAPID: Determining the response of freshwater ecosystems to a punctuated disturbance across a semi-arid to sub-arid ecosystems. PI: C. Patrick (PI), Co-PIs: B. Kiel Reese, D. Hogan. National Science Foundation. **$16,000** (2018, 1 year)

RAPID: Determining the response of freshwater ecosystems to a punctuated disturbance across a semi-arid to sub-arid ecosystems. PI: C. Patrick (PI), Co-PIs: B. Kiel Reese, D. Hogan. National Science Foundation. **$199,980** (2017, 1 year)

Linking microbial activity to methane production. PI: B. Kiel Reese. American Chemical Society. **$150,000** (2017, 2 years)

Dynamics of seasonal and diurnal fluctuations in a wetland mangrove ecosystem. PI: B. Kiel Reese, Co-PI: B. Baker. Department of Energy Joint Genome Institute Community Science Program. **Sequencing costs** (market value $150,000) (2017, 2 years)

Characterization of the Active Microbial Community within the Mariana Convergent Margin Subsurface. PI: B. Kiel Reese. International Ocean Discovery Program (NSF Sub-Award). **$14,999** (2017, 1 year)

Effect of South Texas mangrove expansion on sediment and water quality. PI: B. Kiel Reese, Co-PI: L. Smee. Texas General Land Office Coastal Management Program (NOAA Sub-Award). **$95,817** (2017, 2 years)

Diurnal Fluctuations of Microbial Communities. PI: B. Kiel Reese. TAMUCC Research Enhancement Grant. **$5,000** (2017, 1 year)

Intraterrestrial Fungus Grown in Space (iFunGIS): Determining alterations in metabolic processes and products of a subsurface fungus in microgravity. PI: B. Kiel Reese. NASA Center for the Advancement of Science in Space. **$50,000** (2016, 1.5 years)

Examination of the Baltic Sea Basin carbon cycle through metagenomics. PI: B. Kiel Reese. Sloan Foundation Deep Carbon Observatory Census of Deep Life. **Sequencing costs** (2016, 1 year)

A novel approach to understanding carbon cycling in marine deep subsurface sediments through the integration of metabolomics and transcriptomics. B. Kiel Reese (PI). Texas Research Development Fund. **$20,000** (2015, 1 year)

Characterization of the Metabolically Active Fraction of the South Pacific Gyre Subsurface Microbial Community. Consortium for Ocean Leadership (NSF Sub-award). **$11,723** (2015, 1 year)

Microbial Biogeography of a Low-Temperature, Ridge Flank Hydrothermal System at Dorado Outcrop. PI: B. Kiel Reese. Sloan Foundation Deep Carbon Observatory Census of Deep Life. **Sequencing costs** (2015, 1 year)

Tag 16S Sequencing of Deeply Buried Sediments Within the Baltic Sea, IODP Exp. 347. B. Kiel Reese (Co-PI). Sloan Foundation Deep Carbon Observatory Census of Deep Life. **DNA Sequencing** (2014, 1 year)

Investigating microbial community transitions at the sediment-basement interface. B. Kiel Reese (Co-PI). Sloan Foundation Deep Carbon Observatory Census of Deep Life. **DNA Sequencing** (2013, 1 year)

Expedition 329: Expanding Metabolic Potential by Characterizing Anaerobic Lineages in Aerobic Sediments. Center for Dark Energy Biosphere Investigations (NSF sub-award). B. Kiel Reese (Co-PI). **$49,970** (2012, 2 years)

Consortium for Ocean Leadership (NSF sub-award). B. Kiel Reese (Co-PI). **$15,000** (2011, 1 year)

Characterization of Chlorinated Aliphatic Hydrocarbon Degrading Lineages within the Camp Stanley Storage Activity Bioreactor. Noblis Consulting. B. Kiel Reese (Co-PI). **$49,973** (2011, 2 years)

Consortium for Ocean Leadership (NSF sub-award). B. Kiel Reese (Co-PI). **$5,000** (2010, 1 year)

Bioprospecting novel antimicrobials in the marine deep subsurface biosphere. Center for Dark Energy Biosphere Investigations (NSF sub-award). B. Kiel Reese (PI). **$5,000** (2010, 1 year)

Philanthropic Educational Organization. B. Kiel Reese (PI). **$15,000** (2010, 1 year)

MULTI-NATIONAL DRILLING INITIATIVES

Member of science sub-panel of the Science Evaluation Panel (SEP) of the International Ocean Discovery Program (IODP) 2016-2019

Co-PI and member of the international science team "Carbon cycling in methane-charged continental margin sediments: Rio Grande Cone (Brazil)". Reese committed to 50% of the geomicrobiology. **Drilling expedition proposal accepted and scheduled for Spring 2021**

Co-PI and member of the international science team "Crustal Flow-line across the Western Flank of the Southern Mid-Atlantic Ridge: The South Atlantic Transect". Reese committed to 50% of the geomicrobiology. **Drilling expedition proposal accepted and scheduled for Fall 2020**

Shore-based scientist and mentor of student participant in the 2017 International Ocean Discovery Program Mariana Forearc Expedition 366

Shore-based scientist and mentor of student participant in the 2014 Integrated Ocean Drilling Program Baltic Sea Basin Expedition 347

Shore-based scientist on the 2011 Integrated Ocean Drilling Program North Pond Microbiology Expedition 336

Ship-based scientist on the 2010 Integrated Ocean Drilling Program South Pacific Gyre Expedition 329

TEACHING

Graduate

Microbial Ecology
Geomicrobiology
Marine Organisms and Processes

Undergraduate

Microbial Diversity and Ecology
Environmental Microbiology
Oceanography
Essentials of Oceanography Lab
Marine Microbial Molecular Methods

Short Course

Marine Molecular Methods, Developed and taught course at Shanghai JiaoTong University (Summer 2014)

"Microbes down below! Exploring life beneath the ocean floor" Online course College of Exploration (Fall 2013)

Microbial Methods**,** Developed and taught course at University of Sao Paulo, Brazil (Spring 2013)

School of Rock, Integrated Ocean Drilling Program (Spring 2013)

Guest Lecturer

AP Biology, Incarnate Word Academy (Fall 2018)
Microbiology (TAMU-CC, Fall 2016)
Microbiology (TAMU-CC, Spring 2016)
Oceanography (Mount Allison University, New Brunswick, Canada, Fall 2013)
Microbiology (Long Beach Community College, Spring 2013)
Global Environmental Microbiology (University of Southern California, Summer 2012)
Microbiology (Long Beach Community College, Spring 2012)
Marine Microbial Molecular Methods (Texas A&M University, Spring 2010)
Introduction to Oceanography (Texas A&M University, Fall 2009)

MENTORING

COMMITTEE CHAIR

Ph.D.

Megan Mullis (MARB, 2016-Present)
Rachel Weisend (MARB, 2016-Present)
Laura Zinke (USC, 2013-2018)

M.S.

Clay Clarkson (MARB, 2019-2020)
Christian Cunningham (MARB, 2018-Present)
Darcia Gonzalez (MARB, 2017-2018)
Morgan Sobol (MARB, 2016-2018)
Rachel Woodworth (ESCI, 2016-2018)

COMMITTEE MEMBER

Ph.D.

Katherine Campbell (TAMUG MARB, 2018-Present)
Sarah Tominack (TAMUCC MARB, 2016-Present)
Ian Rambo (UTMSI, 2016-Present)
Sajjad Abdullajintakam (TAMUCC CMSS, 2016-2020)
Sean Kinard (TAMUCC MARB, 2017-2019)
Kiley Seitz (UTMSI, 2016-2019)
I-Shuo Huang (TAMUCC MARB, 2016-2018)

M.S.

Bryanna McClendon (TAMUCC FAMA, 2019-Present)
Lydia Hayes (TAMUCC MARB, 2018-2020)
Fernando Carvallo (TAMUCC BIOL, 2018-2020)
Catherine Risley (TAMUG MARB, 2018-2020)
Marguerite Langwig (UTMSI, 2017-2019)
Eugene Barnes (TAMUCC, 2016-2018)
Jennifer Savicky (TAMUCC, 2015-2016)
Nicholas Spalt (TAMUCC, 2015-2016)

UNDERGRADUATE RESEARCHERS

Erica Duncan (TAMUCC, LSAMP Scholar, 2019-2020)
John Turman (TAMUCC, 2019-2020)

Victor Delgado (TAMUCC, 2018-2020)
Clay Clarkson (TAMUCC, McNair Scholar, 2017-2019)
Susan McGuire (TAMUCC, 2018-2019)
Ryan Cabico (Del Mar Community College, REU, 2018)
Reesen Caster (TAMUCC, 2017-2018)
Brooke Denney (TAMUCC, LSAMP Scholar, 2017-2018)
Mayra Rodriguez Gomez (TAMUCC, LSAMP Scholar, 2016-2017)
Shalecia Sayles (TAMUCC, LSAMP Scholar, 2015-2017)
Reavelyn Pray (Del Mar Community College, 2016)
Julie Rohl (TAMUCC, 2015-2016)
Morgan Sobol (TAMUCC, LSAMP Scholar, 2015-2016)
Alexis Ybanez (TAMUCC, LSAMP Scholar, 2015-2016)
Gustavo Cavahalo (USC, 2012-2014)
Jordan Hoese (USC, 2012-2014)
James Stone (USC, 2013-2014)
Cruz St. Peter (TAMU, 2009-2011)
Laura Zinke (TAMU, 2009-2011)
Stacey Moeller (TAMU, 2009-2010)
Kristyn Kimball (TAMU, 2008-2009)
Bianca Romero (TAMU, 2008-2009)

PRESENTATIONS

INVITED

35. Wanted Dead or Alive: Hunting for Microbes Below the Seafloor. B. Kiel Reese. California State University, Bakersfield (3/12/20)
34. Wanted Dead or Alive: Hunting for Microbes Below the Seafloor. B. Kiel Reese. University of Rhode Island (3/9/20)
33. Wanted Dead or Alive: Hunting for Microbes Below the Seafloor. B. Kiel Reese. Willamette University (3/2/20)
32. Wanted Dead or Alive: Hunting for Microbes Below the Seafloor. B. Kiel Reese. University of Minnesota-Duluth (11/22/19)
31. Wanted Dead or Alive: Hunting for Microbes Below the Seafloor. B. Kiel Reese. University of South Alabama (7/13/19)
30. Hunting for the Meaning of Life Beneath the Seafloor. B. Kiel Reese. International Geobiology Workshop, Catalina, CA (7/8/19)
29. Wanted Dead or Alive: Hunting for Microbes Below the Seafloor. National Academies of Science - Kavli Frontiers in Science (2/28/19)
28. Just the FACS, Ma'am: A method for culturing microbial dark matter. B. Kiel Reese. Center for Dark Energy Biosphere Investigations national meeting. (11/14/18)
27. Microbes From Deep Sea to Deep Space. Kiel Reese, B. Texas A&M University-Corpus Christi Island Days. Corpus Christi, TX. 4/7/18.

26. Wanted Dead or Alive: Microbes in the Subsurface. B. Kiel Reese. Texas A&M University at Galveston (4/18)
25. Organic matter mineralization pathways in Baltic Sea Basin sediments revealed through genetics. B. Kiel Reese, L.A. Zinke*, and M.M. Mullis*. International Methane Hydrate Development Workshop. Corpus Christi, TX (12/7/2017)
24. Unlocking the Diversity of Life in Deep Subsurface Sediment. B. Kiel Reese. Society for the Advancement of Chicanos and Native Americans in Science, Salt Lake City, UT. (10/20/17)
23. Understanding the Diversity of Life in Marine Deep Subsurface Sediment. B. Kiel Reese. University of Oldenburg, Germany (5/17/17)
22. Wanted Dead or Alive: How do we understand life in the deep subsurface biosphere? B. Kiel Reese. Hanse-Wissenschaftskolleg, Delmenhorst, Germany (4/26/17)
21. Understanding the Diversity of Life in Marine Deep Subsurface Sediment. B. Kiel Reese. University of Barcelona, Spain (4/19/17)
20. What is alive in the deep subsurface and how do we detect it? B. Kiel Reese. Johnson Space Center, National Aeronautics and Space Agency (11/7/16)
19. Mining for microbes: Exploring life in the deep subsurface. B. Kiel Reese. University of Nevada-Reno (10/17/16)
18. Graduate school personal statements: summarizing your life in 2 pages or less. B. Kiel Reese. Texas A&M University System Louis Stokes Alliance for Minority Participation Symposium (4/22/16)
17. It's ALIVE! Examining Life Below the Seafloor Through Ocean Drilling. B. Kiel Reese. Texas A&M University-Corpus Christi (10/23/15)
16. From the Gulf of Mexico to the deep subsurface: Interdisciplinary approach to geomicrobiology. B. Kiel Reese. University of Delaware, DE (10/16/15)
15. Digging deeper: Is the subsurface really alive? B. Kiel Reese. Deep Carbon Observatory, Sicily, Italy (8/29/2017)
14. Microbial community structure within sediment and basalt along the Mid-Atlantic Ridge. B. Kiel Reese. Max Planck Institute, Bremen, Germany (7/4/15)
13. Examining Life Below the Seafloor Through Ocean Drilling. B. Kiel Reese. Hanse-Wissenschaftskolleg Lecture, Delmenhorst, Germany (7/29/15)
12. Global distribution of active subsurface microbes. B. Kiel Reese. University of Aarhus Center for Geomicrobiology (7/14/15)
11. Global distribution of active subsurface microbes. B. Kiel Reese. MARUM Center for Marine and Environmental Sciences (6/9/15)
10. Re-Defining the Subsurface Biosphere: Characterization of Fungal Populations from Energy Limited Sediments. B. Kiel Reese. Geobiology in Space Exploration Workshop, 5/24-26, Sardinia, Italy
9. From the Gulf of Mexico to the deep subsurface: Interdisciplinary approach to geomicrobiology. B. Kiel Reese. University of Texas Marine Science Institute (4/17/15)

8. From the Gulf of Mexico to the deep subsurface: Interdisciplinary approach to geomicrobiology. B. Kiel Reese. Rice University, Houston, TX (9/11/14)
7. Expanding the Deep Subsurface Biosphere: A case study of fungi in South Pacific Gyre. B. Kiel Reese. International Continental Drilling Program Workshop. Potsdam, Germany (11/2-4/14)
6. Microbial community structure as a reflection of the distribution and speciation of iron within North Pond sediments. B.K. Reese, U. Jaekel, E. Carvalho[**], P. Girguis, H.J. Mills, B. Orcutt, B. Toner, K.J. Edwards. American Geophysical Union Fall Meeting, San Francisco, CA (12/9-13/13)
5. Microbial Ecology of the Benthic-Pelagic Interface within the Northern Gulf of Mexico Hypoxic Zone. B. Kiel Reese. Coastal Estuarine Research Federation conference, San Diego, CA (11/7/13)
4. Biogeography of geochemical characterizations and microbial communities within shallow and deep subsurface sediments. B. Kiel Reese. Microenergy Workshop, University of Aarhus, Denmark (5/7/12)
3. Biogeography of geochemical characterizations and microbial communities within shallow and deep subsurface sediments, Center for Dark Energy Biosphere Investigations Networked Speaker Series / University of Southern California, Los Angeles, CA (11/10/11)
2. Geochemical and Molecular of sulfur and iron reducing populations within coastal environments. B. Kiel Reese. University of Texas Marine Sciences Institute, Port Aransas, TX (6/11)
1. Microbial Iron and Sulfate Reduction in Anoxic and Hypoxic Environments. B.K. Reese, H.J. Mills, and J.W. Morse. Max Planck Institute for Marine Microbiology, Bremen, Germany (7/09)

STUDENT PRESENTATIONS ([§]presenter; [*]Graduate student researcher, [**]Undergraduate researcher)

18. Active microbial community survival in Mariana Forearc sediments. Mullis, M.M.[*§], K. Mullane, R. Kevorkian, C. Moyer, D. Bartlett, K.G. Lloyd, B. Kiel Reese, and IODP Expedition 366 Science Party. Oral at U.S. Advisory Committee for Scientific Ocean Drilling (USAC) Meeting, New York, NY (07/2019)
17. Transcripts as a Proxy for Quantification of Biogenic Methane. Clarkson, C.C.[**], B. Kiel Reese. Poster at TriBeta South Central Regional Convention. Corpus Christi, TX (4/5-6/19)
16. Seasonal and Diurnal Variation of Methane Flux in Mangrove Ecosystems. Weisend, R.E.[*§], S. McGuire[**], B. Denney[**], L. Zhang, B. Kiel Reese. Oral at ASLO Aquatic Sciences Meeting, San Juan, Puerto Rico (02/2019)
15. Sorting and Cultivation of Single Cells from Sediment. Weisend, R.E. [§*], M. Mullis[*], B. Kiel Reese. Poster at American Society for Microbiology Texas Branch Meeting. Corpus Christi, TX (11/9-10/18)
14. Analysis of two Penicillium genomes from the Oligotrophic Marine Subsurface. M.S. Sobol[*§], T. Hoshino, T. Futagami, F. Inagaki, B. Kiel Reese. Oral at Texas Branch ASM Fall Meeting. Corpus Christi, TX (11/8-10/18)
13. Active microbial community structure along the Mariana Forearc summits. M.M. Mullis[*], B. Kiel Reese, R. Kevorkian, K.G. Lloyd, C. Moyer, and IODP Expedition 366 Science Party. Oral at IODP Expedition 366 Post-Cruise Meeting, Honolulu, HI (9/10-12/18)

12. Effects of Nitrate and Ammonia on Wetland Predation. B.C. Denney [**], R.E. Weisend[*], D.L. Smee, B. Kiel Reese. Poster at Sigma Xi Meeting, Corpus Christi, TX (3/3/18)
11. Biologically-Mediated Methane Cycling in Texas Wetland Mangroves. Weisend, R.E.[*§], B. Kiel Reese. Oral at SACNAS Annual Meeting. Salt Lake City, Utah (10/19-21/17)
10. Antibiotic Gene Expression in Marine Sediments. Mullis, M.M.[*§], B. Kiel Reese. Oral at Marine Science Graduate Student Research Symposium. Corpus Christi, TX (12/2/16)
9. Characterization of Deep Marine Subsurface Fungi from South Pacific Gyre Sediments. Sobol, M.S. [*§], B. Kiel Reese. Oral at Marine Science Graduate Student Research Symposium. Corpus Christi, TX (12/2/16)
8. Microbial and Biogeochemical Fluxes in a Wetland Mangrove Ecosystem. Weisend, R.E. [*§], B. Kiel Reese. Oral at Marine Science Graduate Student Research Symposium. Corpus Christi, TX (12/2/16)
7. Pray, R. [**§], B. Kiel Reese. 2016. Influence of Sedimentary Microbial Communities on the Gulf of Mexico Hypoxic Zone. Texas Branch Fall Meeting of the American Society for Microbiology, Dallas, TX. (11/10-12/16)
6. Investigating the Differences in the Total and Active Microbial Community of Mid-Atlantic Ridge Sediments. Sobol, M.S.[** §], L.A. Zinke[*], B. Orcutt, H. Mills, K. Edwards, P. Girguis, B. Kiel Reese. Poster at ASLO Ocean Sciences Meeting, New Orleans, LA (2/21-26/16)
5. Zinke, L.A.[* §], M. Sobol[**], I. Marshall, J. Bird, J. Amend, K. Lloyd, B. Kiel Reese. Metatranscriptomic insight into active microbial populations in Baltic sediments. Poster at Gordon Research Conference on Geobiology, Galveston, TX (1/31-2/5/16)
4. Microbial communities in near surface sediments on the Dorado Outcrop. L.A. Zinke[*§], B. Kiel Reese, B.N. Orcutt, C.G. Wheat, J.P. Amend. Oral at CDEBI Annual Meeting, Marina, CA (10/2015)
3. Metatranscriptomic insight into active microbial populations in Baltic sediments. L.A. Zinke[*§], M. Sobol[**], J. Bird, I.P.G. Marshall, K.G. Lloyd, J.P. Amend, B. Kiel Reese. Poster at IODP Expedition 347 Post-Cruise Meeting, Stockholm, Sweden (9/2015)
2. Bacterial Diversity in Deep Sediments in the Baltic Sea Basin. L.A. Zinke[*§], B.K. Reese, J.P. Amend. Poster at Southern California Regional Geobiology Symposium. (5/2015)
1. Coupling Geochemical cycles to molecular microbial ecology in shallow marine sediments. K. Kimball [**§], B.K. Reese, M. McCarthy, B. Romero, W. Gardner, and H.J. Mills. Poster at Student Research Week, College Station, TX (05/10)

CONFERENCES ([§]presenter; [*]Graduate student researcher, [**]Undergraduate researcher)

26. Active microbial community diversity from seamounts along the Mariana Forearc. B. Kiel Reese[§], M.M. Mullis[*], C. Moyer, K.G. Lloyd, R. Kevorkian, and IODP Expedition 366 Scientists. Poster at Gordon Geobiology Research Conference, Galveston, TX (1/21-26, 2018)
25. In situ Electrochemical enrichment of subsurface bacteria at the Sanford Underground Research Facility. Y. Jangir [*§], A. Karbelkar, L. Zinke[*], B. Kiel Reese, G. Wanger, C. Anderson, J.P. Amend, M.Y. El-Naggar. Poster at Astrobiology Conference, Phoenix, AZ (4/17)

24. Active subsurface cellular function in the Baltic Sea Basin, IODP Exp 347. B. Kiel Reese[§], L.A. Zinke[*], J. Bird, I. Marshall, K. Lloyd, J. Amend, B.B. Jorgensen. Poster at American Geophysical Union, San Francisco, CA (12/12-16/16)

23. Total and active microbial community structure within North Pond sediments. B. Kiel Reese[§], L. Zinke[*], H. Mills, P. Girguis, B. Orcutt, K. Edwards, J. Amend. Poster at Deep Carbon Observatory Second International Science Meeting, Munich, Germany (3/26-28/15)

22. Microbial community structure as a reflection of the distribution and speciation of iron within North Pond sediments. B. Kiel Reese[§], U. Jaekel, E. Carvalho[**], P. Girguis, H.J. Mills, B. Orcutt, B. Toner, K.J. Edwards. Oral at Center for Dark Energy Biosphere Investigations Annual Meeting, Marina, CA (10/7-9/13)

21. Active and Total Microbial Community Structure in relation to Metal Availability within Subsurface Sediments. B. Kiel Reese[§], L. Zinke[*], H. J. Mills, K. Edwards. Poster at Goldschmidt Geochemistry Conference. Florence, Italy (08/13)

20. Expanding the Subsurface Biosphere: Detecting Viable Fungal Populations in the South Pacific Gyre. B. Kiel Reese[§], M. Ariza, C. St. Peter[*], H.J. Mills. Oral at American Society of Limnology and Oceanography Aquatic Sciences Meeting, New Orleans, LA (2/17-22/13)

19. Re-Defining the Subsurface Biosphere: Characterization of Fungal Populations from Energy Limited Deep Marine Subsurface Sediments. B. Kiel Reese[§], M. Ariza, C. St. Peter, C. Hoffman, K.J. Edwards, H.J. Mills. Poster at American Geophysical Union Fall Meeting, San Francisco, CA (12/2012)

18. Characterization of Fungal Populations from South Pacific Gyre Sediments. B. Kiel Reese[§], M. Ariza, C. St. Peter[**], C. Hoffman, K. Edwards, H. J. Mills. Poster at Post-Expedition meeting for IODP Expedition 329 (South Pacific Gyre), Kona, HI (5/2012)

17. Metal Availability and Active Microbial Community Structure within North Pond Subsurface. B. Kiel Reese[§], L. Zinke[*], J. Hoese[**], C. Hoffman, K.J. Edwards, H.J. Mills. Poster at Post-Expedition meeting for IODP Expedition 336 (North Pond), Catalina, CA (2/2012)

16. Biogeography of Metabolically Active Microbial Populations within the Subseafloor Biosphere. B. Kiel Reese[§], A.K. Shepard, C. St. Peter[**] and H.J. Mills. Poster at American Geophysical Union Fall Meeting, San Francisco, CA (12/11)

15. Exploring how to characterize the subsurface biosphere by drilling beneath the Great Barrier Reef. H.J. Mills[§], B.K. Reese, C. St. Peter[**], A. Shepard, and the IODP Expedition 325 Scientists. Poster at Post-Expedition 325 Meeting, Herron Island, Queensland, Australia (7/3-6/2011)

14. Molecular and Geochemical Characterization of Sulfur and Iron Reducing Populations within an Estuary Salinity Gradient. H.J. Mills[§], B.K. Reese, and J.W. Morse. Poster at American Society of Limnology and Oceanography Aquatic Sciences Meeting, San Juan, PR (02/11)

13. Linking molecular microbiology and geochemistry to better understand microbial ecology in coastal river-influenced marine sediments. B. Kiel Reese[§], B. Romero[**], A. Shepard[*], S. Dowd, S. DiMarco, J.W. Morse, H.J. Mills. Oral at American Society of Limnology and Oceanography Aquatic Sciences Meeting, San Juan, Puerto Rico (2/13-18/11)

12. Linking Molecular Microbial Ecology to Geochemistry in a Coastal Hypoxic Zone. B. Kiel Reese[§], H.J. Mills, X. Li, S. Dowd, A. Shepard[*], T. Bianchi, and J.W. Morse. Oral at

American Society of Limnology and Oceanography Ocean Sciences Meeting, Portland, OR (2/22-26/10)

11. Benthic Biogeochemistry of Microbial Iron and Sulfate Reduction in the Gulf of Mexico Hypoxic Zone. B.K. Reese[§], H.J. Mills, and J.W. Morse. Oral at All Hands Meeting for Gulf of Mexico Hypoxic Zone Research, College Station, TX (10/09)
10. Linking Molecular Microbial Ecology to Geochemistry in a Coastal Hypoxic Zone. B.K. Reese [§], H.J. Mills, X. Li, S. Dowd, A. Shepard, T. Bianchi, and J.W. Morse. Poster Presentation at IODP New Ventures in Exploring Scientific Targets, Bremen, Germany (9/23-25/09)
9. Benthic Biogeochemistry of Microbial Iron and Sulfate Reduction in the Gulf of Mexico Hypoxic Zone. B.K. Reese [§], H.J. Mills, and J.W. Morse. Poster Presentation at American Society of Microbiology, Philadelphia, PA (5/17-21/09)
8. Benthic Biogeochemistry of Microbial Iron and Sulfate Reduction in the Gulf of Mexico Hypoxic Zone. B.K. Reese [§], H.J. Mills, and J.W. Morse. Poster Presentation at American Society of Limnology and Oceanography Aquatic Sciences Meeting, Nice, France (02/09)
7. Dimethyl sulfide production in a saline eutrophic lake, Salton Sea, California. B.K. Reese[§] and M.A. Anderson. Oral at Goldschmidt Geochemical Conference, Vancouver, B.C. (7/13-18/08)
6. Sulfide and Other Reduced Chemical Species in the Salton Sea, CA. B.K. Reese[§] and M.A. Anderson. Poster at American Society of Limnology and Oceanography Aquatic Sciences Meeting, Santa Fe, NM (2/4-9/07)
5. Volatile Organic Sulfur Compounds of the Salton Sea, CA. B.K. Reese[§] and M.A. Anderson. Poster at North American Lake Management Society Conference, Indianapolis, IN (10/2006)
4. Perchlorate in Groundwater: A Synoptic Survey of Background Levels at "Pristine" Locations in the United States. Parker, D.R. [§], A.L. Seyfferth, and B.K. Reese. Society of Environmental Toxicology and Chemistry Europe 16th Annual Meeting, The Hague, Netherlands (2006)
3. Sulfate and Nitrate Reduction in the Salton Sea, CA. B.K. Reese[§] and M.A. Anderson. Poster at California Lake Management Society Conference, Lake Tahoe, CA (07/2006)
2. What's That Smell? Amrhein, C.A. [§], B.K. Reese and M.A. Anderson. Oral at Salton Sea advisory meeting, Palm Desert, CA (06/2006)
1. Sulfide and Other Reduced Species in the Salton Sea. B.K. Reese[§], M.A. Anderson, and C.A. Amrhein. Poster at UC Riverside Graduate Student Symposium, Riverside, CA (05/2006)

FELLOWSHIPS and AWARDS

21. Kavli Frontiers in Science Fellow of the National Academies of Sciences (2019)
20. International Ocean Discovery Program Distinguished Lecturer (2019-2020)
19. American Chemical Society New Investigator Award (2017)
18. Hanse-Wissenschaftskolleg (HWK) Institute for Advanced Study Junior Research Fellow at the University of Bremen (2015-2017)
17. Outstanding Islander, TAMU-CC (2015)

16. Texas Water Resources Institute Scholarship (2011)
15. American Chemical Society Graduate Student Award in Environmental Chemistry (2010)
14. National Science Foundation East Asia Pacific Summer Institute Fellowship (2010)
13. Buck Weirus Spirit Award (2010) – awarded to selected students for university service and leadership
12. Texas A&M University Diversity Graduate Fellowship (2007-2010): $84,000
11. Lighthouse Research and Development Fellowship Achievement Award to the single outstanding graduate student within the Department of Oceanography (2009)
10. Pipes Merit Fellowship – Texas A&M College of Geoscience (2008-2009)
9. Pinnacle Honor Society selected member – Texas A&M Chapter (2008)
8. American Society of Limnology and Oceanography Travel Grant (2008-2009)
7. George Bush Library Travel Grant (2008-2009)
6. Ecological and Evolutionary Biology Travel Grant (2008-2009)
5. Albert Marsh Scholarship Award – University of California Riverside (2006-2007)
4. California Lake Management Society Scholarship for research achievement (2006-2007)
3. College Fellowship Award, Department of Environmental Sciences, University of California Riverside (2005-2007)
2. Geology Department Scholarship Award – Southern Methodist University (1999-2001)
1. Mustang Scholarship Award – Southern Methodist University (1997-2001)

STUDENT FELLOWSHIPS AND AWARDS (*Graduate, **Undergraduate)

Rachel Weisend* (MARB Ph.D.):
- ASLO Limnology and Oceanography Research Exchange (LOREx) (2019-2020)
- Texas Branch of the American Society of Microbiology Dr. Millicent and Eugene Goldschmidt Award ($9,000) (2018-2019)
- Texas Sea Grant Grants-in-Aid Scholarship ($2,000) (2018-2019)
- Sigma Xi Grants-in-Aid Scholarship ($1,000) (2018-2019)
- TAMU-CC Student Research Competition Scholarship ($800) (2018-2019)
- R.N. "Dick" Conolly Endowed Scholarship for academic achievement, ($1,000) (2017-2018)
- Texas Sea Grant Grants-in-Aid Scholarship, ($1,972) (2017-2018)

Megan Mullis* (MARB Ph.D.)
- Texas Branch of the American Society of Microbiology Dr. Millicent and Eugene Goldschmidt Award ($9,000) (2020-2021)
- Sloan Foundation's Deep Carbon Observatory - Deep Life Cultivation Research Exchange ($5,000) (2019)
- TAMU-CC Student Research Competition Awardee ($800) (2018-2019)
- Schlanger International Ocean Discovery Program Fellowship ($30,000) (2018-2019)
- NSF Science and Technology Center for Dark Energy Biosphere Investigations Research Exchange Grant ($2,000) (2018)
- Texas Sea Grant Grants-in-Aid of Graduate Research Award ($1,821) (2017-2018)
- R.N. "Dick" Conolly Endowed Scholarship Recipient ($500) (2017-2018)

Christian Cunningham* (MARB M.S.)

3-Minute Thesis competition at TAMUCC 1st Place (2018)

Clay Clarkson **
Tri-Beta Honor Society research award ($500) (2018)

Susan McGuire **
Tri-Beta Honor Society research award ($500) (2018)

ACADEMIC SERVICE

NATIONAL / INTERNATIONAL

International Ocean Discovery Program NEXT national steering committee for ocean drilling beyond 2023 (2019)
International Ocean Discovery Program Science Evaluation Panel (2016-2019)
Sloan Foundation's Deep Carbon Observatory – Deep Life Synthesis committee (2015-2019)
National Visiting Committee for Del Mar College Revising Science Education with Vision project (2016)
NSF Science & Technology Center Dark Energy Biosphere Investigations Activity theme team (2012-2014)
NSF Science & Technology Center for Dark Energy Biosphere Investigations Evolution theme team (2012-2013)
IODP New Ventures in Exploring Scientific Targets (INVEST) contributor (2009)

UNIVERSITY

Council of Principle Investigators and Research Administrators (2017-2020); Vice-Chair (2019-2020)
Radiation Safety Committee, TAMU-CC (2015-Present)
Dive Control Board, University of Southern California (Provost appointed) (2013-2014)
Legislative Committee, chair, organized delegation to Day on the Hill, Austin, TX (2009)
University Research Environment Council, Texas A&M University (University President appointed) (2008-2010)
University Graduate Operations Committee, Texas A&M University (University President appointed) (2008-2010)
Advisory panel to the President of Texas A&M University for selection of Vice-President of Student Affairs (2008)
Faculty Senate, Texas A&M University (2008-2009)

COLLEGE

Distinguished Lecture Seminar Series TAMU-CC (2019-Present)
Distinguished Lecture Seminar Series, Chair, TAMU-CC (2015-2017)

DEPARTMENT / PROGRAM

Faculty search committee for Marine Biology (2018)
Faculty search committee for Biomedical Sciences (2018)
Marine Biology Curriculum Committee, TAMU-CC (2016-2018)
Library liason for Coastal and Marine System Science, TAMU-CC (2017-2018)
Sigma Xi Research Society executive board, Texas A&M chapter (2008-2011)
Recruitment and Academic Advisory, Texas A&M Oceanography Department (2009-2010)
Faculty Search Committee, UCR Soil and Water Sciences Department (2006)

Executive Vice President, Graduate Student Council, Texas A&M University (2008-2009), member (2007-2010)

Co-Director, Environmental Sciences Graduate Student Association, UC Riverside (2006-2007)

CONVENER

American Society of Limnology and Oceanography Aquatic Sciences Meeting, San Juan, Puerto Rico; "Carbon cycling within coastal wetlands and water bodies" (February 23-28, 2019)

American Society of Microbiology Texas Branch Meeting, Corpus Christi, TX; "Environmental Microbiology" (November 9-10, 2018)

American Geophysical Union Fall 2017 conference, San Francisco, CA; "Serpentinite Materials: From Mantle to Microbes and Everything In Between" (December 11-15, 2017)

American Geophysical Union Fall 2016 conference, San Francisco, CA; "Understanding microbial life in the subsurface through interdisciplinary approaches" (December 12-16, 2016)

International Ocean Discovery Program Workshop, College Station, TX; "Multidisciplinary Transect Drilling During Transits" (November 10-12, 2013)

American Geophysical Union Fall 2012 conference, San Francisco, CA; "The Deep Biosphere - Recent progress in life in the deep subsurface" session

American Geophysical Union Fall 2011 conference, San Francisco, CA; "Novel Microbial Processes in the Deep Biosphere" session

FACULTY ADVISOR

Islander Stream Team, TAMU-CC (2015-2017)

DELEGATE

Lindau Meeting of Nobel Laureates – Selected as U.S. delegate to attend the 59th meeting of Nobel Laureates in Lindau, Germany (2009)

Academic delegate representing Oceanography Department on official visit to Ocean University of China, Qingdao, China (2008)

COMMUNITY OUTREACH

ORGANIZER

Earth Day Bay Day in Corpus Christi, Texas (2018 and 2019)

Kaffie Middle School STEAM Night (2017, 2018, 2019)

PRESENTER

Scientists at Home: Secrets of the Deep Sea, American Museum of Natural History (8/13/2020)

American Cetacean Society (2018)

STEM Café at Texas State Aquarium, present and lead activity for secondary school students (10/2/2017)

SCIENCE JUDGE

National Ocean Sciences Bowl for high school students (2008-2016)

QuickSCience for high school students (2013)

Harmony Science Academy science fair, all ages (2011)

SCUBA volunteer at Aquarium of the Pacific, Long Beach, CA (2012-2015)

DOCUMENTARY FEATURE: "Climate Change Two-Degree Target", Nature Video (August 2009) http://www.youtube.com/watch?v=Bm2w5OTV3ig

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PROFESSIONAL DEVELOPMENT

European Consortium for Ocean Drilling Training Course, Bremen, Germany (March 2017)
Early Career Geoscience Faculty workshop sponsored by National Association of Geoscience Teachers, University of Maryland (July 2016)
Deep Carbon Observatory Deep Life Workshop, Redondo Beach, CA (May 2016)
ALVIN New User Workshop, Woods Hole Oceanographic Institute (September 2015)
Certificate of Best Practices for Online Course Design, Corpus Christi, TX (May 2015)
Challenge-Based Instruction Faculty Development Workshop, Corpus Christi, TX (March 2015)
Strategies and Techniques for the Analysis Microbial Populations, Marine Biological Lab (August 2014)
Deep Submergence Science Committee Early Career Workshop, San Francisco, TX (Dec 2013)
Joint Genome Institute Microbial Genomics and Metagenomics Training Workshop, Berkeley, CA (Sept 2013)
Earthcube Deep Sea Processes, workshop on data management – National Science Foundation (May 2013)
Marine Geoscience Leadership Symposium selected participant – Consortium of Ocean Leadership, Washington, D.C. (March 2013)
Ecological Dissertations in the Aquatic Sciences selected participant – Center for Microbial Oceanography: Research and Education, Oahu, Hawaii (Oct 2012)
Ocean Crust Processes and Consequences for Life - Research Coordination Network Workshop, Bremen, Germany (June 2012)
Preparing for a Career in Geoscience Workshop selected participant - National Science Foundation (2008 and 2013)
Engaging Early-Career Scientists in Future Scientific Ocean Drilling - IODP (2011)

FIELD EXPERIENCE

Research Cruises

August/September 2019 R/V Sikuliaq, Juan de Fuca Ridge, John Collins (WHOI) Chief Scientist
June 2016 R/V Aurora, Baltic Sea Basin sediment, Hans Roy (Aarhus Univ) Chief scientist
Oct 2013 R/V Endeavor, UNOLS Chief Scientist Training Cruise
May 2013 D/V JOIDES Resolution, IODP Expedition 341S, Juan de Fuca Ridge
June 2011 R/V Blazing Seven, Gulf of Mexico, T. Bianchi (TAMU) chief scientist
Apr 2011 R/V Pelican, Gulf of Mexcio, T. Bianchi (TAMU) chief scientist
July 2010 R/V Pelican, Gulf of Mexcio, M. Daag (LSU) chief scientist
July 2009 R/V Pelican, Gulf of Mexcio, S. DiMarco (TAMU) chief scientist
July 2008 R/V Pelican, Gulf of Mexcio, S. DiMarco (TAMU) chief scientist
Apr 2008 R/V Pelican, Gulf of Mexcio, S. DiMarco (TAMU) chief scientist

Dec 2008 Royal Caribbean *Explorer of the Seas*, Eastern Caribbean Sea, Invited Scientist (NOAA)

Numerous small boat operations and equipment deployment in coastal, lake, and inter-tidal environments

Field Expeditions

Dec 2014 Sanford Underground Research Facility (SURF), Homestake Gold Mine

April 2014 Sanford Underground Research Facility (SURF), Homestake Gold Mine

Feb 2014 Sanford Underground Research Facility (SURF), Homestake Gold Mine

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TRAINING

AAUS Scientific Diver and NAUI Master Diver

Radiation Safety (isotopes include C-14 and S-35)

Proficient use of analytical instrumentation including: X-ray Absorption Spectroscopy (XAS), IC, HPLC, GC/MS, fluorescence spectrophotometric instrumentation, flow injection autoanalyzer, and potentiometric instrumentation

Proficient in molecular techniques including: nucleic acid extraction from sediment and water, PCR, Reverse Transcription PCR, Quantitative PCR analyses, and culture analyses

Trained and proficient in the operation of Roche 454 GS FLX pyrosequencer, IonTorrent sequencer, Illumina MiSeq

Field experience (18+ years) with groundwater, surface water, soil and sediment collection following standard QA/QC protocols

Collection of in situ water quality parameters using CTD, YSI, and Hach Hydrolab Multiprobe

Computer skills: Bioinformatic software including Qiime, mothur, Geneious, Ribosomal Database Project, CLC Bio; Python coding language; Golden Software (Surfer, Grapher, ArcView); Hydrus-1D and 2D Modeling Software; ArcGIS; SigmaPlot, PC-ORD

GRANT PROPOSAL REVIEWER

European Research Council (ERC)
French National Research Agency (ANR)
U.S. Department of Energy
National Science Foundation, Geobiology and Low-Temperature Geochemistry
National Science Foundation, Ocean Sciences
National Aeronautics and Space Administration, Exo-Biology
International Ocean Discovery Program
Center for Dark Energy Biosphere Investigations
Texas A&M University-Corpus Christi Research, Commercialization, and Outreach

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REFEREED JOURNALS

Science
Nature Geosciences
Journal of Biogeosciences

Environmental Microbiology
Estuarine, Shelf, and Coastal Science
Environmental Science and Technology
International Society Microbial Ecology
Geomicrobiology Journal
Geobiology Journal
Limnology and Oceanography
Frontiers in Extreme Microbiology

ADVISORS

Graduate: Michael Anderson (UCR), John Morse (TAMU, Deceased)
Post Doctoral: Katrina Edwards (USC, Deceased), Jan Amend (USC)

MEMBERSHIPS AND ACCREDIDATIONS

California Registered Environmental Assessor (#7974)
Sigma Xi (Executive Board Member)
American Society of Limnology and Oceanography
American Academy of Underwater Scientists
American Chemical Society
Geological Society of America
American Society for Microbiology