

KARRIE A. WEBER

School of Biological Sciences
University of Nebraska—Lincoln
232 Manter Hall
Lincoln, NE 68588-0118

Phone: (402)472-2739
E-mail: kweber2@unl.edu

Department of Earth and Atmospheric
Sciences
University of Nebraska—Lincoln
227 Bessey Hall
Lincoln, NE 68588-0340

EDUCATION

Ph.D. Biological Sciences, The University of Alabama, Tuscaloosa, AL, May 2002. *Microbial Coupling Between Nitrogen and Iron Cycles: Potential Implications for Nitrate and Iron Biogeochemistry and Metal Mobility in Sedimentary Environments* (Advisor: Eric E. Roden)

B.S. Wildlife and Fisheries Science, Texas A&M University, College Station, TX, December 1995.

PROFESSIONAL EXPERIENCE

2024-present Professor, School of Biological Sciences, University of Nebraska-Lincoln (0.5FTE)

2024-present Professor, Department of Earth and Atmospheric Sciences, University of Nebraska-Lincoln (0.3FTE)

2020-present Director, Microbiology Program, College of Arts and Sciences and College of Agriculture and Natural Resources, University of Nebraska-Lincoln (0.2FTE)

2021-present Child Health Research Institute, University of Nebraska Medical Center, Member

2015-present Robert B. Daugherty Water for Food Institute Faculty Fellow

2020-2024 Associate Professor, School of Biological Sciences, University of Nebraska-Lincoln (0.5FTE)

2020-2024 Associate Professor, Department of Earth and Atmospheric Sciences, University of Nebraska-Lincoln (0.3FTE)

2016-2020 Associate Professor, School of Biological Sciences, University of Nebraska-Lincoln (0.6FTE)

2016-2020 Associate Professor, Department of Earth and Atmospheric Sciences, University of Nebraska-Lincoln (0.4FTE)

2018 Visiting Faculty, Lawrence Berkeley National Laboratory, Berkeley, CA

2008-2016 Assistant Professor, School of Biological Sciences, University of Nebraska-Lincoln (0.6FTE)

2008-2016 Assistant Professor, Department of Earth and Atmospheric Sciences, University of Nebraska-Lincoln (0.4FTE)

2006-2008	Assistant Researcher, Professional Research Series, Department of Plant and Microbial Biology, University of California, Berkeley [Sponsor: Dr. John D. Coates]
2002-2006	Postdoctoral Scholar, Department of Plant and Microbial Biology, University of California, Berkeley [Advisor: Dr. John D. Coates]
2002	Postdoctoral Scholar, Department of Microbiology, Southern Illinois University, Carbondale [Advisor: Dr. John D. Coates]
2001-2002	Graduate Teaching Assistant, Department of Biological Sciences, The University of Alabama, Tuscaloosa
1996-2001	Graduate Research Assistant, Department of Biological Sciences, The University of Alabama, Tuscaloosa [Dr. Eric E. Roden]
1996	Laboratory and Field Technician, Water Sciences Laboratory, University of Nebraska, Lincoln
1994-1995	Undergraduate Research Assistant, Wildlife and Fisheries Science, Texas A&M University, College Station, Department of Wildlife and Fisheries [Advisor: Dr. James B. Cotner]

SPECIALIZED TRAINING

2023-2024	Research Leaders Program, University of Nebraska—Lincoln
2021	Faculty Leadership in Academia: From Inspiration to Reality (FLAIR) Program, University of Nebraska—Lincoln
2011-2012	Peer Review of Teaching Project, University of Nebraska—Lincoln
2009	Microbial Genomics and Metagenomics Workshop, offered by the Department of Energy Joint Genome Institute, Walnut Creek, California
2003	International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, Ascona, Switzerland
2001-2002	Teaching Advancement Program, Department of Biological Sciences, The University of Alabama, Tuscaloosa, AL

RESEARCH PUBLICATIONS

‡Undergraduate/Post-baccalaureate Student Contributing Author supervised at UNL

§Graduate Student Contributing Author supervised at UNL

!Following publication number denotes press received for publication

*Denotes senior or corresponding author

Peer-Reviewed Publications

48. Fiore, N. A., §, Y. Zhou, **K. A. Weber***. *Methanobacterium nebraskense* sp. nov., a hydrogenotrophic methanogen isolated from saline wetland soil. preprint published on *bioRxiv* BIORXIV/2025/688885 (in review *International Journal of Systematic and Evolutionary Microbiology*)

47. Ma, P., H. Zheng, W. Yi, L. Ma, B. Sigmon, **K. A. Weber**, G. Hu, Q. Yao. Prompt-based bioinformatic pipeline generation for a multi-step metaviral workflow. *Bioinform. Adv.* 6(1), 2026, vbaf308. <https://doi.org/10.1093/bioadv/vbaf308> (Impact Factor = 2.8)
46. Fiore, N.A.§, **K. A. Weber***. Complete genome sequence of a hydrogenotrophic methanogen, *Methanobacterium* sp. ACI-7, isolated from an alkaline-saline wetland. *Microbiol Resour Annc* 14 (10), e00213-25 (2025). <https://doi.org/10.1128/mra.00213-25> (Impact Factor = 0.6)
45. Fiore, N. A.§, A. Kohtz, D. Miller, S. Antony Babu, D. Pan§, C. Lahey‡, N. R. Buan, **K. A. Weber***. 2024. Microbial methane production from calcium carbonate at moderately alkaline pH. *Commun Earth Environ* 6, 85 (2025). <https://doi.org/10.1038/s43247-025-02057-y>. preprint published on *Research Square* [<https://doi.org/10.21203/rs.3.rs-4790757/v1>]. (Impact Factor = 8.9)
44. Quattrone, A., M. Lopez-Guerrero, P. Yadav, M. A. Meier, **K. A. Weber**, S. E. Russo. 2024. Interactions between Root Hairs and the Soil Microbial Community Affect the Growth of Maize Seedlings. *Plant, Cell, and Environment*. 47, 611–628. (Impact Factor = 6.3)
43. Quattrone, A., Y. Yang, P. Yadav, **K. A. Weber**, S. E. Russo. Nutrient and Microbiome-Mediated Plant–Soil Feedback in Domesticated and Wild Andropogoneae: Implications for Agroecosystems. *Microorganisms*. 11(12), 2978. (Impact Factor = 4.2)
42. Yadav P.§, A. Quattrone, Y. Yang, J. Owens‡, R. Kiat, T. Kuppasamy, S. E. Russo, **K. A. Weber***. 2023. *Zea mays* genotype influences microbial and viral rhizobiome community structure. *ISME Communications*. 3: 129. preprint published on *bioRxiv*. BIORXIV/2023/544353. (Impact Factor = 6.1)
41. Malakar, A., C. Ray, M. D'Alessio, J. Shields, C. Adams, M. Stange, **K. Weber**, D. D. Snow. 2023. Interplay of legacy irrigation and nitrogen fertilizer inputs to spatial variability of arsenic and uranium within the deep vadose zone. *Science of the Total Environment*. 897: 165299. (Impact Factor = 8.0)
- 40! Westrop, J.P.§, P. Yadav§,, PJ Nolan§, K. M. Campbell, R. Singh, S. Bone, A. H. Chan‡, A. J. Kohtz‡, D. Pan§, O. Healy§, J. Bargar, D. D. Snow, **K. A. Weber***. 2023. Nitrate stimulated release of sedimentary naturally occurring uranium. *Environmental Science and Technology*. 2023, 57, 10, 4354–4366. (Impact Factor = 11.357)
39. Ouattara, B. S., M. Zahid, F. I. Rahman§, **K. A. Weber**, S. L. Bartelt-Hunt, E. G. Rogan. 2022. Investigation of a possible relationship between anthropogenic and geogenic water contaminants and birth defects in rural Nebraska. *Water*, 14(15): 2289. (Impact Factor = 3.530)
38. Kumar, M., M. Withanage, A. K. An, **K. A. Weber**, P. Bhattacharya. 2022. Geogenic and pathogenic contamination: Issues and innovation in the post-COVID-Anthropocene. *Journal of Hazardous Materials*, 429: 127501. (Impact Factor = 14.224)
37. Malakar, A., R. Singh, J. Westrop§, C. Elofson‡, **K. A. Weber**, M. Kumar, D. D. Snow. 2021 Occurrence of arsenite in surface and groundwater associated with a perennial stream located in Western Nebraska, *Journal of Hazardous Materials*, 416: 126170 (Impact Factor = 14.224)
36. Aldridge, J., S. Carr, **K. A. Weber**, and N. Buan. 2021. Anaerobic production of isoprene by engineered *Methanosarcina* spp. archaea. *Applied and Environmental Microbiology*, 87, e02417-20 (Impact Factor = 5.005)

35. Nolan, P.J§, S. E. Bone, K. M. Campbell, D. Pan§, O. Healy§, M. Stange, J. R. Bargar, and **K. A. Weber***. 2021. Uranium(VI) attenuation in a carbonate-bearing oxic alluvial aquifer. invited, *Journal of Hazardous Materials*, 412: 125089 (Impact Factor =14.224)
34. Yadav, P. §, S. Antony-Babu, E. Hayes‡, O. Healy§, D. Pan§, C. Anderson§, A. Voshal, S. C. Fernando, E. N. Moriyama, J. R. Herr, **K. A. Weber***. 2021. Complete genome sequence of *Geobacter* sp. strain FeAm09, a moderately acidophilic soil bacterium. *Microbiology Resource Announcements*, 10, 10.1128/MRA.00979-20 (Impact Factor =0.886)
33. Fiore, N. A.§, D. D. Dunigan, J. J. Shaffer, R. Roberts, S. Antony-Babu, B. A. Plantz, K. W. Nickerson, A. Benson, **K. A. Weber***. 2019. Microbial community of saline, alkaline lakes in the Nebraska Sandhills based on 16S rRNA gene amplicon sequence data. *Microbiology Resource Announcements*. 8 (12), e00063-19. (Impact Factor =0.886)
32. Buan, N., **K. A. Weber**. 2018. Production of bioisoprene from wastewater. The Water Research Foundation. NTRY6R14/4822.
31. Pan, D.§, K. H. Williams, M. J. Robbins, **K. A. Weber***. 2018. Uranium retention in a bioreduced region of an alluvial aquifer induced by the influx of dissolved oxygen. *Environmental Science and Technology*. 52 (15), 8133-814. doi: 10.1021/acs.est.8b00903 (Impact Factor =11.357)
30. Pan, D.§, J. Nolan§, K. H. Williams, M. J. Robbins, **K. A. Weber***. 2017. Abundance and distribution of microbial cells and viruses in an alluvial aquifer. *Frontiers in Microbiology*. 8: 1199. doi: 10.3389/fmicb.2017.01199 (Impact Factor =6.064)
- 29! Nolan, J. P.§, **K. A. Weber***. 2015. Natural uranium contamination in major US aquifers linked to nitrate. *Environmental Science and Technology Letters*. 2: 215-220. doi:10.1021/acs.estlett.5b00174 (Impact Factor = 11.558) *Press coverage
 *Highlighted as Editor's Choice in *Science*; Most downloaded or read in *ES&T Letters* in August 2015 and 2nd most read in 12 Months following publication
28. Kettler, R. M., D. B. Loope, **K. A. Weber**, P. B. Niles. 2015. Life and liesegang: outcrop-scale microbially-induced diagenetic structures and geochemical self-organization phenomena produced by oxidation of reduced iron. *Astrobiology*. 15: 616-636. doi:10.1089/ast.2015.1305 (Impact Factor = 4.280)
27. Pan, D.§, R. Watson‡, D. Wang‡, Z. H. Tan‡, D. Snow, **K. A. Weber***. 2014. Correlation between viral production and carbon mineralization under nitrate reducing conditions in aquifer sediment. *The ISME Journal*. 8: 1691-703. doi:10.1038/ismej.2014.38 (Impact Factor = 11.217)
26. Russo S. E., R. Legge, **K. A. Weber**, E. L. Brodie, K. C. Goldfarb, A. Benson, S. Tan. 2012. Shifts in bacterial community structure in contrasting soils underlying Bornean rain forests: inferences from Phylochip and next-generation sequencing methods. *Soil Biology and Biochemistry*. 55: 48-59. doi:10.1016/j.soilbio.2012.05.021 (Impact Factor = 5.795)
25. Loope, D. B., R. M. Kettler, **K. A. Weber**, N. L. Hinrichs, and D. T. Burgess. 2012. Rind iron-oxide concretions: Hallmarks of altered siderite masses of both early and late diagenetic origin. *Sedimentology*. 59: 1769–1781. doi:10.1111/j.1365-3091.2012.01325.x (Impact Factor = 3.810)

24. Yang, W., **K. A. Weber**, W. L. Silver. 2012. Nitrogen loss from soil via anaerobic ammonium oxidation coupled to iron reduction. *Nature Geoscience*. **5**: 538–541. doi:10.1038/NGEO1530 (Impact Factor = 21.531)
- 23! **Weber, K. A.***, T. L. Spanbauer‡, D. Wacey, M. R. Kilburn, D. B. Loope. R. M. Kettler. 2012. Biosignatures link microorganisms to iron mineralization in a paleoaquifer. *Geology*. **40**: 747-750. doi:10.1130/G33062.1 (Impact Factor = 6.324) *Press coverage (journal cover article)
22. Byrne-Bailey, K. G., **K. A. Weber**, and John D. Coates. 2012. The draft genome sequence of the anaerobic nitrate-dependent Fe(II) oxidizing bacterium *Pseudogulbenkiania ferrooxidans* strain 2002. *Journal of Bacteriology*. **194**: 2400-2401. doi:10.1128/JB.00214-12 (Impact Factor = 3.476)
21. Li, H., J. Peng, **K. A. Weber**, Y. G. Zhu. 2011. Influence of short-chain fatty acids on the Fe(III)-reducing microbial community structure in rice paddy soil. *Journal of Soils and Sediments*. **11**:1234-1242. doi: 10.1007/s11368-011-0371-2 (Impact Factor = 3.536)
20. Van Trump, J. I., K. A. Wrighton, J. C. Thrash, **K. A. Weber**, G. L. Andersen, J. D. Coates. 2011. Humic acid-oxidizing, nitrate-reducing bacteria in agricultural soils. *mBio* **2**(4):e00044-11. doi:10.1128/mBio.00044-11. (Impact Factor = 7.786)
19. Loope, D. B., R. M. Kettler, **K. A. Weber**. 2011. Morphologic clues to the origins of iron-oxide-cemented spheroids, “boxworks”, and pipe-like concretions, Navajo Sandstone of south-central Utah, USA. *Journal of Geology*. **119**:505-520. doi:10.1007/s11368-011-0371-2 (Impact Factor = 2.661)
18. **Weber, K. A.**, J. C. Thrash, J. I. Van Trump, L. A. Achenbach, J. D. Coates. 2011. Environmental and taxonomic bacterial diversity of anaerobic uranium(IV) bio-oxidation. *Applied and Environmental Microbiology*. **77**:4693-4696. doi:10.1128/AEM.02539-10 (Impact Factor = 5.005)
17. R. M. Kettler, Loope, D. B., **K. A. Weber**. 2011. Follow the Water: Connecting a CO₂ reservoir and bleached sandstone to iron-rich concretions in the Navajo Sandstone: Reply. *Geology*. **39**: e251-e252. doi:10.1130/G32550Y.1 (Impact Factor = 6.324)
- 16! Loope, D. B., R. M. Kettler, **K. A. Weber**. 2010. Follow the water: Connecting a CO₂ reservoir and bleached sandstone to iron-rich concretions in the Navajo Sandstone of south-central Utah. *Geology* **38**: 999-1002. doi:10.1130/G31213.1 (Impact Factor = 6.324) *Press coverage
15. Byrne-Bailey, K. G.*, **K. A. Weber***, A. H. Chair, S. Bose, T. K. Knox, T. Spanbauer‡, O. Chertkov, and John D. Coates. 2010. Completed genome sequence of the iron oxidizing bacterium *Acidovorax ebreus* strain TPSY. *Journal of Bacteriology*. **192**: 1475-1476. doi:10.1128/JB.01449-09 *These authors contributed equally to this work and have been placed in alphabetical order.
14. Sun, Y., R. L. Gustavson, N. Ali, **K. A. Weber**, L. L. Westphal, and J. D. Coates. 2009. Behavioral response of dissimilatory perchlorate-reducing bacteria to different electron acceptors. *Applied Microbiology and Biotechnology*. **84**:955-963. doi:10.1007/s00253-009-2051-3 (Impact Factor = 5.56)
13. **Weber, K. A.**, D. B. Hedrick, A. D. Peacock, J. C. Thrash, D. C. White, L. A. Achenbach, J. D. Coates. 2009. Physiological and taxonomic description of the novel autotrophic, metal

oxidizing bacterium, *Pseudogulbenkiania* sp. strain 2002. *Applied Microbiology and Biotechnology*. 83:555–565. doi:10.1007/s00253-009-1934-7 (Impact Factor = 5.56)

Prior to arrival at UNL 2001-2008

12. Wrighton, K. C., P. Agbo, F. Warnecke, **K. A. Weber**, E. L. Brodie, T. Z. DeSantis, P. Hugenholtz, G. L. Andersen, J. D. Coates. 2008. A novel ecological role of the Firmicutes identified in thermophilic fuel cells. *The ISME Journal*. 2, 1146–1156. doi: 10.1038/ismej.2008.48 (Impact Factor = 11.217)
11. Pollock, J., **K. A. Weber**, J. Lack, L. A. Achenbach, M. Mormile, and J. D. Coates. 2007. Alkaline iron(III) reduction by a novel alkaliphilic, halotolerant, *Bacillus* sp. isolated from salt flat sediments of Soap Lake. *Applied Microbiology and Biotechnology*. 77, 927-934. doi:10.1007/s00253-007-1220-5 (Impact Factor = 5.56)
10. Thrash, J. C., J. I. Van Trump, **K. A. Weber**, E. Miller, L. A. Achenbach, J. D. Coates. 2007. Electrochemical stimulation of microbial perchlorate reduction. *Environmental Science and Technology*. 41, 1740-1746. doi:10.1021/es062772m (Impact Factor = 11.357)
9. **Weber, K. A.**, L. A. Achenbach, and J. D. Coates. 2006. Microbes pumping iron: Anaerobic microbial iron oxidation and reduction. *Nature Reviews Microbiology*. 4, 752-764. doi:10.1038/nrmicro1490 (Impact Factor = 78.297)
8. **Weber, K. A.**, J. L. Pollock, K. A. Cole, L. A. Achenbach, J. D. Coates. 2006. Nitrate-dependent Fe(II) oxidation by a novel, lithoautotrophic, Betaproteobacterium, Strain 2002. *Applied and Environmental Microbiology*. 72(1) 686-694. doi: 10.1128/AEM.72.1.686-694.2006 (Impact Factor = 5.005)
7. **Weber, K. A.**, M. M. Urrutia, P. F. Churchill, R. K. Kukkadapu, and E. E. Roden. 2006. Anaerobic redox cycling of iron by freshwater sediment microorganisms. *Environmental Microbiology*. 8(1), 100-113. doi: 10.1111/j.1462-2920.2005.00873.x (Impact Factor = 5.005)
6. **Weber, K. A.**, F. W. Picardal, E. E. Roden. 2001. Microbially catalyzed nitrate-dependent oxidation of biogenic solid-phase Fe(II) Compounds. *Environmental Science and Technology*. 35(8), 1644-1650. doi: 10.1021/es0016598 (Impact Factor = 11.35)

Books, Book Chapters, and Reviews

5. Kumar, M. S. Mohapatra, **K. A. Weber**. 2023. *Emerging aquatic contaminants: One health framework for risk assessment and remediation in the post COVID-19 Anthropocene*. Elsevier: Amsterdam, Netherlands. 420 pp.
4. Westrop, J. S., D. D. Snow, and **K. A. Weber***. 2022. Mobilization of naturally occurring uranium in groundwater under intensely managed farmland. In *Food, Energy, and Water Nexus, A Consideration for the 21st Century*. Edited by Chittaranjan Ray, Sekhar Muddu, Sudhirendar Sharma.
3. **Weber, K. A.** and J. D. Coates. 2007. Microbially-Mediated Anaerobic Iron(II) Oxidation at Circumneutral pH. In *Manual of Environmental Microbiology*. Edited by C. J. Hurst, R. L. Crawford, J. L. Garland, D. A. Lipson, A. L. Mills, L. D. Stetzenbach. ASM Press. Section 94.
2. **Weber, K. A.**, J. L. Greenwood, and S. N. Francoeur. 2001. Substratum-Associated Microbiota. *Water Environment Research*. 73(5) 44 pp. (Impact Factor = 3.306)
1. Francoeur, S. N., and **K. A. Weber**. 2000. Substratum-Associated Microbiota. *Water Environment Research*. 72(5) 58 pp. (Impact Factor = 3.306)

Manuscripts in Review, Revision, or Preparation

Yadav P. §, A. Quattrone, Y. Yang, S. Babu, M. Weemstra, J. Owens‡, R. Kiat, T. Kuppasamy, M. Lopez-Guerrero, D. P. Schachtman, S. E. Russo, **K. A. Weber***. Stable isotopically labeled metagenome assembled genomes reveal *Z. mays* B73 and *Z. mays* subspecies *parviglumis* root exudates assimilating rhizobiome . (*in preparation*)

Westrop, J.§, P. Yadav§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty, **K. A. Weber***. Oxidation Paradox: Nitrate stimulated U(VI) reduction in Organic Rich Sediments (*in preparation*)

Yadav P. §, J. P. Westrop§, R. Chakraborty³, K. Boye, J. Bargar, **K. A. Weber***. Expression of viral encoded auxiliary metabolic genes in organic-rich sediments following nitrate stimulation. (*in preparation*)

PATENT

1. Buan, N. R., K. A. Weber, J. T. Aldridge, S. R. Carr. 2016. Production of Isoprene by Methane-Producing Archaea. Patent Serial No. 15/383,332. Provisional Patent Awarded (2016).
2. Buan, N. R., K. A. Weber, J. T. Aldridge, S. R. Carr. 2020. Production of Isoprene by Methane-Producing Archaea. Patent No. 10,533,192, January 14, 2020. (Licensed 2022)

JOURNAL COVER

1. Cover image. Microbial Fossils. 2012. *Geology*. 40:(8) cover. Feature article. **Weber, K. A.**, T. L. Spanbauer‡, D. Wacey, M. R. Kilburn, D. B. Loope. R. M. Kettler. 2012. Biosignatures link microorganisms to iron mineralization in a paleoaquifer. *Geology*. 40: 747-750. 10.1130/G33062.1

GRANTS AND SUPPORT

[**Grant support summary:** since arriving at UNL in 2008 grant support totals ~\$23M with ~\$1.65M direct/indirect to KAW as a PI or Co-PI, Total Awarded over career ~\$29M]

Active Grants Awarded

National Science Foundation. RAISE: CET: Natural hydrogen and microbial life in the deep subsurface of midcontinent USA impacting geological production and storage. *Role Co-PI*. (Total Award: \$1,000,000; FY 9/1/2024-8/30/2029). PI, Seunghee Kim, Department of Civil and Environmental Engineering.

Nebraska Center for Energy Sciences Research. Subsurface hydrogen migration and reactions for geological hydrogen production and engineered storage. *Role Co-PI*. (Total Award: \$170,000; FY 1/1/2024-12/31/2025). PI, Seunghee Kim, Department of Civil Engineering.

United States Department of Agriculture-ARS. Nitrogen Research for Agriculture Transformation and Enhancement (NRATE). *Role Co-I*. (Total Award: \$1,594,080; FY 6/1/2021-5/31/2026). PI, Joe Luck, Department of Biological Systems Engineering.

Daugherty Water for Food Institute. Mobilization of Naturally Occurring Uranium into Groundwater, *Role: PI*, (Total Award: \$52,500; FY 7/1/2022 to 6/30/2026). Support for Graduate Research Fellow, Taylor Rosso.

USGS 104b. Is fish tissue methylmercury related to lake sediment methylmercury?, Role Co-PI. (Total Award: \$ 29,801; FY 9/1/2024 to 12/31/2025). PI, Chad Brassil, School of Biological Sciences.

Completed Grants Awarded at UNL

Nebraska EPSCoR. Nitrogen in Water, Agriculture, Technology, and Environmental Research (N-WATER) in a changing climate. *Role Co-PI*. (Total Award: \$20,000; FY 6/1/2023-5/30/2024). PI, Chittaranjan Ray, Department of Civil and Environmental Engineering.

Children's Health Research Institute. Water Quality in Rural Domestic Wells in the Upper Big Blue NRD in Relation to Pediatric Cancers, *Role Co-PI*, (Total Award: \$150,000; FY 7/1/2021-6/30/2024). PI Elanor Rogan, UNMC, Co-PI Shannon Bartelt-Hunt, UNL, Department of Civil Engineering

Upper Big Blue Natural Resource District. Water Quality in Rural Domestic Wells in the Upper Big Blue NRD in Relation to Pediatric Cancers, *Role Co-PI*, (Funds in Kind: FY 7/1/2021-6/30/2024). PI Elanor Rogan, UNMC, Co-PI Shannon Bartelt-Hunt, UNL, Department of Civil Engineering

University of Nebraska EPSCoR. Nitrogen in Water, Agriculture, Technology, and Environmental Research (N-WATER) in a changing climate, *Role Co-PI*. (Total Award: \$19,984; FY 06/01/2023-5/31/2024). PI, Chittaranjan Ray, Nebraska Water Center

Nebraska Center for Energy Sciences. Optimization of biosoprene production from renewable and captured carbon feedstocks, *Role: Co-PI*, (Total Award: \$170,000; FY 1/1/2021 to 12/31/2022). PI Nicole Buan, Dept. of Biochemistry, UNL.

NSF EPSCoR. Center for Root and Rhizobiome Innovation (CRRI). *Role: Senior Personnel* (Total Award: \$20,000,000; \$431,973 Direct/Indirect to KAW, FY 6/6/2016-04/30/2022), PI Matthew Andrews (formerly Fred Choobineh), Nebraska EPSCoR, Co-PI Ed Cahoon, Department of Biochemistry, UNL.

DOE BER Subsurface Biogeochemistry Program. Influx of Oxidants into Reduced Zones: Microbiological Controls Governing Metal Oxidation and Reduction, *Role: PI* (Total Award: \$200,000; FY 9/15/2018-9/14/2021), Co-I Rebecca Lai, Department of Chemistry, UNL, Co-I Josh Herr, Department of Plant Pathology, UNL, Co-I John Bargar, Stanford Light Accelerator Laboratory, Co-I Romy Chakraborty, Lawrence Berkeley National Laboratory.

Daugherty Water for Food Institute. Mobilization of Naturally Occurring Uranium into Groundwater, *Role: PI*, (Total Award: \$33,705; FY 7/1/2017 to 12/31/2020). Support for Graduate Research Fellow, Jeffrey Westrop.

NASA Nebraska Space Grant. Microbial dissolution of solid-phase carbonate minerals and methanogenesis, *Role: PI*, (Total Award: \$10,000; FY 9/1/2020 to 4/30/2021)

Nebraska Center for Energy Sciences. Microbial Electrosynthetic Conversion of CO₂ and Carbonates into Biogas and Bioproducts, *Role: PI*, (Total Award: \$150,000; FY 1/1/2018 to 12/31/2019). Co-PI Nicole Buan, Dept. of Biochemistry, UNL.

NASA Nebraska Space Grant, *Role: PI*, (Total Award: \$4,000; FY 8/1/2018 to 2/28/2019). PI for Graduate Fellow, Nicole Fiore.

USGS National Institute for Water Resources 104(g) Program. Nitrate Mediated Mobilization of Naturally Occurring Uranium in Groundwater, *Role: PI* (Total Award: \$467,500; FY

9/1/2014-8/30/2018), Co-PI, Daniel Snow, School of Natural Resources, UNL; Co-PI Kate Campbell, USGS National Research Program, Boulder, CO

NASA Nebraska Space Grant. Evaluation of Calcium Carbonate as a Source of Methane, *Role: PI*, (Total Award: \$4,000; FY 8/1/2017 to 2/28/2017). Undergraduate Fellow, Anthony Kohtz.

Water Environment Research Foundation. Production of bioisoprene from wastewater, *Role: Co-PI*, (Total Award \$197,664; FY 6/2014-10/2016), in collaboration with Nicole Buan-Murphy (PI), Department of Biochemistry, UNL

Nebraska Center for Energy Sciences Research. Conversion of CO₂ and carbonates to methane and (bio)isoprene, *Role: Co-PI*, (Total Award \$202,994; FY 1/2014-12/2015), Nicole Buan-Murphy (PI), Department of Biochemistry, UNL

NASA Nebraska Space Grant. Iron-dependent anaerobic oxidation of ammonium (Fellowship, Healy). *Role: PI* (\$5,000 Total Award; FY 9/1/2014-5/31/2015), Graduate Fellowship Recipient Olivia M. Healy

UNL Research Council. Nitrate mediated mobilization of naturally occurring Uranium in groundwater, Seed Grant, *Role: PI*, \$10,000. (Total Award \$10,000; FY 1/1/2014-12/31/2014)

NSF Ecosystem Sciences Program, Collaborative Research: Feammox: A new pathway in the terrestrial nitrogen cycle._National Science Foundation, Ecosystem Sciences Program, Biosciences Directorate, *Role: UNL PI* (Total Award \$930,635; \$188,677 direct/indirect to UNL; FY 5/2009-4/2014), Whendee Silver (*Lead PI*), Dept. of Environmental Science, Policy, and Management, UCB

REU: Collaborative Research: Feammox: A new pathway in the terrestrial nitrogen cycle. Ecosystem Sciences, National Science Foundation, *Role: PI* (\$6,999 direct/indirect to UNL; FY 5/2010-4/2011)

REU: Collaborative Research: Feammox: A new pathway in the terrestrial nitrogen cycle. Ecosystem Sciences, National Science Foundation, *Role: PI* (\$7,525 direct/indirect to UNL; FY 5/2011-4/2014)

DOE BER Environmental Remediation Sciences Program, Viral infection of subsurface microorganisms and metal/radionuclide transport. *Role: PI* (\$150,000 Total Award; FY 7/1/2010-6/30/2013), Co-Investigator Yusong Li, Department of Civil Engineering, UNL, Co-Investigator Kelly S. Bender, Department of Microbiology, Southern Illinois University

NASA Nebraska Space Grant. Viruses as an Indicator of Carbon Flux (Fellowship, Pan). *Role: PI* (\$3,500 Total Award; FY 9/1/2012-5/31/2012), Graduate Fellowship Recipient Donald Pan

USGS, National Institute for Water Resources 104(b)Program. Nitrate stimulated oxidative dissolution of U(IV) bearing minerals leading to U mobility in Nebraska groundwater, Department of Interior, *Role: PI* (Total Award: \$60,000; FY 3/2009-6/15/2010), Co-PI, Daniel Snow, School of Natural Resources, UNL

UNL Research Council Interdisciplinary Research Grant. Viral facilitated contaminant metal transport. *Role: PI* (Total Award: \$19,962; FY 1/2009-12/2009) Yusong Li, Co-PI. Department of Civil Engineering, UNL.

Australian Microscopy and Microanalysis Research Facility. Biosignatures in spheroidal iron oxide-rich concretions: An analogue for life on Mars. NanoSIMS analysis time September 14th-19th, 2009. Microscopy time.

UNL Research Council Visiting Scholar Grant. Joint Lecturer in the Stout Seminar Series and Microbiology Seminar Series, Dr. David Emerson. (Fall 2009, \$800), Co-Applicant, David Loope, Department of Geosciences, UNL.

Grants Awarded Prior to arrival at UNL (Total Awarded:~\$1,677,000)

DOE Environmental Remediation Sciences Program. Functional Role of Infective Viral Particles on Metal Reduction. Role: Co-Investigator/Developed and Authored; John D. Coates, PI; Co-Investigator, Laurie A. Achenbach, Co-Investigator Kelly Bender (Total Award \$150,000; FY 5/2007-4/2009)

DOE Environmental Remediation Sciences Program. Anaerobic Bio-oxidation of Uraninite (U(IV)). Role: Co-PI /Author; John D. Coates, PI; Co-Investigator, Laurie A. Achenbach (Total Award \$800,000; FY 3/2007-12/2008)

DOE Natural and Accelerated Bioremediation Program. Anaerobic U(IV) Bio-oxidation and the Resultant Remobilization of Uranium in Contaminated Sediments. Role: Author; John D. Coates, PI; Co-Investigator, Laurie A. Achenbach, (Total Award \$725,000; FY 2003-2006)

The University of Alabama Student Activity Research and Travel Committee/The University of Alabama, Travel Grant (2001, \$1,500 to KAW)

The University of Alabama Graduate School Travel Grant/The University of Alabama Graduate School Travel Grant (1998-2000, \$600 to KAW)

INSTITUTIONAL AND ORGANIZATIONAL INVITED SEMINARS AND PRESENTATIONS

33. University of Nebraska-Lincoln Chemistry Colloquium. March 2025.

32. Lower Platte North Board of Directors Meeting. February 2025.

31. University of Cincinnati, Department of Biological Sciences, February 2023.

30. Upper Big Blue Natural Resource District Board of Directors. December 2021.

29. UNL Extension. October 2019.

28. Colorado State University, Department of Crop and Soil Science. October 2018.

27. Stanford Light Accelerator Laboratory and Stanford University Department of Earth System Science. July 2018.

26. United States Geological Survey, Geology, Geophysics, and Geochemistry Science Center. Denver, CO. May 2018.

25. Nebraska Water Center. April 2016

24. Nebraska Natural Resource District Conference, Kearney, NE, March 2016.

23. Little Blue Natural Resource District, Edgar, NE, December 2015.

22. University of Nebraska Omaha, Department of Geography and Geology, November 2015.

21. Nebraska Wesleyan University (*BBB student invited*)

20. Chinese Academy of Sciences, Research Center for Eco-Environmental Sciences, Beijing, China, March 2015.
19. Nebraska Department of Environmental Quality, December 2014
18. MicroSeminar, <https://microseminar.wordpress.com>, August 2014. (online invitation only seminar series with recorded seminar on YouTube)
17. Water Seminar Series, Nebraska Water Center, part of the Robert B. Daugherty Water for Food Institute, University of Nebraska—Lincoln, Lincoln, NE, April 2014.
16. University of Nebraska—Lincoln, Lincoln, NE EPSCoR Plant-Soil-Microbe Workshop, March 2014.
15. Lawrence Berkeley National Laboratory, Rifle Science Community Teleconference, September 2013.
14. Department of Health and Human Services, State of Nebraska, Lincoln, NE August 2013.
13. Department of Environmental Quality, State of Nebraska, Lincoln, NE, January 2012. (*2012 Water Center Impact Award Seminar*)
12. University of Nebraska, Lincoln, Microbiology and Molecular Biology Seminar Series, October 2010.
11. Southern Illinois University, Carbondale, IL, Department of Microbiology, April 2010 (*student invitee*)
10. University of Nebraska—Omaha, Omaha, NE, Biology Department, March 2010.
9. University of Iowa, Iowa City, Department of Civil and Environmental Engineering, Environmental Engineering and Science Seminar Series, April 2009.
8. University of Nebraska—Lincoln, Department of Civil Engineering, University of Nebraska, Lincoln, March 2009.
7. University of Nebraska—Lincoln, Biotechnology Seminar Series, February 2009.
6. University of Nebraska, Lincoln, Ecology and Evolution Seminar Series, October 2008.
5. Chinese Academy of Sciences, Research Center for Eco-Environmental Sciences, Beijing, China, November 2008.
4. University of Nebraska, Lincoln, Department of Geosciences Seminar Series, September 2008.
3. University of California, Berkeley, Microbial Community and Ecology Seminar Series, March 2008.
2. University of California, Berkeley, Mary Firestone Laboratory Presentation, November 2006.
1. University of California, Berkeley, Jillian Banfield Laboratory Presentation, June 2003.

INVITED PRESENTATIONS AT LOCAL, REGIONAL, NATIONAL, AND INTERNATIONAL SYMPOSIUMS, CONFERENCES, AND WORKSHOPS

24. **Weber, K. A.** Hydrogen, a natural energy resource, National Association of State Energy Officials Policy Outlook Conference, Washington, D.C. February 6, 2025.

23. **Weber, K. A.** Microbial Transformations of Metals, Metalloids, and Radionuclides. Arsenic Mini-Symposium. April 29, 2022. UNMC, Omaha, NE
22. **Weber, K. A.** *Keynote*. Geogenic Groundwater Contamination Stimulated by Microbial Activity. Water and Air Research Initiative for Societal Health (WARISH 2021). August 24-25, 2021. Hybrid International Symposium, India
21. **Weber, K. A.** Uranium in Nebraska groundwater. Pediatric Cancer Research Symposium. Child Health Research Institute. August 26, 2020. Virtual
20. **Weber, K. A.** Water Quality Impacts of Highly Intensive Agriculture. National Institute of Water Resources Regional Symposium. Water Resources of the Great Plains Region Status and Future. Lincoln, NE. October 24-27, 2018.
19. **Weber, K. A.** Naturally Occurring Uranium in Groundwater and Links to Nitrate. SIWI World Water Week, Stockholm, Sweden. August 28, 2018.
18. **Weber, K. A.,** J. Westrop, J. Nolan, S. Bone, J. Bargar, K. Campbell-Hay, and D. Snow. Microbially-mediated metal/radionuclide oxidation coupled to nitrate reduction in an alluvial aquifer. American Chemical Society Spring Meeting. New Orleans, LA.
17. **Weber, K. A.** Co-contaminants and Redox Chemistry: Nitrate Mediated Mobilization of Naturally Occurring Uranium in Groundwater. Water Quality Symposium, Water for Food Institute and Nebraska Water Center. October 26, 2017.
16. **Weber, K.A.** Nitrogen mediated metal redox cycling. American Chemical Society Spring Meeting, San Francisco, CA April 2-6, 2017.
15. **Weber, K. A.** Life beneath our Feet: Influence on Water Quality—Nitrate and Uranium. Indo-US Workshop Addressing the Nexus of Food, Energy and Water. Bangaluru, India. April 20, 2017
14. **Weber, K. A.** *Keynote*. Life Beneath Our Feet: Influence on Water Quality. Iowa State University. Environmental Science Graduate Research Symposium. April 1, 2016.
13. **Weber, K.A.** Nitrate and Uranium in Groundwater, NRD Annual Conference, Kearney, NE, March 1, 2016.
12. **Weber, K. A.** Uranium mobilization in groundwater and the role of nitrate. Nebraska Association of Resource Districts Annual Conference. Kearney, NE, September 29, 2015.
11. **Weber, K. A.** Microbial oxidative dissolution of solid-phase minerals. Workshop of US NSF-China NNSF Collaborative Research on Microbe-Mineral Interaction: Microbial Extracellular Electron Transfer with Minerals as Electron Sources as Sinks, Peking University, Beijing, China, March 23-25, 2015.
10. **Weber, K. A.,** T. L. Spanbauer, D. Wacey, M. R. Kilburn, D. B. Loope, and R. M. Kettler. Microbial Iron(II) Oxidation: Evidence of iron biomineralization in the rock record. North Central Geological Society of America Meeting, Lincoln, NE, April 24, 2014.
9. **Weber, K.A.,** W. Yang, and W. Silver. Rock and the Role of Nitrogen in the Iron Cycle. Ecological Society of America, Portland, OR, August 5-10, 2012.
8. **Weber, K.A.,** O. Healy‡, T. Spanbauer‡, and D. Snow. Microbially catalyzed anaerobic metal oxidation in shallow subsurface sediments. American Chemical Society Spring Meeting, San Diego, CA, March 25-29, 2012.

7. **Weber, K.A.**, O. Healy‡, T. Spanbauer‡, and D. Snow. Microbially catalyzed nitrate-dependent metal/radionuclide oxidation in shallow subsurface sediments. American Geophysical Union Fall Meeting, San Francisco, CA, December 5-9, 2011.
6. **Weber, K.A.** Microbial Iron Oxidation in Sedimentary Environments. Iron in Coastal Streams Workshop. University of North Carolina, Charlotte, June 13, 2011.
5. **Weber, K.A.** Keynote: Microbially-Mediated Iron Biogeochemistry. (Keynote in the Iron Geomicrobiology Session), Goldschmidt Conference, Knoxville, TN, June 13-18, 2010.
4. **Weber, K.A.** Ferrous Wheel and the Role of Nitrate: Implications to metal mobility. First Annual Symposium on Urban Environmental Technology, Institute of Urban Environment, Xiamen, China, November 20, 2008.
3. **Weber, K.A.** Keynote. Rock and Roll: Anaerobic Microbially Mediated Metal Redox Cycling. Afternoon Microbiology Symposium, University of Nebraska, Lincoln, August 18, 2008.
2. **Weber, K.A.**, E. J. Miller, B. Wintle, D. Saidou, L. A. Achenbach, J. D. Coates. Anaerobic Fe(II) Bio-Oxidation in Sedimentary Environments. The 232nd ACS National Meeting, San Francisco, CA, September 10-14, 2006.
1. **Weber, K.A.** and E.E. Roden. Influence of Nitrate on Iron Redox Cycling and Mineralogy in Freshwater Sediments. The Clay Minerals Society 40th Annual Meeting, Athens, GA. June 7-12, 2003.

CONTRIBUTED ABSTRACTS AND PRESENTATIONS

*Presenting Author

‡Undergraduate/Post-baccalaureate Student Contributing Author supervised at UNL

§Graduate Student Contributing Author supervised at UNL

2025

196. Rizzo, G. §*, T. M. Brison§, **K. A. Weber**. Complete genome sequence of *Stutzerimonas stutzeri* NRS-1. University of Nebraska-Lincoln, Lincoln, NE. December 5, 2025. (poster) 2nd Place Graduate Student Poster Presentation
195. Brison, T. M.§*, G. Rizzo§, **K. A. Weber**. Complete genome sequence of *Pseudomonas frederiksbergensis* ALDA10. University of Nebraska-Lincoln, Lincoln, NE. December 5, 2025.
194. Lewandowski, C. ‡*, T. Correll, T. Brison, D. Miller, **K.A. Weber**. Groundwater microbiology and links to agroecosystems. UNL Microbiology Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. December 5, 2025. (poster) 2nd Place Undergraduate Poster Presentation
193. Correll, T. §*, Miller, D., **Weber, K. A.** Soil microbial community structure shifts in response to a nitrate pulse following saturation. UNL Microbiology Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. December 5, 2025. (poster)
192. **Weber, K. A.** *, Fiore, N.A§. Hydrogenotrophic methanogenesis supported by calcium carbonate minerals. International Society for Environmental Biogeochemistry. Trinity College, Dublin, Ireland. October 27-31, 2025. (virtual presentation)
191. Lewandowski, C. ‡*, T. Correll, T. Brison, D. Miller, **K.A. Weber**. Groundwater microbiology and links to agroecosystems. Great Plains Water Conference. Omaha, NE. September 18-19.

190. Kharel, S.*, J. K. C., N. A. Fiore, **K. A. Weber**, M. Seto, H.S. Song. Integrating Genomics and Thermodynamics to Explore the Subsurface Microbial Impacts on Hydrogen Dynamics. ASM Microbe, Los Angeles, CA. June 18-23, 2025.
 189. Correll, T. §*, Miller, D., **Weber, K. A.** Microbially Catalyzed Iron Reduction in the Presence of Nitrate. Biology Graduate Student Association Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. April 2025. (*oral*) *First place oral presentation*
 188. Correll, T. §*, Miller, D., **Weber, K. A.** Microbially Catalyzed Iron Reduction in the Presence of Nitrate. Daugherty Water for Food Institute Annual Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. April 2025. (*oral*)
- 2024**
187. Rosso, T.* §, Miller, D., **Weber, K. A.** Microbial Iron and Nitrate Reduction in Unsaturated Soils Following Rewetting. UNL Microbiology Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. December 6, 2024.
 186. Rizzo, G. .* §, Fiore, N. A., **Weber, K. A.**, Methanogenesis from calcium carbonate in the presence of Martian regolith simulant and characterization of *Methanobacterium* sp. ACI. UNL Microbiology Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. December 6, 2024.
 185. Rosso, T. .* §, Miller, D., **Weber, K. A.** Microbial Iron and Nitrate Reduction in Unsaturated Soils Following Rewetting. Midwest Geobiology Symposium, Iowa City, IA. October 2024.
 184. **Weber, K.A.** Nitrate and microbial metabolism impacting geogenic uranium groundwater contamination in alluvial aquifers. Goldschmidt Conference, Chicago, IL. August 18-23, 2025.
 183. Rosso, T.* §, Miller, D., **Weber, K. A.** Microbial Iron and Nitrate Reduction in Unsaturated Soils Following Rewetting. Goldschmidt Conference, Chicago, IL. August 18-23, 2025.
 182. Fiore N.A. .* §, **Weber K.A.**, 2024. Microbially mediated dissolution of select carbonate minerals by a moderately alkaline, methanogenic enrichment community. Oral Presentation. Goldschmidt Conference, Chicago, IL. August 18-23, 2025.
 181. Rizzo, G. .* §, Fiore, N. A., **Weber, K. A.**, Methanogenesis from calcium carbonate in the presence of Martian regolith simulant and characterization of *Methanobacterium* sp. ACI. Midwest Geobiology Symposium, Iowa City, IA., September 28, 2024.
 180. Rizzo, G.* ‡, Fiore, N. A., **Weber, K. A.**, Methanogenesis from calcium carbonate in the presence of Martian regolith simulant and characterization of *Methanobacterium* sp. ACI. AbSciCon. Providence, RI., May 5-10, 2024.
 179. Rosso, T. .* §, Miller, D., **Weber, K. A.** Microbial Iron and Nitrate Reduction in Unsaturated Agricultural Soils Following Rewetting. BioGSA Symposium, Lincoln, NE. April 26, 2024.
 178. Rosso, T. .* §, Miller, D., **Weber, K. A.** Microbial Iron and Nitrate Reduction in Unsaturated Soils Following Rewetting. Daugherty Water for Food Institute Annual Research Symposium, Lincoln, NE. April 2024.
 177. Rosso, T. .* §, Miller, D., **Weber, K. A.** Iron reduction in the presence of nitrate following rewetting of unsaturated soils. Missouri Valley American Society for Microbiology Meeting, Omaha, NE. March 8-9, 2024.
 176. Fiore N.A. .* §, **Weber K.A.**, 2024. Preference of calcium carbonate minerals for hydrogenotrophic methanogenesis. Oral Presentation. Missouri Valley American Society for Microbiology Meeting, Omaha, NE. March 8-9, 2024.
 175. Rizzo, G.* ‡, Fiore, N. A., **Weber, K. A.**, Methanogenesis from calcium carbonate in the presence of Martian regolith simulant and characterization of *Methanobacterium* sp. ACI. Pioneer Valley Microbiology Symposium. Amherst, MA. February 27, 2024.

2023

174. Koppold, W. ‡, T. Rosso§, J. Soucek‡, **K. A. Weber**. Dissimilatory iron(III) reduction by the soil isolate strain FeAm09. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln NE. December 1, 2023.
173. Rosso, T. §*, D. Miller, **K. A. Weber**. Microbial Fe(III) Reduction in the Presence of Nitrate within Agricultural Soil. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln NE. December 1, 2023.
172. Fiore, N.A.§*, G. Rizzo, **K. A. Weber**. Characterization of novel *Methanobacterium* sp. strains ACI-5 and ACI-7. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln NE. December 1, 2023.
171. Rosso, T. §*, D. Miller, **K. A. Weber**. Iron reduction in soils following rewetting and perturbations of nitrate. Midwest Geobiology Symposium, Minneapolis MN. September 23, 2023.
170. Fiore NA§*, **K. A. Weber**. Preference of calcium carbonate minerals for hydrogenotrophic methanogenesis. Midwest Geobiology Symposium, Minneapolis MN. September 23, 2023.
169. **Weber, K. A.***, J. P Westrop§, P. Yadav§, T. Rosso§, V. Noel , A. Van Veelen , K. E. Boye , J. R. Bargar , X. Wu , R. Chakraborty. Nitrate stimulated microbial and viral activity and the subsequent influence on uranium mobility in sedimentary systems. International Society for Environmental Biogeochemistry and International Society for Subsurface Microbiology Joint Meeting, Banff, Canada. October 2023. ARPHA Conference Abstracts 6: e108169.
168. Rizzo, G. ‡*, N. A. Fiore§, **K. A. Weber**. Methanogenesis from calcium carbonate in the presence of Martian regolith simulant and characterization of *Methanobacterium* sp. ACI.UNL Summer Research Symposium. August 2023.
167. Fiore NA§*, R. A., K. C. Wrighton, S. Antony-Babu, D. N. Miller, R. V. Kiat, D. Pan§, C. Lahey‡, N. R. Buan, **K. A. Weber**. A methanogenic microbial consortium cultivated on carbonate minerals present in the Martian subsurface. Nebraska Academy of Sciences, Nebraska Wesleyan University, Lincoln, NE. April. 2023 (*oral, virtual*)
166. Rosso, T. §*, D. Miller, **K. A. Weber**. Iron Reduction in Unsaturated Soils Following Inputs of Nitrate. Nebraska Academy of Sciences, Nebraska Wesleyan University, Lincoln, NE. April. 2023 (*oral, virtual*)
165. Rosso, T. §*, D. Miller, **K. A. Weber**. Nitrate Controlled Metal Reduction in Unsaturated Soils. Nebraska Society of Professional Soil Scientists and Nebraska Section-Society for Range Management Joint Symposium, University of Nebraska-Lincoln, Lincoln, NE. April. 2023 (*poster*)
164. Rosso, T. §*, D. Miller, **K. A. Weber**. Nitrate Controlled Metal Reduction in Unsaturated Soils. Daugherty Water for Food Institute Annual Research Symposium, University of Nebraska-Lincoln, Lincoln, NE. April. 2023 (*poster*)
163. Fiore NA§*, R. A., K. C. Wrighton, S. Antony-Babu, D. N. Miller, R. V. Kiat, D. Pan§, C. Lahey‡, N. R. Buan, **K. A. Weber**. A Chemolithotrophic, Methanogenic, and Moderately Alkaline Enrichment Community Maintained with Calcium Carbonate as a Sole Source of Inorganic Carbon. Missouri Valley Branch of the American Society for Microbiology, Kansas State University, Manhattan, Kansas. March. 2023
161. Rosso, T. §*, D. Miller, **K. A. Weber**. Nitrate Stimulated Iron Reduction in Unsaturated Soils. Missouri Valley Branch of the American Society for Microbiology, Kansas State University, Manhattan, Kansas. March. 2023 (**First Place Ph.D. Poster Award**)

2022

160. Perry, M. A., P. Yadav, T. Rosso, A. Quattrone, Y. Yang, J. Owens, R. Kiat, T. Kuppusamy, S. Antony-Babu, S. E. Russo, **K. A. Weber**. Rhizosphere collection method to identify low abundant taxa within the rhizobiome. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln, NE. December 2, 2022. (**First Place Poster Award**)
159. Fiore NA§*, R. A., K. C. Wrighton, S. Antony-Babu, D. N. Miller, R. V. Kiat, D. Pan§, C. Lahey‡, N. R. Buan, **K. A. Weber**. Calcium carbonate as a carbon source for hydrogenotrophic methanogenesis in the Martian subsurface. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln, NE. December 2, 2022.
158. Rosso, T§*. and **K. A. Weber**. Nitrate-Stimulated Metal Cycling in Soils and Sediments. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln, NE, December 2, 2022.
157. Yadav P.§*, J. Westrop§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty, **K. A. Weber**. Redox Shifts modulate microbial community in Organic Rich Sediments. University of Nebraska-Lincoln Microbiology Research Symposium, Lincoln, NE. December 2, 2022.
156. Perry, M. A., P. Yadav, T. Rosso, A. Quattrone, Y. Yang, J. Owens, R. Kiat, T. Kuppusamy, S. Antony-Babu, S. E. Russo, **K. A. Weber**. Rhizosphere collection method to identify low abundant taxa within the rhizobiome. November 10-11. UNL PSI Meeting. Nebraska City, NE.
155. Yadav P. §*, A. Quattrone, Y. Yang, J. Owens‡, R. Kiat, T. Kuppusamy, S. Moyer, S. Russo, **K. A. Weber**. Microbial and viral rhizobiome community structure varies between *Zea mays* subsp. *parviglumis* and B73. November 10-11. UNL PSI Meeting. Nebraska City, NE.
154. Fiore NA§*, Daly RA, Wrighton KC, Antony-Babu S, Miller DN, Kiat RV, Pan D§, Lahey C, Buan NR, **Weber KA**. 2022. Calcium carbonate as a sole inorganic carbon source for methanogenesis at alkaline pH. Midwest Geobiology Conference, Chicago, IL. October 1, 2022.
153. **K. A. Weber***, Westrop, J.§, P. Yadav§, T. Rosso§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty, J. Herr. Oxidation Paradox: Influx of oxidant stimulates microbial metal/radionuclide reduction. Goldschmidt presentation (oral). Honolulu, HI. July 11-15, 2022.
152. Fiore NA, Daly RA, Wrighton KC, Antony-Babu S, Miller DN, Kiat RV, Pan D, Lahey C, Buan NR, Weber KA. Calcium carbonate as a carbon source for hydrogenotrophic methanogenesis in the Martian subsurface. Poster presentation, Astrobiology Science Conference, Atlanta GA. May 6, 2022. (**Third Place Poster Award**)
151. **K. A. Weber***, Westrop, J.§, P. Yadav§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty. Influx of nitrate into reduced organic-rich sediments stimulates U(VI) reduction. US Department of Energy Virtual Environmental Systems Science PI Meeting. May 24-26, 2022. (oral)
150. Owen, M.‡*, J. Owens‡, T. Rosso, T.§, N. Fiore§, and K.A. Weber. Isolation of iron oxide reducing bacteria from the *Zea mays* rhizosphere. Nebraska Academy of Sciences Conference. Lincoln, NE., April 22, 2022.
149. Rosso, T.§*and **K.A. Weber**. Nitrate Influenced Iron Biogeochemical Cycling Under Anoxic Conditions. Nebraska Academy of Sciences Conference. Lincoln, NE., April 22, 2022.

2021

148. N. Fiore§*, R. Daly, S. Antony Babu, D. Miller, R. Kiat, D. Pan§, C. Lahey‡, K. C. Wrighton, N. Buan, **K. A. Weber**. Hydrogenotrophic Methanogenesis from Calcium

- Carbonate Under Alkaline Conditions. UNL Microbiology Symposium, Lincoln, NE. November 10, 2021.
147. Yadav P. §*, A. Quattrone, Y. Yang, J. Owens‡, R. Kiat, T. Kuppusamy, S. Moyer, S. Russo, **K. A. Weber**. Stable isotopically labeled metagenome assembled genomes reveal *Z. mays* B73 and *Z. mays* subspecies *parviglumis* root exudate assimilating rhizobiota. UNL Microbiology Symposium, Lincoln, NE. November 10, 2021.
 146. Yadav P. §*, A. Quattrone, Y. Yang, J. Owens‡, R. Kiat, T. Kuppusamy, S. Moyer, S. Russo, **K. A. Weber**. Stable isotopically labeled metagenome assembled genomes reveal *Z. mays* B73 and *Z. mays* subspecies *parviglumis* root exudate assimilating rhizobiota. Center for Plant Science Innovation, Virtual and in person Lincoln, NE. October 22, 2021.
 145. Quattrone, A.*, P. Yadav§, M. A. Meier, **K. A. Weber**, S. E. Russo. Evaluating the roles of root hairs and the soil microbial community on the growth of maize. Center for Plant Science Innovation, Virtual and in person Lincoln, NE. October 22, 2021.
 144. Westrop, J.§, P. Yadav§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty, **K. A. Weber***. Influx of nitrate into reduced organic-rich sediments stimulates U(VI) reduction. US Department of Energy Virtual Environmental Systems Science PI Meeting. August 17, 2021.
 143. Quattrone, A., P. Yadav§, M. A. Meier, **K. A. Weber**, S. E. Russo. Evaluating the roles of root hairs and the soil microbial community on the growth of maize. American Society of Plant Biologists Annual Meeting, (Virtual. Meeting). July 19-23, 2021.
 142. Yadav P. §*, A. Quattrone, Y. Yang, J. Owens‡, R. Kiat, T. Kuppusamy, S. Moyer, S. Russo, **K. A. Weber**. Microbial and viral community variation between the *Zea mays* genotype B73 and close relative *Zea mays* subsp. *parviglumis* rhizosphere. World Microbe Forum. (Virtual Meeting) June 20-24, 2021.

2020

141. **Weber, K. A.** Westrop, J.§*, P. Yadav§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty. Oxidation Paradox: Nitrate Stimulated Uranium Reduction. DOE ESS Annual Meeting. (Abstract Published but presentations cancelled.)
140. Yadav P. §*, A. Quattrone, Y. Yang, J. Owens‡, R. Kiat, T. Kuppusamy, S. Moyer, S. Russo, **K. A. Weber**. Viruses Outnumbered Microbes in Abundance in Rhizosphere of *Zea mays* Genotype B73 and Close Relative *Zea mays* subsp. *Parviglumis*. American Geophysical Union Fall Meeting (Virtual Meeting). December 1-17, 2020.
139. N. Fiore§*, R. Daly, K. Wrighton, S. Antony Babu, D. Miller, R. Kiat, D. Pan§, C. Lahey‡, N. Buan, **K. A. Weber**. Carbonate Mineral Sustained Methanogenesis Under Alkaline Conditions. American Geophysical Union Fall Meeting (Virtual Meeting). December 1-17, 2020.
138. Westrop, J.§*, P. Yadav§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty, **K. A. Weber**. Influx of nitrate into reduced organic-rich sediments stimulates U(VI) reduction. American Geophysical Union Fall Meeting (Virtual Meeting). December 1-17, 2020.
137. Westrop, J.§*, P. Yadav§, V. Noel, A. Van Veelen, J. Bargar, R. Chakraborty, **K. A. Weber**. Uranium Reduction in Response to an Influx of Nitrate into Organic-Rich Sediments. Goldschmidt (Virtual Meeting). June 21-26, 2020.

2019

136. Pradhan, R. §*, **K. A. Weber**, D. Snow, T. K. Biswal. Spatio-temporal distribution of uranium concentration in shallow aquifers of Aravalli Terrane (North Gujarat), India. Geological Society of America Annual Meeting. Phoenix, AZ. September 22-25, 2019.
135. Rosado, K. G. ‡, N. Fiore, K. A. Weber. Isolation and Characterization of *Acetoanaerobium* sp. strain VLB-1. UNL Summer Research Symposium. Lincoln, NE. August 5, 2019.
134. Fiore, N. A. §*, S. Antony-Babu, R. A. Daly, K. C. Wrighton, R. V. Kiat‡, Caitlin Lahey, O. M. Healy§, S. Payne§, N. Buan, **K. A. Weber**. Microbially Catalyzed Dissolution and Conversion of Calcium Carbonate. ASM Microbe. San Francisco, CA June 20-24, 2019.
133. Fiore, N. A. §*, R. A. Daly, K. C. Wrighton, R. V. Kiat‡, Caitlin Lahey, N. Buan, **K. A. Weber**. Conversion of Calcium Carbonate into Methane and Multi-carbon Compounds by a Novel Microbial Consortium. Nebraska Academy of Sciences. Lincoln, Nebraska. April 12, 2019.
132. Fiore, N. A. §*, R. A. Daly, K. C. Wrighton, R. V. Kiat‡, Caitlin Lahey, N. Buan, **K. A. Weber**. Microbial Conversion of Calcium Carbonate into Methane and Multi-carbon Compounds. UNL Spring Research Fair. Lincoln, Nebraska. April 15, 2019.
131. Westrop, J.§*, J. P. Nolan§, S. Bone, J. Bargar, D. D. Snow, **K. A. Weber**. Nitrate Driven Uranium Mobilization from Natural Sediments. DWFIR Research Forum. Lincoln, NE April 2, 2019.

2018

130. Westrop, J.§*, J. P. Nolan§, S. Bone, J. Bargar, D. D. Snow, **K. A. Weber**. Biologically catalyzed mobilization of naturally occurring uranium from reduced sediments in response to nitrate. Uranium Biogeochemistry Conference. Ascona, Switzerland. October 22, 2018.
129. Westrop, J.§*, Healy, O. M.§, S. A. Babu, J.P. Nolan§, D. Pan§, R. V. Kiat‡, **K. A. Weber**. Variations in Microbial Community Structure with Lithology and Geochemistry in Subsurface Soils and Sediments. Nebraska Research and Innovations Conference. Lincoln, NE. October 16, 2018.
128. Fiore, N. A. §*, S. Antony-Babu, R. A. Daly, K. C. Wrighton, R. V. Kiat‡, Caitlin Lahey, O. M. Healy§, S. Payne§, N. Buan, **K. A. Weber**. Conversion of carbonate minerals into acetate and methane. Nebraska Research and Innovations Conference. Lincoln, NE. October 16, 2018.
127. Antony-Babu, S. A.* , **K. A. Weber**. In silico evidence indicating *Geobacter* spp. as a Plant Growth Promoting Bacteria. Nebraska Research and Innovations Conference. Lincoln, NE. October 16, 2018.
126. Antony-Babu, S. A.* , **K. A. Weber**. In silico evidence indicating *Geobacter* spp. as a Plant Growth Promoting Bacteria. UNL Plant Science Retreat. Nebraska City, NE. October 12, 2018.
125. **Weber, K. A.***, D. Pan§. K. H. Williams, M. Robbins. Uranium Retention in a Bioreduced Region of an Alluvial Aquifer Following the Influx of an Oxidant. Goldschmidt Conference. Boston, MA. August 12-17, 2018.
124. Healy, O. M.§*, J. Westrop§, S. A. Babu, J.P. Nolan§, D. Pan§, R. V. Kiat‡, **K. A. Weber**. Variations in Microbial Community Structure with Lithology and Geochemistry in Subsurface Soils and Sediments. American Society for Microbiology General Meeting. Atlanta, GA. June 7-11, 2018.
123. Healy, O. M.§*, S. A. Babu, J. Soucek‡, A. Heithoff, C. Anderson§, B. LaMere‡, D. Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, S. Fernando, and **K. A. Weber**. Microbially-catalyzed Anaerobic Metal Redox Cycling by an Acidophilic *Geobacter* sp. FeAm09. American Society for Microbiology General Meeting. Atlanta, GA. June 7-11, 2018.

122. Antony-Babu, S.*, **K. A. Weber**. *In silico* evidence from whole genomes and rhizosphere data indicating *Geobacter* spp. as a plant growth promoting bacteria. American Society for Microbiology General Meeting. Atlanta, GA. June 7-11, 2018.
121. Westrop, J.§*, J. P. Nolan§, S. Bone, J. Bargar, D. D. Snow, **K. A. Weber**. Mobilization of naturally occurring uranium in response to the influx of nitrate. North Central Geological Society of America Meeting. Ames, IA. April 17, 2018.

2017

120. **Weber, K. A.***, J Westrop§, J. P. Nolan§, S. Bone, J. Bargar, K. Campbell-Hay, and D. Snow. Microbially-mediated metal/radionuclide oxidation and mobility of naturally occurring uranium. International Society for Subsurface Microbiology Symposium. Rotorua, New Zealand. November 6-10, 2017.
119. Westrop, J.§*, J. P. Nolan§, S. Bone, J. Bargar, A. Kohtz, D. Snow, and **K. A. Weber**. Mobilization of naturally occurring uranium in response in response to nitrate inputs into subsurface sediments. Geological Society of America Annual Meeting. Seattle Washington, October 22-25.

2016

118. Westrop, J.* §, Nolan, J.P. §, Pan, D. §, Healy, O. §, Bone, S., Campbell-Hay, K., Bargar, J., D. Snow, **K.A. Weber**. Nitrate-Stimulated uranium mobilization in groundwater. Nebraska Water Center Symposium. October 20, 2016. Lincoln, NE. (*First Place Poster Award—Student's presentation*)
117. **K. A. Weber***. Rock and the Role of Microorganisms Influencing Nitrogen and Iron Availability in Soil. UNL Plant Science Retreat. October 14-15. Nebraska City, NE.
116. Kettler, R. M., Y. He, S. Ke., D.B. Loope, and K. A. Weber Limited Iron Isotope Fractionation in Concretions Produced by Iron-Oxidizing Bacteria, Navajo Sandstone (USA). Geological Society of America Annual Meeting. September 25-28, 2016. Denver, CO.
115. **Weber, K.A***. Nolan, J.P. §, Pan, D. §, Healy, O. §, Bone, S., Campbell-Hay, K., Bargar, J., and D. Snow. Nitrate-Stimulated Mobilization of Naturally Occurring Uranium in Groundwater. Geological Society of America Annual Meeting. September 25-28, 2016. Denver, CO.
114. Healy, O. M.§*, J. Soucek‡, A. Heithoff, C. Anderson§, B. LaMere‡, D.Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, S. Fernando, and **K. A. Weber**. Microbially-catalysed Metal Redox Cycling by an Acidophilic *Geobacter* sp. FeAm09. Geological Society of America Annual Meeting. September 25-28, 2016. Denver, CO.
113. Nolan, J. P., C. Eloffson, S. Bone, K. Campbell, D. Snow, J. Bargar, and **K. A. Weber**. Surface Complexation of Uranium(VI) in Suboxic Aquifers in the Presence of Uranium(IV) minerals. Geological Society of America Annual Meeting. September 25-28, 2016. Denver, CO.
112. **Weber, K.A***. Nolan, J.P. §, Pan, D. §, Healy, O. §, Bone, S., Campbell-Hay, K., Bargar, J., and D. Snow. Nitrate-Stimulated Mobilization of Naturally Occurring Uranium in Groundwater. International Society for Microbial Ecology. August 21-26, 2016. Montreal, CA.
111. Healy, O. M.§*, J. Soucek‡, A. Heithoff, C. Anderson§, B. LaMere‡, D.Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, S. Fernando, and **K. A. Weber**. Dissimilatory nitrate reduction to ammonium coupled to iron(II) oxidation by an autotrophic, moderately acidophilic

- Geobacter* sp. FeAm09. International Society for Microbial Ecology. August 21-26, 2016. Montreal, CA. (*O. Healy ISME Travel Award*)
110. Healy, O. M. §*, J. Souček‡, A. Heithoff, C. Anderson§, B. LaMere‡, D. Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, S. Fernando, and **K. A. Weber**. Nitrate-dependent Fe(II) Oxidation by Autotrophic, Moderately Acidophilic *Geobacter* sp. FeAm09 isolated from unsaturated soil. American Society for Microbiology General Meeting. June 16-20, 2016. Boston, MS. (*O. Healy, Outstanding Abstract Award*)
 109. Nolan, J.P., Pan, D., Healy, O., Bone, S., Campbell-Hay, K., Stange, M., Eloffson, C., Wilson, T., Snow, D., Hanson, P., Joeckel, R.M., Bargar, J., and **Weber, K.A.** *Sedimentary Natural Occurring Uranium in Alluvial Aquifers*. 2016 Water for Food Global Conference, Lincoln, NE. April 2016.
- 2015**
108. Nolan, J. §*, D. Pan§, O. Healy§, R. Kiat‡, S. Jung‡, K. Campbell, M. Stange, **K. A. Weber**. Oxidative Dissolution of Naturally-Occurring Uranium in Shallow-Aquifers. Geological Society of America Annual Meeting. November 1-4, 2015. Baltimore, MD.
 107. Nolan, J. §*, D. Pan§, O. Healy§, M. Stange, **K. A. Weber**. Geogenic Aqueous Uranium in an Alluvial Aquifer. Goldschmidt. August 16-21, 2015. Prague, Czech Republic.
 106. Healy, O. M. §*, J. Souček‡, A. Heithoff, B. LaMere‡, D. Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, and **K. A. Weber**. A Description of an Acidophilic, Fe Reducer, *Geobacter* sp. FeAm09. Biology Graduate Student Association Poster Symposium. April 24, 2015. Lincoln, NE.
 105. Healy, O. M. §*, J. Souček‡, A. Heithoff, B. LaMere‡, D. Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, and **K. A. Weber**. A Description of an Acidophilic, Fe Reducer, *Geobacter* sp. FeAm09. American Society for Microbiology Missouri and Missouri Valley Branch Meeting. March 26-28, 2015. Lincoln, NE.
 104. Pan, D.P. §*, Z. H. Tan§, K. H. Williams, M. Robbins, N. Kananizadeh, J. Nolan§, Y. Li, and **K. A. Weber**. Viral Influence on Subsurface Biogeochemical Cycling and Contaminant Mobility. 249th American Chemical Society National Meeting. Denver, Colorado, March, 2015. (*D. Pan invited oral presentation*)
 103. Healy, O. M. §*, J. Souček‡, A. Heithoff, B. LaMere‡, D. Pan§, G. Hollis‡, W. H. Yang, W. L. Silver, and **K. A. Weber**. A Description of an Acidophilic, Fe Reducer, *Geobacter* sp. FeAm09. Nebraska Academy of Sciences. April 17, 2015. Lincoln, NE.
 102. Jung, S. ‡*, D. Pan§, & **K. A. Weber**. Fluorescently labeled virus tracer method for simultaneous measurement of viral production and decay while maintaining geochemical conditions. At UNL Spring Research Fair, Lincoln, Nebraska, April, 2015.
- 2014**
101. Healy, O.M. §*, J. Souček‡, A. Heithoff, B. LaMere‡, D. Pan§, G. Hollis‡, W.H. Yang, W.L. Silver, and **K.A. Weber**. A Description of an Acidophilic, Iron Reducer, *Geobacter* sp. FeAm09 Isolated from Tropical Soils. American Geophysical Union: Fall Meeting, San Francisco, CA. December 2014. (*Awarded American Geophysical Union Travel Grant, O. Healy*)
 100. Pan, D. §*, K. H. Williams, M. Robbins and **K. A. Weber**. Redox Fluctuation Influences Viral Abundance in the Reduced Zone of a Shallow Alluvial Aquifer in Rifle, CO. At American Geophysical Union Fall Meeting, San Francisco, CA, December, 2014.

99. **Weber, K. A.***, O. M. Healy§, T. L. Spanbauer‡, J. Nolan, D. Snow. Nitrate Mediated Uranium(IV) Oxidation in Shallow Subsurface Sediments. Geological Society of America Annual Meeting, Vancouver, BC, Canada, October 19-22, 2014.
98. **Weber, K. A.*** and J. Nolan. Uranium Contamination in Major US Aquifers: A Correlation Between Nitrate and Uranium, Geological Society of America Annual Meeting, Vancouver, BC, Canada, October 19-22, 2014.
97. Loope, D. B.*, R. M. Kettler, **K. A. Weber**. Water Table Controls on the Morphology of Iron-Oxide Concretions in the Navajo Sandstone of Southern Utah. Geological Society of America Annual Meeting, Vancouver, BC, Canada, October 19-22, 2014.
96. Kettler, R. M.*, Y. He, S. Ke, F. Z. Teng, D. B. Loope, **K. A. Weber**. Iron Isotope Evidence for Siderite Precursors to Iron Oxide Concretions from the Navajo Sandstone, Utah, Geological Society of America Annual Meeting, Vancouver, BC, Canada, October 19-22, 2014.
95. **Weber, K. A.***, D. Pan§, Z. H. Tan‡, D. Wang‡, K. H. Williams, M. Robbins, D. D. Snow, N. Kananizadeh, Y. Li. Influence of Viruses on Terrestrial Subsurface Biogeochemical Cycling and Heavy Metal Transport. Ninth International Symposium on Subsurface Microbiology, Pacific Grove, CA, October 5-10, 2014.
94. Pan, D. §*, K. H. Williams, R. Watson‡, D. Wang‡, M. Robbins, Z. H. Tan‡, D. Snow, **K. A. Weber**. Viral influence on terrestrial subsurface carbon biogeochemical cycling. International Symposium for Microbial Ecology 15, Seoul, South Korea, August, 2014. (*Awarded ISME15 Travel Grant, D. Pan*)
93. **Weber, K. A.***, D. Pan§, Z. H. Tan‡, D. Wang‡, K. H. Williams, M. Robbins, D. Snow., N. Kananizadeh, Y. Li. Viral Influence on Subsurface Biogeochemical Cycling and Heavy Metal Transport. Goldschmidt, Sacramento, CA. June 8-13, 2014.
92. Nolan, J. §*, O. M. Healy§, T. Spanbauer‡, A. Heithoff, D. Pan§, D. Snow, **K. A. Weber**. Correlation Between Nitrate and Naturally Occurring Uranium Contamination in Two Major US Aquifers: Potential for Nitrate Driven U Contamination of Groundwater. Goldschmidt, Sacramento, CA. June 8-13, 2014.
91. Healy, O.M. §*, J. Soucek‡, A. Heithoff‡, B. LaMere‡, D. Pan§, G. Hollis‡, W.H. Yang, W.L. Silver, and **K.A. Weber**. Characterization of the Acidophilic, Iron Reducer, *Geobacter* sp. FeAm09. Goldschmidt, Sacramento, CA. June 8-13, 2014.
90. Pan, D. §*, K. H. Williams, R. Watson‡, D. Wang‡, M. Robbins, Z. H. Tan‡, D. D. Snow, and **K. A. Weber**. Viral Influence on Terrestrial Subsurface Carbon Biogeochemical Cycling. American Society for Microbiology 114th General Meeting, Boston, MA, May 17-20, 2014.
89. Healy, O. M. §*, J. Soucek‡, A. Heithoff, B. LaMere‡, D. Pan§, G. Hollis‡, W.H. Yang, W.L. Silver, and K.A. Weber. Characterization of the Acidophilic, Iron Reducer, *Geobacter* sp. FeAm09. UNL School of Biological Sciences Graduate Symposium, Lincoln, NE, April, 2014. June 2014. (*1st place for Best Poster, O. Healy*)
88. Pan, D. §*, K. H. Williams, R. Watson‡, D. Wang‡, M. Robbins, Z. H. Tan‡, D. D. Snow, and **K. A. Weber**. Viral Influence on Terrestrial Subsurface Carbon Biogeochemical Cycling. At UNL School of Biological Sciences Graduate Symposium, Lincoln, NE, April, 2014. (*2nd place for Best Poster, D. Pan*)

87. Tan, Z. H.*§, N. Kananizadeh, Y. Li, **K. A. Weber**. Biosorption of Heavy Metals by a Model Bacterial Virus, *Escherichia coli* bacteriophage T4. UNL School of Biological Sciences Graduate Symposium, Lincoln, NE, April, 2014.
86. Nolan, J.§*, O. M. Healy§, T. L. Spanbauer‡, A. Heithoff, D. Pan*§, D. Snow, **K. A. Weber**. Correlation Between Nitrate and Naturally Occurring Uranium Contamination in Two Major US Aquifers: Potential for Nitrate Driven U Contamination of Groundwater. North Central Geological Society of America Meeting, Lincoln, NE, April 24, 2014.
85. Tan, Z. H.*§, N. Kananizadeh, Y. Li, **K. A. Weber**. Biosorption of Heavy Metals by a Model Bacterial Virus, *Escherichia coli* bacteriophage T4. North Central Geological Society of America Meeting, Lincoln, NE, April 24, 2014.
84. Healy, O. M.*§, J. Soucek‡, A. Heithoff, B. Lamere‡, D. Pan§, G. Hollis‡, **K. A. Weber**. Characterization of the Acidophilic Iron Reducer, *Geobacter* Sp., FeAm09. North Central Geological Society of America Meeting, Lincoln, NE, April 24, 2014.
83. Pan, D.*§, K. H. Williams, R. Watson‡, D. Wang‡, Z. H. Tan‡, D. Snow, M. J. Robbins, **K. A. Weber**. Viral Influence on Terrestrial Subsurface Carbon Biogeochemical Cycling. North Central Geological Society of America Meeting, Lincoln, NE, April 24, 2014.

2013

82. Loope, D. B.*, R. M. Kettler, **K. A. Weber**, M. Al Kuisi. Microbially Mediated Iron-Oxide Bands at Petra (southern Jordan) are Oxidation Products of Late Diagenetic Siderite. Geological Society of America Annual Meeting, Denver, CO, October 27-30, 2013.
81. Nolan, J.*§ and **Weber, K.A.** Correlation between nitrate and uranium in the High Plains Aquifer. Changes: Climate, Water, and Life on the Great Plains, Water Conference, Lincoln, NE. October 15, 2013. (*1st Place Poster Award, J. Nolan*)
80. Healy, O. M. *§, T. L. Spanbauer‡, J. P. Nolan§, D. Pan§, A. Heithoff, D. D. Snow, and **K. A. Weber**. Microbially-Catalyzed Anaerobic Uranium Oxidation in Subsurface Sediments. American Society for Microbiology General Meeting, Denver, CO, May 18-22, 2013.
79. Pan, D.*§, Robbins, M., Williams, K. H., and **Weber, K. A.** Production of Viral Like Particles (VLPs) following *in situ* stimulation of a subsurface microbial community. American Society for Microbiology General Meeting, Denver, CO, May 18-22, 2013.
78. Tan, Z. *§ and Weber, K.A., Biosorption of Heavy Metals by Bacteriophage T4. American Society for Microbiology General Meeting, Denver, CO, May 18-22, 2013.
77. White, D.*, **K. A. Weber**, P. Blum. Fermentation-Driven Biological Iron Reduction at Temperature Extremes. American Society for Microbiology General Meeting, Denver, CO, May 18-22, 2013.
76. **Weber, K. A.***, Pan, D.§, Z. H. Tan§, K.H. Williams., M. Robbins, K. S. Bender, Y. Li. Viral Infection of Subsurface Microbiota: Implications for Carbon Cycling and Metal Transport. Joint DOE Terrestrial Ecosystems/DOE Subsurface Biogeochemistry PI Meeting, Potomac, M.D., May 14-15, 2013.
75. Pan, D. *§, Robbins, M., Williams, K. H., and **Weber, K. A.** Production of Viral Like Particles (VLPs) following *in situ* stimulation of a microbial community. Water for Food Global Conference, Lincoln, NE, May 5-8, 2013. (*2nd Place Student Poster Award, D. Pan*)

74. Pan, D. *§, Robbins, M., Williams, K. H., and **Weber, K. A.** Production of Viral Like Particles (VLPs) following *in situ* stimulation of a subsurface microbial community. School of Biological Sciences Annual Graduate Student Symposium. April 2013.
73. Tan, Z. *§ and **Weber, K.A.**, Biosorption of Heavy Metals by Bacteriophage T4. School of Biological Sciences Annual Graduate Student Symposium. April 2013.
72. Healy, O. M. *§, T. L. Spanbauer‡, J. P. Nolan§, D. Pan§, A. Heithoff, D. D. Snow, and **K. A. Weber.** Microbially-Catalyzed Anaerobic Uranium Oxidation in Subsurface Sediments. School of Biological Sciences Annual Graduate Student Symposium. April 2013.
71. Wang, D. ‡,* , D. Pan, and **K. A. Weber.** Inducible Viruses in Aquifer Sediments. UNL Undergraduate Research Fair. April 2013.

2012

70. Kettler, R. M.* , D. B. Loope, P. Niles, **K. A. Weber.** Geochemical self-organization and microbially-mediated oxidation of siderite in the Shinarump Member of the Chinle Formation. Geological Society of America, Charlotte, NC, November 4-7, 2012.
69. Pan, D.*§, R. Watson‡, Z. H. Tan‡, D. Snow, **K. A. Weber.** Induction of a viral community infecting nitrate reducing bacteria within a nitrate and uranium contaminated aquifer. 14th International Symposium on Microbial Ecology, Copenhagen, Denmark, August 19-24, 2012.
68. Pan, D.*§, R. Watson‡, Z. H. Tan‡, D. Snow, **K. A. Weber.** Production of Viral Like Particles Following the Stimulation of Heterotrophic Nitrate Reduction in Continental, Shallow Subsurface Sediment. American Society for Microbiology General Meeting, San Francisco, CA, June 16-19, 2012. (*D. Pan, Outstanding Student Poster Award*)
67. Pan, D.*§, Z. H. Tan‡, D. Snow, **K. A. Weber.** Production of Viral Like Particles Following the Stimulation of Heterotrophic Nitrate Reduction in Continental, Shallow Subsurface Sediment. Water for Food, Lincoln, NE, May 30 -June 1, 2012.
66. **Weber, K. A.***, Pan, D.§, Z. H. Tan§, K. S. Bender, Y. Li. Viral infection of subsurface microorganisms and metal/radionuclide transport. DOE Subsurface Biogeochemistry PI Workshop, Washington, D. C. April 30- May 2, 2012.
65. Tan, Z.H.*§, D. Pan§, **K. A. Weber.** Adsorption of Zn²⁺ to the surface of bacteriophage: Implications for nanoparticulate metal transport. School of Biological Sciences Annual Graduate Student Symposium. April 2012.
64. Pan, D.*§, R. Watson, Z. H. Tan‡, D. Snow, **K. A. Weber.** Induction of a Viral Community Infecting Nitrate Reducing Bacteria within a Nitrate and Uranium Contaminated Aquifer. School of Biological Sciences Annual Graduate Student Symposium. Lincoln, NE. April 2012.
63. Watson, R.*‡, D. Pan§, K. A. Weber. Characterization of *Pseudomonas frederiksbergensis* Alda10, a Nitrate Reducing Subsurface Bacterium Isolated from an Alluvial Aquifer near Alda, Nebraska. UNL Research Fair. Lincoln, NE. March 2012.
62. Soucek, J.*‡, A. Heithoff, B. LeMere‡, D. Pan§, G. Hollis‡, K. A. Weber. Characterization of the Moderately Acidophilic, Dissimilatory Iron Reducer, *Geobacter* sp. FeAm09. UNL Research Fair. Lincoln, NE. March 2012.

2011

61. Loope, D. B.*, R. M. Kettler, **K. A. Weber**, N. L. Hinrichs and D. T. Burgess. Rindred Concretions Formed by Oxidation of Siderite: Rattlestones and Marbles From Non-Marine Sands and Sandstones of Quaternary, Cretaceous, and Jurassic Age. Geological Society of America, Minneapolis, MN, October 9-12, 2011.
60. **Weber, K. A.***, Pan, D.*§, Z. H. Tan‡, D. Snow, K. S. Bender, Y. Li. Viral infection of subsurface microorganisms and metal/radionuclide transport. DOE Subsurface Biogeochemistry PI Workshop, Washington, D. C. April 26-28, 2011.
59. Pan, D.*§, Z. H. Tan‡, D. Snow, **K. A. Weber**. Production of Viral Like Particles Following the Stimulation of Heterotrophic Nitrate Reduction in Continental, Shallow Subsurface Sediment. Biology Graduate Student Symposium, Lincoln, NE, April 8, 2011. (*2nd Place, Graduate Student Poster, D. Pan*)
58. Pan, D. *§, Z. H. Tan‡, D. Snow, **K. A. Weber**. Production of Viral Like Particles Following the Stimulation of Heterotrophic Nitrate Reduction in Continental, Shallow Subsurface Sediment. Missouri Valley Branch ASM Meeting, Lincoln, NE, March 31 – April 2, 2011. (*2nd Place, Graduate Student Poster, D. Pan*)

2010

57. Kettler, R. M.* , D. B. Loope, **K. A. Weber**. Distinguishing Between Microbially Induced Sedimentary Structures and Geochemical Self-Organization Related to Iron Oxide Mineralization in Fluvial Sandstones. GSA Annual Meeting, Denver, CO, October 31 - November 3, 2010.
56. Loope, D. B.* , R. M. Kettler, **K. A. Weber**. Pipe-Like Concretions formed by Dissolution of a Carbonate Mineral, Navajo Sandstone of South-Central Utah, USA. GSA Annual Meeting, Denver, CO, October 31 - November 3, 2010.
55. Kilburn, M.R.*, D. Wacey, J. Cliff, Z. Lan, Z. Chen, **K. A. Weber**, T. L. Spanbauer. 2010. Investigating Modern and Ancient Biosignals Using NanoSIMS. Australian Earth Science Convention, Canberra, Australia, July 4-8, 2010.
54. **Weber, K. A.***, T. L. Spanbauer‡, R. M. Kettler, D. B. Loope, D. Wacey, M. R. Kilburn. Biosignatures within Iron-Rich Concretions Originating in a Sandstone Paleoaquifer: Evidence of Microbial Oxidative Dissolution of Fe(II)-Carbonates. Goldschmidt Conference, Knoxville, TN, June 13-18, 2010.
53. Kettler, R. M.* , D. B. Loope, **K. A. Weber**. Geological Evidence of Microbial Dissolution of Iron Carbonate. Goldschmidt Conference, Knoxville, TN, June 13-18, 2010.
52. **Weber, K. A.***, K. S. Bender, Y. Li. Viral infection of subsurface microorganisms and metal/radionuclide transport. DOE Subsurface Biogeochemistry PI Workshop, Washington, D. C. March 29-31, 2010.

2009

51. Spanbauer, T. L.* ‡, D. Wacey, M. R. Kilburn, R. M. Kettler, D. B. Loope, **K. A. Weber**. Biosignatures in Spheroidal Iron Oxide-Rich Concretions from the Navajo Sandstone. American Geophysical Union Fall Meeting. December 14-18, 2009.

50. Loope, D. B. *, Kettler, R. M., **K. A. Weber**. Iron-Rich Concretions Delineate Paleoflow Within a CO₂-Charged Aquifer: Navajo Sandstone of South-Central Utah. Geological Society of America Annual Meeting, Portland, OR. October 18-21, 2009.
49. Kettler, R. M. *, D. B. Loope, **K. A. Weber**. The Kanab Wonderstone: Siderite Oxidation by Iron-Oxidizing Microorganisms. Geological Society of America Annual Meeting, Portland, OR. October 18-21, 2009.
48. **Weber. K. A.**, K. Gandhi, K. S. Bender, G. Hollis*‡, J. D. Coates. Bacteriophage Infection of Model Metal Reducing Bacteria, *Geobacter* spp. University of Nebraska, Lincoln, Microbiology Annual Meeting, Lincoln, NE. August 17, 2009.
47. Silver, W. L. *, W. Yang, **K. A. Weber**. Feammox: A Novel Pathway for Ammonium Oxidation and Nitrogen Loss From Terrestrial Ecosystems. 94th Ecological Society of America Annual Meeting. Albuquerque, NM. August 2-7, 2009.
46. **Weber. K. A.***, K. Gandhi, K. S. Bender, J. D. Coates. Bacteriophage Infection of Model Metal Reducing Bacteria. 109th Meeting General Meeting American Society for Microbiology, Philadelphia, PA. May 17-21, 2009.
45. S. Bose*, K. G. Byrne-Bailey, **K. A. Weber**, J. D. Coates. *Diaphorobacter* sp. Strain TPSY and *Pseudogulbenkiania* Strain 2002 Employ Different Mechanisms for Mesophilic, Nitrate Dependent, Soluble Fe(II) Oxidation. 109th Meeting General Meeting American Society for Microbiology, Philadelphia, PA. May 17-21, 2009.

1998-2008

44. **Weber. K. A.***, K. Gandhi, K. Bender, J. D. Coates. Viral Infection of Model Metal Reducing Bacteria. American Geophysical Union Meeting Fall Meeting. San Francisco, CA. December 15-19, 2008.
43. **Weber, K. A.***, J. C. Thrash, T. Knox, J. dela Cruz, J. I. Van Trump, L. A. Achenbach, J. D. Coates. Diversity and Ubiquity of Microorganisms Capable of Anaerobic, Nitrate-Dependent Uraninite (U(IV)) Bio-Oxidation. 108th General Meeting American Society for Microbiology, Boston, MA. June 1-5, 2008.
42. **Weber, K. A.***, J. C. Thrash, T. Knox, J. dela Cruz, J. I. Van Trump, L. A. Achenbach, J. D. Coates. Anaerobic, Nitrate-Dependent Metal Bio-Oxidation. DOE-ERSP PI Workshop, Lansdowne, VA. April 7-9, 2008.
41. **Weber, K. A.***, K. Bender, K. Gandhi, J. D. Coates. Viral Infection of Model Metal Reducing Bacteria. DOE-ERSP PI Workshop, Lansdowne, VA. April 7-9, 2008.
40. **Weber, K. A.***, T. Knox, J. dela Cruz, J. C. Thrash, L. A. Achenbach, J. D. Coates. Anaerobic, Nitrate-Dependent Metal Bio-Oxidation. American Geophysical Union Fall Meeting, San Francisco, CA. December 10-14, 2007.
39. Wrighton, K. C. *, P. Agbo, E. L. Brodie, **K. A. Weber** , J. C. Thrash, L. A. Achenbach, J. D. Coates. Electrochemical Performance and Microbial Characterization of Thermophilic Microbial Fuel Cells. American Geophysical Union Fall Meeting, San Francisco, CA. December 10-14, 2007.
38. Coates, J. D. *, **K. A. Weber**, M. Scherer, L. A. Achenbach. The Diverse Microbiology of Anaerobic Fe(II) Oxidation. American Geophysical Union Fall Meeting, San Francisco, CA. December 10-14, 2007.

37. **Weber, K. A.***, T. Knox, J. dela Cruz, L. A. Achenbach, J. D. Coates. Anaerobic, Uraninite Bio-Oxidation. 107th General Meeting American Society for Microbiology, Toronto, Canada. May 21-25, 2007.
36. Wrighton, K. C.* , P. Agbo, **K. A. Weber** , J. C. Thrash, L. A. Achenbach, J. D. Coates. *Geobacillus* strain S2E, A Novel Thermophilic Fe(III)-Reducer Isolated From a Thermophilic Microbial Fuel Cell. 107th General Meeting American Society for Microbiology, Toronto, Canada. May 21-25, 2007.
35. Sun, Y. D. B. Goodheart*, C. Shang, **K. A. Weber**, E. K. Chan, J. D. Coates. A cbb3 Type Cytochrome C Oxidase Is Involved in Perchlorate Reduction by *Dechloromonas aromatica* strain RCB. 107th General Meeting American Society for Microbiology, Toronto, Canada. May 21-25, 2007.
34. **Weber, K. A.***, T. Knox, J. dela Cruz, L. A. Achenbach, J. D. Coates. Anaerobic, Uraninite Bio-Oxidation. DOE-ERSP PI Workshop, Lansdowne, VA. April 16-19, 2007.
33. **Weber, K. A.**, T. Knox, E. J. Miller, B. Wintle, D. Saidou, L. A. Achenbach, J. D. Coates. Anaerobic, Nitrate-Dependent Fe(II) Bio-Oxidation: A Column Study. DOE-ERSP PI Workshop, Lansdowne, VA. April 16-19, 2007.
32. **Weber, K. A.***, T. Knox, C. Chow, L. A. Achenbach, J. D. Coates. Heavy Metal Mobilization Through Anaerobic Metal Bio-Oxidation. Department of Defense, Strategic Environmental and Development Research Program, Partners in Environmental Technology Technical Symposium & Workshop. Washington, D.C., November 28-30, 2006.
31. Thrash, J. C.* , **K. A. Weber**, L. A. Achenbach, J. D. Coates. Electrochemical stimulation of microbial perchlorate reduction. Department of Defense, Strategic Environmental and Development Research Program, Partners in Environmental Technology Technical Symposium & Workshop. Washington, D.C., November 28-30, 2006.
30. **Weber, K. A.***, E. J. Miller, B. Wintle, D. Saidou, L. A. Achenbach, J. D. Coates. Anaerobic, Nitrate-Dependent Fe(II) Bio-Oxidation in Subsurface Sediments. 11th International Symposium on Microbial Ecology, Vienna, Austria. August 20-25, 2006.29.
29. **Weber, K. A.***, T. K. Knox, L. A. Achenbach, J. D. Coates. Anaerobic, nitrate-dependent metal bio-oxidation. 11th International Symposium on Microbial Ecology, Vienna, Austria. August 20-25, 2006.
28. **Weber, K. A.***, E. J. Miller, B. Wintle, D. Saidou, T. K. Know, E. Brodie, L. A. Achenbach, G. Anderson, J. D. Coates. Anaerobic, Nitrate-Dependent Fe(II) Bio-Oxidation in an Advective Flow System. 106th General Meeting American Society for Microbiology, Orlando, FL. May 21-25, 2006.
27. **Thrash, J. C.***, K. A. Weber, L. A. Achenbach, J. D. Coates. Electrochemical stimulation of microbial perchlorate reduction. 106th General Meeting American Society for Microbiology, Orlando, FL. May 21-25, 2006.
26. **Sun, Y.***, K. A. Weber, J. D. Coates. Regulation of Microbial Perchlorate Reduction by Perchlorate. 106th General Meeting American Society for Microbiology, Orlando, FL. May 21-25, 2006.
25. **Weber, K. A.***, B. Wintle, J. dela Cruz, T. K. Knox, L. A. Achenbach, J. D. Coates. Anaerobic U(IV) Bio-Oxidation. DOE-ERSP PI Workshop, Warrenton, VA. April 2-5, 2006.

24. **Weber, K. A.***, E. J. Miller, B. Wintle, D. Saidou, E. Brodie, L. A. Achenbach, G. Anderson, J. D. Coates. Anaerobic, Nitrate-Dependent Fe(II) Oxidation: A Column Study. DOE-ERSP PI Workshop, Warrenton, VA. April 2-5, 2006.
23. **Weber, K. A.***, B. Wintle, L. A. Achenbach, J. D. Coates. Anaerobic Fe(II) Bio-Oxidation under Advective Flow. American Geophysical Union Fall Meeting, San Francisco, CA. December 5-9, 2005.
22. **Weber, K. A.***, B. Wintle, L. A. Achenbach, J. D. Coates. Anaerobic Fe(II) Bio-Oxidation and Heavy Metal Immobilization. Department of Defense, Strategic Environmental and Development Research Program, Partners in Environmental Technology Technical Symposium & Workshop. Washington, D.C., November 29-December 1, 2005.
21. Thrash, J. C.*, **K. A. Weber**, L. A. Achenbach, J. D. Coates. Electrochemical Stimulation of Microbial Perchlorate Reduction. Department of Defense, Strategic Environmental and Development Research Program, Partners in Environmental Technology Technical Symposium & Workshop. Washington, D.C., November 29-December 1, 2005.
20. **Weber, K. A.***, P. Larese-Casanova, M. Scherer, J. Thieme, L. A. Achenbach, J. D. Coates. Biogenic Green Rust Formation by a Nitrate-Dependent Fe(II) Oxidizing Bacterium. 105th General Meeting American Society for Microbiology, Atlanta, GA. June 5-9, 2005.
19. Chakraborty, R., E. Chan*, K. Cruz, **K. A. Weber**, C. Shang, L. A. Achenbach, J. D. Coates. Microbial Oxidation of Humic Substances Under Thermophilic Conditions. 105th General Meeting American Society for Microbiology, Atlanta, GA. June 5-9, 2005.
18. **Weber, K. A.***, P. Larese-Casanova, M. Scherer, J. Thieme, L. A. Achenbach, J. D. Coates. Green Rust Formation Under Anaerobic Nitrate-Dependent Fe(II) Oxidizing Conditions. Goldschmidt Conference, Moscow, ID. May 20-25, 2005.
17. Coates, J. D., **K. A. Weber***, P. Larese-Casanova, M. Scherer, J. Thieme, L. A. Achenbach. Anaerobic Nitrate-Dependent Metal Bio-Oxidation. Department of Energy, NABIR PI Workshop, Warrenton, VA. April 18-21, 2005.
16. Coates, J. D., R. Chakraborty, **K. A. Weber***, J. L. Pollock, S. M. O'Connor, R. Bruce, J. I. Van Trump, M. R. Rice, L. A. Achenbach, J. Koch. Bioremediative Versatility of Perchlorate-Reducing Bacteria. Department of Defense, Strategic Environmental and Development Research Program, Partners in Environmental Technology Technical Symposium & Workshop. Washington, D.C., November 30-December 2, 2004.
15. **Weber, K. A.***, P. Larese-Casanova, M. Scherer, L. A. Achenbach, J. D. Coates. Nitrate-Dependent Fe(II)-oxidation by *Cosmobacter millennium* strain 2002 and the Formation of Green Rust. 104th General Meeting American Society for Microbiology, New Orleans, L.A. May 23-27, 2004.
14. Coates, J. D., J. L. Pollock*, R. Chakraborty, **K. A. Weber**, M. Rice, L. A. Achenbach. Metal Redox Cycling and Benzene Oxidation by Betaproteobacteria. 104th General Meeting American Society for Microbiology, New Orleans, L.A. May 23-27, 2004.
13. Sun, Y.*, R. L. Gustavson, N. Ali, **K. A. Weber**, and J. D. Coates. Chemotaxis of Perchlorate-Reducing Bacteria to Various Electron Acceptors. 104th General Meeting American Society for Microbiology, New Orleans, L.A. May 23-27, 2004.
12. **Weber, K. A.***, J. L. Pollock, K. A. Cole, S. M. O'Connor, L. A. Achenbach, J. D. Coates. Anaerobic Bio-Oxidation of Fe(II) and the Subsequent Immobilization of Radionuclides.

International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, Ascona, Switzerland. November 16-21, 2003.

11. Roden, E.E.* and **K.A. Weber**. Nitrate-Dependent Fe(II) oxidation in Surface and Subsurface Sediments. 103rd General Meeting American Society for Microbiology, Washington, D.C. May 18-22, 2003.
10. Coates, J. D. and **K. A. Weber***. Radionuclide Immobilization by the Formation of Crystalline Fe Compounds Resulting from the Bio-oxidation of Fe(II) by *Dechlorosoma suillum*. 103rd General Meeting American Society for Microbiology, Washington, D.C. May 18-22, 2003.
9. **Weber, K. A.***, J. L. Pollock, K. A. Cole, S. M. O'Connor, L. A. Achenbach, J. D. Coates. Nitrate-Dependent Fe(II) Oxidizing Microorganisms Isolated From Freshwater Sediments. 103rd General Meeting American Society for Microbiology, Washington, D.C. May 18-22, 2003.
8. Coates, J. D.*, **K. A. Weber**, J. L. Pollock, K. A. Cole, S. M. O'Connor, L. A. Achenbach. Bio-Oxidation of Fe(II) and Radionuclide Immobilization by *D. suillum*. DOE-NABIR PI Workshop, Warrenton, VA. March 17-19, 2003.
7. Roden, E. E.* and **K. A. Weber**. Microbial Nitrate-Dependent Oxidation of Solid-Phase Fe(II). 223rd American Chemical Society National Meeting, Orlando, FL. April 7-11, 2002.
6. **Weber, K. A.***, P. F. Churchill and E. E. Roden. Microbial Community Structure Associated with the Interaction Between the Nitrogen and Fe Cycle. 101st General Meeting American Society for Microbiology, Orlando, FL. May 20-24, 2001.
5. **Weber, K. A.***, M. Leonardo and E. E. Roden. Ferrous Iron Oxidation Coupled to Nitrate Reduction by Dissimilatory Iron-Reducing Bacteria. 100th General Meeting American Society for Microbiology, Los Angeles, CA. May 21-25, 2000.
4. **Weber, K. A.*** and E. E. Roden. Biologically Catalyzed Nitrate-Dependent Oxidation of Solid-Phase Fe(II)-Compounds at Circumneutral pH. Annual Meeting Geological Society of America, Denver, CO. October 25-28, 1999.
3. **Weber, K. A.*** and E. E. Roden. Biologically Catalyzed Nitrate-Dependent Oxidation of Microbially-Reduced Fe(III) oxides. 99th General Meeting American Society for Microbiology, Chicago, IL. May 30-June 3, 1999.
2. **Weber, K. A.*** and E. E. Roden. Interaction of Nitrate Reduction and Fe(III) Oxide Reduction in Freshwater Wetland Sediments. Annual Water Resources Conference of the American Water Resources Association. Clear Point, AL. November 16-19, 1998.
1. **Weber, K. A.*** and E. E. Roden. Interaction of Nitrate Reduction and Fe(III) Oxide Reduction in Freshwater Wetland Sediments. 98th General Meeting American Society for Microbiology, Atlanta, GA. May 17-21, 1998.

AWARDS, DISTINCTIONS, AND FELLOWSHIPS

2025-present	Sigma Xi Membership
2015-present	Robert B. Daugherty Water for Food Institute Faculty Fellow
2022	Schuyler (Nebraska) Community Schools Foundation Distinguished Alumni
2017	T.O. Haas Faculty Award for Outstanding Service, School of Biological Sciences, UNL
2012	Faculty Spotlight, Fall Semester 2012, School of Biological Sciences, UNL
2011	Impact Award, Nebraska Water Center (First recipient from UNL selected from among the last three years of funded projects and nominated for the National Institutes of Water Resources Impact Award)
2000	Research Award, The University of Alabama Student Activity Research and Travel Committee, The University of Alabama
1998	American Society for Microbiology Sustaining Member Student Travel Award
1992	Houston Livestock Show and Rodeo Endowed Scholarship, Texas A&M University, College Station
1992	American FFA Degree, National FFA Organization
1991	College of Agriculture and Life Sciences Scholarship, Texas A&M University, College Station
1991	Nebraska FFA State Star in Production Agriculture (First female recipient in State Organization History)

PRESS COVERAGE

Fiore et al. 2025. (Altmetric Score: 48)

February 16, 2025. [Research team identifies carbonate-dissolving microorganisms](#). The Microbiologist. (Applied Microbiology International).

February 13, 2025. [Carbonate-dissolving microorganisms could be key to sustainable bioenergy](#). Phys.org.

[Research Team Discovers Microorganisms Capable of Dissolving Carbonates](#). bioengineer.org, Scienmag.com

[Microorganisms Dissolving Carbonate Discovered](#). Mirage News.

Westrop et al. 2023. (Altmetric Score: 142)

October 14, 2025. ["Study warns about the interaction between nitrate and uranium in U.S. drinking water."](#) earth.com

July 16, 2023. ["UNL study shows nitrates pull uranium from soil and into groundwater"](#). KETV (TV interview)

April 3, 2023. ["UNL study finds high nitrate levels can activate uranium into groundwater"](#) NTV (abc), Fox42KPTM (TV Interview)

March 29, 2023. Online and Print including "UNL Study Confirms Nitrates Can Draw Uranium Into Water" *Omaha World Herald* (Front page), *Lincoln Journal Star*, *Marietta Daily Journal*, *ANI*

March 28, 2023. ["Uranium is creeping into Nebraska water supplies, worrying experts"](#) Flatwater Free Press, News Channel Nebraska, Scottsbluff Star Herald

Newsletters of Professional Societies and Organizations: Nebraska Water Current, Water Education Foundation

Nolan and Weber 2015. (Altmetric Score: 119)

September 18, 2015. “Fertilizing water contamination.” *Science* (Editor’s Choice)

September 2, 2015. “Two Large U.S. Aquifers Tainted With Natural Uranium: Study” *US News & World Report*

August 20, 2015. “Millions of Americans' Water Supply Contaminated by Uranium” *Discovery News*. Discovery.com

August 19, 2015. “Uranium in Groundwater” RT International, Moscow, Russia (TV Interview)

August 19, 2015. “Study finds Uranium in Ogallala aquifer.” ABC7News Amarillo (TV Interview)

August 18, 2015. “Researchers say High Plains Aquifer Contaminated with Uranium, TTU Researchers Weigh In” KAMC Lubbock, TX ([TV Interview](#))

August 18, 2015. “Study suggests links between nitrate, uranium contamination”

Associated Press, Numerous Print, TV, and Radio including but not limited to *The Washington Times*, *Sacramento Bee*, *Kansas City Star*, *Houston Chronicle*, *Business Insider*, *US News and World Report*, *Sioux City Journal*, *The Waco Tribune*, *News Sentinel*, *Central Valley Business Times*, *The Olympian*, *Bryan-College Station Eagle*, *The Wichita Eagle*, *The Baytown Sun*, *The State*, *Ventura County Star*, *Yankton Daily Press & Dakotan*, *Press Examiner*, *Charlotte Observer*, *McCook Daily Gazette*, *Lincoln Journal Star*, *Columbus Telegram*, *Tech Times* KLKNtv, NPR, KRQE News, KTVU, NTV, KAWL

August 18, 2015. “UNL researchers say common pollutant can lead to radioactivity in drinking water” *Omaha World Herald*

August 18, 2015. “Uranium in Nebraska's groundwater” KLKN-TV (TV Interview)

August 17, 2015. “Study: Link between high nitrate levels, uranium contamination in Ogallala Aquifer” KETv (TV interview—Top Story)

August 14, 2015. “Nitrate Pollution May Trigger Uranium Release Into Groundwater”. *Chemical and Engineering News*

Newsletters of Professional Societies and Organizations: National Groundwater Association, Waste Water Processing, Water Well Journal, No-Till Farmer

USGS Grant to Help Fund Research into Mobilization of Groundwater Uranium. *Water Current*, Summer 2014, Vol 46(3).

Weber et al. 2012.

May 30, 2014. “2.8-Billion-Year-Old Spheres Found in South Africa: How Were They Made?” *Epoch Times*

September 26, 2012. “Mars 'Blueberries': Iron Baubles Spotted By NASA Opportunity Rover, Suggests Life Existed On Red Planet”. *Huffington Post*

September 26, 2012. “Spheres spark new Martian mystery” www.NBCnews.com

September 14, 2012. “Blue Spheres Found at Mars' Crater --Were They Shaped by Microbial Life?” www.dailygalaxy.com

September 14, 2012. “Were Martian Blueberries Molded by Microbes?” *The Epoch Times*

September 13, 2012. “Blueberries” shaped by microbes. www.sciencealert.com.au

September 12, 2012. “Martian 'blueberries' could be clues to presence of life”. www.phys.org

September 10, 2012. “Team’s discovery has implications for finding life on Mars”. *Scarlett*

August 24, 2012. “Discovery of microbes on Mars suggests signs of past life”. *Daily Nebraskan*.

Title changed (online) to “UNL research IDs new target in search for Mars life” at request of Weber and Kettler.

August 15, 2012. “Discovery has implications for finding life on Earth, Mars”. www.wowt.com, www.phys.org, www.rdmag.com

August 22, 2012 “Discovery has implications for finding life on Earth, Mars”. Nebraska Alumni Newsletter

August 20, 2012 “Discovery has implications for finding life on Earth, Mars”. *UNL Today*

Weber’s Research Gets Water Center Impact Award. *Water Current*, Fall 2011, Vol 43(4).

Loope et al. 2010.

Loope et al. 2010.

November 12, 2010. “Kraft-Steine aus dem Canyon "Blaubeeren" vom Mars ähneln irdischen Eisenkugeln aus Utah, die von Mikroben erzeugt worden sind” Translation: “Power-Stones from the Canyon "Blueberries" from Mars resemble terrestrial/earthly iron spheres/globes from Utah, which were produced by microbes”, *Berliner Zeitung*

Meet the Faculty. *Water Current*, Summer 2009, Vol 41(3).

PROFESSIONAL ORGANIZATIONS

American Chemical Society

American Society for Microbiology

Geochemical Society

Geological Society of America

American Geophysical Union

International Society for Environmental Biogeochemistry

International Society for Microbial Ecology

International Society for Subsurface Microbiology

PROFESSIONAL RESEARCH SERVICE

Editorial or Co-Editorial Assignments

Co-Editor, Contaminants of Emerging Concern: One Health Framework for Risk Assessment and Remediation (2021-2023)

Co-Editor, Special Issue Journal of Hazardous Materials (2020-2021)

Editorial Boards

Associate Editor, Geo-Bio Interfaces 2023-present

Editorial Board, Review Editor, Frontiers in Microbiology and Frontiers in Earth Science,

Terrestrial Microbiology 2022-present

Editorial Board, Review Editor, Frontiers in Microbiology, Systems Microbiology 2014-present

Board of Associate Editors, Geomicrobiology Journal 2013-2021

Ad-Hoc Reviews for Journals

Applied and Environmental Microbiology

Applied Geochemistry

Applied Microbiology

Astrobiology

Biogeochemistry

CATENA

Chemosphere

Ecology Letters

Environmental Science and Technology

Environmental Microbiology
Environmental Processes
Frontiers in Microbiology
ISME Journal
International Journal of Astrobiology
International Microbiology
Geobiology
Geochimica et Cosmochimica Acta
Geomicrobiology
Geology
Journal of Applied Microbiology
Journal of Bacteriology
Journal of Basic Microbiology
Journal of Environmental Monitoring
Journal of Hazardous Materials
Journal of Materials Chemistry A
Journal of Royal Society Interface
Microbial Ecology
Nature Education
Nature Geoscience
Nature Microbiology
Nature Reviews Earth & Environment
Nature Scientific Reports
Pedosphere
Plant and Soil
PLOS One
Science

Journal Proposal Review

Oxford University Press

Reviews for Granting Agencies

Panel Reviews

Department of Energy, Biological Systems Science Division, 2022
Department of Energy, Subsurface Biogeochemistry Program, Geochemistry and Biogeochemistry, 2019
Department of Energy, Joint Genome Institute, CSP Review Panel, 2018, 2019
Department of Energy, Joint Genome Institute, New Investigator Review Panel, 2023
Department of Energy, Subsurface Biogeochemistry Program, Argonne National Laboratory Scientific Focus Area Reverse-Site Review Panel, 2018
National Science Foundation, EPSCoR, 2025
National Science Foundation, Rules of Life: Microbiome Interactions and Mechanisms, 2021
National Science Foundation, Science and Technology Center Site Review Panel, 2016
National Science Foundation, Geobiology and Low-Temperature Geochemistry, 2014, 2015
National Science Foundation, Integrative Organismal Systems (IOS), Plant-Microbe Cluster, 2012
Nebraska Center for Energy Sciences Research, 2020, 2021, 2022, 2023

Ad Hoc Reviews

Austrian Science Fund, Haus der Forschung
 National Science Foundation, Biogeosciences
 National Science Foundation, Biological Oceanography (2)
 National Science Foundation, Ecosystem Studies (2)
 National Science Foundation, Microbial Observatories and Microbial Processes and Interactions
 National Science Foundation, Geobiology and Low-Temperature Geochemistry (12)
 National Science Foundation, Dimensions of Diversity
 National Science Foundation, Science and Technology Center
 National Science Foundation, Kansas State EPSCoR First Award
 Nazarbayev University Research Review
 United States Geological Survey, Nebraska Water Center, 104(b) (16)
 United States Geological Survey, Wisconsin Water Resources Institute, 104(b) (2)
 United States Geological Survey, National Institute Water Resources, 104(g) National Competitive Grants Program
 Swiss National Science Foundation

Professional Societal Service

Chair, Missouri Valley Branch American Society for Microbiology 2026 Planning Committee (2025-2026)
 Symposium Co-Chair and Moderator, Unraveling Microbe-Mineral Interactions: Insights Across Diverse Systems and Scales, Goldschmidt Conference, Chicago, IL, August 18-23, 2024.
 International Society of Environmental Biogeochemistry, Advisory Board (2023-2028)
 Consortium of Universities for the Advancement of Hydrologic Science UNL Representative, 2017-2021
 Symposium Chair and Moderator, Anchoring Microbes to Biogeochemical Function. ASM Microbe 2019, San Francisco, CA, June 20-24, 2019.
 Scientific Advisory Committee, Department of Energy, SLAC National Accelerator Laboratory Subsurface Biogeochemistry Scientific Focus Area, 2016
 Session Chair, Special Topic, Metal and Radionuclide Biogeochemical Cycling, Geological Society of America Meeting, Denver, CO. September 26, 2016.
 Session Chair, Frontiers in Geomicrobiology and Microbial Biogeochemistry, North Central Geological Society of America Meeting, Lincoln, NE, April 24, 2014.
 External Examiner Promotion and Tenure Review, 2017 (Kansas State University) 2021 (East Carolina University)

PUBLIC OUTREACH AND ENGAGEMENT

preK-12

Lincoln Public Schools Science Connector. 2022.
 Life Beneath our Feet and Water Quality, UNL STEM Educators Workshop 2021, 2024
 Living Word Academy. 2017.
 Dinosaurs and Disasters, Nebraska State Museum, Morrill Hall. 2010, 2012-2016, 2020, 2023, 2025
 Sunday with a Scientist. 2016.
 SMART Girls Club, YWCA of Lincoln, October 2012.
 24th Illinois Junior Science and Humanities Symposium, Southern Illinois University, 2002

Public Presentations

Exactrix (Regional Agriculture Producers), Lincoln, NE. December 2015.
 Association of Women Geoscientists, UNL Chapter. September 2010

Nebraska Citizens for Science. Lincoln, NE. May 2010

Community

City of Lincoln. Review of water quality technical report.

Hastings Utilities. Water Quality Research and Reporting.

Upper Big Blue Natural Resource District, Evaluation of uranium, arsenic, selenium groundwater data

Department of Health and Human Services, Assist in the determination of source of Arsenic contamination in groundwater serving as drinking water source within the village of Wauneta, NE.

Nebraska Legislative Aid Campus Tour presentation for Nebraska Water Center (2019)

PROFESSIONAL ACADEMIC SERVICE

Departmental

School of Biological Sciences (SBS) or Department of Earth and Atmospheric Sciences (EAS)

Service Date	Role	Committee
Fall 2025-2026	GCMB Chair	SBS Executive Committee
Fall 2024-2025	GCMB Vice Chair	SBS Executive Committee
Fall 2022-2024t	Member	SBS Research Committee
Fall 2021-Spring 2022	Member	SBS Diversity, Equity, and Inclusion Committee
Fall 2020-Spring 2021	Member	SBS Special Funds Committee
Fall 2019-Summer 2020	Chair	SBS Genetics, Cell, and Molecular Biology Section
Fall 2018-Spring 2020	Member	SBS Executive Committee
Fall 2018-Spring 2019	Member	EAS Bessey Hall Beautification Committee
Fall 2009-Spring 2017	Member	EAS Bessey Hall Beautification Committee
Fall 2016-Spring 2017	Member	SBS Mission and Vision Statement Task Force
Spring 2016-Spring 2017	Member	SBS Freshman Orientation Course
Fall 2016-Spring 2017	Chair	SBS Curriculum Committee
Fall 2015-2016	Member	SBS Curriculum Committee
Fall 2011-Spring 2016	Member	SBS Undergraduate Affairs and Grade Appeals Committee
Fall 2015-Spring 2016	Member	SBS Search Committee: Global Change Biology (Asst. Professor)
Fall 2013-Summer 2015	Chair	Undergraduate Affairs and Grade Appeals Committee
Fall 2012-Spring 2013	Member	Search Committee: Evolutionary Biologist (Asst. Professor)
Spring 2011-2012	Member	SWOT Task Force Committee
Fall 2008-Spring 2011		Microbiology Graduate Student Recruitment Contact
Fall 2010		Microbiology Major Proposal, Assembled and drafted description of Ecology and Evolution Content of Microbiology Course
Spring 2009-Spring 2011	Member	SBS Showcase Seminar Series Committee
Fall 2008-Spring 2009	Member	EAS Search Committee: Asst. Professor Geochemistry of Natural Waters

University of Nebraska—Lincoln, College and Campus-Wide Service

Service Date	Role	Committee
Spring 2021-present	Co-Chair	UNL Microbiology Research Symposium Planning Committee
Spring 2021-present	Co-Chair	Microbiology Achievement through Research and Valuable Experiential Learning Workshop Committee
Fall 2022-present	Advisor	Microbiology Club
Fall 2021-present	Member	UNL Office of Research and Economic Development Advisory Board
Fall 2020-present	Director	Microbiology Program
Spring 2020-present	Member	Nebraska Center for Energy Sciences Research Executive Council
Spring 2015-present	Member	Nebraska Water Center Advisory Board
Fall 2014-present	Member	Water Sciences Laboratory Subcommittee
Spring 2023-Summer 2023	Chair	Associate Director Nebraska Water Center Search Committee
Fall 2020-Spring 2023	Member	College of Arts and Sciences, Undergraduate Education Working Group
Summer 2022-Spring 2023	Member	Director Nebraska Center for Energy Sciences Search Committee
Fall 2018-Summer 2020	Member	UNL Office of Research Responsibility, Radiation Safety Committee
Summer 2016-2017		
Spring 2020-Summer 2020	Member	Environmental Studies Coordinating Committee
Spring 2019-2020	Member	Ad-Hoc Environmental Science Major Curriculum Development Committee (College of Arts and Sciences and College of Agriculture and Natural Resources)
Fall 2018-Summer 2019	Member	College of Arts and Sciences Undergraduate Awards and Grade Appeals
Fall 2016-Summer 2017		
Fall 2017-Spring 2018	Member	Vice Chancellor for Research and Economic Development Search Committee
Fall 2016-Spring 2017	Member	Search Committee: Asst. or Asst. Professor Limnology/Aquatic Ecology
Fall 2014-Spring 2015	Member	Search Committee: Asst. Professor Microbiologist in Plant-Soil Systems
Spring 2012-Fall 2014	Member	Ecotoxicology Program Development Committee
March 9, 2011	Member	Pre-tenure Panel Member, ADVANCE-NSF Site Review
August 13, 2008	Panel Member	Institute for International Teaching Assistants

Service prior to UNL

Service Date	Committee	Role	Dept	Institution
Summer 2001	Howard Hughes Medical Institute Summer Forum, Graduate Student Panel	Member	Biology	UA
2000-2001	Health Benefits Committee, Graduate Student Association	Co-Chair		UA
2000-2001	Board of Directors, Graduate Student Association	Member		UA
1997-1998	Biology Graduate Student Forum, Ecology Representative	Member	Biology	UA
1995-1995	Fundraising Committee, American Fisheries Society	Member	WFS	TxA&M

TEACHING EXPERIENCE***Instruction, University of Nebraska, Lincoln***

Semester	Course Name	Course Number	Enrollment
Spring 2020	Microbiology	BIOS 312	144
Spring 2019			149
Spring 2017			170
Spring 2016			170
Spring 2015			170
Spring 2013			159
Spring 2012			169
Fall 2009			133
Spring 2024	Earth and Environmental	BIOS 444/844	18
Spring 2023	Microbiology	GEOL 444/844	16
Spring 2022	(Formerly Geomicrobiology)		16
Spring 2021			11
Fall 2019			15
Fall 2016			13
Fall 2014			16
Fall 2012			8
Fall 2010			5
Spring 2009			2
Fall 2018	Special Topics: Microorganisms in Earth Systems	BIOS 998/GEOS 898	4
Fall 2015	Special Topics:	BIOS 998/GEOS 898	4
Fall 2013	Microbial Biogeochemistry		5
Fall 2011			4
Spring 2010			5

GUEST LECTURES AND PRIOR INSTITUTIONAL INSTRUCTION

Date	Course Name and Number	Lecture Title	Institution
October 20, 2022	Microbiology, MBIO 101	Applied and Environmental Microbiology	UNL
September 23, 2011	Organismic Biology, BIOS 103	Microbial Habitats: Where does life exist?	UNL
April 6, 2010	Life in the Universe, ASTR 113	Martian Blueberries and Iron Oxidizing Bacteria	UNL
February 18, 2010	Life in the Universe, ASTR 113	Early Evolution and the Nature of Cells	UNL
October 6, 2009	Genetics, Genomics, and Bioinformatics of Prokaryotes, BIOS 942	Microbial Community Structure and Function	UNL
April 15, 2009	Environmental Microbiology, CIVE 498/898	Microbial Electron Transfer to Extracellular Electron Acceptors	UNL
2004, 2005, 2006	Microbial Diversity, PLANTBI 116	Microbial Metal Reduction	UCB
2004, 2005	Critical Thinking in Microbiology, PLANTBI 220	Bioremediation of Inorganic Contaminants	UCB
Fall 2001	Geomicrobiology, Microbiology 423	Co-Instructor	SIU
2000	Non-Majors Biology, Biology 108	Global Change (one week)	UA
2000	Majors Biological Science Laboratory, Biology 115	Teaching Assistant	UA

ADVISORY RESEARCH EDUCATION, TRAINING, AND MENTORING AT UNL***Postdoctoral Advisees, University of Nebraska, Lincoln***

Spring 2025-Summer 2025	Nicole Fiore (student advisee hired as postdoc before following position: Postdoctoral Research Associate, Dartmouth College)
Spring 2017-Fall 2018	Sanjay Antony Babu (following position: Assistant Professor, Texas A&M University, College Station, TX)
Summer 2016-2017	Rajesh Singh, Water Advanced Research and Innovation Fellow (following position: Scientist, National Institute of Hydrology, India)
Summer-Fall 2015	Donald Pan (student advisee hired as postdoc before following position: JAMSTEC Postdoctoral Fellow, Japan)

Graduate Student Advisees (Primary), University of Nebraska, Lincoln

Fall 2024- present	Thomas Brison, Ph.D. Student, School of Biological Sciences, Genetics Cell, and Molecular Biology Program
Fall 2024- present	Gabby Rizzo, Ph.D. Student, School of Biological Sciences, Genetics, Cell, and Molecular Biology Program
Fall 2020-present	Taylor Rosso, Ph.D. student, School of Biological Sciences, Genetics, Cell, and Molecular Biology Program
Fall 2017-Fall 2024	Nicole Fiore, Ph.D., NSF GRFP Fellow, School of Biological Sciences, Genetics Cell and Molecular Biology Program (Position

	following/current position: Postdoctoral Research Associate, Dartmouth College)
Fall 2022-Spring 2025	Matthew Perry, Ph.D. Student, School of Biological Sciences, Genetics, Cell, and Molecular Biology Program
Fall 2017-Spring 2023	Pooja Yadav, Ph.D. Graduate, School of Biological Sciences, Genetics Cell and Molecular Biology Program (Position following/current position: Microsoft, Soil Health Software Engineer)
Fall 2021-Fall 2022	Farzana Rahman, M.S. student, Department of Earth and Atmospheric Sciences
Fall 2015-Spring 2021	Jeffrey Westrop, Ph.D. Graduate, Department of Earth and Atmospheric Sciences (position following: University of Oklahoma, School of Geosciences, postdoctoral researcher; current position University of Nebraska-Lincoln, Conservation Survey Division, Geologist)
Fall 2012-Fall 2018	Olivia Healy, Ph.D. Candidate, School of Biological Sciences, Microbiology and Molecular Biology Program
Fall 2012-Summer 2016	Jason Nolan, Ph.D. Graduate, Department of Earth and Atmospheric Sciences, Great Plains Fellow (position following graduation: Geochemist, HDR, Inc., Omaha, NE; current position: WSP, Technical Principal, Senior Geochemist)
Fall 2009-Spring 2015	Don Pan, Ph.D. Graduate, School of Biological Sciences, Microbiology and Molecular Biology Program, Stressed Watershed IGERT Fellow (position following graduation: JAMSTEC Postdoctoral Fellow, Japan; current position: Shanghai Jiao Tong University, School of Oceanography, Associate Professor)
Fall 2011- Spring 2014	Zheng Huan Tan, M.S. Graduate, School of Biological Sciences, Microbiology and Molecular Biology Program (position following graduation: Research Associate, Baylor College of Medicine, Houston, TX)
Fall 2010	Xioaben Jiang, Ph.D. student, Student School of Biological Sciences, Ecology, Evolution and Behavior Program

Visiting Graduate Student Advisees

Summer – Fall 2019	Rudra Pradhan, Ph.D. Indian Institute of Technology, Bombay, DWFI WARI Fellow
--------------------	---

Graduate Student Committee Membership, University of Nebraska, Lincoln

2025-present	Erin Burke, Ph.D. Student, Biochemistry (Committee member, Advisor Wayne Rieckoff)
2025-present	Sanjog Kharel, Ph.D. Student, Biosystems Engineering (Committee member, Advisor Hyun-Seob Song)
2025-present	Jace Miller, Ph.D. student, Complex Biosystems (Committee member, Advisor Jessica Corman)
2024-present	Atiqullah Atif, Ph.D. student, Department of Earth and Atmospheric Sciences (Committee member, Advisor Erin Haecker)
2023-present	Steve Zhang, current Ph.D. student, Complex Biosystems (Committee Member, Advisor Hyun Seob-Song)
2023-2025	Matthew Larrey, Ph.D. student, School of Biological Sciences (Committee Member, Advisor Chad Brassil)
2023-2024	Lexie Foster, M.S., School of Biological Sciences, UNL (Committee Member, Advisor Daniel Schactman)
2019-2023	Yuguo Yang, Ph.D., EEB, School of Biological Sciences, UNL (Committee Member; Advisor Sabrina Russo)
2023-2023	Paula Guastello, M.S. student, School of Natural Resources (Co-Advisor, Advisor Daniel Snow)
2019-2023	Amanda Quattrone, Ph.D., Complex Biosystems, UNL (Reader; Advisor Sabrina Russo)
2021- 2022	Jordan Shields, Ph.D. student, Earth and Atmospheric Sciences, UNL (Committee Member; Advisor Erin Haacker)
2019-2020	Keegan McGill, current Ph.D., Chemistry, UNL (Committee Member; Advisor Rebecca Lai)
2017-2018	Michael Bright, current M.S., Biological Sciences, University of Nebraska, Kearney (Committee Member; Advisor Julie Shaffer)
2016-2021	Reilly Cooper, Ph.D. EEB, School of Biological Sciences, UNL (Committee Member; Advisor Clayton Cressler)
2013-2018	Christopher Anderson, Ph.D. GCMB, UNL (Committee Member and Reader; Advisor Dr. Etsuko Moriyama)
2010-2017	Derrick White, Ph.D. Microbiology and Molecular Biology Program, UNL (Committee Member; Advisor Dr. Paul Blum)
2015-2016	Miles Mayer, Department of Chemistry, UNL (Committee Member; Advisor Dr. Rebecca Lai)
2011-2013	Brady Kohler, M.S. Graduate, School of Natural Resources, UNL (Committee Member; Advisor Dr. Steven Thomas)
2010-2012	Maitham Ahmed Al-Sammak, Ph.D., Environmental Health, Occupation Health, and Toxicology, University of Nebraska Medical School and University of Nebraska, Lincoln, School of Natural Resources (Committee Member; Advisor Dr. Kyle Hoagland)
2009	Chunmei “Angela” Bai, Ph.D. student, Department of Civil Engineering, UNL (Advisor Dr. Yusong Li)

External Examiner, Graduate Student Committee Membership

Spring 2023	Surya Sujathan, Department of Civil Engineering, Indian Institute of Technology Kanpur
Fall 2015	Allison Enright, Department of Earth Sciences, University of Toronto (Advisor Dr. Grant Ferris)

Graduate Student Rotation Research Supervisor, University of Nebraska, Lincoln

Fall 2017	Pooja Yadav, Ph.D. student, SBS GCMB, UNL
Fall 2017	Nicole Fiore, Ph.D. student, SBS GCMB, UNL
Fall 2013	Sophie Payne, Ph.D. student, SBS GCMB, UNL

Undergraduate Student Advisees, University of Nebraska, Lincoln

36 Undergraduate students mentored and trained in the research laboratory, 20 since 2015

*Denotes undergraduate students joining the Weber Laboratory as a graduate student

‡Denotes post-baccalaureate students enrolled at UNL

Fall 2025 - present	Henry Houska, UNL Undergraduate Research Assistant
Summer 2025 - present	Jace Babcock, STEM Power, UNL
Summer 2025- present	Chase Lewandowski, Nebraska Water Center Fellowship, NASA Nebraska Space Grant Fellow
Summer 2023	Gabriella Rizzo, Bioenergy REU, University of Massachusetts-Amherst
Fall 2022-Spring 2024	Wyatt Koppold, UCARE, UNL
Summer 2022	Olivia Vinnes, Bioenergy REU, Cornell College
Fall 2021 – Spring 2022	Claire Martin, Microbiology Honors Thesis
Spring 2020-Spring 2022	Morgan Owens, CRRI Research Assistant, NASA Fellow UNL
Fall 2020-Spring 2021	Bahar Sulaiman, FYRE Program, UNL
Fall 2020-Spring 2021	Bailey Donovan, FYRE Program, UNL
Fall 2019-Spring 2021	Keland Potthoff, CRRI Research Assistant, UNL
Summer 2019-Spring 2021	Jacob Owens, CRRI Research Assistant, UNL
Fall 2018-Summer 2020	Alicia Chan, UCARE UNL
Summer 2019	Katiana Garcia Rosado, Bioenergy REU, University of Puerto Rico
Summer 2019	Wuillian Martinez, INBRE, UNK
Summer 2018-Spring 2019	Allison Edigar, CRRI Research Assistant, UNL
Summer 2018- Spring 2019	Alex Tagart, CRRI Research Assistant, UNL
Fall 2016-Spring 2018	Anthony Kohtz, Research Assistant, UNL NASA Nebraska Space Grant Undergrad Fellow
Fall 2014-2017	Rebecca Kiat, NCESR Fellow, UCARE, UNL
Summer 2017	Erin Hunt, Truman University, NSF Bioenergy REU
Fall 2015-Spring 2017	Chris Elofson, Research Assistant, UCARE, Undergraduate Thesis, UNL
Summer 2016	Anabell Aguayo, NSF Bioenergy REU
Summer 2014-Spring 2016	Soyoung Jung, Research Assistant, UNL
Summer 2015	Lauren Semingson, NSF Bioenergy REU
Fall 2014-Spring 2015	Aaron Patterson, Research Assistant, UNL
Summer 2013	Caitlin Leahy, Purdue University, NSF Bioenergy REU
Spring 2012-Spring 2013	Dake Wang, UNL, UCARE
Fall 2009-Spring 2012	Jesse Souchek, UNL, UCARE
Fall 2009-Spring 2012	Rachel Watson, UNL, UCARE

Summer 2010 & 2011	Brandon Lamere, Little Priest Tribal College, NSF REU, INBRE
Summer 2011	Olivia Healy*, Warren-Wilson College, NSF Bioenergy REU
Fall 2010-Spring 2011	Zheng Huan Tan*, UNL, Research Assistant
Spring 2010	Gwinyiayi Chikwava, UNL, Research Assistant
Summer 2010	Anthony Harrington, University of Nevada, Las Vegas, NSF Bioenergy REU
Summer 2010	Karen Hu, University of Pennsylvania, Research Assistant
Spring 2009-Summer 2010	Trisha Spanbauer [‡] , Research Assistant, UNL
Fall 2008-Spring 2010	Gregory Hollis, UNL, UCARE
Summer 2009	Tristan Walters, Southwestern College, NSF Bioenergy REU
Summer 2009	Collins Okafor, UNL, Research Assistant

Graduate Student Advisee Fellowships, Grants, and Awards, University of Nebraska, Lincoln
Ph.D. Students

Thomas Brison, Ph.D. Student

NASA Nebraska Space Grant Fellowship (2025-2026). \$4,000

Othmer Fellowship, University of Nebraska—Lincoln (2024-2027). \$4,000/year

Dean's Fellowship, University of Nebraska—Lincoln (2024-2025). \$2,000

Gabriella Rizzo, Ph.D. Student

Lucy Student Pipeline Accelerator and Competency Enabler (L'SPACE) NASA Proposal

Writing and Evaluation Experience (NPWEE) Academy (2025)

Poster Award, 2nd Place, UNL Microbiology Symposium (2025).

NASA Nebraska Space Grant Fellowship (2025-2026). \$8,000

Research Award, SETI Forward Award, SETI Institute (2024)

Matthey Perry, Ph.D. Student

Poster Award, 1st Place, UNL Microbiology Symposium (2022).

Taylor Rosso, Ph.D. Candidate

Oral Presentation Award, 1st Place, SBS Graduate Student Association (2025).

Teaching Award, SBS Extraordinary Dedication as a Graduate Teaching Assistant (2024)

Fellowship, Blair Paxton Udale Fund for Life Sciences, University of Nebraska—Lincoln (2024-2025)

Fellowship, Kenneth C. Stout Fund, University of Nebraska—Lincoln (2023-2024)

Poster Award, 1st Place, Missouri Valley American Society for Microbiology Meeting. 2023.

Fellowship, NASA Nebraska Space Grant (2022-2023). \$6,000

Othmer Fellowship, University of Nebraska—Lincoln (2020-2023). \$7,500/year

Fellowship, NASA Nebraska Space Grant (2021-2022). \$6,000

Nicole Fiore, Ph.D. graduated Fall 2024 (postdoctoral scholar Dartmouth College)

Fellowship, NASA Nebraska Space Grant (2022-2023). \$7,500

Fellowship, Marlene Jenkins Bieber Fellowship (2021-2022). \$1,000

Poster Award, 3rd Place, Astrobiology Science Conference (AbSciCon), Atlanta, GA (2022). \$500

Finalist, UNL MRSEC Science Slam (2021)

Fellowship, NSF Graduate Research Fellowship (2019-2022). \$138,000

Fellowship, Marlene Jenkins Bieber Fellowship (2020-2021). \$500

Fellowship, Peltier-Georgi Microbiology Fellowship, SBS (2019-2020). \$900
Fellowship, NASA Nebraska Space Grant Fellowship (2018-2019). \$4,000

Pooja Yadav, Ph.D., graduated Spring 2023 (Soil Health Software Engineer, Microsoft)
Fellowship, Suzanne Prather Memorial Fund, SBS. (2021)
Fellowship, Kenneth C. Stout Fund, SBS. (2020)
Fellowship, Dr. Franklin Kestner Memorial Fund, SBS (2019-2020). \$550
Selected Participant, DOE Multiscale Microbial Dynamics Modeling Summer School (virtual)
(July 2020)

Jeffery Westrop, Ph.D., graduated Spring 2021 (Postdoctoral Scientist University of Oklahoma)
Research Grant, American Association of Petroleum Geologists, Nebraska Chapter (2018).
\$1,000
Yatkola-Edwards Grant, Nebraska Geological Society (2018). \$1,000
Research Grant, ExxonMobil Geological Society of America (2017), \$5,000
ExxonMobil recognized 10 of the top 30 proposals (total of 785 proposals submitted)
Poster Award, 1st Place Nebraska Water Center Symposium, Lincoln, NE (2016)

Olivia Healy, Ph.D. Candidate

Warren F. and Edith R. Day Dissertation Travel Award, UNL (2018). \$300
Travel Award, International Society for Microbial Ecology, Montreal, Canada (2016).
Travel Award, American Society for Microbiology, Boston, MA (2016).
Outstanding Abstract, American Society for Microbiology General Meeting (2016).
Special Funds Travel Grant, School of Biological Sciences (2016-2017). \$1200
Teaching Fellow, American Society for Microbiology Teaching (2015-2016).
Special Funds Travel Grant, School of Biological Sciences (2015-2016). \$1200
Fellowship, NSF EASPI (2015).
Student Travel Grant, American Geophysical Union (2014). \$500
Fellowship, NASA Nebraska Space Grant (2014-2015). \$5,000
Special Funds Research Grant, School of Biological Sciences (2014-2015). \$1200
Special Funds Travel Grant, School of Biological Sciences (2014-2015). \$300
Poster Award, 1st Place, Biological Graduate Student Association Symposium, Lincoln, NE
(2014).
Othmer Fellowship, University of Nebraska—Lincoln (2012-2015). \$7,500/year
Special Funds Travel Grant, School of Biological Sciences (2012-2013). \$350
Special Funds Research Fellowship, School of Biological Sciences (2014). \$1500

Jason Nolan, Ph.D. graduated 2016 (Staff Geochemist HDR)

Research Grant, Geological Society of America (2014), \$1,500
Outstanding Mention (Exceptional Merit and Presentation) of 744 GSA applicants (2014)
Hydrogeology Division Exceptional High Merit in Presentation and Conception, Top 5 (2014)
Great Plains Fellowship, University of Nebraska, Lincoln (2014-present), \$500/year
Jay M. McMurray Memorial Grant, American Association of Petroleum Geologists (2014),
\$1,000
1st Place Poster Award, Changes: Climate, Water, and Life on the Great Plains, Water
Conference, Lincoln, NE (2013). \$200
Yatkola-Edwards Grant, Nebraska Geological Society (2013). \$400

American Association of Petroleum Geologists, Nebraska Chapter, Research Grant (2013). \$400
Geological Society of America, On to the Future Program (2013). \$415

Don Pan, Ph.D. graduated May 2015, (UNL postdoc and JAMSTEC Postdoctoral Fellow, Japan) JAMSTEC Postdoctoral Fellowship (2015).
Travel Award, International Symposium on Microbial Ecology, Seoul, Korea (2014).
2nd Place Poster Award, Biological Graduate Student Association Symposium, Lincoln, NE (2014).
Special Funds Research Grant, School of Biological Sciences (2012-2013). \$1350
Special Funds Travel Grant, School of Biological Sciences (2012-2013). \$350
2nd Place Poster Award, Water for Food Conference, Lincoln, NE (2013). \$1000
Fellowship, NASA Nebraska Space Grant (2012-2013) \$3,500.
Outstanding Poster Award, American Society for Microbiology General Meeting, San Francisco, CA (2012).
Student Travel Grant, American Society for Microbiology, General Meeting, San Francisco, CA (2012). \$500
Special Funds Travel Grant, School of Biological Sciences (2012). \$600
2nd Place Poster Award, Biological Graduate Student Association Symposium, Lincoln, NE (2011).
2nd Place Poster Award, Missouri Valley Branch, American Society for Microbiology Annual Meeting, Lincoln, NE (2011).
Viewer's Choice Poster Contest Honorable Mention, Water for Food Conference, Lincoln, NE (2011). \$750
Fellowship, NSF IGERT (2010-2013). \$30,000/year
Othmer Fellowship University of Nebraska—Lincoln (2009-2011). \$7,500/year

M.S. Students

Farzana Rahman, M.S. Student, Department of Earth and Atmospheric Sciences
Yatkola-Edwards Grant, Nebraska Geological Society (2022). \$1,100

Zheng Huan Tan, M.S. graduated May 2014, currently Research Technician Baylor College of Medicine, Houston, TX

Special Funds Research Grant, School of Biological Sciences (2012-2013). \$2,000
Special Funds Travel Grant, School of Biological Sciences (2012-2013). \$350

GRADUATE ADVISOR

Eric E. Roden, Department of Biological Sciences, The University of Alabama, Tuscaloosa
(*current affiliation, Department of Geology and Geophysics, University of Wisconsin—Madison*)

POSTDOCTORAL ADVISOR

John D. Coates, Department of Microbiology, Southern Illinois University (2002) and Department of Plant and Microbial Biology, University of California, Berkeley (*December 2002-2006*)