

Jay-Terrence Lennon

Department of Biology, Indiana University, Bloomington, Indiana 47405, USA

Email: lennonj@iu.edu

Lab website: <https://lennonlab.github.io>

Google Scholar: <https://goo.gl/qx4hHR>

Education

1995	B.S.	Environmental Forest Biology	SUNY-ESF at Syracuse
1999	M.A.	Ecology and Evolutionary Biology	University of Kansas
2004	Ph.D.	Ecology and Evolutionary Biology	Dartmouth College

Professional experience

2025–2028	Chair, Applied and Environmental Microbiology Scientific Unit, American Society for Microbiology (ASM)
2023	Visiting Professor, Goethe University, Frankfurt, Germany
2023	Short-term Visiting Professor, ETH Zürich, Centre for Origin and Prevalence of Life
2020–2024	Faculty, Complex Networks and Systems, Indiana University
2018–2022	Faculty, Microbial Diversity Course, Marine Biological Laboratory, Woods Hole
2016–	Professor, Indiana University, Department of Biology; Core Faculty in Evolution, Ecology, and Behavior; Affiliated Faculty in Microbiology
2016–2017	Whitman Center Associate, Marine Biological Laboratory, Woods Hole
2016–2017	Visiting Professor, Montana State University, Department of Microbiology and Immunology
2012–2016	Associate Professor, Indiana University, Department of Biology; Core Faculty in Evolution, Ecology, and Behavior; Affiliated Faculty in Microbiology
2012–2015	Adjunct Professor, W.K. Kellogg Biological Station, Michigan State University
2012	Associate Professor, W.K. Kellogg Biological Station, Department of Microbiology and Molecular Genetics, Michigan State University
2011–2016	Ad hoc Graduate Faculty, Michigan Technological University
2008–2012	Adjunct Professor, Plant Biology Department, Michigan State University

2006–2012	Assistant Professor, W.K. Kellogg Biological Station, Department of Microbiology and Molecular Genetics, Michigan State University
2004–2006	Postdoctoral Research Associate, Brown University, Department of Ecology and Evolutionary Biology

Honors and awards

2024	Highly Cited Author, American Society for Microbiology (ASM)
2024	Soil Stars, Applied Microbiology International (AMI)
2023	Humboldt Prize, Alexander von Humboldt Foundation
2022–2025	Governing Board, Ecological Society of America (ESA)
2022–2027	Chair, Climate Change Task Force, American Academy of Microbiology (AAM)
2021	Fellow, Ecological Society of America (ESA)
2020–2022	Distinguished Lecturer, American Society for Microbiology (ASMDL)
2020–2026	Governor, American Academy of Microbiology (AAM)
2019	Fellow, American Academy of Microbiology (AAM)
2019–2024	Highly Cited Researcher, Clarivate, Cross-Field
2018	Fellow, American Association for the Advancement of Science (AAAS)
2012	Kavli Fellow, National Academy of Sciences
2004	USDA National Research Initiative (NRI) Postdoctoral Fellowship Award
2004	Hannah T. Croasdale Graduate Scholar Award, Dartmouth College
2004	Milton L. Shifman Endowed Scholarship, Marine Biological Laboratory
2004	Albert Cass Fellowship, The Rockefeller University
2004	Nathan Jenks Biology Award, Dartmouth College
2003	Best student presentation, North American Lake Management Society National Meeting, Mashantucket, CT
2002	NSF Doctoral Dissertation Improvement Grant (DDIG)
1999–2004	Dartmouth Fellowship, Dartmouth College
1995	Undergraduate honors: <i>Magna Cum Laude</i> ; President's List; Alpha Sigma Xi, SUNY-ESF

Publications

Preprints, In Review, and In Press:

158. Karakoç C, Shoemaker WR, Lennon JT (2025) Evolutionary bioenergetics of sporulation. *bioRxiv* doi:10.1101/2025.08.26.672491. (link)
157. Mueller EA, van der Elst L, Gumennik A, Lennon JT (2025) The Enterostat: a 3D-printed bioreactor for simulating gut microbiome dynamics. *bioRxiv* doi:10.1101/2025.08.21.671663. (link)
156. Lennon JT, Bittleston LS, Chen Q, Cooper VS, Fernández J, Gilbert JA, Häggblom MM, Harper LV, Jansson JK, Jiao N, Kuurstra EM, Peixoto RS, Rappuoli R, Schembri MA, Ventosa A, Vullo DL, Zhang C, Nguyen NK (2025) Microbes without borders: uniting societies for climate action.
 - *mBio* doi.org/10.1128/mbio.02136-25
 - *Sustainable Microbiology*
 - *ISMEJ*
 - *FEMS Microbiology Ecology*
 - *Ocean-Land-Atmosphere Research*
 - *Microbiology Australia*
155. Gilbert JA, Scholz AH, Dominguez-Bello MG, Korsten L, Berg G ; Singh B; Boetius, A, Wang F; Greening C, Wrighton K, Bordenstein S, Jansson JK, Lennon JT, Souza V, Allard Sarah, Thomas T, Cowan D, Crowther T, Nguyen N, Harper L, Haraoui, L-P, Ishaq S, Mcfall-Ngai M, Redford K, Peixoto RS (2025) Safeguarding Microbial Biodiversity: Microbial Conservation Specialist Group (MCSG) within the Species Survival Commission of the International Union for Conservation of Nature (IUCN) In press at *Sustainable Microbiology*
154. Janet K. Jansson, Avi I. Flamholz, Raquel Peixoto, Salles JF, Lennon JT, Rosado A, Sanders IR, Jacobsen CS, Makhalanyane T, Schadt C, Gilbert JA (2025) Heterotrophic respiration by soil microbes in a changing climate. In review at *Nature Reviews Earth & Environment*
153. Wang J, Hu A, Cui Y, Bercovici S, Lu X, Lennon JT, Soininen J, Liu Y, Jiao N (2025) Towards the chemogeography of dissolved organic matter in the global ocean. In review at *Environmental Science & Technology*
152. Gilbert JA, Peixoto RS, Scholz AH, Dominguez-Bello MG, Korsten L, Berg G, Singh B, Boetius A, Wang F, Greening C, Jansson J, Lennon JT, Souza V, Thomas T, Cowan D,

- Crowther T, Nguyen N, Harper L, Haraoui LP, Ishaq SL, Redford K (2025) The IUCN Microbial Conservation Specialist Group (MCSG): A global framework for safeguarding microbial biodiversity. *Nature Microbiology* doi:10.1038/s41564-025-02113-5 (pdf)
151. Overcast I, Calderon-Sanou I, Creer S, Dominguez-Garcia V, Hagen O, Hickerson MI, Jörger Hickfang T, Krehenwinkel H, Lennon JT, Méndez L, Méndez M, Onstein R, Pereira H, Qin C, Winter M, Yu DW, Zurell D, Gillespie RG (2025) The distribution of genetic diversity in ecological communities: A unifying measure for monitoring biodiversity change. *EcoEvoRxiv*. doi:10.32942/X2Z64W. (link) In review at *Conservation Letters*)
 150. Wang J, Hu A, Cui Y, Bercovici SK, Lennon JT, Soininen J, Liu Y, Jiao N (2025) Geographical patterns and drivers of dissolved organic matter in the global ocean. *Research Square*. doi:10.21203/rs.3.rs-6624570/v1. (link)
 149. Bogar G, Lennon JT, Vander Stel H, Evans SE (2025) Simple, rapid, and sensitive assay for the quantification of total polysaccharides to estimate extracellular polymeric substances (EPS) in soil. *bioRxiv* doi:10.1101/2025.05.22.654594. (link) In review at *Journal of Microbiological Methods*
 148. Măgălie A, Marantos A, Schwartz DA, Marchi J, Lennon JT, Weitz JS (2024) Phage infection fronts trigger early sporulation and collective defense in bacterial populations. *bioRxiv*. doi:10.1101/2024.05.22.595388. (link) In revision at *ISMEJ*
 147. Hill CA, McMullen JC, Lennon JT (2024) Nitrogen enrichment alters selection on rhizobial genes. *bioRxiv*. doi:10.1101/2024.11.25.625319. (link) In revision at *mSystems*
 146. Hu A, Cui Y, Bercovici A, Tanentzap AJ, Lennon JT, Lin X, Yang Y, Liu Y, Osterholz H, Dong H, Lu Y, Jiao N, Wang J (2024) Photochemical processes drive thermal responses of dissolved organic matter in the dark ocean. *bioRxiv*. doi:10.1101/2024.09.06.611638. (link) In revision at *Nature Communications*
 145. McGill B, Jarzyna M, Diaz R, Barnes C, Diaz FH, Economo E, French C, Hagen O, James H, Kivlin S, Lahiri S, Lennon JT, Mascarenhas R, Ohyama L, Rabosky DL, Zhu K, Hickerson M, Gillespie R (In review) A call to develop a coherent discipline of biodiversity science to address global change.

Patents:

144. Lennon JT, van der Elst LA, Mueller EA, Gumennik A (2023) Gut bioreactor and method for making the same. US Patent 11,840,681 B2. (pdf)

White papers:

143. Rappuoli R, Nguyen N, Bloom DE, Brooks CG, Egamberdieva D, Lawley TD, Morhard R, Mukhopadhyay A, Lennon JT, Peixoto RS, Silver PA, Stein LY (2025) Microbial solutions for climate change — Toward an economically resilient future. *American Society for Microbiology*. (pdf)
142. Lennon JT and 32 others (2025) Colloquium report: Water, waterborne pathogens and public health: environmental drivers. American Society for Microbiology, Washington, DC. (link)
141. Lennon JT and 28 others (2023) Colloquium report: Microbes in models: integrating microbes into earth system models for understanding climate change. American Society for Microbiology, Washington, DC. (link)
140. Lennon JT and 28 others (2023) Colloquium report: The role of microbes in mediating methane emissions. American Society for Microbiology, Washington, DC. (link)

Commentaries and essays:

139. Gilbert JA, Peixoto RS, Scholz AH, Dominguez-Bello MG, Korsten L, Berg G, Singh B, Boetius A, Wang F, Greening C, Jansson J, Lennon JT, Souza V, Thomas T, Cowan D, Crowther T, Nguyen N, Harper L, Haraoui LP, Ishaq SL, Redford K (2025) The IUCN Microbial Conservation Specialist Group (MCSG): A global framework for safeguarding microbial biodiversity. In press at *Nature Microbiology* doi:10.1038/s41564-025-02113-5. (link)
138. Lennon JT, Rappuoli R, Bloom DE, Brooks CG, Egamberdieva D, Lawley TD, Morhard R, Mukhopadhyay A, Nguyen N, Peixoto RS, Silver PA, Stein LY (2025) Microbial solutions for climate change require global partnership. *mBio* 16: 10.1128/mbio.00778-25. (pdf)
137. Rappuoli R, Nguyen N, Bloom DE, Brooks CG, Egamberdieva D, Lawley TD, Morhard R, Mukhopadhyay A, Lennon JT, Peixoto RS, Silver PA, Stein LY (2025) Microbes can capture carbon and degrade plastic — why aren't we using them more? *Nature* 639: 864–866. (pdf)
136. Peixoto R, Voolstra CR, Stein LY, Hugenholtz P, Salles JF, Amin SA, Häggblom M, Gregory A, Makhalanyane TP, Wang F, Agbodjato NA, Wang Y, Jiao N, Lennon JT, Ventosa A, Bavoil PM, Miller V, Gilbert JA (2024) Microbiology at the brink: a unified call for action against climate catastrophe.

Published in:

- Nature Microbiology 9: 3084–3085 (pdf)
- Nature Communications 15: 9637 (pdf)
- Nature Reviews Microbiology 23: 1–2 (pdf)
- Nature Reviews Earth and Environment 6: 4–5 (pdf)

- ISMEJ 18: wræ219 (pdf)
 - mSystems 11: e0141624 (pdf)
 - Communications Biology 7: 1466 (pdf)
 - Communications Earth and Environment 5: 672 (pdf)
 - FEMS Microbiology Ecology 100: fiae144 (pdf)
 - NPJ Biodiversity 3: 34 (pdf)
 - NPJ Biofilms and Microbiomes 10: 122 (pdf)
 - NPJ Sustainable Agriculture 2: 23 (pdf)
 - NPJ Climate Action 3: 1–3 (pdf)
 - Sustainable Microbiology 1: qvae029 (pdf)
135. Beattie GA, Cotrufo FM, Crowther TW, Edlund A, Salles JF, Gilbert JK, Jansson JK, Jensen PR, Lennon JT, Makhalanyane T, Martiny JBH, Newman DK, Stevenson M (2024) Soil microbial strategies for climate mitigation: Report from a climate action workshop in Las Vegas, Nevada, February 2024. *Sustainable Microbiology* 1: qvae033. (pdf)
134. Lennon JT (2020) Microbial life underfoot. *mBio* 11: e03201-19. [pdf]
133. Lennon JT, Locey KJ (2018) There are more microbial species on Earth than stars in the galaxy. *Aeon*. (link)
132. Lau JA, Lennon JT, Heath KD (2017) Trees harness the power of microbes to survive climate change. *Proceedings of the National Academy of Sciences of the United States of America* 114: 11009–11011. (pdf)

Book reviews:

131. Wisnoski NI, Lennon JT (2016) Book Review. Principles of Microbial Diversity by James W. Brown. *Quarterly Review of Biology* 91: 98–99. (pdf)
130. Moger-Reischer RZ, Lennon JT (2017) Book Review. *The human superorganism: how the microbiome is revolutionizing the pursuit of a healthy life* by Rodney Dietert. *Quarterly Review of Biology* 92: 203. (pdf)

Theses:

129. Lennon JT (2004) The energetic importance of terrestrial carbon in lake ecosystems. Dartmouth College, 169 pp. (pdf)
128. Lennon JT (1999) Invasion success of the exotic *Daphnia lumholtzi*: species traits and community resistance. University of Kansas, 77 pp.

Peer-reviewed papers:

127. Lennon JT, Lehmkuhl BK, Chen L, Illingworth M, Kuo V, Muscarella ME (2025) Resuscitation-promoting factor (Rpf) terminates dormancy among diverse soil bacteria. *mSystems* 10: 10.1128/msystems.01517-24. (pdf)
126. Mueller EA, Lennon JT (2025) Residence time structures microbial communities through niche partitioning. *Ecology Letters* 28: e70093. (pdf)
125. Nevermann HD, Gros C, Lennon JT (2025) A game of life with dormancy. *Proceedings of the Royal Society B* 292: 20242543. (pdf)
124. Zang Z, Zhang C, Park KJ, Schwartz DA, Podicheti R, Lennon JT, Gerdt JP (2025) Streptomyces secretes a siderophore that sensitizes competitor bacteria to phage infection. *Nature Microbiology*. (pdf)
123. Beattie GA, Edlund A, Esiobu N, Gilbert J, Nicolaisen MH, Jansson JK, Jensen P, Keiluwei M, Lennon JT, Martiny JBH, Minnisi VR, Newmann D, Peixoto R, Schadt C, van der Meer JR (2025) Soil microbiome interventions for carbon sequestration and climate mitigation. *mSystems*. (pdf)
122. Webster KD, Lennon JT (2025) Dormancy in the origin, evolution, and persistence of life on Earth. *Proceedings of the Royal Society B: Biological Sciences* 292: 20242035. (pdf)
121. Waldrop MP, Ernakovich JG, Vishnivetskaya TA, Schaefer SR, Mackleprang R, Bara J, O'Brien JM, Winkel M, Barbato RA, Heffernan L, Leewis MC, Hewitt RE, Hultman J, Sun Y, Biasi C, Bradley JA, Liebner S, Ricketts MP, Muscarella ME, Schütte U, Abuah F, Whalen E, Timling I, Voight C, Taş N, Lloyd KG, Silganen HMP, Rivkina EM, Voříšková J, Tao J, Liang R, Lennon JT, Onstott TC (2025) Microbial ecology of permafrost soils: populations, processes, and perspectives. *Permafrost and Periglacial Processes*. (pdf)
120. Wu W, Hsieh C, Logares R, Lennon JT, Liu H (2024) Ecological processes shaping highly connected bacterial communities along strong environmental gradients. *FEMS Microbiology Ecology* 100: fae146. (pdf)
119. Hu A, Jang KS, Tanentzap AJ, Zhao W, Lennon JT, Liu J, Li M, Stegen JC, Choi M, Lu Y, Feng X, Wang J (2024) Thermal responses of dissolved organic matter under global change. *Nature Communications* 15: 576. (pdf)
118. Lennon JT, Abramoff RZ, Allison SD, Burckhardt RM, DeAngelis KM, Dunne JP, Frey SD, Friedlingstein P, Hawkes CV, Hungate BA, Khurana S, Kivlin SN, Levine N, Manzoni S, Martiny AC, Martiny JBH, Nguyen N, Rawat M, Talmy D, Todd-Browne K, Vogt M, Wieder WR, Zakem E (2024) Priorities, opportunities, and challenges for integrating microorganisms

- into Earth system models for climate change prediction. *mBio* 15: e00455-24. (pdf)
117. Moger-Reischer RZ, Glass JI, Wise KS, Sun L, Bittencourt DMC, Lehmkuhl BK, Schoolmaster DR Jr, Lynch M, Lennon JT (2023) Evolution of a minimal cell. *Nature* 620: 122–127. (pdf)
 116. Schwartz DA, Shoemaker WR, Măgăliec A, Weitz JS, Lennon JT (2023) Bacteria-phage coevolution with a seed bank. *ISMEJ* 17: 1315–1325. (pdf)
 115. Fishman FJ, Lennon JT (2023) Macroevolutionary constraints on global microbial diversity. *Ecology and Evolution* 13: e10403. (pdf)
 114. Zhou X, Lennon JT, Lu X, Ruan A (2023) Anthropogenic activities mediate stratification and stability of microbial communities in freshwater sediments. *Microbiome* 11: 191. (pdf)
 113. Schwartz DA, Rodriguez-Ramos J, Shaffer M, Flynn F, Daly R, Wrighton KC, Lennon JT (2023) Human-gut phages harbor sporulation genes. *mBio* e0018223. (pdf)
 112. Wisnoski NI, Lennon JT (2023) Scaling up and down: movement ecology for microorganisms. *Trends in Microbiology* 31: 242–253. (pdf)
 111. Măgăliec A, Schwartz DA, Lennon JT, Weitz JS (2023) Optimal dormancy strategies in fluctuating environments given delays in phenotypic switching. *Journal of Theoretical Biology* 561: 111413. (pdf)
 110. Lennon JT, Frost SDW, Nguyen NK, Peralta AL, Place AR, Treseder KK (2023) Microbiology and climate change: a transdisciplinary imperative. *mBio* 13: e0335-22. (pdf)
 109. Bolin LG, Lennon JT, Lau JA (2023) Traits of soil bacteria predict plant responses to soil moisture. *Ecology* 104: e3893. (pdf)
 108. Irvine R, Houser M, Marquart-Pyatt ST, Bolin L, Browning EG, Dott G, Evans SE, Howard M, Lau J, Lennon JT (2023) Soil health through farmers’ eyes: Toward a better understanding of how farmers view, value, and manage for healthier soils. *Journal of Soil and Water Conservation* 78: 82–92. (pdf)
 107. McMullen JG, Lennon JT (2023) Mark-recapture of microorganisms. *Environmental Microbiology* 25: 150–157. (pdf)
 106. Webster KD, Schimmelmann A, Drobnik A, Mastalerz M, Lagarde LR, Boston PJ, Lennon JT (2022) Diversity and composition of cave methanotrophic communities. *Microbiology Spectrum* 10: e0156621. (pdf)
 105. Schwartz DA, Lehmkuhl BK, Lennon JT (2022) Phage-encoded sigma factors alter bacterial dormancy. *mSphere* e00927-22. (pdf)

104. Shoemaker WR, Polezhaeva E, Givens KB, Lennon JT (2022) Seed banks alter the molecular evolutionary dynamics of *Bacillus subtilis*. *Genetics* 221: iyac071. (pdf)
103. Hu A, Choi M, Tanentzap AJ, Liu J, Jang KS, Lennon JT, Liu Y, Soininen J, Lu X, Zhang Y, Shen J, Wang J (2022) Ecological networks of dissolved organic matter and microorganisms under global change. *Nature Communications* 13: 3699. (pdf)
102. Hu A, Jang KS, Meng F, Stegen J, Tanentzap AJ, Choi M, Lennon JT, Soininen J, Wang J (2022) Microbial and environmental processes shape the link between organic matter functional traits and composition. *Environmental Science and Technology* 56: 10504-10516. (pdf)
101. Krause SMB, Bertilsson S, Grossart HP, Bodelier PLE, van Bodegom P, Lennon JT, Philippot L, Le Roux X (2022) Microbial trait-based approaches for agroecosystems. *Advances in Agronomy* 175: 260–299. (pdf)
100. Shoemaker WR Lennon JT (2022) Predicting parallelism and quantifying divergence in experimental evolution. *mSphere* 7: e00672-21. (pdf)
99. Shoemaker WR Jones SE Muscarella ME Behringer MG Lehmkuhl BK Lennon JT (2021) Microbial population dynamics and evolutionary outcomes under extreme energy-limitation. *Proceedings of the National Academy of Sciences of the United States of America* 118: e2101691118. (pdf, commentary, supplement)
98. Lennon JT den Hollander F Wilke-Berenguer M Blath J (2021) Principles of seed banks: complexity emerging from dormancy. *Nature Communications* 2: 4807. (pdf)
97. Wisnoski NI Lennon JT (2021) Stabilising role of seed banks and the maintenance of bacterial diversity. *Ecology Letters* 24: 2328–2338. (pdf, supplement)
96. Shoemaker WR Polezhaeva E Givens KB Lennon JT (2021) Molecular evolutionary dynamics of energy limited microorganisms. *Molecular Biology and Evolution* 38: msab195. (pdf, supplement)
95. Lamit LJ, Romanowicz KJ, Potvin LR, Lennon JT, Tringe SG, Chimner RA, Kolka RK, Kane ES, Lilleskov EA (2021) Peatland microbial community responses to plant functional group and drought are depth-dependent. *Molecular Ecology* 30: 5119–5136. [pdf]
94. Kuo V, Lehmkuhl BK, Lennon JT (2021) Resuscitation of the microbial seed bank alters plant-soil interactions. *Molecular Ecology* 30: 2905–2914. [pdf]
93. Wisnoski NI, Lennon JT (2020) Microbial community assembly in a multi-layer dendritic metacommunity. *Oecologia* 195: 13–24. [pdf]
92. Mobilian C, Wisnoski NI, Lennon JT, Abler M, Widney S, Craft CB (2020) Differential effects

- of press vs. pulse seawater intrusion on microbial communities of a tidal freshwater marsh. *Limnology and Oceanography Letters* 8: 154–161. [pdf]
91. Muscarella ME, Howey XM, Lennon JT (2020) Trait-based approach to bacterial growth efficiency. *Environmental Microbiology* 22: 3494–3504. [pdf]
 90. Moger-Reischer RZ, Snider EZ, McKenzie KL, Lennon JT (2020) Low costs of adaptation to dietary restriction. *Biology Letters* 16: 20200008. [pdf]
 89. Locey KJ, Muscarella ME, Larsen ML, Bray SR, Jones SE, Lennon JT (2020) Dormancy dampens the microbial distance-decay relationship. *Philosophical Transactions of the Royal Society B* 375: 20190243. [pdf]
 88. Lennon JT, Locey KJ (2020) More evidence for Earth’s massive microbiome. *Biology Direct* 15: 5. [pdf]
 87. Wisnoski NI, Muscarella ME, Larsen ML, Peralta AP, Lennon JT (2020) Metabolic insight into bacterial community assembly across ecosystem boundaries. *Ecology* 101: e02968. [pdf]
 86. Yin Y, Masalerz M, Lennon JT, Drobniak A, Schimmelmann A (2020) Characterization and microbial mitigation of fugitive methane emissions from oil and gas wells: Example from Indiana, USA. *Applied Geochemistry* 118: 104619. (pdf)
 85. Mueller EA, Wisnoski NI, Peralta AL, Lennon JT (2019) Microbial rescue effects: how microbiomes can save hosts from extinction. *Functional Ecology* 34: 2055–2064. (pdf)
 84. Moger-Reischer RZ, Lennon JT (2019) Microbial aging and longevity. *Nature Reviews Microbiology* 17: 79–690. (pdf)
 83. Wisnoski NI, Leibold MA, Lennon JT (2019) Dormancy in metacommunities. *American Naturalist* 194: 131–151. (pdf)
 82. Salazar A, Lennon JT, Dukes JS (2019) Microbial activity improves predictability of soil respiration dynamics. *Biogeochemistry* 144: 103–116. (pdf)
 81. Muscarella ME, Boot CM, Broeckling CD, Lennon JT (2019) Resource diversity structures aquatic bacterial communities. *ISMEJ* 13: 2183–2195. (pdf)
 80. Larsen ML, Wilhelm SW, Lennon JT (2019) Nutrient stoichiometry shapes microbial coevolution. *Ecology Letters* 22: 1009–1018. (pdf)
 79. Locey KJ, Lennon JT (2019) A residence-time framework for biodiversity. *American Naturalist* 194: 59–72. (pdf)
 78. Sprunger CD, Culman SW, Peralta AP, DuPont ST, Lennon JT, Snapp SS (2019) Perennial

- grain crop roots and nitrogen management shape soil food webs and soil carbon dynamics. *Soil Biology and Biochemistry* 137: 107573. (pdf)
77. Shade A, Dunn RR, Blowes SA, Keil P, Bohannon BMJ, Hermann M, Küsel K, Lennon JT, Sanders NJ, Storch D, Chase J (2018) Macroecology to unite all biodiversity great and small. *Trends in Ecology and Evolution* 33: 731–744. (pdf)
 76. Lennon JT, Muscarella ME, Placella SA, Lehmkuhl BK (2018) How, when, and where relic DNA biases estimates of microbial diversity. *mBio* 9: e00637-18. (pdf)
 75. Shoemaker WR, Lennon JT (2018) Evolution with a seed bank: the population genetic consequences of microbial dormancy. *Evolutionary Applications* 11: 60–75. (pdf)
 74. Hall EK, Bernhardt ES, Bier R, Bradford MA, Boot CM, Cotner JB, del Giorgio PA, Evans SE, Graham EB, Jones SE, Lennon JT, Nemergut D, Osborne B, Rocca JD, Schimel JS, Waldrop MS, Wallenstein MW (2018) Understanding how microbiomes influence the systems they inhabit. *Nature Microbiology* 3: 977–982. (pdf)
 73. Peralta AL, Sun Y, McDaniel MD, Lennon JT (2018) Crop diversity increases disease suppressive capacity of soil microbiomes. *Ecosphere* 9: e02235. (pdf)
 72. Long H, Sung W, Kucukyildirim S, Williams E, Miller S, Guo W, Patterson C, Gregory C, Strauss C, Stone C, Berne C, Kysela D, Shoemaker WR, Muscarella M, Luo H, Lennon JT, Brun YV, Lynch M (2018) Evolutionary determinants of genome-wide nucleotide composition. *Nature Ecology and Evolution* 2: 237–240. (pdf)
 71. Schimmelfmann A, Streil T, Fernandez-Cortes A, Cuezva S, Lennon JT (2018) Radiolysis via radioactivity is not responsible for rapid methane oxidation in subterranean air. *PLOS ONE* 113: 020650. (pdf)
 70. Shoemaker WR, Locey KJ, Lennon JT (2017) A macroecological theory of microbial biodiversity. *Nature Ecology and Evolution* 1: 0107. (pdf)
 69. Kuo V, Shoemaker WR, Muscarella ME, Lennon JT (2017) Whole genome sequence of the soil bacterium *Micrococcus* sp. KBS0714. *Genome Announcements* 5: e00697-17. (pdf)
 68. Nguyễn-Thùy D, Schimmelfmann A, Nguyễn-Văn H, Drobniak A, Lennon JT, Tạ PH, Nguyễn NTA (2017) Subterranean microbial oxidation of atmospheric methane in cavernous tropical karst. *Chemical Geology* 466: 229–238. (pdf)
 67. Lamit LJ, Romanowicz JH, Potvin LR, Rivers A, Singh K, Lennon JT, Tringe S, Kane E, Lilleskov E (2017) Patterns and drivers of fungal community depth stratification in *Sphagnum* peat. *FEMS Microbiology Ecology* 93: fix082. (pdf)

66. Locey KJ, Fisk MC, Lennon JT (2017) Microscale insight into microbial seed banks. *Frontiers in Microbiology* 7: 2040. (pdf)
65. Webster KD, Lagarde LR, Sauer PE, Schimmelmann A, Lennon JT, Boston PJ (2017) Isotopic evidence for the migration of thermogenic methane in Cueva de Villa Luz cave, Tabasco, Mexico. *Journal of Cave and Karst Studies* 79: 24–34. (pdf)
64. Lennon JT, Locey KJ (2017) Macroecology for microbiology. *Environmental Microbiology Reports* 9: 38–40. (pdf)
63. LaSarre B, McCully AL, Lennon JT, McKinlay JB (2017) Microbial mutualism dynamics governed by dose-dependent toxicity and growth-independent production of a cross-fed nutrient. *ISMEJ* 11: 337–348. (pdf)
62. Lennon JT, Nguyễn Thùy D, Phạm Đức N, Drobniak A, Tạ PH, Phạm ND, Streil T, Webster KD, Schimmelmann A (2017) Microbial contributions to subterranean methane sinks. *Geobiology* 15: 254–258. (pdf)
61. Skelton J, Geyer KM, Lennon JT, Creed RP, Brown BL (2017) Multi-scale ecological filters shape crayfish microbiome assembly. *Symbiosis* 72: 159–170. (pdf)
60. Locey KJ, Lennon JT (2017) A modeling platform for the simultaneous emergence of ecological patterns. *PeerJ Preprints* 5: e1469v3. (pdf)
59. Locey KJ, Lennon JT (2016) Powerful predictions of biodiversity from ecological models and scaling laws. *Proceedings of the National Academy of Sciences of the United States of America* 113: E5097. (pdf)
58. Lennon JT, Locey KJ (2016) The underestimation of global microbial diversity. *mBio* 7: e01298-16. (pdf)
57. Locey KJ, Lennon JT (2016) Scaling laws predict global microbial diversity. *Proceedings of the National Academy of Sciences of the United States of America* 113: 5970–5975. (pdf, supplement, commentary, F1000 recommendation)
56. Lennon JT, Lehmkuhl BK (2016) A trait-based approach to biofilms in soil. *Environmental Microbiology* 18: 2732–2742. (pdf)
55. Muscarella ME, Jones SE, Lennon JT (2016) Species sorting along a subsidy gradient alters community stability. *Ecology* 97: 2034–2043. (pdf, supplement)
54. Aanderud ZT, Vert JC, Magnusson TW, Lennon JT, Breakwell DP, Harker AR (2016) Bacterial dormancy is more prevalent in freshwater than hypersaline lakes. *Frontiers in Microbiology* 7: 853. (pdf)

53. Lennon JT, Denef VJ (2016) Evolutionary ecology of microorganisms: from the tamed to the wild. In: Yates MV, Nakatsu C, Miller R, Pillai S (eds). *Manual of Environmental Microbiology*, 4th ed. ASM Press, Washington, DC, pp. 4.1.2-1–4.1.2-12. (pdf)
52. Wigington CH, Sonderegger DL, Brussard CPD, Buchan A, Finke JF, Fuhrman JA, Lennon JT, Middelboe M, Stock CA, Suttle CA, Wilson WH, Wommack EK, Wilhelm SW, Weitz JS (2016) Re-examining the relationship between virus and microbial cell abundances in the global oceans. *Nature Microbiology* 1: 15024. (pdf)
51. Hall EK, Schoolmaster DR, Amado AM, Stets EG, Lennon JT, Domine L, Cotner JB (2016) Scaling relationships among drivers of aquatic respiration: from the smallest to the largest freshwater ecosystems. *Inland Waters* 6: 1–10. (pdf)
50. Kinsman-Costello LE, Hamilton SK, O'Brien J, Lennon JT (2016) Phosphorus release from the drying and reflooding of diverse wetland sediments. *Biogeochemistry* 130: 159–176. (pdf)
49. Martiny JBH, Jones SE, Lennon JT, Martiny AC (2015) Microbiomes in light of traits: a phylogenetic perspective. *Science* 350: aac9323. (pdf)
48. Bier RL, Bernhardt ES, Boot CM, Graham EB, Hall EK, Lennon JT, Nemergut D, Osborne BB, Ruiz-Gonzalez C, Schimel JP, Waldrop MP, Wallenstein MD (2015) Linking microbial community structure and microbial processes: an empirical and conceptual overview. *FEMS Microbiology Ecology* 91: fiv113. (pdf)
47. Shoemaker WR, Muscarella ME, Lennon JT (2015) Genome sequence of the soil bacterium *Janthinobacterium* sp. KBS0711. *Genome Announcements* 3: e00689-15. (pdf)
46. Treseder KK, Lennon JT (2015) Fungal traits that drive ecosystem dynamics. *Microbiology and Molecular Biology Reviews* 79: 243–262. (pdf)
45. Solomon CT, Jones SE, Weidel BC, Buffam I, Fork ML, Karlsson J, Larsen S, Lennon JT, Read JS, Sadro S, Saros JE (2015) Ecosystem consequences of changing inputs of terrestrial dissolved organic matter to lakes: current knowledge and future challenges. *Ecosystems* 18: 376–389. (pdf)
44. Weitz JS, Stock CA, Wilhelm SW, Bourouiba L, Buchan A, Coleman ML, Follows MJ, Fuhrman JA, Jover LF, Lennon JT, Middelboe M, Sonderegger DL, Suttle CA, Taylor BP, Thingstad TF, Wilson WH, Wommack EK (2015) A multitrophic model to quantify the effects of marine viruses on microbial food webs and ecosystem processes. *The ISME Journal* 9: 1352–1364. (pdf)
43. Aanderud ZT, Jones SE, Fierer N, Lennon JT (2015) Resuscitation of the rare biosphere contributes to pulses of ecosystem activity. *Frontiers in Microbiology* 6: 24. (pdf)

42. Jones SE, Lennon JT (2015) A test of the subsidy-stability hypothesis: effects of terrestrial carbon in aquatic ecosystems. *Ecology* 96: 1550–1560. (pdf, supplement, ESA Bulletin Photo Gallery)
41. Rocca JD, Hall EK, Lennon JT, Evans SE, Waldrop MP, Cotner JB, Nemergut DR, Graham EB, Wallenstein MD (2015) Relationships between protein-encoding gene abundance and corresponding process are commonly assumed yet rarely observed. *The ISME Journal* 9: 1693–1699. (pdf)
40. Muscarella ME, Bird KC, Larsen ML, Placella SA, Lennon JT (2014) Phosphorus resource heterogeneity in microbial food webs. *Aquatic Microbial Ecology* 73: 259–272. (pdf)
39. Peralta AL, Stuart D, Kent AD, Lennon JT (2014) A social-ecological framework for "micromanaging" microbial services. *Frontiers in Ecology and the Environment* 12: 524–531. (pdf, supplement, cover)
38. Krause S, Le Roux X, Niklaus PA, Van Bodegom P, Lennon JT, Bertilsson S, Grossart HP, Philippot L, Bodelier P (2014) Trait-based approaches for understanding microbial biodiversity and ecosystem functioning. *Frontiers in Microbiology* 5: 251. (pdf)
37. terHorst CP, Lennon JT, Lau JA (2014) The relative importance of rapid evolution for plant-soil feedbacks depend on ecological context. *Proceedings of the Royal Society B* 281: 20140028. (pdf, correction)
36. Dzialowski AR, Rzepecki M, Kostrzevska-Szlakowska I, Lennon JT, Kalinowska K, Palash A (2014) Are the abiotic and biotic characteristics of aquatic mesocosms representative of in situ conditions? *Journal of Limnology* 73: 603–612. (pdf)
35. Bertilsson S, Burgin A, Carey CC, Fey SB, Grossart HP, Grubisic L, Jones I, Kirillin G, Lennon JT, Shade A, Smyth RL (2013) The under-ice microbiome of seasonally frozen lakes. *Limnology and Oceanography* 58: 1998–2012. (pdf)
34. Lennon JT, Hamilton SK, Muscarella ME, Grandy AS, Wickings K, Jones SE (2013) A source of terrestrial organic carbon to investigate the browning of aquatic ecosystems. *PLOS ONE* 8: e75771. (pdf)
33. Ponsero AJ, Chen F, Lennon JT, Wilhelm SW (2013) Complete genome sequence of a non-lysogenizing cyanobacterial siphoviridae. *Genome Announcements* 1(4): e00472-13. (pdf)
32. Lauber CL, Ramirez KS, Aanderud ZT, Lennon JT, Fierer N (2013) Temporal variability in soil microbial communities across land-use types. *The ISME Journal* 7: 1641–1650. (pdf)
31. Aanderud ZT, Jones SE, Schoolmaster DR, Fierer N, Lennon JT (2013) Sensitivity of soil

- respiration and microbial communities to altered snowfall. *Soil Biology and Biochemistry* 57: 217–227. (pdf)
30. Shade A, Peter H, Allison S, Baho D, Berga M, Burgmann H, Huber D, Langenheder S, Lennon JT, Martiny JBH, Matulich K, Schmidt TM, Handelsman J (2012) Fundamentals of microbial community resistance and resilience. *Frontiers in Microbiology* 3: 417. (pdf)
 29. Lau JA, Lennon JT (2012) Rapid responses of soil microorganisms improve plant fitness in novel environments. *Proceedings of the National Academy of Sciences of the United States of America* 109: 14058–14062. (pdf, supplement, press release, pod cast, F1000 recommendation, correction)
 28. Lennon JT, Aanderud ZA, Lehmkuhl BK, Schoolmaster DR (2012) Mapping the niche space of soil microorganisms using taxonomy and traits. *Ecology* 93: 1867–1879. (pdf, supplement, ESA Bulletin Photo Gallery)
 27. Burgin AJ, Hamilton SK, Jones SE, Lennon JT (2012) Denitrification by sulfur-oxidizing bacteria in a eutrophic lake. *Aquatic Microbial Ecology* 66: 283–293. (pdf)
 26. O'Brien JM, Hamilton SK, Kinsman-Costello LE, Lennon JT, Ostrom NE (2012) Nitrogen transformations in a through-flow wetland revealed using whole-ecosystem pulsed ^{15}N additions. *Limnology and Oceanography* 57: 221–234. (pdf)
 25. Treseder KK, Balser TC, Bradford MA, Brodie EL, Eviner VT, Hofmockel KS, Lennon JT, Levine UY, MacGregor BJ, Pett-Ridge J, Waldrop MP (2012) Integrating microbial ecology into ecosystem models. *Biogeochemistry* 109: 7–18. (pdf)
 24. Lau JA, Lennon JT (2011) Evolutionary ecology of plant-microbe interactions: soil microbial structure alters natural selection on plant traits. *New Phytologist* 192: 215–224. (pdf)
 23. Aanderud ZT, Lennon JT (2011) Validation of heavy-water stable isotope probing for the characterization of rapidly responding soil bacteria. *Applied and Environmental Microbiology* 77: 4589–4596. (pdf)
 22. Fierer N, Lennon JT (2011) The generation and maintenance of diversity in microbial communities. *American Journal of Botany* 98: 439–448. (pdf)
 21. Jones SE, Lennon JT (2010) Dormancy contributes to the maintenance of microbial diversity. *Proceedings of the National Academy of Sciences of the United States of America* 107: 5881–5886. (pdf)
 20. Thum RA, Lennon JT (2010) Comparative ecological niche models predictive the invasive spread of variable-leaf milfoil (*Myriophyllum heterophyllum*) and its potential impact on

- closely related native species. *Biological Invasions* 12: 133–143. (pdf)
19. Jones SE, Lennon JT (2009) Evidence for limited microbial transfer of methane in a planktonic food web. *Aquatic Microbial Ecology* 58: 45–53. (pdf)
 18. Lennon JT, Martiny JBH (2008) Rapid evolution buffers ecosystem impacts of viruses in a microbial food web. *Ecology Letters* 11: 1177–1188. (pdf, supplement)
 17. Lennon JT, Cottingham KL (2008) Microbial productivity in variable resource environments. *Ecology* 84: 1001–1014. (pdf, supplement, ESA Bulletin Photo Gallery)
 16. Lennon JT, Khatana SAM, Marston MF, Martiny JBH (2007) Is there a cost of virus resistance in marine cyanobacteria? *The ISME Journal* 1: 300–312. (pdf, featured article)
 15. Lennon JT (2007) Diversity and metabolism of marine bacteria cultivated on dissolved DNA. *Applied and Environmental Microbiology* 73: 2799–2805. (pdf)
 14. Reyns NB, Langenheder S, Lennon J (2007) Specialization vs. diversification: a trade-off for young scientists? *Eos* 88: 343. (pdf)
 13. Dzialowski AD, Lennon JT, Smith VH (2007) Food web structure provides biotic resistance against plankton invasion attempts. *Biological Invasions* 9: 257–256. (pdf)
 12. Lennon JT, Faiia AM, Feng X, Cottingham KL (2006) Relative importance of CO₂ recycling and CH₄ pathways in lake food webs along a terrestrial carbon gradient. *Limnology and Oceanography* 51: 1602–1613. (pdf, supplement)
 11. Thum RA, Lennon JT (2006) Is hybridization responsible for invasive growth of non-indigenous water-milfoils? *Biological Invasions* 84: 1061–1066. (pdf)
 10. Cottingham KL, Lennon JT, Brown BL (2005) Regression versus ANOVA. *Frontiers in Ecology and the Environment* 3: 358. (pdf)
 9. Cottingham KL, Lennon JT, Brown BL (2005) Knowing when to draw the line: designing more informative ecological experiments. *Frontiers in Ecology and the Environment* 3: 145–152. (pdf, supplement)
 8. Lennon JT, Pfaff LE (2005) Source and supply of terrestrial carbon affects aquatic microbial metabolism. *Aquatic Microbial Ecology* 39: 107–119. (pdf)
 7. Thum RA, Lennon JT, Connor J, Smagula AP (2005) A DNA fingerprinting approach for distinguishing native and non-native milfoils. *Lake and Reservoir Management* 21: 1–6. (pdf)
 6. Lennon JT (2004) Experimental evidence that terrestrial carbon subsidies increase CO₂ flux from lake ecosystems. *Oecologia* 138: 584–591. (pdf)

5. Lennon JT, Smith VH, Dzialowski AR (2003) Invasibility of plankton food webs along a trophic state gradient. *Oikos* 102: 191–203. (pdf)
4. Dzialowski AR, Lennon JT, O'Brien WJ, Smith VH (2003) Predator-induced phenotypic plasticity in the exotic cladoceran *Daphnia lumholtzi*. *Freshwater Biology* 48: 1593–1602. (pdf, cover)
3. Cottingham KL, Brown BL, Lennon JT (2001) Biodiversity may regulate the temporal variability of ecological systems. *Ecology Letters* 4: 72–85. (pdf)
2. Lennon JT, Smith VH, Williams K (2001) Influence of temperature on exotic *Daphnia lumholtzi* and implications for invasion success. *Journal of Plankton Research* 23: 425–434. (pdf)
1. deNoyelles FJ, Wang SH, Meyer JO, Huggins DG, Lennon JT, Kolln WS, Randtke SJ (1999) Water quality issues in reservoirs: some considerations from a study of a large reservoir in Kansas. *Proceedings of the 49th Annual Environmental Engineering Conference, University of Kansas, Lawrence*. (pdf)

Grants and funding

2025–2026	Pending: National Science Foundation (NSF) “Conference: A unifying framework for dormancy across scales in natural, managed, and engineered ecosystems” Co-PI, \$99,000
2025–2030	Pending: National Institutes of Health (NIH) “Cellular dormancy and virus entrapment” PI, \$2,161,566 (advanced to second level of review at Council meeting)
2025–2028	Department of Natural Resources (DNR) "Development and testing of microbial mitigation of coalbed methane emissions in Indiana: A geo-microbial-engineering approach” Co-PI, \$287,295
2023–2024	Department of Defense (DoD) “Molecular-based methods for the mark-recapture of microorganisms” PI, \$225,000
2023	Humboldt Research Fellowship, Alexander von Humboldt Foundation, Germany, €60,000 (\$68,780)
2022–2025	Army Research Office (ARO) “Complexity of the gut microbiome: a quantitative and experimental approach” PI, \$449,862

2020–2025	National Science Foundation (NSF) “BII-Implementation: Multiscale interactions of nested genomes in symbiosis: From genes to global change” Co-investigator with R Whitaker, \$12.5M
2020–2023	National Science Foundation (NSF) “Collaborative Research: BEE: A dormancy refuge in host-parasite eco-evolutionary dynamics” PI, \$976,617
2020–2025	National Science Foundation (NSF) “CNH2-L: Resilience to drought or a drought of resilience? The potential for interactions and feedbacks between human adaptation and ecological adaptation” Co-PI with J Lau, \$1,599,684
2020–2023	National Aeronautics and Space Administration (NASA) “Energy limitation and the evolution of microbial dormancy” PI, \$733,792
2020	Army Research Office (ARO) "Mechanistic insight into bacterial metabolism from long-term evolution experiments" PI, \$550,000
2018–2020	Army Research Office (ARO) “Microbial evolution: linking genes, phenotype, and fitness in bacterial populations” PI, \$499,330
2018–2019	Indiana University Collaborative Research Grant (IUCRG). “Complexity of the gut microbiome: an experimental approach” PI, \$74,990
2018–2019	National Aeronautics and Space Administration (NASA) “Microbial dormancy and adaptation to energy-limitation” Co-PI with W Shoemaker, \$4,997
2018–2021	National Science Foundation (NSF) “Microbiome influences on the development of sociality in uni- and bi-parental rodents” Senior Personnel with G Demas, \$699,573
2017–2018	Army Research Office (ARO) "Connecting phenotype to genotype in evolved prokaryotic populations.” Co-PI with J.B. McKinlay. \$197,390
2015–2018	National Science Foundation (NSF) “Dissertation Research: Metabolic resource partitioning: scaling microbial physiology from individual activity to ecosystem function” PI, \$19,004
2015–2022	Department of Defense, Multidisciplinary University Research Initiatives (MURI) Program, “Mechanisms of prokaryotic evolution” PI, \$6,248,455
2015–2020	National Science Foundation (NSF) “Dimensions: Collaborative Research: Microbial seed banks: processes and patterns of dormancy-driven biodiversity” PI, \$1,997,144
2015–2016	Indiana Academy of Science “Metabolic fate of terrestrial carbon resources: anabolic vs. catabolic processes” Co-PI with M Muscarella, \$2,200

2013–2015	Polish Ministry of Science and Higher Education “Interactive effects of multiple regulating factors on cladoceran species richness and community structure” Co-PI with A Dzialowski, \$128,000
2012–2014	Center for Water Sciences (CWS) and Environmental Science and Policy Program (ESPP), Michigan State University, “Building partnerships in water research between Grand Valley State University and Michigan State University: the molecular genetic basis for invasiveness of milfoils and a time-series observatory for investigating metabolism in Muskegon Lake” Co-PI with P. Ostrom, \$99,996
2012–2015	National Science Foundation (NSF) “Collaborative Research: PEATcosm: Understanding the interactions of climate, plant functional groups and carbon cycling in peatland ecosystems” Co-PI with E Kane, \$677,185
2011–2014	United States Department of Agriculture (USDA), Agriculture and Food Research Initiative (AFRI) “Microbial seed banks: patterns and mechanisms of bacterial dormancy in soils” PI, \$499,956
2011–2014	National Science Foundation (NSF), “Do biological processes result in the atmospheric $\delta^{17}\text{O}$ mass independent anomaly in nitrous oxide? Resolution and establishment of $\delta^{17}\text{O}$ as a tracer of microbial production.” Co-PI with N Ostrom \$677,366
2011–2012	Huron Mountain Wildlife Foundation (HMWF), “Browning of freshwater ecosystems: will terrestrial carbon loading alter the diversity and function of aquatic microbial communities?” PI, \$5,600
2011–2012	BEACON, Michigan State University, “Contemporary evolution of cyanobacteria and viruses: implications for marine nutrient cycling” PI, \$76,964
2010–2013	National Science Foundation (NSF), “Greenhouse facility to support field ecology and evolution research and teaching at the Kellogg Biological Station”, Co-PI with K Gross, \$200,000
2010–2013	National Science Foundation (NSF), “Field facilities improvements for terrestrial and aquatic ecology at the Kellogg Biological Station.” Co-PI with K. Gross, \$176,000
2009–2012	Polish Ministry of Sciences, “Zooplankton invasions: how do local and regional processes affect invasion success in relation to ecosystem productivity and intensity of disturbances” Co-PI with A Dzialowski, \$54,000
2009–2012	National Science Foundation (NSF) “Collaborative Research: Characterizing the constraints on virus infection of cyanobacteria” Co-PI with S Wilhelm, \$500,000

2008–2011	Environmental Change Institute, University of Illinois, “Terrestrial carbon loss to aquatic ecosystems: pattern detection and hypothesis testing at the regional scale” Co-PI with J. Fraterrigo, \$25,000
2009–2010	Gordon & Betty Moore Foundation and the Broad Institute, “Identifying viral mechanisms involved in rapid co-evolutionary dynamics between marine <i>Synechococcus</i> and its phage” PI, payment in kind sequencing
2009–2012	National Science Foundation (NSF) “Terrestrial carbon in aquatic ecosystems: experimental tests of the subsidy-stability hypothesis” PI, \$350,695
2008–2011	United States Department of Agriculture (USDA) “Moisture variability as a master regulator of microbial diversity and soil respiration across an agricultural landscape” PI, \$324,000
2008–2010	Center for Water Sciences, Michigan State University, “Microbial and ecosystem responses to land-water linkages: the energetic importance of terrestrial-derived dissolved organic carbon (DOC) in lakes” PI, \$142,318
2007–2010	National Science Foundation (NSF) “Water level fluctuations and internal eutrophication in lakes and wetland” Co-PI with S Hamilton, \$391,734
2007–2010	Michigan Agricultural Experiment Station, Rackham Foundation “Microbial responses to soil moisture variability in agricultural landscapes” PI, \$75,000
2006–2009	United States Department of Agriculture (USDA) “Pulsed ecosystem activity: Responses of soil microorganisms to variable water supply” PI, \$110,000
2007	Center for Water Sciences, Michigan State University “Towards a mechanistic framework of how changing temperatures affect aquatic bacterial community structure and function” PI, \$28,254
2006–2009	Center for Water Sciences, Michigan State University “Quantifying biogeochemical processes in flow-through wetlands” Co-PI with S Hamilton, \$145,036
2005–2007	Environmental Protection Agency (EPA) and the NH Department of Environmental Services “Using dispersal and environmental variables to predict the occurrence and susceptibility to invasion by non-native milfoil” Co-PI with R Thum, \$50,000
2002–2004	National Science Foundation (NSF) “Doctoral Dissertation Improvement Grant (DDIG): Linking lakes with the landscape: fate of terrestrial carbon in plankton food webs” Co-PI with K Cottingham, \$8,075

2002–2004 United States Geological Survey (USGS) & National Institutes for Water Resources (NIWR) “Linking lakes with the landscape: fate of terrestrial carbon in planktonic food webs” PI, \$30,020

Invited keynote, symposium, and conference presentations

- 2026 Invited workshop speaker, “Coarse-graining microbial ecology: from genes to physiological strategies to communities across environments”, Kavli Institute of Theoretical Physics (KITP), Santa Barbara, California, USA
- 2026 Invited workshop speaker, "EMBO: Ecological theories for microbial ecology: integrating molecular data" Ancona, Italy
- 2025 Invited speaker, "Microbial communities: energetics and dynamics across space and time", National Institute for Theory and Mathematics in Biology (NITMB), Chicago, Illinois, USA
- 2025 Invited speaker, "ASM-SIAT Symposium on Microbes in Biotechnology", Shenzhen Institutes of Advanced Technology (SIAT), Chinese Academy of Sciences (CAS)
- 2025 Invited symposium speaker, "Fungal island biogeography" Mycological Society of America, Portland, Oregon, USA
- 2025 Invited symposium speaker, “Climate change and health: from micro to macro”, Center for Molecular and Clinical Epidemiology of Infectious Diseases (MAC-EPID), University of Michigan, Ann Arbor, Michigan, USA
- 2025 Keynote speaker, Applied and Environmental Sciences (AES) Retreat, American Society of Microbiology
- 2025 Invited speaker, “Synthetic biology enabling tools”, American Society for Biochemistry and Molecular Biology, Chicago, Illinois, USA
- 2025 Invited speaker, “Evolutionary ecology of dormancy in a community context”, Ecological Society of America, Baltimore, Maryland, USA
- 2025 Invited speaker, Council on Microbial Sciences (COMS) meeting, American Society of Microbiology
- 2024 Invited speaker, Union Session: “One Health, Microbes, and Geosciences”, American Geophysical Union, Washington, District of Columbia, USA
- 2024 Plenary speaker, Chinese Association of Microbial Ecology, Qingdao, China

- 2024 Plenary speaker, International Symposium on Soil Microbiomes and Soil Health, Yangling, China
- 2024 Plenary speaker, mLife Research Conference, Shenzhen, China
- 2024 Invited speaker, “Harnessing transformational technologies symposium: Confronting the threats of climate change on global stability” Los Alamos National Laboratory and the Committee on Science, Technology, and Law of the National Academies of Sciences, Engineering, and Medicine. Santa Fe, New Mexico, USA
- 2024 Invited speaker, mSystems Thinking Series, “Critical concepts in microbial dormancy”, Virtual
- 2024 Invited speaker, ASM Public and Scientific Affairs Committee (PSAC) Meeting, Virtual
- 2023 Plenary speaker, “Critical phenomena and challenges emerging from dormancy”, University of Frankfurt, Germany
- 2023 Invited speaker, “Understanding the linkage between geosciences and biothreats for enhancing national and global security”, American Geophysical Union, San Francisco, California, USA
- 2023 Invited workshop speaker, “Quantitative principles in microbial physiology”, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy
- 2023 Invited speaker, “Microbes and climate change: applying research and expanding surveillance on a global scale”, American Society for Microbiology, Houston, Texas, USA
- 2023 Invited panelist, “Communicating about climate change with a lay audience”, American Society for Microbiology, Houston, Texas, USA
- 2022 Invited speaker, National Academies of Science, Engineering, and Medicine. Board on Life Sciences, “Harnessing microbial diversity for the bioeconomy”. Virtual
- 2022 Invited moderator, U.S. Congressional briefing, “Big Problems, Tiny Solutions”, Virtual
- 2022 Roger D. Milkman Endowed Lecturer, Marine Biological Laboratory, Woods Hole, Massachusetts, USA
- 2022 Invited speaker, “Communicating about climate change”, American Society for Microbiology, Washington, District of Columbia, USA

- 2022 Plenary speaker, Midwest Ecology and Evolution Conference (MEEC), University of Kansas, Lawrence, Kansas, USA
- 2022 Invited speaker, “Workshop: Impacts of dormancy and latency on host-parasite dynamics”, Hausdorff Research Institute for Mathematics (HIM) Universität Bonn, Bonn, Germany
- 2022 Distinguished/Waksman Foundation Lecture, American Society for Microbiology, Student Chapters, Virtual
- 2022 Invited workshop speaker, Microbiome Centers Consortium (MCC), University of Chicago, Illinois, USA
- 2022 Invited workshop speaker, “Quantitative biology of non-growing microbes”, Kavli Institute of Theoretical Physics (KITP), Santa Barbara, California, USA
- 2022 Opening speaker, 4th Workshop on Microbial Life under Energy Limitation, Sandbjerg Castle, Denmark
- 2022 Distinguished lecturer, Indiana Branch of the American Society for Microbiology, Annual Meeting, West Lafayette, Indiana, USA
- 2021 Invited workshop speaker, "Ecology and Evolution of Microbial Communities" course, Kavli Institute of Theoretical Physics (KITP), Santa Barbara, California, USA
- 2020 Keynote speaker, “Microbial Ecology & Evolution (MEE)”, Virtual
- 2019 Invited workshop speaker, "Deciphering the Microbiome: Empowering theory, cross-system analyses, and innovative analytics to propel advances in microbiome science" National Science Foundation, Alexandria, Virginia, USA
- 2019 Plenary speaker, “Evolutionary consequences of dormancy”, Technische Universität Berlin, Germany
- 2019 Invited speaker, Inspire Session: “Treasure and challenges in continental- and global-scale microbial ecology research” Ecological Society of America, Louisville, Kentucky, USA
- 2019 Invited Lecturer, Microbial Biodiversity Course, Marine Biological Laboratory, Massachusetts, USA
- 2018 Invited Lecturer, Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS), Marine Biological Laboratory, Massachusetts, USA
- 2018 Invited Lecturer, Microbial Biodiversity Course, Marine Biological Laboratory, Massachusetts, USA

- 2018 Plenary speaker, Midwest Ecology and Evolution Conference (MEEC), Michigan State University, Hickory Corners, Michigan, USA
- 2018 Invited speaker, Ecological Society for America, Special Session: “Plant microbiomes in a changing world”, New Orleans, Louisiana, USA
- 2017 Invited speaker, Argonne Soil Metagenomics Meeting, Argonne National Lab, Illinois, USA
- 2017 Invited speaker, Gordon Research Conference, Microbial Population Biology, Andover, New Hampshire, USA
- 2017 Invited speaker, Gordon Research Conference, Applied & Environmental Microbiology, South Hadley, Massachusetts, USA
- 2017 Invited speaker, Special Session: "Eco-evo feedbacks in microbial communities". American Society for Microbiology, New Orleans, Louisiana, USA
- 2017 Invited speaker, Special Session: "Integrating trait-based ecology across plants and microbes to predict ecosystem functioning". Ecological Society of America, Portland, Oregon, USA
- 2016 Invited workshop speaker, National Academies of Sciences, Engineering, and Medicine meeting on Microbiomes of the Built Environment: From Research to Application, Irvine, California, USA
- 2016 Invited speaker, Special Session: "The role of microbes in biogeochemical cycles: linking responses to ecosystem processes and environmental change". American Geophysical Union, San Francisco, California, USA
- 2016 Plenary speaker: 7th annual translational plant science program. Theme: plant-soil microbiome, Virginia Tech, Blacksburg, Virginia, USA
- 2016 Invited workshop, “Skin microbiome – untold stories” (presentation given by Sarah Cummins) Society of Cosmetic Chemists, Orlando, Florida, USA
- 2015 Invited speaker, Explorations in Data Analyses for Metagenomic Advances in Microbial Ecology (EDAMAME), Michigan State University, Hickory Corners, Michigan, USA
- 2015 Introductory speaker, Summer Soil Institute, Colorado State University, Fort Collins, Colorado, USA
- 2015 Invited speaker, Special Session: “Rewetting dry soil: the century’s unifying problem in soil microbial ecology”. Ecological Society of America, Baltimore, Maryland, USA

- 2014 Invited speaker, Special Session: "Seeing the trees for the forest: deciphering the biodiversity of soils" International Society for Microbiology, Seoul, Korea
- 2014 Rouge roundtable panelist, "Sleeping beauties: dormancy of bacteria in nature" International Society for Microbiology, Seoul, Korea
- 2014 Invited speaker, Special Symposium: "Communities writ small: Integrating microbial systems into community ecology", Ecological Society of America, Sacramento, California, USA
- 2014 Invited speaker, Explorations in Data Analyses for Metagenomic Advances in Microbial Ecology (EDAMAME), Michigan State University, Hickory Corners, Michigan, USA
- 2013 Keynote speaker, Argonne soil metagenomics meeting, Argonne National Laboratory, Bloomington, Illinois, USA
- 2013 Keynote speaker, "Understanding, managing and protecting microbial communities in aquatic and terrestrial ecosystems. Exploring the trait-based functional biodiversity approach". ESF Eurocores Ecological and Evolutionary Functional Genomics (EuroEEFG) workshop. Wageningen, The Netherlands
- 2013 Keynote speaker, XIII Symposium on Aquatic Microbial Ecology, Stresa, Italy
- 2013 Invited speaker, Special Session: "Impact of bacteriophage in the environment". Society for General Microbiology (SGM) Sussex University, East Sussex, United Kingdom
- 2013 Invited speaker, Special Session: "Ecological theory in microbial ecology", Ecological Society of America, Minneapolis, Minnesota, USA
- 2013 Invited speaker, Special Symposium: "Integrating soil biodiversity into discussions of global sustainability: the time is now". Ecological Society of America, Minneapolis, Minnesota, USA
- 2013 Invited speaker, Special Session, "Microbial mediated retention/transformation of organic and inorganic materials in freshwater and marine ecosystems". Association for the Sciences of Limnology and Oceanography, New Orleans, Louisiana, USA
- 2012 Invited speaker, "Microbial life under extreme energy limitation" Aarhus University, Denmark
- 2012 Introductory speaker, Special Session: "Global browning of inland waters: implications of changing terrestrial dissolved organic carbon concentrations for aquatic ecosystems". Ecological Society of America, Portland, Oregon, USA

- 2010 Invited speaker, Gordon Research Conference, Speaker, Marine Microbes, Tilton, New Hampshire, USA
- 2010 Invited speaker, Argonne Soil Metagenomics Meeting, Argonne National Laboratory, Lemont, Illinois, USA
- 2009 Invited speaker, SCOR Viral Ecology Meeting, University of Delaware, Newark, Delaware, USA
- 2009 Invited speaker, Plant Virus Ecology Network, Ca'Tron di Roncade, Italy
- 2009 Tutorial speaker, Special Session: "Increased supply of external organic carbon: effects on food web structure and efficiency of carbon transfer" Association for the Sciences of Limnology and Oceanography, Nice, France
- 2008 Invited speaker, Special Session: "Have microbes read the book? Testing ecological theory in microbial communities". Ecological Society of America, Milwaukee, Wisconsin, USA
- 2006 Invited speaker, Special Session: "Ecological Principles in Microbial Communities", International Society for Microbial Ecology, Vienna, Austria
- 2007 Invited speaker, High latitude terrestrial and freshwater ecosystems: interactions and response to environmental change, Abisko, Sweden

Invited seminars

- 2026 Baylor University, Department of Biology
- 2025 University of Illinois, Department of Microbiology
- 2025 University of Alaska Fairbanks, Department of Biology and Wildlife
- 2025 University of Maryland, Department of Biology
- 2024 Ocean University of China, Institute of Evolution and Marine Biodiversity
- 2024 Northwest A&F University, Department of Environmental Science and Engineering
- 2024 University of Southern California, Department of Biological Sciences
- 2024 University of California San Diego, Department of Ecology, Behavior, and Evolution
- 2024 Carnegie Institute of Science
- 2024 Pennsylvania State University, One Health Microbiome Center Seminar Series
- 2024 Lehigh University, Earth & Environmental Sciences

2023 ETH Zürich, Institute of Microbiology

2023 University of Vienna, Department of Microbiology and Ecosystem Science

2023 Eawag, Swiss Federal Institute of Aquatic Science and Technology

2023 ETH Zürich, Centre for Origin and Prevalence of Life (COPL)

2023 University of Aberdeen, School of Biological Sciences

2023 Frankfurt Institute for Advanced Studies, CMMS

2023 National Science Foundation, Climate Change Coordinating Committee (C4)

2023 R.D. Holt Seminar Series, University of Florida

2022 InterActive Biomes Group, CSIRO, Australia

2022 University of Hawaii, Pacific Biosciences Research Center

2022 University of Florida, Department of Biology

2020 Dartmouth College; Ecology, Evolution, Ecosystems and Society (EEES)

2019 University of North Carolina Chapel Hill, Department of Microbiology and Immunology

2018 University of Wisconsin, Distinguished Lecture in Microbiology

2018 Pennsylvania State University, Plant Pathology and Environmental Microbiology

2018 Purdue University, Microbiome Seminar Series

2017 Yale University, Department of Ecology and Evolutionary Biology

2017 University of Georgia, Odum School of Ecology

2017 German Centre for Integrative Biodiversity Research (iDiv)

2017 University of Tennessee, Department of Microbiology

2017 University of Idaho, Department of Biological Sciences

2016 MIT, Civil and Environmental Engineering

2016 University of Minnesota, Ecology, Evolution, and Behavior

2016 University of British Columbia, BioDiversity Research Centre Seminar

2016 Michigan State University, Plant, Soil, and Microbial Sciences

2016 Uppsala University, Ecology and Genetics

2016 Hope College, Biology Department

2016 University of Montana, Flathead Lake Biological Station

2016 University of Montana, Cell, Molecular and Microbial Biology

2016 Montana State University, Microbiology and Immunology

2015 Duke University, University Program in Ecology

2015 East Carolina University, Biology Department

2015 Hobart and William Smith Colleges

2015 Indiana University, CISAB

2015 Indiana University, Advance College Project

2015 Vietnam National University, Department of Microbiology

2014 University of Tennessee, EEB

2014 University of Louisville, Biology Department

2014 University of Illinois, Ecology, Evolution, and Conservation Biology

2014 Indiana University East and Earlham College

2014 University of Kentucky, Plant & Soil Sciences

2014 Loyola University Chicago, Biology Department

2014 Miami University, Ecology, Evolution, and Environmental Biology

2014 Purdue University, Biological Sciences, EEB

2013 University of Texas at Austin, Integrative Biology

2013 University of Oregon, Ecology and Evolutionary Biology

2013 UC Santa Barbara, Ecology, Evolution, and Marine Biology

2013 The Netherlands Institute of Ecology (NIOO-KNAW)

2013 University of Michigan, EEB

2012 Virginia Tech, Biological Sciences

2012 Northwestern University, Biological Sciences

2012 University of Jyväskylä, Finland

2012 University of Quebec at Montreal, Canada

2011 Indiana University, Biology Department

2011 University of Massachusetts, Amherst, Microbiology

2011 Oregon State University, CGRB

2011 California Academy of Sciences

2010 Michigan Technological University, Forest Resources and Environmental Science

2010 Michigan State University, Ecosystems Biogeochemistry

2010 Wright State University, Biology and Earth & Environmental Sciences

2009 University of Illinois, Ecology, Evolution, and Conservation Biology

2008 University of Illinois at Springfield, Merck Seminar

2008 Western Michigan University, Biological Sciences

2007 University of Tennessee, Knoxville, Haines-Morris Series

2007 Grand Valley State University, Annis Water Resources Institute

2005 Michigan State University, Microbiology and Molecular Genetics

2005 Kellogg Biological Station, Michigan State University

2005 Dartmouth College, Earth Sciences

2004 UC Berkeley, Division of Ecosystem Sciences

2004 Brown University, Ecology & Evolutionary Biology

2002 Colby-Sawyer College, Biology Program

Organizer for symposia, workshops, and conferences

2025 Co-organizer, “Cancer dormancy and therapy resistance: from models to the clinic” Rome, Italy

2025 Co-chair, colloquium steering committee “Microbes, human health, and climate change” American Academy of Microbiology, Washington, District of Columbia, USA

2024 Organizer “Enhancing methane mitigation strategies via methanogenesis and methanotrophy” Microbe meeting, American Society for Microbiology, Atlanta, Georgia, USA

2023 Co-organizer, “Critical phenomena and challenges emerging from dormancy” Goethe University, Frankfurt, Germany

2023 Co-organizer, “Dormancy, rarity, and community dynamics” Ecological Society of America, Portland, Oregon, USA

- 2022 Co-chair, colloquium steering committee “Microbes in models: steps for integrating microbial activity into climate models” American Academy of Microbiology, Washington, District of Columbia, USA
- 2022 Mini-conference co-organizer “Climate change and microbes” Microbe meeting, American Society for Microbiology, Washington, District of Columbia, USA
- 2020 Symposium organizer, “Birth and death: a quantitative approach to microbial populations” American Society for Microbiology, Chicago, Illinois, USA
- 2019 Plenary organizer. "Evolution in the wild" Microbe meeting, American Society for Microbiology, San Francisco, California, USA
- 2018 Symposium co-organizer. "Assembly and function of microbial communities: a trait-based approach" Microbe meeting, American Society for Microbiology, Atlanta, Georgia, USA
- 2017 Retreat co-organizer, Microbial Ecology and Evolution Track, American Society for Microbiology, Washington, District of Columbia, USA
- 2017 Special symposium co-organizer. “Eco-evo feedbacks in microbial communities”. Microbe meeting, American Society for Microbiology, New Orleans, Louisiana, USA
- 2015 Special session co-organizer, “Trait-based ecology at the microscale” Ecological Society of America, Baltimore, Maryland, USA
- 2014 Special session co-organizer, “Microbially mediated ecosystem services: The good, the bad and the ugly” Joint Aquatic Sciences Meeting, Portland, Oregon, USA
- 2013 Organizing committee: First Israel-U.S. Kavli Frontiers of Science symposium, Israel Academy of Sciences, U.S. National Academy of Sciences, and the Kavli Foundation, Irvine, California
- 2013 Special symposium organizer, “Next generation of ecological indicators: defining which microbial properties matter most to ecosystem function and how to measure them” Ecological Society of America, Minneapolis, Minnesota, USA
- 2012 Co-investigator: John Wesley Powell Center for Analysis and Synthesis, “Next generation of ecological indicators: defining which microbial properties matter most to ecosystem function and how to measure them”. Fort Collins, Colorado, USA (2012-2015)
- 2012 Round table co-organizer: “Frontiers in microbial ecosystem science: energizing the research agenda”. International Society for Microbial Ecology, Copenhagen, Denmark

- 2012 Invited co-convenor: “The unknowns: rare ones and unculturables”. International Society for Microbial Ecology. Copenhagen, Denmark
- 2012 Workshop co-organizer: “Answering ecological questions with metagenomic sequencing”. Ecological Society of America, Portland, Oregon, USA
- 2011 Special symposium organizer: “Micro-managing the planet: the role of microbial ecology in earth stewardship”. Ecological Society of America, Austin, Texas, USA
- 2010 Special session co-organizer: “Micro-managing the planet: the role of microbial ecology in earth stewardship”. Ecological Society of America, Pittsburgh, Pennsylvania, USA
- 2002 Special session co-organizer: “Ecological implications of terrestrial inputs into lakes and ponds”. Association for the Sciences of Limnology and Oceanography, Victoria, British Columbia, USA

Invited participant: workshops, round tables, and synthesis groups

- 2025 Invited participant, Schmidt Sciences "Biology for Greenhouse Gas Mitigation Workshop", Washington, District of Columbia, USA
- 2025 Invited participant, “Microbes and climate change global strategy meeting” American Academy of Microbiology, Washington, District of Columbia, USA
- 2025 Invited participant, "Microbial solutions for climate change - towards an economically sustainable future", American Society for Microbiology, Los Angeles, California, USA
- 2024 Invited colloquium participant, “Impacts of the changing climate on water, water-borne pathogens, and human health colloquium” American Academy of Microbiology and the American Geophysical Union, Washington, District of Columbia, USA
- 2024 Invited participant, “Dormancy in soil microbiomes” Northwest University, Xi’An, China
- 2024 Invited moderator, American Society of Microbiology, Meet the Policymaker Series: National Climate Assessment, virtual
- 2024 Invited workshop participant, “Developing a rapid, cost-effective, and information-rich metric of biodiversity resilience” German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany

2024	Invited participant, “Soil microbial strategies for climate mitigation” Oath Soil Life, Las Vegas, Nevada, USA
2023	Invited workshop participant, “LIFE: Leveraging Innovation From Evolution”, virtual
2023	Invited participant and opening remarks, “Microbiology and climate change communications workshop: opportunities and challenges” American Society for Microbiology, virtual
2023	Invited panelist, “How to effectively communicate about climate change with a lay audience” American Society for Microbiology, Houston, Texas, USA
2023	Invited colloquium participant, “The role of microbes in mediating methane emissions – act today to prepare for tomorrow” American Academy of Microbiology and the American Geophysical Union, Washington, District of Columbia, USA
2022	Invited workshop participant, “Integrating macro-ecology and macro-evolution for biodiversity assessment” Schoodic Institute, Maine, USA
2022	Invited workshop participant, “Understanding the rules of life: harnessing microbiomes for societal benefit”, Washington, District of Columbia, USA
2022	Participant, Microbiome Centers Consortium, Chicago, Illinois, USA (virtual)
2017	Invited workshop participant, “Patterns of microbial and macrobial diversity” German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany
2017	Invited workshop participant, “Continuum of persistence: ecology and function of persistent virus infections” Cascais, Portugal
2016	Invited workshop participant, “PRO-MICROBES: Vision Theme meeting on the Microbiome” Marine Biological Laboratory, Woods Hole, Massachusetts, USA
2016	Invited working group participant: NSF Research Coordination Network, "Utilizing ongoing experiments to understand terrestrial ecosystem sensitivity to precipitation change and drought" Sevillleta National Wildlife Refuge, Socorro, New Mexico, USA
2015	Invited workshop participant: “Biocomplexity” Defense Advanced Research Projects Agency (DARPA), Arlington, Virginia, USA
2014	Invited workshop participant: “Advanced analysis of genomic data in microbial ecology research”, National Ecological Observatory Network (NEON), Boulder, Colorado, USA

- 2014 Invited workshop participant: NSF workshop on the “Ecological implications of synthetic biology”, MIT Center for International Studies and the Woodrow Wilson Center, Emeryville, California, USA
- 2012 Invited workshop participant, National Academy of Sciences, German-American Kavli Frontiers of Science, Potsdam, Germany
- 2012 Invited roundtable participant: “Frontiers in ecosystem science: energizing the research agenda”. Ecological Society of America, Portland, Oregon, USA
- 2011 Invited working group participant: “Modeling viral effects on global carbon and biogeochemical cycles”. National Institute for Mathematical and Biological Synthesis (NIMBioS), Knoxville, Tennessee, USA (2011-2014)
- 2011 Invited technical expert: “Comprehensive Environmental Assessment (CEA) of potential ecological impacts of synthetic biology”. Woodrow Wilson International Center for Scholars, Washington, District of Columbia, USA
- 2010 Invited roundtable participant, “Resilience in microbial communities: toward prediction and comparison” International Society for Microbial Ecology, Seattle, WA, USA
- 2010 Invited roundtable participant: “Resilience in microbial communities: towards prediction and cross-system comparisons”. International Society for Microbial Ecology, Seattle, Washington, USA
- 2010 Invited workshop participant: “A synthesis of the importance of allochthonous and autochthonous support of consumers in aquatic ecosystems”. Association for the Sciences of Limnology and Oceanography, Santa Fe, New Mexico, USA
- 2009 Invited workshop participant: “Scientific Committee on Oceanographic Research (SCOR), role of viruses in marine ecosystems”. University of Delaware, Newark, Delaware, USA
- 2009 Invited workshop participant, Plant Virus Ecology Network (PVEN), Ca’ Tron di Roncade, Italy
- 2008 Invited workshop participant, SoilCritZone Early Stage Researcher training, Chania, Crete, Greece
- 2008 Invited workshop participant, DOE JGI Microbial Genomics & Metagenomics, Walnut Creek, California, USA
- 2007 Invited workshop participant: LTER genomics: “Catalyzing cross-site comparisons of microbial diversity and function”. East Lansing, Michigan, USA

- 2007 Invited workshop participant: DOE Joint Genome Institute (JGI) undergraduate research program in microbial genome annotation, Walnut Creek, California, USA
- 2007 Invited workshop participant: Microscale approaches to macroscale issues in ecology, Washington, District of Columbia, USA
- 2007 Invited workshop participant: Early career faculty in ecoinformatics, science environment for ecological knowledge (SEEK), Albuquerque, New Mexico, USA
- 2005 Invited workshop participant: DIALOG VII, Dissertation Initiative for Advancement of Limnology & Oceanography, Dauphin Island Sea Lab, Alabama, USA

Contributed presentations

- Lennon JT (2025) United States Hearing, Reconsideration of 2009 Endangerment finding and greenhouse gas vehicle standards. Docket No. EPA-HQ-OAR-2025-0194.
- Lennon JT (2025) Resuscitation-promoting factor (Rpf) terminates dormancy among diverse soil bacteria. American Society for Microbiology, Los Angeles, California, USA.
- Nevermann Henrik D, Gros C, Lennon JT (2025) A game of life with dormancy. Deutsche Physikalische Gesellschaft, DPG (German Physical Society), Regensburg, Germany.
- Nevermann Henrik D, Gros C, Lennon JT (2025) A game of life with dormancy. Dynamical Systems Applied on Biology and Natural Sciences (DSABNS), Naples, Italy.
- Nevermann Henrik D, Gros C, Lennon JT (2025) A game of life with dormancy. Dynamic Days, Bremen, Germany.
- Karakoç C, Lennon JT (2023) Evolution of survival through the lens of bioenergetics. AbGradCon2023, La Jolla, California, USA.
- Webster KD, Schimmelmann A, Lennon JT (2023) Genomic insights into methane consumption in caves. Society for Industrial Microbiology and Biotechnology, Minneapolis, Minnesota, USA.
- Karakoç C, Lennon JT (2023) Evolution of complex traits through the lens of bioenergetics. Ecological Society of America, Portland, Oregon, USA.
- McMullen JG, Lennon JT (2023) Microbial mark-recapture: a novel approach to disentangle complex microbial lifestyles. Ecological Society of America, Portland, Oregon, USA.
- Mueller E, Lennon JT (2023) Residence time as a control on the diversity and function of lake microbial communities. Ecological Society of America, Portland, Oregon, USA.
- Moger-Reischer RZ, Glass JI, Wise KS, Sun L, Bittencourt DMC, Lynch M, Lennon JT (2021) Evolution of a minimal cell. Minimal Cell Workshop, La Jolla, California, USA (virtual).

- Wang J, Hu A, Choi M, Tanentzap AJ, Liu J, Jang KS, Lennon JT, Liu Y, Soininen J, Lu X, Zhang Y, Shen J (2021) Quantifying microbial associations of dissolved organic matter under global change. American Geophysical Union, New Orleans, Louisiana, USA.
- Fishman F, Lennon JT (2020) Macroevoolutionary constraints on global microbial biodiversity. American Society for Microbiology, Chicago, Illinois, USA.
- Schwartz DA, Lennon JT (2020) Viral manipulation of bacterial dormancy. American Society for Microbiology, Chicago, Illinois, USA.
- Mueller, Lennon JT (2020) Physical complexity controls microbial abundance and function of microbiomes in 3D-printed gut bioreactors. American Society for Microbiology, Chicago, Illinois, USA.
- Mueller EA, Lennon JT (2019) Physical complexity as a control on diversity and function of gut microbiomes. Ecological Society of America, Louisville, Kentucky, USA.
- Behringer MG, Lennon JT (2019) Mutation accumulation during dormancy. American Society for Microbiology, San Francisco, California, USA.
- Mueller EA, Lennon JT (2019) Physical complexity as a control on the abundance and metabolic activity of gut microbiomes. Purdue Microbiome Symposium, West Lafayette, Indiana, USA.
- Wisnoski NI, Leibold MA, Lennon JT (2019) Dormancy in metacommunities: when can temporal dispersal maintain diversity in variable landscapes? Society for Freshwater Science, Salt Lake City, Utah, USA.
- Shoemaker WR, Lennon JT (2018) Dormancy constrains the rate and direction of adaptive evolution. Population, Evolutionary, and Quantitative Genetics Conference, Madison, Wisconsin, USA.
- Shoemaker WR, Locey KJ, Lennon JT (2018) Reproducing global biodiversity estimates through evolutionary and biophysical theory. Theory in Biology Meeting, Boston, Massachusetts, USA.
- Wisnoski NI, Lennon JT (2018) Dispersal and dormancy across ecosystems boundaries: bacterial diversity and function along a reservoir transect. Association for the Sciences of Limnology and Oceanography, Victoria, British Columbia, Canada.
- Wisnoski NI, Lennon JT (2018) Contribution of “seed banks” to bacterioplankton community dynamics. Society for Freshwater Science, Detroit, Michigan, USA.
- Shoemaker WR, Lennon JT (2017) The contribution of dormancy to microbial evolution. Society for Molecular Biology and Evolution, Austin, Texas, USA.
- Benavidez MK, Milton K, Lennon JT, Wasserman M (2017) Interactions between gut microbial diversity and the endocrine system in wild howler monkeys (*Alouatta palliata*). Midwest Primate Interest Group, Evanston, Illinois, USA.
- Lennon JT, Jones SE (2017) Energy limitation in bacteria: a trait-based approach. Ecological

- Society of America, Portland, Oregon, USA.
- Wisnoski NI, Lennon JT (2017) Dendritic metacommunities: a test of assembly using stream microbial communities. Ecological Society of America, Portland, Oregon, USA.
- Salazar A, Lennon JT, Dukes JS (2017) Microbial activity is a better predictor of soil respiration than microbial biomass or composition. Ecological Society of America, Portland, Oregon, USA.
- Fisk MC, Goswami S, Shan S, Lennon JT, See C, Yanai RD, Fahey TJ (2017) Processes mediating interactions of N and P availability in northern hardwood forests. Ecological Society of America, Portland, Oregon, USA.
- Lilleskov E, Kane E, Chimner R, Koka R, Lennon JT, Lamit J, Ontl T, Romanowicz K, Wiedermann L, Veverica T, Daniels A (2017) Hydrology and plant functional groups alter carbon cycling in Sphagnum peatlands: the PEATcosm experiment. Society of Wetland Scientists, San Juan, Puerto Rico.
- Lennon JT, Aanderud ZT (2016) A trait-based approach to understanding the microbial moisture niche. Third International Workshop on Biological Soil Crusts (BioCrust 3), Moab, Utah, USA.
- Webster KD, Schimmelmann A, Lennon JT (2016) Diversity and function of methanotrophic bacteria in caves. American Geophysical Union, San Francisco, California, USA.
- Thomas P, Kuo V, Bray SR, Lehmkuhl BK, Lennon JT. The effects of a resuscitation promoting factor (Rpf) on bacterial activity and plant biomass. Kentucky Academy of Science, Louisville, Kentucky, USA.
- Beatty J, Wisnoski NI, Bray SR, Lennon JT. Residence time as driver of abundance, activity, and resource-use in complex microbial communities. Kentucky Academy of Science, Louisville, Kentucky, USA.
- Lilleskov EA, Lamit JL, Lennon JT, Romanowicz KR, Tringe S, Kane ES, Potvin LR, Wiedermann L, Chimner R, Kolka R (2016) Fungal community response to water table and plant functional group manipulations in the PEATcosm experiment: evidence for the Gadgil effect? Mycological Society of America, Berkeley, California, USA.
- Wisnoski NI, Lennon JT (2016) Community assembly processes differ between surface water and sediment-associated communities in stream networks. Ecological Society of America, Fort Lauderdale, Florida, USA.
- Schimmelmann A, Lennon JT, Nguyen-Thuy D, Ta Hoa P, Drobniak A, Webster KD, Schimmelmann M (2016) Vietnam's tropical karst is a sink for atmospheric methane greenhouse gas. 5th International Conference on Earth Science & Climate Change, Bangkok, Thailand.

- Locey KE, Lennon JT (2016) Scaling laws predict global microbial diversity. International Society of Microbial Ecology, Montreal, Canada.
- Lennon JT, Cummins S, Miller KI, Schoolmaster DK (2016) Metabolic activity of the skin microbiome: is our first line of defense sleeping on the job? International Society of Microbial Ecology, Montreal, Canada.
- Wisnoski NI, Lennon JT (2016) Local and regional processes in stream microbial community assembly. International Society of Microbial Ecology, Montreal, Canada.
- Shoemaker WR, Lennon JT (2016) Microbial population-genomics under extreme starvation. International Society of Microbial Ecology, Montreal, Canada.
- Lennon JT, SE Jones (2015) Ecological and evolutionary insight into the persistence of soil bacteria. Argonne Soil Metagenomics Workshop, Argonne National Laboratory, Lisle, Illinois, USA.
- Lamit LJ, Lennon JT, Lilleskov EA (2015) Peatland microbial community responses to plant functional group, water table and depth. Argonne Soil Metagenomics Workshop, Lisle, Illinois, USA.
- Wisnoski NI, Ward AS, Lennon JT (2015) Bacterial metacommunity structure across a stream network. Long-Term Ecological Research (LTER) All Scientist Meeting, Estes Park, Colorado, USA.
- Lilleskov E, Kane E, Chmner R, Koka R, Lennon JT, Potvin L, Ontl T, Romanowicz K, Lamit JL, Daniels A (2015) PEATcosm: experimental insights into climate change effects on peatland carbon cycling and trace gas flux. Soil Science Society of America, Minneapolis, Minnesota, USA.
- Peralta AP, Sun Y, Lennon JT (2015) Effects of crop diversity on plant-soil-microbial interactions. Agriculture and Food Research Initiative (AFRI) National Institute of Food and Agriculture (NIFA) Fellows Program, Washington, District of Columbia, USA.
- Peralta AP, Sun Y, Lennon JT (2015) Effects of crop diversity on plant-soil-microbial interactions. Long-Term Ecological Research (LTER) All Scientist Meeting, Estes Park, Colorado, USA.
- Lau JA, Lennon JT, terHorst CP (2015) The interplay of ecology and evolution in aboveground -belowground response to environmental change. Ecological Society of America, Baltimore, Maryland, USA.
- Aanderud ZT, Jones SE, Fierer N, Lennon JT (2015) Resuscitation of the rare biosphere contributes to pulses of ecosystem activity following soil rewetting. Ecological Society of America, Baltimore, Maryland, USA.
- terHorst CP, Lennon JT, Lau JA (2015) Plant evolution in response to drought alters the structure and function of soil microbial communities. Ecological Society of America, Baltimore, Maryland,

USA.

Martiny JBH, Jones SE, Lennon JT, Martiny AC (2015) Microbiomes in light of traits: a phylogenetic perspective. Ecological Society of America, Baltimore, Maryland, USA.

Lennon JT, Jones SE (2015) A trait-based approach to microbial dormancy. Ecological Society of America, Baltimore, Maryland, USA.

Locey KJ, Lennon JT (2015) Residence time: An overlooked constraint on community assembly and structure. Ecological Society of America, Baltimore, Maryland, USA.

Treseder KK, Lennon JT (2015) Fungal traits that drive ecosystem dynamics. Ecological Society of America, Baltimore, Maryland, USA.

Muscarella ME, Lennon JT (2015) Bacterial growth efficiency: do consumer and resource diversity influence the fate of carbon in aquatic ecosystems? Ecological Society of America, Baltimore, Maryland, USA.

Hall EK, Schoolmaster DK, Amado AM, Stets EG, Lennon JT, Domine L, Cotner JB (2015) Controls on aquatic respiration from the smallest to the largest freshwater ecosystems. Association for the Sciences of Limnology and Oceanography, Granada, Spain.

Larsen ML, Barrick JE, Lennon JT (2015) Rapid evolution in marine cyanobacteria: genetic and physiological responses to phage predation and resource stoichiometry. American Society for Microbiology, New Orleans, Louisiana, USA.

Lennon JT, Jones SE (2015) Bacterial persistence during starvation: dormancy, cannibalism, and adaptation. American Society for Microbiology, New Orleans, Louisiana, USA.

Cummins S, Miller KI, Lennon JT (2015) Metabolic activity of the skin microbiome: is our first line of defense sleeping on the job? American Society for Microbiology, New Orleans, Louisiana, USA.

Skelton J, Geyer K, Lennon JT, Brown (2015) Effects of multi-level controls and symbiont interactions on the crayfish microbiome. Society for Freshwater Science, Milwaukee, Wisconsin, USA.

Webster KD, Rosales-Lagarde L, Sauer PE, Schimmelmann A, Lennon JT, Boston PJ (2014) Hydrogen and carbon stable isotopic compositions and concentrations of methane in cave air of Cueva de Villa Luz, Tabasco, Mexico. American Geophysical Union, San Francisco, California, USA.

Elsenbroek KF, Miller KI, Lennon JT, Reynolds HL (2014) Roots of diversity: do soil microbes drive the success of prairie restoration? The Science, Practice & Art of Restoring Native Ecosystems, East Lansing, Michigan, USA.

Lennon JT (2014) Dormancy, dispersal, and the assembly of microbial communities. International Symposium on Microbial Ecology, Seoul, South Korea.

- Lennon JT, Miller KI, Locey KJ (2014) Can dormancy account for patterns of microbial biogeography? Ecological Society of America, Sacramento, California, USA.
- Muscarella ME, Locey KJ, Nevo E, Raz S, Lennon JT (2014) Microbial community assembly at Evolution Canyon: Does dormancy dilute the effects of dispersal and filtering? Ecological Society of America, Sacramento, California, USA.
- Locey KJ, Lennon JT (2014) A macroecological investigation of the microbial “rare biosphere”. Ecological Society of America, Sacramento, California, USA.
- Muscarella ME, Bird KC, Larsen ML, Placella SA, Lennon JT (2014) Phosphorus resource heterogeneity affects the structure and function of microbial food webs. Joint Aquatic Sciences Meeting, Portland, Oregon, USA.
- Lennon JT, Stuart D, Kent A, Peralta AL (2014) A social-ecological framework for micromanaging microbial services. Joint Aquatic Sciences Meeting, Portland, Oregon, USA.
- Weitz JS, Stock CA, Wilhelm SW, Bourouiba L, Buchan A, Coleman ML, Follows MJ, Fuhrman JA, Lennon JT, Middelboe M, Sonderegger DL, Suttle CA, Thingstad TF, Wilson WH, Wommack EK (2013) A multitrophic model to quantify the effects of marine viruses on microbial food webs and ecosystem processes. Aquatic Virus Workshop 7, St. Petersburg, Florida, USA.
- Wilhelm SW, Sonderegger DL, Stock CA, Weitz JS, Suttle CA, Bourouiba L, Buchan A, Middelboe M, Coleman ML, Follows MJ, Fuhrman JA, Lennon JT, Thingstad TF, Wilson WH, Wommack KE (2013) Mapping global distributions and activity of marine viruses. Aquatic Virus Workshop 7, St. Petersburg, Florida, USA.
- Webster KD, Schimmelmann A, Drobniak A, Mastalerz M, Etiope G, Lennon JT (2013) Methane dynamics in limestone caves. Geological Society of America, Denver, Colorado, USA.
- terHorst CP, Lau JA, Lennon JT (2013) The relative importance of rapid evolution in plant-soil feedbacks depends on ecological context. Ecological Society of America, Minneapolis, Minnesota, USA.
- Peralta AL, Lennon JT (2013) Legacy effects on soil microbial communities in human-dominated ecosystems. Ecological Society of America, Minneapolis, Minnesota, USA.
- Muscarella ME, Jones SE, Lennon JT (2013) Species sorting along a subsidy gradient affects community stability. Ecological Society of America, Minneapolis, Minnesota, USA.
- Larsen ML, Wilhelm SW, Lennon JT (2013) Nutrient stoichiometry drives eco-evolutionary feedbacks. Midwest Ecology and Evolution Conference, South Bend, Indiana, USA.
- Lennon JT, Muscarella ME, Jones SE (2013) Bacteria and browning: implications of terrestrial carbon subsidies for aquatic ecosystems. Association for the Sciences of Limnology and Oceanography, New Orleans, Louisiana, USA.

- Muscarella ME, Jones SE, Lennon JT (2013) Life in brown waters: Aquatic bacterial responses to increased terrestrial carbon loading. Association for the Sciences of Limnology and Oceanography, New Orleans, Louisiana, USA.
- Romanowicz KJ, Tringe SJ, Lennon JT, Lilleskov EA (2012) Do plant functional groups alter microbial communities and soil carbon cycling in peatlands? Argonne Soils Workshop, Argonne National Laboratory, Bloomingdale, Illinois, USA.
- Lennon JT (2012) Can dormancy theory help us retrieve rare and uncultured microbes? International Symposium on Microbial Ecology, Copenhagen, Denmark.
- Muscarella ME, Jones SE, Lennon JT (2012) Life in brown waters: aquatic microbial community response to increased terrestrial carbon. LTER All Scientists Meeting, Estes Park, Colorado, USA.
- Placella SA, Brodie EL, Firestone MK, Lennon JT (2012) Soil water fluctuations: microbial community responses and CO₂ production. American Geophysical Union, San Francisco, California, USA.
- Placella SA, Lennon JT (2012) Microbes, moisture, and metabolic activity: Is there a soil moisture threshold for microbial activity? Long-Term Ecological Research (LTER) All Scientists Meeting, Estes Park, Colorado, USA.
- Hall EK, Pepe-Ranney CC, Lennon JT (2012) The effect of carbon subsidies on planktonic niche partitioning and recruitment of bacteria to marine biofilms. International Symposium on Microbial Ecology, Copenhagen, Denmark.
- Larsen ML, Wilhelm SW, Lennon JT (2012) Nutrient stoichiometry influences rapid eco-evolutionary feedbacks in marine cyanobacteria and phage. International Symposium on Microbial Ecology, Copenhagen, Denmark.
- Lennon JT (2012) Browning of freshwater ecosystems: culprits and consequences of global change. Ecological Society of America, Portland, Oregon, USA.
- Peralta AL, Culman SW, Sprunger S, Lennon JT, Snapp SS (2012) Microbial contributions to carbon sequestration potential in response to perennality. Soil Science Society of America, Cincinnati, Ohio, USA.
- Campbell CE, Larsen ML, Lennon JT, Wilhelm SW (2011) The roles of inorganic nutrients and cyanophage in shaping heterotrophic microbial diversity. Aquatic Virus Workshop, Texel, Netherlands.
- Larsen ML, Wilhelm SW, Lennon JT (2011) Nutrient stoichiometry generates rapid eco-evolutionary feedbacks between marine cyanobacteria and their phage. Aquatic Virus Workshop, Texel, Netherlands.

- Lennon JT, Jones SE (2011) Metagenomics of dormancy: implications for microbial biodiversity. Ecological Society of America, Austin, Texas, USA.
- Larsen ML, Wilhelm SW, Lennon JT (2011) Eco-evolutionary dynamics of bacteria and phage in contrasting resource environments. Ecological Society of America, Austin, Texas, USA.
- Bird KC, Lennon JT (2011) Specialist and generalist utilization of phosphorus forms by aquatic microbes: a mechanism for maintaining microbial diversity? Association for the Sciences of Limnology and Oceanography, San Juan, Puerto Rico.
- Lennon JT (2011) Rapid response of rare microbes linked to pulses of ecosystem activity. National Cooperative Soil Survey Conference, Asheville, North Carolina, USA.
- Larsen ML, Wilhelm SW, Lennon JT (2011) Eco-evolutionary dynamics of bacteria and virus in nitrogen- and phosphorus-limited environments. Midwest Ecology and Evolution Conference, Southern Illinois University, Carbondale, Illinois, USA.
- Lennon JT, Jones SE, Fierer N, Aanderud ZT (2010) Rapid response of rare microbes linked to pulses of ecosystem activity. International Symposium on Microbial Ecology, Seattle, Washington, USA.
- Jones SE, Lennon JT (2010) Microbial dormancy: theoretical expectations and a cross-ecosystem comparison. International Symposium on Microbial Ecology, Seattle, Washington, USA.
- Suwa T, Lennon JT, Lau JA (2011) Ecological and evolutionary effects of herbicide on plant-microbe interactions. Midwest Ecology and Evolution Conference, Carbondale, Illinois, USA.
- Lennon JT, Jones SE (2010) Browning of the waters: Do terrestrial carbon subsidies alter aquatic ecosystem stability? Ecological Society of America, Pittsburgh, Pennsylvania, USA.
- Lau JA, Lennon JT (2010) Belowground microbial community structure influences plant evolution. Ecological Society of America, Pittsburgh, Pennsylvania, USA.
- Bird KC, Lennon JT (2010) Specialist and generalist utilization of phosphorus forms by aquatic microbes: a mechanism for maintaining microbial diversity? Ecological Society of America, Pittsburgh, Pennsylvania, USA.
- Lennon JT (2010) A traits-based approach for mapping the soil microbial niche. United States Department of Agriculture. Soil Processes Meeting, Washington, District of Columbia, USA.
- Suwa T, Lennon JT, Lau JA (2010) Mutualisms in novel environments: ecological and evolutionary implications of herbicide on plant-rhizobia interactions. Ecological Society of America, Pittsburgh, Pennsylvania, USA.
- O'Brien JM, Hamilton SK, Kinsman LE, Ostrom N, Lennon JT (2010) Mechanisms of N retention and export in a through-flow wetland. Association for the Sciences of Limnology and Oceanography, Santa Fe, New Mexico, USA.

- Lennon JT, Jones SE (2010) Do terrestrial carbon subsidies really stabilize aquatic ecosystem functioning? Association for the Sciences of Limnology and Oceanography, Santa Fe, New Mexico, USA.
- Jones SE, Lennon JT (2010) Dormancy maintains diversity and structures composition of microbial communities. Association for the Sciences of Limnology and Oceanography, Santa Fe, New Mexico, USA.
- Lennon JT, Jones SE (2009) Does presence equal activity?: Contrasting RNA- and DNA-based measures of aquatic microbial communities. Ecological Society of America, Albuquerque, New Mexico, USA.
- Lennon JT (2009) Moisture as a “master variable” of microbial diversity and function in soils. USDA Soil Processes Meeting, East Lansing, Michigan, USA.
- Suwa T, Lau JA, Lennon JT (2009) Ecological and evolutionary effects of herbicide on plant-rhizobia mutualisms. Ecological Society of America, Albuquerque, New Mexico, USA.
- Aanderud ZT, Lennon JT (2009) Linking soil moisture variability, metabolically active bacteria, and CO₂ pulses through ¹⁸O DNA stable-isotope probing. Soil Science Society of America, Pittsburgh, Pennsylvania, USA.
- Lennon JT, Schoolmaster DR, Lehmkuhl B, Aanderud ZT (2009) Mapping the niche space of diverse microbial populations along an environmental gradient. American Society for Microbiology, Philadelphia, Pennsylvania, USA.
- Jones SE, Lennon JT (2009) Does presence equal activity?: Contrasting RNA- and DNA-based measures of aquatic microbial communities. American Society for Microbiology, Philadelphia, Pennsylvania, USA.
- Suwa T, Lau JA, Lennon JT (2009) Effects of herbicide on rhizobia: how rapid evolutionary change may influence the outcome of plant-rhizobia mutualisms. Canadian Society of Ecology and Evolution, Halifax, Nova Scotia, Canada.
- Burgin AJ, Hamilton SK, Lennon JT, Jones SE (2009) Nitrate use by sulfur bacteria in a stratified lake. North American Benthological Society, Grand Rapids, Michigan, USA.
- Suwa T, Lau JA, Lennon JT (2009) Rapid evolution of rhizobia in response to glyphosate application. Midwest Ecology and Evolution Conference, Lincoln, Nebraska, USA.
- Lennon JT (2009) The browning of freshwater ecosystems: implications for food webs and function. Association for the Sciences of Limnology and Oceanography, Nice, France.
- Kinsman LE, O’Brien J, Lennon JT, Hamilton SK (2009) High total phosphorus concentrations in organic flocculent sediments of shallow freshwater ecosystems. Association for the Sciences of Limnology and Oceanography, Nice, France.

- Lennon JT, Aanderud ZT, Klausmeier CA (2008) Maintenance of microbial diversity in soils: assessing the importance of habitat heterogeneity and physiological stress with theory and experiments. Ecological Society of America, Milwaukee, Wisconsin, USA.
- Aanderud ZT, Schoolmaster DR, Lennon JT (2008) Precipitation variability decreases the responsiveness of soil CO₂ evolution. Ecological Society of America, Milwaukee, Wisconsin, USA.
- Lennon JT, Schoolmaster DR, Aanderud ZT (2008) Soil moisture variability: a “master variable” of microbial activity and diversity. SoilCritZone Workshop, Chania, Crete, Greece.
- Lennon JT, Schoolmaster DR, Aanderud ZT (2008) Plants mediate the effects of soil moisture variability on soil CO₂ dynamics. USDA Soil Processes Meeting, Menlo Park, California, USA.
- Lennon JT, Cottingham KL (2007) Microbial productivity in variable resource environments. Ecological Society of America, San Jose, California, USA.
- Lennon JT, Marston MF, Martiny JH (2006) Direct and indirect effects of viruses on the ecology and evolution of marine microbial food webs. International Symposium on Microbial Ecology, Vienna, Austria.
- Lennon JT, Luna GM (2006) Diversity and metabolism of DNA consuming marine bacteria. International Symposium on Microbial Ecology, Vienna, Austria.
- Lennon JT, Marston MF, Martiny JH (2006) Direct and indirect effects of viruses on the ecology and evolution of microbial food webs. Ecological Society of America, Memphis, Tennessee, USA.
- Lennon JT, Marston MF, Hughes JB (2005) Ecological and evolutionary implications of viruses in marine microbial food. Gordon Research Conference in Applied and Environmental Microbiology, New London, Connecticut, USA.
- Lennon JT, Marston MF, Hughes JB (2005) Marine viruses influence evolution, population dynamics, and nutrient cycling in experimental microbial food webs. Ecological Society of America, Montreal, Quebec, Canada.
- Campbell E, Dawson A, Conner K, Lennon J, Faiia A, Feng X, Cottingham K (2005) Shifts in the relative importance of terrestrially versus aquatically produced carbon in lake ecosystems during the summer-to-fall transition. Ecological Society of America, Montreal, Quebec, Canada.
- Thum RA, Lennon JT (2005) Ecological genetics of a milfoil invasion. Ecological Society of America, Montreal, Quebec, Canada.
- Lennon JT (2005) Terrestrial DOM supply modifies carbon flow in lakes: evidence from stable isotopes and the composition of microbial communities. Association for the Sciences of Limnology and Oceanography, Salt Lake City, Utah, USA.

- Thum RA, Lennon JT (2004) Does hybridization confer aggressive growth in the invasive milfoil, *Myriophyllum heterophyllum*? Evolution, Fort Collins, Colorado, USA.
- Lennon JT (2003) Trophic state and plankton nutrition along a terrestrial DOM gradient in New England lakes. North American Lake Management Society, Mashantucket, Connecticut, USA. Recipient: Best student presentation award.
- Thum RA, Lennon JT, Smagula A, Connor J (2003) Genetic identification of native, exotic and hybrid water milfoils in northern New England. North American Lake Management Society, Mashantucket, Connecticut, USA.
- Lennon JT, Pfaff LE (2003) Microbial constraints on the flow of terrestrial subsidies in lake ecosystems. Ecological Society of America, Savannah, Georgia, USA.
- Lennon JT (2003) Terrestrial subsidies in aquatic ecosystems: is carbon flow to higher trophic levels regulated by microbial metabolism? Cary Conference, Institute of Ecosystem Studies, Millbrook, New York, USA.
- Lennon JT (2002) Experimental evidence that terrestrial organic matter modifies plankton metabolism. Association for the Sciences of Limnology and Oceanography, Victoria, British Columbia, Canada.
- Saraidaridis J, Lennon JT (2002) Terrestrial carbon in lakes: bacterial production of phenol oxidase. Dartmouth College Women in Science Annual Meeting, Hanover, New Hampshire, USA.
- Lennon JT, Smith VH, Dzialowski AR (2000) Community resistance to an invasion attempt by *Daphnia lumholtzi*. Ecological Society of America, Snowbird, Utah, USA.
- Lennon JT, Peterson BJ, Wollheim W (1999) Storage and transport of fine particulate organic matter in a phosphorus enriched river. Association for the Sciences of Limnology and Oceanography, Santa Fe, New Mexico, USA.
- deNoyelles FJ, Wang SH, Meyer JO, Huggins DG, Lennon JT, Kolln WS, Randtke SJ (1999) Water quality issues in reservoirs: some considerations from a study of a large reservoir in Kansas. Proceedings of the 49th Annual Environmental Engineering Conference, University of Kansas, Lawrence, Kansas, USA.
- Lennon JT, Dzialowski AR, O'Brien WJ, Smith VH (1998) Morphological plasticity and life history characteristics of *Daphnia lumholtzi* in the presence of invertebrate and vertebrate predators. 1998 Joint meeting between the Association for the Sciences of Limnology and Oceanography and the Ecological Society of America, St. Louis, Missouri, USA.
- Lennon JT, Williams K (1998) Temperature and the invasion of an exotic cladoceran, *Daphnia lumholtzi*. Great Plains Limnological Society, Pittsburgh, Kansas, USA.
- Lennon JT, Dzialowski AR (1998) The invasion of *Daphnia lumholtzi* into Kansas reservoirs.

Kansas Academy of Sciences, Wichita, Kansas, USA.

Lennon JT, Boyer GL (1995) Toxin production by a cyanobacterium, *Aphanizomenon flos-aquae*, under different sources and supply of nitrogen. Northeastern Algal Symposium, Woods Hole, Massachusetts, USA.

Non-degree education

- 2004 Microbial Diversity, Marine Biological Laboratory, Woods Hole, Massachusetts, USA
- 2001 Fundamentals of Ecosystem Ecology, Institute of Ecosystem Studies (IES), Millbrook, New York, USA
- 1998 Advanced Zooplankton Ecology, Southwest Missouri State University, Springfield, Missouri, USA
- 1995 Research Experience for Undergraduates (REU) at Toolik Lake LTER (Alaska) through the Marine Biological Laboratory, Woods Hole, Massachusetts, USA
- 1994 Stream Ecology and Algal Ecology, University of Montana, Flathead Lake Biological Station, Yellow Bay, Montana, USA

Service

Science Advisor:

- 2025 – Steering committee, International Union for Conservation (IUCN), Microbial Conservation Specialist Group (MCSG)
- 2024– A Global Partnership to Address Climate & Biodiversity Crisis, American Society for Microbiology (ASM) and the International Union of Microbiological Societies (IUMS)
- 2019– Ivy Tech, Biology Advisory Board
- 2015–2019 Shedd Aquarium, Aquarium Microbiome Project, Chicago, Illinois, USA

Editor:

- 2021–2027 Editorial Board, *ISME Journal (International Society for Microbial Ecology)*
- 2016–2022 Editor, *Environmental Microbiology* and *Environmental Microbiology Reports*
- 2010–2020 Associate Editor, *Frontiers in Terrestrial Microbiology*

Ad hoc journal reviewer

Access Microbiology, American Naturalist, Applied and Environmental Microbiology, Applied Soil Ecology, Aquatic Microbial Ecology, Aquatic Sciences, Biogeochemistry, Biogeosciences, Biology

Letters, Biophysical Journal, Canadian Journal of Fisheries and Aquatic Sciences, Computational and Structural Biotechnology Journal, Current Microbiology, Ecography, Ecology, Ecological Applications, Ecology Letters, Ecoscience, Ecosystems, Eco-DAS Symposium Proceedings, eLife, Environmental Engineering Science, Environmental Microbiology, Evolution, FEMS Microbiology Ecology, Frontiers in Microbiology, Fundamental and Applied Limnology (Archiv für Hydrobiologie), Functional Ecology, Genome Biology and Evolution, Global Ecology and Biogeography, Hydrobiologia, Interface Focus, International Journal of Environmental Health Research, Journal of Arid Environments, Journal of Biogeography, Journal of Eukaryotic Microbiology, Journal of Plankton Research, Limnology & Oceanography, Journal of Virology, Limnology & Oceanography Methods, mBio, Microbial Ecology, Microbes and Environments, Molecular Biology and Evolution, mSphere, mSystems, Nature, Nature Communications, Nature Geoscience, Nature Microbiology, Oecologia, Oikos, PeerJ, PLOS Computational Biology, PLOS Genetics, PLOS ONE, Philosophical Transactions of the Royal Society B, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Science, Royal Society Open Science, Science of the Total Environment, Soil Biology & Biochemistry, Soil Science Society of America Journal, The ISME Journal, Trends in Microbiology, Viruses

Grant review panels:

2021	NSF Evolutionary Processes
2021	NASA Space Biology Microbiology Panel
2021	DOE Foundational Scientific Focus Area (FSFA)
2020	U.S. Department of Energy's Office of Defense Nuclear Nonproliferation R&D (DNN R&D)
2020	NASA Space Biology Microbial Communities, ROSBio Flight and Ground Review
2020	Genome Alberta
2020	Department of Energy, Early Career Research Program, Biological Systems Science Division (BSSD) of the Biological and Environmental Research (BER) Program Office
2019	NSF Integrative and Organismal Systems (IOS), Integrative Ecological Physiology panel
2016	DOE Foundational Scientific Focus Area (FSFA)
2015	NSF Dimensions of Biodiversity
2011	NSF Science and Technology Center (STC)
2011	USDA NIFA Plant-Associated Microorganisms

2009	NSF Ecosystems
2008	NSF Ecosystems
2007	NSF Ecosystems, Doctoral Dissertation Improvement Grants (DDIG)
2006	NSF Ecology and Ecosystems, Doctoral Dissertation Improvement Grants (DDIG)

Ad hoc grant reviewer

Austrian Science Fund (FWF), Czech Science Foundation (GA ĆR), Chilean National Commission for Scientific and Technological Research (CONICYT), National Foundation of Science and Technology (FONDECYT), Human Frontier Science Program (HFSP), International Institute for Applied Systems Analysis (IIASA) Austria, Israel Science Foundation, Italian Antarctic Research Programme (PNRA), National Cave and Karst Research Institute (NCKRI), National Environmental Research Council (NERC) UK, Netherlands Organisation for Scientific Research (NWO), NSF Antarctic Organisms and Ecology Program, NSF Biological Oceanography, NSF Chemical Oceanography, NSF Earth Cube, NSF Population and Community Ecology, NSF Ecosystem Studies, NSF Integrative Organismal Systems, NSF Marine Geology and Geophysics, NSF Microbial Genome Sequencing Program, NSF Microbial Processes and Interactions/Microbial Observatories, NSF Office of International Science and Engineering, NSF Population and Evolutionary Processes, NSF Research Coordination Networks in Biological Sciences, MIT Sea Grant Program, sDIV German Centre for Integrative Biodiversity Research (iDiv), University of Wisconsin-Milwaukee, Research Growth Initiative (RGI), USGS National Institutes of Water Resources, US Army Research Office (ARO), US Civilian Research and Development Foundation (CART), Woods Hole Sea Grant

Promotion and tenure letter-writer

2025	University of California San Diego, Ecology, Behavior, and Evolution
2025	University of Minnesota, Department of Ecology, Evolution, and Behavior
2025	University of Miami, Department of Biology
2025	Case Western Reserve University, Department of Biology
2025	University of Tennessee, Department of Ecology and Evolutionary Biology
2025	Purdue University, Department of Food Science
2025	Weizman Institute of Science
2024	Stanford University, Department of Biology
2024	University of Arizona, Department of Environmental Science
2024	University of Haifa, Department of Evolutionary and Environmental Biology

2024 Pennsylvania State University, Department of Plant Sciences

2024 North Carolina State University, Department of Biological Sciences

2024 The Ohio State University, Department of Microbiology

2024 University of Wisconsin, Department of Soil Science

2024 Marine Biological Laboratory, Ecosystems Center

2023 Arizona State University, School of Life Sciences

2022 University of Tennessee, Department of Ecology and Evolutionary Biology

2022 University of Arizona, School of Natural Resources and the Environment

2022 University of Arizona, Department of Environmental Science

2021 Boston University, Department of Biology

2021 West Virginia University, Division of Plant and Soil Sciences

2021 University of Tennessee, Department of Biosystems Engineering and Soil Science

2021 University of Wyoming, Ecosystem Science & Management

2020 Carnegie Institution for Science at Stanford University, Department of Plant Biology

2020 University of Delaware, School of Marine Science and Policy

2020 Purdue University, Department of Food Science

2020 Macalester College, Department of Biology

2020 University of Alaska, Department of Biology and Wildlife

2020 University of Missouri – St. Louis, Department of Biology

2020 Arizona State University, Biodesign Institute

2020 American University in Cairo, Department of Biology

2020 Marshall University, Department of Biological Sciences

2020 University of Jyväskylä, Department of Biological and Environmental Sciences

2019 Stanford University, Department of Biology

2019 University of Minnesota, Department of Ecology, Evolution, and Behavior

2019 Tufts University, Department of Biology

2019 Pacific Northwest National Laboratory, Biological Science Division

2019 Kansas State University, Division of Biology

2019	Technion – Israel Institute of Technology, Department of Biology
2019	Purdue University Northwest, Department of Biological Sciences
2019	Diné College, School of Science, Technology, Engineering and Math
2018	Ben-Gurion University of the Negev, Zuckerberg Institute for Water Research
2017	University of Arizona, School of Natural Resources and the Environment
2017	University of Colorado, Ecology and Evolutionary Biology
2017	University of California Irvine, Department of Ecology and Evolutionary Biology
2016	University of Maryland, Environmental Science and Technology Department
2016	University of Arizona, The School of Plant Sciences
2016	University of Hawai‘i at Mānoa, Department of Botany
2015	University of Tennessee, Department of Biosystems Engineering and Soil Science

Professional societies

2025–2026	Chair, Academy Leadership Nomination Subcommittee, American Academy of Microbiology
2024–2025	Scientific Program Leader, American Society for Microbiology
2024–2025	Finance Committee, Ecological Society of America
2023–2024	Strategic Planning Working Group, Ecological Society of America
2023–2025	Audit Committee, Ecological Society of America
2022–2024	Publications Committee, Ecological Society of America
2022–2023	Track Leader, Climate Change, American Society for Microbiology
2022–2025	Chair, Academy Scientific Task Force (ASAT) on Climate Change and Microbiology, American Academy of Microbiology (AAM)
2021–2024	Committee Member, Ecological Society of America (ESA), Fellows and Early Career Fellows
2021–2022	Ad-hoc Program Evaluation Committee (APEC), American Society for Microbiology
2020–2021	Ex officio, Program Committee, Ecology, Evolution, and Biodiversity (EEB); American Society for Microbiology
2018–2020	Track Leader, Ecology, Evolution, and Biodiversity (EEB); American Society for Microbiology

2017–2019	Member, Council on Microbial Sciences (COMS), American Society for Microbiology
2017–2020	Program Committee, American Society for Microbiology, Representative for Ecological and Evolutionary Science
2017–2020	Chair, Microbial Ecology (N) Division, American Society for Microbiology
2016–2018	Member, American Society for Microbiology, Committee for K–12 Outreach
2015–2016	Member, American Society for Microbiology, Communication Committee’s Environmental Microbiology Taskforce
2016	Abstract Reviewer, American Society for Microbiology General Meeting, Ecological and Evolutionary Science Track
2010–2011	Chair, Microbial Ecology Section, Ecological Society of America
2009–2010	Vice Chair, Microbial Ecology Section, Ecological Society of America
2008–2009	Secretary, Microbial Ecology Section, Ecological Society of America
2011	Tom Frost Award Committee, Ecological Society of America

University and College

2024–	Faculty Honors and Awards Committee, Department of Biology
2024–2025	College Research Faculty Promotion Subcommittee
2024	Search committee, Faculty 100 Initiative, Synthetic Biology
2021–2023	Member of the College of Arts and Sciences Faculty IT Advisory Council
2021–2022	Search committee, Soil Microbiologist, O’Neill School
2024	Section Associate Chair (interim); Evolution, Ecology, and Behavior (EEB)
2020–2023	Section Associate Chair; Evolution, Ecology, and Behavior (EEB)
2018–2019	Section Associate Chair (interim); Evolution, Ecology, and Behavior (EEB)
2018	Chair, Biology Graduate Admissions Committee
2017	EEB Graduate Program Director (GPD)
2014–2020	Advisory committee, Center for Genomics and Bioinformatics (CGB)
2013–2019	Executive committee member, IU Research and Training Preserve (IURTP)
2013–2016	Member, Departmental Planning Committee (DPC)
2014–2019	Faculty advisor, Ecolunch

2015, 2016	Member, Biology Graduate Admissions Committee
2012–2014	Member, Biology Graduate Recruiting Weekend
2011	Site representative, LTER Science Council meeting, Jekyll Island, Georgia, USA
2006–2009	Executive board member, Biogeochemistry Environmental Research Initiative (BERI), Michigan State University

Teaching and mentorship

2023–2025	Mentor for Future Leaders Mentoring Fellowship (FLMF) program, American Society for Microbiology (ASM)
2012–	Instructor: Microbial Ecology (BIO L472), Microbiomes: Host and Environmental Health (BIO L472), Microbiomes (Z620), Quantitative Biodiversity (Z620), Indiana University
2009–2012	Co-Director: Summer Course in Microbial Metagenomics, Michigan State University
2007–2012	Instructor: Microbial Ecology (MMG 425), Biogeochemistry (MMG 426), Michigan State University
2014–2024	Junior Faculty Mentoring Team Ariane Peralta, East Carolina University
2006–2012	Graduate committee member, Michigan State University: Zarraz May-Ping Lee (MMG), Molly Conlin (Plant Biology), Brian Campbell (MMG), Amy Burin (Zoology), Jason Martina (Plant Biology), Lauren Kinsman (Zoology), Micaleila Dell Desotelle (Zoology), Mridul K. Thomas (Zoology), Tomomi Suwa (Plant Biology), Stephanie Miller (Zoology), Ben Roller (MMG), Keara Towery (MMG)
2006–	External graduate committee member: Karl Romanowicz (Michigan Tech), Deborah Dila (Grand Valley State University), Andreea Măgălie (Georgia Tech), Brielle Hrymoc (University of Calgary), Alex Feliciano (University of Texas El Paso)
2006–	International dissertation opponent: Sari Peura (University of Jyväskylä, Finland), Monica Ricoa (Uppsala University, Sweden), Andrea Ramirez Corona (Université de Neuchâtel), Masumi Stadler (L'Université du Québec à Montréal)

- 2006– Graduate committee member, Indiana University: Freddy Lee (Microbiology), Melissa Horton (Microbiology), Elise Morton (Microbiology), Geoffrey House (EEB), Elizabeth Czerwinski (Molecular and Cellular Biochemistry), Brian Steidinger (EEB), Kimberly Elsenbroek (EEB), Kevin Webster (Geology), Maja Šljivar (EEB), Steve Kannenberg (EEB), Ali McCully (Microbiology), Ryan Fritts (Microbiology), Brianna Whittaker (EEB), Maureen Onyeziri (Microbiology), Natalie Christian (EEB), Alex Strauss (EEB), Erik Parker (EEB), Savannah Bennett (EEB), Ian Barton (Microbiology), Jeffrey Mazny (Microbiology), Michelle Benavidez (Anthropology), Katie Biedel (EEB), Mackenzie Caple (EEB), Lana Bolin (EEB), Andrea Phillips (Education), Brittany Herrin Mazny (Microbiology), Chelsea Parker (Statistics), Olivia Sheff Schakel (Microbiology), Joshua Jones (EEB), Turner DeBlieux (EEB), Young Oh (EEB), Madelynn Spencer (Microbiology), Logan Geyman (Microbiology), Andrea Shirdon (EEB), Richard Hull (EEB), Elaine Hoffman (EEB), Thomas Zambiasi (EEB)
- 2004–2005 Teaching Certificate Program, Harriet W. Sheridan Center for Teaching and Learning, Brown University
- 2003 Teaching Assistant, Foreign Studies Program: Ecology of Tropical Ecosystems (10-week course in Costa Rica and Jamaica), Dartmouth College
- 2002 Women in Science Program (WISP) Mentor, Dartmouth College
- 1997– Trained dozens of undergraduate students in ecological, evolutionary, and microbiological research

Professional society membership

Applied Microbiology International (AMI)

Ecological Society of America (ESA)

International Society for Microbial Ecology (ISME)

American Society for Microbiology (ASM)

International Society for the Viruses of Microorganisms (ISVM)

American Association for the Advancement of Science (AAAS)

Academic advisors

Jennifer B. Hughes Martiny, Brown University (Postdoc)

Kathryn L. Cottingham, Dartmouth College (Ph.D.)

Val H. Smith, University of Kansas (Masters)

Charles A. S. Hall, SUNY College of Environmental Science and Forestry (BS)

Academic advisees

Postdocs

2024–	Emma Bueren
2023–	Jipeng Luo
2021–2024	Canan Karakoç (Research Scholar, Georgia Institute of Technology)
2021–2024	John McMullen (Data Scientist - Microbial Genomics, Bayer)
2017–2023	Daniel Schwartz (Microbiologist, DSM)
2018–2019	Jordan Bird (Bioinformatics Scientist at Battelle)
2015–2020	Megan Behringer (Assistant Professor, Vanderbilt University)
2014–2018	Ken Locey (Data Scientist, Rush University Medical Center)
2012–2014	Ariane Peralta (Professor, East Carolina University)
2011	Ed Hall (Associate Professor, Colorado State University)
2011–2012	Sarah Placella (CEO, Root Applied Sciences)
2008–2010	Stuart Jones (Executive Director, Annis Water Resources Institute)
2007	Evan Kane (Professor, Michigan Technological University)
2007–2009	Zachary Aanderud (Professor, Brigham Young University)

Graduate Students

2025–	Jitul Bora (Ph.D., Biology, Indiana University)
2024–	Anna Lennon (Ph.D., Biology, Indiana University)
2024–	El Park (Ph.D., Biology, Indiana University)
2022–	Joy O’Brien (Ph.D., Biology, Indiana University)
2022	Jasmine Ahmed (M.S., Biotechnology, Indiana University)
2020	Chian Jung Chen (M.S., Biotechnology, Indiana University)
2019–2023	Patrick Wall (M.S., Complex Networks and Systems, Indiana University)
2019–2022	Ford Fishman (M.S., Biology, Indiana University)

2017–	Emmi Mueller (Ph.D., Biology, Indiana University)
2016–2021	Roy Moger-Reischer (Ph.D., Biology, Indiana University)
2015–2018	Venus Kuo (M.S., Biology, Indiana University)
2014–2020	William Shoemaker (Ph.D., Biology, Indiana University)
2014–2020	Nathan Wisnoski (Ph.D., Biology, Indiana University)
2013–2017	Kevin Webster (Ph.D., Geology, Indiana University, co-advisor)
2010–2016	Mario Muscarella (Ph.D., Biology, Indiana University)
2009–2016	Megan Larsen (Ph.D., Biology, Indiana University)
2008–2012	Kali Bird (M.S., Microbiology and Molecular Genetics, Michigan State University)