## Dr. Jeremy Semrau

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Jeremy Semrau joined the Environmental System Science team as an Intergovernmental Personnel Act (IPA) program manager in 2025.

Jeremy has been at the University of Michigan–Ann Arbor for the past 30 years and holds the Arthur F. Thurnau Professorship of Civil and Environmental Engineering. His research focuses on the general area of environmental microbiology with a special interest in microbial control of greenhouse gas emissions. In particular, his research integrates microbial physiology with molecular biology, biogeochemistry, and bioinformatics to characterize how microbes control methane and nitrous oxide emissions, as well as how microbes affect the speciation and availability of copper and mercury. Jeremy has pursued both fundamental lab work (e.g., characterizing the genetics and biochemistry of novel metal-uptake mechanisms used by bacteria as well as microbe-microbe interactions) and more applied research (e.g., design and modeling of advanced bioreactors for methane removal). He received his master's and PhD in Environmental Engineering Science from the California Institute of Technology and held a postdoctoral position at the University of Warwick.

Jeremy is a Fellow of the American Academy of Microbiology and former editor of *Applied and Environmental Microbiology, Frontiers in Microbiology*, and *Microbiology*. In addition to organizing many conferences, Jeremy served as Steering Committee Co-Chair for the 2023 American Academy of Microbiology Colloquium: The Role of Microbes in Mediating Methane Emissions–Act Today to Prepare for Tomorrow. Jeremy also created the Graham Sustainability Institute at the University of Michigan, one of the first transdisciplinary academic centers focusing on how to encourage collaboration among science, policy, engineering, and business faculty to extend the knowledge of, and offer solutions to, complex environmental sustainability issues while recognizing the need for balance between present and future societal needs. Jeremy has also served as a reviewer for both domestic (e.g., National Science Foundation, National Institute of Environmental Health Sciences, U.S. Department of Agriculture, and DOE) as well as foreign (e.g., Canada, UK, the Netherlands, and Germany) research funding agencies.