Aims & Scope
Representing the largest biotechnological industry in the world by volume, wastewater treatment (WWT) bioreactors are microbial ecosystems that consist of protozoa, fungi, bacteria, archaea and viruses to treat wastewater and recover valuable resources. Bioreactor performance is determined by the diversity, density, and activity of microorganisms interacting in the microbiome, shaped by specific bioreactor operating conditions. Molecular sequencing and mass spectrometry approaches have now been widely used to examine wastewater microbiomes, with the goal of improving bioreactor operations and performance. This special collection highlights the recent omics-based approaches for investigating wastewater bioreactor microbiomes.

This special collection will focus on the following major themes:

- Wastewater microbiome exploration and characterization, tools and discoveries
- Indicators from high-throughput sequencing and meta-omics data to inform system performance (failures and good performance)
- Bioreactor microbial ecology and model development
- Role of engineering parameters on wastewater microbiome structure and function
- Identification and elimination of microbial risks (including pathogens and antimicrobial resistances [AMRs])

continued on reverse
Manuscript Submission Guidelines

1. Please submit your manuscript via ASCE Journal of Environmental Engineering website: https://www.editorialmanager.com/jrneeeng

2. Once on the Editorial Manager website, please indicate that your paper is for the special collection “Recent Advances in Bioreactor Microbiome Research” edited by Yang Liu, Bing Guo, Christopher Lawson, and Guangxue Wu.


Submission Deadline: December 31, 2021

All accepted papers submitted in response to this Call for Papers will be published in regular issues of the ASCE Journal of Environmental Engineering and assembled online on a page dedicated to this Collection. See https://ascelibrary.org/page/joeedu/specialcollections for the list of Special Collections already published.

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