



Biotechnology and  
Biological Sciences  
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EBNet Travel Bursary Support

Dr Bang Du,  
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(TB202409)



# The International Water Association (IWA) World Water Congress & Exhibition 2024, 11-15 August 2024, Toronto, Canada

Presentation title:

**'Deciphering Anaerobic Ethanol Metabolic Pathways Shaped by Operational Modes'**

Dr Bang Du is currently a Research Fellow at the University of Surrey, focusing on bioinformatics and anaerobic digestion microbiome modelling.

The award of the EBNet travel bursary enabled Dr Du to attend the IWA World Water Congress & Exhibition 2024 (WWCE2024) in Toronto, Canada.

This event is recognized globally as a leading platform for water professionals, covering the entire water cycle. The congress brings together experts, scholars, and industry leaders to discuss and share the latest research, innovations, and trends in water management and technology.

One of the key sessions of the WWCE2024 was titled "Microbiology in Anaerobic Processes," which focused on the microbial dynamics and processes that underpin anaerobic treatment systems. This session was particularly relevant to Dr Du's research interests and provided a unique opportunity to engage with leading experts in this field.

Dr Du delivered a presentation entitled "Deciphering Anaerobic Ethanol Metabolic Pathways Shaped by Operational Modes." This research explored how different operational strategies can be used to regulate microbial enrichment and optimize ethanol metabolic pathways within anaerobic wastewater treatment systems.

The findings presented highlighted the potential for improving the efficiency and effectiveness of anaerobic processes through targeted operational adjustments.



Dr Du at the IWA World Water Congress and Exhibition 2024

During the conference, Dr Du engaged with members of IWA Microbial Ecology and Water Engineering (MEWE), and Health-Related Water Microbiology (HRWM) groups.

These interactions facilitated in-depth discussions on the future of ecological principles in wastewater management.

The exchange of ideas with researchers and industry professionals underscored the importance of multidisciplinary collaboration in advancing the field, contributing towards NET ZERO and ONE HEALTH goals.

Follow Dr Bang Du's work at the University of Surrey here: <https://www.surrey.ac.uk/people/dr-bang-du>