

## LAUREATE'S BIO

### Lee Kuan Yew Water Prize 2026 Laureate: Professor Joan Bray Rose



**Joan Bray Rose** holds the Homer Nowlin Chair in Water Research at Michigan State University, where she has worked for the last 22 years. She is also the Director of the MSU Water Alliance, leading interdisciplinary efforts to solve significant water problems of the 21<sup>st</sup> century and supporting the research, education and outreach missions of the 300 water faculty and specialists (<https://water.msu.edu/>).

An international expert in water microbiology, water quality, and public health safety, her research focuses on applying new molecular methods, pathogen surveillance, microbial source tracking, and the removal of pathogens through water and wastewater treatment, with over 300 publications to her name.

Professor Rose is one of the early creators of quantitative microbial risk assessment (QMRA) and architects of its framework, beginning her work in 1988. She continues to advance the field through research on emerging global microbial health risks, a QMRA Summer Institute, and QMRAwiki which houses dose-response models for microbial risk assessment.

Her work has been acknowledged through honours such as the Singapore Public Service Medal from the Ministry of Environment and Water Resources in 2009, and Honorary Citizenship of Singapore in 2015, recognising her role in supporting the country's development of sustainable, safe waters.

Professor Rose is a member of the National Academy of Engineering (2011) and has been elected to the Royal Academy of Sciences and Arts of Barcelona, Spain (2020), the Royal Institution of Singapore (2019), the European Academy of Sciences (2019), and the Chinese Academy of Sciences (2025).

She is the winner of the 2016 Stockholm Water Prize and the 2024 International Water Association Global Water Award, which honour exceptional individuals who have transformed industry norms, driven impactful water innovations, and contributed to a world where water is wisely managed. She was also named "Guardian of the Environment" for outstanding lifetime achievement by the Great Lakes Environmental Festival (2024), inducted into the Michigan Water Industry Hall of Fame (2020), and received the Helen & William Milliken Distinguished Service Award from the Michigan Environmental Council (2018).