

Annex A – Information on Lee Kuan Yew Water Prize Laureates (2008-2024)

2024 – Prof Gertjan Medema

Professor Gertjan Medema was awarded the Lee Kuan Yew Water Prize for 2024 for his significant contributions in the field of wastewater-based epidemiology (WBE in short). His timely research breakthrough has global impact and enabled the use of wastewater surveillance during the COVID-19 pandemic to fight the spread of the virus.

2020 – Prof Kazuo Yamamoto

Professor Kazuo Yamamoto was awarded the Lee Kuan Yew Water Prize for 2020 for his pioneering work in developing the submerged membrane bioreactor (MBR). His successful demonstration, in 1989, of the first operational submerged MBR was a major breakthrough in the field of wastewater treatment. And since then, the global application of submerged MBR technology has fundamentally transformed the sewage treatment process and improved the lives of hundreds of millions of people.

2018 – Prof Rita Colwell

Professor Rita Colwell was awarded the Lee Kuan Yew Water Prize in 2018 for her pioneering insights into microbial water quality surveillance, and her pivotal contributions in translating these insights into concrete practices and policies to better manage waterborne diseases and protect public health. Professor Colwell was an early and active proponent of the use of novel molecular methods for more accurate and comprehensive diagnostics of water pathogens.

2016 – Prof John Anthony Cherry

Professor John Anthony Cherry was awarded the Lee Kuan Yew Water Prize 2016 for his contributions to the advancement of groundwater science, policies, and technologies. His revolutionary research in collaboration with international partners has provided the global groundwater community with a better scientific framework to formulate policies and best practices.

2014 – Orange County Water District

Orange County Water District (OCWD) was awarded the Lee Kuan Yew Water Prize 2014. The impact of their successful water reuse programme extends far beyond the county to the states of Texas and Colorado in the United States and has also been replicated in countries such as Australia, Singapore to achieve water sustainability through water reuse, benefitting millions in the process.

2012 – Prof Mark van Loosdrecht

Professor Mark Van Loosdrecht was awarded the Lee Kuan Yew Water Prize 2012 for his breakthrough contributions in used water treatment, with his completely autotrophic nitrogen removal process – Anammox. Professor Van Loosdrecht introduced a paradigm shift in the understanding of the used water treatment process. His ground-breaking work in marrying nature and engineering has formed the basis for many variants in use today.

2011 – Dr James Barnard

Dr James Barnard was awarded the Lee Kuan Yew Water Prize 2011 for inventing a biological method to treat used water so that it can be returned safely to lakes and rivers. His technology, Biological Nutrient Removal (BNR), uses naturally-occurring micro-organisms instead of conventional chemicals to remove nitrogen and phosphorous from used water.

2010 – Yellow River Conservancy Commission

Yellow River Conservancy Commission (YRCC) was awarded the Lee Kuan Yew Water Prize 2010 for its outstanding accomplishments in integrated basin management that was unrivalled in scale. YRCC secured water supply for over one hundred million people, restored extensive areas of wetlands and biodiversity, and protected some 90 million people living in the flood-prone areas.

2009 – Prof Gatze Lettinga

Professor Gatze Lettinga was awarded the Lee Kuan Yew Water Prize 2009 for this breakthrough, environmentally sustainable solution for the treatment of used water using anaerobic technology. His revolutionary treatment concept enables industrial used water to be purified cost-effectively, and produces renewable energy, fertilisers and soil conditioners.

2008 – Dr Andrew Benedek

Dr Andrew Benedek was awarded the Lee Kuan Yew Water Prize 2008 for his outstanding work in pioneering the development of low-pressure membranes in water treatment. He showed how drinking water can be produced from different water sources, even those that are highly polluted.