



IMALKA MUNAWEERA

Asia & the Pacific

Inorganic/materials chemistry

Senior Lecturer,
Department of Chemistry,
University of Sri Jayewardenepura
Nugegoda, Sri Lanka

Dr. Munaweera's work is focused on the development of nanoparticles and nanofibre composites that can be applied in a range of different functions, from drug delivery in the pharmaceutical industry, to water filtration, to slow-release fertilizer systems in agriculture. She has made particular advances in using nanotechnology to produce environmentally-friendly and cost-effective crop fertilizers, and in developing chemoradiotherapeutic formulations and radiotherapeutic bandages for use in lung and skin cancer treatment.

Dr. Munaweera first became interested in functional and applied materials as an undergraduate at the University of Peradeniya, where she worked on applications of iron oxide nanoparticles. As a master's student at the University of Moratuwa, she gravitated towards nanofertilizer research, for which she received the National Science and Technology Award in 2010 and holds two U.S. patents. She continued on to do a PhD at the University of Texas at Dallas in the USA, where she developed an innovative approach that could ultimately enable clinicians to target and aggressively reduce tumor burden in cancer patients. She also holds two U.S.-granted patents for this technology.

Following three years as a postdoctoral researcher at the University of Texas Southwestern Medical School, Dr. Munaweera worked as an Assistant Professor at Texas Prairieview A&M University before returning to her home country, Sri Lanka, where she has worked since 2019. She is the recipient of a Sri Lankan NRC-PPP grant, in 2019, and a research grant from TWAS, the World Academy of Sciences, in 2020. Besides having won several awards and having published many papers in prestigious journals including *Nature Scientific Reports*, *Biomaterials*, and *ACS Applied Materials and Interfaces*, she also has more than ten years' experience mentoring high school, undergraduate and graduate students.

“ *This prestigious award motivates me to conduct impactful research that will bring enormous benefits and solutions to the burning issues in the world that we live in. It will also motivate all woman scientists who need support to engage in quality research, and the whole world will benefit as a result of their achievements.* ”