

# MQ Photonics Research Centre Seminar



MACQUARIE  
University

**Speaker:** Laya Jose

**Title:** Preprocessing Hematoxylin & Eosin stained histopathological images

**Bio:** I am a PhD student in the Department of Physics and Astronomy. I am currently working on the preprocessing of histopathological images of brain cancer for improving the performance of artificial neural networks applied to the diagnosis of brain cancer, under the supervision of Dr. Annemarie Nadort and Dr. Antonio Di Ieva.

**Abstract:** My current research is focused on the histopathological image analysis to enhance brain tumour diagnosis and treatment. My aim is to investigate which pre- and post-processing steps performed on histopathological images of glioblastoma (GBM) are instrumental to the improved performance of Artificial Neural Networks (ANN) applied to the diagnosis and treatment of GBM. This is a multidisciplinary work under supervision of Dr Annemarie Nadort, Department of physics and Astronomy in collaboration A/Prof. Antonio Di Ieva from Department of Clinical Medicine.

**Speaker:** Mahsa Vaez Zadeh

**Title:** Preclinical 3D Brain tumour models and the challenges of cell viability assays

**Abstract:** My current research is focused on the development of 3D in vitro brain tumour models by modifying techniques from the tissue engineering field to create tissue-engineered cancer models. I aim to adapt the common 2D assays for 3D cell culturing to develop protocols for drug screening in 3D brain tumour models to obtain achievements in translational medicine and help improve the outcome for patients. This is a multidisciplinary work under supervision of Dr Annemarie Nadort from department of physics in collaboration with Dr. Benjamin Heng from department of Biomedical Science and A/Prof. Andrew Davidson from department of Clinical Medicine.

**When:** Wednesday 16 October 2019

**Time:** 2pm

**Where:** Multipurpose room, 2.300 7WW