

Rohan Narayan - PhD student

Research Interests

- Virus-host interactions and identifying host targeting therapeutic interventions against viral diseases
- Role of autophagy in cancer pathophysiology



Biography

I am a PhD student under the supervision of Prof. Arwyn Jones and my project is funded by the Life Science Research Network (SER NRN), Wales.

I have a Bachelor's degree in Microbiology from the University of Madras and a Master's degree in Molecular Virology from Dr. M.G.R Medical University, India. My Masters project titled 'Separation and blotting of NS1 and NS5 Dengue antigens for diagnostics' was based on the development of a novel technique for the diagnosis Dengue fever by the detection of virus specific NS5 antibodies from patient serum. Later on, I worked briefly as a Project Fellow in the Department of Zoology and then moved to the Department of Microbiology, University of Madras where I worked for almost 2 years. There I was on a project funded by the Indian Council of Medical research and my work involved studies to understand the reasons for MMR vaccine failure and identifying immunological biomarkers that may be used to predict the outcome of Mumps associated complications.

My PhD project titled "Biological evaluation of dideoxy bicyclic nucleoside analogues with L-chirality (L-ddBCNAs) as novel antiviral compounds", is based on the lead compound cf2642 which was developed by Prof. Chris McGuigan's group at the School of Pharmacy, Cardiff university. The main objective of my research is to understand the mechanism of action by which cf2642 imparts its antiviral activity against Measles and Vaccinia viruses. After the first year of my PhD research in Dr. Joachim Bugert's lab where I worked with live Measles and Vaccinia viruses, I am now focusing on the effects of cf2642 on host cells in Prof. Jones's lab.

The main techniques used in my work include cell culture, immunofluorescence, confocal microscopy, western blotting, flow cytometry, bacterial transformation and transient transfections.

Publications

1. Rohan Narayan, Senthil Raja, Senthil Kumar, Mohana Sambasivam, Raja Jagadeesan, Kavita Arunagiri, Kaveri Krishnasamy*, Gunasekaran Palani. A novel indirect ELISA for the diagnosis of Dengue fever. Indian Journal of Medical Research, 2015. In press.