

Biography

Dr P Muthuirulan is a Research Associate at the Harvard University, Cambridge, MA, USA. The overarching goal of his research is to use functional genomic approaches to understand how genetic changes, epigenetic reprogramming and gene expression changes contributes to complex skeletal diseases in humans. Prior to this position, he worked as a postdoctoral fellow at the NICHD, National Institutes of Health, Bethesda, Maryland, where he developed a novel method (R-GRASP) using CRISPR-cas9 and high-resolution microscopy to map neurotransmitters receptors to complex neural circuits that involves motion detection pathways in Drosophila. He obtained his Ph.D. degree in Microbiology from Department of Genetics, School of Biological Sciences at Madurai Kamaraj University, India where he discovered a novel antifungal peptide, MMGP1 from marine metagenome using function-based metagenomic approaches and then he characterized its structure and elucidated the distinct antifungal mechanisms in human opportunistic fungal pathogens. He has expertise in human genetics, omics technologies, functional genomics, drug discovery, infectious diseases, host-pathogen interaction, and neuronal connectivity.

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