

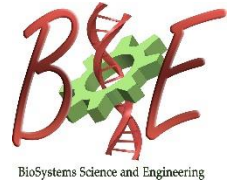


Indian Institute of Science  
Centre for BioSystems Science and Engineering

## Seminar

at 11 AM on 20th July 2018 (Monday)

MRDG seminar hall, 1st Floor Biological Sciences Building



# Pain and Beyond: Utilizing the Peripheral Nerve for Local Drug Delivery

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### Abstract

Neuropathic pain is a debilitating condition that occurs primarily due to deficits or lesions of the nervous system. The pain is markedly resistant to routine anti-nociceptive agents and requires quite advanced modes of treatment modalities, including systemic administration of agents that produce modulation of central GABA receptors, glutamate receptors, etc. Expectedly, such systemically administered medications have off-target effects that makes them difficult to use. Alternatively, the peripheral nerves of the body, with their accessible locations and vast anatomical distribution may provide a solution to the above problem. In this talk, I will address the small but growing interest in the utilization of the peripheral nerve as an alternative option for managing drug delivery to the peripheral and central nervous system in certain neuropathic pain conditions. Peripheral nerve block using prolonged release local-anesthetic delivery systems to manage neuropathic pain, and examination of terminal axons for the purpose of nanoparticle uptake and drug delivery will be discussed.

### About the Speaker

Sahadev completed his MBBS training from Bangalore University, obtained a Master of Public Health from University of North Carolina, Chapel Hill, and a Ph.D. from Loyola University, Chicago. Following a two year postdoctoral fellowship at Harvard Medical School and Massachusetts Institute of Technology, Sahadev returned to India as a Ramalingaswamy fellow and Assistant Professor at the Center for Nanoscience and Molecular Medicine, Amrita Institute of Medical Sciences. His research interests are in the field of drug delivery and its applications in neuroscience.

