

14 August 2024

### **CITATION ON THE WORK OF DR. SIDDHESH S. KAMAT**

Research in Siddhesh's lab at IISER Pune focuses on studying the biological mechanisms of lipid signaling pathways in the mammalian physiology, and how dysregulation in this lipid metabolism results in human pathological conditions and diseases (e.g. neurodegenerative diseases, autoimmune diseases, metabolic syndrome, infections, inflammation etc.). Siddhesh's lab has a special interest in identifying and functionally characterizing hitherto unknown lipid signalling pathways, annotating the metabolic enzymes and cognate receptors that regulate their biology, and providing new mechanistic insights and therapeutic opportunities for treating human diseases. He has been credited for integrating diverse chemical biology approaches with cutting edge liquid chromatography coupled to mass spectrometry (LC-MS) based lipidomics and metabolomics techniques towards achieving the aforementioned research goals. This innovative multi-pronged chemical biology strategy developed by his lab marks a paradigm shift in how chemical biologists' worldwide study such poorly abundant, under-studied, yet physiologically important, signalling lipids *in vivo* in humans.

Siddhesh has established a globally competitive chemical biology lab and published numerous high-quality research publications and comprehensive reviews in reputed journals (e.g. *Chemical Reviews*, *Nature Chemical Biology*, *Cell Chemical Biology*, *PNAS*, *ACS Chemical Biology*, *JBC*). In addition, he has extensively collaborated with several groups within the country, and enabled them to reveal underlying metabolome-dependent phenotypes across scales and model systems. These collaborations have yielded high quality papers in reputed journals (e.g. *PNAS*, *Elife*, *JCB*). Given his track record, Siddhesh is a recipient of numerous reputed awards, like the SwarnaJayanti Fellowship, CDRI Award for Excellence in Drug Research, EMBO Young Investigator Award, Merck Award, INSA Young Scientist Medal to list some.

A handwritten signature in blue ink, appearing to read 'Shashidhara'.

**LS Shashidhara**