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CITATION ON THE WORK OF DR. SIDDHESH S. KAMAT

Dr. Siddhesh S. Kamat's research group uses innovative chemical biology approaches in identifying hitherto unknown biological pathways that regulate lipid metabolism and signalling, and how these pathways are dysregulated in different human diseases. Specifically, his lab has made seminal contributions in understanding of the molecular basis of the neurodegenerative disorder PHARC and neuroinflammation, besides mapping the deregulated lysophospholipid metabolism associated with this disease. Additionally, his lab has deciphered unannotated lipid pathways in immunological processes like phagocytosis, ferroptosis. Uniquely, Siddhesh has established/developed state-of-the-art lipidomics and chemoproteomics LC-MS platforms to unravel novel mechanisms associated with onset/progression of diseases caused by perturbed lipid homeostasis. The discoveries and technologies developed by his research group have tremendous translational potential, and will be very influential in the coming years, towards identifying hitherto unknown pharmacological targets in numerous human diseases.

Siddhesh has established a globally competitive chemical biology lab and published numerous high-quality publications in reputed journals (e.g. *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.



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