

August 10, 2021

To

The Chairman

Selection Committee,

Sun Pharma Science Foundation Research Awards 2021

Pharmaceutical Sciences Category

Letter of Nomination for Dr. Siddhesh Kamat of IISER Pune, India

I am writing this letter of nomination in strongest possible support of Dr. Siddhesh Kamat from IISER Pune, India, who has applied to the Sun Pharma Science Foundation Research Awards 2021 in the Pharmaceutical Sciences Category.

Siddhesh is currently an Associate Professor in the Department of Biology at IISER Pune. Siddhesh, capitalizing on his strong biochemistry background acquired during his undergraduate education, is one of the finest chemical biologists in India at par with highest global standards. He joined IISER Pune in August 2016 as an Assistant Professor, after his PhD at Texas A&M University (2007-12) and post-doctoral work at Scripps, USA (2013-2016). He had a very productive PhD working with Frank M. Raushel, on annotating function to unknown biological pathways. During this time, he discovered the enzymatic pathways that convert phosphonates to phosphate, and the production of methane by aerobic bacteria as well as the purine salvage pathway in bacteria leading in several high-quality publications in journals such as *Nature*, *JACS*, and *Biochemistry*. Later, during his postdoc, he shifted to studying lipid signalling and metabolic pathways in the mammalian immune and central nervous system with Benjamin Cravatt. Using chemical biology approaches like lipidomics, and chemical proteomics, he identified and functionally characterized several enzymes, mutations of which cause neurological disorders in humans. These too have resulted in three high-quality publications in *Nature Chemical Biology*.

Within 3 years of joining IISER Pune, Siddhesh has established a state-of-the-art mass spectrometry based lipidomics and chemical proteomics platforms. In 2016, Siddhesh was also awarded the prestigious and highly competitive DBT/Wellcome Trust India Alliance Fellowship, which has provided necessary flexible funding for him to establish a productive career. His research interests

are to identify hitherto unknown biological pathways that regulate lipid metabolism and signalling in the context of normal physiological processes such as phagocytosis, and diseases such as human neurodegenerative and autoimmune disorders, and trying to find biological targets that may be pharmacologically explored as treatments for these diseases. Within shortest time possible, not only Siddhesh established a very good chemical biology lab at IISER Pune, he has also published numerous high quality publications in reputed journals (such as *Nature Chemical Biology*, *Cell Chemical Biology*, *ACS Chemical Biology*, *J. Medicinal Chemistry*, *J. Biological Chemistry*, *Biochemistry*). In addition, he has collaborated with other scientists within the country, which too have resulted in quality of the publications (in *PNAS*, *J. Cell Biology*, *Disease Models & Mechanisms*, *J. Experimental Biology*), which would not have been possible by either by himself or by his collaborators on their own. Considering his unique expertise, he is sought after by many good scientists in India and from overseas for help in the area of lipidomics and chemical proteomics. While providing such help selflessly, he has not lost his focus on his research. Given his academic track record, Siddhesh was promoted to an Associate Professor with tenure within 3 years, something that is rare in Indian academia, and has been a recipient of numerous reputed awards, such as the CDRI Award for Excellence in Drug Research (2021), EMBO Young Investigator Award (2020), Merck Young Scientist Award (2019), INSA Young Scientist Medal (2019) to list a few.

Given his academic credentials, area of research and the eligibility criteria for this award, I feel that Siddhesh would be an ideal candidate and strongly recommend his application for the Sun Pharma Science Foundation Research Awards 2021 in the Pharmaceutical Sciences Category.

I am happy to provide any additional inputs if required.



(Prof. Jayant B. Udgaonkar)

Director