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It is truly a pleasure to write this justification letter for Prof. Samir K. Maji for the Sun Pharma Science Foundation Research Awards, 2024. Prof. Maji is a highly recognized scientist which is substantiated by his quality of research, high citations, and publication record. His work focuses on both fundamental and applied research to understand the mechanism of Parkinson's disease (PD) pathogenesis as well as in the development of therapeutics. Prof. Maji and his team have shown the co-storage of human prolactin and neuropeptide galanin as functional amyloids in secretory granules (*Chatterjee et al, eLife, 2022*). They were the pioneer group to demonstrate that α -Synuclein (α -Syn) liquid-liquid phase separation precedes its aggregation (*Ray et al, Nature Chemistry, 2020*). They analyzed several cellular and environmental factors affecting oligomerization and fibrillation of α -Syn. His team has also demonstrated the conversion of α -Syn from solution to a gel-like state at high concentrations, consisting of toxic oligomers along with monomers and short fibrils. His team also showed that all proteins and polypeptides can undergo condensate formation with different phase regimes and intermolecular interactions (*Poudyal et al, Nature Communications, 2023*). Prof. Maji and his group have investigated the prion-like nature of p53 amyloid and its implications in cancer pathogenesis. In pursuit of stem cell-based therapy for PD, they have developed smart hydrogels that promote cell adhesion and differentiate mesenchymal stem cells into a neuronal lineage. They have filed 7 patents, out of which 5 have been granted. Their smart hydrogel technology has led to a start-up, Convalesce Inc., California, USA, by one of his former Ph.D. students. In addition to being an independent researcher, Prof. Maji is also a splendid science communicator and an excellent teacher. His immense expertise in his research area has made him one of the pioneers in his field, from India and internationally.

Prof. Maji also has several accolades to his credit in recognition of his vital scientific contribution. He is an elected fellow of the Indian Academy of Sciences (FASc), Indian National Science Academy (FNA) and National Academy of Sciences India (FNASc), Royal Society of Chemistry (FRSC) and Royal Society of Biology (FRSB). He has received the J.C. Bose Fellowship (SERB), Prof. S.C. Bhattacharya Award (IIT Bombay), P.B Rama Rao Memorial Award (SBCI), IIT Bombay Impactful Research Award, IIT Bombay Excellence in Teaching Award, TATA Innovation Fellowship (DBT), NASI Reliance Platinum Jubilee Award, National Bioscience Award (DBT) and Young researcher award, Lady Tata Memorial Trust.

Given his achievements, it is undoubted that Prof. Maji is a versatile researcher who is highly regarded by his peers with an even stronger potential for further development. I happily endorse his application with the highest possible priority.

Director (IIT Bombay)

31.07.2024