



शुभिनी अ सराफ

एम. फार्म, पीएचडी

निदेशक

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बिजनौर-सिसेन्डी रोड, सीआरपीएफ बेस कैम्प के निकट, सरोजनी नगर,
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(Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Govt. of India)

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Date: July 30th 2024

Subject: Nomination of **Dr Prabhat Ranjan Mishra** for SUN Pharma Research Award-2024 in Pharmaceutical Sciences.

Justification for Nomination

I am happy to nominate **Dr Prabhat Ranjan Mishra** Ph.D, FNASc, Chief Scientist & Head, Pharmaceutics and Pharmacokinetics Division, who has made phenomenal contribution in developing functionalized nano-biomaterials for therapeutic applications and elucidating its cellular translocation mechanisms to achieve enhanced therapeutic index with reduced toxicity. He elucidated receptor-mediated fusion and intracellular trafficking using exosome-coated quantum dots, leveraging the proton sponge effect for lysosomal escape using pyridoxine-tethered nanoparticles for precise intracellular localization. These breakthroughs in nano-therapeutics have circumvented biological barriers leading to specific delivery of drugs and in addition impacted commercialization of two products. He has majorly contributed in both knowledge generation and translational research.

He has more than **145** peer-reviewed high-impact publications (Avg. I.F. >5) and has actively contributed to developing several technologies leading to **27** patents to his credit. He has a track record of successfully licensing **FIVE** products to industries while **TWO** are commercialized by the name of **Joint Fresh™** used for osteoarthritis (Standardized Nano-formulation) and **Reunion™** wherein he has potentially contributed to a significant reduction in therapeutic dose by developing a nano-formulation that led grant of US patent and subsequent commercialization. He has successfully led a collaborative programme with industries and Govt. sectors through NMITLI projects resulting into licensing and commercialization of products and also successfully completed Research projects funded by different agencies like DST, DBT, CSIR, ICMR to a tune of ~ 14 crores. He is coordinating GLP activities, as In-charge Quality Assurance Unit (QAU) enabling inspection of test facilities by NGCMA leading to accreditation of GLP facilities at CSIR-CDRI.

Dr Mishra is the recipient of several awards, among which is the prestigious **Tata Innovation Fellowship** (2018-19) by the Department of Biotechnology (DBT, Govt. of India) for outstanding contributions in the area of translational research. He is an elected fellow of the National Academy of Sciences (FNASc), Prayagraj. Recipient of **INSA-DFG Fellowship** (2008), Young Scientist by DST (2006), **Visiting Scientist** at Freie University of Berlin, Germany, and at Bradford University UK, CDRI **Excellence Research Award** and **Technology Award** 2019, **STEM award (Technology Transfer Impact Award)** 2022 by Society for Technology Management, India for stewarding IP commercialization of Standardized Nano-formulation from *Spinacea Oleracea* for Osteoarthritis. He has successfully supervised 19 candidates leading to PhD degree. In addition, he has been listed in **top 2% scientists** of the world in the area of Pharmacology and Pharmacy and actively involved in establishing a niche area of translational research and focuses on the development of nano-therapeutics with a strategy of patient-friendly and evidence-based products.

SUN Pharma Science Foundation
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(Prof. Shubhini A. Saraf)