



# इण्डियन एसोसिएशन फॉर द कल्टीवेशन ऑफ साइंस Indian Association for the Cultivation of Science

डॉ. रंजन सेन, एफएनए, एफएएससी, एफएनएससी

निदेशक

जे सी बोस नेशनल फेलो

**Dr. Ranjan Sen, FNA, FASc, FNASc**

Director

J C Bose National Fellow

Recommendation for Professor Jyotirmayee Dash for the Sun Pharma Research Award in Pharmaceutical Sciences

I highly recommend Professor Jyotirmayee Dash for the esteemed Sun Pharma Research Award in Pharmaceutical Sciences. Professor Dash has made outstanding contributions in developing new strategies for targeting non-canonical nucleic acids using bio-orthogonal chemistry, designing artificial ion channels, and developing new synthetic methods for therapeutic and biomedical applications. She designed novel molecular probes carbazoles, nucleosides, PNA mimics and isoquinolines etc. that can selectively target DNA secondary structures and can promote cancer cell death by regulation of gene expression. Her group also developed the construction of artificial ion-channels, bio-nanowires, logic gates and enzyme regulated DNA based devices using small molecules. They used nucleosides to design antimicrobial hydrogels and ion transporters. She further developed new synthetic strategies for synthesis of heterocyclic compounds and naturally occurring alkaloids. All these tools and approaches could open up new avenues for identifying novel molecular agents that may find applications for therapeutic purposes. Her research has been published in several high impact national as well as international journals (>125 Publications, Citations: 4163, h-index: 41) and patented (10 Indian patents), and has been highlighted in newspapers, Organic Chemistry portals, magazines and other science journals showcasing the importance of her contributions to science.

In 2020, Prof. Dash was awarded the most coveted Shanti Swarup Bhatnagar Prize for Science and Technology by the Council of Scientific and Industrial Research (CSIR) for her notable and outstanding research contributions in Chemical Sciences. She was also featured among the top 75 women trailblazers of Science in India by Vigyan Prasar in 2023, among the top 75 scientists under age 50 in shaping today's India by DST in 2022 and among the top 100 Asia's rising scientists in Asian Scientist magazine in 2021. She has been elected as Fellow of the Indian Academy of Sciences and Fellow of the Royal Society of Chemistry in 2021 and 2020 respectively. She was awarded with many prestigious fellowships including Wellcome Trust/DBT India Alliance Senior Fellowship Award, SwarnaJayanti Fellowship, Marie-Curie Fellowship and Alexander von Humboldt Fellowship.

Professor Dash possesses the essential qualities required for this award, showcasing exceptional academic performance and remarkable research contributions in the fields of medicinal/pharmaceutical chemistry and nucleic acid research, which have laid the foundation for innovative advancements in pharmaceuticals. I am confident that honouring her will not only acknowledge her significant achievements but also motivate other young scientists to pursue similar endeavours.

*Ranjan Sen 23/8*



डॉ. रंजन सेन / Dr. Ranjan Sen

निदेशक / Director

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