

) भारत सरकार GOVERNMENT OF **INDIA**

भारतीय प्रौद्योगिकी संस्थान जोधपुर

बायोसाइंस और बायोइंजीनियरिंग विभाग,

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प्रोफेसर अमित मिश्र Professor Amit Mishra FIANSC; FRSB; FRSM; FMPS; FRLS; FIYBA MRSB; MRSC; MNASC; MNAMS NYAS (Bicentennial Ambassador) भारतीय प्रौद्योगिकी संस्थान जोधपुर Indian Institute of Technology Jodhpur http://home.iitj.ac.in/~amit/

I, Amit Kumar Mishra confirm that I have read and understand the nomination information sheet for the *Sun Pharma Research Fellowship for the Medical Science (Basic Research) 2024*. I understand that my participation is true and fulfilling the necessary conditions as described in nomination information sheet received from "Sun Pharma Science Foundation". I understand that I and/or my research have been nominated for a *Sun Pharma Research Fellowship for the Medical Science (Basic Research) 2024*, which will be given out by the "Sun Pharma Science Foundation" and the effect that the research work under reference has not been given any award in the past. Details of work proposed for nomination is described below within brief form:

Citation Summary: As per the Instructions of Sun Pharma Science Foundation for Application: Entire Presented Work of Amit Mishra Was Performed in India:

Research Work Applied for Sun Pharma Research Fellowship: Prof. Amit Mishra has done significant work in neuronal protein quality control mechanisms of neurodegenerative diseases. This has been achieved by understanding the quality control functions of selective E3 ubiquitin ligases, which barricade extreme defense against misfolded proteins aggregation. His findings provide a better understanding of this innovative concept that can develop new therapeutic targets for Neurodegeneration and Cancer.

Description of Above Presented Research (Entire work was performed in India):

Professor Mishra's innovative research work on selective E3 ubiquitin ligases represents a significant therapeutic outcome in the field of neurodegenerative diseases and aging. His research has unveiled a new concept wherein these ligases serve as the frontline defense mechanism against multifactorial proteostasis failures implicated in these conditions. By elucidating the quality control functions of E3 ubiquitin ligases, Prof. Mishra has provided crucial insights into the molecular pathways involved in misfolded protein recognition and neuronal quality control. This innovative understanding offers the potential for developing novel therapeutic targets aimed at mitigating neurodegeneration and aging-related pathologies. Moreover, Dr. Mishra's studies have demonstrated how E3 ubiquitin ligases, alongside molecular chaperones, play a pivotal role in maintaining overall neuronal homeostasis. "Dr. Mishra has established a new significant concept on selective E3 ubiquitin ligases those can serve as quality control first line of defense ameliorative measures against multifactorial proteostasis failures implicated in neurodegenerative diseases and imperfect aging".

Thanks, and Regards Sincerely Yours

Amit Mishra (Professor, IIT Jodhpur) http://home.iitj.ac.in/~amit/