



॥ नवं हानमयो विहानमयोऽसि ॥

**प्रोफेसर अमित मिश्रा**

**Professor Amit Mishra**

FRSB; FRSM; FMPS; FRLS; FIYBA

MRSB; MRSC; MNASc; MNAMS

NYAS (Bicentennial Ambassador)

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I, Amit Mishra confirm that I have read and understand the nomination information sheet for the *Sun Pharma Research award for the Medical Science (Basic Research) 2023*. 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 award for the Medical Science (Basic Research) 2023*, 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:**

Prof. Amit Mishra has done significant work in neuronal protein quality control mechanisms involved in neurodegenerative diseases. This has been achieved by understanding the quality control functions of selective multifaceted E3 ubiquitin ligases, which barricade extreme defense against misfolded proteins aggregation. His findings provide a clear and better understanding of this innovative concept that can develop new therapeutic targets for neurodegeneration and aging. His studies have helped in clarifying the molecular pathways of misfolded recognition strategies based on E3 Ubiquitin Ligases. Amit's findings enlighten the precise molecular mechanism of E3 ubiquitin ligases and molecular chaperones, their involvement in neuronal quality control pathways, and affect overall neuronal homeostasis. Amit designs a different mechanism to modulate the proteasomal functions that can induce autophagy pathways and serve as the anti-aggregation program of affected cellular proteostasis. Research from his lab proposes that E3 Ubiquitin Ligases can act as the first line of defense against proteostasis failure under different protein conformation conditions. Amit developed an innovative harnessing method of molecular protein quality control system that can inhibit aberrant protein aggregation and deregulated proliferation. His group's significant contributions have substantially added knowledge on the progressing neurobiological approaches against multifactorial challenges in neurodegeneration. Shortly results of our studies may offer the more suitable substitute proteolytic machinery therapeutic strategies to balance the proteostasis for the defective events specifically linked with late-onset neurodegenerative diseases and aging.

**As Per The Instructions of Application: Entire Presented Work of Amit Mishra Was Performed In India:**

"Prof. 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