Nomination of Prof. Amit Mishra for SUN PHARMA SCIENCE FOUNDATION
in Medical Sciences under Basic Research Category

Contributions of the nominee: Entire Presented Work of Amit Mishra was Performed in India

Prof. Amit Mishra Research Contributions Medical Sciences under Basic Research

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. Amits 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.

Prof. Mishra has published more than one hundred five high-quality publications, several of those being selected as Cover Page of International Journals. SERB India, DBT India, BRNS/BARC, DST-JSPS, NSA-JSPS, and DST awarded him crucial research projects. Well-recognized national and International scientific organizations have recognized Amit's research contributions and bestowed different Honors/Awards/fellowships. His research has gathered attention from various Academic & Research bodies e.g., CSIR, IITs, MHRD, ICMR, DBT, DST, SERB, BRNS/BARC, INSA, NASI, ISCA, INYAS, IABS, BRSI, NAMS, JSPS, Max Planck, RIKEN, RSC, RSB, NYAS, IGC, and IAN. Based on his vital contributions, Prof. Mishra commands a respectable position in the area of protein misfolding research and is considered a leader in the field at such a young age. Taken together all the above achievements and significant research contributions of Prof. Mishra , I highly recommend him for consideration for SUN PHARMA SCIENCE FOUNDATION in Medical Sciences under Basic Research Category. Please feel free to ask me any questions in this regard.

Sincerely Yours

Mitali Mukerji

[Signature]
Mitali Mukerji, PhD, FASc, FNASc
Professor and Head, Department of Bioscience & Bioengineering
Faculty, School of Artificial Intelligence and Data Science (AIDE)
Indian Institute of Technology Jodhpur
NH 62, Karwar, Rajasthan 342037
&
Adjunct Prof Academy of Scientific and Innovative Research (AcSIR)
Email: mitali@iitj.ac.in

प्रमुख / Head
जैव विज्ञान एवं जैव अभियांत्रिकी विभाग
Department of Bioscience and Bioengineering
भारतीय प्रौद्योगिकी संस्थान, जोधपुर
Indian Institute of Technology Jodhpur
राष्ट्रीय राजमार्ग-62, भाकर खेड़ा, करवर, जोधपुर-342030
N.H.-62, Nagaur Road, Karwar, Jodhpur-342030

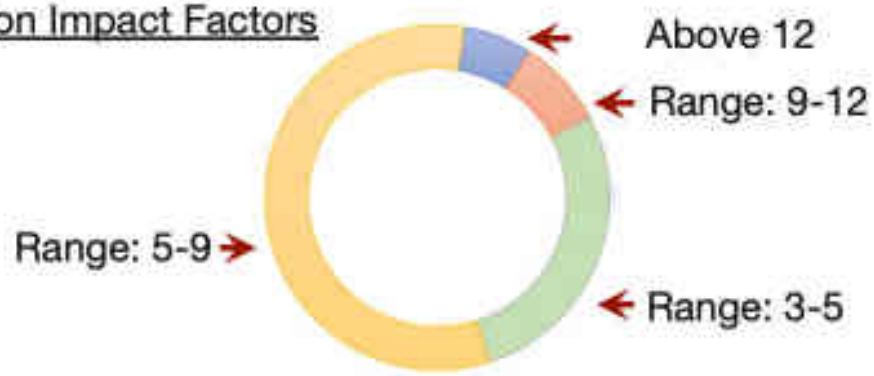
Citation on the Research Work of the Applicant:

Publications:
136 International Publications
Cumulative Impact Factor: Above than **825**
Average Impact factor: **6.03**
Citations: **17185**

H Index: **33**
I Index: **83**

Google Scholar

Publication Impact Factors



Selective HIGH STANDARD CLASSICAL Publications

Journal of Biological Chemistry (JBC)	ACS Chemical Neuroscience
Molecular Neurobiology	Cancers
Neurobiology of Disease	Journal of Cellular Physiology
Progress in Neurobiology	The Neuroscientist
Biological Reviews	Journal of Cellular Biochemistry
Scientific Reports (Nature Publishing Group)	Cellular Signalling
Neurobiology of Aging	Drug Metabolism Review
Journal of Neurochemistry	Mechanism of Ageing & Development
Cellular and Molecular Life Sciences	Acta Neuropathologica Communication
BBA Molecular Basis of Diseases	Neurochemistry International
Ageing Research Reviews	Journal of Biological Macromolecules
Neurotoxicity Research	ACS Chemical Biology
Biochemical and Biophysical Research	Advance Medicinal Chemistry
Medicinal Research Review	Biochemical Journal
Autophagy	Neurochemical Research
Genes & Diseases	BBA General Subjects

The research output of the Prof. Amit Mishra research at IIT Jodhpur is a testament to its commitment to excellence and innovation. With over 135 high-quality papers published in reputable journals and garnering more than 17,100 citations, our lab's contributions have significantly advanced the frontiers of bioscience and bioengineering. These publications, characterized by their high impact factors, demonstrate the depth and breadth of our research endeavours. The substantial number of citations reflects the relevance and significance of our research findings within the scientific community. By disseminating our discoveries and insights, we have not only expanded the body of knowledge but also inspired further research and innovation in related areas. Our lab's impressive publication record underscores the expertise, dedication, and collaborative spirit of our faculty members, researchers, and students. Through rigorous experimentation, meticulous analysis, and creative problem-solving, we have tackled complex challenges and generated impactful results that have the potential to shape the future of neuroscience. As we continue to push the boundaries of scientific exploration and strive for excellence in our research endeavours, we remain committed to upholding the highest standards of academic integrity, rigor, and innovation. We aim to contribute meaningfully to the advancement of science and technology, making a positive and lasting impact on society at large.

Date: 07-August-2024