


Profile of the Faculty Member

1.	Name of the Faculty member	Surajit Ganguly	
2.	Designation	Principal Investigator	
3.	Qualifications	PhD	
4.	State of Domicile	Delhi	
5.	Department & School	Department of Molecular Medicine, School of Interdisciplinary Studies and Technology.	
6.	Details of Courses taught	<p>* MSc in Biomedical Sciences (Dept of Molecular Medicine, SIST) – Course Co-ordinator</p> <p>* MSc in Biomedical Sciences (Dept of Molecular Medicine, SIST) – BMS 102 and 103</p> <p>* MSc in Biomedical Sciences (Dept of Molecular Medicine, SIST) – BMS 202, 203 and 205</p> <p>* MSc in Biomedical Sciences (Dept of Molecular Medicine, SIST) – BMS 302 and 305</p> <p>* Pharmaceutical Biotechnology (SPER), Jamia Hamdard – Microbiol and Cellular Biology, MBP-102 and Advanced Pharmaceutical Biotechnology MBP-104</p> <p>* Pharmaceutical Biotechnology (SPER), Jamia Hamdard – Immunotechnology, MBP 202T</p> <p>* Molecular and Cellular Basis of Toxicology. Semester 1- course 102 (4 credits) - Toxicology Department – Jamia Hamdard – 2016 - 2018.</p> <p>* 3rd Year MSc – Course on Molecular Biology in Medical Physiology, HMSR, Jamia Hamdard. 2019</p> <p>* Guest Faculty at SERB School in Chronobiology III (20th June – 3rd July 2012) at the department of Zoology, NE Hill University, Shillong, Meghalaya (DST sponsored).</p> <p>* Guest Faculty at SERB International School in Chronobiology 01-14 October 2011 at Department of Zoology, CCS</p>	

		<p>University, Meerut, UP (sponsored by DST, Govt of India).</p> <p>* Taught a graduate course (June, 2004) on Neurosciences. Title: “Circadian Gene Expression in the Brain” co-organized by NIH, USA and <i>Graduate School of Neuroscience</i>, University of Copenhagen, Denmark.</p> <p>* Taught Microarray technique at Affymetrix Microarray Workshop, Airlie, Virginia (Jan 13-14, 2003).</p>
7.	Research Thrust Areas	Genesis of neuropsychiatric and neurodegenerative disorders: Cross talk between Infection, Immune system and brain cells to address mechanistic cues in disruption of neurogenesis; Impact of viral (like SARS-CoV-2) and bacterial infection cues on neuronal stem-cell fate determination.
8.	Emails	Surajit.ganguly@jamiahamdard.ac.in drgangulys@gmail.com (personal)
PUBLICATIONS		
9.	Publications in peer reviewed National & International journals, Citations, H-index	<p>For Publications Profile view at:</p> <p>Google Scholar: https://scholar.google.co.in/citations?user=UzSiVBcAAAAJ&hl=en</p> <p>https://orcid.org/0000-0002-1876-9147</p> <p>Career Average Publication Impact Factor – about 6.0. Published in Cell, PNAS, Nature Structural Biology, JBC, Neuropharmacology, and more.</p>
BOOKS & BOOK CHAPTERS PUBLISHED		
10.	Number of Book Chapters in Edited books of International Publishers	S Ganguly#, DC Klein (2017) The Timezyme and Melatonin: Essential Elements of Vertebrate Timekeeping In Biological Timekeeping: Clocks, Rhythms and Behaviour (Springer India; Vinod Kumar ed), pp 503-520. # Corresponding Author.
RESEARCH GRANTS AND CONSULTANCY PROJECTS		
11.	Number of research grants from govt. funding agencies as PI/Coordinator	<p>In last 10 years:</p> <ol style="list-style-type: none"> 1. Indian Council of Medical Research (ICMR), Proposal ID:2020-0762, PI- Surajit Ganguly, Co-PI - Sudeshna Kar; 2021-2024; INR 49.3 Lakhs. 2. Department of Biotechnology (DBT), Government of India, project number: BT/PR41989/MED/29/1558/2021- reg. PI-Surajit Ganguly, INR 23.6 lakhs, 2021-22

		<p>3. Science & Engineering Research Board SERB; File No. EMR/2017/002311; PI – Surajit Ganguly INR 57.6 lakhs; 2018 - 21.</p> <p>4. DHR-Government of India (Project Number DHR/HRD/SUG-15/2015-16; PI – Surajit Ganguly) Rs 30 lakhs; Duration 2016 - 19).</p> <p>5. Department of Biotechnology (DBT), Government of India, project number: BT/PR11062/Med/10/124/208 (PI - Surajit Ganguly; Palit, CDRI, Lucknow - CoPI). December 2009- December 2013 (Rs 38 lakhs)</p> <p>6. Department of Science & Technology (DST), Government of India, project number: D.O. No. SR/SO/HS-01/2009; (PI - Surajit Ganguly; Co-PI- Dubey, PGIMER, Chandigarh) September 2011- March 2015 Rs 43 Lakhs;</p>
12.	Number of research grants from govt. funding agencies as Co-PI	<p>In the last 10 years:</p> <p>1. SERB (EMR/2017/002311) PI- Sudeshna Kar; INR 67.16 lakhs. Nov 2018 – Nov 2021</p> <p>2. DBT (BT/PR5478/BRB/10/1078/2012) PI – Sureshna Kar ; INR – 48.758 lakhs December, 2014 – December, 2017)</p>
13.	Number of consultancy projects	<p>Consultant Principal Investigator for TCG Lifesciences, Kolkata in CSIR-NMTLI research project on “Head and Neck Cancer,” funded by Council of Scientific and Industrial Research, Government of India (Collaborators: IICB, Kolkata, TCGLS, Kolkata and Prince Ally Khan Hospital, Mumbai). Total funding INR 10.99 crores 2011-2016.</p>
RESEARCH SUPERVISION		
As Supervisor		
14.	Number of Ph.D. Guided	4
15.	Number of Master's theses/dissertations Guided	12
PATENTS		
16.	Number of Patents Applied for	1 National and International
PRESENTATIONS IN CONFERENCES AS SPEAKER/ RESOURCE PERSON		
17.	Number of presentations in National or International Conferences in India	Only significant Invited Lectures/Chaired session of International repute:

		<ul style="list-style-type: none"> * Invited Popular Lecture at Indian Institute of Engineering Science and Technology, Shibpur (IEST Shibpur) – 26 December 2017. * Chaired session “Current Barrier and Directions in Liver Cancer using NGS” at IASLPDC, New Delhi, Nov17, 2013 (Organized by ILBS, Delhi) * Chaired Session in International Congress on Chronobiology –ICC 2012, Organized by Delhi University; Oct 3-7, 2012. * Chaired sessions and Plenary Speaker at the XXII National Symposium on Chronobiology, March, 15-17, 2011, Kurukshetra University, Kurukshetra, India. * Invited to speak at Taconic, Rockville, Maryland, USA. March 22, 2007. * Invited speaker at “Mast Cell Research Interest Group” meeting at NIH, Bethesda MD, USA. Feb 20, 2007. * Invited speaker at National Brain Research Centre, Manesar, Haryana, India, December 22, 2006. * Invited speaker course at Haverford College, Haverford, Pennsylvania, USA; “14-3-3 protein and neurodegeneration” on September (Fall session), 2006. *Invited speaker at Division of Therapeutic Proteins, CDER, FDA, Bethesda, MD, USA; July 15, 2005. * Invited speaker at Pineal Cell Biology Gordon Research Conference, Queens College, Oxford, U.K., Aug 29- Sept 3, 2004. * Invited Speaker at Pineal Cell Biology Gordon Research Conference in Ventura, California, USA, February 10, 2002. * Invited lecture at AANAT International Workshop conducted by NICHD, NIH at Airlie, Virginia, USA, May 2001.
NATIONAL AWARDS, HONOURS AND FELLOWSHIPS RECEIVED		
18.	<ul style="list-style-type: none"> • Prof. B Uvnas Prize (Gold Medal) from the Indian Pharmacological Society Dec 24, 2014. • Award of Research Fellowship (JRF and SRF) from CSIR to conduct Doctoral research in India -1992 onwards. 	

INTERNATIONAL AWARDS, HONOURS AND FELLOWSHIPS RECEIVED	
19.	<ul style="list-style-type: none"> • DHR/ICMR award for short-term fellowship (2014-15) for Collaborative Genomics studies using Next-Generation sequencing at NIH, USA. • Award of Merit for “Productivity and Cutting-edge Research” related to contribution in Melatonin biology, Oct 31, 2002, by United States Public Health Services, National Institutes of Health, Maryland, USA. • Award of Post-Doctoral research Fogarty International fellowship at NIH, Maryland, USA., Nov, 1998. • Award of NIH-funded Research Associateship at Cardinal Bernadin Cancer Center, Loyola University, Chicago, USA; Feb, 1998.
STAFF DEVELOPMENT/REFRESHER/SHORT TERM TRAINING PROGRAMME/WEBINARS ORGANIZED	
20.	<p>1. Faculty Development Programme on Teaching Learning Methodology and Classroom Management; November 30 to December 1, 2017 at Jamia Hamdard.</p> <p>2. The Foundation For Advanced Education in the Sciences (USA) training in BioTech 56: RNA-Seq; March 16-20, 2015; 35 Lectures/Lab hours</p>
MEMBER(S) OF NATIONAL COMMITTEES	
21.	Indian Society for Chronobiology – Life member; Indian Academy of Neurosciences
MEMBER(S) OF INTERNATIONAL COMMITTEES	
22.	International Society for Neurochemistry; 14-3-3 protein Interest Group at NIH – Former Coordinator (2004-2007)
ANY OTHER	
23.	<p>Research Statement:</p> <p>I am a Scientist at Department of Molecular Medicine in Jamia Hamdard with over 23 years (post-PhD) of experience in the field of molecular and cellular Neurosciences. Working with Dr. David Klein at NIH, Bethesda USA, we identified the post-translational cellular mechanism of serotonin acetylation in higher mammals, including humans, which is still considered to be the primary mechanism driving daily rhythm in melatonin production with high nighttime values. This was a very significant contribution in circadian biology which lead to several high impact publications and a prestigious Award of Merit from the US Public Health Service at National Institute of Health (NIH), Bethesda, Maryland. After a very successful post-doctoral tenure at NIH, I continued there as a Staff Scientist before accepting a Research Faculty position at Johns Hopkins Medical Center, Baltimore. On relocating to India, successfully ran a research program at Institute of Molecular Medicine in a private-public partnership mode.</p> <p>Currently, the central thrust of my laboratory at the department of Molecular Medicine is to understand how pathogens via neuro-immune interactions modulate neuronal functions</p>

in brain, particularly in the hippocampus. To address this question, we have identified traditional bacterial commensals like *S. aureus* or dreaded viral pathogens like SARS-CoV-2 to play a direct role in driving epigenetic changes leading to suppression of Dopamine and serotonin synthesis in brain. We are also on the verge of unraveling the mechanism and significance of the serotonin suppression in the context of neurogenesis in the hippocampus. In another converging line of research, we have identified an acetate donor compound which acts epigenetic modifier and using that modifier as a tool we are trying to understand the role of histone acetylation landscape associated with core behavioral phenotypes related to psychiatric disorder. My collaborators are from premiere institutes like NBRC, THSTI (Faridabad), CDRI, IICB, MDC Berlin, University of Copenhagen and Uniformed Services University, Maryland.

As a passionate scientist, I prefer quality to quantity and that is reflected in selective high impact publications in my career. I take pride in training Fellows and Post-Docs in the lab so that they can withstand the rigors of modern day cutting edge science in any research program in the world. So, ambitious young researchers are all welcome to contact me for research opportunities in my lab.

