Aman Sharma

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Educational Qualifications

2023 - present	Ph.D. (Biochemistry & Cell Biology) Pucadyil Lab, Department of Biology, IISER Pune
2020 - 2023	MS (Biological Science), Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) Bangalore, India
2017 - 2020	B.Sc. (Life Science), First Class, Acharya Narendra Dev College, University of Delhi, Delhi, India

Meetings and Workshops

Participation

2024	TNQ Distinguished Lectures in the Life Sciences, Prof. David Julius, TIFR Bombay, India
2023	Certificate course on 'Introduction to Effective Teaching – Learning', IISER Pune, India
2023	Bio-Imaging workshop, MBGU, JNCASR Bangalore, India
2022	EMBO conference "Molecular and physiological basis of behavioural/cognitive defects in Neurodevelopmental disorders", JNCASR Bangalore, India

Accolades and Positions of Responsibility

Academic

2024	Research Fellowship Award (DBT-JRF/SRF), Department of Biotechnology, Govt. of India.
2023	Joint Graduate Entrance Examination for Biology and Interdisciplinary Life Sciences (JGEEBILS), NCBS, India
2023	ACTREC JRF (AIR 12), ACTREC, India
2020	GATE Life Science (AIR 309), IIT Bombay, India
2020	IIT JAM (94.4 percentile)

Extra-curricular

2018	Best Speaker award, Inter-college competitions, University of Delhi, India
2017	Participation, Google Science Fair
2017	Winner, National Science Fair, Regional Science fair and National Science Exhibition, Directorate of education, Govt. of India

Teaching Experience

2025 Advance Biochemistry II (4 credit graduate course)
(Led interactive tutorials, set papers & evaluated grades, with Prof. Thomas Pucadyil and Prof. Amrita Hazre)

2024 Introductory Biology (4 credit undergraduate course)
(Led interactive tutorials, set papers & evaluated grades, with Prof. Nagaraj Balasubramanian and Prof. Kundan Sen Gupta)

Research Experience

2018 Mitochondrial AAA+ proteases AFG3L2 and YME1L regulate Drosophila hematopoiesis through ROS-mediated control of signaling pathways.
(In preparation, with Rajarshi Batabyal, and Prof. Maneesha S. Inamdar, JNCASR Bangalore, India)

Laboratory Experience

Cell & Molecular Biology: DNA isolation, PCR based restriction-free cloning, Experience with culturing embryonic stem cells on feeder cells & various secondary cells, Transfections, Transductions, Examining organellar morphology & physiology, CRISPR, FACS.
Biochemistry: Protein purification, Spectrophotometry & Colorimetry, Lipid-protein biochemistry, Protein labelling, Western Blotting, Immunoprecipitation, Chromatography (Affinity, size-exclusion, ion-exchange, FPLC, TLC).
Membrane Biochemistry: Model membranes -Supported lipid bilayers & nanotubes, Dot-blots.
Microscopy: Live- & fixed-cell imaging using bright field, DIC, epifluorescence (Olympus IX 71 & IX 83) and confocal microscopy (Zeiss LSM 710, Leica SP8).
Model systems: Basic maintenance of bacteria, D. *melanogaster* (genetic crosses, embryo immunolabelling).
Data Analysis: Image analysis - ImageJ/Fiji, Data analysis - GraphPad Prism.

Bioinformatics: Alphafold, UniProt, NCBI, SnapGene and Expasy.
Technical Aptitude: MacOS and Windows; Proficient in - Microsoft Office and iWork, BioRender, Mendeley, Zotero, Papers, Zoom, Google Meet.
Communication: Scientific writing and illustration, Collaborative and interactive work ethic, Languages - English, Hindi.

Coursework background

Credited Courses: Basic & Advanced Cell Biology, Basic & Advanced Molecular Biology, Basic & Advanced Biochemistry, Neurobiology, Genetics & Genomics, Immunology, Developmental Biology, Animal physiology, Biotechnology, Environmental Studies, Basic Chemistry, Mathematics and Statistics, Technical Writing & Communication in English, Computational skills, Scientific writing and literature review.