Priya Srivastava, PhD

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Education

Doctor of Philosophy (PhD) in Biochemistry | 2019-2023 | University of Manchester, UK

Award: Presidents doctoral scholarship (PDS)- The PDS Award is given to outstanding students from around the world a foundation to support research training with prominent academics.

Project: Investigating role of SIf1 an RNA binding protein in translation control during oxidative stress in yeast under guidance of Prof. Graham Pavitt, and Dr. Martin Pool

Publication: Srivastava P*, Jennings MD, Kershaw CJ, Talavera D, Grant CM, Pavitt GD. Interaction of the La-related protein SIf1 with colliding ribosomes maintains translation of oxidative-stress responsive mRNAs. Nucleic Acids Res. 2023 Jun 23;51(11):5755-5773. doi: 10.1093/nar/gkad272.

Integrated Bachelors and Master of Science in Biotechnology | 2019 | Gautam Buddha University, India

Award: Passed with Distinction and Gold medal award **List of modules**: Molecular Biology, Biochemistry, Cell Biology, Pharmacology, Biotechnology Techniques, Organic Chemistry, Toxicology, bioanalytical techniques.

Experience

Research Intern | National Institute of Biologicals, Government of India |2016

- Executed quality control evaluations for various types of Blood Grouping Reagents in compliance with the standards set for safe and effective blood transfusion by the Government of India.
- Contributed to the notified Central Medical Device Testing Laboratory (CMDTL) status, highlighting commitment to quality control and adherence to regulatory guidelines.

Research Fellow | North-eastern Hill University, India | 2017

 Performed Genetic Diversity Analysis through DNA Polymorphism in Citrus Medica at Department of Biotechnology and Bioinformatics.

Research Scholar | The Ohio State University, USA | 2018

- Two months summer research project on unraveling the critical role of RNA splicing endonucleases in tRNA maturation in Prof Juan Alfonzo's RNA Biology Lab.
- Mastered a diverse range of laboratory techniques, including Western blotting, northern blotting, and the Trypanosoma brucei cell culture, cell counting and growth assays.
- Conducted multiple sequence alignments of endonuclease subunit sequences in different eukaryotes and the determined of conserved amino acids for the construction of mutants.

Research Project at Regional Centre for Biotechnology, India| 2019

- Led a rigorous six-month research project focused on studying gene regulation mechanisms involved in biofilm formation within Pseudomonas aeruginosa in Dr. Deepti Jain's transcription lab.
- Employed protein purification methods SDS PAGE, western blot and advanced structural biology techniques, including HPLC and X-ray crystallography, to gain in-depth insights into the molecular basis of biofilm formation.

Extracurricular Activities

Graduate Teaching Assistant

- Developed and implemented innovative teaching methods, adapting to diverse student learning styles, resulting in improved student engagement, and understanding.
- Employed problem-solving skills to address students concerns, fostering a positive and inclusive learning environment.

ResLife Student Advisor Experience

- Acted as a primary point of contact for students facing personal, academic, or residential challenges, applying effective problem-solving skills to offer solutions and support.
- Event management and social media promotion for 8 successful events

Head of Postgrad students-led Team for PGR Wellbeing community

- Led a team of postgraduate research (PGR) students called Anything but research (AbR), providing funding for wellbeing activities at the University of Manchester.
- Collaborated with MDC and University of Manchester for funding projects, and managed social media and increased reach to up to 80%

LEAF Green Lab Champion and Sustainability Communication Team Member

• Spearheaded Laboratory Efficiency Assessment Framework (LEAF) collaboration initiatives within the Molecular and Cellular Function team, fostering cross-functional communication and teamwork.

Owner of LinkedIn page "Everything RNA"

• Decimating knowledge, resources, research related to vaccine development and delivery, latest technology, and breakthroughs.

Skills & Abilities

Molecular Biology Techniques

 Proficient in a wide range of molecular biology techniques including cell culture, cloning, PCR, qRT-PCR, gel electrophoresis, and Western blotting, immunoprecipitation, DNA and RNA extraction and quantification, polysome profiling.

Protein Expression and Purification

• Skilled in the design and execution of recombinant protein expression and purification methods, ensuring high-quality yields.

Assay Development

- Knowledgeable in the creation of robust assays for high-throughput screening and biochemical analyses, contributing to effective protocol development for DNA, RNA, ribosome, protein analysis.
- Cell proliferation assay, biochemical assay like Phosphorylation assay, ubiquitination assay, Dual luciferase assay

Data Analysis

• Proficient in data interpretation using advanced tools such as Excel, GraphPad Prism, R language enhancing accuracy and decision-making.

Bioinformatics Skills

• Proficient in utilizing bioinformatics tools for tasks such as BLAST and sequence alignments, Nextgeneration sequencing mapping, and protein visualization using tools like Chimera and PyMol.

Project Collaboration

• Demonstrated cross-functional collaboration skills by effectively collaborating with lab colleagues and external researchers on the development of PhD and master's projects.

Problem-Solving and Critical Thinking

• Utilized tools like Mind the Graph and applied critical thinking skills to resolve complex scientific challenges encountered during research.

Time Management and Organization

 Efficiently managed research tasks using tools such as Benchling, Evernote, Google Calendar, and Toggle, ensuring optimal time utilization and project prioritization.

Team Collaboration

Engaged in successful teamwork within the laboratory environment, contributing to the development and execution of collaborative research projects.

Conference presentation and Science communications

Effective communication skills developed through regular presentations, blogs, and scientific writing, enabling clear conveyance of complex concepts.

- Speaker at Protein quality control: From molecular mechanisms to therapeutic intervention, Croatia, EMBO workshop, 2023
- Poster presentation at Translation UK Cambridge 2023
- Published Blog on research hive University of Manchester, 2023
- Molecular and cellular function Lab meetings 2020, 2021, 2022, 2023
- Science Week Outreach program: "Women in Science" at Altrincham Grammar School for Girls, 2022
- Speaker at translation control Cold Spring Harbor Laboratories, New York, USA, 2022
- Speaker at Translation UK, Biochemical Society, 2021 and 2022
- Speaker at Young Scientist Symposium on Protein Quality Control 2021 by ETH Zurich, 2021
- 3min flash talk at School of Biological Sciences annual celebration at Manchester 2021
- Semifinalist 3MT thesis at the University of Manchester, 2021
- Participant at RNA biology cover page Art competition Special Edition, 2020
- PhD data presentation at MCF Seminar Series at the University of Manchester, 2020
- Created "The Pseudo Magazine Cover" from lab glove box, Royal Society of Biology, 2019
- Manage and curate content for "Everything RNA" LinkedIn page, "LabIlamalies" Instagram page covering science updates, lab sustainability, and women in STEM.

Awards

- Associate Fellow of Advance HE against the UK Professional Standards Framework for in recognition of attainment teaching and learning support in higher education, 2023
- Travel grant from European Molecular Biology Organization (EMBO) ,2023
- Travel grant from MRC toxicology to attend Translation UK Cambridge ,2023
- RNart contest Winner at Toronto RNA Enthusiasts Day (TREnD) 2022
- Highly commended in Contribution to PGR environment at the University of Manchester, 2022
- Indian Academies Summer Research Fellowship, 2017
- Khorana Scholarship by Indo-U.S. Science and Technology Forum (IUSSTF), 2019
- Merit Scholarship and distinction in Masters, Gautam Buddha University, 2019
- MFPL, Vienna biocentre PhD scholarship award, 2019
- NSERC CREATE RNA Innovation award, Canada, 2019
- Presidents Doctoral Award at the University of Manchester, 2019

Trainings and Certification

- Workshop on Drug Target Identification and Validation | Bioinformatics Trainee at SCFbio at Indian Institute of Technology, Delhi
- Word Essential Training (Office 365/Microsoft 365)| LinkedIn Learning
- Sustainability in research labs| University of Manchester
- Project Management for Researchers | University of Manchester
- R for Biochemist| Biochemical Society
- Essentials of Leadership | University of Manchester
- Project Management for Researchers | University of Manchester
- Introduction to RNA Therapeutics Certification | CPI RNA Centre of Excellence
- Sygnature Discovery's Bioscience Workshop for outstanding PhD and postdocs