

KRITI GUPTA

C-1/1003/Akash Enclave, Lucknow, India
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Education

Master of Science: Biochemistry <i>Maharaja Sayajirao University of Baroda GPA:7.67</i>	Oct. 2021-May 2023 <i>Vadodara</i>
Bachelor of Science: Biochemistry(H) <i>Sri Venkateswara College, University of Delhi CGPA:8.82</i>	July 2018-May 2021 <i>New Delhi</i>
Secondary School Examination <i>City Montessori School 95.25%</i>	April 2016-May 2017 <i>Lucknow</i>
Higher Secondary Examination <i>City Montessori School 95%</i>	April 2014-May 2015 <i>Lucknow</i>

Research Experience

Thesis: Study of Bioenergetics of Liver In Polycystic Ovarian Syndrome Rat Model <i>Dissertation under under Dr Laxmipriya Nampoothiri</i>	July'22-May'23 <i>Vadodara</i>
<ul style="list-style-type: none">Developed PCOS rat model by letrozole administration using oral tube feed method, performed orbital sinus method of blood collection, dissection and extraction of organs.Conducted Oral Glucose Tolerance Test to compare the processing level of Glucose in PCOS and normal rats.Examined the activity of mitochondrial Electron Transport Chain complexes to assess the alteration in ATP generation in PCOS.Analyzed the alteration in gene expression related to mitochondrial biogenesis in the liver.Performed Western Blot to check the difference in steroid receptors expression in PCOS v normal rats.	

Professional Development Training

JRF at Banaras Hindu University <i>Intern under Dr Ajay Kumar</i>	Sept 2024-Present <i>Varanasi</i>
<ul style="list-style-type: none">Understanding the role of find me and do not eat me signals in the development and progression of T cell lymphoma	
Volunteer at AIIMS, New Delhi <i>Intern under Dr Archana Singh</i>	Aug 2023-May 2024 <i>New Delhi</i>
<ul style="list-style-type: none">Learnt basics of techniques like Transmission Electron Microscopy, Liquid Chromatography- Mass Spectroscopy, Seahorse XF technology, Real time PCR.	
Workshop at International center for Stem cell, Cancer and Biotechnology <i>Intern under Dr Sheo Mohan Singh</i>	July 2023 – July 2023 <i>New Delhi</i>
<ul style="list-style-type: none">Worked with Jurkat and 293T cell lines, learnt animal culture techniques such as seeding, passaging, cryopreservation, Media formulation and MTT assay.Conducted molecular biology techniques such as PCR , DNA and plasmid isolation, RNA extraction from cells.Performed restriction enzyme digestion, ligation , transformation and prepared competent cells.Extracted proteins from cell lines, performed SDS-PAGE and Western Blotting.	
Proteomics Advanced Winter School(Online) <i>Prof Sanjeeva Srivastava</i>	Nov 2021 <i>IIT Bombay</i>
<ul style="list-style-type: none">Acquired in depth knowledge about X-ray Crystallography and Nuclear Magnetic Resonance during the proteomics advanced Winter school organized by IIT Bombay.	
SRI VIPRA(Online) <i>Intern under Dr Vandana Malhotra</i>	June 2020-Aug 2020 <i>New Delhi</i>
<ul style="list-style-type: none">Learnt various techniques like PCR, Cloning, Agarose Gel Electrophoresis, Transformation, and Colony PCR.Analysed Mycobacterium tuberculosis signal transduction system, protein-protein interaction using various bioinformatics tools such as TubercuList, STRING.Designed full-length primers for amplification of the pknD gene and analyzed using the Oligoanalyzer tool.	

- * Explored different gene editing tools i.e CRISPR-Cas9 , TALENs , Zinc Finger Nucleases.
- * Trained in various bioinformatics tools like Ensembl, BLAT, BLAST, ClustalW, etc.

Technical Skills

Animal Handling: Well equipped with the handling of rats, dissection, performing orbital sinus for blood collection from eyes, intraperitoneal and intramuscular mode of injection, oral tube feeding

Molecular Biology: Primer designing, Polymerase Chain Reaction, RNA isolation, Genomic DNA isolation, Agarose Gel Electrophoresis, Plasmid isolation, Preparation of Competent cells

Protein Chemistry: SDS PAGE, Western blotting, Affinity chromatography, Gel Electrophoresis

Biophysical Techniques: UV/Vis Spectrophotometer, Ultracentrifugation, Nanodrop

General Microbiology: Preparation of culture media, Bacterial growth kinetics, Streaking and spreading

Immunological Techniques: ELISA

Bioinformatics Skills: SnapGene, BLAST, Jmol, Clustal omega, DNA sequence analysis, Protein Sequence Analysis, Protein Structure visualization, Gene cloning

Cell Culture: Seeding, passaging, thawing, cryopreservation, Cell line expansion and maintenance, Media formulation, Contamination identification and prevention, MTT Assay

Visualising Softwares: ImageJ and prism

Leadership/ Extracellular

QUALIFIED CSIR-NET 2023 with rank of 39

QUALIFIED GATE 2024 with rank of 660

TREASURER: Of CATALYSIS, the Biochemical Society of Sri Venkateswara College. Managed team of 4 members and ran monthly meetings to oversee the resources.

ORGANIZER: Member of the organizing committee for MINDSPAR and VISTAAR organized by Sri Venkateswara College.

CERTIFICATE COURSES: Completed 6 month certificate course in Ayurbiology and Intellectual Properties Rights.