

Kumari Kripalata
Asst. Professor (*Adhoc*)
Dep. Of Biotechnology
GGV, Central University Bilaspur (CG)



Female, 32(DOB-19th August, 1981), single, language Known-English, Hindi.
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EDUCATIONAL BACKGROUND

National level Exams	ICAR-2006, All India Combined Entrance examination for M.Sc. in Plant Biotechnology.
	ICMR-2008, Indian Council of Medical Research examination for Junior Research Fellowship
	CSIR-2008, Council of Scientific and Industrial research examination for Junior Research Fellowship
	GATE-2008, Percentile-93
Current Status	Pursuing Ph.D from CSIR-Central Drug Research Institute (CSIR-CDRI), Lucknow (Div. of Microbiology)

EDUCATIONAL QUALIFICATION

Ph.D (continued, 5th year) from CSIR-CDRI, Lucknow U.P. (2009-2013)

Title of work: Studies on the sigma factor SigH1, a SigH paralog in *M. smegmatis*.

M. Smegmatis is a highly attractive surrogate host for the analysis of *M. tuberculosis* gene regulation possesses twice the number of sigma factors that are present in *M. tuberculosis*, and eight orthologs of *M. tb* SigH . SigH, an alternative sigma factor, contributes to virulence in *M. tuberculosis* and is a key regulator of an extensive transcriptional network that responds to oxidative, nitrosative and heat shock stress in mycobacteria. SigH1 shares highest level of similarity (78%) with both *M. tuberculosis* and *M. smegmatis* SigH protein, and, therefore, was chosen for study. SigH1 expression increases in the late stages of growth and it involves in the antibiotic regulation in *M. smegmatis*.

M.Sc. Biochemistry from AAIDU, Allahabad U.P. (2006-2008)

* Admission through I.C.A.R. All India Combined Entrance Examination.

Major Subjects Biochemistry, Microbiology, Genetics, Molecular Biology, Immunology, Tissue Culture, Enzymology, Bioinformatics Computers, Biochemical Techniques, Bio-Statistics etc.

M.Sc. Thesis: **Bulk Segregant Analysis for Identification of DNA Markers Linked to Leaf Size Trait in *Catharanthus*.**
Leaf size simultaneously is a qualitative and quantitative trait, expected to be determined by one to several genes. The purpose of my study was to find out the DNA markers that may be linked or lie close to one or more genes that contribute to the leaf size significantly.

B.Sc. Biotechnology from B. N. College, Patna University, Patna (BIHAR) (2003-2006)

Major Subjects Biochemistry, Microbiology, Genetics, Molecular Biology, RDT, Immunology, Biotechnology (Plant, Animal, Environmental), Tissue Culture (Plant, Animal) Math and Computers, EDP, Botany, Chemistry etc.

RESEARCH WORK EXPERIENCE

- Participation in UGC - sponsored short term course on “ How to Write Research Paper and Project Proposals” at GGV, Bilaspur (CG), 2013.
- Four years of extensive research at Division of Microbiology, CSIR-CDRI (2009-2013).
- Five months dissertation under Prof. Sushil Kumar, INSA Senior scientist, at National Institute of Plant Genome Research (NIPGR), New Delhi (2008).
- 15 days training on Cancer at Mahavir Cancer Sansthan, Phulwari sharif-Patna (2006).
- One month training on Production of bacterial or viral vaccine at Institution of Animal Health and Production Bihar, Patna 800014 (2005).
- 15 days training on Cancer at Mahavir Cancer Sansthan, Phulwari sharif-Patna (2004).

TECHNICAL SKILLS

Molecular Biology

- Isolation of DNA (plasmid and genomic)
- Isolation of RNA
- Primer designing, Polymerase Chain Reaction (PCR), Electroporation, Gene cloning (TA cloning, site specific, blunt etc)
- DNA sequencing and sequence analysis
- Recombinant protein expression and protein purification
- Generation of knockout in bacteria
- Transposon Mutagenesis

Microbiology

- Isolation and characterization of different group of microorganisms.
- Staining and microscopy
- Study of Microbial growth Kinetics
- Minimum inhibitory concentration (MIC) determination of antibacterial drugs
- Handling and maintenance of *Mycobacteria* in BACTEC

Immunology

- Raising antisera in rabbit
- Radial immunodiffusion
- Cell counting (RBC, WBC etc)
- ELISA

Plant Tissue Culture

- Micro propagation

Biochemistry

- Estimation and Extraction of Carbohydrate, lipid, protein and nucleic acid
- Enzyme assay (protease, β -galactosidas, luciferase etc)
- Paper chromatography and TLC

Computer proficiency

- Well acquainted with MS office, Photoshop, Paint etc.
 - Well acquainted with different databases like TubercuList, KEGG, Expacy, GenBank etc.
 - Acquaintance with Bioinformatics tools like, BLAST.
 - Working knowledge of several molecular biology software like BioEdit, Annhyb etc.
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CONFERENCE / SYMPOSIA (Abstracts for Posters Presentation)

Kumari Kripalata, Vandana Singh, Debashis Dutta and Bhupendra N. Singh* *Role of M. smegmatis extra cytoplasmic function sigma factor SigH1 in antibiotic stress* at International conferences on “Understanding and managing pathogenic microbes”

IMTECH, Chandigarh, India.

Kumari Kripalata and Bhupendra N. Singh* *Sigma factor sigH1 is required for intrinsic antibiotic resistance in Mycobacterium smegmatis* at International conference on “Stress adaptive response and genome integrity” BARC, Mumbai, India.

Kumari Kripalata, Participate in 5th International Symposium on Drug Development for Orphan/Neglected Diseases at CSIR-Central Drug Research Institute, Lucknow, India.

REFERENCES

Dr. Bhupendra N. Singh

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DECLARATION

I, Kumari Kripalata hereby declare that the information given above is true to the best of my knowledge and belief.

Place: Bilaspur

Kumari Kripalata

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