

# MAMTA METWAL

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## PERSONAL DATA

### **Date of Birth**

30 – 10 - 1987

### **Sex**

Female

### **Nationality**

Indian

### **Marital Status**

Married

### **Languages Known**

- English.
- Hindi
- Kumaoni

## EDUCATIONAL QUALIFICATIONS

### • **Ph. D.:**

**Major:** Molecular Biology & Biotechnology.

**Minor:** Biochemistry & Plant Pathology.

G.B Pant University of Agri. & Tech., Pantnagar, Uttarakhand (2017).

### • **M. Tech.(Biotechnology):**

Uttarakhand Technical University, Dehradun (2011).

### • **B. Tech. (Biotechnology):**

U. P. Technical University, Lucknow, Uttar Pradesh (2008).

## CORE COMPETENCIES

Molecular Biology	Animal Cell Culture	Bio Assays
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## Experience

### ➤ **Senior Associate - R&D (April 2019 – Nov 2019)**

**Catalyst Biotechnologies Pvt Ltd, New Delhi**

- Raw material testing using biochemical assay for new vendor development using reference standards.
- Molecular and protein related wet lab work.
- Efficacy testing, research and commercial field trials of finished goods.
- Preparation of product documents including Specification sheets, Technical sheet & COA.
- Customisation of product formulation according to customer and market requirement.
- Conducted analysis on feed & raw materials : microbiological, proximate analysis and enzymatic assays following QMS practices
- Worked on antimicrobials, enzymes, immune-modulators and probiotics with sales and technical services for product development as per customer requirement.
- SOPs preparation for the customised methods developed for the Laboratory.

### ➤ **Technical Manager (June 2018 - Nov 2018)**

**Amorvet Pvt Ltd, New Delhi**

- Worked for Establishment of start up in market by troubleshooting the customer technical query.
- Provided technical and application support to sales and marketing teams across India.
- Testing the efficacy of product by farm trials.
- Involved in product literature, marketing support material and technical content writing for the magazine.
- Organized Product seminars and training at farmers and doctors Level and has technical visits.

➤ **Senior Research Fellow (Department of Biotechnology Project) (Dec 2016 - May 2018)**

**GBPUA&T Pantnagar, Veterinary Microbiology Department**

- Dealt with epidemiology and phylogenetic analysis, expression, Production and immune potential testing of two recombinant proteins of IBH-HPS virus isolates recovered from natural outbreaks.
- Performed CEL Culture, challenging culture with virus, virus isolation in CEL culture, virus antigens serological test, cell-based bioassay, DNA isolation from infected CEL cells, PCR, RFLP Analysis, Cloning and Sequencing, ORF Analysis, gene expression, Protein expression, Evaluation and validation of immune potential, Poultry trials, immunological functional assays, challenging of SPF chicks with the recombinant protein, Sera preparation from the blood, antibody titre determination.
- Knowledge of PLA and flow cytometry.
- Involved in Purchasing of instruments, glass wares, chemicals and other equipment's of the laboratory
- Presented report of the project as per agreed timelines, and submitted manuscript for Scientific article publication.
- Successfully completed project objective with published research papers and filing patent.
- Interacted and helped the Ph. D and Masters student in their research work.

➤ **Senior Research Fellow (ICAR Project) (June 2016- Nov 2016)**

**VPKAS, Almora, Uttarakhand.**

- Handled tagging process, Nucleic acid analysis for polymorphism studies, screening of the crossed plant sample at larger scale of one season.
- Method development for quality protein molecular analysis
- Coordinating with the internal team members as well as external service suppliers.
- Field visits and report submission and presentation to reviewing committee.

➤ **Project Associate & Research Fellow (Aug 2011 - May 2016)**

**G B Pant University of Agriculture & Technology, Pantnagar, Uttarakhand.**

- Worked on DBT project- Functional genomics for proving the existence of calcium binding proteins in finger millet and facilitating role in calcium uptake under intestinal mimicking environment.
- Responsibility of the Animal cell culture instruments, inventory management and preparation of biologics bioassay laboratory SOPs.
- Performed different primary and secondary cell culture techniques and gastro intestinal in vitro assays
- Used cell immunofluorescence methods including fluorescent microscopic based method for calcium uptake and marker studies,
- Performed Validation of biomarkers through real time PCR.
- Involved in training of molecular, proteomics, animal cell culture, bioinformatics related tools and techniques.
- Protein isolation and Peptides identification and characterization for calcium binding proteins.
- Active participation in Conducting seminars, trainings and conferences and writing protocol manual.
- Collaborating with cross functional team and outsourced labs to achieve the timely completion of the project as per agreed timelines.
- Achieved success in publishing research papers/ peer reviewed articles, chapters and presenting papers/posters in different conferences for best oral and poster presentation
- Worked on various statistical methods and bioinformatics tools.

➤ **Lecturer – Biotechnology & Bioinformatics (Sep 2008- Aug 2009)**

**Department of Biotechnology, SITM, Lucknow, UP**

- Dissertation research work of four B. Tech students was completed under my supervision.
- Literature search and technical scientific evaluation of thesis and lab reports.
- Administrative responsibilities as class teacher and Counselling in admission process.
- Explored writing and verbal skills and experienced drafting technical reports related to project proposal.