

## CURRICULUM VITAE

### **Dr. Preeti Sharma**

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### **Research Interests:**

- Lactic Acid Bacteria for health benefits
- Second generation bioethanol production
- Bioinformatics studies for treatment of infectious diseases
- Bioremediation of fresh water bodies

### **Research Projects:**

- Exploring potentials of probiotic bacteria as a potential source of phytate degrading enzymes and bacteriocin production funded by Department of Biotechnology, Govt. of India
- Molecular Modeling and drug docking studies on Cystathionine beta lyase in pathogenic members of Enterobacteriaceae funded by University Grants Commission (UGC)

### **Publications:**

- Bhagat D, Slathia PS, Raina N, Sharma P. (2017) Functional attributes of lactic acid bacteria isolates in conjunction with most wanted probiotic properties. Proceedings of 5<sup>th</sup> International conference on Advances in Chemical, Biological and Environmental Engineering (ACBEE-17) 275-279.
- **Sharma P**, Raina N, Slathia PS, Katoch M, Bhagat D. (2016) Pretreatment strategies adopted for production of bioethanol from soft wood material of *Shorea robusta* and *Cedrus deodara* tree species. New Biotechnology. 33, Page S69
- Slathia PS, **Sharma P**. (2016) Epitope based DNA vaccine design using epitopes predicted from Zika virus polyprotein. International Journal of Infectious Diseases 53, p149
- **Sharma P**, Slathia PS. (2016) Physico-chemical studies of Devika river and its adjoining water bodies in Udhampur town. Proceedings of Indian Ecological Society- International conference 2016. 1, 67.
- Slathia PS, **Sharma P**. (2014) Analyzing pneumococcal surface protein A (PspA) variability for predicting conserved T cell epitopes and designing conserved epitope based DNA vaccine. Pneumonia. 3,120.
- **Sharma P**, Slathia PS, Somal P, Mehta P. (2012) Biotransformation of cholesterol to 1,4-androstadiene-3,17-dione (ADD) by *Nocardia* species. Annals of Microbiology. 62 (4) 1651-1659

- Slathia PS, **Sharma P.** (2012) Predicting conserved epitopes in the variants of amastin protein of *Leishmania major* and designing an epitope based immunogenic DNA vaccine. International Journal of Infectious Diseases. 16 (1), e314
- Akhoun BA, Slathia PS, **Sharma P**, Gupta SK, Verma V. (2011) In silico identification of novel protective VSG antigens expressed by Trypanosoma brucei and an effort for designing a highly immunogenic DNA vaccine using IL-12 as adjuvant. Microbial Pathogenesis 51(1-2) 77-87.
- Venu Gopal SK, Naik S, Somal P, **Sharma P**, Arjuna A, Hassan RU, Khajuria RK, Qazi GN. (2008) Production of 17-keto androstene steroids by the side chain cleavage of progesterone with *Bacillus sphaericus*. Biocatalysis and Biotransformation 26(4), 272-279.
- Khajuria RK, Bhardwaj V, Gupta RK, **Sharma P**, Somal P, Mehta P, Qazi GN. (2007) Development of a Rapid Normal-Phase LC-Positive Ion APCI-MS Method for Simultaneous Detection and Quantitation of Cholesterol, Androst-4-ene-3, 17-dione, and Androsta-1, 4-diene-3, 17-dione. Journal of chromatographic science 45(8), 519-523.

### **Fellowships & Awards**

- Fellow of Society for Applied Biotechnology
- Travel grant awarded by Department of Science & Technology, Govt. of India

### **Membership of Professional Societies**

- Life Member of European federation of Biotechnology (EFB)
- Life Member of Asian federation of Biotechnology (AFOB)
- Life Member of Biotech research Society of India (BRSI)
- Life Member of Indian Science Congress Association (ISCA)

### **PhD Supervision**

- **Ms. Deepali Bhagat.** Thesis title “Characterization of phytate degrading enzymes from selected probiotic isolates”
- **Ms. Neelu Raina.** Thesis title “A study on bioethanol production using pretreatment and fermentation strategies for sawdust obtained from *Cedrus deodara* (Deodar) and *Shorea robusta* (Sal)”

### **Academic Qualification**

#### **Qualification**

Ph.D  
M.Sc.  
B.Sc.

#### **University**

Dr. H.S. Gaur University  
University of Jammu  
University of Jammu

### **Papers Presented at International Conferences:**

- Phytoremediation of Devika river water using Lemnoideae (Duckweed) at 5<sup>th</sup> International conference on Advances in Chemical, Biological and Environmental Engineering (ACBEE-17) 29-30 March, 2017 at Singapore.

- Physico-chemical studies of Devika river and its adjoining water bodies in Udhampur town at Indian Ecological Society- International conference February, 2016, SKUAST, Jammu.
- Screening for Lactic Acid Bacteria from fermented milk product simulating gut conditions at International Conference on New Horizons in Biotechnology (NHBT-2015) 22-25 November, 2015, Trivandrum, India.
- Preliminary Characterization of a thermotolerant probiotic strain screened for phytase and phosphatase at 15th International Biotechnology Symposium and exhibition. Biotechnology for the sustainability of Human Society 16-21 September, 2012 at Daegu, South Korea.
- Phytase production from lactic acid producing bacteria at International conference on New Horizons in Biotechnology Nov 21-24, 2011, Trivandrum, India.
- Production of 17-ketosteroids using *Nocardia* species with cholesterol as substrate at 14th International Biotechnology Symposium and Exhibition. September, 14-18, 2010, Rimini, Italy.
- *Saccharum munja* a novel source for ethanol production at 14th International Biotechnology Symposium and Exhibition. September, 14-18, 2010, Rimini, Italy.
- Studies on the biotransformation of cholesterol to androsta-1, 4-diene-3, 17-dione (ADD) by *Nocardia* sp in shake flasks at International Conference Microbial Diversity: Current Perspectives and Potential Applications. April 16-18, 2005. New Delhi, India
- Microbial transformation of sterols to C19 steroids by *Nocardia* species at Chemistry Biology Interface: Synergistic New Frontiers. November 21-26, 2004. New Delhi, India.
- Microbial oxidation of sterol side chain by a new strain of Actinomycetes at IUPAC International Conference on "Biodiversity and Natural Products". January 26-31, 2004. New Delhi, India

#### **Papers Presented at National Conferences:**

- Isolation and characterization of phytase enzyme from probiotic strain, an isolate from rice bran presented at National Conference, Biotechnology, Bioinformatics and Bioengineering, 24-25 February, 2012 at Kolhapur.
- Predicting the MHC I and MHC II epitopes in Amastin protein of *Trypanosoma brucei* and designing an immunogenic DNA vaccine at National Symposium on Bioinformatics: Challenges in the post-genomic era. February 2, 2012, Jammu.
- Screening of microorganisms for industrially important enzymes at 3<sup>rd</sup> J&K State Science Congress. February 26-28, 2008, Jammu.
- Bioconversion of sterols and their derivatives into androstane steroids by Actinomycetes at 3<sup>rd</sup> J&K State Science Congress. February 26-28, 2008, Jammu.
- Studies on biotransformation of cholesterol to androsta-1, 4-diene-3, 17-dione (ADD) by *Nocardia* sp. in shake flask at 1<sup>st</sup> J&K State Science Congress. 2005, Jammu.
- Limnobiological studies of Sheetla Mata Temple Spring, near Nagrota (Jammu) with reference to zooplankton at National Seminar on Indian Fisheries: Status & Prospects in relation to Environmental Dynamics, 2001, Jammu.