

## CURRICULUM VITAE

**Dr. Indu Bhushan Sharma**

Assistant Professor,  
Department of Biotechnology,  
Shri Mata Vaishno Devi University,  
Kakrial, Katra, J&K, India. 182320  
Contact No.: +919419320051  
Email:  
indu.bhushan@smvdu.ac.in/[sharmasmvdu92@gmail.com](mailto:sharmasmvdu92@gmail.com)

**Educational Qualification:****Doctor of Philosophy (2008):**

**Ph.D (Biochemistry)** from Kurukshetra University Kurukshetra (Haryana), and Indian Institute of Integrative Medicine (CSIR), Jammu (J&K), India.

**Research Interests:**

- Fermentation and Biotransformation
- Purification and Immobilization of Enzymes

**Scholarships & Awards**

- UGC-Raman Fellowship for Post Doctoral Research in USA 2015-16.
- Honored with **Young Scientist Award** at the National Conference on Energy, Environment and Biotechnology Research (NCEEER-2013), Department of Biotechnology, Mewar Institute, Ghaziabad, UP; Oct. 5-6, 2013.
- Honored with **Excellent Paper Award** at the International Conference on Engineering and Technology, 2016, New York (USA).

**Teaching Experience:** Nine year at University level.

**Research experience:** Fifteen year research experience.

**Ph. D. Supervision:** Presently guiding two number of Ph. D. students:

i). **Ms. Rashmi Saraswat (13PHDSBT10)**



**Topic of research:** Isolation, characterization, purification and immobilization of microbial lipase for enantioselective resolution of bioactive molecules

ii). **Mr. Girish Mahajan (13PHDSBT02)**



**Topic of research:** Studies on antitumor efficacy of selected 7-azaindole derivatives against murine tumors.

#### **Publications:**

- **Indu Bhushana**, Alhumaidi Alabbas, Jyothi C. Sistla, Rashmi Saraswat, Umesh R. Desai and Ram B. Gupta. Heparin depolymerization by immobilized heparinase: A review. *International journal of Biological Macromolecules* 2017; 99:721-730.
- **Indu Bhushan**, Arvind Kumar Yadav and Vijeshwar Verma. Evaluation of physico-chemical and microbiological parameters of Jhajjar rivulet of J&K. *Environment Conservation Journal*; 2014; 15 (1&2): 95 -98.
- Davender Kumar, Sushil Nagar, **Indu Bhushan**, Lalit Kumar, Rajinder Parshad and Vijay Kumar Gupta. "Covalent immobilization of organic solvent tolerant lipase on aluminium oxide pellets and its potential application in esterification reaction" *Journal of Molecular Catalysis B: Enzymatic*; 2013; 87: 51- 61.

- Arvind Kumar Yadav and **Indu Bhushan**. “Physico-chemical studies of water quality in Banganga (Small River) of Shri Mata Vaishno Devi, Katra, J & K” *Environment Conservation Journal*; 2012; 13 (3): 61 -63.
- **Indu Bhushan**, Arvind Kumar Yadav and Rajinder Parshad. “Enhancement in the production of lipase from *Arthrobacter* sp.using fed- batch fermentation strategy” *Asiatic Journal of Biotechnology Resources*; 2011; 2(5): 522-534.
- **Indu Bhushan**, Anil Kumar, Gourav Modi and Subika Jamwal. “Chiral resolution of differently substituted racemic acetyl-1-phenyl ethanol using lipase from *Bacillus subtilis*.”. *Journal of Chemical Technology and Biotechnology*.Volume 86, Issue 2, pages 315–318, February 2011.
- **Indu Bhushan**, Rajinder Parshad, Gulam Nabi Qazi, Ganesh Ingavle, C.R. Rajan, Surendera Ponrathnam, Vijay Kumar Gupta. “*Lipase enzyme immobilization on synthetic beaded macroporous copolymers for kinetic resolution of chiral drugs intermediates*”. *Process Biochemistry*, (2008), 43: 321 -330.
- **Indu Bhushan**, Rajinder Parshad, Ghulam Nabi Qazi and Vijay Kumar Gupta. “*Immobilization of Lipase by Entrapment in Ca-alginate Beads*”. *Journal of Bioactive and Compatible Polymers*, (2008), 23; 552-562.
- **Indu Bhushan**, Rajinder Parshad, V.K. Gupta, G.N. Qazi, Ganesh Ingavle, Trupti M. Jamalpure, C.R. Rajan, and S. Ponrathnam. “*Macroporous Beads for Lipase Immobilization: Kinetic Resolution of a Racemic Drug Intermediate*”. *Journal of Bioactive and Compatible Polymers*, (2007), 22: 174-194.
- Veeru Prakash, A. M. Lal, Amit Chattree, S. Steven and **Indu Bhushan**. “Influence of Poultry manure with or without Rhizobium inoculation on the nodulation, yield and quality of blackgram (*Vigna Mungo*)”. *Journal of the Allahabad Farmer*, (2003), LVII: 70-76.
- **Indu Bhushan**, Davender Kumar and Vijay Kumar Gupta. “Lipase producing bacterial strain, *Bacillus subtilis* (IB-1), ribosomal RNA gene partial sequence” 2012; NCBI; JX524552.

### **Book Chapter**

The Indian Himalayan as source for survival, 2015:367-380, Springer Book.

### **Memberships of Professional Societies**

- Member of Indian Science Congress Association.

- Member Society of Samaj Vikas Sansthan, Meerut (India).
- Reviewer Journal of Chemical Technology and Biotechnology

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

- Enhancement in the production of enzyme isolated from microorganism of Himalayan region of J&K (India) using various statistical and fermentation techniques, Oral presentation at International conference on Engineering and Technology 2016, New York (USA)
- Enzymes for Industrial applications, Oral presentation at 4<sup>th</sup> International conference on Psychology and Allied Science, 2016 Goa (India)
- Alzheimer's disease, its causes and treatment, Oral Presentation at 1<sup>st</sup> International conference of Indian Academy of Health Psychology 2015, University of Jammu (India).
- Screening, isolation, characterization and immobilization of novel microbial lipase for pharmaceutical applications. World Congress on Biotechnology, Hyderabad.2012.
- Cultivating conditions influences the production of lipase from *Arthrobacter sp.* In submerged culture: used for resolution of chiral drugs intermediates at National Seminar on Emerging Trends in Biotechnological Research (ETBR-2012), at Mewar Institute, Ghaziabad.
- Screening, characterization and production of lipases from novel microbes of Himalayan regions for enantioselective synthesis of bioactive molecules, National conference on Energy, Environment and Biotechnology Research (NCEEER- 2013) at Mewar Institute, Ghaziabad.
- To study the Physico-chemical and microbiological parameters of Jhajjar rivulet of J&K, National Conference on Recent Trends In Chemical and Environmental Sciences, at Arni University, Kathgarh (Indora), Kangra (H.P) 2014.
- Quality assessment of water in Banganga (small river) of Shri Mata Vaishno Devi , Katra, J & K, VIII WAC International conference (Balancing Development and Environment) New Delhi, India 2014.
- Enhancement in the production of lipase producing strains using response surface methodology, 10th J&K Science Congress, at University of Jammu 2015.
  - Production and characterization of lipase producing strains from the microorganisms of Himalayan region, The Indian Science Congress, at University of Mumbai, Mumbai 2015.
  - Lipase immobilization on beaded macroporous crosslinked alkylated glycidyl copolymers. *Microbial Diversity, An international conference*, Department of Microbiology, University of Delhi South Campus, New Delhi-110021, India 2005.

- Lipase immobilization on synthetic polymer. *Ist J&K State Science Congress*, University of Jammu, 2005; CP-32, pp 7-9.