Dr. Sonika Gupta

Contact

09492540222

dr.sonikagupta2015@gmail.com

Vijayawada, India

Education

Ph.D. Biotechnology from Shoolini University, Solan, H.P. 2015

M.Sc. Biotechnology Hons. from AILS Mandi Affiliated to H.P.U, 2010

B.Sc. from D A V College Kangra H.P., 2008

Core Competence

- Microbiological techniques
- Biotechnology
- Molecular Biology
- Cell Biology
- Enzymology
- ScientificCommunication
- Bioinformatics Tool
- Immunoblotting

Experience

Senior Research Fellow
DST project
Shoolini University H.P.

Sr. Research Associate
Cellular and Molecular Biology (R&D)
Laila Nutraceuticals, Vijayawada, Andhra Pradesh
01/04/2016 - 15/04/2023

A highly motivated research professional with more than 10 years of expertise in Molecular Biology, Enzymology, Recombinant Technology, Microbiology and Cell Biology. Multidisciplinary expertise with extensive knowledge and hands-on experience. Track record of project initiation, design, implementation and execution. Scientific and technical leadership with strong strategic planning, analytical thinking and problem-solving aptitudes. Enjoy working with a team to collaboratively realize preventative actions and continuous product and process improvements.

PROFESSIONAL EXPERIENCE

Research Fellow

Worked as Junior Research Fellow (1.5.2014- 31.7.2014) and Senior Research Fellow (1.8.2014 -31.7.2015) for **DST** funded project entitled as "***Identification and characterization of Medicinal Northwest Himalayas with synergistic effects on Traditional antibiotics to control Clinical Bacterial infections".***

Sr. Research Associate

Cellular and Molecular Biology (R&D)
Laila Nutraceuticals, Vijayawada, Andhra Pradesh **(01/04/2016 - 15/04/2023)**

Achievements/Tasks

Managing a team for conducting invitro experiments.
Experimental planning and Development of different invitro model and assay standardization.
Assisting General Manager for manuscript preparation.
Training juniors for different cell-based assays.

AREAS OF EXPERTISE

Isolation, characterization and phylogenetic study of bacterial strains, Enzymatic assay, Cloning of isolated bacterial genes, PCR, RAPD, Antimicrobial assay, Chromatography, Mammalian cell culture, Microscopy, ELISA, Cell based assay development, Immuno blot assays, Preservations of animal cells and bacterial strains, Publication or manuscript writing (SOP preparation for newly standardized assay), use of Bioinformatics tools.

ACADEMIC PROJECTS

Ph.D. Project: ***Characterization of enzymes, phylogenetic diversity and genes conferring salt tolerance from halophilic bacteria of Lunsu, Himachal Pradesh, India***
Supervisior : Sourirajan Dr. Anuradha
Shoolini University of Biotechnology and Management, Himachal Pradesh, India

Master's Project: ***Isolation, Screening, and Optimization of Amylase-Producing Microorganisms***
Advisor: Dr. Dinesh Chatanta
Abhilashi Institute of Life Sciences (AILS), Mandi, Himachal Pradesh, India.

PUBLICATIONS:

Gupta S, Sharma P, Dev K, Sourirajan A. isolation of gene conferring salt tolerance from halophilic bacteria of Lunsu, Himachal Pradesh, India October 2020 Journal of Genetic Engineering and Biotechnology 18(1):57 DOI:10.1186/s43141-020-00070-6

Gupta S, Sharma P, Dev K, Baumler D, Sourirajan A. *Halobacillus trueperi* strain SS1 C11952, whole genome shotgun sequence. Microbiol Resour Announc. 2019 Mar 7;8(10):e01710-18. doi: 10.1128/MRA.01710-18. PMID: 30863831; PMCID: PMC6406121.

Gupta S, Sharma P, Dev K, Srivastava M, Sourirajan A. Halophilic bacteria of Lunsu produce an array of important industrial enzymes with salt-tolerant activity. Biochemistry Research International. doi: 10.1155/2016/9237418.

Gupta S, Sharma P, Dev K, Srivastava M, Sourirajan A. A diverse group of halophilic bacteria exist in Lunsu, a natural saltwater body of Himachal Pradesh, India. Springer plus 2015; 4:274. doi: 10.1186/s40064-015-1028-1.

Sharma P, **Gupta S**, Sourirajan A, Dev K. Molecular evolution of Thermophilic Geobacillus species isolated fromTattapani Hotspring of India. January 2020 Current Trends in Biotechnology and Pharmacy 14(1):16-32

Sharma Parul, **Gupta Sonika,** Sourirajan Anuradha, Kumar Vikas, Baumler David J, Dev Kamal. Cloning and characterization of gene encoding extracellular L- glutaminase from Geobacillus thermoleovorans PW13 isolated from Tattapani Hotspring of Himachal Pradesh, India. Research Journal of Biotechnology, Vol. 16 (5) May 2021.

Parul Sharma, **Sonika Gupta**, Anuradha Sourirajan, David Baumler, Kamal Dev. Draft Genome sequence of hyper thermophilic, halotolerant Parageobacillus toebii PW12 isolated from Tattapani hot spring of Northwest RHimalayas. Under Revision in Microbiology Resource Announcements (2018).

Sharma P, **Gupta S**, Sourirajan A, Dev K. Characterization of extracellular thermophilic amylase from Geobacillus sp. isolated from Tattapani Hot Spring of Himachal Pradesh, India. Current Biotechnology, 2015;4.

Sharma P, **Gupta S**, Sourirajan A, Dev K. Characterization of extracellular thermophilic cellulase from Geobacillus sp. isolated from Tattapani Hot Spring of Himachal Pradesh, India. International Journal of Advanced Biotechnology and Research. Vol 6, Issue3, 2015, pp 433-442.

Suman R, Sharma P, **Gupta S,** Sourirajan A, Dev K. A Novel Psychrophilic Janthinobacterium lividum MMPP4 isolated from Manimahesh Lake of Chamba District of Himachal Pradesh, India. Journal of Biochemical Technology. 2015; 6 (1), 846-851.

Parul, S; **Sonika, G**; Anuradha, S; Vikas, K; Baumler David, J; Kamal, D Cloning and characterization of gene encoding extracellular L- glutaminase from Geobacillus thermoleovorans PW13 isolated from Tattapani Hotspring of Himachal Pradesh, India Research Journal of Biotechnology, 2021

PATENT

Compounds from vitex nigundo for enhancing antibiotic activity and overcoming drug resistance **patent/WO2016189545A1/e Gupta S**, Sharma P, Dev K, Sourirajan A.