



Shruti Gupta
Assistant Professor and Head
Department of Biotechnology
St. Bede's College, Shimla



Dr. Shruti Gupta
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EDUCATIONAL QUALIFICATIONS: M.Sc. Biotechnology, M.Phil Biotechnology, Ph.D. Biotechnology, CSIR-NET, ARS-NET, GATE, SET

Sr. No.	Degree	Subject	College/University	Year of Passing
1	B.Sc. (Hons.)	Biotechnology	St. Bede's College, Shimla	2012
2	M.Sc.	Biotechnology	SILB, Solan	2014
3	M.Phil	Biotechnology	HP University	2016
4	Ph.D	Biotechnology	HP University	2022
5	NET	Life Sciences		2016
6.	ARS NET	Biotechnology		2016
7	GATE	Biotechnology		2015
6	Specialization	Enzyme Technology, Molecular biology, Immunology		

TOTAL TEACHING EXPERIENCE:
Teaching Experience at St. Bede's College: 6 years



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RESEARCH EXPERIENCE: Major/Minor Project

SUBJECTS TAUGHT

UG: Cell Biology, Recombinant DNA Technology, Immunology, Bioanalytical tools, Bioprocess Technology, Plant Biotechnology, Animal Biotechnology, Biochemical engineering, Instrumentation and biotechniques

PG:

OTHER RESPONSIBILITIES

Convener: Composting

Member:

Criteria VII: NAAC Steering Committee, Herbal Garden, Fresher's Welcome and Return Social, Serendipity, RUSA Committee.

Examiner final Himachal Pradesh University Evaluations

ACHIEVEMENTS

❖ PUBLICATIONS

- Gupta Shruti and Kanwar Shamsher Singh (2022). Intestinal Dysbiosis Induced Chronic Inflammation That Risks up Oxalate Nephropathy. J Cell Sci Therapy. 13:342.
- Gupta S and Kanwar SS (2022). Phytochemical investigation and anti-urolithiatic activities of *Bergenia ciliate* and *Macrotylomauniflorum*. Journal of Research : The Bede Athenaeum; 13: 35-47.
- Gupta S and Kanwar SS (2022). Molecular characterization and *in silico* analysis of oxalate decarboxylase of *Pseudomonas* sp. OXDC12, Journal of Biomolecular Structure and Dynamics, DOI: 10.1080/07391102.2021.2024882
- Gupta S and Kanwar S (2022). Optimization of growth conditions for oxalate decarboxylase production from *Pseudomonas* sp. OXDC12 and in vitro inhibition of calcium oxalate crystallization by oxalate decarboxylase, Current—Biotechnology 2021; 10. <https://doi.org/10.2174/2211550110666210726154149>.



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- Gupta S and Kanwar SS. Plant protease inhibitors and their antiviral activities -Potent therapeutics for SARS CoV-2y. J Med Discov (2021); 6(1): jmd20068; DOI:10.24262/jmd.6.1.20068.
- Gupta Shruti, Kanwar Shamsheer Singh (2020). The influence of dysbiosis on kidney stones that risk up renal cell carcinoma (RCC). Seminars in Cancer Biology. <https://doi.org/10.1016/j.semcancer.2020.06.011>.
- Gupta Shruti, Kanwar Shamsheer Singh (2020). Therapeutic Applications of Microbial Enzymes in the Management of Kidney Stone Diseases. In *Microbial Enzymes: Roles and Applications in Industries*, Microorganisms for Sustainability 11, Springer Nature Singapore Pte Ltd. https://doi.org/10.1007/978-981-15-1710-5_13.
- A supplemental commentary on the published work entitled 'Influence of dysbiosis on kidney stones that risks up renal cell carcinoma (RCC)' authored by **Ms. Shruti Gupta** and Prof. Shamsheer Singh Kanwar was published in the 'Beyond the Abstract' feature of UroToday.
- Gupta S, Kanwar SS (2018) Phyto-molecules for Kidney Stones Treatment and Management. Biochem Anal Biochem 7: 362. doi: 10.4172/2161-1009.1000362.
- Gupta S, Shamsheer SK. Kidney stones: Mechanism of formation, pathogenesis and possible treatments. J Biomol Biochem 2018;2(1):1-5.
- Gupta Shruti, Singh Sukhdev, Kanwar Shamsheer Singh (2017). Purification and characterization of an extracellular ribonuclease from a *Bacillus* sp. RNS3 (KX966412). International Journal of Biological Macromolecules 97 (2017) 440–446. <http://dx.doi.org/10.1016/j.ijbiomac.2017.01.055>



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❖ **Paper Presentations**

- Poster presentation in the International Conference on Bioengineering for Health and Environment (ICBHE 2021) organized by Sathyabama Institute of Science and Technology, India and MAHSA University, Malaysia on the 16th and 17th December, 2021.
- Participated in one day workshop ***“Intellectual Property Rights: The Way Ahead to Protect Ideas”*** held on 17/11/2021 organized by Centre of Excellence, Govt. College Sanjauli-Shimla in collaboration with Biotechnology Incubation Centre (BIC-HPU), Deptt. of Biotechnology HP University Summer Hill Shimla.
- Presented a research paper entitled ‘Optimization of media components using response surface methodology for enhanced production of oxalate decarboxylase of *Pseudomonas* sp.’ during the National seminar on “Current trends & future advancement in bioprocess development” held on March 26-27, 2019 at the Department of Biotechnology, Himachal Pradesh University, Shimla.
- Presented a paper entitled ‘Oxalate Decarboxylase: A revolutionary approach for management of Kidney Stones’ in National conference on “Emerging Research Trends in Chemical, Physical and Life Science for Entrepreneurial Skill Development” held on 26th – 27th December, 2018 in the Department of Biotechnology, Himachal Pradesh University, Shimla.
- Presented a paper on the topic ‘Oxalate Decarboxylase: a therapeutic approach for treatment of kidney stones’ in International conference on Sustainable Development BICON-2018, organized by Biyani Group of Colleges on 27th November, 2018.
- Presented a research paper entitled ‘Purification, kinetic analysis and application of an extracellular ribonuclease from bacteria species RNS3’ in the International Conference on Biodiversity: Current scenario and Future strategies held at St. Bede's College, Shimla during 6-8 October, 2016.



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❖ Webinars and Seminars Attended

- Attended an international webinar on “Present Pandemic and Bioinformatics” organized by Janta Vedic College, Baraut, UP on 22nd May, 2020.
- Workshop on “Significance of Calibration of Measuring Equipment & its Impact in Research” held on 12th & 13th June, 2019 jointly organized by National Research & Technology Consortium, Parwanoo and Department of Biotechnology, Himachal Pradesh University, Shimla.
- ‘Applications of bioinformatics in teaching and research’ on 25th and 26th of October, 2018, organized by Department of Biotechnology, HP University, Shimla,
- National seminar on ‘Celebrating Indian Science from Past to Future’ in St. Bede’s College, in collaboration with ISCA, Shimla Chapter on September 13, 2018.
- Traditional R&D Funding and Entrepreneurship” in HPU, Shimla, organized by Biotechnology Incubator, HPU and Dept. Of Industries, Govt. Of H.P., on January 20, 2018.

❖ AWARDS

- Secured the First Position in Poster Presentation in International Conference of Bioengineering and International Conference on Bioengineering for Health and Environment (ICBHE 2021) organized by Sathyabama Institute of Science and Technology, India and MAHSA University, Malaysia on the 16th and 17th December, 2021.

❖ Faculty Development Program

- Dr. Shruti Gupta attended a five day online faculty development program on ‘Design and Development of MOOCs’ from 1st January, 2022 to 5th January, 2022.