Dr. Madhulika Esther Prasad
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Google Scholar: Citations-235; h-index- 4; i10-index - 2
https://scholar.google.co.in/citations?user=gSC_-NMAAAAJ&hl=en
Web of Science Researcher ID: LNR-4939-2024
Orcid ID: https://orcid.org/0000-0002-8862-3557
Research Gate: https://www.researchgate.net/profile/Madhulika-Prasad

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Professional Summary

Hardworking, reliable, and qualified researcher, with a range of national and international experiences for research, teaching, and mentoring. Track record of conducting impactful research and contributing to scholarly publications, and reinforcing a strong understanding of subject matter. A quick learner with sharp analytical skills for achieving accurate results within the prescribed timeline.

Career Highlights

- **Principal Investigator** for a government-supported research project (DST Woman Scientist-A; File No. SR/WOS-A/LS-425/2017), with a grant of Rs. 20 Lakhs for a period of 3 years (2019- 2023).
- **Research Assistantship (RA) from Professor's NSERC** (Natural Sciences & Engineering Research Council of Canada) grant, at Dalhousie University, Halifax, Canada (2007-2009).
- **Dalhousie University Graduate Funding** for pursuing research-based M.Sc. program in Halifax, Nova Scotia, Canada (2007-2010).
- **10+ years** of work experience in research and academics.

Academic Record & Career Timeline

Ph.D in Biotechnology/DST Scientist-A
Graphic Era Deemed to be University
Dehradun- 248002, Uttarakhand, India

Jan 2017- June 2023
- Coursework Marks- 85%
- DST Woman Scientist-A, Govt. of India (2019-2022)

Masters in Biology (Research-based)
Dalhousie University
Halifax NS B3H 4R2, Canada

2007-2010
Marks 89%

B.Tech. in Biotechnology
Allahabad Agricultural Institute
Deemed University, Allahabad, India

2003-2007
Marks 97.4%

Work History

1. **Assistant Professor** (2023 - Present)
   Department of Biotechnology & Biochemistry
   Sardar Bhagwan Singh University, Dehradun

   Courses Taught: M.Sc. & B.Sc. Biotechnology, Microbiology & Biochemistry.

   Subjects: Bioanalytical Techniques, Cell Biology, Biomolecules, Industrial Fermentation, Food Biotechnology, Bioprocess Engineering, Enzymes & Vitamins etc.

2. **DST Women Scientist-A** (Mar 2019 - Jan 2023)
   Research Grant of Rs. 20 Lakhs from the Department of Science & Technology (DST), Ministry of Science & Technology, Government of India. (File No. SR/WOS-A/LS-425/2017); http://dst.gov.in/sites/default/files/WOS-A%20Projects%202016-17.pdf

   Host Institution: Graphic Era Deemed University, Dehradun, 248002 India.
   Principal area of research: Crop Biotechnology.
   Topic: Millets as a Component of Diet Diversity to Alleviate Malnutrition.

   Undertakings: Research, report writing, delivering lectures for subjects such as Agriculture Biotechnology, Recombinant DNA Technology, and Biochemistry, conducting weekly student lab practical/exams, assisting in planning and organization of conferences, workshops and seminars, assisting in preparations for National Accreditation visits to the university.

3. **Teaching** (2008 - 2011)
   Department of Biology, Life Science Centre, Dalhousie University, 1355 Oxford Street, Halifax, Nova Scotia B3H 4R2 Canada
   Courses Instructed: BIOL 1010 (Introductory Biology), BIOL 2004 (Diversity of Plants & Microbes), BIOL 1020/1021 (Online Module - Introductory Biology)

   Undertakings: Delivering theory & laboratory lectures, demonstrating experiments, grading student reports/assignments, delivering class tests and exams, grading final exams, uploading assignments and marks on online platform (BLS- Blackboard Learning System).

4. **Research Associate** (2010 - 2012)
   Department of Microbiology & Immunology, Dalhousie University, 5850 College Street, Halifax, Nova Scotia B3H 4R2 Canada

   Principal area of research: Microbial Pathogenesis & Infectious Diseases
   Topic: Molecular Characterization of the Multicargo Type III Secretion Chaperone, CesT, in Relation to Effector Secretion.

   Undertakings: Maintaining stock solutions, lab samples and lab records, ordering of items and maintenance of invoices, designing of research plan, implementing daily experiments, data collection & analysis, preparing manuscripts for publication, report writing.

5. **Research Assistant** (2007 - 2010)
Department of Biology, Life Science Centre, Dalhousie University, 1355 Oxford Street, Halifax, Nova Scotia B3H 4R2 Canada

Principal area of research: Molecular Biology and Plant Physiology
Topic: Characterization of the RING Ankyrin family of E3 Ubiquitin ligases.

Undertakings: Designing research project, discussing research plan with supervisor on a daily basis, implementing daily experiments, data collection & analysis, preparing manuscripts for publication, report writing and presentations for funding agency.

Research Identifiers

Google Scholar: Citations-235; h-index- 4; i10-index - 4
https://scholar.google.co.in/citations?user=gSC_-NMAAAAJ&hl=en
Web of Science Researcher ID: LNR-4939-2024
Orcid ID: https://orcid.org/0000-0002-8862-3557
Research Gate: https://www.researchgate.net/profile/Madhulika-Prasad

Publications

Yadav, B., Upadhye, V. J., Prasad, M. E., Kollur, S. P., Shivamallu, C., & Singh, P. (2025). Diospyros kaki: A Review of its Pharmacological and Anticancer Properties. *Journal of Natural Remedies*, *25*(9), 1973–1988. https://doi.org/10.18311/jnr/2025/49161 **(Scopus Indexed).**

Srivastava, S., Upadhye, V. J., **Prasad, M. E.,** & Singh, P. (2025). Applications of bioactive compounds of traditional Chinese medicine in breast cancer management. *Journal of Applied Pharmaceutical Research*, *13*(4), 1-15. https://doi.org/10.69857/joapr.v13i4.935 **(Scopus Indexed).**

Yadav B, **Prasad ME**, Upadhye VJ, Kollur SP, Dwivedi A, Singh P. (2025). Unravelling the potential of Diospyros species in the treatment of pancreatic adenocarcinoma using an in-silico approach. Plant Sci. Today. https://horizonepublishing.com/journals/index.php/PST/article/view/6346
(Scopus Indexed).

Pal, D., Singh, P., Prasad, M. E., & Upadhye, V. J. (2025). Key Insights on Therapeutic Potential of Various Phytochemicals against Breast Cancer. Natural Resources for Human Health 5(3):339-353
https://agris.fao.org/search/en/providers/124189/records/6851782853e52c13fc76fa5d
(Scopus Indexed).

Sharma K, Pandey N, Prasad ME, Bajpai AB, Gupta A. (2025). Antimicrobial and Antiproliferative Assessment of Formulation from *Zanthoxylum armatum*. *Biomedical & Pharmacology Journal.* Vol. 18(3), p. 2346-2356. https://biomedpharmajournal.org/vol18no3/antimicrobial-and-antiproliferative-assessment-of-formulation-from-zanthoxylum-armatum/ **(Scopus Indexed)**.

Verma D, Mudgal B, Tufchi N, Prasad ME, Pant K, Thapliyal A, Mitra D, Gupta S, Sami R, Hilary U, Baty RS, Kadi RH, Al-Nazawi AM, Alqadri N. (2025). Comparative Analysis of Host-Pathogen Protein-Protein Interactions between Human and Various Strains of *Mycobacterium Tuberculosis*. *Clin. Lab.* 2026;72: 1-10. https://supplementary.clin-lab-publications.com/241235/241235-Verma_supplement_6.pdf **(Scopus Indexed)**.

Prasad, M. E., Karn, S.K.*, Singh, P. (2024). Defluoridation by Microbes: A Potential Remediation Technique. In: Kumar, N. (eds) Fluoride and Fluorocarbon Toxicity. Environmental Science and Engineering. **Springer**, Singapore. https://doi.org/10.1007/978-981-97-7733-4_6 **(Scopus Indexed)**.

Prasad, M. E., Thapa, S., Upadhye, V. J., & Singh, P.* (2024). Millet: Food of the Himalayas for combating malnutrition in the face of nutritional insecurity. Environment Conservation Journal, 25(4), 1224–1237. https://doi.org/10.36953/ECJ.27662840 **(Scopus Indexed)**.

Mehta, S., **Prasad, M. E.,** Upadhye, V.J., Goswami, S., Singh, P.* (2024). Enhancing efficacy of microbial bioremediation by intervention of nanotechnology and metabolic engineering: A review. Journal of Applied and Natural Science, 16(2), 741-751. https://doi.org/10.31018/jans.v16i2.5520 **(Scopus Indexed).**

Goswami, S., Ali, A., **Prasad, M. E.**, & Singh, P.* (2024). Pharmacological Significance of Catharanthus roseus in Cancer Management: A Review. *Pharmacological Research-Modern Chinese Medicine*, 100444. https://www.sciencedirect.com/science/article/pii/S2667142524000873 **(Scopus Indexed)**.

Aarti Chamoli, Santosh Kumar Karn*, Moni Kumari, Vivek Raj, **Madhulika E. Prasad** and Neetu Pandey (2024). Recovery of Nitrogen and Phosphorous from Waste as Energy Source. Sustainable Waste Management: Innovations and Practices for a Circular Economy", ***Bentham Science*** (Accepted Book Chapter) **(Scopus Indexed)**.

Mandy Kaur, **Madhulika Esther Prasad**, Pallavi Singh* (2024). Assessment of Therapeutic potential of various Phytochemicals against *Burkholderia pseudomallei* using computational Biology approach. IEEE International conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) (Submitted) **(Scopus Indexed)**.

Prasad, M. E.*, Kumar, N., Arunachalam, A., Rawat, B. S., & Gautam, P. (2021). Millets of Cold Semi-Arid Regions: Vital Facts in Starch Content and Composition. *Int J Cur Res Rev| Vol*, *13*(11), 92. (10.35940/ijitee.L1009.10812S319) **(Scopus Indexed)**.

Madhulika Esther Prasad, Lok Man Singh Palni, Pankaj Gautam*. (2021). Millets for Combating Malnutrition in Rural Areas. *Science and Technology Applications in Rural Areas*. (Book Chapter; ISBN: 979-81-944874-0-1)

Prasad, M. E., Arunachalam, A., & Gautam, P.* (2020). Millet: A nutraceutical grain that promises nutritional security. *Eco. Env. & Cons*, *26*, S1-6. (**SCOPUS**; ISSN: 0971-765X (http://www.envirobiotechjournals.com/article_abstract.php?aid=10800&iid=317&jid=3) **(Scopus Indexed)**.

Prasad, M. E., Joshi, I., Kumar, N., Gautam, P.*, & Chhabra, J. (2019). Proximate composition of minor millets from cold semi-arid regions. *IJITEE 12S3 (8)*, 86-93. (http://dx.doi.org/10.31782/IJCRR.2021.131111) **(Scopus Indexed)**.

Ramu T, **Prasad M. E.,** Mishra A, Thomassin JL, Rainey JK and Thomas NA.* (2013). A novel C-terminal region within the multicargo type III secretion chaperone CesT contributes to effector secretion. *J Bacteriol.,195(4):740-56*.
(https://doi.org/10.1128/JB.01967-12) **(SCI IF-4.573)**

Thomas NA*, Ma I, **Prasad M. E.,** Rafuse C. (2012). Expanded Roles for Multicargo and Class 1B Effector Chaperones in Type III Secretion.*J Bacteriol., 194(15):3767-73***.** (https://doi.org/10.1128/JB.00406-12) **(SCI IF-4.573)**

Prasad M. E., Schofield A, Lyzenga W, Liu H, Stone SL.* (2010). Arabidopsis RING E3 ligase XBAT32 regulates lateral root production through its role in ethylene biosynthesis. *Plant Physiol.,153(4):1587-96.*
(www.plantphysiol.org/cgi/doi/10.1104/pp.110.156976) **(SCI IF-6.841)**

Prasad M. E., Stone SL.* (2010). Further analysis of XBAT32, an Arabidopsis RING E3 ligase, involved in ethylene biosynthesis. *Plant Signal Behav., 5(11).*
(10.4161/psb.5.11.13294) **(SCI IF-2.2)**

The RING E3 Ligase Xbat32 Regulates Lateral Root Development through its Role in Ethylene Biosynthesis (2010). Dalhousie University Online Library, Halifax, Canada. (https://www.bac-lac.gc.ca/eng/services/theses/Pages/item.aspx?idNumber=795623928)

Conference Proceedings

1. Riya Juneja, Pallavi Singh, Sheerat Thapa, **Madhulika Esther Prasad*** (2025). Sea buckthorn: A Nutraceutical and Therapeutic superfood from the Himalayas. 4th National Conference of **Seabuckthorn Association of India** on "Seabuckthorn Technologies for Development of Value-Chain and Environmental Conservation in Himalayas".

2. **Madhulika Esther Prasad**, Ishita Joshi, Navin Kumar, Pankaj Gautam and Jyoti Chhabra. (2020). Proximate Composition of Minor Millets from Cold Semi-Arid Regions. International Conference of **Save The Environment (STE)** on Environment, Water, Agriculture, Sustainability and Health (Ewash-2020).

3. **Madhulika Esther Prasad**, Ishita Joshi, Navin Kumar, Lok Man Singh Palni. (2019). Characterization of Nutritional and Genetic Diversity in Millets of Uttarakhand. **ACMAP**-9th Annual Conference, India." Journal of Medicinally Active Plants 8, (2).

Awards

1. Certificate of **Excellence in Reviewing** (November, 2024) awarded by the European Journal of Nutrition and Food Safety, **NAAS Score: 5.14.**

2. **Best Woman Researcher Award (2021)** in the PEARL Foundation Educational Excellence Awards to Higher Education in India – 2020, during the National Conference on "SMART SUMMIT- 2021" at Madurai, 19 June 2021.

3. **Young Researcher Award (2020)** at the STE (Save The Environment) Annual National Awards & International Conference on "Environment, Water, Agriculture, Sustainability and Health (EWASH-2020).

4. **Competitive travel grant** from the Canadian Society of Plant Biologists (2010).

Conferences

1. Presentation at the 4th National Conference of **Seabuckthorn Association of India** on "Seabuckthorn Technologies for Development of Value-Chain and Environmental Conservation in Himalayas" (2025).

2. Oral presentation on "Artificial Intelligence in Plant Science" at **ICEDET**, Shivalik College (NAAC A+). (Dec 2023)

3. Oral Presentation at the National Conference of "SMART SUMMIT-2021, of the **PEARL Foundation for Excellence in Higher Education**, Madurai, India (June 2021).

4. Oral Presentation at the International Conference of **STE (Save The Environment)** on "Environment, Water, Agriculture, Sustainability and Health (EWASH-2020).

5. Presentation in the International Conference on medicinal aromatic and nutraceutical plants from mountainous areas**. American Council for Medicinally Active Plants (ACMAP)** (2019).

6. Oral Presentation at the International Plant Biology conference of the **Canadian Society of Plant Biologists (CSPB)** in Montreal, Canada (2010).

7. Oral Presentation at the International Plant Biology conference of the **American Society of Plant Biologists (ASPB)** at Simon Fraser University, British Columbia, Canada (2009).

Hobbies

1. Writing
2. Knitting