

## Dr. Mansi Gogna

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- Current position: Assistant Professor (Ad-hoc) in Maitreyi College, University of Delhi.
- NET Qualification: UGC NET (June and December, 2017); ARS-NET (2017)
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### EDUCATION

Year	Institution	Examination	Percentage
2017-2021	Department of Botany, University of Delhi	Ph.D.	<i>Awarded: Physiological and biochemical analyses of salt tolerance strategies in sunflower (<i>Helianthus Annuus</i> L.) and other oil seed plants</i>
2015-17	Department of Botany, University of Delhi	M.Sc.	71.54%
2012-15	Zakir Husain Delhi College, University of Delhi	B.Sc. (Hons)	80.07%

### TEACHING EXPERIENCE

- **Assistant Professor, Maitreyi College (January, 2022 till date)**  
Analytical techniques in plant sciences, Plant physiology, Mushroom Culture and Technology - I
- **Assistant Professor (Guest), Hans Raj College (November – December, 2021)**  
Plant physiology and Environment Studies
- **Assistant professor (Guest), Zakir Husain Delhi College (September, 2021-November, 2021)**  
Ethnobotany and Cell and Molecular Biology
- **Assistant Professor (Guest), Hans Raj College (December, 2020 – July, 2021)**  
Plant physiology and metabolism, Biofertilizers, Environmental Studies
- **Teaching Assistant (2017-2019)**  
Conducted M.Sc. Botany practical classes at Department of Botany, University of Delhi

### RESEARCH PUBLICATIONS (Total impact factor: 24.9)

1. Bhatla SC, Ranjan P, Singh N and Gogna M (2023) Pure Biochemicals and Nanomaterials as Next Generation Biostimulants for Sustainable Agriculture under Abiotic Stress - Recent Advances

and Future Scope. *Plant Signal. Behav.* 18: <https://doi.org/10.1080/15592324.2023.2290336>.  
(IF: 2.734)

2. Bhatla R, **Gogna M**, Aggarwal R and Bhat V (2022) possible interaction of water-soluble vitamins with Nitric Oxide and its significance – Evidence from reversed phase- high pressure liquid chromatography. *Intl. J. Innov. Res. Tech.* 9: 547 – 557 (IF: 7.376)
3. Bhatla SC, **Gogna M**, Jain P, Singh N, Mukherjee S and Kalra G (2021) Signaling mechanisms and biochemical pathways regulating pollen-stigma interaction, seed development and seedling growth in sunflower under salt stress. *Plant Signal. Behav.* Doi: 10.1080/15592324.2021.1958129 (IF: 2.734)
4. **Gogna M**, Choudhary A, Mishra G, Kapoor R and Bhatla SC (2020) Changes in lipid composition in response to salt stress and its possible interaction with intra cellular Na<sup>+</sup>-K<sup>+</sup> ratio in sunflower (*Helianthus annuus* L.). *Env. Exp. Bot.* 178:104147 (IF: 6.028)
5. **Gogna M** and Bhatla SC (2020) Salt-tolerant and-sensitive seedlings exhibit noteworthy differences in lipolytic events in response to salt stress. *Plant Signal.Behav.*15: 1737451. DOI: <http://doi.org/10.1080/15592324.2020.1737451>. (IF: 2.734)
6. **Gogna M** and Bhatla S C (2019) Biochemical mechanisms regulating salt tolerance in sunflower. *Plant Signal.Behav.*14:1670597.DOI:10.1080/15592324.2019.16705 (IF: 2.734)

#### BOOK CHAPTERS AND BOOK

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1. **Gogna M**, Tailor A and Mehta S (2023) Brassinosteroids: Perspective of biosynthesis, crosstalk, and role in plant development. In: *Hormonal Cross-talk, Plant defense and Development*. Doi: 10.1016/B978-0-323-95375-7.00020-3
2. Tailor A, **Gogna M** and Mehta S (2023) Signaling crosstalk between brassinosteroids and abscisic acid in plant defense, growth and development. In: *Hormonal Cross-talk, Plant defense and Development*. Doi: 10.1016/B978-0-323-95375-7.00020-3
3. Kumari A, **Gogna M**, Mehta S and Husen A (2023) Adventitious root formation in cuttings and effects of maturation, In book: *Environmental, physiological and chemical controls of Adventitious rooting in cuttings*, Eds Husen A, Doi: 10.10126/B978-0-323-90636-4.000015-5, Academic Press, Cambridge
4. Tailor A, Kumari A, **Gogna M** and Mehta S (2023) Revisiting the anatomical changes during adventitious root formation in cuttings, In book: *Environmental, physiological and chemical controls of Adventitious rooting in cuttings*, Eds Husen A, Doi: 10.10126/B978-0-323-90636-4.000022-2, Academic Press, Cambridge
5. **Gogna M**, Saklani RK, Tiwari LD, Tailor A, Kumari A and Mehta S (2023) Strigolactones: A new player in regulating adventitious root formation, In book: *Environmental, physiological and chemical controls of Adventitious rooting in cuttings*, Eds Husen A, Doi: 10.10126/B978-0-323-90636-4.00004-0, Academic Press, Cambridge.
6. Mehta S, Kumari A, Tailor A, **Gogna M**, Bhushan B and Aggarwal SK (2022) Wound response and primary metabolism during adventitious root formation in cuttings, In book: *Environmental,*

physiological and chemical controls of Adventitious rooting in cuttings, Eds Husen A, Doi: 10.10126/B978-0-323-90636-4.000010-6, Academic Press, Cambridge.

7. Mehta S, **Gogna M**, Singh B, Patra A, Singh IA and Singh A (2021) Chapter 2: Silicon: A plant nutritional “non-entity” for mitigating abiotic stress In: Plant Stress Biology Eds. Giri M and Sharma MP, [https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.1007%2F978-981-15-9380-2\\_2%23DOI](https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.1007%2F978-981-15-9380-2_2%23DOI) , Springer Nature Singapore Pte Ltd 2020.
8. **Gogna M**, Yadav S and Mehta S (2021) Comprehensive life science – Volume 1, Ed. Kar D. ISBN no. 9789390054886, Viva Books Pvt. Ltd, Delhi, India

## RESEARCH PROJECTS UNDER TAKEN IN MAITREYI COLLEGE

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- **Summer Training Program (2023):** Establishment of Mushroom Cultivation Facility and standardization of cultivation protocol for White Oyster Mushroom (*Pleurotus ostreatus*)
- **Annual Research Project 2022-23:** Polyamine-mediated mitigation of heavy metal stress in *Solanum nigrum* (MoU signed between Maitreyi College, Department of Botany and Department of Botany, University of Delhi, funded by Center for Research, Maitreyi College, University of Delhi).
- **Summer Internship Project (2023):** Pharmacovigilant analysis and comparison between Ayurveda, Siddha, Homeopathy and self-made polyherbal formulations and repurposing them for disease management, funded by Center for Research (CFR), Maitreyi College, University of Delhi.
- **Summer Internship Project (2023):** Co pigmentation-based enhancement of stability of anthocyanin isolated from selected flowering plants, funded by Center for Research (CFR), Maitreyi College, University of Delhi.
- **Summer Internship (Project 2022):** Anthocyanins of edible, medicinal plants and possible co-pigmentation with co-pigments to increase shelf-life, funded by Center for Research (CFR), Maitreyi College, University of Delhi.

## OTHER PROFESSIONAL ACTIVITIES

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- **Resource Person** for Summer Training Programme for Establishment of **Mushroom Cultivation Facility** (July, 2023-August,2023)
- **Convener** of Start-Up titled, “**Gulistan**”, for conservation of dried plant material.
- **Faculty Editor**, Vitti, Botany Newsletter (2023)
- **Organizing Committee** for National Workshop on “Spreading Awareness on Emerging Challenges of Air Pollution and Climate Change in Human Health in Urban Ecosystem”, sponsored by **DST, in collaboration with Eco-Club, Prakriti**, November, 2023
- **Organizing Committee Member** for International Workshop on Intellectual Property Rights (IPR), (October 27, 2023), **Department of Botany**

- **Organizing Committee Member** for Career Counseling Session organized by Blossom, Department of Botany (October, 2023)
- **Organizing Committee Member** for Seminar on, "Empowering Women: Establishing the Connection of Environment to Women's Health", organized by **Eco-Club, "Prakriti"**, September 2023
- **Organizing Committee Member** for Slogan writing competition and Express your Gratitude for Environment Celebrations, organized by **Eco-Club, "Prakriti"**, September, 2023
- **Certificate of Appreciation** for significant contribution as **Co-convenor -Organizing Committee** for Avgaahan – Annual Interdisciplinary Academic Fest held from 5<sup>th</sup> January – 1<sup>st</sup> February, 2023, in Maitreyi College
- **Certificate of Appreciation** for contribution as **Department Coordinator** for Avgaahan – Annual Interdisciplinary Academic Fest held from 5<sup>th</sup> January – 1<sup>st</sup> February, 2023, in Maitreyi College
- **Certificate of Participation** by National Intellectual Property Awareness Mission for completion of IP Awareness/ Training Programme on 13<sup>th</sup> January, 2023
- **Certificate of Appreciation** by Maitreyi College, University of Delhi for organization of a **National Webinar on 'Conservation of Biodiversity'** as a member of Eco Club – Prakriti, at Maitreyi College, University of Delhi on March 4, 2022
- **Certificate of Appreciation** by University of Delhi for timely evaluation of answer scripts of Semester Examination held in May – June, 2022. (Evaluator Id TID/043/98).
- **Certificate of Appreciation** by Blossom, The Botanical Society, Maitreyi College, for judging Meme making competition organized under Pallav: Annual Fest, 13<sup>th</sup> April, 2022
- **Certificate of Appreciation** by Maitreyi College, awarded for being the **Departmental coordinator** for organization of Avgaahan – International Interdisciplinary Academic Fest, held from 1<sup>st</sup> February – 24<sup>th</sup> February, 2022.
- **Certificate of Participation** by Eeze grow, for successful completion of training programme on **Hydroponics**, October, 2021.
- **Technical support (2017-2018)** Management of the pre-publishing quality management for the book titled "Plant Physiology, Development and Metabolism" by Satish C. Bhatla and Manju A. Lal (published by Springer).
- **Basic Biostatistics Course** under Skill Enhancement Scheme for Research Students for the academic year of 2017-18, Department of Botany, University of Delhi
- **Training** on Collaborative mini-course: "The fate of carbon in forests: a functional traits approach" 25-26 July, 2016, Department of Botany, University of Delhi and National University of Mexico.
- Received **Certificate of Excellence** for involvement in Green Revolution Global Certification

Program: An Initiative by International Center for Culture and Education to educate and inspire against Climate Change, 2016.

- Received **Certificate of Proficiency** for commendable achievements during the academic year 2013-2014, Zakir Husain Delhi College, University of Delhi.
- **Editor and Columnist** of the yearly Science magazine "**Spectrum**", Zakir Husain Delhi College, University of Delhi

## SCIENTIFIC INSTRUMENTATION AND OTHER SKILLS

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Good team player, actively involved in fulfilling various roles in college, such as NAAC, departmental fests, International-Annual, Interdisciplinary College fest (Aavgaahan), Magazine Committee, Board Decoration Committee, Core Team Member and Co-convenor of Aavgaahan (2023)

- Good teaching and communication skills
- Extensive practical experience of techniques such as chromatography (TLC, LC-MS/MS, GC-MS, HPLC), Fluorescence microscopy, Confocal laser scanning microscopy, Scanning electron microscopy, Western Blotting, Spectrofluorometry, spectro photo metry, flame photometry, Polymerase chain reaction, Agarose gel electrophoresis, Polyacrylamide gel electrophoresis
- Proficient in Microsoft Office (Word, Power point and Excel), Leica-software, Sigma Plot
- Basic knowledge of R-software
- Well-versed with Adobe Photoshop and statistical software (SPSS22.0) and Image J
- Excellent English language skills in editing and writing
- Strong inter personal and communication skills
- In-depth knowledge of research, evaluation, data-analysis and hands-one experience in writing and publications.

## PARTICIPATION IN NATIONAL AND INTERNATIONAL CONFERENCES/ SYMPOSIUM

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- 2022. **ICNPHH 2022**, the 2<sup>nd</sup> International Conference on Natural Products and Human Health, *Certificate of Participation*, organized by Desh bandhu College, University of Delhi, 4<sup>th</sup> – 6<sup>th</sup> November
- 2022. **Equinox 2022**, the Annual International Conference, organized by The Centre for Research, Maitreyi College, University of Delhi, *under the aegis of Vantage: Journal of Thematic Analysis and IQAC*, Maitreyi College, from August 11 – 13.
- 2021. **Sixth Annual Research Summer School** organized by **Monk Prayogshala**, Presentation and Certificate of Presentation, from 29<sup>th</sup> May, 2021- June 4.

- 2021. National conference on “**Plant Science Research: Relevance, funding, challenges and opportunities**” organized by Department of Botany, Hans raj College in collaboration with Mahatma Hans raj Faculty Development Centre, Hans raj College, University of Delhi, from 16-17<sup>th</sup> January, 2021
- 2019. Poster Presentation in “**National conference on Plant and Microbial Research: Present Scenario**” held at Department of Botany, Punjabi University, Patiala, from February 18-19, 2019.
- Poster Presentation in “**14<sup>th</sup> International Conference on Reactive Oxygen and Nitrogen Species in Plants**” held in Munich, Germany from 10<sup>th</sup> -12<sup>th</sup> July, 2019.

