KIRORI MAL COLLEGE, UNIVERSITY OF DELHI

Title	Dr.	First Name	Yamal	Last Name	Gupta	Photograph
Designation		Assistant Professor				
Address		House No. 118, First Floor, Old Gupta Colony, Delhi 110009.				
Phone No Office						
Residence						
Mobile		09871831423				
Email		yamalgupta@kmc.du.ac.in yamalgupta@gmail.com				
Web-Page						

Educational Qualifications		
Degree	Institution	Year
B.Sc.	University of Delhi	2004
M.Sc.	Jamia Hamdard	2006
B.Ed.	University of Delhi	2007
Ph.D.	University of Delhi	2014

Title of the Ph.D. Thesis "Potential Utility of Microbial Culture Media and Plants to Generate Metal Nanoparticles".

Career Profile

- Assistant Professor (Permanent) Botany Department, Kirori Mal College (From 2 December 2022 onwards)
- Assistant Professor (Ad-hoc) Botany Department, Kirori Mal College (January 2018 -1 December 2022)
- SERB Sponsored National Post Doctoral Fellow (May 2016- January 2018; PDF/2015/000922) on the project entitled 'Characterization of Nanoparticles in Sewage sludge and effect of Titanium dioxide Nanoparticles on Soil Health' at School of Environmental Sciences, Jawaharlal Nehru University, under mentorship of Prof. K.G. Saxena.
- Research Associate, Department of Botany, Delhi University (July 2015-May 2016).
- Assistant Professor (Guest) Botany Department, Acharya Narendra Dev College from January 2015 to April 2015.
- Assistant Professor (Guest) Botany Department, Khalsa College from January 2015 to March 2015.
- Assistant Professor (Guest) Botany Department, Acharya Narendra Dev College September 2014 to November 2014.
- Assistant Professor (Guest) Botany Department, Hansraj College from August 2014 to November 2014.

Administrative Assignments

Areas of Interest / Specialization

Plant Physiology, Microbiology, Biochemistry, Ecology & Environment, Nanotechnology.

Subjects Taught

Reproductive Biology of Angiosperms (V Semester, Botany Hons. 2018-2021)
Industrial and Environmental Biotechnology (VI Semester, Botany Hons. 2018-2021)
Plant Physiology and metabolism (IV Semester B.Sc. Life Sciences 2018-2020)
Biofertilizers (Botany Hons. IV Semester, 2018)
Biodiversity (B.Sc. Life Sciences, I Semester, 2019-2020)
Analytical Techniques (B.Sc. Life Sciences, VI Semester, 2019-2021)
Plant Anatomy and Embryology (B.Sc. Life Science, III Semester, 2018-2020)
Genetics (V Semester, Botany Hons. 2020-2021)

Research Guidance

Along with Dr. Renu Kathpalia, I co-guided Ms. Stuti Srivastava (Botany Hons. student) on the topic "Effect of silver nanoparticles on shelf life of Gladiolus sp." Under the DBT star college scheme.

Along with Prof. Rajni Gupta, I co-guided Ms. Adityakiran (Botany Hons. Student) on the topic "Synthesis of Silver Nanoparticles from fresh Oyster Mushroom and Assessment of Antimicrobial Properties of the Silver Nanoparticles". Under the DBT star college scheme.

Publications Profile

a. Research Paper

b. **Yamal G**, Biswas L, Kathpalia R **(2022)** Exploiting the potential of bio-synthesized silver nanoparticles to enhance the shelf life of Gladiolus. Indian Journal of Biochemistry & Biophysics 59, 486-490. ISSN 0975-0959 (Online), *Impact Factor 1.918.*

c. **Yamal G**, Singh M, Pardha-Saradhi P, Rao K.S. **(2022)** Roots of Pennisetum sp. possess the competence to generate nanoparticles of noble metals. Indian Journal of Biochemistry & Biophysics 59, 461-467. ISSN 0975-0959 (Online), *Impact Factor 1.918.*

d. Patel K, Bidalia A, Tripathi I, **Yamal G**, Arora P, Rao K.S. **(2022)** Effect of heat stress on wild type and A7a knockout mutant Arabidopsis thaliana plants. Vegetos. 35, 168-178. eISSN : 2229-4473), *Impact Factor 0.042*; Citations: 2.

e. Divya S, Sharmila P, Dinakaran J, **Yamal G**, Rao K.S., Pardha-Saradhi P **(2019)** Specific H^+ level is crucial for accurate phosphate quantification using ascorbate as reductant. Protoplasma. 257, 319–330. ISSN 16156102, *Impact Factor 3.447*; Citations 3.

f. Prasad R, **Yamal G**, Pardha-Saradhi P **(2017)** Impact of Storage on Chlorophyll a

Fluorescence Kinetics of Microalgae Immobilized on Cotton Fabric. Phytomorphology 67, 59-65. ISSN 00319449.

g. **Yamal G**, Singh R, and Rao KS **(2017)** Nanoparticle Synthesis and its Application. The Botanica, 66, 19-26.

h. Pardha-Saradhi P, **Yamal G**, Peddisetty Tanuj, Sharmila P, Singh Jyoti, Nagarajan Rajamani, Rao KS **(2014)** Reducing strength prevailing at root surface of plants promote reduction of Ag^{+} and generation of silver nanoparticles exogenously in aqueous phase. PLoS ONE, 9(9), e106715. ISSN No. 19326203, *Impact Factor 3.752*, Citations 33.

i. Pardha-Saradhi P, **Yamal G**, Peddisetty Tanuj, Sharmila P, Singh Jyoti, Nagarajan Rajamani, Rao KS **(2014)** Plants fabricate Fe-nanocomplexes at root surface to counter and phytostabilize excess ionic Fe. Biometals, 27(1), 97-114. (ISSN No. 0966 0844 (Print); ISSN No. 15728773 (Online); *Impact Factor 2.949*, Citations 32.

j. Pardha-Saradhi P, **Yamal G**, Peddisetty Tanuj, Sharmila P, Singh Jyoti, Nagarajan Rajamani, Rao KS **(2014)** Root system of plants is powerful resource for green synthesis of Au-nanoparticles. RSC Advances, 4, 7361-7367. ISSN No. 2046 2069, *Impact Factor 4.036*, Citations 23.

k. **Yamal G**, Sharmila P, Rao KS, Pardha-Saradhi P **(2014)** Inbuilt potential of YEM medium and its constituents to generate Ag/Ag_2O nanoparticles. PLoS ONE, 8(4), e61750. ISSN No. 19326203; *Impact Factor 3.752*, Citations 32.

l. **Yamal G**, Sharmila P, Rao KS, Pardha-Saradhi P. **(2013)** Yeast Extract Mannitol medium and its constituents promote synthesis of Au nanoparticles. Process Biochemistry, 48: 532-538. ISSN No. 13595113, *Impact Factor 3.757*, Citations 29.

m. Pardha-Saradhi P, Shabnam N, Kashyap A, **Yamal G** and Sharmila P (2015) Roots of *Portulaca grandiflora* Evolved Mechanism to Counter Excess Iron. Science and Technology, 3(1), 26-31.

n. Chapter in books

o. Bidalia A, Vikram K, **Yamal G**, Rao KS **(2019)** Effect of Salinity on Soil Nutrients and Plant Health. In Mohd Sayeed Akhtar (Ed.) Salt Stress, Microbes, and Plant Interactions:

Causes and Solution. Springer Nature Singapore Pte Ltd. ISBN 978-981-13-8800-2 ISBN 978-981-13-8801-9 (eBook) Citations 10.

p. Rao KS, **Yamal G** and Zenita-Devi O **(2018)** Ficus glomerata Roxb: A Review on its Anti-Diabetic Potential, in Govil JN and Singh S (Eds.) Recent Progress In Medicinal Plants Vol.46 (Metabolic Disorders Diabetes, Part-II). Studium Press. ISBN-13: 978-1626990838

q. **Yamal G**, Bidalia A, Vikram K, and Rao KS **(2016)** An Insight into the Legume–Rhizobium Interaction (PP 359-384) In Khalid Rehman Hakeem, Mohd Sayeed Akhtar (Ed.) Plant Soil and Microbes Vol. 2 Mechanisms and Molecular Interactions, Springer International Publishing Switzerland 2016. ISBN 978-3-319-29572-5 ISBN 978-3-319-29573-2 (eBook) Citations 6.

r. Conference Proceedings

s. **Yamal G**, 'Assessment of Heavy Metals in Sewage Sludge Generated From Sewage Treatment Plants of Delhi' for Ecology and Environment Research Committee Published in Proceedings of the XLV Indian Social Science Congress, March 28 – April 01, 2022 at BSAR Crescent Institute of Science and Technology, Vandalur. Chennai. pp 391-392.

t. **Yamal G**, 'Silver Nanoparticles From Laboratories to Households' for Biotechnology Research Committee Published in the XLIV Proceedings of Indian Social Science Congress (March 15-19,2021) at Samrat Ashok Technological Institute, Vidisha, M.P, pp 177-178.

u. **Yamal G**. 'NPs soil interaction and organic matter' published in National Symposium on Microbes and Nanotechnology for sustainable Environment (7th February 2019) at Kirori Mal College, University of Delhi.

v. **Gupta Yamal**, Dhritiman Lal and P. Pardha-Saradhi. 'An ideal avenue tree to curb air pollution' published in Scientific Proceedings of International Conference on Challenges of Climate Change and Air Pollution-Impact on Health and Economy. Organized by Maulana Azad Medical College, New Delhi, December 14-15, 2018. pp 34

Conference / Workshops/Training Organized

- Webinar on "Colours in Nature" hosted by Department of Botany, Kirori Mal College under DBT Star College Scheme 2019-2020 on 22nd August 2020.
- Webinar on "Machine Learning and Data Science for Biologist" hosted by Department of Botany Kirori Mal College University of Delhi under the aegis of DBT Star College Scheme on 4th September 2020.

- Summer Training for Students on 'Microbial and Biochemical Techniques' (June 24 to July 07, 2019) organized by Department of Botany, Kirori Mal College, under DBT Star College Scheme.

- One day workshop for Non-Teaching Staff on 'Basic Laboratory Techniques' (July 12, 2019) organized by Department of Botany, Kirori Mal College, under DBT Star College Scheme.

Creation of ICT Mediated Teaching Learning Pedagogy and Content

MS Office, Fine Reader, Photoshop, Sound Forge, ORIGIN, SPSS, ChemOffice, Youtube, Chemrecorder etc.

Conference/Workshops/Training attended as Faculty Member

- One week online FDP on "Environmental Audit" organized by Department of Botany and Zoology, Kirori Mal College, held from 28th-2nd July, 2021.
- Workshop (Online) on "An Introduction to R for Data Science" organized by School of Biological Sciences Bioinformatics Training, University of Cambridge, from 14-17 December 2020.
- Online International Workshop on Visual Note-Taking organized by Dr. B.R. Ambedkar University Delhi, New Delhi on 22 September 2020.
- National Symposium on "BIOIMAGING" organised by Department of Botany, Dyal Singh College, University of Delhi, February 19, 2020.
- Workshop on "Evolving Face of Microscope: from Magnifying Lens to Nanoscope" organized by Department of Botany, Miranda House, University of Delhi on 11 and 12 December 2019.
- National Symposium on Microbes and Nanotechnology for sustainable Environment at Kirori Mal College, University of Delhi, 7th February 2019.
- Participated in Workshop on Advanced spectroscopy and Dynamic light scattering at Department of Zoology, Kirori Mal College, University of Delhi, Delhi, 9th October, 2018.
- Faculty Development Program on Industrial and Environmental Microbiology organized by Department of Botany, Daulat Ram College, University of Delhi, 19-20 March, 2018.
- National Workshop on Introduction to Virtual Class for Blended Learning, organized by Guru Angad Dev-Teaching Learning Centre, SGTB Khalsa College, University of Delhi, 6 March 2018.

- National Workshop on Biostatistics organized by Department of Botany, in association with Department of Mathematics, Zakir Hussain Delhi College, University of Delhi, 9-10 March, 2017.
- National Conference on Environmental Sustainability and Wastewater Remediation: Current Status and Future Prospects, held at Sri Venkateshwara College, Delhi University, South Campus, 19-20 January, 2017.
- National Conference on Climate Change: Impacts, Adaptation, Mitigation Scenario And Future Challenges In Indian Perspective, organized by Department of Botany, Deen Dayal Upadhayay College, University of Delhi, 2-3 March 2015.

Invited Lectures/Resource Persons

Delivered a series of Lectures on "Microbiology to Nanotechnology : An Overview" (20-24 February 2015) at Department of Microbiology, Mahadev Desai Gram Seva Mahavidyalaya, Gujarat Vidyapith, Sadra.

Research Projects (Major Grants/Research Collaboration)

SERB Sponsored project (PDF/2015/000922) for Post Doctoral Research on 'Characterization of Nanoparticles in Sewage sludge and effect of Titanium dioxide Nanoparticles on Soil Health'(May 2016-January 2018).

Awards and Distinctions

- Junior Research Fellow, CSIR, January 2009-December 2010.
- Senior Research Fellow, CSIR, January 2011-December 2013.
- Awarded the Best Oral Presentation in the Session "Microbial World : Recent Developments in Health, Agriculture and Environmental Sciences" at Annual International Conference of The Association of Microbiologists of India and Indian Network for Soil Contamination Research, in Association with The Energy and Resources Institute (TERI), Department of Zoology, University of Delhi, Indian Agricultural Research Institute & Indian National Science Academy, held during 3rd to 5th February 2021.

Association with Professional Bodies

Life Member National Institute of Ecology (NIE), India.

Life Member Indian Social Science Academy (ISSA).

Board of Trustees Kamla Sadgopal Public Trust (KSPT).

Life Member Indian Network for Soil Contamination and Research (INSCR).

Other Activities

PAPER PRESENTATIONS IN CONFERENCES

- • Paper presented on 'Assessment of Heavy Metals in Sewage Sludge Generated From Sewage Treatment Plants of Delhi' for Ecology and Environment Research Committee of

the XLV Indian Social Science Congress, March 28 – April 01, 2022 at BSAR Crescent Institute of Science and Technology, Vandalur. Chennai.

- Paper Presented on 'Roots of Pennisetum sp. possess potential to generate nanoparticles of noble metals' in the International conference on Nanomedicine: Biomolecules for Human Health (NBHH- 2021), Small molecules: Big Opportunities!!, held on 27th -28th September, 2021, at Kirori Mal College, University of Delhi.

- Paper presented on "Silver Nanoparticles From Laboratories to Households" for Biotechnology Research Committee of the XLIV Indian Social Science Congress, March 15-19,2021, at Samrat Ashok Technological Institute, Vidisha, M.P.

- Presented a Paper titled "Assessment of Ag Nanoparticles in sewage sludge" in the Session "Microbial World : Recent Developments in Health, Agriculture and Environmental Sciences" at Annual International Conference of The Association of Microbiologists of India and Indian Network for Soil Contamination Research, in Association with The Energy and Resources Institute (TERI), Department of Zoology, University of Delhi, Indian Agricultural Research Institute & Indian National Science Academy, 3rd to 5th February 2021.

PARTICIPATION IN POSTERS

- Ravindra Prasad, **Yamal Gupta**, P.Pardha Saradhi (December, 2017) Sunlight mediated biosynthesis of Ag nanoparticles with microalgae. International Conference on Nanotechnology: Innovation, idea & Initiative 2017.
  DOI: 10.13140/RG.2.2.34532.32644
- G. Yamal, K.G. Saxena, K.S. Rao (2017) Assessment of metal nanoparticles in Sewage sludge. National conference on Environmental Sustainability and Wastewater Remediation : Current Status and Future Prospects. 19-20 January 2017.
- Rajni Gupta, G. Yamal, Aditya Kiran (2021) Synthesis of Silver Nanoparticles from fresh Oyster Mushroom. At Annual International Conference of The Association of Microbiologists of India and Indian Network for Soil Contamination Research, in Association with The Energy and Resources Institute (TERI), Department of Zoology, University of Delhi, Indian Agricultural Research Institute & Indian National Science Academy, 3rd to 5th February 2021.

Research Gate : https://www.researchgate.net/profile/G_Yamal
ORCID iD is 0000-0003-1003-3140

Yamal Gupta
Signature of Faculty Member