

**Curriculum Vitae**

<b>Full Name:</b>	Dr. SAURABH YADAV			
<b>Designation:</b>	Assistant Professor			
<b>Department:</b>	Biotechnology			
<b>Campus:</b>	Chauras/ Srinagar, Campus			
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<b>Education Qualification:</b>	M.Sc. Biotechnology (University of Allahabad), Ph.D. (NIPGR, Jawaharlal Nehru University, New Delhi)			
<b>Teaching Experience:</b>	~ 10 Years	<b>Research Experience:</b>	~ 10 Years	
<b>Past Experience-</b> Experimental Medicine and Biotechnology (Sr. Demonstrator), PGIMER, Chandigarh, India				
<b>Research Interest and Fields of Specialization</b>				
<ol style="list-style-type: none"> <li>1. Plant Biotechnology</li> <li>2. Plant-Pathogen interactions</li> <li>3. Intellectual Property Rights, Legal Biotechnology</li> </ol>				
<b>Honours &amp; Awards</b>				
<ol style="list-style-type: none"> <li>1. Qualified UGC-NET JRF (Junior Research Fellowship), jointly organized by Council of Scientific &amp; Industrial Research and University Grant Commission (CSIR-UGC), Govt. of India, Dec.2003.</li> <li>2. Awarded Post-Graduate scholarship during M. Sc. Biotechnology, University of Allahabad, by <b>Department of Biotechnology (DBT), Ministry of Science and Technology</b>, Govt. of India.</li> <li>3. Invited participant in FICCI-KAS Dialogue Series titled '<i>Rule of Law: Strengthening Indo-German Ties: IPR and Legal Cooperation</i>' on 9<sup>th</sup> August 2018, at <b>Federation of Indian Chambers of Commerce and Industry (FICCI)</b>, New Delhi.</li> <li>4. Invited member in Science for Equity Empowerment and Development (<b>SEED</b>) <b>Division, Department of Science and Technology (DST)</b>, Ministry of Science &amp; Technology, Govt. of India, sponsored "Sensitization programme for the Northern Region: Focus-S&amp;T for Women" September 08-09, 2017, Shimla, Himachal Pradesh.</li> </ol>				
<b>Member of Academic Institutions:-</b> None				
<b>Membership of Scientific Organizations</b>				
Life membership of Professor H.S. Srivastava Foundation for Science & Society, Lucknow Life membership of Biotech Research Society of India (BRSI)				
<b>Research Supervision (No. of Ph.D. Degree Awarded/Submitted/Registered)</b>				
Awarded-01 Submitted-01 Total-02				
<b>Research Projects/MoU undertaken: -</b>				
"To study the oxidative stress response on enzymatic, non-enzymatic antioxidants and analysis of Physio-morphological changes of <i>Cicer arietinum</i> , under the Heat-stress", UGC-BSR Start-up Grant, 2015-2017 (Completed)				

<p>“Investigation of heavy metal analysis in soil, water and medicinal plants from areas undergoing anthropogenic activity in Garhwal Himalaya, India”, by UGC-DAE CSR Kolkata Centre (Ongoing since 2023)</p>
<p><b>Other-</b></p> <ul style="list-style-type: none"><li>• Review editor of Frontiers in Plant Sciences</li><li>• Review editor of Frontiers in Nanotechnology</li><li>• Certified trainer under Skill Development Mission, National Skill Development Corporation, Govt. of India.</li></ul>
<p><b>Administrative Experience</b></p> <ol style="list-style-type: none"><li>1. Program Officer, National Service Scheme</li><li>2. Member, IPR cell</li><li>3. Member, E-Learning - Teaching Monitoring Committee</li><li>4. Member, Ethics Board</li><li>5. Member of Board of Studies of Department of Biotechnology</li><li>6. Member, Institutional Biosafety committee</li><li>7. Assistant Director, IQAC</li></ol>
<p><b>Conference/Symposium/Workshop Attended during last five years (2014-2019)</b></p> <p><b>International</b></p> <ol style="list-style-type: none"><li>1. <b>Invited Speaker</b> in “International conference on Nanobiotechnology-2018”, 5-6 Feb. 2018, Centre for Interdisciplinary Research in Basic Sciences, Jamia Milia Islamia, New Delhi.</li><li>2. Oral Presentation in “International Conference in Nanotechnology: IDEAS, INNOVATIONS AND INITIATIVES-2017”, 06-08 December 2017 at Indian Institute of Technology, Roorkee, Uttarakhand.</li></ol> <p><b>National</b></p> <ol style="list-style-type: none"><li>1. <b>Invited Speaker</b> in "National Conference on Underutilised Plants, Food Security &amp; Climate Link", 20-21 January 2017, DDU Gorakhpur University, Gorakhpur, U.P.</li><li>2. <b>Invited Speaker</b> in "National Conference on Biotechnology and Environment 2017". 10-11 April, 2017 Jamia Milia Islamia, New Delhi.</li><li>3. <b>Keynote Speaker</b> in “National conference on Impact of Biotechnology in Agriculture and environment” 17 February, 2018, Khandelwal College of Management Science and Technology, Bareilly.</li><li>4. <b>Invited Speaker</b> in “National Conference on MODELING, OPTIMIZATION AND COMPUTING FOR ENGINEERING PROBLEMS: USE OF TECHNICAL HINDI TERMINOLOGY", 12-14 October, 2018, sponsored by Commission for Scientific and Technical Terminology (CSTT), Ministry of Human Resource Development (MHRD), Govt. of India, at Indian Institute of Technology, Roorkee, Uttarakhand.</li><li>5. <b>Invited speaker</b> in “National Faculty Development Program (FDP) on Innovations and IPRs”, 06 December 2021, organised by CSIR-IMMT and Acharya Nagarjuna University, Guntur, Andhra Pradesh.</li><li>6. <b>Invited speaker</b> in “National Conference on Biotechnology and Environment”, 11 April 2017, organised by Jamia Milia Islamia, New Delhi.</li><li>7. <b>Invited speaker</b> in “International Conference on BRE3CH 2021”, 04 April 2021, organised by CSIR-Indian Institute of Petroleum, Dehradun and BRSI.</li><li>8. <b>Resource person</b> in “One week workshop on Research Methodology and Innovations in Life Sciences”, 27 June 2021, organised by DDU Gorakhpur University.</li><li>9. <b>Resource person</b> in “National Faculty Development Program on Innovation and</li></ol>

Intellectual Property Rights”, 05 October 2021, organised by CSIR-IMMT and CTTE College for women.

10. **Resource person** in “PMMMNMNTT- FDC” 2018 and 2019, HNB Garhwal University, Srinagar Garhwal, Uttarakhand.
11. **Invited speaker** in “CSIR Integrated Skill Initiative”, 25 January 2023, organized by CSIR- NPL.
12. **Invited speaker** in “Department of Science and Technology (DST), sponsored INSPIRE Science camps” 2015, 2017, 2018, 2019, 2020 organized by HNB Garhwal University, Srinagar Garhwal, Uttarakhand

#### **Conference/Symposium/Workshop Organized during last five years (2014-2019)**

**Co-organizing secretary**, “One day workshop on laboratory Biosafety Protocols”, 24 April, 2018, H.N.B. Garhwal University, Srinagar, Uttarakhand.

#### **Publications during last five years (2018-2023)**

##### **Journals**

1. Phyto-mediated synthesis of Zinc Oxide nanoparticles of *Berberis aristata*: Characterization, antioxidant activity and antibacterial activity with special reference to Urinary tract pathogens. Chandra H, Patel D, Jangwan JS, Kumari P, **Yadav Saurabh\***. *Materials Science and Engineering C*, 102:212-220, (2019), (IF~8.3)
2. Prospects of genetic engineering utilizing potential genes for regulating arsenic accumulation in plants. Kumari P, Rastogi A., Shukla A., Srivastava S., **Yadav Saurabh\***. *Chemosphere*, 211: 397-406, (2018), (IF~ 8.9)
3. Phytohormone priming: Regulator for Heavy Metal Stress in Plants. Sytar O, Kumari P, **Yadav Saurabh\***, Brestic M, Rastogi A. *Journal of Plant Growth Regulation*.38(2): 739-752. (2018), (IF~ 4.8)
4. Phytotoxic effect of silver nanoparticles in *Triticum aestivum*: Improper regulation of photosystem I activity as the reason for oxidative damage in the chloroplast. Rastogi A, Zivcak Z, Tripathi DK, **Yadav Saurabh\***, Kalaji HM, Brestic M, *Photosynthetica*,57, 209-216. (2019). (IF~2.7)
5. Kumari P, Singh S, **Yadav Saurabh\***, Tran LSP. Pretreatment of seeds with thidiazuron delimits its negative effects on explants and promotes regeneration in chickpea (*Cicer arietinum* L.). *Plant Cell Tissue and Organ Culture*, 133(1):103-114. (2018) (IF~3.0)
6. Riboswitch regulation in cyanobacteria is independent of their habitat adaptations. Singh P., Kumar N., Jethva M., **Yadav Saurabh\***, Kumari P, Thakur A., Kushwaha HR. *Physiology and Molecular Biology of Plants* 24:315-324. (2018), (IF~3.5)
7. Application of silicon nanoparticles in agriculture. Rastogi, A., Tripathi, D.K., **Yadav Saurabh\*** et al. *3 Biotech*, 9: 90. (2019) (IF~2.8)
8. Analysis of thermotolerance behaviour of five chickpea genotypes at early growth stages. Kumari P, Singh, S., **Yadav Saurabh\***, *Brazilian Journal of Botany* 41(3): 551-565. (2018) (IF~1.6)
9. Evaluation of aflatoxin contamination in crude medicinal plants used for the preparation of herbal medicine. Chandra H., Kumari P, **Yadav Saurabh\***, *Oriental Pharmacy and Experimental Medicine* 19(2):137-143. (2019).
10. Comparative structural modelling of a Monothiol GRX from chickpea: Insight in Iron-Sulfur Cluster assembly. **Yadav Saurabh\***, Kushwaha HR, Kumar K, Verma P. *International Journal of Biological Macromolecules*. 51(3):266-273, (2012), (IF~8.0)

11. Differential transcript accumulation in chickpea during early phases of compatible interaction with a necrotrophic fungus *Ascochyta rabiei*. Jaiswal P, Cheruku JR, Kumar K, **Yadav Saurabh\***, Singh A, Kumari P, Dube SC, Upadhyaya KC and Verma P. *Molecular Biology Reports*. 39(4):4635-46, (2012), (Equal 2<sup>nd</sup> author) (IF~2.8)
12. An alternative approach in Gateway cloning when the bacterial antibiotic selection cassettes of the entry clone and destination vector are the same. Kumar K, **Yadav Saurabh\***, Purayannur S and Verma P. *Molecular Biotechnology*. 54(2):133-140, (2012) (IF~2.8)
13. Patent intelligence of RNA viruses: Implications for combating emerging and re-emerging RNA virus based infectious diseases Devarapalli, Pratap, Pragati Kumari, Seema Soni, Vandana Mishra, and **Saurabh Yadav\***. *International Journal of Biological Macromolecules* 219 (2022): 1208-1215. (IF~8.2)
14. Multitrait *Pseudomonas* sp. isolated from the rhizosphere of *Bergeria ciliata* acts as a growth-promoting bioinoculant for plants. Thakur R, Srivastava S and **Yadav Saurabh\*** (2023). *Frontiers in Sustainable Food Systems* 7:1097587. doi: 10.3389/fsufs.2023.1097587 (IF~5.0)
15. Promising roles of alternative medicine and plant-based nanotechnology as remedies for urinary tract infections. Chandra H, Singh C, Kumari P, **Yadav Saurabh\***, Mishra AP, Laishevteev A, Brisc C, Brisc MC, Munteanu MA, Bungau S. *Molecules*. 2020 Nov 28;25(23):5593. (IF~4.9)
16. Effects of Heat stress and molecular mitigation approaches in orphan legume, Chickpea. Kumari, P., Rastogi, A., & **Yadav Saurabh\*** (2020). *Molecular Biology Reports*, 47, 4659-4670. (IF~2.8)
17. Plant growth promoting *Pseudomonas aeruginosa* from *Valeriana wallichii* displays antagonistic potential against three phytopathogenic fungi. Chandra, H., Kumari, P., Bisht, R., Prasad, R., & **Yadav Saurabh\*** (2020). *Molecular Biology Reports*, 47, 6015-6026. (IF~2.8)
18. Progress in understanding salt stress response in plants using biotechnological tools. Ibrahimova U, Kumari P, **Yadav Saurabh\***, Rastogi A, Antala M, Suleymanova Z, Zivcak M, Tahjib-Ul-Arif MD, Hussain S, Abdelhamid M, Hajihashemi S. *Journal of Biotechnology*. 2021 Mar 10; 329:180-91. (IF~4.1)
19. Antioxidant and antimicrobial activity displayed by a fungal endophyte *Alternaria alternata* isolated from *Picrorhiza kurroa* from Garhwal Himalayas, India. Chandra, H., Kumari, P., Prasad, R., Gupta, S. C., & **Yadav Saurabh\*** (2021). *Biocatalysis and Agricultural Biotechnology*, 33, 101955.
20. Influence of different types of explants in chickpea regeneration using thidiazuron seed-priming. Kumari, P., Singh, S., **Yadav Saurabh\***, & Tran, L. S. P. (2021). *Journal of plant research*, 134(5), 1149-1154. (IF~2.8)
21. Silver nanoparticle's toxicological effects and phytoremediation. Ihtisham, M., Noori, A., **Yadav Saurabh\***, Sarraf, M., Kumari, P., Brestic, M., Imran, M., Jiang, F., Yan, X. and Rastogi, A., 2021. *Nanomaterials*, 11(9), p.2164. (IF~5.7)
22. Does silicon really matter for the photosynthetic machinery in plants...?. Rastogi, Anshu, **Saurabh Yadav\***, Sajad Hussain, Sunita Kataria, Shokoofeh Hajihashemi, Pragati Kumari, Xinghong Yang, and Marian Brestic. *Plant Physiology and Biochemistry* 169 (2021): 40-48. (IF~6.5)
23. The role of potassium on drought resistance of winter wheat cultivars under cold dryland conditions: Probed by chlorophyll a fluorescence. Lotfi R, Abbasi A, Kalaji HM, Eskandari I, Sedghieh V, Khorsandi H, Sadeghian N, **Yadav Saurabh\***, Rastogi A. *Plant Physiology and Biochemistry*. 2022 Jul 1; 182:45-54. (IF~6.5)

### Book Chapters

1. Checker, V.G., Kushwaha, H.R., Kumari, P., **Yadav Saurabh\***. Chapter no.7 on Role of Phytohormones in Plant Defense: Signalling and Cross Talk. In: Singh, A., and Singh, I. (eds.) *Molecular Aspects of Plant-Pathogen Interaction*. Springer Nature Singapore Pte Ltd., pp. 159-184 ISBN-978-981-10-7370-0 (2018)
2. Kumari, P., Gupta, A., & **Yadav Saurabh\*** (2021). Thioredoxins as molecular players in plants, pests, and pathogens. *Plant-Pest Interactions: From Molecular Mechanisms to Chemical Ecology: Chemical Ecology*, 107-125.
3. Kumari, P., Gupta, A., Chandra, H., Singh, P., & **Yadav, Saurabh\*** (2021). Effects of Salt Stress on the Morphology, Anatomy, and Gene Expression of Crop Plants. *Physiology of Salt Stress in Plants: Perception, Signalling, Omics and Tolerance Mechanism*, 87-105.
4. Chandra, H., Kumari, P., Yadav, A., & **Yadav, Saurabh\*** (2022). Green biosynthesized metallic nanoparticles and future biomedical applications. In *Green Nanomaterials for Industrial Applications* (pp. 93-105). Elsevier.
5. Kumari, P., Thakur, R., Gupta, A., Kumar, V., Thakur, A. and **Yadav, Saurabh\*** (2022). Ethylene. In *Ethylene in Plant Biology* (eds S. Singh, T. Husain, V.P. Singh, D.K. Tripathi, S.M. Prasad and N.K. Dubey). <https://doi.org/10.1002/9781119744719.ch17>
6. Kumari, P., Thakur, R., Singh, N., Rastogi, A., **Yadav, Saurabh\*** (2022). Relationships of Oxidative Stress and Ultraviolet-B Radiation in Plants. In: Kataria, S., Singh, V.P. (eds) *UV-B Radiation and Crop Growth. Plant Life and Environment Dynamics*. Springer, Singapore. [https://doi.org/10.1007/978-981-19-3620-3\\_13](https://doi.org/10.1007/978-981-19-3620-3_13)

**Others-**

1. Successfully completed '**Annual Refresher Programme in Teaching (ARPIT-2019) in BIOTECHNOLOGY** (Roll No. 19072020800), conducted by **Ministry of Human Resource Development (MHRD), Govt. of India**, using the **MOOCs platform SWAYAM**.
2. **Post Graduate Diploma in Intellectual Property Rights (PGDIPR-2008)** from Indira Gandhi National Open University (IGNOU), New Delhi.
3. Passed **FOUR Certificate courses (2008-2009)** conducted by **World Intellectual Property Organisation (WIPO) Worldwide Academy, Geneva, Switzerland**.