

Dr Richa Salwan

Assistant Professor

Specialization: Microbiology

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Ongoing Research Projects

- Developing synergistic blend of bioformulation for combating plant diseases in agriculture- An approach towards sustainable agriculture, 34.75 lakhs, DST-SEED Division, Date of implementation 02.01.2018 to till date. Duration - 3 years PI- Dr. Richa Salwan (joined as Young Scientist at Chandigarh University and continued as PI after Nov 2018)
- Exploring Pharmacologically Important Secondary Metabolites from Endophytes Associated with *Viola odorata*- An Endemic Plant Species, Rs. 33.26 lakhs, National Medicinal Plant Boards, Date of implementation 08.04.2021 to 07.04.2024. Duration - 3 years (PI- Dr. Richa Salwan; Co-I Dr. Kamal Sharma)

Important Research Publications

- Salwan R, Rana A, Saini R, Sharma A, Sharma M, Sharma V. 2023. Diversity analysis of endophytes with antimicrobial and antioxidant potential from *Viola odorata*: an endemic plant species of the Himalayas. *Brazilian Journal of Microbiology* 1-14
- Salwan R, Sharma M, Sharma A, Sharma V. 2023. Insights into plant beneficial microorganism-triggered induced systemic resistance. *Plant Stress* 100140
- Salwan R, Sharma A, Kaur R, Sharma R, Sharma V. 2022. The riddles of *Trichoderma* Induced Plant Immunity. *Biological Control* 105037
- Salwan R, Sharma V. 2022. Genomics of Prokaryotic Extremophiles to Unfold the Mystery of Survival in Extreme Environments. *Microbiological Research* 127156
- Sharma A, Salwan R, Kaur R, Sharma R, Sharma V. 2022. Characterization and evaluation of bioformulation from antagonistic and flower inducing *Trichoderma asperellum* isolate UCRD5. *Biocatalysis and Agricultural Biotechnology* 43:102437
- Kaur R, Salwan R, Sharma V. 2022. Structural Properties, Genomic Distribution of Laccases from *Streptomyces* and Their Potential Applications. *Process Biochemistry* 118:133-144
- Salwan R, Kaur R, Sharma V. 2021. Genomic organization of *Streptomyces flavotrichini* NGL1 and *Streptomyces erythrocromogenes* HMS4 reveals differential plant beneficial attributes and laccase production capabilities. *Molecular Biotechnology* 64(4):447-462
- Salwan R, Sharma V. 2020. Genome wide underpinning of antagonistic and plant beneficial attributes of *Bacillus* sp. SBA12. *Genomics* 112(4):2894-2902
- Salwan R, Sharma V, Sharma A, Singh A 2020. Molecular imprints of plant beneficial *Streptomyces* sp. AC30 and AC40 reveal differential capabilities and strategies to counter environmental stresses. *Microbiological research* 235:126449.
- Salwan R, Sharma V. 2020. Molecular and biotechnological aspects of secondary metabolites in actinobacteria. *Microbiological Research* 231:126374

Books and manuals

- Sharma V, Salwan R, Moliszewska E, Ruano-Rosa D, Jedryczka M. 2023. The chemical dialogue between plants and beneficial microorganisms approved (in press)
- Sharma V, Salwan R. 2023. Laboratory methods in Microbiology and Molecular Biology. Elsevier Publishers ISBN: 9780323950794
- Sharma V, Salwan R and Ani AI L. 2020. Molecular Aspects of Plant Beneficial Microbes under Elsevier Publishers, USA. Editors. ISBN: 978-0-12-818-469-1
- Salwan R and Sharma V. 2020. Physiological and Biotechnological Aspects of Extremophiles under Elsevier Publishers, USA. Editors. ISBN: 978-0-12-818322-9

Awards & Recognitions

- Excellence in Research Publications on 37th foundation day of Dr. YSP UHF, Nauni on December 01, 2021
- Summer Research Fellowship 2020 for 2 months by National Science Academies INSA-NASI-IASc
- Appreciation as Best Trainee in 21 days Winter School Training at IARI, New Delhi (December 26, 2019 to January 15, 2020)
- Awarded National-Post Doctoral Fellowship (2017) for two years (PDF/2017/001417)
- International Travel Grant from CSIR for attending ASM Microbe 2018, USA
- Awarded National-Post Doctoral Fellowship (2016) for two years (PDF/2015/000519)
- Awarded CSIR-SRF in April 2011 for 3 years