CURRICULUM-VITAE

1. **NAME** : Prof. Anita Rani Santal
2. **BROAD SUBJECT AREA** : Life Sciences
3. **SPECIALIZATION** : Environmental Microbiology (Microbial and Nano-Bioremediation Technology)
4. **MAILING ADDRESS** : Professor, Department of Microbiology,
MD University, Rohtak, Haryana, India
Phone: +91-9802362486 (Mobile)
Email: anita.micro@mdurohtak.ac.in

5. ACADEMICS

- **Ph.D.** (2010) "Biological Treatment of Distillery Waste using Aerobic Bacterial Cultures" from Department of Microbiology, Kurukshetra University, Kurukshetra, Haryana.
- **M.Sc.** (2005) from the Department of Microbiology, Kurukshetra University, Kurukshetra, Haryana.
- **B.Sc.** (2003) from R.K.S.D. College Kaithal, Haryana

6. FELLOWSHIPS

- From **Feb. 2006 to Feb. 2007** worked as **University Research Scholar** at Department of Microbiology, Kurukshetra University Kurukshetra.
- From **Feb. 2007 to Feb. 2009** worked as **Junior Research Fellow** at Department of Microbiology, Kurukshetra University Kurukshetra.
- From **Feb. 2009 to March 2010** worked as **Senior Research Fellow** at Department of Microbiology, Kurukshetra University Kurukshetra.

7. TEACHING EXPERIENCE

- Professor (21st sept. 2025-continuing), Department of Microbiology, M. D. University, Rohtak-124001
- Associate Professor (21st sept. 2022-20th sept. 2025), Department of Microbiology, M.D. University, Rohtak-124001
- Assistant Professor (21st sept. 2010 to 20th sept. 2022), Department of Microbiology, M. D. University, Rohtak-124001

8. AREAS OF RESEARCH INTEREST

- ✓ Nano-biodegradation of low-density polyethylene present in the environment.
- ✓ Mechanism study for biosorption of heavy metals from soil and water using microbial exopolysaccharide.
- ✓ Production of bio-pigments using fungus.
- ✓ Biodegradation of carcinogenic compounds NDMA present in drinking water.

9. RESEARCH PAPERS PUBLISHED

- Singh, S., Grover, A., Sharma, V., Kumar, T., Santal, A.R., Chand, K., and Kumar, S. (2025). "Functional profiling and computational optimization of production of extracellular melanin from endophytic *Pseudomonas plecoglossicida* SSSK-2 isolated from *Neolamarckia cadamba*". *International Microbiology*, 28, 3093–3112. **IF 2.9**
- Saharan, B.S., Lata, P., Deshwal, R. Kumar, D., Tyagi, S., Sharma, D., Santal, A.R. Mandal, N.K., Kumar, R., Singh, G., Tokas, J. and Duhan, J.S. (2025). Insights of agricultural sustainability by the use of earthworms. *Discover Agriculture,* 3, 231.
- Lath, A., Boora, S., Sharma, J. K., Grover, A., Yadav, K., Santal, A. R., & Singh, N. P. (2025). Purification and characterization of bioactive compound from Euphorbia heyneana Spreng extracts. Journal of Applied Biology & Biotechnology, 13(6), 110-117.
- Lath, A., Boora, S., Sharma, J. K., Chand, K., Singh, S., **Santal, A. R.,** & Singh, N. P. (2024). Exploring the Therapeutic potential of Purified *Alternanthera pungens* Plant Extract. *Research Journal of Pharmacy and Technology*, 17(8), 3869-3873.
- Chand, K., Yadav, A., Singh, N. P. & **Santal, A. R.** (2024) Analysis of the drug-resistance profiles and prevalence of Pseudomonas aeruginosa obtained from various clinical samples. *Indian Journal of Public Health*, 68(1):149-150. **IF 0.9**
- Chand, K., Lath, A., Yadav, A., Sharma, M., Singh, N. P., Kumar, S., Yadav, R., Singh, S., & **Santal, A. R.** (2024). Phenotypic and genotypic detection of Beta-lactamase producing Pseudomonas aeruginosa isolated from Haryana, India. *Journal of Applied Biology & Biotechnology* 12(4):81-88.
- Chand, K., Yadav, A., Sharma, M., **Santal, A. R.,** Singh, N. P., Kumar, S., ... & Yadav, R. (2023). Prevalence and antimicrobial susceptibility profile of *Pseudomonas* species isolated from blood cultures from a tertiary care hospital of Haryana, India. Pravara Medical Review, 15(3).
- Chand, K., Yadav, A., Singh, N. P. & **Santal, A. R.** (2023) Analysis of the drug-resistance profiles and prevalence of *Pseudomonas aeruginosa* obtained from various clinical samples. *Indian Journal of Public Health*. **IF 1.7**
- Chand, K., Lath, A., Yadav, A., Sharma, M., Singh, N. P., Kumar, S., Yadav, R., Singh, S., & **Santal, A. R.** (2023). Phenotypic and genotypic detection of Beta-lactamase producing *Pseudomonas aeruginosa* isolated from Haryana, India. *Journal of Applied Biology & Biotechnology*.
- Yadav, R., Singh, G., **Santal, A. R.,** & Singh, N. P. (2023). Omics approaches in effective selection and generation of potential plants for phytoremediation of heavy metal from contaminated resources. *Journal of Environmental Management*, 336, 117730. **IF 8.91**
- Sharma, J. K., Kumar, N., Singh, N. P., & **Santal, A. R.** (2023). Phytoremediation technologies and its mechanism for removal of heavy metal from contaminated soil: An approach for a sustainable environment. *Frontiers in Plant Science*, 14, 78. **IF 6.62**
- Lath, A., **Santal, A. R.,** Kaur, N., Kumari, P., & Singh, N. P. (2022). Anti-cancer peptides: their current trends in the development of peptide-based therapy and anti-tumor drugs. *Biotechnology and Genetic Engineering Reviews*, 1-40. **IF 4.20**
- **Santal, A. R.,** Rani, R., Kumar, A., Sharma, J. K., & Singh, N. P. (2022). Biodegradation and detoxification of textile dyes using a novel bacterium *Bacillus* sp. AS2 for sustainable environmental cleanup. *Biocatalysis and Biotransformation*, 1-15. **IF 2.32**
- Rani, R., Singh, N. P., & Santal, A. R. (2021). Isolation, characterization and optimization of bacterial isolate SARR1 for biodegradation of pretreated low density polyethylene. Journal of Applied and Natural Science, 13(2), 561-570.
- Rani, R., Rathee, J., Kumari, P., Singh, N. P., & **Santal, A. R.** (2022). Biodegradation and detoxification of low-density polyethylene by an indigenous strain *Bacillus licheniformis*

SARR1. *Journal of Applied Biology and Biotechnology*, 10(1), 9-21.

- Yadav, R., **Santal, A. R.,** & Singh, N. P. (2022). Comparative root proteome analysis of two contrasting wheat genotypes Kharchia-65 (highly salt-tolerant) and PBW-373 (salt-sensitive) for salinity tolerance using LC–MS/MS approach. *Vegetos*, 1-7.
- Sharma, J. K., Sihmar, M., **Santal, A. R.,** Prager, L., Carbonero, F., & Singh, N. P. (2021). Barley melanoidins: Key dietary compounds with potential health benefits. *Frontiers in Nutrition*, *8*, 708194.
- Yadav, R., **Santal, A. R.,** & Singh, N. P. (2021). Evaluation of physiological and biochemical parameters of some wheat (Triticum aestivum) genotypes under salinity stress. Indian Journal of Agricultural Research, 55(2), 137-143. **IF 6.59**
- Sharma, J. K., Sihmar, M., **Santal, A. R.,** & Singh, N. P. (2019). Impact assessment of major abiotic stresses on the proteome profiling of some important crop plants: a current update. *Biotechnology and Genetic Engineering Reviews*, 35(2), 126-160. **IF 4.20**
- **Santal A. R.,** Singh, N. P., Singha, T. K. (2019). Characterization of extracellular polymeric substance producing isolates from wastewaters and their antibacterial prospective. *Journal of Applied Biology and Biotechnology*. 7(6), 56-62.
- **Santal, A. R.**, Singh, N. P., and Saharan, B. S. (2016). A novel application *of Paracoccus pantotrophus* for the decolorization of melanoidins from distillery effluent under static conditions. *Journal of Environmental Management*, 169, 78-83. **IF 8.91**
- **Santal, A.R.,** Singh, N.P. and Saharan, B.S. (2011). Biodegradation and detoxification of melanoidin from distillery effluent using an aerobic bacterial strain SAG_5 of *Alcaligenes faecalis*. *Journal of Hazardous Materials*, 193: 319-324. **IF 14.22**
- **Rani, A.** and Saharan, B.S. (2010). Isolation and characterization of aerobic bacteria for degradation of melanoidin in distillery waste. *Asian Journal of Microbiology, Biotechnology and Environmental Science*.12 (1): 97-102.
- **Rani, A**. and Saharan, B.S. (2009). Optimization of cultural condition for anaerobically treated distillery effluent bioremediation by an isolate *Pseudomonas putida* SAG_{45}. *Journal of Applied and Natural Sciences*. 1(2):132-137.

10. CHAPTERS PUBLISHED

- Sinha, L., Sharma, J.K., Jaroslav, K., Kozmon, S., Baráth, P., **Santal, A.R.** and Singh, N.P. (2026). Regulation and safety considerations of antimicrobial peptide use: Balancing innovation and risk In: Antimicrobial Peptides. Academic Press
- Sinha, L., Sharma, J.K., Lath, A., Gulia, J., **Santal, A.R.** and Singh, N.P. (2025). Novel Tools in Phytoremediation Technology: Proteomics and in silico tools. In: Green Biotechnology for Herbal and Medicinal Plant Metabolites. CRC Press
- Gulia, J., Singh, N. P**.** and **Santal, A.R.** (2025) Role of microfiltration in the treatment of wastewater. In Microbial Approach of Biofiltration in Industrial Wastewater Treatment for the Sustainability of Environment. ISBN 978-3-031-48149-9
- Kumar, T., Gulia, J., Rani, Y., Lath, A., Kumari, P., Singh, N. P., & **Santal, A. R.** (2025). Bioleaching of Laterites for the Extraction of Valuable Metal Ions: A Microbial Approach for Sustainable Recovery. In Advanced Bioseparation of Industrial Wastes (pp. 378-396). CRC Press.
- Gulia, J., Lath, A., Saharan, B. S., Singh, N. P**.**, & **Santal, A. R.** (2024). Removal of Micropollutants from Industrial Wastewater: Conventional and Advanced Methods. In Bioremediation of Emerging Contaminants in Water. Volume 1 (pp. 33-47). American Chemical Society.
- Kumar, V., Sharma, J. K., Gulia, J., Singh, N. P. and **Santal, A.R.** (2024) Metagenomic

and proteomic approach for bioremediation of environmental pollutants. In applied technologies for clean up of environmental contaminants" published by Elsevier S&T Books, Netherlands. ISBN: 9780443136153

- ❖ Gulia, J., Rani, Y., Lath, A., Singh, N. P. and **Santal, A.R.** (2024) Advanced Perspectives in Industrial Wastewater Treatment: A novel approach for a sustainable environment. In Trends in Biological Processes in Industrial Wastewater Treatment-IOP.
- ❖ Gulia, J., Lath, A., Rani, Y., Chand, K., Rathee, J., Kumar, S., Sharma, J. K., Singh, N. P. and **Santal, A.R.** (2024). Prospects of Multi-Omics Approaches Deciphering for Characterization of Environmental Microorganisms. In Emerging Innovative Trend in App of Bio Process for IWT.
- ❖ Sharma, J.K., Kumar, V., Singh, N. P. and **Santal, A.R.** (2024) Subsurface bioremediation of pollutants Role of soil and microbial subsurface. In Environmental Approach to Remediate Refractory Pollutants from Industrial Wastewater Treatment Plant. Elsevier. ISBN: 9780443138843
- ❖ Rani, Y., Gulia, J., Lath, A., Kumar, S., Singh, N. P. and **Santal, A.R.** (2024) Aerobic and anaerobic treatment of textile wastewater using membrane technology. In Aerobic and Anaerobic Microbial Treatment of Industrial Wastewater. ISBN: 978-1-032-46358-2. CRC Press Taylor & Francis Group.
- ❖ Rani, R., Rathee, J., Singh, N. P., & **Santal, A. R.** (2023). Isolation, Physiological Characteristics, Ecological Importance, and Chemotaxonomy of Nitrite-Oxidizing Bacteria with Their Associated Genes in Nitrogen Fixation. In Anammox Technology in Industrial Wastewater Treatment (pp. 101-117). Singapore: Springer Nature Singapore.
- ❖ Rani, R., Rathee, J., Singh, N. P., & **Santal, A. R.** (2023). Constructed Wetlands for Remediating Organic Hydrocarbons: An Approach for the Sustainable Environmental Cleanup. In Recent Trends in Constructed Wetlands for Industrial Wastewater Treatment (pp. 71-90). Singapore: Springer Nature Singapore.
- ❖ Sharma, J. K., **Santal, A. R.,** & Singh, N. P. (2022). Improvement of Seed Protein Quality in Some Important Food Crops Using Genetic Engineering Approaches. In Biotechnology and Crop Improvement (pp. 107-119). CRC Press.
- ❖ Singh, N.P., Sharma, J.K. and **Santal, A.R**. (2016). Biotechnological approaches to remediate soil and water using plant-microbe interactions. In *Phytoremediation: Management of Environmental Contaminants*. Vol. 4 Springer International Publishing. ISBN978-3-319-41810-0
- ❖ Singh, N. P., and **Santal, A. R**. (2015). Phytoremediation of Heavy Metals: The Use of Green Approaches to Clean the Environment. In *Phytoremediation Management of Environmental Contaminants* (pp. 115-129). Springer International Publishing**.** ISB**N**978-3- 319-10968-8.
- ❖ **Santal, A. R**., and Singh, N. P. (2013). Biodegradation of Melanoidin from Distillery Effluent: Role of Microbes and Their Potential Enzymes. *Biodegradation of hazardous and special products*.Intech open publisher ed. Ronaldo chamy and Francisa Rosenkranz. ISBN978-953-51-1155-9.

11. SEQUENCES SUBMITTED

- ✓ **Rani, A**., Singh, N. P. and Saharan, B. S. 2009. *Paracoccus pantotrophus* strain SAG_1 16S ribosomal RNA gene, partial sequences. GeneBank accession number GQ422441.
- ✓ **Rani, A**., Singh, N. P. and Saharan, B. S. 2009. *Pusillimonas terrae* strain SAG_3 16S ribosomal RNA gene, partial sequences. GeneBank accession number GQ422442.
- ✓ **Rani, A**., Singh, N. P. and Saharan, B. S. 2009. *Alcaligenes faecalis* strain SAG_5 16S ribosomal RNA gene, partial sequences. GeneBank accession number GQ422443.
- ✓ **Rani, A**., Singh, N. P. and Saharan, B. S. 2009. *Alcaligenes* sp. strain SAG_{45} 16S ribosomal RNA gene, partial sequences. GeneBank accession number GQ422444.

- ✓ Rani, R., **Santal, A.R.** and Singh,N.P. 2020. *Bacillus licheniformis* strain SARR1 16S ribosomal RNA gene, partial sequences. GeneBank accession number MT974150.
- ✓ **Santal, A.R.,** Rani,R. and Singh,N.P. 2021. *Bacillus paramycoides* strain SARR2 16S ribosomal RNA gene, partial sequences. GeneBank accession number OK037614
- ✓ **Santal, A.R.,** Rani,R. and Singh,N.P. 2021. *Brevibacillus formosus* strain SARR8 16S ribosomal RNA gene, partial sequences. GeneBank accession number OK087333
- ✓ **Santal, A.R.,** Rani,R. and Singh,N.P. 2021. *Bacillus subtilis* strain SARR23 16S ribosomal RNA gene, partial sequences. GeneBank accession number MZ672042
- ✓ **Santal, A.R.,** Rani,R. and Singh,N.P. 2021. *Aspergillus terreus* strain ASR1 18S ribosomal RNA gene, partial sequences. GeneBank accession number OK094930
- ✓ **Santal, A.R.,** Rani,R. and Singh, N.P. 2021. *Fusarium sp.* strain ASR2 18S ribosomal RNA gene, partial sequences. GeneBank accession number MZ672108

12. PROJECTS

- ❖ Minor Research Project on Isolation and characterization of biopigment producing bacteria from effluent contaminated soil sanctioned by Dean Student Welfare, M.D. University, Rohtak from Dr. Radha Krishnan Foundation Fund (2015-16) **Completed**
- ❖ **Major Research Project on** Conjoint approaches of microbial consortia and nanobiotechnology for biodegradation of low-density polyethylene funded by DST-SERB (2019-2022) (Rs. 50.57 Lakh) **Completed**

13. CONFERENCE/SEMINAR/ WORKSHOPS ORGANIZED

- ✓ Organizing Secretary, "3rd Hands-on Training Programme for Advanced Analytical Instrumentation Techniques- HPLC, GC & PCR" from 20th -25th November 2023 organized by Department of Microbiology, M.D. University, Rohtak.
- ✓ Organizing Secretary, "Hands-on Training Programme for Advanced Analytical Instrumentation Techniques- HPLC/GC/PCR" from 21st -26th August 2023 organized by Department of Microbiology, M.D. University, Rohtak.
- ✓ Co-Organizing Secretary, " 2nd Hands-on Training Programme for Advanced Analytical Instrumentation Techniques- HPLC/GC/PCR" from 9th -14th October 2023 organized by Department of Microbiology, M.D. University, Rohtak.
- ✓ Joint Organizing Secretary, International Conference of Association of Microbiologists of India (AMI) on "Microbial technologies for sustainable biosphere" Organized by Department of Microbiology, MDU, Rohtak held on 02th-4th February, 2023.
- ✓ Member of Organizing Committee, One day National Webinar "The Role of Intellectual Property Rights in Technology Transfer" on 19th June, 2021 organized by Centre for IPR Studies and Department of Microbiology, M.D. University, Rohtak.
- ✓ Member of Organizing team, One week national workshop-cum-training programme on "Microbial metabolites: Biotechnological advances", from 14th Feb.-19th Feb. 2022 organized by Department of Microbiology, M.D. University, Rohtak.
- ✓ Organizing Secretary, Two day National Workshop "Equipment and Techniques for Bioseparation" 25th – 26th March 2022 at Department of Microbiology, M.D. University, Rohtak
- ✓ Organizing Secretary, One day National Seminar "Entrepreneurship ideas to action (EI- A-2019): Workshop for Enhancing Women Entrepreneurship" 27th April 2019 at Department of Microbiology, M.D. University, Rohtak
- ✓ Organizing Secretary, International Conference on Microbes for Biotechnological Innovations Organized by Department of Microbiology & AMI-Rohtak Unit, MDU, Rohtak held on 07th December, 2018.
- ✓ Member of Organizing Committee, National Research Colloquium cum Workshop on

"Microbes in Food, Energy and Environment: Its importance and Future Prospect" (MFEE-2016) on 2nd April, 2016 at Department of Microbiology, M.D. University, Rohtak

- ✓ Organizing Secretary, One day National Seminar "Trends in Bioprocess Technology: Innovations and Implications in Microbiology" (TBTI^{2}M) on 10th March 2014 at Department of Microbiology, M.D. University, Rohtak.
- ✓ Member of Organizing Committee, 2nd National Seminar on "Microbes in Human Welfate" on 24th March, 2012 at Department of Microbiology, M.D. University, Rohtak
- ✓ Member of Organizing Committee, 1st National Seminar on "Microbes and Resource Management" on 22nd October, 2011 at Department of Microbiology, M.D. University, Rohtak.

14. SEMINARS/CONFERENCES/INVITED TALKS

A. Invited talks

- ✓ Delivered a talk on the topic **Microbial Exoploysaccharides** on 17th February 2022 in One week National workshop-cum-training programme on "Microbial metabolites: Biotechnological advances", from 14th Feb.-19th Feb. 2022 organized by Department of Microbiology, M.D. University, Rohtak.
- ✓ Delivered an extension lecture on the topic **Bioremediation and waste management for sustainable environment** on 10th December 2022 at R.K.S.D. College Kaithal.

B. Poster/Oral presentations

- ❖ **Santal, A. R.,** Ankita, Kumar, T., Gulia, J., Rani, Y., Singh, N.P. (2023) Synthesis and antimicrobial activity of exopolysaccharide-mediated silver nanoparticles. National conference on Recent trends in materials and life sciences. Organized by Department of Chemistry, MDU, Rohtak held on 29th September, 2023.
- ❖ Tulsi, Singh, N.P. **Santal, A. R.,** (2023) Role of Exopolysaccharide extracted from *Bacillus licheniformis* strain D39 and *Bacillus paralicheniformis* strain GM75 in potential detoxification of targeted heavy metals. National Conference on Recent trends in materials and life sciences. Organized by Department of Chemistry, MDU, Rohtak held on 29th September, 2023.
- ❖ Kirti, Lath, A., Sheetal, Santal, A.R. Singh, N.P. (2023) Effect of lead stress on the growth and physiology of *Triticum aestivum* L. and *Hordeum vulgare* L. National conference on Recent trends in materials and life sciences. Organized by Department of Chemistry, MDU, Rohtak held on 29th September, 2023.
- ❖ Tulsi, Jyoti, Singh, N.P., **Santal, A.R.** (2023) Isolation of EPS producing bacteria from sewage water and quantitative approach for EPS extraction by membrane based and ethanol precipitation methods. International conference on Biotechnology and Human welfare:Vision 2030 and beyond organized by Department of Biotechnology, Chaudhary Devi Lal University, Sirsa held on 3rd – 4th March 2023.
- ❖ Jyoti, Kumar, T., Singh, N. P., **Santal, A. R.** (2023) Extraction and purification of colored pigments from the fungus *Fusarium oxysporum*. International Conference of Association of Microbiologists of India (AMI) on "Microbial technologies for sustainable biosphere" Organized by Department of Microbiology, MDU, Rohtak held on 02th-4th February, 2023.
- ❖ Kumar, T., Jyoti, Singh, N. P., **Santal, A. R.** (2023) A Quantitative approach for the extraction of EPS by membrane-based and ethanol precipitation methods from bacteria isolated from sewage water. International Conference of Association of Microbiologists of India (AMI) on "Microbial technologies for sustainable biosphere" Organized by

Department of Microbiology, MDU, Rohtak held on 02th-4th February, 2023.

- Chand, K., Yadav, A., Sharma, M., Singh, N. P., **Santal, A. R.** (2023) Antimicrobial susceptibility profile of *Pseudomonas* species isolated from blood cultures. International Conference of Association of Microbiologists of India (AMI) on "Microbial technologies for sustainable biosphere" Organized by Department of Microbiology, MDU, Rohtak held on 02th-4th February, 2023.
- Chand, K., Yadav, A., Singh, N. P. & Santal, A. R. (2023) Prevalence of multidrug resistant Pseudomonas aeruginosa in pus/swab samples in a tertiary care hospital in Haryana (India). International conference on Recent innovations in Biological Research held on 17th -18th March 2022.
- Singh, N. P., **Santal, A. R.** (2022) Growth enhancing and salinity alleviating activity of *Trichoderma* sp. on maize seedlings grown under salinity stress. **Best oral paper presentation award** in International Conference on Recent Innovations in Biological Research (ICRIBR-2022) held on 17th -18th March 2022 organized by Department of Botany, PSGR Krishnamal College for Women, Coimbatore, Tamil Nadu, India.
- Bisla, I., Rani, R. Singh, N. P., **Santal, A. R.** (2021) Production of bacteriocins from lactic acid bacteria and its antimicrobial potential. Oral presentation in Two days national conference on "Quality control of Indian medicinal plants-Standardised raw material to finished products" Organized by Department of Pharmaceutical Sciences, Maharshi Dayanand University, Rohtak.
- Sangam, Rani, R. Singh, N. P., **Santal, A. R.** (2020) Biodegradation study of diesel oil by using various bacterial cultures isolated from contaminated sites in Ist International conference of Indian Science Congress Association – Rohtak chapter on "Science & Technology: Rural Development"(ICSTRD-2020), 4-5, March 2020 Organized by Department of Chemistry, Maharshi Dayanand University, Rohtak.
- Rani, R. Singh, N. P., **Santal, A. R.** (2019) Biodegradation of low density polyethylene by bacteria in INSCR International conference (CTM-2019) on " Current trends in microbiology and microbiome research: A global perspectives" 11th-12th October 2019 Organized by Department of Microbiology, Maharshi Dayanand University, Rohtak.
- Atri, S., Rani, R. Singh, N. P., **Santal, A. R.** (2019) Isolation and characterization of *Azotobacter* sp. and its effect on seed germination of *Cicer arietinum* in International seminar on "Sustainable Environment & Agriculture under Global Climate Change" February 21, 2019 at Maharshi Dayanand University, Rohtak.
- Anjali, Rani, R. Singh, N. P., **Santal, A. R.** (2018) Biodegradation of naphthalene by an aerobic bacterium from contaminated soil in International Conference on Sustainable Agriculture, Energy, Environment and Technology (Icsaeet-2018) held on February 24-25, 2018 at Maharshi Dayanand University, Rohtak.
- **Santal, A.R.** Singh, N.P. Pimoli, P. (2018) Probiotic Characterization of bacteria isolated from different fermented foods in National Seminar on "Climate Change and Food Security" held on 25th Jan. 2018 Organized by Centre for Biotechnology, MDU Rohtak
- Rani, R., Singh, N.P., **Santal, A.R.** and Naveen (2018) Biodegradation of Flourene by an indeginous bacterial isolate strain SM1 from contaminated site in National Seminar on "Climate Change and Food Security" held on 25th Jan. 2018 Organized by Centre for Biotechnology, MDU Rohtak
- Kumar, A., Rani, R., Singh, N.P. and **Santal, A.R.** (2018) Biotransformation of Dyes by Bacteria Isolated from Contaminated Soil of Textile Industry. International Conference on Microbes for Biotechnological Innovations Organized by Department of Microbiology & AMI-Rohtak Unit, MDU, Rohtak held on 07th December, 2018.
- **Santal, A.R.** Singh, N.P. Kanchan (2016) Purification of biopigment and phylogenetic relationship of pigment producing bacteria in National seminar on Frontiers in Genetics and Genomics on 22nd Nov. 2016 at Department of Biotechnology UIET,

M.D.University, Rohtak.

- **Santal, A.R.** Singh, N.P. Rani, R. (2015) Isolation and characterization of Fluorine degrading bacteria" in 56th Annual Conference of AMI entitled "International symposium on Emerging discoveries in Microbiology" organized by School of Life Sciences, Jawaharlal Nehru University, New Delhi from 07-10 Dec., 2015.
- **Santal, A.R.** Singh, N.P. and Saharan, B.S (2013) UV mutagenesis in bacteria enhanced the decolorization of distillery effluent. In 54th Annual conference of AMI 'Frontier Discoveries and innovations in Microbiology and its interdisciplinary Relevance' (FDMTR-2018) from 17-20 Nov. 2013.
- Singh, N.P., Yadav, R. and **Santal, A.R.** (2013) Isolation and purification of salt stress tolerant rhizobacteria from the rhizosphere of the *Salicornia* sp. In 54th Annual conference of AMI 'Frontier Discoveries and innovations in Microbiology and its interdisciplinary Relevance' (FDMTR-2018) from 17-20 Nov. 2013.
- **Anita,** Saharan, B.S., and Ranga, P (2008) "Melanoidin biodegradation using bacteria" in 49th Annual Conference of AMI "International symposium on Microbial Biotechnology: Diversity, Genomics and Metagenomics" held by University of Delhi from 18-20 Nov, 2008.
- **Anita,** Saharan, B.S., and Ranga, P (2007) Studies on production of PHB using soil isolates from irrigated agro-ecosystem, paper presentation in "Microbes: biofactories of the future", 48th Annual Conference of AMI, I.I.T. Madras, Chennai, from 18-21 Dec, 2007.

C. Attended and participated

- ✓ Participated one day Training Programme on 24th January 2022 under "National Intellectual Property Awareness Mission" organized by Intellectual property office, India.
- ✓ Participated three days national conference on "Entrepreneurship and startup opportunities in herbal drugs-Away forward" on 8th-10th March 2022 organized by Department of Pharmeceutical Sciences, M.D. University, Rohtak.
- ✓ Attended one week workshop on "E-Resource optimization in research productivity" from 23rd August to 27th August 2021 Organized by Vivekananda Library, M.D. University, Rohtak.
- ✓ Attended 2nd Capacity Building National webinar cum workshop Entitled "Ethics in biomedical research and GCP Guidelines" on 15th March 2021 organized by Human ethics committee and Department of Zoology, M.D. University, Rohtak.
- ✓ Attended one day webinar on Ist March 2021 entitled "Feeding and fueling the future climate resilient crops for enhanced production of food and fuels" organized by Department of Botany, Kurukshetra University, Kurukshetra.
- ✓ Attended International Bioinformatics workshop for drug discovery and development conducted from 8th Feb to 18th Feb. 2021.
- ✓ Attended one day national webinar on 9th October 2021 entitled "IPR-Patent and designs filing process" organized by Centre for IPR Studies, M.D. University, Rohtak
- ✓ Attended three days long INYAS-CUPB Virtual workshop# Blueplanet on 16th Oct. 2020, organized by Central University of Punjab.
- ✓ Attended six days lecture workshop 'tangled bank'from 31st May-5th June 2020 organized by INYAS Deptt. Of Botany, Central University Punjab, Bathinda.
- ✓ National seminar on Convergence of Biotechnology and Engineering for Industry on 26th Nov. 2014 at Department of Biotechnology UIET, M.D. University, Rohtak.
- ✓ National Research Colloquium cum Workshop on "Microbes in Food, Energy and Environment: Its importance and Future Prospect" (MFEE-2016) on 2nd April, 2016 at Department of Microbiology, M.D. University, Rohtak
- ✓ National conference on big data analytics cum workshop on computer aided drug design

organized by Centre for Bioinformatics on 7-8 Nov. 2016 M.D. University, Rohtak.

- ✓ National Seminar cum workshop on 22nd Oct., 2016 "Animal ethics and experimentation" organized by central animal house MDU Rohtak.
- ✓ Participated in One day workshop on "Method Development Techniques in HPTLC and HPLC held on 16th Nov. 2016 organized by Department of Pharmaceutical Sciences and Dean Student Welfare.
- ✓ Attended National Seminar on Advances in Virology on 28th sept. 2017 organized by Centre for Medical Biotechnology MDU Rohtak
- ✓ Attended short term Training Course on Plant transgenic technologies from 1st- 16th Oct. 2014 organized by Centre for Biotechnology, MDU Rohtak
- ✓ Acted as a Judge in International Day for the Preservation of the Ozone Layer on 16th Sept. 2014 organized by Department of Environmental Sciences, MDU Rohtak

15. SUPERVISION

Sr. No.	Course	No. of students supervised	Status
1.	Ph.D.	07	02 Completed 05 Registered
2.	M.Sc. Dissertations	66	Awarded

16. MEMBERSHIP

- ❖ Association of Microbiologists of India (Life Member)
- ❖ The Indian Science Congress Association (Life Member)

Place: Rohtak (Haryana) **(Prof. Anita Rani Santal)**
Dated: 08-07-2026