#### CURRICULUM VITAE

#### Santosh Kumar Tiwari, PhD

Professor of Microbial Genetics

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#### **Education**

- Ph.D. (Genetics) 2008. Production, Purification and Characterization of plantaricin LR14: A Novel Two-Peptide Bacteriocin from *Lactobacillus plantarum* LR/14. Supervisor: Prof. Sheela Srivastava, Department of Genetics, University of Delhi South Campus, New Delhi, India
- M.Sc. (Botany) 1997. Udai Pratap College, Varanasi, Purvanchal University, U.P., India

## **Employments**

- Assistant Professor (26<sup>th</sup> July 2008 2<sup>nd</sup> May 2010) Banasthali University, Rajasthan
- Assistant Professor (3<sup>rd</sup> May 2010 25<sup>th</sup> July 2020) Maharshi Dayanand University, Rohtak
- Associate Professor (26<sup>th</sup> July 2020 25<sup>th</sup> July 2023) Maharshi Dayanand University, Rohtak
- Professor (26<sup>th</sup> July 2023 Present) Maharshi Dayanand University, Rohtak

# Awards, Memberships and Fellowships

- Received International Travel Grant from DST, New Delhi, 2024
- Best Teacher Award by Microbiologist Society, India since Jan 2022
- INSA Indo-Australia EMCR Fellowship (Monash University, Clayton, Victoria, Australia) 2017-18
- IUSSTF Indo-US Research Fellowship (Rutgers, The State University of New Jersey, USA) 2010-11
- DST Young Scientist (FAST TRACK Scheme), 2009-12
- Innovative Young Academician/Researcher Award, 2010
- Member, Society for Applied Microbiology, London, 2017
- Life Member, Indian Science Congress 2014
- Life Member, Probiotic Association of India 2015
- Life Member, Biotech Research Society of India, 2014
- Life Member, Association of Microbiologists of India, 2003
- Founder Life Member, Swedish South Asian Network on Fermented Foods, 2003
- Secretary, Association of Microbiologists of India, Rohtak Unit, 2015
- Regular Member of Human Proteome Organization USA, 2011
- ICMR Research Associate Fellowship, 2008
- ICMR Senior Research Fellowship, 2006
- CSIR-UGC National Eligibility Test (NET), December, 2001

#### **Academic distinctions**

- Coordinator, UGC-STRIDE Programme on Bioprospecting Natural Products for Human Health and Socioeconomic Development in Haryana 2020-2023
- Course Coordinator, Global Initiative of Academic Network, Ministry of Education, Government of India
- Associate Editor, Probiotics and Antimicrobial Proteins 2017-2021
- Editor, Journal of Applied Microbiology 2017-2022
- Editor, Letters in Applied Microbiology 2017-2022
- Reviewer of several journals of international repute such as Process Biochemistry, Biotechnology Process, Biocatalysis and Biotrasformation, Probiotics and Antimicrobial proteins, Journal of Applied Microbiology, Letters in Applied Microbiology etc.
- Member of Committee for Research Promotion Policy (2018), Maharshi Dayanand University, Rohtak
- Member of Academic Council (25.112021-24.11.2023), Maharshi Dayanand University, Rohtak

- Member Faculty of Life Science, 2010-11, 2017-18, 2022-23 Maharshi Dayanand University, Rohtak
- Member of Admission Committee, Since 2010, Department of Genetics, Maharshi Dayanand University Rohtak
- Member of Post Graduate Board of Studies (PGBoS), Department of Genetics, M. D. University Rohtak
- Member of Departmental Research Committee 2011, Department of Genetics, M. D. University Rohtak
- Member of Course Curriculum Design for M.Sc. Genetics, Department of Genetics, M. D. University Rohtak
- Member of Anti-Ragging Committee, Department of Genetics, Maharshi Dayanand University Rohtak
- Coordinator Departmental IQAC, Department of Genetics, Maharshi Dayanand University Rohtak
- Member of Committee on Carrier Counseling and Placement Cell, Department of Genetics, M. D. U. Rohtak
- Member of several Project Purchase Committees, Department of Genetics, M. D. University Rohtak
- Member of Inspection Committee for several Colleges, M. D. University, Rohtak
- Examiner to evaluate M.Phil. and PhD Thesis from different Universities.
- Jury Member in Inter-college competition, Department of Botany, Maharshi Dayanand University Rohtak
- Observer for several national level competitive examinations such as Joint Engineering Examination (Main), Central Teaching Eligibility Test, National Eligibility Test etc.

## **Research interest**

We have demonstrated bacteriocin production in food and soil isolates of lactic acid bacteria. These bacteria were identified using genetic and biochemical methods which were characterized for probiotic properties and bacteriocin production. The mutant bacteriocin generated was found to be more effective and inhibited broadrange of pathogenic bacteria than wild type. In addition, bacteriocins of food isolates have shown higher efficacy for application in food safety and therapeutics. Our findings have, first time, demonstrated the activity of probiotic bacteriocins against Gram-negative members. The mode of action of these bacteriocins was found to be bactericidal, caused ATP efflux, dissipated membrane potential and pH gradient of the target cells. These bacteriocins were found to be novel peptides with unique sequences and stability. Their activity against MDR strains has shown new way to be used as an alternative to clinical antibiotics to solve multidrug resistance problem. The inhibitory property of bacteriocins is also being characterized for the modulation of microbiota and improvement of human health. In addition, our group is also working on haloarchaea metabolites for their potential industrial applications.

# Research guidance

#### PhD thesis:

- 1. Naveen Kumar (2014, completed) Designing and discovering novel antimalarial drugs. http://hdl.handle.net/10603/141901
- 2. Aabha Gupta (2015, completed) Purification and characterization of bacteriocins of lactic acid bacteria isolated from fermented foods.
- 3. Ramanjeet Kaur (2017, completed) A comparative study on purification and characterization of peptide antibiotics from environmental isolates of lactic acid bacteria and haloarchaea. http://hdl.handle.net/10603/208171
- 4. Vijay Kumar (2017, Completed) Purification and characterization of antimicrobial peptides from haloarchaea isolated from Pachpadra Salt Lake, Rajasthan. http://hdl.handle.net/10603/206970
- 5. Poonam (2019, completed) Mode of action of enterocin LD3 and plantaricin LD4 against target bacteria to evaluate their application in food safety. http://hdl.handle.net/10603/300435
- 6. Manoj Yadav (2023, completed) Method optimization for high-throughput screening of bacteriocin-producing lactic acid bacteria
- 7. Indu Kumari (2019, registered) Genetic characterization of *Lactobacillus plantarum* LD1 and *Enterococcus hirae* LD3 for production of bacteriocins
- 8. Pallvi (2021, registered) Characterization of enterocin LD3 purified from food-grade *Enterococcus hirae* LD3 for application in oral health
- 9. Pushpa (2021, registered) Optimization of culture conditions for growth and production of bacteriocin by *Lactobacillus plantarum* LD1 for application in food safety

- 10. Pardeep (2022, registered) Purification, characterization and applications of carotenoids from *Haloferax larsenii* HA1 and HA3 isolated from Pachpadra Salt Lake, Rajasthan
- 11. Anjana (2022, registered) Modulation of gut microbiota using bacteriocin-producing lactic acid bacteria in mice
- 12. Pooja (2025, enrolled) Molecular cloning and expression of bacteriocin gene from Enterococcus hirae LD3

#### MSc dissertation:

- 1. Parul (2024) Green synthesis and characterization of bacteriocin silver nanoparticles from *Lactiplantibacillus* plantarum STRR7
- 2. Mansi Tiwari (2024) Development of postbiotic preparation from Lactiplantibacillus plantarum STRR7
- 3. Mansi (2024) Effect of prebiotic preparations on growth and production of bacteriocin by *Lactiplantibacillus* plantarum STRR7
- 4. Tannu (2024) Characterization of crude bacteriocin isolated from Lactiplantibacillus plantarum STRR7
- 5. Palvi (2024) Genetic characterization of Lactiplantibacillus plantarum STRR7 for bacteriocin production
- 6. Komal (2024) Green synthesis of silver nanoparticles from cell-free supernatant of *Haloferax larsenii* HA4
- 7. Pushpa (2023) Probiotic potential of *Lactobacillus plantarum* NRRL B-44-96
- 8. Jyoti (2023) Condition optimization for growth and production of bacteriocin from *Lactobacillus plantarum* NRRL B-44-96
- 9. Navneet (2023) Purification and characterization of bacteriocin produced by *Lactobacillus plantarum* NRRL B-44-96
- 10. Ritu (2023) Isolation and characterization of lactic acid bacteria from indigenous fermented food, Raabadi
- 11. Madhu (2022) Mode of action and applications of bacteriocins: A review
- 12. Priya (2022) Global regulatory requirements of lactic acid bacteria in health and medical use
- 13. Nidhi (2022) PDA vesicles: Biosensor for the detection of antimicrobial peptides
- 14. Vikash (2022) Probiotics against viruses: The next generation antiviral agents
- 15. Ashish (2022) Biosynthesis, extraction and application of haloarchaeal carotenoids
- 16. Kajol (2021) Probiotics and host immune modulation
- 17. Kirti (2021) Therapeutic applications of bacteriocins produced by probiotics
- 18. Aakanksha (2021) Microorganisms associated with indigenous fermented foods and their health benefits
- 19. Jyoti (2021) Probiotics, gut microbiota and related diseases
- 20. Pavitra (2020) Mode of action of bacteriocins against target bacteria
- 21. Aashima (2020) Mutagenic strategies used to optimize bacteriocin production and its applications
- 22. Piyush (2020) Statistical optimization of bacteriocin production
- 23. Sakshi (2020) Bacteriocins of probiotic lactic acid bacteria as natural food preservative
- 24. Dipika (2019) Genetic characterization of bacteriocin production by a *Lactobacillus plantarum* sp
- 25. Anshul (2019) Food safety applications of plantaricin LD1 in indigenous Indian foods
- 26. Priyanka (2019) Bacteriocin from *Lactobacillus plantarum* LD1aganist clinical isolate of *Enterococcus faecalis* for oral health
- 27. Rubal (2019) Probiotic efficacy of a food isolate Lactobacillus plantarum sp
- 28. Deepak (2018) Tangential flow filtration and antimicrobial property of bacteriocin isolated from *Lactobacillus* plantarum LD1
- 29. Monika (2018) Comparison of antimicrobial activity of bacteriocin S6 and LD1 on cell viability and morphology of target bacteria.
- 30. Parneeta (2018) Genetic characterization of bacteriocin produced by *Lactobacillus plantarum* LD1.
- 31. Tarun (2018) Effect of prebiotics on the growth and bacteriocin production of Lactobacillus plantarum LD1.
- 32. Pradeep (2017) Inhibition of food-borne pathogens by bacteriocin of Lactobacillus plantarum LD4.
- 33. Neetu (2017) Isolation and characterization of probiotics from human saliva.
- 34. Sonia (2017) Comparison of purification methods of two bacteriocins from *Lactobacillus plantarum* LD1 and *Enterococcus hirae* LD3.
- 35. Khushboo (2017) UV and chemical mutagenesis of bacteriocin-producing Lactobacillus plantarum LD4.
- 36. Dhruv (2017) Transformation of *Escherichia coli* with pLD1 and pLM85 containing antibiotics genes from *Lactobacillus plantarum* LD1 and *Wissella confusa* LM85.
- 37. Ritu (2016) Effect of UV mutagenesis on antimicrobial activity of *Lactobacillus plantarum* LD4.
- 38. Bhawna (2016) Plasmid profiling of different strains of haloarchaea isolated from salt lake.

- 39. Sonia (2016) Purification of bacteriocin from cell-free supernatant of Lactobacillus plantarum LD1.
- 40. Pooja (2016) Plasmind profiling and antimicrobial activity of lactic acid bacteria isolated from soil samples.
- 41. Monica (2015) Optimization of culture medium for growth and production of halocin from *Haloferax larsenii*.
- 42. Nandita (2015) Purification of bacteriocin from *Lactobacillus plantarum* and evaluation of its antimicrobial activity.
- 43. Jyoti (2015) Optimization of culture medium for growth and bacteriocin production from *Lactobacillus* plantarum.
- 44. Karishma (2014) Plantaricin LD4: A new bacteriocin with broad host range against Gram-positive and Gram-negative bacteria.
- 45. Nidhi (2014) Characterization of bacteriocin from E. faecium strain LD/3 isolated from batter of Dosa.
- 46. Parul (2013) Survival of lactic acid bacterium strain LD4 in simulated Gastric conditions.
- 47. Geeta (2013) Identification and characterization of lactic acid bacteria strain LD4 for antimicrobial property.
- 48. Gitika (2013) Probiotic potential of lactic acid bacterium strain LD4.
- 49. Annu (2013) Biochemical characterization and host range of lactic acid bacterium strain LD4.
- 50. Aabha (2009) Isolation and characterization of lactic acid bacteria from fermented foods.
- 51. Madhu (2009) Isolation and characterization of lactic acid bacteria from soil samples.

#### **Extramural Research Grants:**

S. No.	Title of the projects	Funding Agencies	Amount (Rs. lacs)	Duration	Status
1	Bacteriocins of probiotic bacteria: from	Ministry of Education [GIAN], New Delhi	6.68	One week	Ongoing
	food safety to human and veterinary health- promotion [GIAN/S-24-25/295]			13-18 Oct 2025	
	Course Coordinator				
2	Translational science for health-promotion, food and feed [176021H02]	Ministry of Education [GIAN], New Delhi	3.28	One week	Completed
	Course Coordinator			21-27 Nov 2023	
3	Bioprospecting Natural Products for	University grant Commission, New Delhi	80.00	3 years	Completed
	Human Health and Socio economic Development in Haryana			Jan, 2020 – Feb, 2023	
	Coordinator				
4	Characterization of bacteriocins to establish	Indian Council of Medical Research, New Delhi	18.16	3 Years	Completed
	mechanism of action against target microorganisms			Jan, 2017 – 31 <sup>st</sup> Dec	
	Principal Investigator			2019	
5	Purification and X-ray Crystallography of bacteriocins produced by <i>Lactobacillus</i> plantarum LD1 and <i>Enterococcus hirae</i> LD3	Indian National Science Academy, New Delhi	14.69	6 months  April - September 2017	Completed
	Indo-Australia Research Fellow			2017	
6	Purification and molecular characterization	Department of Biotechnology, New Delhi	46.63	3 Years	Completed
	of halocin produced by <i>Haloferax larsenii</i> strains HA/3			Aug, 2014 – July 2017	
	Principal Investigator			•	
7	Development and Validation of High	Department of Biotechnology, New Delhi	44.60	3 years	Completed
	Throughput Methods for Screening of Antimicrobial Peptides from Lactic Acid Bacteria			Nov, 2013 – Oct, 2016	

	Principal Investigator				
8	Bacteriocin Production by Lactic Acid Bacteria - Purification and Characterization Principal Investigator	Department of Science and Technology, New Delhi	18.66	3 years Sept, 2011 - Aug, 2014	Completed
9	Characterization of halocins produced by haloarchaea isolated from Pachpadra Salt Lake in Rajasthan  Principal Investigator	Council of Scientific and Industrial Research, New Delhi	16.96	3 Years Jan, 2010- July, 2013	Completed
10	Characterization of bacteriocins of lactic acid bacteria isolated from fermented foods-Search for an effective food biopreservative  Principal Investigator	University Grant Commission, New Delhi	10.32	3 Years May, 2009 - April, 2012	Completed
11	Design of Antimicrobial Peptides for Therapeutic Application: Structure- Function Analysis Indo-US Research Fellow	Indo-US Science and Technology Forum, New Delhi	10.18	6 months Dec, 2010 - June, 2011	Completed

## **Research publications:**

- 1. Rani P, Singh B, **Tiwari SK** (2025) Bacteriocin Production by *Lactiplantibacillus plantarum* LD1 in Solid-State Fermentation Using Lignocellulosic Substrates. Fermentation (accepted). IF 3.3. ISSN: 2311-5637.
- 2. Yadav MK, Baldia A, **Tiwari SK** (2025) Plantaricin LD1 inhibits *Salmonella enterica* subsp. *enterica* serovar Typhimurium ATCC 13311 in fruit juice. Biology Bulletin (accepted). IF 0.5. ISSN 1608-3059
- 3. Todorov SD, Tagg J, Algburi A, **Tiwari SK**, Popov I, Weeks R, Mitrokhin OV, Kudryashov IA, Kraskevich, DA, Chikindas ML (2024) The hygienic significance of microbiota and probiotics for human wellbeing. Probiotics Antimicrobial Proteins (Online ahead of print. Dec 17, 2024). doi: 10.1007/s12602-024-10419-9. IF 4.4. ISSN: 1867-1306.
- 4. Sheokand P and **Tiwari SK** (2024) Characterization of carotenoids extracted from *Haloferax larsenii* NCIM 5678 isolated from Pachpadra salt lake, Rajasthan. Extremophiles 28(3):33. https://doi.org/10.1007/s00792-024-01353-3. IF 2.6. ISSN: 1431-0651
- 5. Yadav MK, and **Tiwari SK** (2024) Weissellicin LM85 purified from *Weissella confusa* LM85 effluxes potassium ions and depletes proton motive force in *Escherichia coli* ATCC 25922. International Journal of Peptide Research and Therapeutics 30:44. https://doi.org/10.1007/s10989-024-10622-w. IF 2.0, ISSN: 1573-3904.
- 6. Todorov, SD, Lima JMS, Bucheli JEV, Popov IV, **Tiwari SK**, and Chikindas ML (2024) Probiotics for aquaculture: hope, truth and reality. Probiotics and Antimicrobial Proteins 16(6): 2007-2020. https://doi.org/10.1007/s12602-024-10290-8. IF 4.9. ISSN: 1867-1306.
- 7. Yadav MK, and **Tiwari SK** (2024) Mechanism of cell killing activity of plantaricin LD1 against *Escherichia coli* ATCC 25922. Applied Biochemistry and Biotechnology 196:7570-7587. https://doi.org/10.1007/s12010-024-04927-1. IF 3.0. ISSN 1559-0291.
- 8. Anu, Alokika, Kuhad RC, Rapoport A, Kumar V, Singh D, Kumar V, **Tiwari SK**, Ahlawat S, and Singh B (2023) Biological pretreatment of lignocellulosic biomass: An environment-benign and sustainable approach for conversion of solid waste into value-added products. Critical Reviews in Environmental Science and Technology 54 (10): 771-796. https://doi.org/10.1080/10643389.2023.2277670. IF 11.24
- 9. Singh B., Pragya, **Tiwari SK**, Singh D., Sandeep K, Malik V (2023) Production of fungal phytases in solid state fermentation and potential biotechnological applications. World Journal of Microbiology and Biotechnology 40 (1): 22. https://doi.org/10.1007/s11274-023-03783-1. IF 4.1. ISSN 1573-0972

- 10. Vinod, Kaushik N, and **Tiwari SK**, Singh D, Singh B (2023) Green synthesis of iron nanoparticles: Sources and multifarious biotechnological applications. International Journal of Biological Macromolecules 253 (4): 127017. doi.org/10.1016/j.ijbiomac.2023.127017. IF 8.2. ISSN: 0141-8130
- 11. Sheoran P, Yadav MK, Kumari I, and **Tiwari SK** (2023) Enterocin LD3 from *Enterococcus hirae* LD3 inhibits the growth of *Salmonella enterica* subsp. *enterica* serovar Typhimurium ATCC 13311 in fruit juice. Probiotics and Antimicrobial Proteins. 16(4):1205-1213, Aug 2024. doi: 10.1007/s12602-023-10108-z. IF 4.9. ISSN: 1867-1306
- 12. Yadav MK, Baldia A, and **Tiwari SK** (2023) Plantaricin LD1 inhibits the growth and biofilm formation of *Staphylococcus aureus* in milk. Journal of Exploratory Research in Pharmacology doi: 10.14218/JERP.2023.00011. ISSN: 2572-5505
- 13. Yadav MK, and **Tiwari SK** (2023) Methods for determination of antimicrobial activity of bacteriocins of lactic acid bacteria. Microbiology 92(6):745-765. IF 1.5. ISSN: 0026-2617
- 14. Saini M, Anu, Rapoport A, **Tiwari SK**, Singh D, Malik V, Kumar S, Singh B (2023) Bioacetoin production by *Bacillus subtilis* subsp. *subtilis* using enzymatic hydrolysate of lignocellulosic biomass. Fermentation 9(8), 698; https://doi.org/10.3390/fermentation9080698. IF 3.7. ISSN: 2311-5637
- 15. Anjana, and **Tiwari SK** (2022) Bacteriocin-producing probiotic lactic acid bacteria in controlling dysbiosis of the gut microbiota. Frontiers in Cellular and Infection Microbiology 12: 851140. doi.org/10.3389/fcimb.2022.851140. Impact Factor 5.7. ISSN: 2235-2988
- 16. Yadav P, and **Tiwari SK**, Kumar V, Kumar D, Kumar S, Malik V, Singh B (2022) Sugarcane bagasse: An important lignocellulosic substrate for production of enzymes and biofuels. Biomass Conversion and Biorefinery. Impact Factor 4.0. ISSN: 2190-6823. doi.org/10.1007/s13399-022-02791-9
- 17. Yadav MK, Yadav P, Dhiman M, Tewari S, **Tiwari SK** (2022) Plantaricin LD1 purified from *Lactobacillus plantarum* LD1 inhibits biofilm formation of *Enterococcus faecalis* ATCC29212 in tooth model. Letters in Applied Microbiology, 75(3), 623-631. doi:10.1111/lam.13668. Impact Factor 2.4 ISSN: 1472-765X.
- 18. Yadav MK, Kumari I, Singh B, Sharma KK, **Tiwari SK** (2022) Probiotics, prebiotics and synbiotics: Safe options for next-generation therapeutics. Applied Microbiology and Biotechnology 106(2): 505-521. http://doi:10.1007/s00253-021-11646-8. IF 5.0. ISSN: 1432-0614 (Q1 Scopus)
- 19. Kumar V, Singh B, van Belkum MJ, Diep DB, Chikindas ML, Ermakov AM, **Tiwari SK** (2021) Halocins, natural antimicrobials of Archaea: exotic or special or both? Biotechnology Advances 53: 107834. https://doi.org/10.1016/j.biotechadv.2021.107834. IF 17.681. ISSN 0734-9750 (Q1 Scopus)
- 20. Yadav MK, and **Tiwari SK** (2021) Polydiacetylene vesicles acting as colorimetric sensor for the detection of plantaricin LD1. Analytical Biochemistry 631: 114768. https://doi.org/10.1016/j.ab.2021.114368. IF 2.9 ISSN: 0003-2697 (Q3 Scopus) 3
- 21. Kaur R., and **Tiwari S.K.** (2021) Purification and characterization of a new halocin HA4 from *Haloferax larsenii* HA4 isolated from a salt lake. Probiotics and Antimicrobial Proteins 13(5): 1458-1466. DOI:10.1007/s12602-021-09823-2. IF 4.9 ISSN: 1867-1306. (Q3 Scopus)
- 22. Kumar G., Tewari S., Tagg J., Chikindas M.L., Popov I.V., **Tiwari S.K.** (2021) Can probiotics emerge as effective therapeutic agents in apical periodontitis? A Review. Probiotics and Antimicrobial Proteins 13: 299-314. DOI: 10.1007/s12602-021-09750-2. IF 5.265. ISSN: 1867-1306
- 23. Sheoran P., and **Tiwari S.K.** (2020) Synergistically-acting enterocin LD3 and plantaricin LD4 against Grampositive and Gram-negative pathogenic bacteria. Probiotics and Antimicrobial Proteins 13: 542-554. DOI: 10.1007/s12602-020-09708-w. IF 5.265. ISSN: 1867-1306
- 24. Dahiya S., Bajaj B., Kumar A., **Tiwari S.K.** Singh B. (2020) A review on biotechnological potential of multifarious enzymes in bread making. Process Biochemistry 99: 290-306. IF 4.4 ISSN: 1359-5113 (Q2 Scopus)
- 25. Kaur R., and **Tiwari S.K.** (2020) Identification and characterization of a halocin-producing haloarchaeon isolated from Pachpadra salt lake. Letters in Applied Microbiology 71(6): 620-626. doi: 0.1111/LAM.13377. Impact Factor 2.813. ISSN: 1472-765X.
- 26. **Tiwari S. K.**, Dicks L.M.T., Popov I.V., Karaseva A., Ermakov A.M., Suvorov A., Tagg J.R., Weeks R., Chikindas M.L. (2020) Probiotics at war against viruses: What is missing from the picture? Frontiers in

- Microbiology 11: 1877. doi: 10.3389/fmicb.2020.01877. Impact Factor 6.064, ISSN: 1664-302X. (Q1 Web of Science, Q1 Scopus)
- 27. Sheoran P., and **Tiwari S.K.** (2019) Enterocin LD3 from *Enterococcus hirae* LD3 causing efflux of intracellular ions and UV absorbing materials in Gram-negative bacteria. Journal of Applied Microbiology 126:1059-1069 (DOI: 10.1111/jam.14203). Impact Factor 4.059. ISSN 1365-2672.
- 28. Sheoran P., and **Tiwari S.K.** (2019) Anti-staphylococcal activity of bacteriocins of food isolates *Enterococcus hirae* LD3 and *Lactobacillus plantarum* LD4 in pasteurized milk. 3Biotech 9(1):1-7 (DOI: 10.1007/s13205-018-1546-y). Impact Factor 2.893. ISSN 2190-5738.
- 29. Yadav M.K., Singh B., **Tiwari S.K.** (2019) Comparative analysis of inhibition-based and indicator-independent colorimetric assay for screening of bacteriocin-producing lactic acid bacteria. Probiotics and Antimicrobial Proteins 11(2): 687-695. Impact Factor 5.265. ISSN: 1867-1306
- 30. Kaur R., and **Tiwari S.K.** (2018) Membrane-acting bacteriocin purified from a soil isolate *Pediococcus pentosaceus* LB44 shows broad host-range. Biochemical and Biophysical Research Communication 498(4):810-816. doi.org/10.1016/j.bbrc.2018.03.062. IF 3.322. ISSN: 0006-291X. (Q2 Scopus)
- 31. Kaur R., and **Tiwari S.K.** (2017) Optimization of culture conditions for bacteriocin production by soil isolates *Pediococcus pentosaceus* LB44 and *Weissella confusa* LM85. International Journal of Infection 4(3): e15842. ISSN: 2383-1413.
- 32. Kumar V., and **Tiwari S.K.** (2017) Halocin HA1: An archaeocin produced by the haloarcheon *Haloferax larsenii* HA1. Process Biochemistry 61, 202-208. IF 4.885. ISSN: 1359-5113
- 33. Kumar V., and **Tiwari S.K.** (2017) Activity-guided separation and characterization of new halocin HA3 from fermented broth of *Haloferax larsenii* HA3. Extremophiles 21(3): 609-621. IF 3.035. ISSN: 1431-0651
- 34. Yadav M.K., Kumar V., Singh B., **Tiwari S.K.** (2017) Phospholipid/polydiacetylene vesicle-based colorimetric assay for high throughput screening of bacteriocins and halocins. Applied Biochemistry and Biotechnology 182: 142-154. Impact Factor 3.095. ISSN: 0273-2289
- 35. Kumar V., Sheoran P., Gupta A., Yadav J.P., **Tiwari S.K.** (2016) Antibacterial property of bacteriocin produced by *Lactobacillus plantarum* LD4 isolated from fermented food. Annals of Microbiology 66: 1431-1440. Impact Factor 3.168. ISSN: 1590-4261
- 36. Gupta A., **Tiwari S.K.**, Chikindas M.L. (2016) Biochemical properties and mechanism of action of enterocin LD3 purified from *Enterococcus hirae* LD3. Probiotics and Antimicrobial Proteins 8 (3): 161-169. IF 5.265. ISSN: 1867-1306
- 37. Kaur R., and **Tiwari S.K.** (2016) Isolation, identification and characterization of *Pediococcus pentosaceus* LB44 and *Weissella confusa*LM85 for the presence of bacteriocin-like inhibitory substances (BLIS). Microbiology 85 (5): 540-547. IF 1.511, ISSN: 0026-2617
- 38. Kumar V., Saxena J., **Tiwari S.K.** (2016) Description of a new halocin-producing *Haloferax larsenii* HA/1 and antimicrobial activity present in culture supernatant. Archives of Microbiology 198: 181-192. Impact factor 2.667 ISSN: 0302-8933
- 39. **Tiwari S.K.**, Noll K.S., Cavera V.L., Chikindas M.L. (2015) Improved antimicrobial activity of synthetic-hybrid bacteriocins designed from enterocin E50-52 and pediocin PA-1. Applied and Environmental Microbiology 81: 1661-1667. doi:10.1128/AEM.03477-14 Impact Factor 5.005. ISSN: 0099-2240
- 40. **Tiwari S. K.**, and Srivastava S. (2015) Broad-antimicrobial-spectrum of plantaricin LR14 against Grampositive and Gram-negative bacteria. Austin Journal of Analytical and Pharmaceutical Chemistry 1036: 1-4. ISSN: 2381-8913
- 41. Gupta A., and **Tiwari S.K.** (2015) Probiotic potential of bacteriocin-producing *Enterococcus hirae* strain LD3 isolated from batter of Dosa. Annals of Microbiology 65: 2333-2342. Impact factor 3.168. ISSN:1590-5261
- 42. Singh, N., Kaushik N.K., Mohankrishnan D., **Tiwari S.K.**, and Sahal D. (2015) Antiplasmodial Activity of Medicinal Plants from Chhotanagpur Plateau, Jharkhand, India. Journal of Ethnopharmacology 165: 152-162. Impact factor 5.195. ISSN: 0378-8741
- 43. Kaushik N.K., Bagavan A., Abdul R.A., Zahir A.A., Kamaraj C., Elango G., Jayaseelan C., Kirthi A.V., Kumar T.S., Marimuthu S., Rajakumar G., **Tiwari S.K.**, Sahal D. (2015) Evaluation of antiplasmodial activity

- of medicinal plants from North Indian Buchpora and South Indian Eastern Ghat. Malaria Journal 14:65. Impact factor 3.469. ISSN: 1475-2875
- 44. Gupta A and **Tiwari S.K.** (2014a) Probiotic potential of *Lactobacillus plantarum* LD1 isolated from batter of Dosa, a South Indian fermented food. Probiotics and Antimicrobial Proteins 6:73-81. Impact factor 5.265. ISSN: 1867-1306
- 45. Gupta A. and **Tiwari S.K.** (2014b) Plantaricin LD1: A bacteriocin produced by food isolate of *Lactobacillus plantarum* LD1. Applied Biochemistry and Biotechnology 172: 3354-3362. Impact Factor 3.094. ISSN: 0273-2289
- 46. Gitika and **Tiwari S.K.** (2013) Probiotic potential of lactic acid bacteria strain LD/4. International Journal of Pharmacy and Life Sciences 49: 3000-3006. IF 4.256 ISSN: 0796-7126
- 47. Kumar M., **Tiwari SK** and Srivastava S. (2010) Purification and characterization of enterocin LR/6, a new bacteriocin from *Enterococcus faecium* LR/6. Applied Biochemistry and Biotechnology 160: 40-49. Impact Factor 3.094. ISSN: 0273-2289
- 48. Ghosh N., Kumar M., **Tiwari S.K.** and Srivastava S. (2008) Probiotic potential of two Environmental isolates of Lactic acid bacteria, *Lactobacillus plantarum* LR/14 and *Enterococcus faecium* LR/6. International Journal of Probiotics and Prebiotics 3: 199-206. ISSN: 1555-1431
- 49. **Tiwari S.K.** and Srivastava S. (2008) Purification and Characterization of a novel bacteriocin from natural isolate of *Lactobacillus plantarum* LR/14. Applied Microbiology and Biotechnology 79: 759-767. Impact Factor 5.56, ISSN: 0175-7598
- 50. **Tiwari S.K.** and Srivastava S. (2008) Characterization of a bacteriocin from *Lactobacillus plantarum* strain LR/14. Food Biotechnology 22: 241-267. Impact Factor 2.297. ISSN: 0890-5436
- 51. **Tiwari S.K.** and Srivastava S. (2008) Statistical optimization of culture components for enhanced bacteriocin production by *Lactobacillus plantarum* LR/14. Food Biotechnology 22: 64 -77. Impact Factor 2.297. ISSN: 0890-5436

#### **Book edited:**

1. Current Trends in Biotechnology. 2012 (eds S. K. Tiwari and B. Singh) ISBN: 978-3-659-15773-8, LAMBERT Academic Publishing GmbII & Co., Säarbraichen, Germany.

#### **Chapters in books:**

- Rani, P and Tiwari, S.K. (2023) Health benefits of bacteriocins produced by probiotic lactic acid bacteria. In Microbial Biomolecules: Emerging Approach in Agriculture, Pharmaceuticals and Environment Management (eds. Ajay Kumar, Muhammad Bilal, LFR Ferreira and Madhuree Kumari), Elsevier UK. ISBN: 978-0-323-99476-7
- 2. Sharma, P. and **Tiwari S. K.** (2020) Bacteriocins of probiotics as potent anticancer agents. In An Update on Probiotic Research in Therapeutics (ed. I. P. Kaur and P. Deol ) Springer Nature (vol 1: 231-250) ISBN: 978-981-15-8214-1
- 3. Kumar, V. and **Tiwari, S.K.** (2019). Halocin diversity among halophilic archaea and their applications. In Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications (ed. T. Satyanarayana), SPi Global USA (vol 1: pp 497-532) ISBN: 978-981-13-8314-4
- 4. Kumar, V. and **Tiwari, S.K.** (2014). Peptide Antibiotics of haloarchaea: An Alternative to clinical antibiotics. In Biotechnology Vol. 3: Microbial Biotechnology (ed. J.N. Govil), Studium Press LCC, USA. pp 203-223. ISBN: 1-62699-015-8
- 5. Gupta A. and **Tiwari S. K**. (2012) Applications of Lactic Acid Bacteria and their Bacteriocins. In Current Trends in Biotechnology (eds S.K. Tiwari and Bijender Singh) LAMBERT Academic Publishing GmbII & Co., Säarbraichen, Germany, pp 249-274. ISBN: 97-3-659-15773-8
- 6. **Tiwari S. K.** (2012) Recent advances in peptide antibiotics of lactic acid bacteria. In Current Trends in Biotechnology (eds S.K. Tiwari and Bijender Singh) LAMBERT Academic Publishing GmbII & Co., Säarbraichen, Germany, pp 74-99. ISBN: 97-3-659-15773-8

- 7. Singh B. and **Tiwari S. K.** (2012) Metagenomics: A gateway for novel bio-molecules of biotechnological potential. In Current Trends in Biotechnology (eds S.K. Tiwari and Bijender Singh) LAMBERT Academic Publishing GmbII & Co., Säarbraichen, Germany, 335-350. ISBN: 97-3-659-15773-8
- 8. Gupta A. and **Tiwari S.K.** (2008) Industrial Applications of Lactic Acid Bacteria. In Molecular Biology and Biotechnology: Selected Contributions of International Conference- 2008 (eds V. Sharma and B.N. Tripathi) LAMBERT Academic Publishing GmbII & Co., Säarbraichen, Germany, 97-113. ISBN: 978-3-8433-6029-6

## Papers presented in conferences/invited lectures:

- 1. **Tiwari SK** (2025) Bacteriocin production among lactic acid bacteria: A recently discovered probiotic trait having multifarious applications in human and animal health. Yakult International Symposia on Beneficial Microbes. Organized by University of Sao Paulo, Brazil. 27-28 March 2025.
- 2. **Tiwari SK** (2024) Bacteriocins as potential modulator of microbiota for the correction of dysbiosis. VII International Scientific Conference on Microbiota of Humans and Animals. Organized by Institute of Experimental Medicine, St. Petersburg, Russia. 14-16 October, 2024.
- 3. **Tiwari SK** (2024) Halocins: Novel antimicrobial peptides of haloarchaea known for stability under extreme conditions. Invited lecture at Winter School on Safety and beneficial properties of fermented foods organized by Department of Pharmaceutical Sciences, University of Sao Paulo, Brazil. 26<sup>th</sup> July 2024.
- 4. **Tiwari SK** (2023) Bacteriocins of lactic acid bacteria: Hope for next generation therapeutics (topic 1. Research Proposals for Extramural Fundings and Academic Excellence (topic 2). Invited lectures at Faculty Development Centre under PMMNNMTT, Banasthali University Rajasthan on 2<sup>nd</sup> November 2023.
- 5. **Tiwari SK** (2023) Efficacy of bacteriocins of lactic acid bacteria against diseases-causing animal pathogenic bacteria. Invited talk in the School of Young Scientists held within the framework of the grant of Russian Science Foundation on "Molecular aquaculture strategy in the design of novel symbiotic preparation for improvement of health and quality in fishery". Organized by Don State Technical University, Rostov-on-Don, Russia on 11<sup>th</sup> December 2023.
- 6. **Tiwari SK** (2023) Activity-guided separation and characterization of new halocin HA3 from fermented broth of *Haloferax larsenii* HA3. International Scientific Conference on Probiotics, Prebiotics, Gut Microbiota and Health. 20-22 June 2023 at Bratislava, Slovakia.
- 7. **Tiwari SK** (2022) Bacteriocins of probiotics: Health benefits and therapeutic potential. Invited lecture organized by Department of Biotechnology, Central University of Haryana, Mahendergarh on 26<sup>th</sup> September 2023.
- 8. **Tiwari SK** (2022) Prebiotics and bacteriocins: Emerging tools for modulation of microbiota. 4<sup>th</sup> International Scientific Conference on Human and Animal Microbiota, St. Petersburg, Russia on 3-5 October 2022.
- 9. **Tiwari SK** (2022) Research proposal writings for various funding agencies. Two Week Capacity building Programme (Jan 12-25, 2022) Faculty Development Centre under PMMMNMTT, MDU Rohtak on 18.01.2022.
- 10. **Tiwari S. K.** (2021) Modulation of gut microbiota using bacteriocin-producing lactic acid bacteria. Third International Scientific Conference on human and animal microbiota organized by Institute of Experimental Medicine, St. Petersburg, Russia on 7-8<sup>th</sup> October, 2021.
- 11. **Tiwari S. K.** (2021) Health benefits of bacteriocins produced by probiotics isolated from fermented foods. Online National Webinar on "Metabolomics and Human Health" organized by ICAR-Directorate of Rapeseed-Mustard Research, Bharatpur, Rajasthan on 2<sup>nd</sup> August 2021.
- 12. **Tiwari S. K.** (2021) Health benefits of bacteriocin-producing lactic acid bacteria isolated from indigenous fermented foods. International Conference on beneficial Microbes. Organized by Don State Technical University, Rostov-on-Don, Russia held virtually on June 01-06, 2021.
- 13. **Tiwari S.K.** (2020) Probiotics against viruses. One week International Faculty Development Programme on "Research breakthroughs and technology developments in life sciences" organized by Department of Botany, PSGR Krishnammal College for Women, Coimbatore from 10-16<sup>th</sup> August 2021.

- 14. **Tiwari S.K.** (2020) Probiotics at war against viruses: What is missing from the picture? 5<sup>th</sup> Biennial e-Conference of PAi and International e-Symposium on the "Probiotics and Immunity: way forward to microbial therapy" held on 19-20 November 2020.
- 15. **Tiwari S.K.** (2020) Mode of action of bacteriocin from food-isolate *Enterococcus hirae* LD3 against target bacteria. 107<sup>th</sup> Indian Science Congress organized by University of Agricultural Sciences, Banglore on 03-07<sup>th</sup> January 2020.
- 16. **Tiwari S.K.** (2019) Extramural research grants from funding agencies: Opportunities and Challenges. Resource person on 5<sup>th</sup> Induction training program organized by Faculty Development Centre, Banasthali University, Rajasthan on 13<sup>th</sup> December 2019.
- 17. **Tiwari S.K.** (2019) Enterocin LD3 from *Enterococcus hirae* LD3 causing efflux of intracellular ions and UV absorbing materials in Gram-negative bacteria. 13<sup>th</sup> International Scientific Conference on Probiotics, Prebiotics, Gut Microbiota and Health" Organized by International Probiotic Congress at Prague Congress Centre, Prague, Czech Republic on 17-20<sup>th</sup> June 2019.
- 18. **Tiwari S.K.** (2019) Broad host-range of membrane-acting bacteriocin purified from a soil isolate *Pediococcus pentosaceus* LB44 (oral presentation). 106<sup>th</sup> Indian Science Congress organized by Lovely Professional University, Jalandhar on 03-07<sup>th</sup> January 2019.
- 19. **Tiwari S.K.** (2017) Bacteriocins: Molecule with multifarious potential from food preservative to therapeutic agent (oral presentation). National Conference on Biotechnology: Exploring through innovations. Organized by Central University of Haryana on November 13-14, 2017.
- 20. **Tiwari S. K.** (2017) Vesicle-based colorimetric assay for high throughput screening of antimicrobial peptides (poster presentation). International Conference on Microbes for Health and Wealth. Organized by Department of Microbiology, M. D. University Rohtak on November 14, 2017.
- 21. **Tiwari S.K.** (2017) Bacteriocins: Novel solution for the treatment of infectious diseases (invited lecture). 58<sup>th</sup> Annual Conference of Association of Microbiologist of India (AMI) and International Symposium on Microbes for sustainable development: Scope and applications. Organized by School of Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow on November 16-19, 2017.
- 22. **Tiwari S.K.** (2016) Opportunities and challenges in getting research grants from extramural funding agencies (invited speaker). A symposium on the art and science of writing research projects for extramural funding agencies. Organized by Pt. B. D. Sharma University of Health Sciences, Rohtak on May 12, 2016.
- 23. **Tiwari S.K.** (2016) Probiotic potential of bacteriocin-producing *Enterococcus hirae* strain LD3 isolated from batter of Dosa (Invited Speaker) 3<sup>rd</sup> Biennial Conference of Probiotic Association of India and International Symposium on Stress, Microbiome and Probiotics. Organized by NISER Bhubaneswar on March 11-13, 2016.
- 24. Kumar V., **Tiwari S.K.** (2015) Activity Testing and Mode of Action of Halocin HA1 from *Haloferax larsenii* HA1 (poster presentation). 56<sup>th</sup> Annual Conference of Association of Microbiologist of India and International Symposium on Emerging Discoveries in Microbiology. Organized by School of Life Science, JNU, New Delhi on December 07-10, 2015.
- 25. Sheoran P., Kumar V., **Tiwari S.K.** (2015) Purification of Bacteriocin Produced by *Lactobacillus Plantarum* LD4 Isolated from Batter of Dosa (poster presentation). 56<sup>th</sup> Annual Conference of Association of Microbiologist of India and International Symposium on Emerging Discoveries in Microbiology. Organized by School of Life Science, JNU, New Delhi on December 07-10, 2015.
- 26. Yadav M. K., Tiwari S.K. (2015) Optimization of Methods for High Throughput Screening of Bacteriocin Producing Strains of Lactic Acid Bacteria. LD3 (poster presentation). 56<sup>th</sup> Annual Conference of Association of Microbiologist of India and International Symposium on Emerging Discoveries in Microbiology. Organized by School of Life Science, JNU, New Delhi on December 07-10, 2015.
- 27. Gupta A., Chikindas M.L., **Tiwari S.K.** (2015) Mechanism of action and biochemical properties of enterocin LD3 purified from *Enterococcus hirae* LD3 (poster presentation). 56<sup>th</sup> Annual Conference of Association of Microbiologist of India and International Symposium on Emerging Discoveries in Microbiology. Organized by School of Life Science, JNU, New Delhi on December 07-10, 2015.
- 28. **Tiwari S.K.**, Noll K.S., Cavera V.L., Chikindas M.L. (2015) Design and synthesis of hybrid bacteriocins from enterocin E50-52 and pediocin PA-1 for improved therapeutic potential. Poster presentation. International

- conference on "New Horizons in Biotechnology (NHBT-2015)" Organized by Biotech Research Society, India and CSIR-IIST Tiruvananthpuram held on November 22-25, 2015.
- 29. **Tiwari S.K**. (2015) Design of synthetic-hybrid bacteriocins from enterocin E50-52 and pediocin PA-1 for therapeutic applications. Oral presentation. World Congress on Biotechnology. Organized by Omics International, USA held on October 05-07, 2015 in New Delhi.
- 30. **Tiwari S.K.** (2015) Design of Antimicrobial Peptides for Therapeutic Applications: Structure-Function Analysis. National Conference on Therapeutic Potential of Natural Products: Current Innovations & Future Trends. Joint Secretary. Organized by Department of Genetics, MDU, Rohtak on March 19, 2015.
- 31. **Tiwari S.K.** (2015) Microbial Peptides: Discovering Novel Antibiotics. (invited talk) Department of Bioscience and Biotechnology, Banasthali University, Rajasthan. February 6, 2015.
- 32. **Tiwari S.K.** (2014) Bacteriocins and Halocins: Finding Alternative to Antibiotics. International Conference in Emerging Trends in biotechnology (Poster presentation). Organized by School of Life Science, JNU. November 6-9, 2014.
- 33. **Tiwari S.K.** (2014) Bacteriocins of Lactic Acid Bacteria: An alternative to Clinical Antibiotics (Oral Presentation). International Conference on Frontier Discoveries and Emerging Opportunities in Life Sciences. Organized by School of Biological Sciences, Dr. Hari Singh Gaur University, Sagar, M.P. February 13-15, 2014.
- 34. Kumar V. and **Tiwari S.K.** (2013) Identification of *Haloferax larsenii* HA1 and characterization of halocin HA/1 (Poster Presentation). International Conference in advances in Biotechnology and bioinformatics (ICABB 2013) & X Convention of the Biotech Research Society, India. Organized by Dr. D. Y. Patil Vidyapeeth, Pune and The Biotech Research Society, India. November 25-27, 2013.
- 35. Kumar V. and **Tiwari S.K.** (2013) Biochemical characterization of antimicrobial peptide from *Haloferax larsenii* HA/3 (Poster Presentation). 54<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI 2013). Platinum Jubilee Celebrations of Association of Microbiologists of India (Estd: 1938) & International Symposium on Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance. Organized by Department of Microbiology, M. D. University, Rohtak. November, 17-20, 2013.
- 36. Kaur, R., Poonam and **Tiwari S.K.** (2013) Characterization of bacteriocins produced by lactic acid bacteria isolated from mulberry rhizosphere (Poster Presentation). 54<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI 2013). Platinum Jubilee Celebrations of Association of Microbiologists of India (Estd: 1938) & International Symposium on Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance. Organized by Department of Microbiology, M. D. University, Rohtak. November, 17-20, 2013.
- 37. Gupta, A. and **Tiwari S.K.** (2013) Purification and Characterization of Plantaricin LD1 from *Lactobacillus plantarum* LD1 (Poster Presentation). 54<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI 2013). Platinum Jubilee Celebrations of Association of Microbiologists of India (Estd: 1938) & International Symposium on Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance. Organized by Department of Microbiology, M. D. University, Rohtak. November, 17-20, 2013.
- 38. **Tiwari S.K.** (2013) Design of Antimicrobial Peptides for Therapeutic Application: Structure-Function Analysis. Indo-US Research Fellows Conclave Organized by Indo-US Science and Technology Forum (IUSSTF), New Delhi in partnership with Science and Engineering Research Board (SERB), Department of Science and Technology (DST), Government of India at Marriott Hotel, Pune. March15-17, 2013.
- 39. **Tiwari S.K**. (2012) Characterization of peptide antibiotics of lactic acid bacteria and Haloarchaea (Poster Presentation). National Symposium on "Microbes in Health and Management". Organized by School of Life Sciences, Jawaharlal Nehru University, New Delhi. March 12-13, 2012.
- 40. **Tiwari S.K**. (2012) International Conference on "Towards Better Innovation Ecosystem" (attended), Organized by Indian National Academy of Engineering, New Delhi. September 20-21, 2012.
- 41. Gupta, A. and **Tiwari S.K.** (2012) Characterization of bacteriocins produced by *Lactobacillus hilgardii* LD/1 and *Enterococcus faecium* LD/3 (Poster Presentation). International Conference on Industrial Biotechnology; IX Convention of the Biotech Research Society, India; Indo-Italian Workshop on Food Biotechnology: Industrial Processing, Safety and Health. Organized by Department of Biotechnology, Patiala University, Patiala. November, 21-23, 2012.
- 42. Gupta, A. and **Tiwari S.K.** (2012) Probiotic potential of lactic acid bacteria from batter of Dosa (Poster Presentation). International Conference on Microbial World: Recent Innovation and Future Trends. 53<sup>rd</sup> Annual Conference of AMI organized by KIIT University, Bhubneswar, Odisha. November, 22-25, 2012.
- 43. **Tiwari S.K.,** Srivastava S. and Chikindas M.L. (2011) Purification and Characterization of Bacteriocins of Lactic Acid Bacteria: Peptide Modifications and Structure-Function Relationship. (Poster Presentation)

- Proteomics: New Developments and Grant Challenges. Organized by US HUPO, Raleigh, NC, USA, March 20-23, 2011.
- 44. Gupta, A. and **Tiwari, S.K**. (2011). Characterization of bacteriocins produced by different strains of lactic acid bacteria isolated from fermented foods (Poster presentation). 52<sup>nd</sup> Annual Conference of AMI, PU, Chandigarh, Nov. 03 06, 2011.
- 45. Gupta, A. and **Tiwari, S.K.** (2011). Characterization of bacteriocins of different sp. of *Enterococcus* (Poster presentation). 6<sup>th</sup> National Conference on Thermodynamics of Chemical and Biological Systems. Organized by Indian Chemical Society, MDU, Rohtak, Nov. 02 04, 2011.
- 46. **Tiwari S.K**. (2010). Application of Lactic Acid Bacteria in Food Safety (Oral Presentation) National Symposium on biotechnology in India: Current Status and Future Scope. Organized by Academy of Innovative Research, Jaipur. 30<sup>th</sup> March 2010.
- 47. **Tiwari S. K**. (2010) Colloquium on Microbial Technology for Human Benefits (attended), Organized by AMI at M.D. University, Rohtak. 7<sup>th</sup> August, 2010.
- 48. **Tiwari S.K.** and Srivastava S. (2009). Purification and Characterization of plantaricin LR14: A Novel Two-Peptide Bacteriocin from *Lactobacillus plantarum* LR/14 (Poster presentation). 50<sup>th</sup> Annual Conference of AMI, National Chemical Laboratory, Pune, December 15-18, 2009.
- 49. **Tiwari S.K.** and Srivastava, S. (2009) Plantaricin LR14: A Novel Peptide Antibiotic from *Lactobacillus Plantarum* LR/14" (selected for oral presentation). 3rd Congress of European Microbiologists FEMS 2009, Gothenburg, Sweden. June 28-July 2, 2009.
- 50. **Tiwari S.K.** (2009) Life science Conclave 2009, India: The Emerging Life Science Global Destination, New Delhi (attended), 27-28 August, 2009.
- 51. Gupta A. and **Tiwari S.K.** (2008) Industrial Applications of Lactic Acid Bacteria. International Conference on Molecular Biology and Biotechnology: ICMBB-2008, Member of organizing Committee, Banasthali University, Rajasthan. Oct 19-21, 2008.
- 52. **Tiwari S.K.** (2008) Probiotics for human health. Jubilee Conference on Women's Education: Vision and Mission of Women's Universities in a Global Society (attended), Banasthali University, Rajasthan. Nov 11-13, 2008.
- 53. **Tiwari S.K.** and Srivastava, S. (2008) Purification and Characterization of plantaricin LR14: A Two-Peptide Bacteriocin from *Lactobacillus plantarum* LR/14 (accepted for oral communication) EMBO world lecture course in 'Recent Developments in Macromolecular Crystallography' National Chemical Laboratory, Pune, November 9-14, 2008.
- 54. **Tiwari S.K.** and Srivastava, S. (2006) A Bacteriocin with Broad Host Range from *Lactobacillus plantarum* LR/14-A Potential Food Biopreservative (accepted for oral communication). The 20th International ICFMH Symposium food safety and food biotechnology: diversity and global impact. Alma Mater Studiorum, Bologna, Italy, Aug 29 Sept 02 2006.
- 55. **Tiwari S.K.** (2005). Characterization and purification of bacteriocin isolated from natural isolate of *Lactobacillus plantarum* LR/14 (Oral presentation). 46<sup>th</sup> Annual Conference of AMI, Osmania University, Hyderabad, Dec. 8-10, 2005.
- 56. Srivastava S., Kumar M. and **Tiwari S.K.** (2004). Synthesis and characterization of bacteriocin produced by lactic acid bacteria isolated from rhizosphere (accepted for oral presentation) 4<sup>th</sup> Asian Conference on Food and Nutrition Safety, Bali, Indonesia, March 2-5, 2004.
- 57. **Tiwari S.K.**, Kumar M., and Srivastava, S. (2004). Identification and Characterization of bacteriocins isolated from environmental isolates of *Lactobacillus plantarum* LR/14 and *L. lactis* LR/6 (Poster presentation). Bioconvergence 2004, Thapar Institute of Engineering and Technology, Patiala, Punjab, India, Nov. 18-20 2004
- 58. **Tiwari S.K.** and Srivastava, S. (2004). Production and characterization of bacteriocin from an environmental isolate *Lactobacillus plantarum* LR/14 (Poster presentation). 45<sup>th</sup> Annual Conference of AMI, NDRI, Karnal, Nov. 23-25, 2004.
- 59. Srivastava S., **Tiwari S.K.**, Kumar M., and Virdi J.S. (2003). Probiotic potential of bacteriocin producing environmental isolates of lactic acid bacteria (Poster presentation). International Seminar and workshop on "Fermented Foods, Health Status and Social Well-being" Institute of Rural Management, Anand, Gujarat, Nov. 13-14, 2003.
- **60. Tiwari S.K.**, Kumar M., Srivastava S. and Virdi J.S. (2003). Bacteriocin production by some natural isolates of *Lactobacillus* sp (Poster presentation). Microbes and Human resistance, 44<sup>th</sup> Annual Conference of AMI India, University of Agricultural Sciences, Dharwad, Nov. 12-14, 2003.