CURRICULUM VITAE

Dr. Anjum Gahlaut

Ph.D. (Biotechnology)
Center for Biotechnology
Maharshi Dayanand University,
Rohtak-124001

Research Publications:

1. Sheoran, P., Kharewal, T., **Gahlaut, A.,** & Hooda, V. (2024). Nanomaterial-driven advances in electrochemical sensing for penicillins: a review. *International Journal of Environmental Analytical Chemistry*, 1-26.

2. Goyal, B., Verma, N., Kharewal, T., **Gahlaut, A.**, & Hooda, V. (2024). Structural effects of nanoparticles on their antibacterial activity against multi-drug resistance. *Inorganic and Nano-Metal Chemistry*, *54*(6), 534-546.

3. Soni, A., Nehra, K., Dahiya, B., Rais, A., Prasad, T., **Gahlaut, A**., ... & Mehta, P. K. (2024). Detection of MPT-64 protein in pleural tuberculosis cases by magnetic bead-gold nanoparticle-PCR amplified immunoassay. *Future Microbiology*, 1-9.

4. Yadav, A., Kharewal, T., Verma, N., Tehri, N., **Gahlaut, A.,** & Hooda, V. (2023). Electrochemical biosensors for the quantification of streptomycin in food systems: an overview. *International Journal of Environmental Analytical Chemistry*, *103*(17), 5835-5850.

5. Kashyap, S., Tehri, N., Verma, N., **Gahlaut, A.,** & Hooda, V. (2023). Recent advances in development of electrochemical biosensors for the detection of biogenic amines. *3 Biotech*, *13*(1), 2.

6. Dhull, V., **Gahlaut, A.,** & Hooda, V. (2023). Nanomaterials based biosensors for the detection of organophosphate compounds: a review. *International Journal of Environmental Analytical Chemistry*, *103*(16), 4200-4224.

7. Bansal, K., Hooda, V., Verma, N., Kharewal, T., Tehri, N., Dhull, V., & **Gahlaut, A.** (2022). Stress alleviation and crop improvement using silicon nanoparticles in agriculture: a review. *Silicon*, *14*(16), 10173-10186.

8. Tehri, N., Vashishth, A., **Gahlaut, A**., & Hooda, V. (2022). Biosynthesis, antimicrobial spectra and applications of silver nanoparticles: Current progress and future prospects. *Inorganic and Nano-Metal Chemistry*, *52*(1), 1-19.

9. **Gahlaut, A.**, Kharewal, T., Verma, N., & Hooda, V. (2022). Cell-free arsenic biosensors with applied nanomaterials: critical analysis. *Environmental Monitoring and Assessment*, *194*(8), 525.

10. Tehri, N., Vashishth, A., **Gahlaut, A.**, & Hooda, V. (2022). *Biosynthesis, antimicrobial spectra and applications of silver nanoparticles: current progress and future prospects. Inorganic and Nano-Metal Chemistry, 52 (1): 1-19.*

11. Hooda, V., **Gahlaut, A.**, & Hooda, V. (2021). A novel amperometric biosensor for rapid detection of ethanol utilizing gold nanoparticles and enzyme coupled PVC reaction cell. *Environmental Technology*, *42*(21), 3318-3328.

12. Hooda, V., Verma, N., **Gahlaut, A.**, & Gothwal, A. (2021). Reusable enzymatic strip for detection of arsenic. *Brazilian Archives of Biology and Technology*, *64*, e21200132.

13. Tanwar, J., Sharma, M., Parmar, A., Tehri, N., Verma, N., **Gahlaut, A**., & Hooda, V. (2020). Antibacterial potential of silver nanoparticles against multidrug resistant bacterial isolates from blood cultures. *Inorganic and Nano-Metal Chemistry*, *50*(11), 1150-1156.

14. Verma, N., Sisodiya, L., **Gahlaut, A.,** Hooda, V., & Hooda, V. (2020). Novel approach using activated cellulose film for efficient immobilization of purified diamine oxidase to enhance enzyme performance and stability. *Preparative Biochemistry & Biotechnology*, *50*(5), 468-476.

15. Verma, N., Hooda, V., **Gahlaut, A**., Gothwal, A., & Hooda, V. (2020). Enzymatic biosensors for the quantification of biogenic amines: A literature update. *Critical reviews in biotechnology*, *40*(1), 1-14.

16. Kumari, S., Tehri, N., **Gahlaut, A.**, & Hooda, V. (2020). Actinomycetes mediated synthesis, characterization, and applications of metallic nanoparticles. *Inorganic and Nano-Metal Chemistry*, *51*(10), 1386-1395.

17. Verma, N., Saini, R., **Gahlaut, A**., & Hooda, V. (2020). Stabilization and optimization of purified diamine oxidase by immobilization onto activated PVC membrane. *Food Biotechnology*, *34*(4), 306-322.

18. Kharewal, T., Verma, N., **Gahlaut, A.**, & Hooda, V. (2020). Biosensors for penicillin quantification: a comprehensive review. *Biotechnology Letters*, *42*, 1829-1846.

19. Hooda, V., & **Gahlaut, A.** (2020). Amperometric cholesterol determination using HRP incorporated carbon paste electrode. *Biosciences Biotechnology Research Asia*, *17*(1), 53-64.

20. **Gahlaut, A.,** Hooda, V., Gothwal, A., & Hooda, V. (2019). Enzyme-based ultrasensitive electrochemical biosensors for rapid assessment of nitrite toxicity: recent advances and perspectives. *Critical Reviews in Analytical Chemistry*, *49*(1), 32-43.

21. Vinita Hooda, V. H., Vikas Kumar, V. K., **Anjum Gahlaut**, A. G., & Vikas Hooda, V. H. (2018). A novel amperometric bienzymatic biosensor based on alcohol oxidase coupled PVC reaction cell and nanomaterials modified working electrode for rapid quantification of alcohol.

22. **Gahlaut, A.**, Hooda, V., Dhull, V., & Hooda, V. (2018). Recent approaches to ameliorate selectivity and sensitivity of enzyme-based cholesterol biosensors: A review. *Artificial cells, nanomedicine, and biotechnology*, *46*(3), 472-481.

23. Vinita Hooda, V. H., Vikas Kumar, V. K., **Anjum Gahlaut**, A. G., & Vikas Hooda, V. H. (2018). A novel amperometric bienzymatic biosensor based on alcohol oxidase coupled PVC reaction cell and nanomaterials modified working electrode for rapid quantification of alcohol.

24. Hooda, V., Kumar, V., **Gahlaut, A.,** & Hooda, V. (2018). Alcohol quantification: Recent insights into amperometric enzyme biosensors. *Artificial cells, nanomedicine, and biotechnology*, *46*(2), 398-410.

25. Hooda, V., **Gahlaut, A.**, Gothwal, A., & Hooda, V. (2018). Recent trends and perspectives in enzyme based biosensor development for the screening of triglycerides: a comprehensive review. *Artificial cells, nanomedicine, and biotechnology*, *46*(sup2), 626-635.

26. Hooda, V., Kumar, V., **Gahlaut, A.,** & Hooda, V. (2018). A novel amperometric bienzymatic biosensor based on alcohol oxidase coupled PVC reaction cell and nanomaterials modified working electrode for rapid quantification of alcohol. *Preparative Biochemistry and Biotechnology*, *48*(10), 877-886.

27. Hooda, V., **Gahlaut, A**., Gothwal, A., & Hooda, V. (2017). Bilirubin enzyme biosensor: potentiality and recent advances towards clinical bioanalysis. *Biotechnology letters*, *39*, 1453-1462.

28. **Gahlaut, A**., Dhull, V., Dahiya, M., & Dabur, R. (2014). Mass Spectroscopy: Investigative Tool in Forensic Toxicology. *Drug Invention Today*, *6*(1).

29. Arif, T., Sharma, B., **Gahlaut, A**., Kumar, V., & Dabur, R. J. C. B. L. (2014). Anti-diabetic agents from medicinal plants: A review. *Chem Biol Lett*, *1*(1), 1-13.

30. Vikas Hooda, **Anjum Gahlaut**, Harish Kumar & C S Pundir "Biosensor based on enzyme coupled PVC reaction cell for electrochemical measurement of serum total cholesterol" (Elsevier) Sensors & Actuators: B Chemical, ISSN: 0925-4005, Feb 2009.

31. **Anjum Gahlaut**, Anil K. Chhillar, Ashish and Vikas Hooda "Development of Analytical Method Based on Enzymatic PVC Strip for Measurement of Serum Total Cholesterol" International Journal of Applied Biotechnology and Biochemistry. ISSN 2248-9886 Volume
2, Number 3 (2012) pp. 185-195.

32. **Anjum Gahlaut,** Purva Taneja, Amey Shirolkar, Amit Nale, Vikas Hooda and Rajesh Dabur: Principal Component and Partial Least Square Discriminant based analysis of Methanol Extracts of Bark and Re-Generated Bark of *Saraca asoca*, International Journal of Parma and Pharmaceutical Sciences, 2012, Vol 4, Issue 4, 331-335.

33. **Anjum Gahlaut,** Ashish Gothwal and Rajesh Dabur TLC Based Analysis of Allelopathic Effects on Tinosporoside Contents in *Tinospora cordifolia* Journal of Chemical and Pharmaceutical Research, 2012, 4(6):3082-3088

34. **Anjum Gahlaut,** Pawar S D, Mandal T K, Dabur R "Biochemical analysis of Lithiasis patients and treatment study using *Bryophyllum pinnatum Salisb"* International Journal of Parma and Pharmaceutical Sciences. 2012, Vol 4, Issue 4, 505-507.

35. Shirolkar A, **Gahlaut A,** Chhillar AK, Dabur R, Quantitative analysis of catechins in Saraca asoca and correlation with antimicrobial activity. J of Pharma Anal. 2013.

36. Amey Shirolkar, **Anjum Gahlaut**, Vikas Hooda, Rajesh Dabur Phytochemical composition changes in untreated stem juice of Tinospora cordifolia (W) Mier during refrigerated storage. Journal of Pharmacy Research 7(2013) 1 -6.

37. **Gahlaut A,** Chhillar AK, Evaluation of Antibacterial Potential of Plant Extracts using Resazurin based Microtiter Dilution Assay. Int J of Pharma and Pharmaceut Sci. 2013Vol 5, Issue 2, 372-376.

38. **Anjum Gahlaut,** Amey Shirolkar, Vikas Hooda, Rajesh Dabur "A rapid and simple approach to discriminate various extracts of Saraca asoca [Roxb.], De. Wild using UPLC-QTOFMS and multivariate analysis" Journal of Pharmacy Research 2013 Volume 7, Issue 2, 143-149.

39. **Anjum Gahlaut,** Anita Sharma, Amey Shirolkar, Rajesh Dabur **"**Non-targeted identification of compounds from regenerated bark of *Terminalia tomentosa* by HPLC- (+) ESI-QTOFMS" Journal of Pharmacy Research 6 (2 0 1 3) 4 1 5 - 4 18.

40. **Anjum Gahlaut** & Anil K Chhillar "Anti- *Aspergillus* activity of selected medicinal Plants Journal of Pharmacy Research" 6 (2 0 1 3) 4 1 9 - 4 2 2.

41. **Anjum Gahlaut,** Amey Shirolkar, Vikas Hooda, Rajesh Dabur "β-Sitosterol in Different Parts of *Saraca asoca* and Herbal Drug Ashokarista: LC/ESI/MS/MS Quali-Quantitative Analysis" accepted for publication in JAPTR.