NAME	Praveen Dahiya	
DESIGNATION	Professor	
EMAIL ID	pdahiya@amity.edu	
CONTACT NUMBER	9717139127	
RESEARCH INTERESTS	Enzyme Biotechnology, Industrial Biotechnology, Bio-Nano Technology, Medical Microbiology, Solid Waste Management	

EDUCATIONAL QUALIFICATIONS: Ph.D. Biotechnology

Name of College / University	Degree	Year
Guru Jambheshwar University of Science & Technology, Hisar	Ph.D. Biotechnology	2007
Guru Jambheshwar University of Science & Technology, Hisar	M.Sc. Biotechnology	2000
Osmania University, Hyderabad	B.Sc. (Botany, Zoology, Chemistry)	1996

Title of Ph.D. thesis: Studies on microbial lipases: Isolation and Screening of Cultures, Enzyme Production, Purification, and Characterization

EXPERIENCE (in chronological order): Total 17 Years Research & Teaching

Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Professor	Teaching, Research	Centre for Biotechnology & Biochem. Engg., AIB, Amity University, Noida	Jan 2024- Till date
Associate Professor	Teaching, Research	Centre for Biotechnology & Biochem. Engg., AIB, Amity University, Noida	Dec. 2019-Jan. 2024
AP-II & AP III	Teaching, Research	Centre for Biotechnology & Biochem. Engg., AIB, Amity University, Noida	2011-2019
Lecturer & Sr. Lecturer	Teaching, Research	Centre for Biotechnology & Biochem. Engg., AIB, Amity University, Noida	2008-2011
Lecturer	Teaching	DCR University of S&T, Murthal, Haryana	2007-2008

No. of Ph.D. students supervised	03 (Degree awarded), 04 (Under Process)
No. of Post-Doc	0
No. of M.Tech. Students supervised:	35
No. of B.Tech. Students supervised:	50

PUBLICATIONS
(mention total no. here): 46

1. Praveen Dahiya, Ashok Chaudhury, Subhash Chand, Neeraj Dilbaghi. 2007. Isolation andcharacterization of an extracellular lipase from *Pseudomonas aeruginosa* M-13. *Annals ofBiology* 23(2):103-107.
2. Praveen Dahiya, Subhash Chand., Ashok Chaudhury, Neeraj Dilbaghi. 2008. Lipase production by *Pseudomonas mendocina* M-37 in batch and continuous culture. J. Agri. Biol. Res*.,* 24(1):18-29.
3. Praveen Dahiya, Pooja Arora, Subhash Chand, Ashok Chaudhury, Neeraj Dilbaghi. 2010. Characterization of an extracellular alkaline lipase from *Pseudomonas mendocina* M-37. *Journal of Basic Microbiology,* 50: 1-7.
4. Praveen Dahiya, V. Kishore, S. Sheikh and P. Arora, "Compatibility and wash performance analysis of α-amylase from Bacillus amyloliquefaciens MTCC (610) with commercial detergents," *2010 International Conference on Environmental Engineering and Applications*, 2010, pp. 160-164.
5. Praveen Dahiya, Sharmistha Purkayastha. 2011. Phytochemical screening and antimicrobial potentials of *Alangium salvifolium* and *Piper longum* against multi-drug resistant bacteria from clinical isolates. *International Journal of Pharmacy and Pharmaceutical Sciences*. 3(5):462-465.
6. Sharmistha Purkayastha, Praveen Dahiya. 2011. Biochemical Studies on the Immobilization of Invertase from *Saccharomyces* sp. PS-10. International Journal of Applied Biotechnology and Biochemistry*,* 1(2): 167-174.
7. Praveen Dahiya, Sharmistha Purkayastha. 2011. Isolation, screening and production of extracellular alkaline lipase from a newly isolated *Bacillus* sp. PD-12. *Journal of BiologicalSciences.* 11(5);381-387.
8. Praveen Dahiya, Sharmistha Purkayastha. 2012. Phytochemical analysis and antibacterial efficacy of Dill seed oil against multi-drug resistant clinical isolates. *Asian Journal of Pharmaceutical and Clinical Research*. 5(2): 62-64.
9. Sharmishtha Purkayastha and Praveen Dahiya "Antibacterial activity of Babchi oil (*Psolarea corylifolia*) against multi drug resistant bacteria" Vol. 31 (2012). International Conference on Biosciences, Biochemistry and Bioinformatics (ICBBB 2012), Chennai.
10. Praveen Dahiya, Sharmistha Purkayastha. 2012. Phytochemical screening and antibacterial potentiality of essential oil from *Psoralea corylifolia* Linn. *International Journal of Biosciences, Biochemistry and Bioinformatics*.2(3): 188-191.
11. Sharmishtha Purkayastha, Rittee Narain, Praveen Dahiya. 2012. Evaluation of antimicrobial and phytochemical screening of Fennel, Juniper and Kalonji essential oils against multi drug resistant clinical isolates. *Asian Pacific*

*Journal of Tropical Biomedicine2 (3): S1*625-S1629.

12. Praveen Dahiya, Sharmistha Purkayastha. 2012. Phytochemical screening and antimicrobial activity of some medicinal plants against multi-drug resistant bacteria from clinical isolates. *Indian Journal of Pharmaceutical Sciences.* 74(5): 443-450.
13. Praveen Dahiya, Akshi Manglik. 2013. Evaluation of antibacterial, antifungal and antioxidant potential of essential oil from *Amyris balsamifera* against multi drug resistant clinical isolates. *Asian Journal of Pharmaceutical and Clinical Research.* 6(5): 57-60.
14. Amrita Soni, Praveen Dahiya. 2014. Phytochemical analysis, antioxidant and antimicrobial activity of *Syzygium Caryophyllatum* essential oil. *Asian Journal of Pharmaceutical and Clinical Research.*
15. Praveen Dahiya, Subhash Chand, Neeraj Dilbaghi. 2014. Immobilization of organic solvent tolerant lipase from *Pseudomonas mendocina* M-37 with potential synthetic activities. *Food Technology and Biotechnology*. 52(3): 368-375.
16. Amrita Soni, Praveen Dahiya. 2015. Screening of Phytochemicals and antimicrobial potential of extracts of *Vetiver zizanoides* and *Phragmites karka* against clinical isolates. *International Journal of Applied Pharmaceutics*. 7(1): 22-24.
17. Sajjad Zaidi, Praveen Dahiya. 2015. *In vitro* antimicrobial activity, phytochemical analysis and total phenolic content of essential oil from *Mentha spicata and Mentha piperita*. *International Food Research Journal.* 22(6): 2440-2445.
18. Seema Raj, Praveen Dahiya, Sumedha Mohan. 2015. Physio-chemical analysis and *In- vitro* antibacterial activity of *Jatropha Curcas* grown on fly ash amended soil. International Journal of Applied Environmental Science. 10 (4): 1375-1383.
19. Praveen Dahiya, Bhawna Rathi. 2015. Characterization and application of alkaline αamylase from *Bacillus licheniformis* MTCC1483 as a detergent additive. *International Food Research Journal.* 22(3): 1293-1297.
20. Bharat Singh Chauhan, Praveen Dahiya. 2016. Evaluation of *In -vitro* antimicrobial potential and phytochemical analysis of Spruce, Cajeput and Jamrosa essential oil against clinical isolates. *International Journal of Green Pharmacy.* 10 (1): 27-32.
21. Nidhi Manhas, Praveen Dahiya. 2017.. *In vitro* antimicrobial activity and phytochemical screening of leaf and stem extracts of *Michelia champaca* Linn. *International FoodResearch Journal*. 24 (6): 2672-2676.
22. Praveen Dahiya 2017. Phytochemical investigation and

antimicrobial properties of *Dioscorea Bulbifera t*uber. *Asian Journal of Pharmaceutical and Clinical Research*. 10 (12): 317-319.

23. Ayushi Varshney, Praveen Dahiya, Neetu Singh and Sumedha Mohan. 2019. Variations in morphological parameters and pigment content of *Calendula officinalis* grown in Fly ash amended soil. Plant Archieves. 19 (2): 2959-2963
24. Parul Bhardwaj, Saba Anjum, Praveen Dahiya. 2020. Purification and characterization of solvent stable *Bacillus cereus* PI-C4 protease from poultry waste. *Journal of Microbiology*, *Biotechnology and Food Sciences*. 9(5): 865-869.
25. Akshita Chhabra, Vijay Bharath V, Praveen Dahiya. 2020. Evaluation of phytochemical screening and antimicrobial efficacy of *Mesua ferrea* and *Piper cubeba* fruit extracts against multidrug-resistant bacteria. Pharmacophore. 11(2): 15-20.
26. Neetu Singh, Archana Singh and Praveen Dahiya. 2020. Performance of potent isolate of *Trichoderma harzianum* (Th9) possessing mycoparasitic property against late blight causing fungus *Phytophthora infestans* in addition to enhancing defensive enzymes activities in potato crop. Indian J Agric Biochem. 33(1): 99-101.
27. Ayushi Varshney, Sumedha Mohan, Praveen Dahiya. 2020. Growth and antioxidantresponses in plants induced by heavy metals present in fly ash. *Energy, Ecology and Environment*. 6(2): 92-110.
28. Navita Bansal, Praveen Dahiya, G. Rama Prashat, Deepanyeta Goswami, SwetaKumari, Suchitra Pushkar, Arun Kumar, Bhupinder Singh, Archana Sachdev, T. Vinutha & Shelly Praveen. 2020. Effects of gamma irradiation on soybean oil stability by enhancing tocopherol content in soybean. *Journal of Radioanalytical and Nuclear Chemistry*. 326: 1617-1629.
29. Akshita Chhabra, Vijay Bharath V, Sumedha Mohan, Praveen Dahiya. 2021. Alteration inchemical composition and antioxidant defense potential of *Jatropha curcas* L. grown in fly ash- amended soil. *Energy, Ecology and Environment*. 6(6): 566-575.
30. Anushka Bhargava, Praveen Dahiya. 2022. COVID-19 Pandemic: Assessment of current strategies and socio-economic impact. *Journal of Health Management*. 24(3)., 466-477.
31. Ayushi Varshney, Sumedha Mohan, Praveen Dahiya. 2021. Assessment of leaf morphological characteristics, phenolics content and metal(loid)s concentrationsin *Calendula officinalis* L. grown on fly ash amended soil. *Industrial Crops and Products*.174: 114233.
32. Abhishek Saxena, Shivani Sharda, Sumit Kumar, Sheetal

	Shirodkar, Benu Kumar, PraveenDahiya, Rachana Sahney. 2022. Synthesis of alginate nanogels with polyvalent 3d transition metal cation. *Polymers.* 14, 1277. 33. Ayushi Varshney, Praveen Dahiya, Anjay Sharma, Renu Pandey, Sumedha Mohan. 2022. Fly ash Application in Soil for Sustainable Agriculture: An Indian Overview. *Energy, Ecology and Environment*. 7, 340- 357 34. Shruti Rathore, Ayushi Varshney, Sumedha Mohan, Praveen Dahiya. 2022. An innovative approach of bioremediation in enzymatic degradation of xenobiotics. Biotechnology & Genetic Engineering Reviews. 38(1): 1-32 35. Praveen Dahiya. 2022. Antioxidant activity in plants grown in fly ash amended soil. Modern Concepts & Developments in Agronomy. 10(1), 974-975. 36. Navita Bansal, R.P.G, Praveen Dahiya, R. Choudhary, R. K. Dinesh, A. Kumar, S.Kumari, B.Singh, A.Sachdev, T.Vinutha. Genes encoding for tocopherol pathway and antioxidant enzymes induced by γ-irradiation for improvement of seed quality in soybean (*Glycine max*). Journal of Environmental Biology. 43, 660-667. 37. Ayushi Varshney, Praveen Dahiya, Sumedha Mohan. 2023. Growth, biochemical, and antioxidant response of pot marigold (Calendula officinalis L.) grown in fly ash amended soil. International Journal of Phytoremediation. 25(1) 115-124. 38. Ayushi Varshney, Praveen Dahiya, Sumedha Mohan. 2023. Antioxidant activity of pot marigold (Calendula officinalis L.) in response to metal(loid) induced oxidative stress from fly ash amended soil. Journal of Plant Growth Regulation. 42; 5928-5944. 39. Soumya Sharma, Rachna Sahney, Praveen Dahiya. 2023. Preparation and characterization of stable biopolymer based nanogel for studying its application in immobilization of Candida rugosa lipase. Polymer Bulletin. 81, 3973-3994. 40. Aditi Mohan, Venkatesh Anand Iyer, Dharmender Kumar, Lalit Batra, Praveen Dahiya. 2023. Navigating the Post COVID-19 Immunological Era: Understanding Long Covid and Immune Response. Life. *13*(11), 2121 41. Soumya Sharma, Satish Kumar, Rachana Sahney, Praveen Dahiya. 2024. Green synthesis of iron-alginate nanoparticle for Taguchi-assisted immobilization of Candida rugosa lipase and its application in the synthesis of butyl butyrate ester. Process Biochemistry. 139, 81-92. 42. Shruti Rathore, Praveen Dahiya. 2024. Drug repurposing using computational tools and preventive strategies for COVID-19 and future pandemics. Journal of Health Management.27(2). 43. Venkatesh Anand Iyer, Aditi Mohan, Dharmender Kumar,

	Praveen Dahiya. 2024. Navigating the dynamic landscape of SARS-CoV-2: The dual role of neutralizing antibodies, variability in responses, and strategies for adaptive pandemic control. Covid. 4(9), 1395-1412. 44. Geetanjali Raikwar, Dharmender Kumar, Sumedha Mohan, Praveen Dahiya. 2024. Synergistic potential of essential oils with antibiotics for antimicrobial resistance with emphasis on mechanism of action: A review. Biocatalysis and Agricultural Biotechnology. 61, 103384. 45. Geetanjali Raikwar, Sumedha Mohan, Praveen Dahiya. 2024. Chemical composition, antibacterial and antioxidant activities of *Piper betle* and *Anethum graveolens* essential oils against Methicillin-resistant *Staphylococcus aureus* clinical isolates. Brazilian Journal of Microbiology. 46. Geetanjali Raikwar, Dharmender Kumar, Sumedha Mohan, Praveen Dahiya. 2025. Exploring synergistic effects of *Piper betle* and *Anethum graveolens* essential oils with antibiotics against Methicillin-resistant *Staphylococcus aureus*: Insights from *In silico* targeting of PBP 2a. Microbial Pathogenesis. 203, 107484.
PATENTS ***(total no.) 5***	1. Title: A solvent tolerant bacterial lipase and its application thereof in food industry. Inventors: Praveen Dahiya. Application no. 924/DEL/2009. Status: GRANTED 2. Title: Antibacterial activity of Babchi oil (*Psolarea corylifolia*) against multi drug resistant bacteria. Inventors: Sharmistha Purkayastha, A.K Srivastava, Praveen Dahiya. Application no. 2267/DEL/2011. 3. Title: Immobilization of *Pseudomonas mendocina* lipase with potential synthetic activities. Inventors: Praveen Dahiya. Application no.3620/DEL/2011 Status: GRANTED 4. Title: *In-vitro* antibacterial activity of *Jatropha curcas* grown on fly ash amended soil. Inventors: Seema Raj, Sumedha Mohan, Praveen Dahiya. Application no. 3640/DEL/2013. 5. Title: A method for producing methanolic and ethyl acetate extracts of microalgae *Chlorella Pyrenoidosa.* Inventors: Subhash Nigam, Praveen Dahiya, Nitin Agarwal. Application no. 3260/DEL/2015. Status: GRANTED

RESEARCH PROJECTS Completed: ***(total no.): 02*** Ongoing: ***(total no.): 01***	1. **Research Project (Completed)-** Co-Investigator: Project title: "Standardization of an innovative agro technique for cultivating Calendula and enhancing its medicinal potential as a drug using fly ash-soil in different combinations as a base material" Duration: Three years (2017-2020) 2. **Research Project (Completed)-** Principal Investigator: Project title: "Identification and screening of essential oils from unexplored Indian traditional medicinal plants and their synergistic activity with antibiotics to overcome antibiotic resistance in methicillin-resistant *Staphylococcus aureus* (MRSA)" (CST/D-2298) Funding agency: Council of Science and Technology, Department of S&T, UP Duration: Three years (2021-2024) **3. Research Project (Ongoing)-** Co-Investigator: Project title: "Sustainable management of fly ash using organic and inorganic amendments for cultivation of *Calendula officinalis*" (CST/D-1275) Funding agency: CST- UP Duration: Three years (2024-2027)
AWARDS & HONOURS/ DISTINCTIONS	Excellent paper presentation award in international conference (March 2012) Best poster presentation award in INSCR International Conference (IIC-2017) Best Oral presentation in Global outreach conference (MASA 2020) Young Scientist in Biotechnology (Global outreach agricultural award 2020)
MEMBERSHIP with Professional/ Academic bodies	1. Senior Member of Asia-Pacific Chemical, Biological & Environmental Engineering Society. (Life Member) 2. International Society for Environmental Information Sciences (Life Member) 3. International Society of Infectious Diseases (Life Member) 4. Global Outreach Research & Education Association (Life Member) 5. Member of Indian Network for Soil Contamination Research
