Detailed CV

Pradeep Kumar ***[M.Sc., M.Phil., Ph.D., Post Doc (South Korea)]***
Assistant Professor (Forensic Science) *[Current Position]*
Department of Forensic Science, Himachal Pradesh University, Summer Hill, Shimla (H.P.)-India-171005
E. Mail: pkbhardwaj.bt@gmail.com; pkbhardwaj.hpufs@gmail.com (Preferred mode of communication)
Mobile: +9459514137

Academic Identities: Orcid Ids: 0009-0000-2615-6378; 0000-0002-1563-8360**; Scopus Id:** 57207275078**; Google scholar Id;** *https://scholar.google.com/citations?user=SclkXqcAAAAJ].* **LinkedIn:** *linkedin.com/in/dr- pradeep-bhardwaj-23379578.*
FWCI: 3.12 (SciVal), **Citation per Publications (SciVal):** 30**, Google Scholar citations:** 2502+**; H-index:** 22**; i10 index:** 33 **(till date).**

Personal Details

- **Name and Full Correspondence Address:** Dr. Pradeep Kumar, Assistant Professor, Department of Forensic Science, Himachal Pradesh University, Shimla (H.P.)-171005 INDIA.
- **Email(s) and contact number(s):** *pkbhardwaj.bt@gmail.com; pkbhardwaj.hpufs@gmail.com*
- **Institution:** Himachal Pradesh University, Shimla (H.P.)-India
- **Date of Birth:** 13-01-1985
- **Gender (M/F/T):** M
- **Category Gen/SC/ST/OBC**: SC
- **Whether differently abled (Yes/No):** No

Thrust research areas

- **Environmental Forensics**: Utilizing genetic and microbial tools, including algae, to trace environmental pollutants and contaminants.
- **Drug identification and characterization** from microbial, plant and other biological sources, along with forensic applications.
- **Forensic DNA Profiling**: Utilizing advanced DNA and genetic engineering techniques for precise human identification and enhancing criminal investigations.
- **Forensic Biotechnology**: Integrating molecular biology and biotechnology methods to enhance forensic evidence analysis.
- **Microbial and Algal Forensics**: Exploring microbial signatures and algae for their role in crime scene analysis, ecological forensics and biodefense strategies.

Academic qualifications

S. No.	Degrees/Division	Year	Subject	University/Institute
1.	Ph.D. **Biotechnology**	2012-2017	"Bench Scale Production of Taxol, a potential drug for the treatment of Cancer from *Aspergillus fumigatus*" Guide's Name: Dr. Duni Chand, Professor, Department of Biotechnology, H.P.	Himachal Pradesh University, Shimla (H.P.)-India

			University, Shimla (H.P.)	
2.	M. Phil. **Biotechnology/1st**	2008-2009	Biotechnology (Enzyme Technology)	Himachal Pradesh University, Shimla (H.P.)-India.
3.	M.Sc. **Biotechnology/1st**	2006-2008	Biotechnology	Himachal Pradesh University, Solan (H.P.)-India.
4.	B.Sc. **(non-medical)/2nd**	2003-2006	Physics, Chemistry & Mathematics	Himachal Pradesh University, Shimla (H.P.)-India.

Work experiences

S. No.	Positions held	University/Department	Year
1.	Assistant Professor (Forensic Science)	Department of Forensic Science, Himachal Pradesh University, Shimla (H.P.)	26, February 2024-Present
2.	Associate Professor (Biotechnology)	Department of Forensic Science, Himachal Pradesh University, Shimla (H.P.)	01 January 2024- 26 February 2024
3.	Assistant Professor* (Biotechnology)	Department of Biotechnology, Shoolini University, Solan (H.P.)-India	02 April 2018-31 December 2023
4.	Startup Incubatee (Research)	Biotechnology Incubation Centre, Department of Biotechnology, Himachal Pradesh University, Shimla (H.P.)-India.	27 September 2017-31 March 2018

*#*Worked served as a Post-Doctoral Fellow, undertaking advanced research and teaching assignments at Ajou University, Suwon, South Korea, during a period of Extra Ordinary Leave (EOL) from 28th June 2022 to 30th June 2023. This leave was granted in accordance with the powers vested under Statute 6(5) of the Shoolini University of Biotechnology and Management Sciences, Solan, as per letter No. SUBMS/22-1812-14 dated 27th June 2022 (copy enclosed).*

Major Previous achievements in research

- Developed a bioprocess for the hyper production and purification of taxol: An anticancer drug from endophytic microorganisms as an alternative way.
- Developing an effective method for fingerprint detection using advanced biological and chemical techniques to enhance precision and accuracy in crime scene investigations
- Developed a bioprocess for the biodegradable poly butylene plastics, PBAT and PBS, from biomass.
- On the verge of creating the state's first microalgae-based indoor air quality monitoring system under DEST, Govt. of Himachal Pradesh sponsored Project.

Professional Recognition/ awards/prize/Certificate/ fellowships

S. No.	Name of Award	Awarding Agency	Year
1.	Winner of the **eUniv Star Performer in Teaching** of the Year award in 2022.	Shoolini University, Solan (H.P.)	2022
2.	Received **a Certificate of Appreciation** and an honorarium for achieving an FWCI of more than 2.	Shoolini University, Solan (H.P.)	2021
3.	Received **a Certification of Appreciation** for outstanding research contribution on November 27, 2021, during AIU North Zone Vice Chancellor Meet.	Shoolini University, Solan (H.P.)	2021
4.	**Top 5 eUniv Performer-2020**	Shoolini University, Solan (H.P.)	2020
5.	**Golden Rudraksha Awards-2019** "for being among the Top Ten performers in the category of Employee of the year (Teaching) of Shoolini University.	Shoolini University, Solan (H.P.)	2019
6.	Attributed **travel grant of 800.00 Euros** for attending international conference, Delft, The Netherland.	Bioencapsulation Research group (France).	2015
7.	**Best Poster Prize 2015** in "National Seminar on 'Science for Nation Building' National Science Day, February 27 & 28, 2015 Research Activities in Biotechnology" funded by UGC and DBT, Ministry of Science and Technology, New Delhi.	Himachal Pradesh University, Shimla (H.P.)-India.	2015
8.	**Best Poster Prize 2014** in "Scientific Poster Presentation on National Science Day" February 28 & March 1, 2014, funded by UGC and DBT, Ministry of Science and Technology, New Delhi.	Himachal Pradesh University, Shimla (H.P.)-India.	2014
9.	**Physicon Merit Prize 2011** on poster presentation" 23rd PSI Conference.	NRI Medical College and Hospital, Gantur, (A.P.)-India.	2011
10.	**Research Fellowships from CSIR (PA)**	Directorate of Mushroom research, Solan (H.P.)-India.	2010

Publications:

Research Papers Published:

1. Naimi, S., Sharma, G., Chand, D., Choi, K.-Y., Thakur, P., Thakur, V., Thakur, M. S., Kulshreshtha, S., Patel, S. K. S., & **Kumar, P.*** (2025). *Harnessing microbial factories for withaferin-A: The future of plant-based oncotherapeutics*. 3 Biotech, **15**, 446. https://doi.org/10.1007/s13205-025-04598-7 ***[IF = 2.6]***
2. Banyal, A., Thakur, R., Thakur, P., Thakur, V., Chand, D., & **Kumar, P.*** (2025). *Sustainable*

vinblastine production by Alternaria alternata, an endophytic fungus isolated from Catharanthus roseus in the Northern Himalayan Region. 3 Biotech, **15**, 187. https://doi.org/10.1007/s13205-025-04351-0 ***[IF = 2.6]***

3. Sharma, G., Paul, P., Dwivedi, A., Kaur, P., **Kumar, P**., Gupta, V. K., Saha, S. B., & Kulshrestha, S. (2024). *In silico screening and evaluation of antiviral peptides as inhibitors against ORF9b protein of SARS-CoV-2.* 3 Biotech, **14**(9), 192. https://doi.org/10.1007/s13205-024-04032-4 ***[IF = 2.6]***

4. Sharma, A., Thakur, P., Thakur, V., Chand, D., Bhatia, R. K., Kulshrestha, S., & **Kumar, P.*** (2024). *Paclitaxel production from endophytic Mucor circinelloides isolated from Taxus sp. of the Northern Himalayan region.* 3 Biotech, **14**(10), 251. https://doi.org/10.1007/s13205-024-04091-7 ***[IF = 2.6]***

5. Kumari, A., Lalita, K., Arti, Arya, Ekta, **Kumar, P.**, & Chand, D. (2024). *Impact of metal ions on catalytic kinetics, stability, and reactivation of purified tannase from Aspergillus niger.* Catalysis Letters, **154**, 1–12. https://doi.org/10.1007/s10562-024-04664-4 ***[IF = 2.3]***

6. Kumar, S., Utkarsh, K., Khan, A. R., Chanana, I., Upadhyay, N. K., Khan, A.*, Kulshreshtha, S., & **Kumar, P.*** (2024). *Effect of cephalexin on chlorophyll and carotenoid content of Chlorella pyrenoidosa-2378 and its biodegradation in BG-11 medium.* Biotechnology & Environmental Sciences, **1**, 11. https://doi.org/10.1186/s44314-024-00011-4

7. Chanana, I., Sharma, A., **Kumar, P.*,** Kumar, L., Kulshreshtha, S., Kumar, S., & Patel, S. K. S. (2023). *Combustion and stubble burning: A major concern for the environment and human health.* Fire, **6**(2), 79. https://doi.org/10.3390/fire6020079 ***[IF = 2.726]***

8. **Kumar, P**., Arora, K., Chanana, I., Kulshreshtha, S., Thakur, V., & Choi, K.-Y.* (2023). *Comparative study on conventional and microalgae-based air purifiers: Paving the way for sustainable green spaces.* Journal of Environmental Chemical Engineering. https://doi.org/10.1016/j.jece.2023.111046 ***[IF = 7.7]***

9. **Kumar, P.,** Sharma, A., Bamrah, G. K., & Choi, K.-Y. (2024). *Novel fungal diversity: A new prospect for commercial production of future anticancer compounds.* Fungal Biology Reviews, **48**, 100355. ***[IF = 4.6]***

10. **Kumar, P**., Park, H., Yuk, Y., Kim, H., Jang, J., & Choi, K.-Y.* (2023). *Developed and emerging 1,4-butanediol commercial production strategies: Forecasting the current status and future possibility.* Critical Reviews in Biotechnology, **7**, 1–17. https://doi.org/10.1080/07388551.2023.2176740 ***[IF = 9.06]***

11. Ahn, S., Park, S., **Kumar, P**., et al. (2023). *Bio-indigo production using wild-type Acinetobacter sp. and indole-3-acetate monooxygenase (iacA) expressed in Escherichia coli.* Biotechnology and Bioprocess Engineering, **28**, 281–288. https://doi.org/0.1007/s12257-022-0163-0 ***[IF ≈ 3.386]***

12. Kaur, P., Bhola, S., **Kumar, P.*,** Kumar, V., Kulshreshtha, S., Sharma, A., Seo, A. P., & Choi, K.-Y. (2023). *Recent developments in urban polyhydroxyalkanoates biorefineries.* ChemBioEng Reviews, **10**, 1–22. ***[IF ≈ 6.206]***

13. Sharma, M. D., Gupta, P., Chauhan, S., Panwar, R., Singh, S., **Kumar, P**., & Kulshreshtha, S. (2023). *Seasonal impact on microbiological quality of drinking water in Solan City of Himachal Pradesh, India.* Environmental Monitoring and Assessment, **195**(8), 930. https://doi.org/10.1007/s10661-023-11510-4. . ***[IF ≈ 3]***

14. Banyal, A., Tiwari, S., Sharma, A., Chanana, I., Patel, S. K. S., Kulshreshtha, S., & Kumar, P.* (2023). *Vinca alkaloids as potential cancer therapeutics: Recent update and future challenges.* 3 Biotech, **13**(6), 211. https://doi.org/10.1007/s13205-023-03636-6 ***[IF ≈ 2.893]***

15. Chanana, I., Kaur, P., Kumar, L., **Kumar, P.*,** & Kulshreshtha, S.* (2023). *Advancements in microalgal biorefinery technologies and economic analysis.* Fermentation, **9**, 202.

https://doi.org/10.3390/fermentation9030202 ***[IF ≈ 5.123]***

16. Rathour, R. K., Devi, M., Dahiya, P., Sharma, N., Kaushik, N., Kumari, D**., Kumar, P**., Baadhe, R. R., Walia, A., Bhatt, A. K., & Bhatia, R. K. (2023). *Sustainable management of rice straw waste biomass for green biorefinery.* Energies, **16**, 1429. https://doi.org/10.3390/en16031429 **[*IF ≈ 3.252]***

17. Sharma, A., Thakur, R., Bhatia, S. K., Banyal, A., Chanana, I., Kulshreshtha, S., Chand, D., & **Kumar, P.*** (2022). *An overview on Taxol production technology and its applications as anticancer agent.* Biotechnology and Bioprocess Engineering. https://doi.org/10.1007/s12257-022-0063-3 ***[IF ≈ 3.386]***

18. Kumar, L., Bisen, M., Khan, A., **Kumar, P**., & Patel, S. K. S. (2022). *Role of matrix metalloproteinases in musculoskeletal diseases.* Biomedicines, **10**(10), 2477. https://doi.org/10.3390/biomedicines10102477 ***[IF ≈ 4.757]***

19. Kumar, L., Patel, S. K. S., Kharga, K., Kumar, R., **Kumar, P**., Pandohee, J., Kulshreshtha, S., Harjai, K., & Chhibber, S. (2022). *Molecular mechanisms and applications of N-acyl homoserine lactone-mediated quorum sensing in bacteria.* Molecules, **27**, 7584. https://doi.org/10.3390/molecules27217584 ***[IF ≈ 4.927]***

20. Thakur, V., & **Kumar, P.*** (2022). *Monkeypox virus (MPX) in humans: Trespassing the global boundaries.* International Journal of Surgery. https://doi.org/10.1016/j.ijsu.2022.106703 ***[IF ≈ 13.4]***

21. Thakur, P., Thakur, V., **Kumar, P**., & Patel, S. K. S. (2022). *Emergence of novel Omicron hybrid variants: BA(x), XE, XD, XF-more than just alphabets.* International Journal of Surgery. https://doi.org/10.1016/j.ijsu.2022.106727 ***[IF ≈ 13.4]***

22. Kant Bhatia, S., Ahuja, V., Chandel, N., Mehariya, S., **Kumar, P**., Vinayak, V., Saratale, G. D., Raj, T., Kim, S. H., & Yang, Y. H. (2022). *An overview on microalgal–bacterial granular consortia for resource recovery and wastewater treatment.* Bioresource Technology, **351**, 127028. https://doi.org/10.1016/j.biortech.2022.127028 ***[IF ≈ 11.88]***

23. Thakur, N., Patel, S. K. S., **Kumar, P.,** et al. (2022). *Bioprocess for hyperactive thermotolerant Aspergillus fumigatus phytase and its application in dephytinization of wheat flour.* Catalysis Letters. https://doi.org/10.1007/s10562-021-03886-0 ***[IF ≈ 3.186]***

24. Bhola, S., Trisal, J., Thakur, V., Kaur, P., Kulshreshtha, S., Bhatia, S. K., & **Kumar, P.*** (2022). *Neurological toll of COVID-19.* Neurological Sciences. https://doi.org/10.1007/s10072-022-05875-6 ***[IF ≈ 3.830]***

25. Arora, K., Kaur, P., **Kumar, P.*,** Singh, A., Patel, S. K. S., Li, X., Yang, Y. H., Bhatia, S. K., & Kulshreshtha, S. (2021). *Valorization of wastewater resources into biofuel and value-added products using microalgal system.* Frontiers in Energy Research, **9**, 646571. https://doi.org/10.3389/fenrg.2021.646571 ***[IF ≈ 3.858]***

26. Arora, K., **Kumar, P.*,** & Bose, D. (2021). *Potential applications of algae in biochemical and bioenergy sector.* 3 Biotech, **11**, 296. https://doi.org/10.1007/s13205-021-02825-5 ***[IF ≈ 2.86]***

27. Bhola, S., Arora, K., **Kumar, P.*,** et al. (2021). *Established and emerging producers of PHA: Redefining the possibility.* Applied Biochemistry and Biotechnology. https://doi.org/10.1007/s12010-021-03626-5 ***[IF ≈ 3.094]***

28. Sakhuja, D., Ghai, H., Rathour, R. K., **Kumar, P**., Bhatt, A. K., & Bhatia, R. K. (2021). *Cost-effective production of biocatalysts using inexpensive plant biomass: A review.* 3 Biotech, **11**(6), 280. https://doi.org/10.1007/s13205-021-02847-z ***[IF ≈ 3.858]***

29. Devi, N., Patel, S. K. S., **Kumar,** P., Thakur, V., & Chand, D.* (2022). *Bioprocess scale-up for acetohydroxamic acid production by hyperactive acyltransferase of immobilized Rhodococcus pyridinivorans.* Catalysis Letters. https://doi.org/10.1007/s10562-021-03696-4 ***[IF ≈ 3.186]***

30. Kaur, P., Thakur, M., Tondan, D., Bamrah, G. K., Misra, S., **Kumar, P.*,** Pandohee, J., & Kulshrestha, S. (2021). *Nanomaterial-conjugated lignocellulosic waste: Cost-effective production of sustainable bioenergy using enzymes.* 3 Biotech, **11**(11), 480. https://doi.org/10.1007/s13205-021-03002-4 ***[IF ≈ 2.86]***

31. **Kumar, P**., Singh, B., Thakur, V., Thakur, A., Thakur, N., Pandey, D., & Chand, D.* (2019). *Hyper-production of Taxol from Aspergillus fumigatus, an endophytic fungus isolated from Taxus sp. of the Northern Himalayan region.* Biotechnology Reports, **24**, e00395. https://doi.org/10.1016/j.btre.2019.e00395 ***[IF ≈ 12.8 (C.S.)]***

32. Sharma, R., Garg, P., **Kumar, P**., Bhatia, S. K., & Kulshreshtha, S. (2020). *Microbial fermentation and its role in quality improvement of fermented foods.* Fermentation, **6**(4), 106. https://doi.org/10.3390/fermentation6040106 ***[IF ≈ 5.123]***

33. Pandey, P., Patel, S. K. S., Singh, R., **Kumar, P**., Thakur, V., & Chand, D.* (2019). *Solvent-tolerant acyltransferase from Bacillus sp. APB-6: Purification and characterization.* Indian Journal of Microbiology, **59**(4), 500–507. https://doi.org/10.1007/s12088-019-00836-8 ***[IF ≈ 2.461]***

34. Thakur, A., Bhatia, K., **Kumar, P**., & Chand, D.* (2019). *Statistical augmentation of thermostable superoxide dismutase (SOD) production from Bacillus licheniformis SPB-13 of Himalayan ranges.* African Journal of Biological Sciences, **2**(2), 25–39.

35. Thakur, A., **Kumar, P**., Sharma, J. L., Devi, N., & Chand, D.* (2018). *Thermostable Fe/Mn superoxide dismutase from Bacillus licheniformis SPB-13 from thermal springs of Himalayan region: Purification, characterization and antioxidative potential.* International Journal of Biological Macromolecules, **115**, 1026–1032. https://doi.org/10.1016/j.ijbiomac.2018.04.155 ***[IF ≈ 8.025]***

36. Thakur, V.* & **Kumar, P**. (2018). *Analysis of Hepatitis E virus (HEV) X-domain structural model.* Bioinformation, **14**(7), 39. https://doi.org/10.6026/97320630014398

37. Thakur, A., **Kumar, P**., & Chand, D.* (2017). *Hyperproduction of tannin acylhydrolase in submerged fermentation from Aspergillus fumigatus.* Journal of Advance Microbiology, **3**(2), 60–77.

38. Thakur, N., **Kumar, P**., & Chand, D.* (2017). *Enhanced production of phytase from thermostable Aspergillus fumigatus isolated from rhizospheric zone of maize fields.* Journal of Innovations in Pharmaceutical and Biological Sciences, **4**(3), 114–120.

39. Thakur, V., **Kumar, P**., Verma, A., & Chand, D.* (2015). *Decolorization of dye by alginate-immobilized laccase from Cercospora SPF-6: Using compact 5-stage plug flow reactor.* International Journal of Current Microbiology and Applied Sciences, **4**(1), 183–200.

40. Thakur, A., **Kumar, P**., & Chand, D.* (2017). *Superoxide dismutase and oxidative stress: Elucidation of anti-aging and antioxidative effect on mammalian cell lines.* Journal of Advance Microbiology, **3**(1), 54–59.

41. Thakur, V., **Kumar, P.,** Verma, A., Lata, J., & Chand, D.* (2018). *Comparative study of dye decolorization using free and alginate-gel entrapped laccase from Cercospora sp. SPF-6.* Advances in Biotechnology and Microbiology, **11**(3), 1–8.

42. Yashwant, S., Ghanshyam, C.*, & **Kumar, P.** (2016). *Antimicrobial properties of bioinspired poly(4-vinyl-2-pyridone) and its N-alkylated cationic derivative.* Polymer International, **66**, 119–125. https://doi.org/10.1002/pi.5252 ***[IF ≈ 3.213]***

Chapter in Books (Only Published)

1. Seth, A., Banyal, A., & **Kumar, P.*** (2023). Commercialization and technology transfers of bioprocess. In *Basic Biotechniques for Bioprocess and Bioentrepreneurship* (pp. 455–469). Academic Press. https://doi.org/10.1016/B978-0-12-816109-8.00031-3.

2. Jayagoudar, S., Ramesh, C., **Kumar, P**., Banyal, A., Rekadwad, B., Merugu, R., Noges, T., & Kumar, R. (2022). Thermophilic fungi and their applications in biotechnology. In *Sustainable Utilization of Fungi in Agriculture and Industry* (pp. 359–383). Bentham Science.
3. Sharma, A., Banyal, A., Sirjohn, N., Kulshreshtha, S., & **Kumar, P***. (2024). Nano-biotechnology and its applications in maintaining soil health. In *[Book Title]*. Springer. (Chapter 14)- DOI: 10.1007/978-981-99-9482-3_14.

Proceedings

1. **Kumar Pradeep,** Thakur N, Thakur A, Devi N and Chand D* (2016). Bioprocess for propy l gallate synthesis using tannase immobilized on Chitosan**.** Proceedings ***XXIII International Conference on Bioencapsulation***, 02-04. September 2016, Delft, Netherlands, P-03: S. 100-10.
2. Chand D*, Devi N, **Kumar P** and Lata J (2016). Synthesis of AHA using PVA-alginate encapsulated cells of *Bacillus* Sp. Proceedings ***XXIII International Conference on Bioencapsulation***, 02-04. September 2016, Delft, Netherlands, P-59: S. 216-217.
3. Chand D*, Thakur V, Kumari A, Lata J and **Kumar P**. Dye decolorization using alginate gel entrapped laccase from *Cercospora* sp. Proceedings ***XXI International Conference on Bioencapsulation***, Berlin, Germany, August 28-30, C-03-7: S. 60-61.

Patents (Filed/Granted): Indian

1. Outdoor Air Purifier, Kanika Arora, Kartik Chauhan, Ishaan Sharma, Pradeep Kumar, Sourabh Kulshreshtha (2021), Design Number: 322249-001. **(Status: Granted)**
2. Design patent; Portable Green Air Purifier; subclass: Ventilation and Air Conditioning Equipment; Registration No. L-112501/2022 **Status: Granted).**
3. Design patent; Hexa-plate; subclass: Apparatus equipment for doctors, Hospitals and Laboratories; Registration No. 369712-001 **Status: Granted).**
4. Duni Chand, Kumari Alka**, Pradeep Kumar**, Ekta Arya. Arti, Lalita Kausha. (2024). A method for enhanced Tannase Production and Purification from Aspergillus Niger for Industrial Application. (Application Number: E-12/4096/2024/DEL). **Status: Published**
5. Designing of microalgae-based Air purification system, Praibha Thakur, Keshav Kumar, Ishan Sharma, Praveen Chauhan, Kartik Chauhan, **Pradeep Kumar,** Saurabh Kulshrestha and Sankhajit Pramanik (2018), Ref. No. 314824-001. **(Status: Under Consideration).**
6. Rapid Diagnostic Kit for COCID-19 for detection of viral spike protein. Parneet Kaur, Sourabh Kulshrestha, Pradeep Kumar, Azhar Khan. (2021). Ref. No. 202111033731. **(Status: Provisional Application filed).**
7. A composition for the treatment of atopic dermatitis and method of preparation thereof, Chetna Kumari, Poonam Negi, Saurabh Kulshrestha, **Pradeep Kumar**, Sankhajit Pramanik, Kamal Kant (2020). Application: 202011055406. **(Status: Under Consideration).**

Abstracts/Posters

1. Nandita Thakur, Anchal Sen, **Pradeep Kumar** and Duni Chand* (2014). Production and purification of phytase from *Aspergillus fumigatus.* 55th National Conference on "Empowering Mankind with Microbial Technologies", November 12-14, 2014, at Tamil Nadu Agricultural University, Coimbatore organized by Association of Microbiologists of India. p.no. IM-65.
2. **Pradeep Kumar**, Balwant Singh and Duni Chand* (2014). Exploring endophytic fungal diversity to produce an anticancer drug taxol. 55th National Conference on "Empowering Mankind with Microbial Technologies", November 12-14, 2014, at Tamil Nadu Agricultural University, Coimbatore organized by Association of Microbiologists of India. p.no. MD-17.
3. Duni Chand*, Radhika Kashyap, **Pradeep Kumar** and Nandita Thakur (2014). Bench scale

production of propyl gallate using bacterial tannase immobilized on chitosan beads. 55th National Conference on "Empowering Mankind with Microbial Technologies", November 12-14, 2014 at Tamil Nadu Agricultural University, Coimbatore organized by Association of Microbiologists of India. p.no. IM-65.

4. **Pradeep Kumar** and Duni Chand* (2012). Production of tannase from *Aspergillus fumigatus*-10561. 53 rd Annual Conference of Association of Microbiologists of India (AMI) International Conferences on "Microbial World: Recent Innovations and Future Trends" November 22-25, 2012, Bhubanashwar, Orissa.PDI-231 (IM). p.no.180.
5. Deepika Kumari, **Pradeep Kumar**, Neelam Dulta and Duni Chand* (2011). Purification and characterization of tannase from *Aspergillus fumigatus*. International Conferences on New Horizons in Microbial Biotechnology and Pharmaceutical Sciences. P-124, p. no. 206.

Extramural Research Projects Sanctioned /Approved/Submitted/ Under Consideration

1. Research Grant of Rs. 4.20 Lakhs as project coordinator for the project **"Designing and Development of a Microalgae Based Prototype for the Improvement of Air Quality in the Industrial Areas of H.P."**. Sectioned in August 2021 by Department of Science and Technology, Shimla (H.P.)-India. **(Status: Completed)**
2. Research grant of Rs. 7.72 Lakhs as Project Co-PI for project *"***Standardization of a microalgae-based method for the improvement of air quality" and Standardization of algal growth and Astaxanthin content by *Hemetococcus* sp."** sectioned by MicroAlgae Development Energy Pvt. Ltd, New Delhi. **(Completed).**

Workshops and training attended

1. Attended a **Four-Week Faculty Induction Programme (FIP)** at **Jawaharlal Nehru University (JNU), New Delhi**, held from **8 January 2025 to 4 February 2025**, organized by the Malaviya Mission Teacher Training Centre (MMTTC), JNU.
2. Attended one day Faculty Development program on "**Improving leadership and effectiveness in educators"** conducted by Brigadier Sanjay Agarwal, Sena Medal and Bar (Retd.) on 18-11-21 at Shoolini University, Solan (H.P.).
3. Attended 3 days Faculty Development Workshop on **Redefining Teaching: Challenges and Future Readiness** from 19-23rd July 2021 at Shoolini University, Solan (H.P.) conducted by Learning and development center, Shoolini University, Solan (H.P.)-India.
4. Attributed full grant for attending one week 1st DHR-NICPR fully sponsored workshop on **"Basic Molecular Techniques Relevant to Cancer Research"** from 28th to 31st January 2020 at ICMR-National Institute of Cancer Prevention and research (NICPR), Noida.
5. Attended three days Online National Workshop on **Relevance of Indigenous and Translation approach in Scientific research** organized by Biotechnology Incubator Centre and Association of Biotechnologist of Himachal Pradesh from 17-19 July 2020.
6. Attended one-day Faculty Development Program, May 7, 2020, on **Best Practices in Online Teaching by Dr. Florence Martin** organized by Shoolini University, Solan (H.P.)
7. Attended 3 days **Faculty Development Workshop** on **Data Analysis Using SPSS** from 20-22nd January 2020 at Shoolini University, Solan (H.P.) conducted by The Research Academy & SPSS.
8. Attended one-week UGC Network Training Course under Module B-2 on "**Innovation and Entrepreneurship"** from 8 to 13 April 2019 organized by University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India.
9. Attended one-day MHRD, Govt. of India sponsored National Symposium on "**Innovation and**

Entrepreneurship" on 9 April 2019 organized by University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India.

10. Participated as a Member organizing Committee in the 2nd Annual IPR Workshop, held at Shoolini University, Solan (H.P.) on March 15, 2019, Sponsored by Himachal Pradesh Council of Science, Technology & Environment (HIMCOSTE), Shimla, Himachal Pradesh.
11. Attended three days DBT, Govt. of India Sponsored workshop and training programme on **"Molecular Modelling for Disease Causing Protein and Drug Targeting"**, November 21-23, 2016, organized by Bioinformatics Centre, Himachal Pradesh University, Shimla (H.P.), India.
12. Attended two days NASI sponsored workshop on **"Bio-Entrepreneurship and Bio-Enterprise Creation"** organized by Biotech Consortium India Limited at IISER, Mohali, 2-3 September 2016.
13. Attended four days DBT sponsored workshop on "**Mammalian Cell Culture Techniques"** May 20-23, 2015, organized by Department of Biotechnology, Himachal Pradesh University, Shimla (H.P.), India.
14. Attended two days' workshop on **"Advancements in Analytical Techniques"** October 15-16, 2014, organized by Department of Biotechnology, Himachal Pradesh University, Shimla (H.P.), India, Sponsored by Waters India Pvt. Limited, New Delhi.
15. Attended five days DBT, Govt. of India Sponsored workshop and training programme on **"Protein Structure Prediction and Molecular docking"**, October 27-31, 2014, organized by Bioinformatics Centre, Himachal Pradesh University, Shimla (H.P.)-India.
16. National Seminar on "**National Research Activities in Biotechnology**", February 28-March 1, 2014, organized by UGC and DBT, Ministry of Science and Technology, New Delhi.
17. National Seminar on **"Emerging areas in Biotechnology",** September 16, 2009. Organized by Dept. of Science and Technology held at H.P. University, Shimla.
18. Attended five days DBT, Govt. of India Sponsored workshop and training programme on "**Pathways and System-Integrated Approaches",** September 16-20, 2013, organized by Bioinformatics Centre, Himachal Pradesh University, Shimla (H.P.)-India.
19. National seminar cum workshop on **"Advances in Electron Microscopy and Allied Fields"**, September 23-29, 2011. Organized by Department of Science and Technology, Govt. of India and Shoolini University, Solan, HP.
20. FAO sponsored project formulation workshop on **"Promoting Indigenous Peoples, Food Security and Nutrition**", 6-7 August 2009. Organized by Dept. of Science and Technology, Govt. of Himachal Pradesh and Himachal Consultancy Organization (HIMCON).

Conferences and Symposiums attended:

- **International Conferences attended:**

1. **"23rd International Conference on Bioencapsulation"** at Delft University of Technology, Delft, Netherlands, September 2-4, 2015 organized by Bio- encapsulation Research Group (France).
2. 53rd Annual Conference of Association of Microbiologists of India (AMI), International Conferences on "**Microbial World: Recent Innovations and Future Trends**" November 22-25, 2012, KIIT University, Bhubanashwar, Orissa.

- **National Conferences and Symposium attended:**

1. 55th National Conference on "**Empowering Mankind with Microbial Technologies**", November 12-14, 2014, at Tamil Nadu Agricultural University, Coimbatore organized by

Association of Microbiologists of India.

2. 23rd National conference **"Physicon 2011"**, December 12-13, 2011, at NRI Medical College and Hospital Gantur, AP organized by Physiological Society of India.
3. "**International Symposium on Understanding the Corona Pandemic and its Implications"**, May 23-25,2020 at Shoolini University, Solan (H.P.), organized by Faculty of Applied Sciences and Biotechnology, Shoolini University, Solan, Himachal Pradesh, India.
4. "Era of interdisciplinary Sciences: Vitalize Future Research" May 22-24, 2020, at Shoolini University, Solan (H.P.) organized by School of Pharmaceutical Sciences, Shoolini University, Solan (H.P.).
5. International webinar on **"Antimicrobial Resistance: Current Perspectives and Future Challenges",** November 19-20, 2020, at Shoolini University, Solan (H.P.), organized by Faculty of Applied Sciences and Biotechnology, Shoolini University, Solan, Himachal Pradesh, India.

Research Guidance (Guided and ongoing)

Ph.D. Guiding (4)			
S. No.	**Name of the student**	**Research Area**	**Tenure**
1.	Aditya Banyal	Cancer drug discovery by using microbial fermentation	Degree Awarded (2024)
2.	Aparajita Sharma	Cancer drug discovery by using microbial fermentation	Degree Awarded (2024)
3.	Kumar Alka	Enzyme Technology	Thesis submitted, viva examination awaited (2025).
Ph.D. Guided: 2; Ph.D. Thesis submitted:1; Ph.D. Guiding: 4; M. Phil Guided: 1; M. Tech. Guided:4; M.Sc. Guided: 20; B.Sc. Guided: 10; B.Tech. Guided: 5.			

Administrative experience

S. No.	Post held	Year (Tenure)	University/Institute
1.	Superintendent of Examination	28-07-2023 to 26-02-2024	Department of Biotechnology, Shoolini University, Solan (H.P.)-India
2.	Deputy superintendent of Examination	18-05-2018 to 27-06-2022	Department of Biotechnology, Shoolini University, Solan (H.P.)-India
3.	M.Sc. Biotechnology Research Course Coordinator	12-03-2022 to 27-06-2022	Department of Biotechnology, Shoolini University, Solan (H.P.)-India
4.	M.Sc. Biotechnology/M.Sc. Biotechnology Research/M.Sc. Genetics	28-09-2021 to 27-06-2022	Department of Biotechnology, Shoolini University, Solan (H.P.)-India

5.	M. Tech. Biotechnology Course Coordinator	21-07-2023 to 26-03-2024	Department of Biotechnology, Shoolini University, Solan (H.P.)-India

Memberships bodies/ Societies

S. No.	Name	Type of Membership	Tenure
1.	Life Member of the Association of Microbiologists of India (AMI) (2025).	Life Member (Life Membership No. 5674-2025)	15-10-2025 onwards
2.	Annual member of Bioencapsulation research group France (2015).	Annual	01-08-2015 to 31-08-2016
3.	Member of HPU Alumni Network (2022)	Life Member	19-08-2022 onwards
4.	Research National Research Foundation of Korea (NRF), South Korea (2022)	Annual	01-07-2022 to June 30, 2023

Technical expertise:

Analytical instruments	UV-VIS Spectrophotometer, High Performance Liquid Chromatography, Gas Chromatography, Bioencapsulator, lyophilization. Polymerase Chain Reaction. Mass spectroscopy (LC/GC-MS), NMR Spectroscopy. X-RD. AAS.
Forensic Microbiology	Microbial DNA sequencing for pathogen identification, microbial fingerprinting to trace the source of biological materials, PCR-based assays for detecting specific microbial strains, MALDI-TOF mass spectrometry for microbial species identification, and metagenomic analysis to study microbial communities in forensic samples.
Forensic Proteomics	Akta Prime Fast Flow Liquid Chromatography, SDS and native PAGE, Peptide Mass fingerprinting, Protein profiling.
Genetics and DNA Forensics	Polymerase Chain Reaction (PCR) for amplifying DNA, Short Tandem Repeat (STR) analysis for identifying genetic profiles, Mitochondrial DNA analysis for maternal lineage tracing, Y-STR analysis for paternal lineage identification, Next-Generation Sequencing (NGS) for comprehensive DNA analysis, and DNA Phenotyping to predict physical traits from genetic data. .
Forensic Algal Technology	Using algae for time-of-death estimation through postmortem submersion intervals, identifying algal species in water bodies to trace the location of drowning incidents, using algal DNA profiling for environmental forensics, and applying algal diatoms as evidence in drowning cases for victim identification and environmental analysis.
Forensic Biotechnology	STR (Short Tandem Repeat) Analysis; DNA Sequencing; Gene Expression Profiling; Mitochondrial DNA Analysis

Competence in software program	Latest Bioinformatics tools, Internet, Microsoft Word, Excel, Power Point, Publisher, Adobe Photoshop, SPSS.

Referees

- **Dr. Duni Chand,** Professor & Chairman, Department of Biotechnology, Himachal Pradesh University, Summer Hill, Shimla 171005, HP (India). Ph: 09418276448; Email: dunichand2000@yahoo.com
- **Dr. Mahender Singh Thakur,** Associate Professor and Chairman. Department of Forensic Science, Himachal Pradesh University, Summer Hill, Shimla 171005, HP (India). Ph: +8219109563; Email: drmahender74@gmail.com.
- **Prof. Prem Kumar Khosla,** Founder and Chancellor, Shoolini University, Solan (H.P.) E. mail: chancellor@shooliniuniversity.com.
- **Dr. Kwon Young Choi**, Professor & Head, Department of Environmental Engineering, Ajou University, Suwon-Si, Gyenggi-do 16499, South Korea. E. mail: kychoi@ajou.ac.kr.

Personal Details

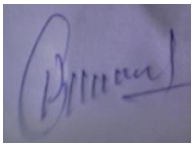
Date of Birth	January 13, 1985
Sex	Male
Marital status	Married
Nationality	Indian
Languages Known	English, Hindi
Permanent address	Uday Vihar, Ward Number 1, P.O. Barog, Distt. Solan, Himachal Pradesh, Pin-173212, INDIA.

Declaration

I hereby declare that all the information given above is true to the best of my knowledge.

Place: Shimla (H.P.)

Date: 17th December 2025



Signature: