

Curriculum vitae

Dr. Ashun Chaudhary

Personal Details

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Citizenship India

Professional Qualifications

Education Qualification

- Ph.D. in Life Sciences (Botany) from Guru Nanak Dev University, Amritsar, in 2015.
- Master Degree from Guru Nanak Dev University, Amritsar in 2008.
- B.Sc. degree in 2006 from Himachal Pradesh University, Shimla.

Employment History

- I am currently serving as an Assistant Professor in the Department of Plant Sciences, School of Life Sciences, Central University of Himachal Pradesh, Dharamshala, since January 16, 2020.
- Assistant Professor in the Department of Biotechnology, M.M. Engineering College, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, from May 14, 2018, to January 13, 2020.
- National Post-Doctoral Fellowship (Principal Investigator) by the Science and Engineering Research Board (SERB) and carried out research at the NPC PD Division, CSIR-IHBT, Palampur (Himachal Pradesh), from April 6, 2016, to April 5, 2018.
- Post-doctoral Research Associate at the same institute from September 9, 2015, to April 5, 2016.
- Assistant Professor in the Department of Botany, Khalsa College, Amritsar from July 07, 2014, to April 20, 2015

Personal Distinctions

- Qualified Examinations:
 1. GATE in Life Sciences
 2. SET in Life Sciences,
 3. NET in Agricultural Biotechnology
- Awarded a scholarship of ₹10,000 under the Dr. Ambedkar Medhavi Chhatravriti Yojna for a meritorious position in the 12th standard.

Invited Seminars and Invited Conference Presentations (last 5 years)

- Dr. Y.S. Parmar University of Horticulture & Forestry, October 14, 2022. Expert lecture on "IPR, Bio-Safety & Regulatory Affairs." (**Expert lecture**)
- National Conference on Academia-Industry Interface for Promoting Entrepreneurship in Medicinal and Aromatic Plants (PEMAP-2023), Department of Botany, Central University of Jammu, August 25, 2023. Expert talk on eco-friendly synthesis of nickel oxide nanoparticles using *Rhododendron arboreum*, *Tinospora cordifolia*, *Corylus jacquemontii*, *Nardostachys jatamansi* and evaluation of their in vitro antiproliferative activity. (**Expert talk**)

- International Conference on Emerging Trends and Innovations in Basic Sciences (ETIBS-2024), Career Point University, Hamirpur, November 23, 2024. Plant-derived natural products' impact on pharmaceutical research: the current paradigm. **(Invited lecture)**

Professional Contributions (last 5 years)

- Founder and Life Member of the Himalayan Life Science Society (HLSS).
- Life Member of the Him Science Congress.
- Reviewer and Editorial Board Member of the journal Environmental Science Archives, published by Environmental Science Archives.
- Reviewer and Editorial Board Member of the journal The Journal of Himalayan Life Sciences, published by Himalayan Life Science Society.
- Reviewer and Editorial Board Member of the journal Frontier in Nanotechnology, published by Frontiers Media S.A.
- Reviewer and Editorial Board Member of the journal The Healer, published by Ayurveda Medical Development and Research Foundation (AMDRF), Kathmandu, Nepal.
- Reviewer for the Journal of Pharmacy and Pharmacology, published by John Wiley & Sons, Inc.
- Reviewer for Chemical and Biological Technologies in Agriculture, published by SpringerOpen.
- Reviewer for Chemistry & Biodiversity, published by John Wiley & Sons, Inc.
- Reviewer for Chinese Medicine, published by BMC.
- Reviewer for Heliyon, published by ScienceDirect.
- Reviewer for the International Journal of Food Properties, published by Taylor & Francis.
- Reviewer for the Journal of Ayurveda and Integrative Medicine, published by ScienceDirect.
- Reviewer for the Journal of Basic Microbiology, published by John Wiley & Sons, Inc.
- Reviewer for the Journal of Pharmaceutical & Biomedical Analysis, published by ScienceDirect.
- Reviewer for Vegetos, published by Springer.

Teaching

- Ethnobotany and Ethnopharmacology,
- Biostatistics
- Advances in Cell Biology
- Biosafety, IPR, and Patenting Issues in Plant Sciences
- Herbal medicines in Human Health Care
- Plant Physiology and Advanced Biochemistry
- Advances in Cell Biology
- Fundamentals of Phycology and Mycology
- Principles of Ecology and Environment

Doctoral Thesis Supervision

4 Students are in Progress (1 completed since 2023)

Ashutosh Dixit "Synthesis of Zinc, Manganese and Cadmium metal oxide nanoparticles with promising biological activities" completed.

42 Students completed MSc Dissertation (Since 2020)

University Administration

- Member for the screening of candidates for Project Assistant in the Himachal Pradesh State Biodiversity Board funded research project, for the Department of Animal Sciences.
- Department Nodal Officer for Swachhata Abhiyan 4.0.
- Member of the Transport Committee for the All India Inter Zonal Women Weightlifting Championship hosted by Central University of Himachal Pradesh.
- Member of the Transport Committee for the Foundation Day celebration.
- Member of the Permanent Sports Committee (स्थायी खेल समिति) for sports in Shahpur Parisar.
- Member in the Convocation ceremony.
- Nodal Officer for IQAC (2024) for the Department of Plant Sciences.
- Member Secretary of the Ethical Committee.
- Faculty In-charge for IQAC, Examination, and Result.
- Faculty In-charge and Newsletter Coordinator (2024) for the Department of Plant Sciences.
- Dealing Hand for NIRF data in the Department of Plant Sciences.
- Member of the Media Committee and Printing & Stationery Committee at the National Conference on Frontiers in Chemical and Biological Sciences (FCBS-2024) held on 29–30 May 2024 at CUHP.
- Coordinator of an Exposure Visit to CSIR-IHBT for the students and research scholars of the Department of Plant Sciences, organized on 12/03/2025.
- Member of the Course Curriculum Development Committee (CDC) for M.Sc. and Ph.D.
- Invigilator for M.Sc. and Ph.D. mid-term and end-term examinations.

Research Projects and Income

Year	Source of funds	Project title	Amount
2021 to 2023	Niti Ayog	Opportunities of livelihood to check the migration from hills	303750/-

Publications (Latest First)

2025

1. Palak Thakur & **Ashun Chaudhary** (2025). An underexplored treasure of the Himalayas: Ethnobotany, phytochemical, and pharmacological relevance of *Angelica glauca* Edgew. *Biochemical Systematics and Ecology*, 123, 105100.
2. Ruchika Kumari, Shivani Chopra, Nancy Thakur, Mansi Rana, Palak Thakur, Kirti Raina, Vikas Anand, Rohit Sharma, and **Ashun Chaudhary** (2025). An insight into quantitative, qualitative, and analytical methods for the measurement of antioxidant activity through various assays. *Vegetos*, 1-11.
3. Ruchika Kumari, Ankita Thakur, Palak Thakur, Vipasha Sharma, Rohit Sharma, Sachin Upmanyu, Randeep Singh, Zainab M Almarhoon, Daniela Calina, Javad Sharifi-Rad, **Ashun Chaudhary** (2025). An Update on the Nutritional and Therapeutic Potential of *Dioscorea oppositifolia*. *Food Science & Nutrition*, 13(5), e70179.
4. Gurleen Kaur, Amandeep Singh, Rohit Sharma, Shyamli Dogra, Shushant Tuteja, **Ashun Chaudhary**, and Randeep Singh (2025). Residue based concentrations of deltamethrin and spinosad impair the survival, morphology and immunity of *Apis mellifera* larvae. *International Journal of Tropical Insect Science*, 1-14.

5. Rohit Sharma, Rahul Sharma, Varun Thakur, Aditi Randhawa, Rajneesh Kumar, Bhupender Dutt, **Ashun Chaudhary**, and Sunil Kumar (2025). Insights into *Pinus* species: phytochemistry, pharmacology and industrial potential of Indian *Pinus* species. *Phytochemistry Reviews*, 1-31.
 6. Palak Thakur, Ruchika Kumari, Akshay Kumar, Astha Bhatia, Upendra Sharma, and **Ashun Chaudhary** (2025). Uncovering the Mechanisms of *Angelica glauca* Edgew. in Breast Cancer: A Combined In Vitro and In Silico Approach. *Chemistry & Biodiversity*: e202402554.
 7. Kirti Raina, & **Ashun Chaudhary** (2025). Distribution of nutritional components in grains, shoot and flowers of common and tartary buckwheat landrace variety collected from Chamba district of Himachal Pradesh. *South African Journal of Botany*, 183, 158–166. Elsevier.
- 2024
8. Palak Thakur & **Ashun Chaudhary** (2024). An overview of *Angelica* species market potential in herbal and medicinal industry. *Journal of Ethnopharmacology and Toxicology*, 2(1), 19–26. <https://doi.org/10.37446/jet/ra/2.1.2024.19-26>
 9. Kirti Raina, Alisha Chaudhary, Purnima Sharma, Rohit Sharma, Kanchan Bhardwaj, Pardeep Kumar, Atul Kabra, Sunil Thakur, **Ashun Chaudhary**, Mamta Prajapati, Pradeep Kumar Prajapati, Rajeev K Singla, & Rohit Sharma (2024). Phytochemical profiling and biological activities of *Diplazium esculentum* (Retz.) Sw.: an edible vegetable fern. *Drug Metabolism and Personalized Therapy*, 38(4), 309-322.
 10. Priya Katoch, Kirti Raina, Rohit Sharma, Rohit Sharma, and **Ashun Chaudhary** (2024). AYUSH Kwath: a major contribution of ayurveda in preventing COVID-19 infection. *Current Drug Therapy*, 19(1), 60-80.
 11. Ruchika Kumari, Madhvi Negi, Palak Thakur, Himadri Mahajan, Kirti Raina, Rohit Sharma, Randeep Singh, Vikas Anand, Long Chiau Ming, Khang Wen Goh, Daniela Calina, Javad Sharifi-Rad, and **Ashun Chaudhary** (2024). *Saussurea costus* (Falc.) Lipsch.: a comprehensive review of its pharmacology, phytochemicals, ethnobotanical uses, and therapeutic potential. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 397(3), 1505-1524.
 12. Anchal Thakur, Ruchika Kumari, Ashok Kumar, and **Ashun Chaudhary** (2024). "Quantitative ethnobotanical study of medicinal plants used by native people of selected areas of Chhota Bhangal, Himachal Pradesh." *Ethnobotany Research and Applications* 28: 1-34.
 13. Kirti Raina, Ruchika Kumari, Palak Thakur, Rohit Sharma, and **Ashun Chaudhary** (2024). Buckwheat: An Underutilized Himalayan Crop with Multifaceted Nutraceutical Benefits. *Recent advances in food, nutrition & agriculture*. 15, e2772574X323710.
 14. Mukesh Kumar, **Ashun Chaudhary**, and Vikas Anand (2024). New In Vitro Insights into Magnesium and Zinc Doped 58SiO₂-34CaO-2MgO-xZnO-(6-x) P₂O₅ Bioceramics. *Ceramics International*, 50(24), 54547-54556.
- 2023
14. **Ashun Chaudhary**, Ruchika Kumari, & Palak Thakur. (2023). A review on mitigation of various ailments via a bioactive component of *Tribulus terrestris* L. - A medicinally important herb. *Ethnobotany Research and Applications*, 25(44).
 15. Ankita Thakur, Neha Prasad, Kirti Raina, Rohit Sharma, and **Ashun Chaudhary** (2023). Role of plant-based anticancer compounds in treatment of breast cancer. *Current Pharmacology Reports*, 9(6), 468-488.
 16. Vikas Anand, **Ashun Chaudhary**, Meenakshi, Gaurav Bhatia, Pawan Heera, and Sourbh Thakur (2023). Magnetic biomaterials with nanostructures for improved medication delivery and bone regeneration. First-level investigation. *Journal of Asian Ceramic Societies*, 11(4), 526-534.

17. Palak Thakur, Anchal Thakur, Samriti Gautam, Jagdish Choudhary, Ruchika Kumari, Kirti Raina, Rohit Sharma, and **Ashun Chaudhary** (2023). "Occurrence and formation of environmentally persistent free radicals in incineration and their impact on soil and water." *Journal of Geochemical Exploration*, 252, 107264.
18. Kirti Raina, Ruchika Kumari, Palak Thakur, Rohit Sharma, Randeep Singh, Abhinay Thakur, Vikas Anand, Rohit Sharma, and **Ashun Chaudhary** (2023). Mechanistic role and potential of Ayurvedic herbs as anti-aging therapies. *Drug metabolism and personalized therapy*, 38(3): 211–226.
19. Palak Thakur, Rakesh Kumar, Neha Choudhary, Rohit Sharma, and **Ashun Chaudhary** (2023). Network pharmacology on mechanistic role of *Thymus linearis* Benth. against gastrointestinal and neurological diseases. *Phytomedicine*, 121, 155098.
20. Amisha Rani, Mitul Guleria, Yashpal Sharma, Shagun Sharma, **Ashun Chaudhary**, Rohit Sharma, & Pankaj Kumar. (2023). Insights into elicitor's role in augmenting secondary metabolites production and climate resilience in genus *Ocimum*—A globally important medicinal and aromatic crop. *Industrial Crops and Products*, 202, 117078.
21. Ashutosh Dixit, Renu Bala, Bhawna Pareek, **Ashun Chaudhary**, Saroj Arora, Davinder Singh, Anju Bala, & Vivek Sheel Jaswal. (2023). Green synthesis of cadmium oxide nanoparticles with various plant extracts and their use as an anticancer agent. 2022
22. Renu Bala, Ashutosh Dixit, Bhawna Pareek, Vivek Sheel Jaswal, **Ashun Chaudhary**, Vikash Singh, & Vivek Sharma. (2022). A synthesis, characterization and biological function of copper, nickel and iron nano-oxides with various plant extract. *AIP Conference Proceedings*, 2393(1), 020009.
23. Poonam Kumari, Kirti Raina, Sunil Thakur, Rohit Sharma, Natália Cruz-Martins, Pardeep Kumar, Kalyan Barman, Swati Sharma, Dileep Kumar, Pradeep Kumar Prajapati & **Ashun Chaudhary**. (2022). Ethnobotany, phytochemistry and pharmacology of palash (*Butea monosperma* (Lam.) Taub.): A systematic review. *Current Pharmacology Reports*, 8(3), 188–204.
24. Rohit Sharma, Praveen Kumar, Abdur Rauf, **Ashun Chaudhary**, Pradeep Kumar Prajapati, Talha Bin Emran, Clara Mariana Gonçalves Lima, & Carlos Adam Conte-Junior. (2022). Mucormycosis in the COVID-19 environment: A multifaceted complication. *Frontiers in Cellular and Infection Microbiology*, 12, 937481.
25. Renu Bala, Bhawna Pareek, Ahmad Umar, Saroj Arora, Davinder Singh, **Ashun Chaudhary**, Abdulrab Ahmed M Alkhanjaf, Abdulrhman A Almadiy, Hassan Algadi, & Raman Kumar. (2022). In-vitro cytotoxicity of nickel oxide nanoparticles against L-6 cell-lines: MMP, MTT and ROS studies. *Environmental Research*, 215, 114257. 2021
26. Gurleen Kaur, Rohit Sharma, **Ashun Chaudhary**, & Randeep Singh. (2021). Factors affecting immune responses in honey bees: An insight. *Journal of Apicultural Science*, 65(1), 25–47.
27. Renu Bala, Ashutosh Dixit, Bhawna Pareek, Avnish Kumar Arora, **Ashun Chaudhary**, & Vivek Sheel Jaswal. (2021). A review on zinc oxide nanoparticles and their applications. *IJREAT International Journal of Research in Engineering & Advanced Technology*, 8(6), 36–43.
28. AM Dixit, Renu Bala, Bhawna Pareek, **Ashun Chaudhary**, & Vivek Sheel Jaswal. (2021). A review on synthesis of Cadmium and Manganese oxide nanoparticles with its vitro applications. *J. Univ. Shanghai Sci. Technol*, 23.
29. Ashutosh Singh, Namyashree Nayak, Preeti Rathi, Deepanshu Verma, Rohit Sharma, **Ashun Chaudhary**, Alka Agarwal, Yamini Bhushan Tripathi, & Neha Garg. (2021). Microbiome and host crosstalk: A new paradigm to cancer therapy. *Seminars in Cancer Biology*, 70, 71–84.

30. Shallina Gupta, **Ashun Chaudhary**, Sumit Singh, Saroj Arora, & Satwinder Kaur Sohal. (2021). Broccoli (*Brassica oleracea* L. var. *italica*) cultivars, Palam Samridhi and Palam Vichitra affect the growth of *Spodoptera litura* (Fabricius)(Lepidoptera: Noctuidae). *Heliyon*, 7(7).
31. Ashutosh Dixit, Renu Bala, Bhawna Pareek, **Ashun Chaudhary**, & Vivek Sheel Jaswal. (2021). An analysis of green synthesis of manganese oxide nanoparticles including applications and prospects as anticancer activity (MTT, ROS & MMP). *International Journal of Botany Studies*, 6(5), 1452–1456.
32. Renu Bala, Ashutosh Dixit, Bhawna Pareek, Joginder Singh, **Ashun Chaudhary**, Saroj Arora, Davinder Singh, Manik Gupta, & Vivek Sheel Jaswal. (2021). Synthesis and biochemical characterization of iron oxide nanoparticles. *Annals of Biology*, 37(2), 148–152.
- 2020
33. Abhinay Thakur, Rohit Sharma, Vivek S Jaswal, Eugenie Nepovimova, **Ashun Chaudhary**, & Kamil Kuca. (2020). Psoralen: A biologically important coumarin with emerging applications. *Mini Reviews in Medicinal Chemistry*, 20(18), 1838–1845.
34. Rohit Sharma, Natália Martins, **Ashun Chaudhary**, Neha Garg, Vineet Sharma, Kamil Kuca, Eugenie Nepovimova, Hardeep Singh Tuli, Anupam Bishayee, & Anand Chaudhary. (2020). Adjunct use of honey in diabetes mellitus: A consensus or conundrum? *Trends in Food Science & Technology*, 106, 254–274.

Book Chapters (Latest First)

2025

1. Kirti Raina, Arti Chauhan, Rohit Sharma, Sunil Thakur, and **Ashun Chaudhary** (2025). “Role of Anti-depressant agents in the flowering plants of Himalayan Region”. In *Himalayan Medicinal Plants for the Treatment of Depression*. Apple Academic Press CRC Press, 99-128.
2. Ruchika Kumari, Kushal Thakur, Damini, Palak Thakur, Kirti Raina, Rohit Sharma, Rohit Sharma, Amandeep Singh, Randeep Singh and **Ashun Chaudhary** (2025). “Biological Control for Plant”. In *Protection: Recent Advances in Research and Sustainability*. Bentham Science Publishers. (Accepted)
3. Tanu Kumari, Palak Thakur, Ruchika Kumari, Vipasha Sharma, Randeep Singh, Rohit Sharma and **Ashun Chaudhary** (2025). “Commercial biocontrol agents and biofertilizers from streptomycetes”. In *Streptomycetes-Biological Candidates for Sustainable Agriculture*. Springer Nature, Singapore. (Accepted)
4. Sanjeev Kumar, Ruchika Kumari, Palak Thakur, Vipasha Sharma, Kirti Raina, Rohit Sharma, Rakesh Kumar and **Ashun Chaudhary** (2025). “Role of Himalayan Medicinal Plants in Traditional and Ethnoveterinary Practices for Sustainable Utilization”. In *Ethnoveterinary Practices in Animal Agriculture*. Elsevier. (Accepted)
5. Navjot Kaur, Vipasha Sharma, Kirti Raina, Ruchika Kumari, Palak Thakur and **Ashun Chaudhary** (2025). “A Road to Sustainable Development: Harnessing Indigenous Knowledge and Biotechnological Tools for Conserving Medicinal Plants”. In *Impact of Climate Change on Plants and Microbial Diversity of the Himalayas*. Cambridge Scholars Publishing. (Accepted)

2024

6. Amisha Rani, Kiran Soni, Yash Pal Sharma, Ankita Singh, **Ashun Chaudhary**, Pankaj Kumar, Rohit Sharma (2024). Nano-Elicitation in Medicinal and Aromatic Plants: Applications and Challenges. In *Propagation to Pharmacopeia*, pp. 225-253.
7. Ruchika Kumari, Vidhi Vashist, Niharika Shekhawat & **Ashun Chaudhary** (2024). Micronutrient bioavailability in contaminated soil and mitigation strategies for toxicity. In *Advances in Food Security and Sustainability* (Vol. 9, pp. 161-195). Elsevier.

2023

8. Palak Thakur, Damini, Kushal Thakur, Kirti Raina, Ruchika Kumari, Rohit Sharma, Rohit Sharma, Randeep Singh, Amandeep Singh, and **Ashun Chaudhary** (2023). “Alleviation of Salt Stress Using PGPR”. In *PGPR (Plant Growth Promoting Rhizobacteria) for Plant*

Stress Management. Nova Science Publishers, Inc. 41-59.

2022

9. Rohit Sharma, **Ashun Chaudhary**, Yash Pal Sharma, Sunil Kumar (2022). Plant Secondary Metabolite Determination through Analytical Chromatographic Techniques: Recent Trends and Advancement. In *Plant Secondary Metabolites*, 77-95.

Patent Filed

- Filed Application No. 202311057323. 26/08/2023;"A multinucleus for storage of honey bee queens" (Amandeep Singh, Ashun Chaudhary, Randeep Singh, Abhinay Thakur, Rohit Sharma, and Pradeep Kumar Prajapati)- to Patent office New Delhi.
- Filed Application No. 451126-001. 11/03/2025; "Textile wastewater treatment system using biodegradation technology based on microbial consortia" (Vivek Sheel, Sachin Upmanyu, Munish Sharma, Manish Kumar, Ashun Chaudhary, Rakesh Kumar, Sunil Kumar, Pardeep Kumar)- to Patent office New Delhi.