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Current Position

Associate Professor & Head, Dept. of Biochemistry H.N.B. Garhwal (Central) University,
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Areas of Interest/Specialisation

1. Biochemistry/Biosciences/Life Sciences
2. Cancer Biology
3. Oxidative Stress
4. Natural plant products

Teaching Experience:	>12 Years	Research Experience:	>21 Years
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Publications:

1. Mishra, A.P., Atipimonpat, A., Nigam, M., Yalo, M., Singh, S., Chittasupho, C., Namboozhe, J., Ngamkham, J. and Waranuch, N., 2026. Elaeodendron buchananii (Loes.) Loes. stem bark: Unveiling the phytochemical profiles and selective bioactivity to combat tongue cancer. Archives of Oral Biology, 181, p.106434.
<https://doi.org/10.1016/j.archoralbio.2025.106434> (Impact factor 2.1)

2. Nigam, M.; Punia, B.; Dimri, D.B.; Mishra, A.P.; Radu, A.-F.; Bungau, G. Reactive Oxygen Species: A Double-Edged Sword in the Modulation of Cancer Signaling Pathway Dynamics. *Cells* 2025, 14, 1207. <https://doi.org/10.3390/cells14151207> (Impact factor 5.2)
3. Chandra, H.; Vishwakarma, S.; Makwana, N.; Kharat, A.S.; Chaudhry, V.; Chand, S.; Prasad, R.; Prakash, S.; Katara, A.; Yadav, A., Nigam M, Mishra AP., Eco-Friendly Silver Nanoparticles Synthesis Method Using Medicinal Plant Fungal Endophytes—Biological Activities and Molecular Docking Analyses. *Biology* 2025, 14(8), 950. <https://doi.org/10.3390/biology14080950> (Impact factor 3.5)
4. Mishra AP, Tangsumranjit A, Nigam M, Chandra H, Almalki FA, Hadda TB, Waranuch N., Integrative in silico and Petra/Osiris/Molinspiration (POM) analysis of baicalein: identification of therapeutically relevant pharmacophores against keloid pathology. *Drug Target Insights* 2025; 19: 49-58 <https://doi.org/10.33393/dti.2025.3574> (Impact factor 2.5)
5. Capó X, Kumar R, Mishra A.P., Nigam M., Waranuch N., Martorell M., Sharopov F., Calina D., Popa D., Setzer W. N., Sharifi-Rad J, Pezzani R. Baicalein and baicalin in cancer therapy: Multifaceted mechanisms, preclinical evidence, and translational challenges. *Seminars in Oncology*, 52 (5), 2025,152377 <https://doi.org/10.1016/j.seminoncol.2025.152377> (Impact factor 2.5)
6. Upare, M.M., Thorawade, K.M., Mishra, A.P., Nigam, M. and Waranuch, N., 2025. Lipid-Based Nanocarriers in Topical Applications for Skin Infections. *Current Opinion in Pharmacology*, 83,p.102541 <https://doi.org/10.1016/j.coph.2025.102541> (Impact factor 4.0)
7. Rauf A, Rashid U, Akram Z, Khan M, Shaheen S, Min HS, Jamil J, Alshammari A, Albekairi NA, Nigam M & Mishra AP (2025): Unveiling tyrosinase inhibition: exploring secondary metabolites from *Fernandoa adenophylla* through biological screening and molecular docking. *Natural Product Research*, DOI: 10.1080/14786419.2025.2491829 (Impact factor 2.2)
8. Singh N., Gusain A., Nigam M., Mishra AP., The pharmacological and therapeutic versatility of *Allium* species: a comprehensive exploration of bioactive constituents and biological Activities. *Discover Applied Sciences*, (2025) 7:349 | <https://doi.org/10.1007/s42452-025-06800-0> (Impact factor 2.8)
9. Dimri D.B., Nigam M., Singh N., Semwal S., Iriti M, Mishra AP. Orchestrating the Phytochemical Content and Bioactivities in the Leaf, Bark, and Fruit Extracts of *Cornus capitata* Wall. *Phyton-International Journal of Experimental Botany* 94(3), 1007-1027,(2025) <https://doi.org/10.32604/phyton.2025.061270> (Impact factor 1.3)
10. Mishra, A.P., Kumar, R., Harilal, S., Nigam, M., Datta, D., Singh, S., Waranuch, N. and Chittasupho, C., 2024. Demystifying the management of cancer through smart nano-biomedicine via regulation of reactive oxygen species. *Naunyn-Schmiedeberg's Archives of Pharmacology*, (2024), 398, 497-532. <https://doi.org/10.1007/s00210-024-03469-x> . (Impact factor 3.1)
11. Negi, R., Nigam, M. and Singh, R.K., 2024. Harnessing *Leptolyngbya* for antiproliferative and antimicrobial metabolites through lens of modern techniques: A review. *Algal Research*, 83, p.103702. <https://doi.org/10.1016/j.algal.2024.103702> (Impact factor 4.6)

12. Chandra, H., Yadav, A., Prasad, R., Sagar, K., Bhardwaj, N., Gupta, K.K., Thakur, G.S., Nigam, M., Pezzani, R., de Lima, J.P.M. and Coutinho, H.D.M., 2024. COVID 19: Prevention and treatment through the Indian perspective. *Cytokine*, 183, p.156756. <https://doi.org/10.1016/j.cyto.2024.156756> (**Impact factor 3.7**)
13. Mishra AP, Kumar R, Harilal S, Nigam M, Datta D, Singh S. Emerging Landscape of In Vitro Models for Assessing Rheumatoid Arthritis Management. *ACS Pharmacology & Translational Science* 2024, 7, 8, 2280–2305 <https://doi.org/10.1021/acsptsci.4c00260> (**Impact factor 5.1**)
14. Nigam M., Devi K., Coutinho H.D.M., Mishra A.P. Exploration of gut microbiome and inflammation: A review on key signaling pathways. *Cellular Signaling*, 118, (2024) 111140 <https://doi.org/10.1016/j.cellsig.2024.111140> (**Impact factor 4.4**)
15. Mishra, A. P., Nigam, M., Namboozee, J., Salau, V. F., Olofinson, K. A., Iriti, M., & Matsabisa, M. G. GC-MS Analysis, Antioxidant, and Antidiabetic Properties of Methanol Extract of *Annona muricata* L. Leaves-An In vitro and In silico Study. *Current Organic Chemistry*, (2023), 27(17),1531-1541 <https://doi.org/10.2174/0113852728254495231002100354> (**Impact Factor: 2.226**)
16. Nigam M., Mishra A.P., Deb V.K., Dimri D.D, Tiwari V, Bungau S.G., Bungau A. F., Radu A.F. Evaluation of the association of chronic inflammation and cancer: Insights and implications. *Biomedicine & Pharmacotherapy* 2023; 164, 115015 <https://doi.org/10.1016/j.biopha.2023.115015> (**Impact Factor: 6.9**)
17. Nigam D, Muthukrishnan E, Flores-López LF, Nigam M, Wamaitha MJ. Comparative Genome Analysis of Old World and New World TYLCV Reveals a Biasness toward Highly Variable Amino Acids in Coat Protein. *Plants* 2023; 12(10):1995. <https://doi.org/10.3390/plants12101995> (**Impact Factor: 4.6**)
18. Mishra, A.P.; Swetanshu; Singh, P.; Yadav, S.; Nigam, M.; Seidel, V.; Rodrigues, C.F. Role of the Dietary Phytochemical Curcumin in Targeting Cancer Cell Signalling Pathways. *Plants* 2023, 12, 1782. <https://doi.org/10.3390/plants12091782> (**Impact Factor: 4.6**)
19. Jennifer N, Mishra AP, Nigam M, Devkota HP, Paudel KR, Matsabisa MG. Bioactive Compounds from the Plants of the Elaeodendron Genus and Their Biological Activities—A Review. *Applied Sciences*. 2022; 12(24):12618. <https://doi.org/10.3390/app122412618> (**Impact Factor: 2.8**)
20. Bhandari, M., Singh, R.K., Laishevcev, A., Mohapatra, T.M., Nigam, M., Mori, E., de Lacerda, B.C.G.V., Coutinho, H.D.M. and Mishra, A.P., 2022. Revisiting scrub typhus: a neglected tropical disease. *Comparative Immunology, Microbiology and Infectious Diseases*, 90, p.101888. (**Impact factor 2.0**)
21. Nigam, M., Panwar, A. S., & Singh, R. K. Orchestrating the Fecal Microbiota Transplantation: Current Technological Advancements and Potential Biomedical Application. *Frontiers in Medical Technology*, 69 (2022) <https://doi.org/10.3389/fmedt.2022.961569> (**Impact factor 1.179**)
22. Bisht S., Nigam M., Kunjwal S.S., Sergey P., Mishra A.P. and Sharifi-Rad J. Cancer Stem Cells: From an Insight into the Basics to Recent Advances and Therapeutic Targeting. *Stem*

cells international 2022, 9653244 (2022) <https://doi.org/10.1155/2022/9653244> (**Impact factor 5.443**)

23. Olatunde, A., Nigam, M., Singh, R.K. et al. Cancer and diabetes: the interlinking metabolic pathways and repurposing actions of antidiabetic drugs. *Cancer Cell Int.* 21, 499 (2021). <https://doi.org/10.1186/s12935-021-02202-5> (**Impact factor 6.429**)
24. Mishra, A.P., Saklani, S., Parcha, V. et al. Antibacterial activity and phytochemical characterisation of *Saussurea gossypiphora* D. Don.. *Arch Microbiol* 203, 5055–5065 (2021). <https://doi.org/10.1007/s00203-021-02494-1> (**Impact factor 2.55**)
25. Budakoti M, Panwar AS, Molpa D, Singh RK, Büsselberg D, Mishra AP, Coutinho HDM, Nigam M. Micro-RNA: The Darkhorse of cancer. *Cellular Signalling* 2021: 83, 109995. <https://doi.org/10.1016/j.cellsig.2021.109995> (**Impact factor 4.3**)
26. Das, G., Shin, H. S., Leyva-Gómez, G., Prado-Audelo, M., Cortes, H., Singh, Y. D., Panda, M. K., Mishra, A. P., Nigam, M., Saklani, S., Chatur, P. K., Martorell, M., Cruz-Martins, N., Sharma, V., Garg, N., Sharma, R., & Patra, J. K. (2021). *Cordyceps* spp.: A Review on Its Immune-Stimulatory and Other Biological Potentials. *Frontiers in pharmacology*, 11, 602364. <https://doi.org/10.3389/fphar.2020.602364> (**Impact factor 5.9**)
27. Salehi, B., Quispe, C., Sharifi-Rad, J., Cruz-Martins, N., Nigam, M., Mishra, A.P., Konovalov, D.A., Orobinskaya, V., Abu-Reidah, I.M., Zam, W. and Sharopov, F., 2021. Phytosterols: From preclinical evidence to potential clinical applications. *Frontiers in Pharmacology*, 11, p.1819. <https://doi.org/10.3389/fphar.2020.599959>(**Impact factor 5.9**)
28. Salehi B, Mishra AP, Nigam M, Karazhan N, Shukla I, Dadasiewicz AK, Sawicka B, Głowacka A, Darwish MSA, Tarawneh AH, Gadetskaya AV, Cabral C, Salgueiro L,

Victoriano M, Martorell M, Docea AO, Abdolshahi A, Calina D, Sharifi-Rad J. *Ficus* plants:

State of the art from a phytochemical, pharmacological, and toxicological perspective
Phytotherapy Research 2020, 35(3), 1187-1217 (**Impact factor 7.2**)
<https://doi.org/10.1002/ptr.6884>

29. Mishra AP, Devkota HP, Nigam M, Adetunji CO, Srivastava N, Saklani S, Shukla I, Azmi L, Shariati MA, Coutinho HDM, Khaneghah AM. Combination of essential oils in dairy products: A review of their functions and potential benefits *LWT - Food Science and Technology* 2020, 133, 110116 <https://doi.org/10.1016/j.lwt.2020.110116>(**Impact factor 4.9**)
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31. Salehi, B., P. Mishra, A., Nigam, M., Kobarfard, F., Javed, Z., Rajabi, S., Khan, K., Ahsan Ashfaq, H., Ahmad, T., Pezzani, R., Ramírez-Alarcón, K., Martorell, M., C. Cho, W., Ayatollah, S., Sharifi-Rad, J. (2020). Multivesicular liposome (DepoFoam) in human diseases. *Iranian Journal of Pharmaceutical Research*, 19(2), 9-21. doi: 10.22037/ijpr.2020.112291.13663 (**Impact factor 1.9**)
32. Nigam M, Mishra AP, Devkota AA, Dirar AI, Hassan MM, Adhikari A, Belwal T, Devkota HP. Fruits of *Terminalia chebula* Retz.: A review on traditional uses, bioactive

chemical constituents and pharmacological activities *Phytotherapy Research* 2020, 34(10), 1-19 <https://doi.org/10.1002/ptr.6702> (**Impact factor 7.2**)

33. Salehi B, Konovalov DA, Fru P, Kapewangolo P, Peron G, Ksenija MS, Cardoso SM, Pereira OR, Nigam M, Nicola S, Pignata G, Rapposelli S, Sestito S, Kumar NVA,

Cádiz-Gurrea ML, Segura-Carretero A, Mishra AP, Sharifi-Rad M, Cho WC, Taheri Y,

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34. Salehi, B.; Azzini, E.; Zucca, P.; Maria Varoni, E.; V. Anil Kumar, N.; Dini, L.; Panzarini, E.; Rajkovic, J.; Valere Tsouh Fokou, P.; Peluso, I.; Prakash Mishra, A.; Nigam, M.; El Rayess, Y.; El Beyrouthy, M.; N. Setzer, W.; Polito, L.; Iriti, M.; Sureda, A.; Magdalena Quetglas-Llabrés, M.; Martorell, M.; Martins, N.; Sharifi-Rad, M.; M. Estevinho, L.; Sharifi-Rad, J. Plant-Derived Bioactives and Oxidative Stress-Related Disorders: A Key Trend towards Healthy Aging and Longevity Promotion. *Applied Sciences* **2020**, 10, 947 <https://doi.org/10.3390/app10030947> (**Impact Factor: 2.8**)
35. Naseri R, Navabi SJ, Samimi Z, Mishra AP, Nigam M, Chandra H, Olatunde A, Tijjani H, Morais-Urano R, Farzaei MH Targeting Glycoproteins as a therapeutic strategy for diabetes mellitus and its complications *DARU J Pharm Sci* (2020) 28, 333-358. <https://doi.org/10.1007/s40199-020-00327-y> (**Impact Factor: 4.0**)
36. Salehi B, Sahrifi-Rad J, Seca AML, Pinto DCGA, Michalak I, Trincone A, Mishra AP, Nigam M, Zam W and Martins N Current Trends on Seaweeds: Looking at Chemical Composition, Phytopharmacology, and Cosmetic Applications *Molecules* 2019, 24(22), 4182; <https://doi.org/10.3390/molecules24224182> (**Impact Factor: 4.9**)
37. Nigam M, Atanassova M, Mishra AP, Pezzani R, Devkota HP, Plygun S, Salehi B, Setzer WN and Sharifi-Rad J Bioactive Compounds and Health Benefits of *Artemisia* Species Natural Product Communications 2019: 14(1):1–17 DOI: 10.1177/1934578X19850354 (**Impact Factor: 0.98**)
38. Nigam M, Suleria H.A.R., Farzaei M.H., Mishra A.P. Marine anticancer drugs and their relevant targets: a treasure from the ocean. *DARU Journal of Pharmaceutical Sciences* 2019, 27(1):491-515, <https://doi.org/10.1007/s40199-019-00273-4> (**Impact Factor: 4.0**)
39. Saklani S, Rawat Y, Plygun S, Shariati MA, Nigam M, Maurya VK, Yadav A, Mishra AP Biological activity and preliminary phytochemical screening of *Terminalia alata heyne ex roth.* *J Microbiol Biotech Food Sci* 2019 : 8 (4) 1010-1015 <https://doi.org/10.15414/jmbfs.2019.8.4.1010-1015>

40. Nigam M, Mishra AP, Salehi B, Kumar M, Sahrifi-Rad M, Coviello E, Iriti M, Sharifi-Rad J Accelerated ageing induces physiological and biochemical changes in tomato seeds involving MAPK pathways. Scientia Horticulturae 2019, 248, 20-28 <https://doi.org/10.1016/j.scienta.2018.12.056> (**Impact Factor: 3.4**)
41. Waheed M, Hussain MB, Javed A, Mushtaq Z, Hassan S, Shariati MA, Khan MU, Majeed M, Nigam M, Mishra AP, Heydari M., Honey and cancer: A mechanistic review Clinical Nutrition 2019 ,38 (6):2499-2503. <https://doi.org/10.1016/j.clnu.2018.12.019> (**Impact Factor: 7.4**)
42. Salehi, B.; Mishra, A.P.; Nigam, M.; Sener, B.; Kilic, M.; Sharifi-Rad, M.; Fokou, P.V.T.; Martins, N.; Sharifi-Rad, J. Resveratrol: A Double-Edged Sword in Health Benefits. Biomedicines 2018, 6(3), 91. <https://doi.org/10.3390/biomedicines6030091> (**Impact Factor: 4.7**)
43. Nigam M, Saklani S, Plygun S, Mishra AP. Antineoplastic potential of the *Vitex* species: An overview Boletín latino americano y del caribe de plantas medicinales y aromáticas (2018),17(5): 492-502 (**Impact Factor: 0.90**)
44. Kumar, M., Yusuf, M.A., Nigam, M. An Update on Genetic Modification of Chickpea for Increased Yield and Stress Tolerance. Molecular Biotechnology 2018, 60(8):651-663 <https://doi.org/10.1007/s12033-018-0096-1> (**Impact Factor: 2.69**)
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46. M Kumar, MA Yusuf, PS Chauhan, M Nigam *Pseudomonas putida* and *Bacillus amyloliquefaciens* alleviates the adverse effect of pesticides and poise soil enzymes activities in chickpea (*Cicer arietinum* L.) rhizosphere. Tropical plant research 2017, 4 (3):405-418. DOI:10.22271/tpr.2017.v4.i3.054
47. Saklani, S.; Mishra, A.P.; Chandra, H.; Atanassova, M.S.; Stankovic, M.; Sati, B.; Shariati, M.A.; Nigam, M.; Khan, M.U.; Plygun, S.; Elmsellem, H.; Suleria, H.A.R. Comparative Evaluation of Polyphenol Contents and Antioxidant Activities between Ethanol Extracts of *Vitex negundo* and *Vitex trifolia* L. Leaves by Different Methods. Plants 2017, 6, 45-55. doi: 10.3390/plants6040045 (**Impact Factor: 4.6**)
48. Singh, N., Nigam, M., Ranjan, V., Garg, V.K., Sharma, S., Chaturvedi, R., Shankar, R., Kumar, S., Sharma, R., Balapure, A.K., Rath, S.K. Resveratrol as an adjunct therapy in cyclophosphamide-treated MCF-7 cells and breast tumor explants Cancer Science 2011, 102, 1059-1067. doi: 10.1111/j.1349-7006.2011.01893.x. (**Impact Factor: 6.5**)
49. Nigam, M., Singh, N., Ranjan, V., Zaidi, D., Nigam, D., Sharma, R., Gupta, D.K., Sundaram, S., Balapure, A. K. Centchroman mediated apoptosis involves cross-talk between

extrinsic/intrinsic pathways and oxidative regulation. Life Sciences 2010, 87: pp. 750-758
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51. Singh, N., Nigam, M., Ranjan, V., Sharma, R., Balapure, A. K., Rath, S.K. Caspase-mediated enhanced apoptotic action of Cyclophosphamide and Resveratrol treated MCF-7 cells. Journal of Pharmacological Sciences 2008, 109: 473-489.
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Chapters in Edited Books:

1. Nigam, M., Singh, N., Dimri, D.B., Mishra, A.P. (2025). Biotechnology in Medicine: Fundamentals. In: Nigam, M., Mishra, A.P. (eds) Biotechnology and Cancer Therapeutics. Interdisciplinary Biotechnological Advances. Springer, Singapore. (2025), pages 1-24, ISBN: 978-981-96-4958 https://doi.org/10.1007/978-981-96-4959-4_1 (Publication date 13th May 2025), No. of pages 478.
2. Arabpour, J., Davodabadi, F., Nigam, M. (2025). Cancer Immunotherapy. In: Nigam, M., Mishra, A.P. (eds) Biotechnology and Cancer Therapeutics. Interdisciplinary Biotechnological Advances. Springer, Singapore. (2025), pages 49-113, ISBN: 978-981-96-4958 https://doi.org/10.1007/978-981-96-4959-4_3 (Publication date 13th May 2025), No. of pages 478.
3. Singh, N., Nigam, M. (2025). Cell Therapy of Cancer. In: Nigam, M., Mishra, A.P. (eds) Biotechnology and Cancer Therapeutics. Interdisciplinary Biotechnological Advances. Springer, Singapore. (2025), pages 149-176, ISBN: 978-981-96-4958 https://doi.org/10.1007/978-981-96-4959-4_5 (Publication date 13th May 2025), No. of pages 478.
4. Rawat, N., Nigam, M., Mishra, A.P., Singh, N. (2025). Role of MicroRNAs in Cancer. In: Nigam, M., Mishra, A.P. (eds) Biotechnology and Cancer Therapeutics. Interdisciplinary Biotechnological Advances. Springer, Singapore. (2025), pages 381-410, ISBN: 978-981-96-4958 https://doi.org/10.1007/978-981-96-4959-4_12 (Publication date 13th May 2025), No. of pages 478,
5. Davodabadi, F., Arabpour, J., Nigam, M. (2025). Gene Therapy of Cancer. In: Nigam, M., Mishra, A.P. (eds) Biotechnology and Cancer Therapeutics. Interdisciplinary Biotechnological Advances. Springer, Singapore. (2025), pages 411-445 ISBN: 978-981-96-4958 https://doi.org/10.1007/978-981-96-4959-4_13 (Publication date 13th May 2025), No. of pages 478
6. Jena, R., Samal, H.B., Sharma, J., Suresh, P., Mishra, A.P., Nigam, M. (2025). Biotechnology in Drug Discovery and Development for Cancer. In: Nigam, M., Mishra, A.P. (eds) Biotechnology and Cancer Therapeutics. Interdisciplinary Biotechnological Advances. Springer, Singapore. (2025), pages 447-478, ISBN: 978-981-96-4958-7 https://doi.org/10.1007/978-981-96-4959-4_14 (Publication date 13th May 2025), No. of pages 478

7. Sakshi, Singh, P., Mishra, A.P., Mishra, P., Nigam, M., Singh, S. Recent Trends in the Valorization of Value-Added Biomass from Microbes for Sustainable Development. In: Microbial Niche Nexus Sustaining Environmental Biological Wastewater and Water-Energy-Environment Nexus. Environmental Science and Engineering. Kandasamy, S., Shah, M.P., Subbiah, K., Manickam, N. (eds) Springer, Cham. (2025), pages 377-395, ISBN: 978-3-031-62659-3 https://doi.org/10.1007/978-3-031-62660-9_15 (Publication date 16th January 2025), No. of pages 400
8. Mishra A.P., Azmi L., Nigam M., Urano R.P.M., Yadav A., and Matsabisa M.G. Rutaceae: An Insight into Healthcare and Clinical Applications. In: Phytochemical and Pharmacological Investigation of the Family Rutaceae . Eds. Rauf A., Suleria H.A.R., Shah S.M.M. Apple academic press. **2024**, pages 161-176, ISBN: 9781774913710 (Publication date 5th July 2024) No. of pages 242
9. Kumar R., Harilal S., Gautam A., Nigam M., Mishra A.P., “Phytopharmaceuticals as an Alternative Treatment against Parasites” In: Parasitic Infections: Immune Responses and Therapeutics. Eds. Mishra A.P & Nigam M., Wiley, 2023, Pages 251-302, ISBN: 978-1-119-87802-5 (Publication date 20th July 2023) No. of pages 432
10. Olatunde A., Ogunro O., Tijjani H., Obidola S. M., Akpaki M.A., Yadav A., Nigam M., Mishra A.P., “Immune Response against Protozoan Parasites” In: Parasitic Infections: Immune Responses and Therapeutics. Eds. Mishra A.P & Nigam M., Wiley, 2023, Pages 73-99, ISBN: 978-1-119-87802-5 (Publication date 20th July 2023) No. of pages 432
11. Nigam M., Mishra A.P. Indian Medicinal Plants and Their Potential Against Coronaviruses. In: Sustainable Uses and Prospects of Medicinal Plants. Eds. Kambizi L., Bvenura C., CRC Press, 2023, pages 145-159, ISBN: 9781032071732 (Publication date 5th May 2023) No. of pages 464
12. Saklani S., Saklani D. P., Nigam M., Sinisgalli C., Mishra A.P., ‘Traditional healthcare practices of herbal drugs in Uttarakhand Himalaya, India’ In: Sustainable Uses and Prospects of Medicinal Plants. Eds. Kambizi L., Bvenura C., CRC Press, 2023, pages 387-412, ISBN: 9781032071732 (Publication date 5th May 2023) No. of pages 464
13. Singh D, Nigam M, Mishra A.P., Devkota H.P., Saxena J. *Cyphomandra betacea* (Cav.) Sendtn In: Himalayan Fruits and Berries Bioactive Compounds, Uses and Nutraceutical Potential. Eds. Belwal T., Bhatt I., Devkota H. Academic press (Elsevier), 2023, pages 99-110, ISBN: 978-0-323-85591-4 (Publication date 1st Jan 2023) No. of Pages 538
14. Mishra A.P., Nigam M., Devkota H., Matsabisa M. G., *Dolomiaea costus* (Falc.) Kasana and A. K. Pandey: Ethnomedicinal Uses, Bioactive Chemical Constituents, and Pharmacological Activities. In: Medicinal Plants of the Asteraceae Family. Eds. Devkota H., Aftab T., Springer nature, **2022**, pages 153-172, ISBN: 978-981-19-6079-6 (Publication date 7th Dec. 2022) No. of Pages 230
15. Mishra A.P., Srivastav N., Singh A., Nigam M., Pezzani R., Egbuna C., Uche C.Z., Khan J. The Role of Nutraceuticals as Food and Medicine, Types and Sources. In: Food and Agricultural Byproducts as Important Source of Valuable Nutraceuticals. Eds. Egbuna C., Sawicka B., Khan J. Springer nature, **2022**, Pages 1-18, ISBN 9783030987596 (Publication date 12th July 2022) No. of Pages 257

16. Nigam M. Phytomedicine: Scope and current highlights. In: Preparation of Phytopharmaceuticals for the Management of Disorders. Eds. Egbuna C., Mishra AP., Goyal MR. Academic Press, Elsevier (USA), 2021, Pages 39-54, ISBN 9780128202845 (Publication date 1st Jan 2021) No. of Pages 558
17. Nigam M. "Physiological Experiments" In: Laboratory exercise (MSCZO505), Ed. Tiwari H.C., Uttarakhand Open University, Haldwani, Uttarakhand, 2021, pp. 170-196, ISBN 9789390845590
18. Nigam M. "Biochemistry Experiments" In: Laboratory exercise (MSCZO505), Ed. Tiwari H.C., Uttarakhand Open University, Haldwani, Uttarakhand, 2021, pp. 197-222, ISBN 9789390845590
19. Nigam M. "Chemical Equilibrium" In: Biochemistry (MSCZO504), Ed. Bubber P., Uttarakhand Open University, Haldwani, Uttarakhand, 2021, pp 1-34. ISBN 9789390845514
20. Nigam M. "Enzymes" In: Biochemistry (MSCZO504), Ed. Bubber P., Uttarakhand Open University, Haldwani, Uttarakhand, 2021, pp 35-76. ISBN 9789390845514
21. Nigam M. "Vitamins" In: Biochemistry (MSCZO504), Ed. Bubber P., Uttarakhand Open University, Haldwani, Uttarakhand, 2021, pp 77-112. ISBN 9789390845514
22. Nigam M. "Carbohydrates" In: Biochemistry (MSCZO504), Ed. Bubber P., Uttarakhand Open University, Haldwani, Uttarakhand, 2021, pp 113-139. ISBN 9789390845514
23. Nigam M. "Vitamins" In: Physiology and Biochemistry (BSCZO301), Ed. Tiwari H.C., Uttarakhand Open University, Haldwani, Uttarakhand, 2019, pp 282-321. ISBN 9789390845620
24. Nigam M. "Enzymes" In: Physiology and Biochemistry (BSCZO301), Ed. Tiwari H.C., Uttarakhand Open University, Haldwani, Uttarakhand, 2019, pp 345-386. ISBN 9789390845620

Book Editor:

1. Parasitic Infections: Immune Responses and Therapeutics. Editors Mishra A.P., Nigam M., Wiley, 2023, Pages 432, ISBN: 978-1-119-87802-5 DOI: 10.1002/9781119878063
2. Biotechnology in Cancer Therapeutics. Editors Nigam M., Mishra A.P., Springer Singapore, 2025, Pages 478, ISBN: 978-981-96-4958-7 DOI:10.1007/978-981-96-4959-4
3. Concepts of Cell Biology and Genetics (MSCZO-506), M.Sc. Zoology II Semester Programme 2022-23. Uttarakhand Open University, Haldwani, Uttarakhand, ISBN 978-81-19816-55-2.

Popular Article:

1. □□. □□□□□ □□□□, "□□□□ **एक** □□□□□□□□□□", □□□□□□□□□□, □□□□□□□ □□□□□□□ □□□□□, □□□□ □□□□□□□□□□ □□ □□□□□□□ □□□□□□□□□ □□□□□□□, □□□ १, □□□□-1, मई २०२४
2. Nigam M., *Awareness is the key in combating "Cancer"*. Newsletter, H.N.B. Garhwal University (A Central University), Srinagar (Garhwal), Uttarakhand-246174, India. Vol. 2, Issue 1, Page 3, January-June 2022

Total Citations: $\approx$ (7500)
Total Impact Factor $\approx$ 198

Total Number of Research Publications: 75

Research Papers- 51

Chapters in Edited Books- 24

h-index = 28

i10 index= 39

Awards & Scholarships:

- Included in the top 100,000 scientists by c-score (with and without self-citations) or a percentile rank of 2% as per Elsevier dataset. In Stanford/Elsevier's top 2% Scientist from all over the World List.
- Ioannidis, John P.A. (2025), "August 2025 data-update for "Updated science-wide author databases of standardized citation indicators"", Elsevier Data Repository, V8, doi: 10.17632/btchxktzyw.8
- Ioannidis, John P.A. (2024), "August 2024 data-update for "Updated science-wide author databases of standardised citation indicators", Elsevier Data Repository, V7, doi: 10.17632/btchxktzyw.7
- Ioannidis, John P.A. (2023), "October 2023 data-update for "Updated science-wide author databases of standardised citation indicators", Elsevier Data Repository, V6, doi: 10.17632/btchxktzyw.6
- **“Outstanding Scientist Award-2022”** for outstanding contribution to “Natural plant products based therapy” on the occasion of “National Seminar on Conservation of Biodiversity” held on 2nd and 3rd September 2022 by the Society for Conservation of Natural Resources (Registration No. 150200031/2021), Kolkata, West Bengal 700136.
- ”Fox Asia Conference & Awards 2020 by Social Talks (Registration No. 228/2019) on 1st Feb. 2020 for **“Research Excellence Award in the field of Biochemistry”**
- P.C. Dandiya Best Poster Presentation Award.
- Awarded CSIR-SRF (Oct 2006-Sept 2009)
- Awarded C.S.I.R. (NET) - JRF of December 2003 (Oct 2004- Oct 2006)
- Discover Oncology, Springer Nature
<https://link.springer.com/journal/12672>
- PLOS ONE, PLOS
<https://journals.plos.org/plosone/>

Reviewer of International Journals

The Microbe, Elsevier
Biocatalysis and Agricultural Biotechnology, Elsevier
Journal of Food Composition and Analysis, Elsevier
International Journal of Biological Macromolecules, Elsevier
Food Chemistry, Elsevier
Phytomedicine Plus, Elsevier
Pharmacological Research - Natural Products, Elsevier
Biomedicine & Pharmacotherapy, Elsevier
Pharmacological Research - Modern Chinese Medicine, Elsevier
Neuroscience Letters, Elsevier
Trends in Cell Biology, Elsevier
Biochimie, Elsevier
Arabian Journal of Chemistry, Elsevier
European Journal of Pharmacology, Elsevier
Food Bioscience, Elsevier
Journal of Ethnopharmacology, Elsevier
Heliyon, Elsevier
Food and Humanity, Elsevier
Microbial Pathogenesis, Elsevier
Scientia Horticulturae, Elsevier
Saudi Pharmaceutical Journal, Elsevier
Journal of Pharmaceutical Analysis, Elsevier
Journal of Ayurveda and Integrative Medicine, Elsevier
Evidence-Based Complementary and Alternative Medicine, Hindawi
Chemistry & Biodiversity, Wiley
Health Science Reports, Wiley
Food Science and Nutrition, Wiley
BioFactors, Wiley
Toxin Reviews, Taylor and Francis
Critical Reviews in Food Science and Nutrition, Taylor and Francis
Applied Biochemistry and Biotechnology, Humana Press
Cell Communication and Signalling, BioMed Central
Cell Biology and Toxicology, Springer Nature
Journal of Molecular Histology, Springer Nature
Discover Plants, Springer Nature
Cancer Cell International, Springer Nature
Naunyn-Schmiedeberg's Archives of Pharmacology, Springer Nature
Medical Oncology, Springer Nature
Molecular Biology Reports, Springer Nature
Discover Oncology, Springer Nature
Functional & Integrative Genomics, Springer Nature
Molecular and Cellular Biochemistry, Springer Nature
Journal of Herbal Medicine, Springer
Human Cell, Springer Heidelberg
Journal of Plant Biochemistry and Biotechnology, Springer
PLOS Neglected Tropical Diseases, PLOS
Frontiers in Oncology, Frontiers Media SA
ChemEngineering, MDPI
Medicina, MDPI
Biomedicines, MDPI
Cosmetics, MDPI
Life, MDPI

Cells, MDPI
Pharmaceuticals, MDPI
Pharmaceutics, MDPI
International Journal of Molecular Sciences, MDPI
Healthcare, MDPI
Vaccines, MDPI
Metabolites, MDPI
Molecules, MDPI
Plants, MDPI
Biomed, MDPI
The International Journal of Gastroenterology and Hepatology Diseases, Bentham Science
Endocrine, Metabolic & Immune Disorders - Drug Targets, Bentham Science
Molecular and Cellular Biomechanics, Tech Science Press

Reviewed a Book proposal titled “*Next generation resveratrol: Health and Nutraceutical Attributes*”, CRC Press, Taylor and Francis Group (April 2022).

Guest Editor: Special issue titled “Deciphering the Biological Activity of Natural Compounds: Metabolic Control and Health Repercussions” in the Journal Biology, MDPI

Project Grants:

- *Recipient of the UGC-BSR Research Start-Up-Grant. under the project titled “Influence of the Ageing on Biochemical and Physiological Changes in Plants: Insight into the Interlinking of Redox Regulation” worth Rs. 6 lakhs (2015)*

Work Experiences/ Courses:

Teaching and Research Experience:

Associate Professor: 19th August 2025 onwards

Assistant Professor: Stage III (19th Aug 2022-18th August 2025)

Assistant Professor: Stage II (19th Aug 2017- 18th August 2022)

Assistant Professor: Stage I (19th Aug 2013- 18 Aug 2017)

1. Doctoral Research at CDRI, in the thesis title “Study of Molecular mechanism of Novel Antiestrogen Centchroman Induced Apoptosis in MCF-7 and MDA-MB 231 Human Breast Cancer Cell lines.” with **Dr. Anil K Balapure**, Sc. F (Sr. Principal Scientist), Tissue & Cell Culture Unit, Central Drug Research Institute (CDRI), Lucknow, from 2006 – 2010.
2. 6-month experience as Junior Unichem Fellow in the Project entitled “**Expression of industrially important peptides through transgenic technology** with **Dr. Rakesh Tuli**, at N.B.R.I., Lucknow from March, 2004 to Sep, 2004

Research Guidance:

- Supervised 8 candidates in IIC -HNBGU Online Summer Internship Program 2021 organised by Institute Innovation Cell, Hemvati Nandan Bahuguna Garhwal University from June 01,

2021- July 26, 2021.

- **M.Sc. (Dissertation):** Thesis Awarded- 43; Enrolled (02)
- Ph.D. – Supervisor 04 (enrolled), Co-Supervisor 01 (enrolled)
Supervisor 01 (Awarded), Co-Supervisor 01 (awarded)

Academic services:

At HNB Garhwal University:

1. Paper Setter for M.Sc. & B.Sc. (Biochemistry) Examination.
2. Paper Setter for B.Sc. Naturopathy and Yoga Examination.
3. Paper Setter for B.Sc. & M.Sc. biotechnology Examination.
4. Paper Setter for B.Sc. & M.Sc. Microbiology Examination
5. Paper Setter for B.Sc. and M.Sc. Horticulture Examination.
6. Paper Setter for M.Sc. & Ph.D. (Biochemistry) Entrance Examinations.

At other universities:

1. Item writer for Subject: Biology, CUET-UG 2023 for National Testing Agency (NTA)
2. Paper Setter for M.Sc. Biotechnology at SBS University, Doon.
3. Paper Setter and Practical examiner for B.Sc. and M.Sc. Zoology for Uttarakhand Open University, Haldwani.
4. Paper Setter for B.Sc. Microbiology at Sri Dev Suman Uttarakhand University, Badshahithol, Tehri, Uttarakhand
5. Paper Setter for B.Sc. & M.Sc. Biochemistry at Maa Shakumbhari University, Punwarka, Saharanpur,
Uttar Pradesh 247120
6. Paper Setter for B.Tech. (Biotechnology) at Kerala Agricultural University, Vellanikkara, Thrissur-680656

Administrative Experience:

1. Head, Dept of Biochemistry since 1st September 2024 to till date & 1st Feb 2021 to 31st Jan 2024.
2. Departmental Purchase committee, Member (2014-20) and Convener (2021-2024)
3. Co-Convener, B.Sc. (Bio Group), Admission Committee (2024-25)
4. Assistant Director, Research and Development Cell, HNBGU since 13-02-24
5. Member, Drugs Control Committee, HNBGU since 15-05-24
6. Member of the Committee for NIRF, AISHE and IDP from 29-11-2023 to 14-08-2024
7. Member of the University's Newsletter Committee since 12-05-23
8. Member of the "IQAC Committee" , HNB Garhwal University since 13-10-21 to 30-06-24.
9. Member of the Committee for "Academic and Administrative Audit for NAAC" since 14-02-23.

10. Member of “**IQAC-TASK GROUPS**” (**Criterion III: Research , Innovations and extension**) constituted for preparing SSR for applying the next cycle of NAAC.
11. NIRF coordinator for Institution’s Innovation Council (IIC), HNBGU, since 6-03-23 to 05-3-24
12. Micro-Observer, (38-Srinagar, 166-GPS Chaurikh) Uttarakhand, Lok Sabha General Elections-2024.
13. Member, Cultural Programme Committee, Foundation Day celebration 2023, HNBGU
14. Member, Medal Committee, 11th Convocation 2023, HNBGU
15. Member, Students’ Election Committee 2023-24, HNBGU
16. Convener of the Cultural Committee, School of Life Sciences for Inter-Faculty Cultural and Academic Competitions 2023-24.
17. Coordinator of the Cultural Committee, School of Life Sciences for Inter-Faculty Cultural and Academic Competitions 2022-23.
18. Director, Journal Club, Dept of Biochemistry, since 1st Feb 2021 to 31st Jan 2024.
19. Chairperson (Ex-officio) of the Board of studies, Department of Biochemistry, HNBGU (01-02-21 to 31-01-24).
20. Member of Board of Studies of Department of Biochemistry, H.N.B. Garhwal University, (2015-20, 01-02-24 to till date.
21. Member of Board of Studies of Department of Horticulture, H.N.B. Garhwal University, (08-04-24 to 07-04-24)
22. Member of Board of Studies of Department of Biotechnology, H.N.B. Garhwal University, (17-08-2022 to 16-08-2023 & 25-08-23 to 24-08-24)
23. Member of Anti Ragging squad since August 2019
24. Member of Institutional Ethical Committee (I.E.C; ICMR) w.e.f. 15-05-2019 to 14-05-2021.
25. N.S.S. Programme officer, Birla campus Unit, H.N.B. Garhwal University since January 2018-2021.
26. Member of the Anti-Discrimination Committee, May 2016 to April 2018.
27. Assistant Proctor (2016 to till date)
28. Member of the University Inspecting Team visiting different Colleges in connection with the extension of their affiliations.
29. Team Incharge (Science faculty) for the selection of students for the Annual Cultural Fest Programme 2017-18
30. Member of the Selection Committee for Guest Faculty appointment in the Department of Biochemistry, HNBGU (since 2014).
31. Election Officer of Student Union Election (2014-15, 2016-17).
32. Member of UG (2016, 2017, 2019, 2020, 2021, 2022, 2025) Admission Committee.
33. Convener of PG Admission Committee (2016-18, 2021-2025) & Member of PG Admission Committee (2019).

Membership of Scientific Societies:

- The **Indian Science Congress**, India. Life membership (Membership No. L30115)
- The **Society of Biological Chemists**, India. Life membership (Membership No. 3799)
- **Indian association of cancer research**, Mumbai. Life membership (Membership No. 947)
- **International Biotech Technocrats & Consultants Association**, India. Life membership (ID: IBTCA/TA/18/1013)

