

Dr. Lakshna Mahajan

Assistant Professor

Department of Microbiology



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Web-Page/Bio-data

<https://scholar.google.com/citations?user=wT1KpdYAAAAJ&hl=en>
<https://vidwan.inflibnet.ac.in/profile/245613>

Academic Qualifications
:

DBT-Post Doctrate Fellow
Ph.D. (UGC-CSIR) NET
M.Sc. (H) Microbiology

Teaching Experience (Year)

10 years

Research Experience (Year)

15+

Area of Research/ Specialization

Hypereosinophilic diseases, Asthma, Allergy, Leukemias, Molecular mechanisms of drug targeting (Surfactant protein-D, Ayurvedic Medicines, etc), Microbial enzymes

Short course/ Faculty development programme (FDP)/ Faculty induction programme (FIP)/Workshops attended - 8

1. 4-Week Faculty Induction/Orientation Programme on “Faculty in Universities/ Colleges/Institutes of Higher Education” 23-04-23 to 22-05-23, organized by Teaching Learning Centre, Ramanujan College, University of Delhi, in collaboration with ARMY INSTITUTE OF EDUCATION (AIE) affiliated to Guru Gobind Singh Indraprastha University, Delhi under the aegis of MINISTRY OF EDUCATION PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING.
2. One Day Workshop on “Aatamnirbhar Bharat Evam Rashtriya Siksha Niti 2020” Hindu College, University of Delhi 01.10.2022, organized by Shiksha Sanskriti Uthan Nyas and Hindu College, University of Delhi.
3. Add-On Course on “Legal Awareness” organized by Swami Shraddhanand College, University of Delhi from 15.09.2022 to 26.09.2022, in collaboration with Delhi State Legal Services Authority (DSLISA).
4. 40 hour online National Faculty Development Program on “Basic Statistics for Biological Sciences. 18th July 2021, organized by Ram Lal Anand College (University of Delhi).
5. Two Week Online National Faculty Development Program on “Innovative Practices for Academic Excellence (Multidisciplinary)” from 18th January to 30th January 2021 organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) of Ministry of Education in collaboration with Bishop Abraham Memorial College, Thuruthicad.

	<p>6. Swayam Online 5 weeks of “Do Your Venture” course as part of the Women Startup Program 3.0 from 31st Aug to 4th Oct 2020 as Women Entrepreneurship program, certification agency NSRCEL, IIM Bangalore.</p> <p>7. Attended 6th World Congress on Nanomedical Sciences, ISNSCON-2018, and Chemistry Biology Interface Synergistic in New Frontiers (CBISNF-2019). Also Attended here, “Workshop on Nanomedical Sciences and its impact on Healthcare: Challenges, Opportunities and Future Directions” at Vigyan Bhawan, Delhi from 7th January 2019 to 9th January 2019, organized by University of Delhi and Jamia Hamdard University and ICMR.</p> <p>8. Workshop on “Biosafety preparedness for handling potential biohazardous material in laboratory setting” at Amity Institute of Virology and Immunology on 7th to 8th November 2016, organized by National Institute of Virology, Pune.</p>
	<p>Professional memberships:</p> <ol style="list-style-type: none"> i. Life Member of Microbiologists Society of India, ii. Life Member of Indian Immunological Society, <p>Member of Electron Microscopy Society of India.</p>
	<p>Editorial Board Member Review Editor (Member of Editorial Board), Journal: Frontiers in Immunology, Subject: Innate Immunity (2018-2022) Impact factor – 7.3</p>
<p>Publications</p>	<p>PCT (U.S.) Patent: 1 Publications in National and International Journals: 10 Chapters in Edited Books: 7 Papers presented in Conferences: 10</p>
<p>Patent</p>	<p>PCT (U.S.) Patent application number: 20080255043, published 16-10-2008.: Mahajan Lakshna, Sarma P Usha, Kishore Uday, Madan Taruna. “Human Lung Surfactant Protein, SP-D, Modulates Eosinophil Activation And Survival And Enhances Phagocytosis Of Apoptotic Eosinophils” (Indian patent Ref 153NF2006)</p>
<p>Research Publications</p>	<ol style="list-style-type: none"> 1. Tripathi A. H., Kumari A., Chand G., Kumar R., Durgapal A., Mahajan L., Joshi P. and Upadhyay S.K. An overview of phytomedicinal, ethnobotanical applications and phytochemical constituents of four major Agave species. Indian Journal of Natural Products and Resources. 2023 Jun; 14(2), June 2023, pp. 148-161. [Impact factor: 0.192, ISSN: 0976-0512]. 2. Mahajan, L., Saxena, S., Sarma, P. U. Phosphorus Compounds: Their Discovery in Biological World. Indian J Clin Biochem. 2018. 33(3):243-245. [Impact Factor: 0.38, ISSN: 0970-1915]. 3. Singh, M*., Mahajan, L.*, Chaudhary, N., Kaur, S., Madan, T., Sarma, P. U. Murine models of Aspergillosis: Role of collectins in host defense. Indian Journal of Experimental Biology (IJEB). 2015. Vol.

	<p>53(11):691-700. *(Both authors contributed equally). [Impact factor: 0.934, ISSN:0019-5189].</p> <ol style="list-style-type: none"> 4. Mahajan L, Gautam P, Dodagatta-Marri E, Madan T, Kishore U. Surfactant protein SP-D modulates activity of immune cells: proteomic profiling of its interaction with eosinophilic cells. Expert Rev Proteomics. 2014 Jun;11(3):355-69. [Impact factor: 2.973, ISSN: 1744-8387, (Citations: 18)]. 5. Mahajan L, Pandit H, Madan T, Gautam P, Yadav AK, Warke H, Sundaram CS, Sirdeshmukh R, Sarma PU, Kishore U, Surolia A. Human surfactant protein D alters oxidative stress and HMGA1 expression to induce p53 apoptotic pathway in eosinophil leukemic cell line. PLoS One. 2013 Dec 31;8(12):e85046. [Impact factor: 4.24, ISSN · 1932-6203, (Citations: 26)]. 6. Qaseem A. F., Sonar S., Mahajan L., Madan T., Sorensen G. L., Shamji M. H., Kishore, U. 2013. Linking surfactant protein SP-D and IL-13: Implications in asthma and allergy. Mol Immunol. 54(1):98-107. [Impact factor: 3.064, ISSN: 0161-5890, (Citations: 44)]. 7. Chaudhary N., Mahajan L., Madan T., Kumar A., Raghava G. P., Katti S. B., Haq W., Sarma P.U.. 2009. Prophylactic and Therapeutic Potential of Asp f1 Epitopes in Naïve and Sensitized BALB/c Mice. Immune Netw. 9(5):179-91. [Impact factor: 3.111, ISSN: 1598-2629, (Citations: 3)]. 8. Upadhyay S. K., Mahajan L., Ramjee S., Singh Y., Basir S.F., Madan T. 2009. Identification and characterization of a laminin-binding protein of <i>Aspergillus fumigatus</i>: extracellular thaumatin domain protein (AfCalAp). J Med Microbiol. 58(Pt 6):714-22. [Impact factor: 2.297, ISSN: 1473-5644, (Citations: 25)]. 9. Mahajan L., Madan T., Kamal N., Singh V. K., Sim R. B., Telang S. D., Ramchand C. N., Waters P., Kishore U. and Sarma P. U. 2008. Recombinant surfactant protein-D selectively increases apoptosis in eosinophils of allergic asthmatics and enhances uptake of apoptotic eosinophils by macrophages. International Immunology. 20(8):993-1007. [Impact factor: 3.234, ISSN 1460-2377, (Citations: 41)]. 10. Beg Q. K., Kapoor M., Mahajan L. and Hoondal G.S.. 2001. Microbial xylanases and their industrial applications: a review. Appl Microbiol Biotechnol. 56(3-4): 326-38. [Impact factor: 3.689, ISSN: 1432-0614 (Citations: 1616)].
Book Chapters	<ol style="list-style-type: none"> 1. Mahajan L., Puri N.K., and Kumar M. (2022). Chapter “Lung CT scans for the management of COVID-19 pneumonitis and the diagnosis of COVID-19”, IOP Publishing Ltd 2022, Chapter 10 for book Artificial Intelligence Strategies for Analyzing COVID-19 Pneumonia Lung Imaging, Volume 1. Characterization approaches. (ISBN: 978-0-7503-3795-3) Volume:1.

<https://iopscience.iop.org/book/edit/978-0-7503-3795-3/chapter/bk978-0-7503-3795-3ch10.pdf>

2. **Mahajan L.**, Thakur G., Kaur A., Bulla R., Kishore U., and Madan T. (2021). Chapter “Surfactant Protein D in Immune Surveillance Against Cancer” for book “The Collectin Protein Family and Its Multiple Biological Activities”, **Springer Nature Switzerland AG**, pp.147-163 (ISBN:978-3-030-67047-4), Edition Number:1
3. A. Archana, **Lakshna Mahajan**, Safikur Rahman, R. Minakshi (2019). Invited Chapter “Post Translational Modifications In Human Therapeutics Produced In Plant-Expression Systems” for book “Dar - Protein Modificomics” **Elesvier Publications**, pp. 145-169 (ISBN: 978-0128119136).
4. **Lakshna Mahajan** and Ram Singh. **2017**. Chapter on “Nutritional Deficiencies and Diseases associated with Alcoholism”, accepted for book “Alcoholism: Causes, Symptoms, Effects and Treatments”. **Manakin Press Private Limited**, New Delhi, India. ISBN 9789386677488
5. **Lakshna Mahajan**, Santosh K. Upadhyay, A. Archana, Poonam Gautam. **2016**. Chapter on “Gut microbiota and human health” (Chapter.ID_36581), accepted for book “Industrial Microbiology: Microbes in Action” (Book ID: 5599) **Nova Publishers, USA**. ISBN: 978-1-63484-491-8
6. Tapish Dogra, **Lakshna Mahajan**, Santosh K. Upadhyay and Poonam Gautam. **2016**. Chapter on “Human Pathogenic Fungi and their Survival Mechanisms in the Host” Chapter ID (Chapter ID: _36585), accepted for book “Industrial Microbiology: Microbes in Action” (Book ID: 5599) **Nova Publishers, USA**. ISBN: 978-1-63484-520-5
7. Rini Joshi, Tara Singh Bisht, **Lakshna Mahajan**, Poonam Gautam, Santosh Kumar Upadhyay. **2016**. Chapter on “Use of microbes in production of vaccines”, accepted for book “Industrial Microbiology: Microbes in Action” (Book ID: 5599) **Nova Publishers, USA**. ISBN: 978-1-63484-520-5.