Curriculum Vitae

Deepali Jain, MD, DNB, MNAMS, MNASc, FIAC, FRCPath

Professor Department of Pathology All India Institute of Medical Sciences Ansari Nagar, New Delhi, 110029, India Tel: 91-11-26549200

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Area of interest: Thoracic pathology (Lung Cancer, Thymic tumors), Cytopathology, Sinonasal Cancer

Qualifications

Dates	Qualification	Place obtained
1993-98	MBBS	Gajra Raja Medical College, Gwalior, India
1999-2002	MD (Pathology)	Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India
2002	DNB (Pathology)	Diplomate of National Board India

APPOINTMENTS

Most recent appointments:

Date	No. of months	Grade and Speciality	Place held
July 2022		Professor	All India Institute of Medical Sciences (AIIMS) New Delhi, India
July 2018	June 2022	Additional Professor	AIIMS New Delhi, India
July 2015	June 2018	Associate Professor	AIIMS New Delhi, India
April 2012	June 2015	Assistant Professor	AIIMS New Delhi, India
August 2009- April 2012	30	Consultant	Sir Ganga Ram Hospital, New Delhi, India
July 2008- June 2009	12	Post Doctoral Fellowship	Johns Hopkins Medical Institutions, Baltimore, Maryland, USA

Fellowship, Observership and Training:

- Geraldine C. Zeiler Pulmonary Pathology and Cytopathology Fellowship May 2018
 Mayo clinic Scottsdale, Arizona, USA
- Observer ship Thoracic Pathology Memorial Sloan Kettering Cancer Center, New York, USA February 2016
- 3. Post-Doctoral Fellowship, Pathology-Ophthalmic Pathology, **Johns Hopkins Medical Institutions, Baltimore, MD, USA** July 2008- June 2009
- 4. International Mentorship programme, Molecular Cytopathology, University of Pathology, Basel, Switzerland, Dec 7 to 15th 2016
- 5. Scientific visit **University of Mannheim Germany** for discussion of microscopic criteria of diagnosis of Thymic epithelial tumours September 2017

- 1. AIIMS Oncology Research Award, Clinical Sciences, Third Prize, 2021
- 2. AIIMS Oncology Research Award, Clinical Sciences, Second Prize, 2020
- 3. Fellow Royal College of Pathologists (FRCPath) by published work 2022
- 4. SERB Expert Committee Member of Teachers Associateship For Research Excellence (TARE)
- SERB Member of the Life Sciences Preliminary Screening Committee of Power Grant
- 6. SERB Member of the Program Advisory Committee on Interdisciplinary Biological Sciences
- 7. Listed in Stanford University California list of world's top 2% of scientists
- **8.** Mary J. Matthews Pathology/ Translational Research Award, International Association for the Study of Lung Cancer (IASLC), Sep 2021
- 9. SERB Women POWER Fellowship March 2021
- 10. Member International Collaboration on Cancer Reporting (ICCR) Thymic Epithelial Tumours dataset authoring committee
- 11. Editorial Board Member, WHO Reporting System for Lung Cytopathology
- 12. Editorial Board Member World Health Organization Classification of Thoracic Tumors
- 2019 PPS Travel award Pulmonary Pathology Society, USA. Dubrovnik, Croatia, June 2019
- 14. **ICMR Travel grant** 20th International Congress Cytology, Sydney, Australia, May 2019
- 15. **2017 PPS Travel award Pulmonary Pathology Society, USA**. Chicago, USA June 2017
- 16. **The AMP International Membership Grant** Association of Molecular Pathology; Year 2017
- 17. 2016 IASLC International Mentorship Award at 17th world conference on lung cancer Vienna, Austria
- 18. Fellow International Academy of Cytology (FIAC)
- 19. Young Researcher Award Lady Tata Memorial Trust 2015
- 20. Member, National Academy Sciences of India (NASI)
- 21. **UGC Travel Grant** 16th World Conference on Lung Cancer, September 6-9, 2015 Denver, Colorado
- 22. Best Paper Award Indian Society of Oncology Indian Cancer Congress Delhi, 2013
- 23. Bursary award International Academy of Pathologists, 2012 Cape Town, South Africa
- 24. **Young Pathologist Award** in 7th Asia pacific IAP congress, Taipei, Taiwan May 20-23, 2011
- 25. Talented Young Pathologist Award, IAPM, Delhi chapter, April 2008
- 26. Member National Academy of Medical Sciences (MNAMS)
- 27. Bronze Medal (Second order) in MD, Post Graduate Institute of Medical Education & Research, Chandigarh, 2002
- 28. Prof R Nath Gold medal for best research work in bio medical sciences for year 2002, Post Graduate Institute of Medical Education & Research, Chandigarh, 2005
- 29. Dr. Mrs. Veena Gosain **Gold Medal** for **First** in Gynaecology and Obstetrics, GR Medical College, Gwalior, 1998
- 30. Dr. K.V. Waugh **Gold Medal** for **First** in Gynaecology and Obstetrics, GR Medical College, Gwalior, 1998
- 31. Capt. Dr. S. S. Sapre **Gold Medal** for **First** in Final Professional MBBS, GR Medical College, Gwalior, 1998
- 32. Pfizer "Medallion in Medicine and scroll of honour" award for First in Final Professional MBBS, Gwalior, 1998

- 33. Certificate of Merit for **First** in Final Professional MBBS, GR Medical College, Gwalior, 1998
- 34. Certificate of Merit for **Third** in Second Professional MBBS, GR Medical College, Gwalior, 1997

Research projects: Completed

Title	Grant size	Duration	Funding agency
EGFR mutation analysis in non-small cell lung cancer using immunohistochemistry and in situ hybridization techniques	10 Lacs	2013-2015	Research Section, AIIMS, New Delhi
Analysis of PD-L1 Expression in Non- Small Cell Carcinoma: Implication for Optional Immune Targeted Therapy	8 Lacs	2015-2017	Research section, AHMS, New Delhi
Identification of EGFR mutation, ALK gene rearrangement, KRAS mutation, and FGFR1 mutation in molecular subtyping of lung cancer	20 Lacs	2015-2017	Indian Council of Medical Research (ICMR), India
Detection and comparison of EGFR mutations in matched tumor tissues and sera of patients with pulmonary adenocarcinoma	25 Lacs	2015-2019	Department of Bio Technology (DBT), India
A comprehensive analysis of mammalian target of rapamycin (mTOR) and mitogen activated protein (MAP) Kinase signaling pathways in non-small cell lung carcinoma	29 Lacs	2015-2020	Lady Tata Memorial Trust Young Researcher Award
Correlation of Immunologic Milieu and PD-L1 in Non-Small Cell Lung Carcinoma	9 lacs	2018-2022	Research section, AHMS, New Delhi
Study of HPV association in Sino-nasal epithelial tumors	20 lacs	2018-2020	Research section, AHMS, New Delhi
Immunomodulators in small cell lung carcinoma	36 Lacs	2019-2022	Department of Science and Technology- SERB
PDL1 Immunohistochemistry in Lung Carcinoma	2 Lacs	2021-2022	Undergraduate Research Project Research Section AIIMS

Research projects: Ongoing

Title	Grant size	Duration	Funding agency
Molecular sub-typing of small cell lung carcinoma (SCLC) to unravel the biological heterogeneity in clinical settings: An observational study	26 Lacs	2020-2023	ICMR, India
DHR-ICMR Advance Medical Oncology Diagnostic Services (DIAMONDS) under HTAIn pilot research project (Investigator for Lung Cancer)	3.7 Cr	2019-2026	DHR-ICMR
Dissecting the molecular pathogenetic mechanisms of covid-19 by RNA-sequencing of lung tissue from deceased patients	25,00,000	2020-2023	Research Section AIIMS
Tumor mutation burden in advanced non-small cell lung carcinomas: Implications for planning treatment strategies	30,00,000	2021-2024	DST-SERB POWER fellowship
Imaging biobank of cancer (collaborative with Tata Memorial Hospital Mumbai)	14,00,000 (AIIMS)	2020-2023	DBT, India
An integrated genomic sequencing approach to define genetic landscape of non-small cell lung carcinoma in Indian Population	48,00,000	2022-2025	ICMR, India
Microbiome-metabolome axis in non- small cell lung cancer	40,00,000	2023-2026	Lady Tata Memorial Trust (Institute Research Grant)

Peer-Reviewed Publications: Total 343

(https://www.ncbi.nlm.nih.gov/pubmed/?term=DEEPALI+JAIN)

Citations: 6888; Citations since 2018: 4894

h-index: 42; h-index since 2018: 35

(International 274, National 69) (Corresponding author 158) (First author 98)

Original articles and Reviews (As First and/Corresponding author): 91

Original articles and reviews (As co-author): 100

Case reports and letters (As First and/Corresponding author): 93

Case reports and letters (As co-author): 59

Accepted for publication

Nambirajan A, Sood R, Khatoon W, Malik PS, Mohan A, **Jain D**. Concordance of immunohistochemistry and fluorescence in-situ hybridization in the detection of anaplastic lymphoma kinase (ALK) and Ros-protooncogene 1 (ROS1) gene rearrangements in non-small cell lung carcinoma: a 4.5-year experience highlighting challenges and pitfalls. **Archives of Pathology and Laboratory Medicine** (**IF**: **5.686**)

Books edited

- 1. **Atlas of Thymic Pathology**. **Jain D**, Bishop JA, Wick MR. First ed. Springer Nature Singapore Pte Ltd. 2020
- Atlas of Sinonasal Tract Pathology. Jain D, Bishop JA. First ed. Springer Nature Singapore Pte Ltd. 2023
- 3. ICCR (International Collaboration on Cancer Reporting) Thymic Epithelial Tumor (TET) Dataset publication

Roden AC, den Bakker MA, Fang V, **Jain D**, Marx A, Moreira A, Rajan A, Stroebel P, Szolkowska M, Cooper W (2022). Thymic Epithelial Tumors Histopathology Reporting Guide. International Collaboration on Cancer Reporting; Sydney, Australia. ISBN: 978-1-922324-32-0

<u>Book Chapters: Total 53</u> including <u>31 chapters in WHO</u> classification of <u>Thoracic tumors</u>, <u>Head and Neck Tumors</u> and <u>Endocrine and Neuroendocrine tumors</u> and <u>WHO</u> reporting system for Lung Cytopathology

List of WHO Chapters as Responsible Author

- 1. **Jain D**, Heine R, Kholova I. FNAB techniques and specimen management. **WHO** Reporting System for Lung Cytopathology
- **2. Jain D**, Heine R, Kholova I. Bronchial wash and bronchial brush techniques and specimen management. **WHO** Reporting System for Lung Cytopathology
- **3. Jain D**, Heine R, Kholova I. Broncho-alveolar lavage techniques and specimen management. **WHO** Reporting System for Lung Cytopathology
- **4. Jain D**, Heine R, Kholova I. Sputum techniques and specimen management. **WHO** Reporting System for Lung Cytopathology
- **5. Jain D**, Heine R, Kholova I. Rapid onsite evaluation (ROSE). **WHO** Reporting System for Lung Cytopathology
- **6. Jain D**, Heine R, Kholova I. Cell Preparation Methods. **WHO** Reporting System for Lung Cytopathology
- 7. **Jain D**, Sauter JL. NUT carcinoma. **WHO** Reporting System for Lung Cytopathology
- 8. Jain D, MacMohan H, Pelosi G, Riely G, Rusch VW, Van Schil Pey. Colloid adenocarcinoma: WHO Classification of Thoracic Tumours, IARC: Lyon 2021. P 79-80
- 9. Jain D, Asamura H, Cardona AF, MacMohan H, Nakatani Y. Fetal adenocarcinoma: WHO Classification of Thoracic Tumours, IARC: Lyon 2021. P 81-82
- **10.** Jain D, MacMohan H, Nakatani Y, Soares FA, Zhang J. Enteric-type adenocarcinoma: WHO Classification of Thoracic Tumours, IARC: Lyon 2021. P83-84
- 11. Jain D, Hornick JL. Lymphangioleiomyomatosis: WHO Classification of Thoracic Tumours, IARC: Lyon 2021. P170-171
- **12.** Jain D, Doyle LA. PEComa of the lung: WHO Classification of Thoracic Tumours, IARC: Lyon 2021. P172-173
- 13. Jain D, Maleszewski JJ. Cardiac Myxoma: Travis WD, Brambilla E, Burke AP, Marx A, Nicholson AG (Eds). WHO Classification of Tumours of the Lung, Pleura, Thymus and Heart, IARC: Lyon 2015 P311-314

International presentations (Invited Faculty)

- 1. State of The Art (SOTA) session: Update of the current and the future of cytology reporting systems. IAC/ASC Next generation cytology conference, Baltimore, USA. Nov 15-20, 2022
- 2. **Jury**, Worldvision Cytopathology Contest. IAC/ASC Next generation cytology conference, Baltimore, USA. Nov 15-20, 2022
- 3. VIBGYOR. Indian Academy of Cytologists meeting. Role of ancillary techniques in lung cancer. IAC/ASC Next generation cytology conference, Baltimore, USA. Nov 15-20, 2022
- "Genomic and immune molecular signatures in lung cancer: keys to personalized medicine" 1st Indo-French symposium on Molecules and Nanosciences for Health. University of Bordeaux, Bordeaux, France. Nov 7th-9th 2022
- Thymic epithelial tumours India case series and recent molecular findings. Session: Mediastinal Pathology Virtual, International Academy of Pathology (IAP) 2022.
 Sydney, Australia. October 12, 2022
- 6. Session Chair Benign Thymic Disorders. Virtual ITMIG 2022. Sep 29, 2022
- 7. **Session Chair** Mini oral Pathology: Tumour Diagnostics. World Conference on Lung Cancer. Vienna, Austria. Aug 9, 2022
- 8. **Round Table Moderator**: Women in Thoracic Oncology. World Conference on Lung Cancer. Vienna, Austria. Aug 9, 2022
- 9. If Lung Cancer Is the Answer, Profiling Tissue Is the Issue: Global Barriers in Lung Cancer Pathology. American Society of Clinical Oncology (ASCO) Education Session. June 5th 2022 ASCO Meeting (June 3rd to June 7th 2022), Chicago, USA
- Blood Shift Paradigm in Cancer Detection: Myth or Reality? 5th international oncology conference- King Saud University, Riyadh, Saudi Arabia. March 18, 2022 (Online)
- 11. Diagnostic and Molecular Testing: Prioritizing Both Tissue and Resources in South/South-East Asia Workshop: Lung Cancer Diagnosis and Management with Resource Constraints in South and South-East Asia. World Conference on Lung Cancer (Denver USA). September 11, 2021(Online)
- 12. Webinar American Society of Cytotechnologists. Immunocytochemistry: Challenges and Usefulness in Diagnostic Cytopathology. June 23, 2021(Online)
- 13. Immunocytochemistry for predictive biomarker testing in lung cancer cytology. Cytology course in Halle (Germany). June 11, 2021 (Online)
- 14. **Discussant.** Advances in diagnosis of common types of NSCLC. World Conference on Lung Cancer, Barcelona, Spain. September 7-10, 2019
- 15. Global Infections: Asian Perspectives. Biennial Pulmonary Pathology Society meeting, Dubrovnik, Croatia. June 26-28, 2019
- 16. Molecular Symposium: IHC in non-cell block cytology. International Congress of Cytology. Sydney. Australia May 5-9, 2019
- 17. Thyroid Asian FNA group. Cytology of Hurthle cell lesions, multi-institutional experience from Asian countries. International Congress of Cytology. Sydney. Australia May 5-9, 2019

- Indian Academy of Cytologists session on Image guided FNAC. Rapid on-site evaluation and triaging of samples. International Congress of Cytology. Sydney. Australia May 5-9, 2019
- Indian Academy of Cytologists session on Image guided FNAC. FNA of mediastinum, 2 cases. International Congress of Cytology. Sydney. Australia May 5-9, 2019
- Evening speciality Pulmonary Pathology United States and Canadian Academy of Pathology (USCAP) 2019. Demystifying rare neoplasms of lung: why classification matters. March 17th National Harbor, MD, USA
- 21. **Discussant** World Conference on Lung Cancer (WCLC) Toronto, Canada on Early diagnosis of Lung Cancer, September 2018
- 22. **Chairperson** World Conference on Lung Cancer (WCLC) Toronto, Canada on Pathology of Lung Cancer September 2018
- 23. Status of thoracic pathology in India September 14th 2017 Mannheim, Germany
- 24. Making the Most of the WCLC: A Guide for First Time Attendee From a Second Time Attendee. IASLC 18th World Conference on Lung Cancer. October 15th2017. Yokohama, Japan
- 25. Recent updates in lung cancer pathology with emphasis on predictive biomarkers: applications and challenges in routine practices. Seminars in Surgical Pathology Series. March 1, 2017 University of Massachusetts, Worcester, Boston, USA
- 26. PD-L1 and Lung cancer: Indian scenario IASLC pathology committee meeting March 3rd, 2017. San Antonio TX, USA
- 27. Session Chair on ILD Pulmonary Pathology Society, Chicago, USA June 2017
- 28. Cytology of Head and Neck Soft Tissue Tumors. 19th International Congress Cytology 2016. May 2016. Pacifico Yokohama. Yokohama, Japan

List of Awards where I have mentored

- 1. Second Prize. Oral presentation. Amber Rathor. Liquid biopsy as reflex testing in lung cancer. NALCCON 2022. AIIMS Jodhpur. Jan 2023
- **2. First Prize Poster.** NUT Carcinoma in effusion cytology. Dr Urvashi. Cytocon 2022. Siliguri.
- 3. Second Prize. Oral paper-Senior Resident category. Dr Surabhi Jain. EGFR mutation testing from supernatants of pleural effusion specimens. AIIMS, New Delhi. Second Annual Research Day. 2022
- **4.** Talented Young Pathologist Award: Dr Aruna Nambirajan. Cytology samples in lung cancer predictive biomarker testing protocols: are we utilising them enough? DAPCON 2022
- **5. Developing Nation Award:** Amber Rathor. World Lung Cancer Congress **Vienna**, **Austria**, 2022. Clinical Application of Liquid Biopsy for assessing Early EGFR mutation detection in Non-Small Cell Lung Carcinoma
- **6. Dr Satya Monga Award** Dr Rimlee Dutta for published paper titled 'Cytomorphology of primary pulmonary NUT carcinoma in different cytology preparations'. **Cytocon 2021** AIIMS, New Delhi
- 7. Col. D. B. Nayar Memorial Award: Dr. Swati Mahajan—"Malignant pleural effusion cell blocks are reliable candidates for PD-L1 analysis in advanced lung adenocarcinomas: a concordance study with matched histology samples" Cytocon 2021 AIIMS, New Delhi
- **8. Developing Nation Early Career Award:** Dr Aruna Nambirajan. World Lung Cancer Congress (Virtual) 2021. To evaluate the complementary utility of combined ALK/ROS1 FISH with immunohistochemistry for ALK/ROS1 rearrangement testing in lung cancer
- 9. Young Investigator Award: Varsha Singh PhD Student: National Lung Cancer Conference (NALCCON) Dec 2019, KGMC, Lucknow for work entitled as 'Survival analysis of common and uncommon EGFR (Epidermal Growth Factor Receptor) mutations in non-small cell lung carcinoma (NSCLC)'
- 10. Runner up Prize for Poster presentation Dr Shraddhanjali Satapathy at National Lung Cancer Conference (NALCCON) Dec 2019, KGMC, Lucknow 'EGFR mutation testing on plasma and urine samples: A pilot study evaluating the value of liquid biopsy in lung cancer diagnosis and management'
- 11. Dr Satya Monga Award Dr Tripti Nakra for published paper titled INSM1 is a robust nuclear immunostain for the diagnosis of small cell lung carcinoma in cytology smears. Cytocon 2019 PGIMER, Chandigarh
- 12. Best Poster Award (Original paper series): Dr Tripti Nakra. INSM-1 in small cell carcinoma of lung. Delhi Chapter Indian Academy of Cytologists Sep 2018
- 13. Best Poster Award (Case reports series): Dr Priyadarshini. Cytomorphologic clues to diagnose ALK positive large B cell lymphoma. Delhi Chapter Indian Academy of Cytologists Sep 2018
- **14.** Col. D. B. Nayar Memorial Award: Dr. Aruna Nambirajan, AIIMS, New Delhi "Use of exfoliative specimens and fine needle aspirate smears for mutation testing in lung adenocarcinoma" Cytocon 2017 Shillong

- 15. Best Oral Paper Award: Dr. Aruna Nambirajan. Role of cytology specimens in subtyping of pulmonary adenocarcinoma patterns and molecular analysis: a comparative study with matched small biopsies Delhi Chapter Indian Academy of Cytologists Sep 2016
- 16. Best Poster Prize: Dr. Aruna Nambirajan Metastatic alveolar soft part sarcoma of the lung: a diagnostic pitfall on cytology. Delhi Chapter Indian Academy of Cytologists Sep 2015
- **17. Best Oral Paper Award**. Dr Ritika Walia. Conventional TBNA versus EBUS-TBNA in the diagnosis of mediastinal lymphadenopathy: A comparative study. **Delhi Chapter Indian Academy of Cytologists** September, 2014
- **18. Best Poster Award.** Dr Suvendu Purkait,. Differentiation of Histoplasma and Cryptococcus in cytology smears: a diagnostic dilemma in severely necrotic cases. **Delhi Chapter of Indian Academy of Cytologists** September 2014
- **19. Best Poster Award.** Dr Ritika Walia. Immunohistochemical characterization of non-small cell lung carcinoma on small biopsies with assessment of EGFR mutation using mutation specific antibodies, **DAPCON** March 2014 R&R Hospital New Delhi

EDITORIAL BOARD MEMBER (INTERNATIONAL JOURNALS):

Surgical Pathology Journals

Annals of Diagnostic Pathology, Archives of Pathology and Lab Medicine, Diagnostic Pathology, International Journal of Surgical Pathology, Journal of Clinical Pathology, Journal of Clinical and Translational Pathology, Journal of Pathology and Translational Medicine, Mediastinum, Seminars in Diagnostic Pathology

Cytopathology Journals

Acta Cytologica, Cancer Cytopathology, Cytojournal, Cytopathology

Section editor: Molecular Cytopathology, Archives of Pathology and Lab Medicine

Guest Editor:

Mediastinum: Pediatric mediastinal tumors: clinicopathologic spectrum Seminars in Diagnostic Pathology: Updates and new entities in lung cancer

National positions

- Member of the Life Sciences Preliminary Screening Committee of Power Grant SERB
- Member, PAC (Program Advisory Committee)- Interdisciplinary Biological Sciences (IBS) SERB
- **DST-SERB** Teachers Associateship For Research Excellence (TARE) committee member
- **DST-SERB** Scientific and Useful Profound Research Advancement (**SUPRA**) committee Special Invitee
- DST-SERB SERB International Research Experience (SIRE) Committee Special Invitee
- Reviewer ICMR ad-hoc proposals in cancer research
- Reviewer AIIMS Early Career Intramural Research Projects
- Executive member Indian Society for Study of Lung Cancer (ISSLC)

INTERNATIONAL POSITIONS

- Member DEI Taskforce International Association for Study of Lung Cancer (IASLC), USA
- Member Education Committee IASLC, USA
- Co-Chair Cytology working group IASLC Pathology committee, USA
- Member Pathology Committee IASLC, USA
- Author of several chapters WHO classification of Endocrine and Neuroendocrine tumors, Head and Neck tumors and upcoming WHO Reporting System for Soft tissue tumors Cytopathology
- Member Editorial Board and Author of several chapters WHO classification of thoracic tumors
- Member ICCR Thymic Epithelial Tumours dataset authoring committee
- Editorial board member and author of several chapters, WHO Reporting System for Lung Cytopathology
- Award committee member Pulmonary Pathology Society, USA
- Editorial group member IASLC Lung Cancer News (ILCN)

REVIEWER: Many National and International Journals