

BIOGRAPHICAL SKETCH

NAME: Jain, Ankit Prakashchandra

POSITION TITLE: Scientific Officer D, Scientist In Charge - Biomolecular Mass Spectrometry Facility, National Center for Biological Sciences, Bangalore

EDUCATION

	INSTITUTION	FIELD OF STUDY	DEGREE	Year
	University of Mumbai, Mumbai, Maharashtra	Biotechnology	BSc	2009
	University of Mumbai, Mumbai, Maharashtra	Life Science	MSc	2011
	Kalinga Institute of Industrial Technology (Deemed University), Bhubaneswar, Odisha	Biotechnology	PhD	2019

A. Positions, Scientific Appointments and Invited Talks

Positions and Scientific Appointments

2023 -	Scientific Officer D, Scientist-In-Charge - Biomolecular Mass Spectrometry Facility, National Centre for Biological Sciences, Bengaluru
2021 - 2023	Postdoctoral Research Fellow, Emory University, Atlanta, GA
2018 - 2021	Postdoctoral Research Fellow, Institute of Bioinformatics, Bengaluru
2013 - 2014	Junior Research Fellow, Institute of Bioinformatics, Bengaluru

Scientific Associations

2021 - present	Member of American Society for Mass Spectrometry
2013 - present	Member of Proteomics Society of India

Conferences attended/invited talks

- Technology Platforms for Advancing Biological Research, Core Research Facilities Day, Bangalore Life Science Cluster (BLiSC), 2025. Mass Spectrometry Facility - Developing Analytical Tools for Life Science Research
- Workshop & Symposium on Mass Spectrometry Imaging-Based Spatial 'Omics', National Center for Biological Sciences (NCBS), Bengaluru, 2024, Introduction to Mass Spectrometry and its applications in molecular imaging and spatialomics.
- Hands-On Training Course on Metabolomics, Center for Cellular and Molecular Platforms [C-CAMP], Bangalore, 2024. Data Analysis Tools for Untargeted metabolomics
- International Conference on Science and Technology for Sustainable Future (ICSTS-2024), Acharya Institute of Technology, Bengaluru, 2024. Leveraging multi-omic technologies in investigating drug resistance mechanisms in cancer.
- 7th Hands-On Workshop on Integrated Omics (Genomics, Proteomics and Metabolomics), Bangalore Life Science Cluster (BLiSC), 2024. Analysis and Interpretation of Proteomics Data Using Open-Source Tools
- Advances in Proteomics Technologies (APT), IIT-Bombay, Mumbai, 2024, Determination of antibody epitopes against Sars-CoV2 antigens using Hydrogen Deuterium Exchange- Mass Spectrometry
- 16th Uppsala Conference & International meeting for alternative fragmentation techniques (UPPCON 2023), Oregon State University, Oregon-USA, 2023. Identification and characterization of iso-aspartate peptides in human tissue using ion mobility and electron fragmentation strategies.

Academic accomplishments

- Travel Award at 7th NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT-2017), Bhubaneswar-Odisha, 2017.
- Qualified Graduate Aptitude Test in Engineering (GATE) - 2014, AIR-362
- Qualified CSIR-National Eligibility Test -2010, AIR-981

B. Research profile

Publication Profile

- Total publications: 24, Citations: 579
- i10-index: 18, H-index: 16

Paper in-preparation

1. **Jain AP**, Nazaar SM, Liu X, Platt ME, Roberts AM, Frank F, Ortlund EA, Lam WA, and Roberts BR., Epitope Mapping of SARS-CoV-2 N-Protein Antibodies Using Hydrogen-Deuterium Exchange MS. *Biophysical Journal* (under review)
2. Thirumugam G, Annadurai H, Radhakrishnan Y, Bhaskar JP, Ramamurthi S, Koilmanic ER, **Jain AP**, and Krishnaswamy B. β -Sitosterol extends lifespan and healthspan in *Caenorhabditis elegans* via multi-omics analysis of longevity, neuronal, and immune pathways. (to be submitted)
3. **Jain AP**, Roberts AM, Lah J, Levey A, Seyfried N, Roberts BR. Comparative Analysis of Alzheimer's Cohort through DIA-based Deep-Plasma Proteomics. (to be submitted)

Review Articles

1. **Jain AP**, Sathe G. Proteomics Landscape of Alzheimer's Disease. *Proteomes*. 2021 Mar 10;9(1)

Original Research Articles

First author/shared first author publications:

1. **Jain AP**, Ghose V, Munshi S, Bhat FA, Dey G, Nanjappa V. Mass spectrometry-based proteomic analysis to characterize cisplatin induced early signaling events in head and neck squamous cell carcinoma. **Mol Cell Oncol.** 2024 Mar 13;11(1):2328873.
2. **Jain AP**, Sambath J, Sathe G, George IA, Pandey A, Thompson EW, Kumar P. Pan-cancer quantitation of epithelial-mesenchymal transition dynamics using parallel reaction monitoring-based targeted proteomics approach. **J Transl Med.** 2022 Feb 11;20(1):84
3. **Jain AP**, Radhakrishnan A, Pinto S, Patel K, *et. al.* How to Achieve Therapeutic Response in Erlotinib-Resistant Head and Neck Squamous Cell Carcinoma? New Insights from Stable Isotope Labeling with Amino Acids in Cell Culture-Based Quantitative Tyrosine Phosphoproteomics. **OMICS.** 2021 Sep;25(9):605-616
4. **Jain AP***, Patel K*, Pinto S, Radhakrishnan A, *et. al.* MAP2K1 is a potential therapeutic target in erlotinib resistant head and neck squamous cell carcinoma. **Sci Rep.** 2019 Dec 11;9(1):18793
5. Rajagopalan P*, **Jain AP***, Nanjappa V, Patel K, *et. al.* Proteome-wide changes in primary skin keratinocytes exposed to diesel particulate extract-A role for antioxidants in skin health. **J Dermatol Sci.** 2018 Sep;91(3):239-249

Co-author publications:

1. Khade OS, Sasidharan S, **Jain AP**, Maradani BS, Chatterjee A, Gopal D, Ravi Kumar RK, Krishnakumar S, Pandey A, Janakiraman N, Elchuri SV, Gundimeda S. Identification of dysregulation of sphingolipids in retinoblastoma using liquid chromatography-mass spectrometry. **Exp Eye Res.** 2024

2. Priya R, Jain V, Akhtar J, Chauhan G, Sakhuja P, Goyal S, Agarwal AK, Javed A, **Jain AP**, *et. al.* Plasma-derived candidate biomarkers for detection of gallbladder carcinoma. **Sci Rep.** **2021** Dec 7;11(1):23554
3. Byeon SK, Madugundu AK, **Jain AP**, Bhat FA, *et. al.* Cerebrospinal fluid lipidomics for biomarkers of Alzheimer's disease. **Mol Omics.** **2021** Jun 14;17(3):454-463
4. Khanna S, Padhan P, Jaiswal KS, **Jain AP**, Ghosh A, *et. al.* Altered mitochondrial proteome and functional dynamics in patients with rheumatoid arthritis. **Mitochondrion.** **2020** Sep;54:8-14
5. Sathe G, George IA, Deb B, **Jain AP**, *et. al.* Urinary glycoproteomic profiling of non-muscle invasive and muscle invasive bladder carcinoma patients reveals distinct N-glycosylation pattern of CD44, MGAM, and GINM1. **Oncotarget.** **2020** Aug 25;11(34):3244-3255
6. Puttamalles V, Deb B, Gondkar K, **Jain AP**, *et. al.* Quantitative Proteomics of Urinary Bladder Cancer Cell Lines Identify UAP1 as a Potential Therapeutic Target. **Genes (Basel).** **2020** Jul 8;11(7)
7. Sathe G, Mangalparthi KK, **Jain AP**, Darrow J, *et. al.* Multiplexed Phosphoproteomic Study of Brain in Patients with Alzheimer's Disease and Age-Matched Cognitively Healthy Controls. **OMICS.** **2020** Apr;24(4):216-227
8. Rajagopalan P, Nanjappa V, Patel K, **Jain AP**, *et. al.* Role of protein kinase N2 (PKN2) in cigarette smoke-mediated oncogenic transformation of oral cells. **J Cell Commun Signal.** **2018** Dec;12(4):709-721
9. Rajagopalan P, Patel K, **Jain AP**, Nanjappa V, *et. al.* Molecular alterations associated with chronic exposure to cigarette smoke and chewing tobacco in normal oral keratinocytes. **Cancer Biol Ther.** **2018**;19(9):773-785
10. Solanki HS, Babu N, **Jain AP**, Bhat MY, *et. al.* Cigarette smoke induces mitochondrial metabolic reprogramming in lung cells. **Mitochondrion.** **2018** May;40:58-70
11. Babu N, Advani J, Solanki HS, Patel K, **Jain AP**, *et. al.* miRNA and Proteomic Dysregulation in Non-Small Cell Lung Cancer in Response to Cigarette Smoke. **Microrna.** **2018**;7(1):38-53
12. Nanjappa V, Raja R, Radhakrishnan A, **Jain AP**, *et. al.* Testican 1 (SPOCK1) and protein tyrosine phosphatase, receptor type S (PTPRS) show significant increase in saliva of tobacco users with oral cancer. **Translational Research in Oral Oncology.** **2018**/01; 3:2057178X18800534
13. Advani J, Subbannayya Y, Patel K, Khan AA, Patil AH, **Jain AP**, *et. al.* Long-Term Cigarette Smoke Exposure and Changes in MiRNA Expression and Proteome in Non-Small-Cell Lung Cancer. **OMICS.** **2017** Jul;21(7):390-403
14. Prasad TS, Mohanty AK, Kumar M, Sreenivasamurthy SK, Dey G, Nirujogi RS, Pinto SM, Madugundu AK, Patil AH, Advani J, Manda SS, Gupta MK, Dwivedi SB, Kelkar DS, Hall B, Jiang X, Peery A, Rajagopalan P, Yelamanchi SD, Solanki HS, Raja R, Sathe GJ, Chavan S, Verma R, Patel KM, **Jain AP**, *et. al.* Integrating transcriptomic and proteomic data for accurate assembly and annotation of genomes. **Genome Res.** **2017** Jan;27(1):133-144
15. Nanjappa V, Sathe GJ, **Jain AP**, Rajagopalan P, *et. al.* Investigation of curcumin-mediated signalling pathways in head and neck squamous cell carcinoma. **Translational Research in Oral Oncology.** **2017**; 2:2057178X17743142
16. Rajagopalan P, Nanjappa V, Raja R, **Jain AP**, *et. al.* How Does Chronic Cigarette Smoke Exposure Affect Human Skin? A Global Proteomics Study in Primary Human Keratinocytes. **OMICS.** **2016** Nov;20(11):615-626
17. Radhakrishnan A, Nanjappa V, Raja R, Sathe G, Puttamalles V, **Jain AP**, *et. al.* A dual specificity kinase, DYRK1A, as a potential therapeutic target for head and neck squamous cell carcinoma. **Sci Rep.** **2016** Oct 31;6:36132
18. Mir SA, Rajagopalan P, **Jain AP**, Khan AA, *et.al.* LC-MS-based serum metabolomic analysis reveals dysregulation of phosphatidylcholines in esophageal squamous cell carcinoma. **J Proteomics.** **2015** Sep 8;127(Pt A):96-102