

BIODATA

1. **Name** **Dr. ARUN KUMAR JAIN**
2. **Designation:** **Scientist 'F'**
3. **Complete Postal Address**

National Institute of Pathology – ICMR
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4. **Educational Qualification:**

Degree	Institution	Field (s)	Year
B.Sc. Zoology (Hons.)	Delhi University	Zoology	1978
M.Sc. (Dairy Bacteriology)	Kurukshetra University	Microbiology	1982
Ph.D.	Nagpur University	Microbiology and Biochemistry	1994

5. **Research/Training Experience:**

Duration	Institution	Particulars of work done
September 2011 to till date	Scientist 'F' National Institute of Pathology	❖ Independent Research on Specific Problems, viz., Ultrastructural and Trace Element Studies in different experimental & pathological conditions using Transmission Electron Microscope with Energy Dispersive X-ray Microanalysis and Atomic Emission Spectrophotometry (DCP-OES); Environmental Biomonitoring using Human Placenta
August 2006 to August 2011	Deputy Director / Scientist 'E' National Institute of Pathology	
August 1999 to July 2006	Assistant Director Institute of Pathology – ICMR	❖ Teaching and Academic ❖ Administration and Management ❖ Operation & Maintenance of EM facility ❖ Supervision and Maintenance of Computer Section / LAN / Information Technology
April 1994 to July 1999	Senior Research Officer IOP, New Delhi	
March 1991 to April 1994	Research Officer IOP, New Delhi	❖ Supervision and Maintenance of GC/LC/MS Facility ❖ Supervision and Maintenance of LN ₂ Plant ❖ Supervision of Bioinformatics Centre at NIP
July 1986 to March 1991	Assistant Research Officer IOP, New Delhi	
June 1982 To July 1986	Research Assistant IOP, New Delhi	

Training:

- **Operation & Routine Maintenance of Electron Microscope** training by M/s JEOL Ltd. at their factory premises in **Tokyo Japan** from Aug. 27 to Sept. 14, 1984
- **Indo-French School on Electron Microscopy** Nat'l. Physical Lab., New Delhi from Jan. 15-26, 1990
- Workshop on **Cryo-ultramicrotomy** at Institute of Pathology, New Delhi from Sep 26 to 28, 1991.
- IAEA sponsored Regional Training Course on **Sampling, Sample Preparation and Data Evaluation for Multi-element and Radionuclide Analysis by Nuclear and Instrumental Methods** at BARC, Bombay from Nov. 18-Dec. 7, 1991.
- Training Programme in **Occupational & Environmental Epidemiology** by COEH, New Delhi & Fogarty International Centre Research & Training, USA at India Habitat Center, New Delhi from Nov. 15 to 20, 1999.
- Second Fogarty Indo-US National Training Workshop in **Understanding Urban Air Pollution & Role of Diesel Particles** by Univ. of California, Berkeley, USA & COEH, N. Delhi from Nov. 6 to 11, 2000
- ICMR-WHO workshop on **IPR and WTO Issues** held at the CJIL Agra from Nov. 22 to 23, 2003
- NATP Short Term Training Course on **Analytical Methods in Pesticide Residue Analysis** held at Pesticide Referral Laboratory, Division of Agricultural Chemicals, Indian Agricultural Research Institute, New Delhi-110012 from Sept. 1 to 10, 2004
- System Administrator Level training Program on **Configuration of Server 2003, ISA Server, Exchange Server, Network Management, configuration of router, & switches etc.** held at ICMR Headquarters from Mar 21 to 25, 2005.

6. Research Specialization (Major scientific fields of interest)

- Electron microscopy and ultra structural pathology / Research
- Environmental Biology / Monitoring / Toxicology
- Trace Element Research

7. Important recent publications (last 5 years)

1. Verma R, Yadav M, Pradhan D, Bhuyan R, Aggarwal S, Nayek A and **JainAK**. Probing binding mechanism of interleukin-6 and olokizumab: *in silico* design of potential lead antibodies for autoimmune and inflammatory diseases. *J Recept Signal Transduct.* DOI:10.3109/10799893.2016.1147584 Early Online: 1-16 (2016)
2. S.N. Kumar, S. Raisuddin, R. Deval, S. Anjum, D. Borgohain, **A.K. Jain** Placental oxidative stress and DNA damage in tea garden workers exposed to pesticides. *Toxicology Letters* 09/2016; 258:S207. DOI: <http://dx.doi.org/10.1016/j.toxlet.2016.06.1753>
3. Pradhan D, **Jain AK**, Editors. Proceeding released with Next generation sequencing analysis tools during 2nd National workshop on “Next generation sequencing in disease diagnosis and therapy” from 14-18th March, 2016 at National Institute of Pathology, New Delhi.

4. Deval R, Kumar SN, Mehta D, Agarwal S, **Jain AK**. Adverse effects of toxic elements present in electronic waste on human health - India scenario. *Intl Res J Hum, Engg Pharma Sci.* **1(9)**:1-7 (2015)
5. Kumar SN, Bastia B, Telang AG, Singh KP, Singh R, **Jain AK** Studies on histopathological changes due to combined toxicity of endosulfan and Ochratoxin-A in adult male rats *J Histology Histopathology* **2(22)**:1-6 (2015)
6. Pradhan D, Priyadarshini V, Aggrawal S, Pradeep N, Nayek A, **JAIN AK**, Umamaheswari A Discovery of potential inhibitors of BMX non-receptor tyrosine kinase through e-pharmacophore based virtual screening. *Journal of Biomolecular Structure and Dynamics*; 33(supplement):118-120 (2015)
7. Kumar SN, Telang AG, Singh KP, Bastia B, **Jain AK** Toxic Manifestation of Endosulfan and Ochratoxin- A in Adult Male Rats. *MOJ Toxicol* **1(3)**: 00012 (2015). DOI: 10.15406/mojt.2015.01.00012.
8. Kumar SN, Telang AG, Patil RD, Singh KP, **JAIN AK**, Sharma R. Study on combined effects of ochratoxin A and endosulfan on antioxidant enzymes in rats. *J Environ Biol.* **36**:601-605 (2015)
9. Pradhan D, **Jain AK**, Editors Proceeding released with protocols for basic Bioinformatics tools during National workshop on “Bioinformatics tools for Biomedical Research from 24-27th march, 2015 at National Institute of Pathology, New Delhi
10. Kumar SN, Bastia B, Sharma SK, Borgohain D, Raisuddin S, **JAIN AK**. Ultrastructural alterations in placenta in relation to pesticide exposure during pregnancy and delivery of low birth weight baby. In: Hozak P.ed. Microscopy for Global Challenges touching atoms, molecules, nanostructures and cells by multidimensional microscopy. Proc. 18th Intl. Microscopy. Congress, 2014 Sept 7-12, Prague, Czech Republic: Czechoslovak Microscopy Society; p. 3911 (2014)
11. Kumar SN, Raisuddin S, Vaibhav K, Bastia B, Sharma SK, Borgohain D, **JAIN AK**. Placental Apoptosis in Intrauterine Growth Restriction: An Ultrastructural Study. In: Hozak P.ed. Microscopy for Global Challenges touching atoms, molecules, nanostructures and cells by multidimensional microscopy. Proc. 18th Intl. Microscopy. Congress, 2014 Sept 7-12, Prague, Czech Republic: Czechoslovak Microscopy Society; p. 2079 (2014)
12. Kumar SN, Telang AG, Patil RD, **JAIN AK**, Singh KP Cytogenetic Effects of Combined Ochratoxin A and Endosulfan in Rats. *J Environ Anal Toxicol.* **4**:217 (2014). doi: 10.4172/2161-0525.1000217.
13. Kumar SN, Verma P, Bastia B, **Jain AK**. Health risk assessment of Polycyclic Aromatic Hydrocarbons: A Review. *J Pathol. Toxicol.* **1**:16-30 (2014)
14. Shashi N. Kumar and **Arun Kumar Jain**. E-Waste: Health Impacts in Developing Countries. *EHS Journal.* July 19. (2014)
15. Majumdar K, Saran RK, Tyagi I, **JAIN AK**, Jagetia A, Sinha S, Singh A. Cytodiagnosis of alveolar soft part sarcoma: Report of two cases with special emphasis on the first orbital lesion diagnosed by aspiration cytology. *J Cytol.***30(1)**: 58-61(2013)
16. **JAIN AK**, Kumar SN, Bastia B, Akhtar N, Sharma SK, Borgohain D. Organophosphate Pesticides exposure during pregnancy: Relationship with delivery of Low Birth Weight Baby and ultra structural alteration in Placenta. Proceedings International Conference on Emerging Issue on Health Effects of Pesticides Residues in Food and Environment – Unmet Challenges and Research Opportunities pp.56-64. December 12-13, 2013, National Institute of Nutrition, Hyderabad(2013)

17. Tomar R, Mishra AK, Mohanty NK and **JAIN AK**. Altered Expression of Succinic Dehydrogenase in Asthenozoospermia Infertile Male. *Am J Reprod Immunol*. **68**: 486-490 (2012)
18. Nyati KK, Prasad KN, Kharwar NK, Soni P, Husain N, Vinita A, **JAIN AK**. Immunopathology and Th1/Th2 immune response of *Campylobacter jejuni*-induced paralysis resembling Guillain-Barré syndrome in chicken. *Med Microbiol Immunol*. **201**: 177-187 (2012)
19. Rao R P, Singh A, **JAIN AK** and Srinivasan B P. Dual therapy of rosiglitazone/ pioglitazone with glimepiride on diabetic nephropathy in experimentally induced type 2 diabetes rats. *J Biomed Res* **25**(6): 411-417 (2011)
20. Rao R P, **JAIN AK** and Srinivasan B P. Dual therapy versus monotherapy of trandolapril and telmisartan on diabetic nephropathy in experimentally induced type 2 diabetes mellitus rats. *J. Renin-Angiotensin-Aldosterone System*. **12**(3):169-175 (2011)
21. Rath G, Soni S, Prasad C P, Salhan S, **JAIN A K**, Saxena S. Bcl-2 and p53 Expression in Indian Women with Complete Hydatidiform Moles. *Singapore Med J*. **52**(7): 502-507 (2011)
22. Kumar S N, Telang A G, Singh K P, **JAIN A K**, Afroz M, Patil R D. Experimentally induced toxicity of Ochratoxin A and endosulfan in male wistar rats: A hormonal disorder. *J Animal Veterinary Adv*. **10**(13): 1750-1755 (2011)
23. Soni S, Rath G, Prasad C P, Salhan S, **JAIN A K**, Saxena S. Fas-FasL System in Molar Pregnancy. *Am J Reprod Immunol*. **65**(5): 512-520 (2011)
24. Rath G, Roy S, Goyal U, **JAIN A K** Mukherjee A. Placental Vasculosyncytial membrane in tobacco exposed Indian mothers: A quantitative and ultrastructural study. *Journal Internat. Med. Sci. Acad*. **24**(2):53-56 (2011)
25. Agrawal U, Rai H, **JAIN A K**. Morphological and ultrastructural characteristics of Extracellular matrix changes in Oral Squamous Cell Carcinoma. *Ind J of Dental Res*. **22**(1): 16-21 (2011)
26. Rath G, Dhuria R, Salhan S, **JAIN AK**. Morphology and morphometric analysis of stromal capillaries in full term human placental villi of smoking mothers: an electron microscopic study. *Clin Ter*. **162**(4): 301-5 (2011)
27. Sonia Jain, Anjali Bose, Banajit Bastia, Hritika Sharma, **Arun K Jain**, Rahul Pal. Innate and adaptive immunological consequences of the recognition of oxidized hemoglobin in systemic autoimmunity. *Scientific Reports* (Under Review).
28. Gupta R, Pradhan D, **Jain AK**, Rai CS, TiD: Standalone software for mining putative drug targets from bacterial proteome. *Genomics* (Under Review).
29. Pradhan D, Yadav M, Verma R, Khan NS, Jena L, **Jain AK** Discovery of T-cell driven subunit vaccines from Zika virus genome: An immunoinformatics approach. *Interdisciplinary Sciences: Computational Life Sciences* (Under Review).
30. Bastia B, Naik P K, **JAIN A K**. A case tool for prediction of squamous cancerous and non-cancerous cells using digital image processing and artificial neural network. *Bioinformatics (ISSN:0973-2063)* (Submitted for publication)