

Dr. Alok Kumar Pandey
Senior Scientist



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DATE OF BIRTH: November 15, 1976 **GENDER:** Male

1. EDUCATION

2007	Ph.D.*	Environmental Sciences	University of Lucknow, India
2001	PGDEPL	Environmental Protection Law	University of Lucknow, India
1999	M.Sc.	Environmental Sciences	University of Lucknow, India
1997	B.Sc.	Biology	Poorvanchal University, India

*Title of Thesis: Health effects of indoor and outdoor air pollution: mechanism of action and human biomonitoring studies.

2. PROFESSIONAL EXPERIENCE

May 2013- till date	Senior Scientist, Indian Institute of Toxicology Research, Lucknow, India
May 2009- 2013	Scientist, Indian Institute of Toxicology Research, Lucknow, India
Nov 2006- Nov 2008	Visiting Research Associate, Civil and Environmental Engineering Deptt, Michigan State University
2001- 2006	Research Fellow, Industrial Toxicology Research Centre, Lucknow, India

3. RESEARCH INTERESTS

- Nanomaterial Toxicology
- Biochemical and Genetic toxicology
- Molecular Epidemiology
- **R&D Activities:**
 - Nanomaterial toxicity in *in vitro* and *in vivo* models using different cytogenetic techniques as well as cell cycle and apoptosis.
 - Development, validation and establishment of biomarkers of DNA damage, which could be used for studying exposure and effect in human population.

3.1 PROJECTS

PAST PROJECTS

- Mechanism of carbon nanomaterials induced toxicity in *in vitro* system under EMPOWER (Encouraging and Motivating Pursuit of World Class Exploratory Research) Scheme of CSIR, up to September 2012. (Principal investigator)
- Validation of Identified Screening Models of Development of New Alternative Models for Evaluation of New Drug Entities (CSIR-Network Project) (Participating Scientist)
- Nanomaterials and Nanodevices in Health and Disease (CSIR-Network Project) (Participating Scientist)
- Role of UVR in the Potentiating of ZnO Nanoparticle induced Dermal Toxicity in Hairless Mouse Model under EMPOWER (Encouraging and Motivating Pursuit of World Class Exploratory Research) Scheme of CSIR, up to September 2012. (Co investigator)
- Nanotoxicology Link Between India and European Nations (NanoLINEN) (CLP-22) 2010-2013 funded under the New Indigo scheme of EU and DBT, India. (Participating Scientist)
- Mechanism of carbon nanomaterials induced toxicity in *in vitro* system under EMPOWER-Phase II (Encouraging and Motivating Pursuit of World Class Exploratory Research) Scheme of CSIR, up to September 2014. (Principal investigator)
- Development of reference methods for hazard identification, risk assessment and LCA of engineered nanomaterials (NanoVALID) (CLP-24) 2012-2015 funded by EU under FP7. (Participating Scientist)

CURRENT PROJECTS

- Nanomaterials: Applications and Impact on Safety, Health and Environment (NanoSHE) (BSC0112) (CSIR-Network; 12th five year plan) 2012-2017 (Principal investigator)
- New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery (UNDO) (BSC0103) (CSIR-Network; 12th five year plan) 2012-2017 (Principal investigator)
- Indo-Australian collaborative project "Identification and management of sewage effluent discharges to keep our rivers healthy: Comparative investigations in India and South Australia" (CLP-27)

4. PUBLICATIONS

4.1 Reviewed archival journal publications

1. Alok Dhawan, Neeraj Mathur and Prahlad K. Seth (2001) The effect of smoking and eating habits on DNA damage in Indian population as measured in the comet assay. Mutation Research, *Fundamental and Molecular Mechanisms of Mutagenesis* 474 (1-2) 121-128. **(Work from M.Sc. Dissertation)**

2. Mahima Bajpayee, Alok Dhawan, Devendra Parmar, **Alok Kumar Pandey**, Neeraj Mathur and Prahlad Kishore Seth (2002) Gender related differences in basal DNA damage in lymphocytes of healthy Indian population as revealed by the alkaline Comet assay. *Mutation Research, Genetic Toxicology and Environmental Mutagenesis*, 520 (1-2): 83-91.
3. **Alok K. Pandey**, Mahima Bajpayee, Devendra Parmar, Subodh K. Rastogi, Neeraj Mathur, Prahlad K. Seth and Alok Dhawan (2005) DNA damage in lymphocytes of rural Indian women exposed to biomass fuels as assessed by the comet assay. *Environmental and Molecular Mutagenesis* 45 (5) 435-441.
4. Mahima Bajpayee, **Alok Kumar Pandey**, Devendra Parmar, Neeraj Mathur, Prahlad K. Seth and Alok Dhawan (2005) Comet assay responses in human lymphocytes are not influenced by the menstrual cycle: a study in healthy Indian females. *Mutation Research, Genetic Toxicology and Environmental Mutagenesis* 565 (2): 163-172.
5. Mahima Bajpayee, **Alok K. Pandey**, Devendra Parmar and Alok Dhawan (2005). Current Status of Short Term Tests for Evaluation of Genotoxicity, Mutagenicity and Carcinogenicity of Environmental Chemicals and NCEs. *[REVIEW] Toxicology Mechanisms and Methods* 15: 1-26.
6. **Alok K. Pandey**, Mahima Bajpayee, Devendra Parmar, Subodh K. Rastogi, Neeraj Mathur, Prahlad K. Seth and Alok Dhawan (2006) DNA damage in lymphocytes of Indian rickshaw pullers as measured by the alkaline Comet assay. *Environmental and Molecular Mutagenesis* 47(1): 25-30.
7. Sushila Patel, Alok K. Pandey, Mahima Bajpayee, Devendra Parmar, and Alok Dhawan (2006) Cypermethrin induced DNA damage in organs and tissues of mouse: Evidence by Comet Assay. *Mutation Research* 607(2):176-83.
8. Mahima Bajpayee, **Alok Kumar Pandey**, Sabina Zaidi, Javed Musarrat, Devendra Parmar, Neeraj Mathur, Prahlad Kishore Seth, Alok Dhawan (2006) DNA damage and mutagenicity induced by endosulfan and its metabolites. *Environmental and Molecular Mutagenesis* 47(9):682-692.
9. Alok Dhawan, Julian S. Taurozzi, **Alok K. Pandey**, Wenqian Shan, Sarah M. Miller, Syed A. Hashsham, Volodymyr V. Tarabara (2006) Stable colloidal dispersions of C60 fullerenes in water: Evidence for genotoxicity. *Environmental Science and Technology* 40, 7394-7401
10. Adekunle A. Bakare, **Alok K. Pandey**, Mahima Bajpayee, Devyani Bhargav, D. Kar Chowdhuri, K. P. Singh, R. C. Murthy, Devendra Parmar and Alok Dhawan (2007) DNA damage induced in human peripheral blood lymphocytes by industrial solid waste and municipal sludge leachates. *Environmental and Molecular Mutagenesis* 48(1):30-37
11. Sushila Patel, Mahima Bajpayee, **Alok Kumar Pandey**, Devendra Parmar and Alok Dhawan (2007) In vitro induction of cytotoxicity and DNA strand breaks in CHO cells exposed to Cypermethrin, Pendimethalin and Dichlorvos. *Toxicology in vitro* 21(8):1409-18
12. Alok Dhawan, Mahima Bajpayee, **Alok K. Pandey**, Devendra Parmar (2007) Human biomonitoring studies in the Indian population using the alkaline comet assay. *Environ Mol Mutagen* 48: 620. (abstract)

13. **Alok K. Pandey**, Mahima Bajpayee, Devendra Parmar, Rakesh Kumar, Subodh K. Rastogi, Neeraj Mathur, Paul Thorning, Marcel de Matas, Qun Shao, Diana Anderson and Alok Dhawan (2008) Multipronged evaluation of genotoxicity in Indian petrol-pump workers. *Environmental and Molecular Mutagenesis* 49:695-707.
14. **Alok K. Pandey**, Deepak Gurbani, Mahima Bajpayee, Devendra Parmar, Subhash Ajmani and Alok Dhawan (2009) In silico studies with human DNA topoisomerase-II alpha to unravel the mechanism of in vitro genotoxicity of benzene and its metabolites *Mutation Res Fundamental and Molecular Mechanisms of Mutagenesis* 661:57–70.
15. Amanda B Herzog, S D McLennan, **Alok K Pandey**, Charles P Gerba, C N Haas, Joan B Rose and Syed A Hashsham (2009) Implications of detection limit of various methods for *Bacillus anthracis* in computing risk to human health. *Appl Environ Microbiol.* 75(19):6331-9
16. Poonam Singh, Pushpa Lata, Sushila Patel, **Alok K. Pandey**, Swatantra K. Jain, Rishi Shanker and Alok Dhawan (2011) Expression profiling of toxicity pathway genes by real-time PCR array in cypermethrin-exposed mouse brain. *Toxicology Mechanisms and Methods* 21(3):193-199.
17. Ritesh K. Shukla, Vyom Sharma, **Alok K. Pandey**, Sashi Singh, Sarvat Sultana and Alok Dhawan (2011) ROS-mediated genotoxicity induced by titanium dioxide nanoparticles in human epidermal cells. *Toxicol In Vitro.* 25(1); 231-241.
18. Gupta SK, Baweja L, Gurbani D, **Pandey AK**, Dhawan A. Interaction of C60 fullerene with the proteins involved in DNA mismatch repair pathway. *J Biomed Nanotechnol.* 2011 Feb;7(1):179-80.
19. Baweja L, Gurbani D, Shanker R, **Pandey AK**, Subramanian V, Dhawan A. C60-fullerene binds with the ATP binding domain of human DNA topoisomerase II alpha. *J Biomed Nanotechnol.* 2011 Feb;7(1):177-8.
20. Khatoon I, Vajpayee P, Singh G, **Pandey AK**, Dhawan A, Gupta KC, Shanker R. Determination of internalization of chromium oxide nano-particles in *Escherichia coli* by flow cytometry. *J Biomed Nanotechnol.* 2011 Feb;7(1):168-9.
21. Mittal S, Sharma V, Vallabani NV, Kulshrestha S, Dhawan A, **Pandey AK**. Toxicity evaluation of carbon nanotubes in normal human bronchial epithelial cells. *J Biomed Nanotechnol.* 2011 Feb;7(1):108-9.
22. Vallabani NV, Mittal S, Shukla RK, **Pandey AK**, Dhakate SR, Pasricha R, Dhawan A. Toxicity of graphene in normal human lung cells (BEAS-2B). *J Biomed Nanotechnol.* 2011 Feb;7(1):106-7.
23. Gurbani D, Shukla RK, **Pandey AK**, Dhawan A. Stable metal oxide nanoparticle formulation for toxicity studies. *J Biomed Nanotechnol.* 2011 Feb;7(1):104-5.
24. Kumar A, **Pandey AK**, Singh SS, Shanker R, Dhawan A. Cellular response to metal oxide nanoparticles in bacteria. *J Biomed Nanotechnol.* 2011 Feb;7(1):102-3.
25. Shukla RK, Kumar A, **Pandey AK**, Singh SS, Dhawan A. Titanium dioxide nanoparticles induce oxidative stress-mediated apoptosis in human keratinocyte cells. *J Biomed Nanotechnol.* 2011 Feb;7(1):100-1.
26. Kalmodia S, Sharma V, **Pandey AK**, Dhawan A, Basu B. Cytotoxicity and genotoxicity property of hydroxyapatite-mullite eluates. *J Biomed Nanotechnol.* 2011 Feb;7(1):74-5.

27. Dhawan A, **Pandey A**, Sharma V. Toxicity assessment of engineered nanomaterials: resolving the challenges. *J Biomed Nanotechnol.* 2011 Feb;7(1):6-7.
28. Kumar A, **Pandey AK**, Singh SS, Shanker R, Dhawan A. Cellular uptake and mutagenic potential of metal oxide nanoparticles in bacterial cells. *Chemosphere.* 2011;83:1124-1132.
29. Kumar A, **Pandey AK**, Singh SS, Shanker R, Dhawan A A flow cytometric method to assess nanoparticle uptake in bacteria. *Cytometry Part A*, 2011; 79A:707-712.
30. Kumar A, **Pandey AK**, Singh SS, Shanker R, Dhawan A. (2011) Engineered ZnO and TiO₂ nanoparticles induce oxidative stress and DNA damage leading to reduced viability of *Escherichia coli*. *Free Radic Biol Med* 51;1872–1881.
31. Bakare A.A., Patel S., **Pandey AK**, Bajpayee M, Parmar D, Dhawan A. (2012) DNA and oxidative damage induced in somatic organs and tissues of mouse by municipal sludge leachate. *Toxicology and Industrial Health* 28 (7) 614-623.
32. Ashutosh Kumar, **Alok K. Pandey**, Rishi Shanker and Alok Dhawan. Microorganisms: A versatile model for toxicity assessment of engineered nanoparticles Nano - antimicrobials: Progress and Prospects. Eds: Dr. Nicola Cioffi and Dr. Mahendra Rai. Publisher: Springer Verlag, GmbH, 2011; In Press.
33. Gurbani D; Kukshal V; Laubenthal J; Kumar A; **Pandey A**; Tripathi S; Arora A; Jain SK; Ramachandran R; Anderson D; Dhawan A. Mechanism of inhibition of the ATPase domain of human topoisomerase II α by 1,4-benzoquinone, 1,2-naphthoquinone, 1,4-naphthoquinone, and 9,10-phenanthroquinone. *Toxicol Sci:* 126; 2012; 372-90. MFN:592 IF11:4.652
34. Vyom Sharma, Poonam Singh, **Alok K. Pandey**, Alok Dhawan. Induction of oxidative stress, DNA damage and apoptosis in mouse liver after sub-acute oral exposure to zinc oxide nanoparticles. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis:* 2011; doi:10.1016/j.mrgentox.2011.12.009.
35. Shukla RK, Kumar A, Gurbani D, **Pandey A K**, Singh S, Dhawan A. TiO₂ nanoparticles induce oxidative DNA damage and apoptosis in human liver cells. *Nanotoxicology* 2011
36. Amanda Herzog, **Alok K. Pandey**, David Reyes-Gastelum, Charles Gerba, Joan Rose, and Syed Hashsham, Evaluation of Sample Recovery Efficiency of Bacteriophage P22 on Fomites. *Appl Environ Microbiol.* (in press)
37. Ahmad, F., **Pandey, A.K.**, Herzog, A.B., Rose, J.B., Gerba, C.P., Hashsham, S.A., Environmental applications and potential health implications of quantum dots. *Journal of Nanoparticle Research* (2012) 14:1038.
38. Sushma Kalmudia, Vyom Sharma, **Alok K. Pandey**, Alok Dhawan and Bikramjit Basu, Size and Composition Dependent *In Vitro* Cytotoxicity and Genotoxicity of Hydroxyapatite- Mullite Eluates, *Adv. Sci. Eng. Med.* 2012, Vol. 4, No. 1: 1-13.
39. Deepak Gurbani, Santosh K Bharti, Ashutosh Kumar, **Alok K Pandey**, Ambrish Verma, Altaf H Khan, Devendra K Patel, M.K.R Mudiam, Swatantra K Jain, Raja Roy, Alok Dhawan, Polycyclic aromatic hydrocarbons and their quinones modulate the metabolic profile and induce DNA damage in human alveolar and bronchiolar cells. *International Journal of Hygiene and Environmental Health*, 2013 Aug;216(5):553-65.
40. Ritesh K. Shukla, Ashutosh Kumar, N.V. Srikanth Vallabani, **Alok K Pandey** and Alok Dhawan, Titanium dioxide nanoparticle induced oxidative stress triggers DNA damage and hepatic injury in mammals. *Nanomedicine* 2014 Jul;9(9):1423-34
41. Nitin Sagar, **Alok K. Pandey**, Deepak Gurbani, Kainat Khan, Dharendra Singh, Bhushan P. Chaudhari, Vivek P. Soni, Naibedya Chattopadhyay, Alok Dhawan,

- Jayesh R. Bellare, *In-Vivo* Efficacy of Compliant 3D Nano- composite in Critical-Size Bone Defect Repair: a Six Month Preclinical Study in Rabbit. PLoS ONE 2013, 8(10): e77578.
42. Sandeep Mittal, **Alok K. Pandey**, Cerium Oxide Nanoparticles Induced Toxicity in Human Lung Cells: Role of ROS Mediated DNA Damage and Apoptosis BioMed Research International Volume 2014, Article ID 891934, 14 pages <http://dx.doi.org/10.1155/2014/891934>
 43. Jaya Singhal, Surinder P. Singh, Stalin Karupiah, and **Alok K. Pandey**, "Bucky Tubes Induce Oxidative Stress Mediated Cell Death in Human Lung Cells," BioMed Research International, Article ID 560768,10.1155/2015/560768
 44. Violet Aileen Senapati, Abhishek Kumar Jain, Govind Sharan Gupta, **Alok Kumar Pandey** and Alok Dhawan, Chromium oxide nanoparticles induced genotoxicity and p53 dependent apoptosis in human lung alveolar cells. Journal of Applied Toxicology 2015 ;35(10):1179-88
 45. Violet Senapati; Ashutosh Kumar; Govind S Gupta; **Alok K Pandey**; Alok Dhawan, ZnO nanoparticles induced inflammatory response and genotoxicity in human blood cells: A mechanistic approach, Food and Chemical Toxicology 2015 ;85:61-70
 46. Pal A, Alam S, Mittal S, Arjaria N, Shankar J, Kumar M, Singh D, **Pandey AK**, Ansari KM, UVB irradiation-enhanced zinc oxide nanoparticles-induced DNA damage and cell death in mouse skin. Mutat Res Genet Toxicol Environ Mutagen. 2016 Sep 1; 807:15-24. doi: 10.1016/j.mrgentox.2016.06.005.
 47. दिव्या सिंह, **आलोक कुमार पाण्डेय***, डाईऑक्सीजन की हमारे खाद्य पदार्थों में उपस्थिति, पर्यावरण व मनुष्यों पर उसके दुष्प्रभाव, विषविज्ञान संदेश (2016) 23-24, 1-17
 48. Mittal S, Kumar V, Dhiman N, Chauhan L K, Pasricha R, **Pandey A K***, Physico-chemical properties based differential toxicity of graphene oxide/reduced graphene oxide in human lung cells mediated through oxidative stress. Sci Rep. 2016 Dec 21;6:39548. doi: 10.1038/srep39548.
 49. Abhishek Kumar Jain, Violet Aileen Senapati, Divya Singh, Kavita Dubey, Renuka Maurya, **Alok Kumar Pandey***, Impact of anatase titanium dioxide nanoparticles on mutagenic and genotoxic response in Chinese hamster lung fibroblast cells (V-79): The role of cellular uptake, Food and Chemical Toxicology
 50. Violet Aileen Senapati, Govind Sharan Gupta, **Alok Kumar Pandey**, Rishi Shanker, Alok Dhawan and Ashutosh Kumar Zinc oxide nanoparticle induced age dependent immunotoxicity in BALB/c mice. **Toxicol. Res.**, 2017, Advance Article DOI: 10.1039/C6TX00439C, Paper **First published online** : 15 Mar 2017
 51. Sandeep Mittal, Pradeep Kumar Sharma, Ratnakar Tiwari, Raja Gopal Rayavarapu, Jai Shankar, Lalit Kumar Singh Chauhan, **Alok Kumar Pandey***, Impaired lysosomal activity mediated autophagic flux disruption by graphite carbon nanofibers induce apoptosis in human lung epithelial cells through oxidative stress and energetic impairment. Particle and Fibre Toxicology 2017

4.2 PATENTS

1. Alok Dhawan, Devendra Parmar, Mahima Bajpayee, **Alok K. Pandey**, Kailash C. Khulbe and Prahlad K. Seth(2004).
A process for the manufacture of twin window slides having low fluorescence and a twin window slide made thereby useful for comet assay.
Patent Appl. No. 1870/DEL/2004.

2. Alok Dhawan, **Alok K. Pandey**, Mahima Bajpayee, Devendra Parmar, Mukul Das and H.O. Misra (2008).
A circular electrophoretic device for separation of charged molecules
Patent Appl. No. 0847DEL2008.
3. Alok Dhawan, H.O. Misra, Alok K. Pandey, Mahima Bajpayee, Devendra Parmar, Mukul Das (2010).
A circular electrophoretic device for separation of charged molecules using a petridish. Singapore Patent Application No.: 165130[WO 2009/122446]
Granted on 30th April 2013.
4. Alok Dhawan, H.O. Misra, **Alok K. Pandey**, Mahima Bajpayee, Devendra Parmar, Mukul Das (2010).
A circular electrophoretic device for separation of charged molecules
U.S. Patent Application No.: 12/935471.

4.3 Conference proceedings/abstracts

1.	Alok Kumar Pandey , Alok Dhawan, Subodh K. Rastogi, Devendra Parmar, Mahima Bajpayee and Prahlad K. Seth. High incidence of DNA damage in rural women exposed to biomass fuels using alkaline comet assay. Symposium of Environmental Genomics and Health Sciences and XXVII Annual Conference of Environmental Mutagen Society of India, Lucknow, March 19-21, 2002.
2.	<u>Mahima Bajpayee</u> , Alok Dhawan, Devendra Parmar, Alok Kumar Pandey , Neeraj Mathur and P. K. Seth. Gender related differences in basal level of DNA damage in lymphocytes of a healthy Indian population using the alkaline comet assay. Symposium of Environmental Genomics and Health Sciences and XXVII Annual Conference of Environmental Mutagen Society of India, Lucknow, March 19-21, 2002.
3.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar and P. K. Seth. Application of the comet assay in assessment of DNA damage in the Indian population. Symposium of Environmental Genomics and Health Sciences and XXVII Annual Conference of Environmental Mutagen Society of India, Lucknow, March 19-21, 2002.
4.	<u>Mahima Bajpayee</u> , Alok Dhawan, Devendra Parmar, Alok Kumar Pandey , Neeraj Mathur and P. K. Seth. Assessment of DNA damage in the lymphocytes of a healthy Indian population using the Alkaline Comet assay. 25 th Anniversary Conference of UK Environmental Mutagen Society, Plymouth, UK, June 30-July 3, 2002.
5.	<u>Mahima Bajpayee</u> , Alok Kumar Pandey , Devendra Parmar, and Alok Dhawan. Various Short-term tests for the assessment of mutagenic and carcinogenic potential of the environmental chemicals. Proceedings at the Short Term Training workshop on Environmental Toxicology and Health Impact Assessment, Jamia Hamdard University, New Delhi, September 23-27, 2002.
6.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar and P. K. Seth Assessment of genomic DNA damage in a healthy Indian population using

	the alkaline comet assay. National Scientific Conference (Hindi), CDRI, Lucknow, November 14-15, 2002.
7.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar and Prahlad K.Seth, Assessment of genomic DNA damage in a healthy Indian population using the alkaline Comet assay. XXI Annual Conference of Society of Toxicology India, Kolkata, December 3-5, 2002.
8.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar, Neeraj Mathur, S.K. Rastogi and P. K. Seth. Human biomonitoring studies in a healthy Indian population using the alkaline comet assay. Workshop on Comet assay: Applications in Toxicology and molecular epidemiology, Lucknow, February 7-11, 2003.
9.	Alok Kumar Pandey , Alok Dhawan, Mahima Bajpayee, Devendra Parmar, Subodh K. Rastogi, Neeraj Mathur and Prahlad K. Seth. DNA damage in lymphocytes of a healthy Indian population engaged professionally in physical work as measured by the Alkaline Comet assay. Symposium on arsenic contamination in ground water and its health effects and XXVIII Annual Conference of Environmental Mutagen Society of India, IICB, Kolkata, March 14-16, 2003.
10.	<u>Mahima Bajpayee</u> , Alok Dhawan, Devendra Parmar, Alok Kumar Pandey , Neeraj Mathur and Prahlad K. Seth. Assessment of genotoxicity of endosulfan, its isomers and metabolites in the CHO cell line using the alkaline Comet assay. Symposium on arsenic contamination in ground water and its health effects and XXVIII Annual Conference of Environmental Mutagen Society of India, IICB, Kolkata, March 14-16, 2003.
11.	Alok Kumar Pandey , Alok Dhawan, Mahima Bajpayee, Devendra Parmar and Prahlad K. Seth. <i>In vitro, ex vivo and in vivo</i> genotoxicity of hydroquinone. International symposium on Molecular Toxicology and Environmental Health, Lucknow, November 5- 8, 2003.
12.	Alok Kumar Pandey , Alok Dhawan, Mahima Bajpayee, Devendra Parmar and Prahlad K. Seth, <i>In vitro, ex vivo and in vivo</i> genotoxicity of hydroquinone. International symposium on Molecular Toxicology and Environmental Health, Lucknow, November 5- 8, 2003.
13.	<u>Mahima Bajpayee</u> , Alok Dhawan, Alok Kumar Pandey , Devendra Parmar, Neeraj Mathur and Prahlad K. Seth, Estrogen levels do not affect the comet assay responses in human lymphocytes: a study in healthy Indian females. International symposium on Molecular Toxicology and Environmental Health, Lucknow, November 5- 8, 2003.
14.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok K. Pandey , Sushila Patel, Subodh K. Rastogi, Neeraj Mathur, Poornima Vajpayee, Rishi Shanker, D. Kar Chowdhuri and Devendra Parmar, Comet Assay: A Rosetta Stone in Genetic Toxicology. INDO-UK Workshop on "Applications of Biomarker to Protect Human and Environmental Health" under INDIA-UK Science Network (DST-Royal Society), Varanasi, September 1-5, 2004.
15.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar, Neeraj Mathur, S.K. Rastogi and P. K. Seth, Monitoring human genotoxicity using comet assay. Workshop on Current Techniques in Genetic Toxicology, Lucknow, December 1-15, 2004.
16.	<u>Alok Dhawan</u> , Sushila Patel, Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar and Prahlad K. Seth, Multiple organ genotoxicity in mouse: A Comet assay perspective. Workshop on Current Techniques in Genetic Toxicology, Lucknow,

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17.	<u>Sushila Patel</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar Prahlad K. Seth and Alok Dhawan, Evidence for cypermethrin induced DNA damage in multiple muse organs. International Symposium on Diet in Causation & Prevention of Cancer and XXXth Annual Conference of Environmental Mutagen Society of India, Lucknow. March 17-19, 2005.
18.	Alok Kumar Pandey , Mahima Bajpayee, Devendra Parmar and Alok Dhawan, DNA damage and micronucleus induction by benzene and its metabolites using Comet assay and flow cytometry. XXIX All India Cell Biology Conference & Symposium on Gene to Genome: Environment & Chemical Interaction”, Lucknow, 18-20 January 2006.
19.	<u>Mahima Bajpayee</u> , Alok Kumar Pandey , Devendra Parmar, Prahlad K Seth and Alok Dhawan, Thiamine ameliorates lead induced genotoxicity <i>in vivo</i> . XXIX All India Cell Biology Conference & Symposium on Gene to Genome: Environment & Chemical Interaction”, Lucknow, 18-20 January 2006.
20.	<u>Adekunle A. Bakare</u> , Alok Kumar Pandey , Mahima Bajpayee, D. Kar Chowdhuri and Alok Dhawan, Genotoxicity evaluation of industrial solid waste leacchates in human peripheral blood lymphocytes using the comet assay. XXIX All India Cell Biology Conference & Symposium on Gene to Genome: Environment & Chemical Interaction”, Lucknow, 18-20 January 2006.
21.	Alok Kumar Pandey , Mahima Bajpayee, Devendra Parmar and Alok Dhawan, DNA damage and micronucleus induction by benzene and its metabolites in mice. (Oral presentation) XXXI Annual Conference of Environmental Mutagen Society of India (EMSI) & International Symposium on Environmental Mutagenesis and Public Health, Hyderabad, February 23-25, 2006.
22.	<u>Adekunle A. Bakare</u> , Alok Kumar Pandey , Mahima Bajpayee, Devendra Parmar, D. Kar Chowdhuri and Alok Dhawan, DNA damage induced by industrial solid waste and municipal sludge leachates in human peripheral blood lymphocytes. (Oral presentation). XXXI Annual Conference of Environmental Mutagen Society of India (EMSI) & International Symposium on Environmental Mutagenesis and Public Health, Hyderabad, February 23-25, 2006.
23.	<u>Alok Dhawan</u> , Mahima Bajpayee, Alok Kumar Pandey , Devendra Parmar, Neeraj Mathur, S.K. Rastogi and P. K. Seth, Monitoring Human Genotoxicity in Indian Population using Comet Assay.XXXI Annual Conference of Environmental Mutagen Society of India (EMSI) & International Symposium on Environmental Mutagenesis and Public Health, Hyderabad, February 23-25, 2006.
24.	<u>Alok Dhawan</u> , Julian S. Taurozzi, Alok K. Pandey , Wenqian Shan, Sarah M. Miller, Syed A. Hashsham, and Volodymyr V. Tarabara. 2006. Stable Colloidal Dispersions of C60 Fullerenes in Water: Evidence for Genotoxicity. The 2006 AICHE Annual Meeting, November 12-17, 2006, San Francisco.
25.	Alok K. Pandey , Amanda B. Herzog, Joan B. Rose and Syed A. Hashsham, Potential of quantum dots as surrogates for microbial pathogens and evaluation of their genotoxicity. 107 th General Meeting of American Society for Microbiology, Toronto, Ontario, Canada, May 21-25, 2007.
26.	<u>Amanda B. Herzog</u> , Alok K. Pandey , Tomoyuki Shibata, Joan B. Rose and Syed A. Hashsham, Implications of detection limit of various methods for <i>bacillus anthracis</i> in computing risk to human health. 107 th General Meeting of American Society for Microbiology, Toronto, Ontario, Canada, May 21-25, 2007.

27.	<u>Tiffany M. Stedfield</u> , Robert D. Stedfield, Alok K. Pandey , Samuel W. Baushke, Sarah M. Miller, B. Chai, J. R. Cole, James M. Tiedje, Joan B. Rose and Syed A. Hashsham, Use of multiple genetic markers as indicators for fecal contamination in environmental water sources. 107 th General Meeting of American Society for Microbiology, Toronto, Ontario, Canada, May 21-25, 2007.
28.	Alok K. Pandey , Amanda Herzog, Charles Gerba, Joan B. Rose, and <u>Syed A. Hashsham</u> , Evaluation of quantum dots as surrogate for pathogens. Joint U.S. Environmental Protection Agency and Department of Homeland Security Conference on Real-World Applications and Solutions for Microbial Risk Assessment, Bethesda, Maryland, April 8 – 10, 2008.
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30	Alok K. Pandey , S. Mittal, S. Kulshrestha, N.V. Srikanth Vallabani and A. Dhawan cyto- and geno- toxic potential of carbon nanomaterials in human lung cells. (Oral Presentation). International Conference on Occupational and Environmental Health (ICEOH 2011) and the Workshop 'Biomarkers & Human Exposure to Nanoparticles' – European Project NanoLINEN, October 17-19, 2011. Porto, Portugal.
31	Vyom Sharma, Ritesh K. Shukla, Alok. K. Pandey , Rishi Shanker, <u>Alok Dhawan</u> . Metal oxide nanoparticles elicit Genotoxic responses in mammalian cells. (Oral Presentation). International Conference on Occupational and Environmental Health (ICEOH 2011) and the Workshop 'Biomarkers & Human Exposure to Nanoparticles' – European Project NanoLINEN, October 17-19, 2011. Porto, Portugal.
32	<u>Deepak Gurbani</u> , Santosh Kumar Bharti, Ashutosh Kumar, Alok K. Pandey , Ambrish Verma, Altaf Husain Khan, Devendra K. Patel, M.K.R. Mudiam, Swatantra K. Jain, Raja Roy, Alok Dhawan. 'Polycyclic aromatic hydrocarbons and their quinones modulate the metabolic profile and induce DNA damage in human alveolar and bronchiolar cells. (Oral Presentation) International Conference on Occupational and Environmental Health (ICEOH 2011) and the Workshop 'Biomarkers & Human Exposure to Nanoparticles' – European Project NanoLINEN, October 17-19, 2011. Porto, Portugal.
33	Alok K. Pandey , Sandeep Mittal, N. V. Srikanth Vallabani, Ritesh K. Shukla, Veeresh Kumar, Renu Pasricha, and Alok Dhawan, In vitro toxicity of different graphite nanomaterials in human lung cells. "EU-India S&T Coop Days" December 1-2, 2011, Vienna, Austria.
34	<u>Swati Kulshrestha</u> , Sandeep Mittal, N. V. Srikanth V., Alok Dhawan and Alok K. Pandey . Comparative analysis of carbon nanotubes induced genotoxicity in human lung epithelial (A549) cells. XXXI Annual Conference of STOX, December 22-24, 2011, Jaipur.
35	<u>Sandeep Mittal</u> , Swati Kulshrestha, Alok Dhawan and Alok K. Pandey . Oxidative stress induced by Cerium oxide nanoparticles leads to DNA damage and apoptosis in human lung epithelial cells. XXXI Annual Conference of STOX, December 22-24, 2011, Jaipur.
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37	Carla Costa, Stefano Bonassi, Marie Carriere, Erdem Coskun, Alok Dhawan, Ayse Basak Engin, Juan Fernández-Tajes, Dietmar Fuchs, Nathalie Herlin-Boime, Benu Karahalil, Blanca Laffon, Alok K Pandey , Sebastian Schroecksadel, João Paulo Teixeira, Vanessa Valdiglesias. Nanolinen interlaboratory validation study: MTT and LDH assays for assessing in vitro cytotoxicity of engineered nanomaterials. Nanosafety Congress Turkey– Workshop on the Safety assessment of nanoparticles: New paradigms. April 26-28, 2012, Antalya, Turkey
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39	Carla Costa, João Paulo Teixeira, Alok Dhawan, Alok K Pandey , Blanca Laffon, Juan Fernández-Tajes, Vanessa Valdiglesias, Dietmar Fuchs, Sebastian Schroecksadel, Marie Carriere, Stefano Bonassi, Ayse Basak Engin, Erdem Coskun, Benu Karahalil, <u>Nathalie Herlin-Boime</u> . MTT and LDH interlaboratory assays for assessing in vitro cytotoxicity of engineered nanomaterials. Internantional Conference on Safe production and use of nanomaterials, Nanosafe 2012, November 13-15, 2012, Grenoble, France
40	<u>Govind S. Gupta</u> , Ashutosh Kumar, Violet A. Senapati, Krishna M. Shukla, Alok K. Pandey , Rishi Shankar and Alok Dhawan. Development and validation of bioaccumulation and trophic transfer of cadmium telluride quantum dots in fresh water microbial food chain, “XXXII Annual Conference of Society of Toxicology (STOX), India & International Symposium on New Paradigms in Toxicology (NPT-2012)” December 5-7, 2012, Lucknow, India
41	<u>Sandeep Mittal</u> , Jaya Singhal and Alok K. Pandey , Toxicity investigation of graphite nanofibres towards human lung alveolar epithelial cells. “XXXII Annual Conference of Society of Toxicology (STOX), India & International Symposium on New Paradigms in Toxicology (NPT-2012)” December 5-7, 2012, Lucknow, India
42	<u>Saurabh Bhatti</u> , Imran Ahamad, Poornima Vajpayee, Alok K. Pandey and Rishi Shanker. Cerium Oxide nanoparticles and Escherichia coli: Internalization and cell viability, “XXXII Annual Conference of Society of Toxicology (STOX), India & International Symposium on New Paradigms in Toxicology (NPT-2012)” December 5-7, 2012, Lucknow, India
43	<u>Apratim Tripathi</u> , Krishna M. Shukla, Ashutosh Kumar, Alok K. Pandey , Rishi Shanker and Alok Dhawan. Zinc Oxide nanoparticles and autophagy: A mechanistic Study. “XXXII Annual Conference of Society of Toxicology (STOX), India & International Symposium on New Paradigms in Toxicology (NPT-2012)” December 5-7, 2012, Lucknow, India
44	<u>Violet A. Senapati</u> , A. Kumar, Govind S. Gupta, Alok K. Pandey and Alok Dhawan. Chromium oxide nanoparticles induced oxidative stress, DNA damage and apoptosis in human lung carcinoma epithelial cells. “XXXII Annual Conference of Society of Toxicology (STOX), India & International Symposium on New Paradigms in Toxicology (NPT-2012)” December 5-7, 2012, Lucknow, India
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46	Alok K. Pandey , Sandeep Mittal, Jaya Singhal, Renu Pasricha. In vitro cyto- and geno- toxic potential of different carbon nanomaterials in human lung cells, 1 st National Seminar on 'Standardization for Nanoscience and Nanotechnology', National Physical Laboratory, New Delhi 25-26 February, 2013
47	<u>Jaya Singhal</u> , Sandeep Mittal, Alok K. Pandey . "Bucky tubes induced oxidative stress leads to cytotoxicity and genotoxicity in human lung alveolar cell line" XXXIII Annual Conference of Society of Toxicology (STOX), India for Synergy of Toxicology Research in SAARC Countries & National Symposia on Toxicogenomics technologies in predictive toxicology, Alternatives to use of animals for modern toxicity testing & Phyto-remedial approaches against environmental pollutants for human and animal health (STOX- 2013), held at U.P. Pandit Deen Dayal Upadhyaya Pashu-Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, (DUVASU) Mathura from October 23 rd – 25 th 2013.
48	Alok K. Pandey . Monitoring Real-time Uptake of Nanoparticles in Microorganisms, International Workshop on Water Quality & Microbes: Detection to Remediation, under the project AQUATEST (NewINDIGO) held at CSIR-Indian Institute of Toxicology Research, Lucknow. 7 th November, 2013.
49	आलोक कुमार पाण्डेय , संदीप मित्तल, जया सिंघल. मानव फेफड़ों की कोशिकाओं में विभिन्न कार्बन नैनोमैटेरियल की इन विट्रो कोशिकीय एवं जीनिक विषाक्तता, "बायो मेडिकल विज्ञान एवं प्रौद्योगिकी पर राष्ट्रीय सम्मेलन", सी.एस.आई.आर-राष्ट्रीय भौतिक प्रयोगशाला, नई दिल्ली, 21-22 नवंबर, 2013.
50	Alok K. Pandey . Micronucleus Assay using Flow Cytometry, Workshop on 'Advanced Flow Cytometry Techniques', Institute of Life Sciences, Ahmedabad University, Gujarat. January 21-22, 2014.
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52	<u>Pratibha Bhainsora</u> , Govind Sharan Gupta, Alok Kumar Pandey . Toxicity of silver nanoparticles in ciliated protozoa Tetrahymena pyriformis, International conference on Recent Trends in Free Radicals and Antioxidant Research & XIII Annual meeting of the Society for Free Radical Research- India, January 27-30, 2014 (SFRR 2014) Mumbai, India
53	<u>Krishna Mohan Shukla</u> , Ashutosh Kumar, Sandeep Mittal, Alok K. Pandey and Alok Dhawan. Role of ER stress in ZnO nanoparticle induced apoptosis in human lung (A549) cells, International conference on Recent Trends in Free Radicals and Antioxidant Research & XIII Annual meeting of the Society for Free Radical Research- India, January 27-30, 2014 (SFRR 2014) Mumbai, India
54	<u>Abhishek Jain</u> , Violet A. Senapati, Jaya Singhal, Alok K. Pandey . Mutagenicity evaluation of titanium dioxide nanoparticles in V79 cells, International Conference on 'Frontier Discoveries and Emerging Opportunities in Life Sciences' (FDEOLS) 13-15 February, 2014 Dr. Harisingh Gour Central University, Sagar, India
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57	<u>Violet Aileen Senapati</u> , Govind Sharan Gupta, Ashutosh Kumar, Alok K. Pandey and Alok Dhawan. ZnO nanoparticles induced inflammatory response in human monocytes: an evidence using MAPK, NF κ B and proinflammatory cytokines, 6th International Conference on Nano Science and Technology- ICONSAT 2014 - March 3-5, 2014 Panjab University, Chandigarh, India.
58	Sandeep Mittal, Sushma and Alok K. Pandey , Differential toxic potential of Silver and Silica oxide nanoparticles in human lung cells. International Conference on Translational Nanomedicine (T-NANO 2014)" December 15-17 th , 2014, Institute of Life Sciences, Ahmedabad University, Gujarat.
59	<u>Pratibha Bhainsora</u> , Govind S. Gupta, Abhishek K. Jain and Alok K. Pandey , Toxicity of metal nanoparticle in ciliated Unicellular Eukaryote. International Conference on Translational Nanomedicine (T-NANO 2014)" December 15-17 th , 2014, Institute of Life Sciences, Ahmedabad University, Gujarat.
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63	Alok K Pandey , Nanomaterial Toxicology: Challenges, International conference on "Nanotoxicology" February 13-14, 2015, SASTRA University, Kumbakonam, Tamil Nadu.
64	Alok K Pandey , Challenges in Nanomaterial Toxicology, National Conference on "NanoSciences, NanoToxicology and NanoInformatics-Present and Future Perspectives" March 14-15, 2015, Integral University, Lucknow.
65	<u>Sandeep Mittal</u> , Alok K. Pandey , Physico-chemical and cell phenotype based differential toxicity potential of graphene family nanomaterials on human lung cells, International Toxicology Conclave, November 5-6, 2015, CSIR-Indian Institute of Toxicology Research, Lucknow. (Best Poster Award in 'Nanotherapeutics and Nanomaterial Toxicology' area)
66	Abhishek Jain, Alok K Pandey , Mutagenicity evaluation of metal oxide nanoparticles in V79 cells, "International Conference on Environmental Mutagenesis, Carcinogenesis & Health and 40 th Annual Meeting of Environmental Mutagen Society of India (EMSI)" at Guru Nanak Dev University, Amritsar, India from February 17 -19, 2016
67	Alok K Pandey , Nanomaterial Toxicology: Methods and Challenges, 8 th NIPER (RBL)-CSIR-CDRI Symposium" on "Current Trends in Medicinal Chemistry and Pharmaceutical Sciences in Drug Discovery" at National Institute of Pharmaceutical Education and Research (NIPER), Raebareli from March 18-19, 2016.

68	<u>आलोक कुमार पाण्डेय</u> , सदीप मिश्र, नैना मेटेरियल विष विज्ञान एवं चुनौतिया, राजभाषा हिन्दी में "मेक इन इंडिया- सीआर.आई.एस. की भूमिका" विषय पर आधारित राष्ट्रीय वैज्ञानिक संगोष्ठी, सीआई आई सी टी - आर.आई.एस., हैदराबाद, 2016 मई 27-25
69	<u>Abhishek Kumar Jain</u> , Divya Singh, Kavita Dubey, Renuka Maurya, Alok Kumar Pandey , ZnO nanoparticles induced oxidative stress triggers genotoxicity/mutagenicity and apoptosis in Chinese hamster lung fibroblast cells (V79). "International Conference on New Insights & Multidisciplinary Approaches in Toxicological Studies" 36 th Annual Conference of Society of Toxicology (India) 2016, Amity University Noida, August 3-5, 2016. (Best Poster Award)
70	<u>Divya Singh</u> , Abhishek Kumar Jain, Kavita Dubey, Renuka Maurya, Alok Kumar Pandey , Toxicity evaluation of Carbon Nanotubes (SWCNT, DWCNT and MWCNT) on human lung epithelial cells (A549), "International Conference on New Insights & Multidisciplinary Approaches in Toxicological Studies" 36 th Annual Conference of Society of Toxicology (India) 2016, Amity University Noida, August 3-5, 2016. (Best Poster Award)
71	Sandeep Mittal , Alok K. Pandey. "Shape dependent pulmonary toxicity induced by graphene based nanomaterials in Swiss albino mice". Presented at 11th International Particle Toxicology Conference (IPTC 2016) during September 26 – 30, 2016 at Biopolis Matrix, Singapore (IPTC – 2016) – Travel Grant Fellowship .
72	<u>दिव्या सिंह</u> , अभिषेक कु. जैन, कविता दुबे, रेनुका मौर्या, आकांक्षा उपाध्याय एवं आलोक कु. पाण्डेय मानव फेफड़ों की एपिथेलियल कोशिकाओं (A549 कोशिका) पर एकपरतीय, द्विपरतीय एवं बहु परतीय कार्बन नैनोट्यूब्स की विषाक्तता का तुलनात्मक मूल्यांकन, राष्ट्रीय वैज्ञानिक संगोष्ठी विषय "पर्यावरण प्रदूषण कारण एवं निवारण :", सी एस आई आरआई आई टी आर-, लखनऊ, 21-20अक्टूबर, 2016
73	<u>रेनुका मौर्या</u> , अभिषेक कु. जैन, कविता दुबे, दिव्या सिंह, आकांक्षा उपाध्याय एवं आलोक कु. पाण्डेय , जलीय मॉडल जीव टेट्राहयमेना पायरीफोरमिस पर कीटनाशक डाइफेनोकोनाज़ाल की विषाक्तता का मूल्यांकन, राष्ट्रीय वैज्ञानिक संगोष्ठी विषय "पर्यावरण प्रदूषण कारण एवं : निवारण", सी एस आई आरआई आई टी आर-, लखनऊ, 21-20अक्टूबर, 2016 , (Best Poster Award)
74	Abhishek K. Jain, Divya Singh, Kavita Dubey, Renuka Maurya, Alok K. Pandey , Impact of anatase TiO ₂ NPs on genotoxic and mutagenic response in Chinese hamster lung fibroblast cells (V-79): The role of cellular uptake, 2nd International Toxicology Conclave (ITC-2016), CSIR- IITR, Lucknow November 15-16, 2016
75	Alok K Pandey , Nanomaterial Toxicology: Current perspectives, 2nd International Toxicology Conclave (ITC-2016), CSIR- IITR, Lucknow November 15-16, 2016
76	Alok K Pandey , Nanomaterial Toxicology: Methods and Challenges, National Symposium on "Impact of Emerging Toxic Chemicals on Humans, Plants, Diseases and Sustainable Development" (IETC2016) and 36 th Annual Session of Academy of Environmental Biology, Jamia Hamdard, New Delhi, November 25-27, 2016
77	<u>Braham Dutt Arya</u> , Sandeep Mittal, Priti Singh, Alok K. Pandey , Surinder P. Singh, Autophagy modulation through Graphene oxide – Chloroquine (GO-Chl) nanoconjugate for improved cancer therapy , India International Science Festival (IISF) 2016, 7-11 December 2016 at National Physical Laboratory (NPL) campus, New Delhi
78	<u>Sandeep Mittal</u> , Brahmdudd Arya, Ratnakar Tiwari, Jyoti Chaudhary, Surinder P. Singh, Alok K. Pandey , Combinatorial effect of Au-ZnO composite nanoparticles and X – Ray irradiation for novel cancer radiotherapy treatment, India International Science Festival (IISF) 2016, 7-11 December 2016 at National Physical Laboratory (NPL) campus, New Delhi
79	Alok K Pandey , Environmental Exposure and Genotoxicity, Brain Storming

4.4 Published Protocols

1. Alok Dhawan, Mahima Bajpayee, **Alok Kumar Pandey** and Devendra Parmar, *In vitro Genotoxicity Assessment In CHO Cells Using Single Cell Gel Electrophoresis / Comet Assay*. Proceedings of Workshop on Comet assay Applications in Toxicology and molecular epidemiology, Industrial Toxicology Research Centre, Lucknow, February 7-11, 2003.
2. Alok Dhawan, Mahima Bajpayee, **Alok Kumar Pandey**, Sushila Patel and Devendra Parmar. *The Single Cell Gel Electrophoresis / Comet Assay for Rapid Genotoxicity Assessment In Human Lymphocytes*. INDO-UK Workshop on “Applications of Biomarker to Protect Human and Environmental Health” under INDIA-UK Science Network (DST-Royal Society), Varanasi, India from September 1-5, 2004.
3. Alok Dhawan, Mahima Bajpayee, **Alok Kumar Pandey** and Devendra Parmar. *Micro comet assay using CHO cell line*. Proceedings of Workshop on Current Techniques in Genetic Toxicology, held at Industrial Toxicology Research Centre, Lucknow, from December 1-15, 2004.
4. Alok Dhawan, Mahima Bajpayee, **Alok Kumar Pandey**, Sushila Patel and Devendra Parmar. *Preparation of single cells from various organs (liver, spleen, brain, bone marrow, kidney) of mice for Comet assay*. Proceedings of Workshop on Current Techniques in Genetic Toxicology, held at Industrial Toxicology Research Centre, Lucknow, from December 1-15, 2004.
5. Alok Dhawan, Mahima Bajpayee, **Alok Kumar Pandey**, Sushila Patel and Devendra Parmar, *Flow micronucleus assay*. Proceedings of Workshop on Current Techniques in Genetic Toxicology, held at Industrial Toxicology Research Centre, Lucknow, from December 1-15, 2004.
6. **Alok Kumar Pandey** and Syed A Hashsham. Standard operating procedure for the evaluation of genotoxicity of quantum dots in human lymphocytes using single cell gel electrophoresis / comet assay P1Q3.SOPv1) March, 2007. Department of Civil and Environmental Engineering, Michigan State University, East Lansing, Michigan.
7. Alok Dhawan, Mahima Bajpayee, Sushila Patel, **Alok Kumar Pandey**, Ritesh K. Shukla and Devendra Parmar. In vivo and in vitro alkaline Single Cell gel Electrophoresis/Comet assay. Alexander Hollaender Workshop on Genetic Toxicology, December 15-17, 2008 held at Indian Institute of Toxicology Research Lucknow.
8. Ritesh K. Shukla, Mahima Bajpayee, **Alok Kumar Pandey**, Devendra Parmar and Alok Dhawan. In vitro Cytokinesis block Micronucleus assay. Alexander Hollaender Workshop on Genetic Toxicology, December 15-17, 2008 held at Indian Institute of Toxicology Research Lucknow.
9. Ritesh K. Shukla, **Alok Kumar Pandey**, Mahima Bajpayee, Devendra Parmar and Alok Dhawan. In vitro Chromosomal aberration assay. Alexander Hollaender Workshop on Genetic Toxicology, December 15-17, 2008 held at Indian Institute of Toxicology Research Lucknow.

10. **Alok Kumar Pandey** and Alok Dhawan, Protocol manual for Workshop on Applications of Flow cytometry in Nanomaterial Toxicology, January 18-22, 2010 held at Indian Institute of Toxicology Research, Lucknow.
11. **Alok Kumar Pandey**, Rishi Shanker and Alok Dhawan, Protocol manual for Workshop on Methods in Nanomaterial Toxicology, February 4-6, 2011 held at Indian Institute of Toxicology Research, Lucknow.
12. **Alok Kumar Pandey** and Aditya Bhushan Pant, Protocol manual for The 18th Indo-US Flow Cytometry Workshop "Flow Cytometry in Nanomaterial Toxicology", at CSIR- IITR, Lucknow, 22-24 February, 2017
13. **Alok Kumar Pandey**, Satyakam Patnaik and D Kar Chowdhuri, Protocol Manual for the Workshop on Synthesis, Characterization and Safety Assessment of Nanomaterials", CSIR- IITR, Lucknow, 22-25 March, 2017

5. WEBSITE DEVELOPED

Provided intellectual input in the development of a website on comet assay www.comet.itrcindia.org (now www.cometassayindia.org). This website is the most comprehensive resource on this technique.

6. CONFERENCES/ WORKSHOPS ORGANISED

6.1 CONFERENCES:

1. राष्ट्रीय वैज्ञानिक संगोष्ठी विषय "पर्यावरण प्रदूषण : कारण एवं निवारण", सी एस आई आर- आई आई टी आर, लखनऊ, 20-21 अक्टूबर, 2016 (Convenor)
2. Stakeholders' meet on "**Strategies for alternatives to animal models in product safety**", held on March 09, 2016, at CSIR-IITR, Lucknow (Co- convenor)
3. International Toxicology Conclave, November 5-6, 2015, CSIR-Indian Institute of Toxicology Research, Lucknow. (Convenor)
4. International Conference on Advances in Free Radicals, Redox Signaling and Translational Antioxidant Research & XII Annual meeting of the Society for Free Radical Research- India, January 30-february 01, 2013 (SFRR STAR 2013), CSIR- Indian Institute of Toxicology Research, Lucknow, India
5. "XXXII Annual Conference of Society of Toxicology (STOX), India & International Symposium on New Paradigms in Toxicology (NPT-2012)" December 5-7, 2012, CSIR-Indian Institute of Toxicology Research, Lucknow, India
6. International Symposium on the safe use of nanomaterials & workshop on Nanomaterial Safety: status, procedures, policy and ethical concerns, February 1-3, 2011, CSIR-Indian Institute of Toxicology Research, Lucknow, India

6.2 WORKSHOPS

1. Workshop on Synthesis, Characterization and Safety Assessment of Nanomaterials", CSIR- IITR, Lucknow, 22-25 March, 2017
2. The 18th Indo-US Flow Cytometry Workshop "Flow Cytometry in Nanomaterial Toxicology", CSIR- IITR, Lucknow, 22-24 February, 2017
3. A Workshop/Hands-on training on Dynamic Light Scattering (Zetasizer) held at CSIR- IITR on 1st March 2016 (In collaboration with Malvern/Aimil) AKP-Satyakam Patnaik

4. International Workshop on Water Quality & Microbes: Detection to Remediation, under the project AQUATEST (NewINDIGO) held at CSIR-Indian Institute of Toxicology Research, Lucknow. 7th November, 2013
5. “Workshop/Hands-on Training on Fluorescence Digital Imaging” held at Indian Institute of Toxicology Research Lucknow, December 17-19, 2012. (In collaboration with DSS Imagetech Pvt Ltd.)
6. Workshop on “Flow cytometry Training, Technical support & Education (TTE) Program” held at Indian Institute of Toxicology Research Lucknow June 27-29, 2012. (In collaboration with BD Biosciences)
7. Director, Workshop on ‘Methods in Nanomaterial Toxicology’, held at Indian Institute of Toxicology Research Lucknow from February 4-6, 2011.
8. Co-Director, Workshop on ‘Applications of Flow cytometry in Nanomaterial Toxicology’, held at Indian Institute of Toxicology Research Lucknow from January 18-22, 2010.
9. Faculty, Alexander Hollaender Workshop on Genetic Toxicology, held at Indian Institute of Toxicology Research (formerly Industrial Toxicology Research Centre), Lucknow from December 15-17, 2008.
10. Associate Faculty, Workshop on Current Techniques in Genetic Toxicology, held at Industrial Toxicology Research Centre, Lucknow from December 1-15, 2004.
11. Associate Faculty, Workshop on Comet Assay: Application in Toxicology and Molecular Epidemiology, held at Industrial Toxicology Research Centre, Lucknow from February 7-11, 2003.
12. Arranged hands-on training program on alkaline comet assay during the “Indo-German Workshop on Prediction and Prevention of Impact of Chemicals on Environment and Human Health” held at Industrial Toxicology Research Centre, Lucknow from November 5-7, 2001.
13. Imparted training in cytogenetic assays and handling of cell culture, to trainees from Universities and research institutes.

7. INVITED LECTURES

1. Environmental Exposure and Genotoxicity
Brain Storming Session on Environmental Pollution: Impact on Women and Child Health on March 23 and 24, 2017, CSIR – Indian Institute of Toxicology Research under the aegis of The National Academy of Sciences (NASI), India
2. Nanomaterials cytotoxicity
Workshop on Synthesis, Characterization and Safety Assessment of Nanomaterials”, CSIR- IITR, Lucknow, 22-25 March, 2017
3. Micronucleus Assay using Flow Cytometry
The 18th Indo-US Flow Cytometry Workshop “Flow Cytometry in Nanomaterial Toxicology”, CSIR- IITR, Lucknow, 22-24 February, 2017
4. Nanomaterials characterization and cytotoxicity
The 18th Indo-US Flow Cytometry Workshop “Flow Cytometry in Nanomaterial Toxicology”, CSIR- IITR, Lucknow, 22-24 February, 2017
5. Nanomaterial Toxicology: Methods and Challenges

National Symposium on “Impact of Emerging Toxic Chemicals on Humans, Plants, Diseases and Sustainable Development” (IETC2016) and 36th Annual Session of Academy of Environmental Biology, Jamia Hamdard, New Delhi, November 25-27, 2016

6. Nanomaterial Toxicology: Current perspectives
2nd International Toxicology Conclave (ITC-2016), CSIR- IITR, Lucknow, November 15-16, 2016
7. नैनो मैटेरियल विष विज्ञान एवं चुनौतियां
आलोक कुमार पाण्डेय, संदीप मित्तल, राजभाषा हिन्दी में आयोजित राष्ट्रीय वैज्ञानिक संगोष्ठी, सी.एस.आई.आर.- आई आई सी टी, हैदराबाद, 25-27 मई 2016
8. Nanomaterial Toxicology: Methods and Challenges
8th NIPER (RBL)-CSIR-CDRI Symposium” on “Current Trends in Medicinal Chemistry and Pharmaceutical Sciences in Drug Discovery” at National Institute of Pharmaceutical Education and Research (NIPER), Raebareli from March 18-19, 2016.
9. Mutagenicity evaluation of metal oxide nanoparticles in V79 cells
“International Conference on Environmental Mutagenesis, Carcinogenesis & Health and 40th Annual Meeting of Environmental Mutagen Society of India (EMSI)” at Guru Nanak Dev University, Amritsar, India from February 17 -19, 2016.
10. Challenges in Nanomaterial Toxicology
National Conference on "NanoSciences, NanoToxicology and NanoInformatics-Present and Future Perspectives" at Integral University, Lucknow from March 14-15, 2015.
11. Nanomaterial Toxicology: Challenges
International conference on “Nanotoxicology” at SASTRA University, Kumbakonam Campus, Tamil Nadu from February 13-14, 2015.
12. Nanomaterial Toxicology
Brain storming Session & Symposium on “Nano-Technology in Medicine” at Era’s Medical College & Hospital, Lucknow. 5th March, 2014.
13. Micronucleus Assay using Flow Cytometry
Workshop on ‘Advanced Flow Cytometry Techniques’, Institute of Life Sciences, Ahmedabad University, Gujarat. January 21-22, 2014.
14. आलोक कुमार पाण्डेय, संदीप मित्तल, जया सिंघल. मानव फेफड़ों की कोशिकाओं में विभिन्न कार्बन नैनोमैटेरियल की इन विट्रो कोशिकीय एवं जीनिक विषाक्तता, “बायो मेडिकल विज्ञान एवं प्रौद्योगिकी पर राष्ट्रीय सम्मेलन”, सी.एस.आई.आर.-राष्ट्रीय भौतिक प्रयोगशाला, नई दिल्ली, 21-22 नवंबर, 2013.
15. Monitoring Real-time Uptake of Nanoparticles in Microorganisms
International Workshop on Water Quality & Microbes: Detection to Remediation, under the project AQUATEST (NewINDIGO) held at CSIR-Indian Institute of Toxicology Research, Lucknow. 7th November, 2013.
16. In vitro cyto- and geno- toxic potential of different carbon nanomaterials in human lung cells
1st National Seminar on ‘Standardization for Nanoscience and Nanotechnology’, National Physical Laboratory, New Delhi 25-26 February, 2013.

17. Nanomaterial Toxicology
National Seminar on Biotechnology, IMS engineering College, Ghaziabad, 11 Feb 2012. (Keynote Address)
18. Micronucleus Assay using Flow Cytometry
Workshop on 'Applications of Flow cytometry in Nanomaterial toxicology', held at Indian Institute of Toxicology Research Lucknow from January 18-22, 2010.
19. Advances in Molecular Cytogenetics
Golden Jubilee Year Lecture Series at Janta College, Bakewar, Etawah, Under the auspices of Lucknow chapter of the National Academy of Sciences, India. November 21, 2009.
20. Comet assay
Workshop on 'In Silico Drug Designing', The Bioinformatica Solutions, Lucknow, March 8-10, 2006.

8. MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- Life member- Electron Microscope Society of India, India (LM 471)
- Life member- Indian Nanoscience Society
- Life Member- Indian Science Congress (L25411)
- Life member- Society of Toxicology, India (920L)
- Fellow- The Academy of Environmental Biology, India
- Life member-Environmental Mutagen Society of India (LM 382)
- Member- American Society for Microbiology (2007-08)
- Member- Indian Society of Cell Biology (2006)

9. AWARDS/HONOURS/ DISTINCTIONS:

Project review panel of:

- Council of Science & Technology, (UP)
- Science and Engineering Research Board (SERB)
- Ministry of Environment & Forests (MoEF)
- Indian Council of Medical Research (ICMR)

Editorial board member of:

- Mutagenesis
- Journal of Translational Toxicology
- Vish Vigyan Sandesh, Co Editor

Member of reviewer's database of:

BioMed Research International
Chemosphere
Colloids and Surfaces B: Biointerfaces
Food and Chemical Toxicology
Indian Journal of Medical Research
International Journal of Biological Chemistry
International Journal of Environmental Health Research
Journal of Biomedical Science and Engineering
Journal of Bionanoscience
Journal of Environmental Science and Technology

Journal of Nanoelectronics and Optoelectronics
Journal of Translational Toxicology
Journal of Toxicology
Materials and Design
Mutagenesis
Nanotoxicology
National Academy Science Letters
Research Journal of Environmental Toxicology
Scientific Reports
RSC Advances