CURRICULUM VITAE

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WORK EXPERIENCE

Feb 2013- Present	Assistant Professor, King Abdullah Institute for Nanotechnology, King Saud University, Riyadh, Saudi Arabia
June 2009-June 2012	Senior Research Fellow, Indian Institute of Toxicology Research, Lucknow, India
June 2007-June 2009	Junior Research Fellow, Indian Institute of Toxicology Research, Lucknow, India.

EDUCATIONAL/ RESEARCH QUALIFICATIONS

2007-2012:	Ph. D. in Zoology with specialization in ***biochemical and molecular toxicology*** from University of Lucknow, Lucknow-226007, (UP), India.
2000-2003:	Master degree in Zoology from V.B.S. Purvanchal University Jaunpur, (UP), India, in 2003
1997-2000:	Bachelor degree in Zoology & Chemistry from V.B.S. Purvanchal University Jaunpur, (UP), India, in 2000

REVIEWER OF INTERNATIONAL JOURNALS

1. International Journal of Nanomedicine *(Dove Press)*
2. Journal of Colloid and Interface Science *(Elsevier Publisher)*
3. Journal of Hazardous Materials *(Elsevier Publisher)*
4. Free Radical Biology and Medicine *(Elsevier Publisher)*
5. Food Toxicology *(Elsevier Publisher)*
6. Food and Chemical Toxicology *(Elsevier Publisher)*
7. Journal of Nanoparticle Research *(Springer Publisher)*
8. Environmental Toxicology *(Wiley Publications)*
9. Colloids and Surfaces B: Biointerfaces *(Elsevier Publisher)*

10. Chemosphere (*Elsevier Publisher*)

Peer Reviewed Publications (2013-2017).

1. Ahamed M, **Akhtar MJ,** Khan MAM, Alhadlaq HA, Aldalbahi A. 2017. Nanocubes of indium oxide induce cytotoxicity and apoptosis through oxidative stress in human lung epithelial cells. *Colloids and Surfaces B: Biointerfaces. 156 (1), 157-164*

2. Ahmad J, Siddiqui MA, **Akhtar MJ**, Alhadlaq HA, Alshamsan A, Khan ST, R Wahab R, Al-Khedhairy AA, Al-Salim A, Musarrat J, Saquib Q, Fareed M, Ahamed M. 2017. Copper doping enhanced the oxidative stress–mediated cytotoxicity of TiO2 nanoparticles in A549 cells. Human & Experimental Toxicology, DOI: https://doi.org/10.1177/0960327117714040

3. **Akhtar MJ*,** Ahamed M, Alhadlaq HA. 2017. Therapeutic targets in the selective killing of cancer cells by nanomaterials. *Clinica Chimica Acta,* 469; 53-62. (IF: 2.8).

4. **Akhtar MJ*,** Ahamed M, Alhadlaq HA, Alshamsan A. 2017. Mechanism of ROS scavenging and antioxidant signalling by redox metallic and fullerene nanomaterials: Potential implications in ROS associated degenerative disorders. *Biochimica et Biophysica Acta (BBA) - General Subjects*, 1861, (4) 802–813. (IF: 4.7).

5. **Akhtar MJ***, Ahamed M, Alhadlaq HA, Alshamsan A. 2017. Nanotoxicity of cobalt induced by oxidant generation and glutathione depletion in MCF-7 cells. *Toxicology in Vitro*, 40; 94-101. (IF: 3.2).

6. Ahamed M, **Akhtar MJ,** Khan MAM, Alhadlaq HA, Alshamsan A. 2016. Cobalt iron oxide nanoparticles induce cytotoxicity and regulate the apoptotic genes through ROS in human liver cells (HepG2). *Colloids and Surfaces B: Biointerfaces,* 148;665-673. (IF-4.16).

7. Ahamed M, Khan MAM, **Akhtar MJ**, Alhadlaq HA, Alshamsan A. 2016. Role of Zn doping in oxidative stress mediated cytotoxicity of TiO2 nanoparticles in human breast cancer MCF-7 cells. *Scientific Reports.* 6: 30196. (IF-5.5)

8. **Akhtar MJ,** Kumar S, Alhadlaq HA, Alrokayan SA, Abu-Salah KM, Ahamed M. 2016. Dose-dependent genotoxicity of copper oxide nanoparticles stimulated by reactive oxygen species in human lung epithelial cells. *Toxicology and Industrial Health.* 2016; 32: 5, 809-821. (IF- 1.6).

9. Ahmad J, Alhadlaq HA, Alshamsan A, Siddiqui MA, Saquib Q, Khan ST, Wahab R, Al-Khedhairy AA, Musarrat J, **Akhtar MJ,** Ahamed M. 2016. Differential cytotoxicity of copper ferrite nanoparticles in different human cells. *Journal of Applied Toxicology.* 36: 1284–1293. (IF-2.7).

10. Ahamed M, **Akhtar MJ,** Alhadlaq HA, Alshamsan A. 2016. Copper ferrite nanoparticle-induced cytotoxicity and oxidative stress in human breast cancer MCF-7 cells. *Colloids and Surfaces B: Biointerfaces,*142; 46-54. (IF 4.16).

11. Ahamed M, **Akhtar MJ,** Khan MA, Alhadlaq HA, Alrokayan SA. 2016. Cytotoxic response of platinum-coated gold nanorods in human breast cancer cells at very low exposure levels. *Environmental toxicology,* 31(11):1344-1356. DOI: 10.1002/tox.22140. (IF-2.8)

12. Alhadlaq HA, **Akhtar MJ**, Ahamed M. 2015. Zinc ferrite nanoparticle-induced cytotoxicity and oxidative stress in different human cells. *Cell & bioscience* 5 (1), 1-11(IF-3.6)

13. **Akhtar MJ,** Alhadlaq HA, Alshamsan A, Khan MAM, Ahamed M. 2015. Aluminum doping tunes band gap energy level as well as oxidative stress-mediated cytotoxicity of ZnO nanoparticles in MCF-7 cells. *Scientific Reports 5, Article number: 13876* (IF-5.5)

14. Ahamed M, **Akhtar MJ,** Alhadlaq HA, Alrokayan SA. 2015. Assessment of the lung toxicity of copper oxide nanoparticles: current status. *Nanomedicine (Lond.)*, 1-13. (IF-5.4)

15. **Akhtar MJ,** Alhadlaq HA, Kumar S, Alrokayan SA, Ahamed M. 2015. Selective cancer-killing ability of metal-based nanoparticles: implications for cancer therapy. *Archives of toxicology*, 1-13. (IF-5.98)

16. Ahamed M, **Akhtar** MJ, Alhadlaq HA, Khan MAM, Alrokayan SA. 2015. Comparative cytotoxic response of nickel ferrite nanoparticles in human liver HepG2 and breast MFC-7 cancer cells. *Chemosphere,* 135, 278-288. (IF-3.1)

17. **Akhtar MJ*,** Ahamed M, Alhadlaq HA, Alshamsan A, Khan MAM, Alrokayan SA. 2015. Antioxidative and cytoprotective response elicited by molybdenum nanoparticles in human cells. *Journal of colloid and interface science,* 457, 370-377. (IF-3.36)

18. **Akhtar MJ*,** Ahamed M, Alhadlaq HA, Khan MAM, Alrokayan SA. 2015. Glutathione replenishing potential of CeO_2 nanoparticles in human breast and fibrosarcoma cells. *Journal of colloid and interface science,* 453, 21-27. (IF-3.36)

19. **Akhtar MJ***, Ahamed M, Alhadlaq HA, Alrokayan SA, Kumar S. 2014. Targeted anticancer therapy: Overexpressed receptors and nanotechnology. *Clinica Chimica Acta.* 436:78-92. (IF-2.52)

20. Ahamed M, Ali D, Alhadlaq HA, **Akhtar MJ.** 2013 Nickel oxide nanoparticles exert cytotoxicity via oxidative stress and induce apoptotic response in human liver cells (HepG2). *Chemosphere* 93 (10), 2514-2522. (IF-3.1)

Peer Reviewed Publications during Ph.D. (2010-2012).

21. Ahamed M, Alhadlaq HA, Khan MAM, **Akhtar MJ.** 2013. Selective killing of cancer cells by iron oxide nanoparticles mediated through reactive oxygen species via p53 pathway. *Journal of Nanoparticle Research* 14, 1225. (IF: 2.28)

22. Ahmad J, Ahamed M, **Akhtar MJ,** Alrokayan SA, Siddiqui MA, Musarrat J, Al-Khedhairy A.A. 2012. Apoptosis induction by silica nanoparticles mediated through reactive

oxygen species in human liver cell line HepG2. *Toxicology and Applied Pharmacology*, 259, 160–168. (IF: 3.7)

23. **Akhtar MJ,** Ahamed M, Kumar S, Khan MA, Ahmad J, Alrokayan SA. 2012. Zinc oxide nanoparticles selectively induce apoptosis in human cancer cells through reactive oxygen species. *International Journal of Nanomedicine*, 7, 845–857. (IF: 4.3)

24. **Akhtar MJ**, Ahamed M, Fareed M, Alrokayan SA, Kumar S. 2012. Protective effect of sulphoraphane against oxidative stress mediated toxicity induced by CuO NPs in mouse embryonic fibroblasts BALB 3T3. *The Journal of Toxicological Sciences,* 37, 139-148. (IF: 1.38)
25. **Akhtar MJ,** Ahamed M, Alrokayan SA, Ahmad I, Kumar S. 2012. Cytotoxicity and apoptosis induction by nano-scale talc particles from two different geographical regions in human lung epithelial cells. *Environmental Toxicology*, DOI 10.1002/tox (IF: 3.1)

26. Ahamed M, **Akhtar MJ,** Raja M, Ahmad I, Siddiqui MKJ, AlSalhi MS, Alrokayan SA. 2011. ZnO nanorod induced apoptosis in human alveolar adenocarcinoma cells via p53, survivin and bax/bcl-2 pathways: role of oxidative stress. *Nanomedicine-NBM*, 7, 904-913. (IF: 6.1)

27. Ahmad I, Siddiqui H, **Akhtar MJ,** Khan MI, Patil G, Ashquin M, Patel DK, Arif JM. 2011. Toxic responses in primary rat hepatocytes exposed with occupational dust collected from work environment of bone-based industrial unit. *Chemosphere,* 83(4):455-60. (IF: 3.1)

28. Ahamed M, **Akhtar MJ**, Siddiqui MA, Ahmad J, Musarrat J, Al-Khedhairy AA, AlSalhi M.S., Alrokayan S.A. 2011. Oxidative stress mediated apoptosis induced by nickel ferrite nanoparticles in cultured A549 cells. *Toxicology,* 283, 101-108. (IF: 3.6)

29. **Akhtar MJ,** Ahamed M, Kumar S, Siddiqui H, Patil G, Ashquin M, Ahmad I. 2010. Nanotoxicity of pure silica mediated through oxidant generation rather than glutathione depletion in human lung epithelial cells. *Toxicology,* 276, 95–102. (IF: 3.6)

30. **Akhtar MJ,** Kumar S, Murthy RC, Ashquin M, Khan MI, Patil G, Ahmad I. 2010. The primary role of iron-mediated lipid peroxidation in the differential cytotoxicity caused by two varieties of talc nanoparticles on A549 cells and lipid peroxidation inhibitory effect exerted by ascorbic acid. *Toxicology in Vitro*, 24, 1139– 1147. (IF: 3.3)

31. Ahamed M, Siddiqui MA, **Akhtar MJ,** Ahmad I, Pant AB, Alhoshan M, Alhadlaq HA. 2010. Genotoxic potential of copper oxide nanoparticles in human lung epithelial cells. *Biochemical and Biophysical Research Communications*, 396, 578-583. (IF: 2.2)

32. Ahamed M, **Akhtar MJ,** Verma S, Kumar A, Siddiqui MA., Siddiqui MKJ. 2010. Environmental lead exposure as a risk for childhood aplastic anemia. *BioScience Trends*, 5 (1), 38-43. (IF- 1.6)

33. Khan MI, I Ahmad, AA Mahdi, **Akhtar MJ,** N Islam, M Ashquin, T Venkatesh 2010. Elevated blood lead levels and cytogenetic markers in buccal epithelial cells of painters in India. *Environmental Science and Pollution Research* 17 (7), 1347-1354. (IF-2.80)

*****_Corresponding Author_

Projects approved and ongoing-

1. **One NPST-KACST Project got approved as PI –**

   One NPST-KACST proposal entitled **"Potential immunomodulatory responses of surface functionalized nanomaterials used in nanomedicine" (Proposal no: 14-BIO144-02)** as principal investigator (PI) got **highly recommended**.

2. **CO-I in a Deanship project-**

   Toxicity of nanomaterials.