***CURRICULUM VITAE***

**Name**: Dr. Javed Ahmad

**Position**: Assistant Professor

**Field of specialization:** Molecular Biology and Biochemistry

**E-mail**: [javedahmad@ksu.edu.sa](mailto:javedahmad@ksu.edu.sa),

[javedbiochem@gmail.com](mailto:javedbiochem@yahoo.com)

**Current Research Interest**

Our current research emphasizes on molecular mechanisms of toxicity of different kinds of organic and inorganic nanomaterials. We are also evaluating that how these effects may be affected by the nanomaterials unique physico-chemical properties including crystalline nature, sizes and surface chemistry. Owing to their unique physico-chemical properties, nanomaterials can cause biological responses such as inflammation, free oxygen radical generation, oxidative stress, DNA damage, gene expression and apoptosis. Expected outcomes of this research will not only help to improve the nanomaterials safety strategies for the protection of human health, but will also help for biomedical and pharmaceutical applications.

**Research Experience**

* Assistant Professor: Sep 2009 to till date.
* Research Associate. University of Delhi, Delhi, INDIA (2008 to 2009).
* Senior Research Fellow. From 2005-2008 in NBRI, Lucknow India.
* Junior Research Fellow. From 2002-2004 in NBRI, Lucknow, India.

**Academic Qualifications**

* Ph.D. (Biochemistry). Dr. R. M. L. Awadh University, Faizabad, India.

**Thesis title**: “Molecular characterization of DNA component associated with leaf curl disease of cotton.

* M.Sc. (Biochemistry). University of Lucknow, Lucknow, India.

* BSc. (Zoology, Chemistry, Botany). University of Lucknow, Lucknow, India.

**Achievements**

* + Qualified National Eligibility Test (JRF-NET 2001) conducted by Council of Scientific and Industrial Research and University Grants Commission (CSIR-UGC), New Delhi, India.
  + Qualified ICMR-JRF exam conducted by Indian Council of Medical Sciences, New Delhi. India.

**Techniques Known:**

1. **Molecular Biology**

Extensive experience in recombinant DNA technology, Isolation of genomic DNA, RNA and proteins. Southern hybridization and Northern hybridization. Cloning/sequencing of genes, PCR, RFLP analysis, Gene expression analysis by RT-PCR ,Experienced in mini and large scale preparation of plasmid DNA,Genetic transformation, Development of expression cassette constructs with potential genes on the basis of RNAi/microRNA.All the technique involved in screening of viral transgenes at DNA, RNA and protein.

1. **Biochemistry**

Purification of virus particles, Protein purification and Expression, SDS-PAGE, western blotting, Enzyme kinetics, ELISA, Production of polyclonal antiserum.

**(C) Other Scientific Skills**

* Nucleic acid and protein sequence analysis by bioinformatics tools.
* Isolation and characterization of microsatellite DNA.
* Capable of planning and executing research projects.
* Training and supervising post graduate students and collaborating with co-workers.
* I am serving as a reviewer of several ISI international journal.

**Peer Reviewed Publications**

1. Rizwan Wahab, Farheen Khan, You bing Yang, I.H. Hwang, Hyung-Shik Shin, **Javed Ahmad,** Sourabh Dwivedi, Shams T. Khan, Maqsood Ahmed Siddiqui, Quaiser Saquib, Javed Musarrat, Abdulaziz A. Al-Khedhairy, Yogendra K. Mishra and Bahy A. Ali. (**2016**). Zinc oxide Quantum Dots: Multifunctional candidates for arresting the C2C12 cancer cells and their role towards Caspase 3 and 7 genes. **RSC Adv.,** (**Accepted Manuscript**) DOI: 10.1039/C5RA25668B. (Impact **Factor 3.84**).
2. **Javed Ahmad**, Hisham A. Alhadlaqc, Aws Alshamsanc, Maqsood A. Siddiqui, Quaiser Saquiba, Shams T. Khana, Rizwan Wahab, Abdulaziz A. Al-Khedhairy, Javed Musarrat , Mohd Javed Akhtar and Maqusood Ahamed. **(2016).**  Differential cytotoxicity of copper ferrite nanoparticles in different human cells. **Journal of Applied Toxicology, 25 FEB 2016. DOI: 10.1002/jat.3299. (Impact factor 2.98).**
3. Shams Tabrez Khan1· **Javed Ahmad** · Maqusood Ahamed· Javed Musarrat · Abdulaziz A. Al‑Khedhairy. **(2016).** Zinc oxide and titanium dioxide nanoparticles induce oxidative stress, inhibit growth, and attenuate biofilm formation activity of Streptococcus mitis**. J Biol Inorg Chem.** DOI 10.1007/s00775-016-1339-x. Received: 24 November 2015 / Accepted: 7 January 2016.
4. Quaiser Saquib, Maqsood A. Siddiqui, **Javed Ahmed**, Abdullah Al-Salim, Sabiha M. Ansari , Mohammad Faisal, Abdulaziz A. Al-Khedhairy, Javed Musarrat, Hend A. AlWathnani, Abdulrahman A. Alatar, Saud A. Al-Arifi. **(2016)** Hazards of low dose flame-retardants (BDE-47 and BDE-32): Influence on transcriptome regulation and cell death in human liver cells. **Journal of Hazardous Materials** 308 (2016) 37–49.
5. Khan, Naushad; Kumar, Amit; Khan, A. A.; Wahab, Rizwan; Khan, Shams Tabrez; **Ahmad, Javed**; Alkhedhairy, Abdulaziz A.; Ansari, Z. A.; Ansari, S. G. (**2016**). Effect of Praseodymium on the Characteristics of Nano-ZnO Towards Organophosphate as a Nano-Electrochemical Device. **Journal of Nanoelectronics and Optoelectronics**. Volume 11, Number 1, February 2016, pp. 6-11(6).
6. Shams Tabrez Khan, Rizwan Wahab, **Javed Ahmad**, Abdulaziz A. Al-Khedhairy, Maqsood A. Siddiqui, Quaiser Saquib, Bahy A. Ali and Javed Musarrat (**2015**). CoO Thin Nanosheets Exhibit Higher Antimicrobial Activity Against Tested Gram-positive Bacteria Than Gram-negative Bacteria. **Korean Chem. Eng. Res**., 53(5), 565-569 (2015).
7. Jonghwan Lee, Sung Ung Moon, Yong Seung Lee, Bahy A. Ali, Abdulaziz A. Al-Khedhairy, Daoud Ali, **Javed Ahmed,** Abdullah M. Al Salem, Soonhag Kim (**2015**). Quantum Dot-Based Molecular Beacon to Monitor Intracellular MicroRNAs. **Sensors** 2015, 15, 12872-12883. **(IF: 2.457).**
8. Sourabh Dwivedi, , Quaiser Saquib,, Abdulaziz A. Al-Khedhairy, **Javed Ahmad**, Maqsood A. Siddiqui, Javed Musarrat.(**2015**). Rhamnolipids functionalized AgNPs-Induced Oxidative Stress and Modulation of Toxicity Pathway Genes in cultured MCF-7 Cells. **Colloids and Surfaces B: Biointerfaces.** <http://dx.doi.org/10.1016/j.colsurfb.2015.05.034>**. (IF: 4.226).**
9. **Javed Ahmad**, Wahab R, Siddiqui MA, Musarrat J, Al-Khedhairy AA. (**2015**). Zinc oxide quantum dots: a potential candidate to detain liver cancer cells. **Bioprocess and Biosystems Engineering**. **38(1), 115-163.**  (**IF: 1.823**)
10. Maqsood A Siddiqui, Quaiser Saquib, Maqusood Ahamed, Nida N Farshori, **Javed Ahmad**, Rizwan Wahab, Shams T. Khan, Javed Musarrat, Abdulaziz A. Al-Khedhairy, Aditya B. Pant **(2015)**. Molybdenum nanoparticles-induced cytotoxicity, oxidative stress, G2/M arrest, and DNA damage in mouse skin fibroblast cells (L929). **Colloids and Surfaces B: Biointerfaces. 125: 73–81**.  **(IF: 4.226)**
11. Maqusood Ahamed, Hisham A. Alhadlaq, **Javed Ahmad**,Maqsood A. Siddiqui, Shams T. Khan, Javed Musarrat, Abdulaziz A. Al-Khedhairy **(2015)**. Comparative cytotoxicity of dolomite nanoparticles in human larynx HEp2 and liver HepG2 cells. **Journal of Applied Toxicology. 35;640-650.** **(IF: 2.9)**
12. Rizwan Wahab, Farheen Khan, Lutfulla, R.B.Singh, Nagendra Kumar Kaushik, **Javed Ahmad**, Maqsood A. Siddiqui, Quaiser Saquib, Bahy A. Ali, Shams T. Khan, Javed Musarrat, Abdulaziz A. Al-Khedhairy **(2015)**. Utilization of photocatalytic ZnO nanoparticles for deactivation of sa- franine dye and their applications for statistical analysis. **Physica E. 69: 101–108. (IF: 1.856)**
13. **Javed Ahmad**, Hisham A Alhadlaq, Maqsood A Siddiqui, Quaiser Saquib, Abdulaziz A. Al-Khedhairy, Javed Musarrat, Maqusood Ahamed **(2015)**. Concentration-dependent induction of reactive oxygen species, cell cycle arrest and apoptosis in human liver cells after nickel nanoparticles exposure. **Environmental Toxicology. 30 (2): 137-48. (IF: 2.562)**
14. **Javed Ahmad**, Hasnain SE, Siddiqui MA, Ahamed M, Musarrat J, Al-Khedhairy AA (2013). MicroRNA in carcinogenesis & cancer diagnostics: A new paradigm. **Indian Journal of Medical Research**. 137: 680-694.
15. Singh Y, **Javed Ahmad**, Musarrat J, Ehtesham Z N, Hasnain S E. Emerging importance of holobionts in evolution and in probiotics (2013). **Gut Pathogens**, 5:12.
16. Siddiqui MA, **Javed Ahmad**, Farshori NN, Saquib Q, Jahan S, Kashyap MP, Ahamed M, Musarrat J, Al-Khedhairy AA (2013) Rotenone-induced oxidative stress and apoptosis in human liver HepG2 cells. **Molecular and Cellular Biochemistry**, 384 (1-2): 59-69.
17. Saquib Q, Al-Khedhairy AA, **Javed Ahmad,** Siddiqui MA, Dwivedi S, Khan ST, Musarrat J (2013) Zinc ferrite nanoparticles activate IL-1b, NFKB1, CCL21 and NOS2 signaling to induce mitochondrial dependent intrinsic apoptotic pathway in WISH cells. **Toxicology and Applied Pharmacology**. 273(2):289-97.
18. Siddiqui MA, Alhadlaq HA, **Javed Ahmad**, Al-Khedhairy AA, Musarrat J, Ahamed M (2013) Copper oxide Nanoparticles induced Mitochondria Mediated Apoptosis in Human Hepatocarcinoma cells. **PLoS ONE**, 8 (8): e69534.
19. **Javed Ahmad,** Dwivedia S, Alarifia S, Al-Khedhairy AA, Musarrat J. Use of -galactosidase (lacZ) gene α-complementation as a novel approach for assessment of titanium oxide nanoparticles induced mutagenesis. (2013). **Mutation Research** 747: 246-252.
20. **Javed Ahmad**, Maqusood Ahamed, Mohd Javed Akhtar, Salman A. Alrokayan, Maqsood A. Siddiqui, Javed Musarrat, Abdulaziz A. Al-Khedhairy. **(2012).** Apoptosis induction by silica nanoparticles mediated through reactive oxygen species in human liver cell line HepG2. **Toxicology and Applied Pharmacology** xxx (2012) xxx–xxx.
21. Maqsood A. Siddiqui, Maqusood Ahamed, **Javed Ahmad**, M.A. Majeed Khan, Javed Musarrat,Abdulaziz A. Al-Khedhairy, Salman A. Alrokayan. **(2012).** Nickel oxide nanoparticles induce cytotoxicity, oxidative stress and apoptosis in cultured human cells that is abrogated by the dietary antioxidant curcumin. **Food and Chemical Toxicology** 50 (2012) 641–647.
22. Mourad A.M.Aboul-Saud, Abdulaziz M. Al-Othman, Gaber E. El-Desoky, Zeid A.Al-Othman, Kareem Ysuf, **Javed Ahmad**, Abdulaziz A.Al-Khedhairy.(2011). Hepatoprotective effects of vitamin E/selenium against malathion-induced injuries on the antioxidant status and apoptosis-related gene expression in rats. **The journal of Toxicological Sciences** (j.Toxicol.Sci.) vol 36, No3, 285-296.
23. Maqusood Ahamed, Mohd Javed Akhtar, Maqsood A. Siddiqui, **Javed Ahmad**, Javed Musarrat, Abdulaziz A. Al-Khedhairy, Mohamad S. AlSalhi, Salman A. Alrokayana. (2011). Oxidative stress mediated apoptosis induced by nickel ferrite nanoparticles in cultured A549 cells. **Toxicology** 283, 101–108.
24. Maqsood A. Siddiqui,Qaiser Saquib, Maqusood Ahamed, **Javed Ahmad**, Abdulaziz A. Al-Khedhairy, F. M. Abou-Tarboush, Javed Musarrat **(2011).**Effect of Trans-resveratrol on Rotenone-induced Cytotoxicity in Human Breast Adenocarcinoma Cells. Toxicol Int. 18(2): 105–110. (**doi:10.4103/0971-6580.84261**).
25. **Javed Ahmad**, Braj Raj Singh, Abdulaziz A. Al-Khedhairy, Saud Alarifi, Jawaid A. Khan and Javed Musarrat (2011). Characterization of Sunn hemp begomovirus and its geographical origin based on in silico structural and functional analysis of recombinant coat protein. **African Journal of Biotechnology.** 10 (14), 2600-2610.
26. **Javed Ahmad** andJawaid A. Khan **(2009).** Role of satellite DNA in symptom induction in transgenic tobacco. **Indian journal of Virology**, volume 20.
27. Jawaid A. Khan, Sanjay Kumar Singh, **Javed** **Ahmad** **(2008)**. Molecular characterization of phytoplasma inducing sandal spike disease in sandal (*Santalum album*) **Annals of Applied Biology,** Volume 153, Number 3, 365-372.
28. **Javed Ahmad**. Mohd Yahiya Khan, Jawaid A. Khan (2007). Molecular characterization of coat protein gene of *cotton leaf curl virus* (CLCuV). **Indian J. Plant Pathology**, 25 (1 & 2) 100-103.
29. Jawaid A. Khan and **Javed Ahmad** **(2005)**. Diagnosis, monitoring and transmission characteristics of *Cotton leaf curl virus*. **Current science**, Vol. 88 (11), 1803-1809.