

COVER LETTER/RESEARCH INTEREST

Much of my experience has been doing the DNA damage and molecular toxicity assessment of nanoparticles, pesticides and anti-cancer drugs in human lymphocytes, cell lines and animals models. These experiences have strengthened my research and writing skills including careful experimental planning, critical observations, and managing large pool of data for its successful ending.

I have ample experience in working with sophisticated instruments and molecular biology assays employed for toxicity assessment including flow cytometric analysis of cell cycle, apoptosis, Ca^{2+} influx, level of intracellular glutathione, free radicals analysis (including nitric oxide), and dissipation of mitochondrial membrane potential, respectively. Using the comet and cytokinesis blocked micronucleus assays I can quantify DNA damage and chromosomal breaks in the above mentioned test models. The immunofluorescence skills allows me to visualize the expression of P53, Bax, Bcl2 proteins in cell lines undergone oxidative stress and apoptosis as a consequence of toxicant exposure. I also gained experience in qPCR array to quantitate the expression of 84 genes responsible for human toxicity and oxidative stress. Since, many features of programmed cell death in plants resemble with those observed in animals, in this regard, very recently, I got success in deciphering the mechanism of cell death in plant test system upon exposure with different nanoparticles. In addition to the basic and molecular biology techniques, I am well versed in the bio-physical interaction analysis of biological macromolecules, which includes the interaction mechanism of binding of exogenous ligands with DNA and human serum albumin employing the spectrofluorescence measurements, cyclic voltammetry and circular dichroism.

I have strong passion for scientific research, career oriented, self-motivated, dedicated, hardworking and I am always excited to embark on a journey to educate myself. I successfully competed at National level to get four research grants from National Plan for Sciences and Technology (NPST), Saudi Arabia, as principal investigator (PI) and co-investigator (Co-I).



CURRICULUM VITAE

Department of Zoology, College of Science
King Saud University
Riyadh, Saudi Arabia
P.O. Box 2455, Pin 11451
E-mail: quaiser.saquib0@gmail.com
qsaquib@ksu.edu.sa

QUAISER SAQUIB, Ph.D.

PRESENT STATUS: Working as an Assistant Professor in Department of Zoology, College of Science, King Saud University, Riyadh, Saudi Arabia.

RESEARCH INTERESTS: Molecular Toxicology/Cancer Biology/Bio-physical Interaction Studies

- DNA damaging potential of nanoparticles, flame retardants, anticancer drugs, pesticides in *in vitro* (human lymphocytes and cell lines) and *in vivo* (mouse/rat) test models.
- Analysis of *in vitro* and *in vivo* cell cycle changes, Ca^{++} influx, esterase activity, oxidative stress, mitochondrial dysfunction, transcriptional and translational changes upon apoptosis induction by flame retardants, pesticides, anticancer drugs and nanoparticles.
- Biophysical interaction analysis of exogenous ligands with biological macromolecules (DNA/proteins).

EDUCATION:

- 2009 : Ph.D. (Ag. Microbiology)**
(Thrust Area: DNA Damage and Molecular Toxicology)
Thesis title: Assessment of Genotoxicity of Certain Agrochemicals and Their Mechanisms of Interactions with Biological Macromolecules.
Aligarh Muslim University, India.
- 2002 : M.Sc. in Ag. Microbiology**
Dissertation: Biodegradation of Endosulfan by Bacterial Culture Isolated from Agriculture Soil.
Aligarh Muslim University, India.
- 2000 : B.Sc. (Hons.) in Zoology**
Aligarh Muslim University, India.

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-Khedhairi, 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., 2016, **Accepted Manuscript DOI: 10.1039/C5RA25668B. (IF 3.84).**
2. **Saquib Q**, Siddiqui MA, Ahmed J, Al-Salim A, Ansari SM, Faisal M, Al-Khedhairi AA, Musarrat J, AlWathnani HA, Alatar AA, Al-Arifi SA. 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 (2016) 308:37-49. **(IF 4.52).**
3. **Quaiser Saquib**, Mohammad Faisal, Abdulrahman A. Alatar, Abdulaziz A. Al-Khedhairi, Mukhtar Ahmed, Sabiha M. Ansari, Hend A. Alwathnani, Mohammad K. Okla, Sourabh Dwivedi, Javed Musarrat, Shelly Praveen, Shams T. Khan, Rizwan Wahab, Maqsood A. Siddiqui, Javed Ahmad. Genotoxicity of ferric oxide nanoparticles in Raphanus sativus: Deciphering the role of signalling factors, oxidative stress and cell death. Journal of Environmental Sciences (2016) **(Accepted, Article in Press). (IF 2.0).**
4. Mohammad Faisal, **Quaiser Saquib**, Abdulrahman A. Alatar, Abdulaziz A. Al-Khedhairi, Mukhtar Ahmed, Sabiha M. Ansari, Hend A. Alwathnani, Sourabh Dwivedi, Javed Musarrat, Shelly Praveen. Cobalt oxide nanoparticles aggravate DNA damage and cell death in eggplant via mitochondrial swelling and NO signaling pathway. Biological Research **(Minor Revision). (IF 1.8).**
5. Ahmad J, Alhadlaq HA, Alshamsan A, Siddiqui MA, **Saquib Q**, Khan ST, Wahab R, Al-Khedhairi AA, Musarrat J, Akhtar MJ, Ahamed M. (2016) Differential cytotoxicity of copper ferrite nanoparticles in different human cells. Journal of Applied Toxicology **(Accepted) doi: 10.1002/jat.3299. (IF 2.98).**
6. Shams Tabrez Khan, Rizwan Wahab, Javed Ahmad, Abdulaziz A. Al-Khedhairi, Maqsood A. Siddiqui, **Quaiser Saquib**, Bahy A. Ali, Javed Musarrat. (2015). CoO Thin Nanosheets Exhibit Higher Antimicrobial Activity Against Tested Gram-positive Bacteria Than Gram-negative Bacteria. Korean Chemical Engineering Research, 53(5) 565-569. **(IF 1.69)**
7. SM Attia, SF Ahmad, **Q Saquib**, GI Harisa, AA Al-Khedhairi, SA Bakheet. (2016). Dexrazoxane mitigates epirubicin-induced genotoxicity in mice bone marrow cells. Mutagenesis, 2016, 31(2), 137-145. doi:10.1093/mutage/gev065 **(IF: 2.7).**
8. Dwivedi S, **Saquib Q**, Al-Khedhairi AA, Ahmad J, Siddiqui MA, Musarrat J. (2015). Rhamnolipids functionalized AgNPs-induced oxidative stress and modulation of toxicity pathway genes in cultured MCF-7 cells. Colloids and Surface B: Biointerfaces. 132:290-298. **(IF: 4.1).**

9. Khursheed Ali, Bilal Ahmed, Sourabh Dwivedi, **Quaiser Saquib**, Abdulaziz A. Al-Khedhairi, Javed Musarrat. (2015). Microwave Accelerated Green Synthesis of Stable Silver Nanoparticles with Eucalyptus globulus Leaf Extract and Their Antibacterial and Antibiofilm Activity on Clinical Isolates. PLoS One. 2015 Jul 1;10(7):e0131178. (IF: 3.5).
10. Ebtesam Saad Al-Sheddi, Mai Mohammad Al-Oqail, **Quaiser Saquib**, Maqsood Ahmed Siddiqui, Javed Musarrat, Abdulaziz Ali Al-Khedhairi, Nida Nayyar Farshori. (2015). Novel All Trans-Retinoic Acid Derivatives: Cytotoxicity, Inhibition of Cell Cycle Progression and Induction of Apoptosis in Human Cancer Cell Lines. Molecules 20(5), 8181-8197 (IF: 2.4).
11. Guanyong Su, Xiaowei Zhang, John P. Giesy, Javed Musarrat, **Quaiser Saquib**, Abdulaziz A. Alkhedhairi, Hongxia Yu. (2015). Comparison on the molecular response profiles between nano zinc oxide (ZnO) particles and free zinc ion using a genome-wide toxicogenomics approach. Environmental Science and Pollution Research. DOI 10.1007/s11356-015-4507-6 (IF: 2.75).
12. Rizwan Wahab, Farheen Khan, Lutfullah, R.B. Singh, Nagendra Kumar Kaushik, Javed Ahmad, Maqsood A. Siddiqui, **Quaiser Saquib**, Bahy A. Ali, Shams T. Khan, Javed Musarrat, Abdulaziz A. Al-Khedhairi. (2015). Utilization of photocatalytic ZnO nanoparticles for deactivation of safranin dye and their statistical analytical applications. Physica E: Low-dimensional Systems and Nanostructures 69, 101-108. (IF: 1.85).
13. Maqsood A. Siddiqui, **Quaiser Saquib**, Maqsood Ahamed, Nida N. Farshori, Javed Ahmad, Rizwan Wahab, Hisham A. Alhadlaq, Javed Musarrat, Abdulaziz A. Al-Khedhairi, 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. 125, 73-81 (IF: 4.27).
14. Rizwan Wahab, Maqsood A. Siddiqui, **Quaiser Saquib**, Sourabh Dwivedi, Javed Ahmad, Javed Musarrat, Abdulaziz A. Al-Khedhairi, Hyung-Shik Shin (2014). ZnO nanoparticles induced oxidative stress and apoptosis in HepG2 and MCF-7 cancer cells and their antibacterial activity. Colloids and Surfaces B, 117, 267-276. (IF: 4.27).
15. Abdelkader E Ashour, Adel R Abd-Allah, Hesham M Korashy, Sabry M Attia, Abdelrahman Z Alzahrani, **Quaiser Saquib**, Saleh A Bakheet, Hala E Abdel-Hamied, Shazia Jamal, Arun K Rishi, (2014) Thymoquinone suppression of the human hepatocellular carcinoma cell growth involves inhibition of IL-8 expression, elevated levels of TRAIL receptors, oxidative stress and apoptosis. Molecular and Cellular Biochemistry 389: 85-98 (IF: 2.33).
16. Ansari MA, Khan HM, Khan AA, Cameotra SS, **Saquib Q**, Musarrat J, (2014) Gum arabic capped-silver nanoparticles inhibit biofilm formation by multi-drug resistant strains of *Pseudomonas aeruginosa*. Journal of Basic Microbiology 54, 1-12. (IF: 1.2).

17. Ansari, M.A., Khan, H.M., Khan, A.A., Cameotra, S.S., **Saquib, Q.** and Musarrat, J. (2014), Interaction of Al₂O₃ nanoparticles with Escherichia coli and their cell envelope biomolecules. *Journal of Applied Microbiology*, 116: 772–783. doi: 10.1111/jam.12423 (**IF: 2.19**).
18. **Quaiser Saquib**; Abdulaziz A Al-Khedhairi; Javed Ahmad; Maqsood A Siddiqui; Sourabh Dwivedi; Shams T Khan; Javed Musarrat, (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, 289-297. **IF: 3.99**
19. Javed Ahmad, Hisham A. Alhadlaq, Maqsood A. Siddiqui, **Quaiser Saquib**, Abdulaziz A. Al-Khedhairi, Javed Musarrat, Maqsood Ahamed (2013) Concentration-dependent induction of reactive oxygen species, cell cycle arrest and apoptosis in human liver cells after nickel nanoparticles exposure. *Environmental Toxicology* Volume 30, Issue 2, pages 137–148 (doi: 10.1002/tox.21879). **IF 2.70**
20. M. A. Siddiqui, J. Ahmad, N. N. Farshori, **Q. Saquib**, S. Jahan, M. P. Kashyap, M. Ahamed, J. Musarrat, A. A. Al-Khedhairi (2013) Rotenone-induced oxidative stress and apoptosis in human liver HepG2 cells. *Molecular and Cellular Biochemistry* (doi: 10.1007/s11010-013-1781-9). **IF 2.32**
21. M. Faisal*, **Q. Saquib***, A.A. Alatar, A.A. Al-Khedhairi, A.K. Hegazy, J. Musarrat., (2013) Phytotoxic hazards of NiO-nanoparticles in tomato: A study on mechanism of cell death. *Journal of Hazardous Materials* 250-251, 318-332 (***Co First Author**). **IF 4.17**.
22. **Saquib, Q.**, Attia, S.M., Siddiqui M.A., Aboul-Soud, M., Al-Khedhairi, A.A., Musarrat, J., (2012) Phorate-induced oxidative stress, DNA damage and transcriptional activation of p53 and caspases genes in male Wistar rats. *Toxicology and Applied Pharmacology* 259(1) 54-65. **IF 4.47**
23. **Saquib, Q.**, Musarrat, J., Siddiqui M.A., Dutta, S., Dasgupta, S., Giesy, J.P., Al-Khedhairi, A.A. (2012). Cytotoxic and necrotic responses in human amniotic epithelial (WISH) cells exposed to organophosphate insecticide phorate. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis* Mutation Research 744, 125-134. **IF 3.03**
24. **Saquib Q.**, Siddiqui MA., Abou-Tarboush, F.M., Azam, A., Al-Khedhairi, A.A., Musarrat, J., (2012). Titanium dioxide nanoparticles induced cytotoxicity, oxidative stress and DNA damage in human amnion epithelial (WISH) cells. *Toxicology In Vitro* 26(2) 351-361. **IF 2.77**

25. Dwivedi, S., **Saquib, Q***, Al-Khedhairi, A.A., Ali, A.S., Musarrat, J., (2012). Characterization of coal fly ash nanoparticles and induced oxidative DNA damage in human peripheral blood mononuclear cells. *Science of the Total Environment* 437, 331-338 (***Co First Author**). **IF 3.28**
26. Dwivedi, S., **Saquib, Q.**, Al-Khedhairi, A.A., Musarrat, J., (2012). Butachlor induced dissipation of mitochondrial membrane potential, oxidative DNA damage and necrosis in human peripheral blood mononuclear cells. *Toxicology* 302, 77- 87. **IF 3.68**
27. **Saquib Q**, Al-Khedhairi AA, Siddiqui MA, Roy AS, Dasgupta S, Musarrat J. (2011). Preferential binding of insecticide phorate with sub-domain IIA of human serum albumin induces protein damage and its toxicological significance. *Food and Chemical Toxicology* 49, 1787-1795. **IF 2.99**
28. Bakheet SA, Attia SM, AL-Rasheed NM, Al-harbi MM, **Saquib Q**, Al-Khedhairi AA, Musarrat J. (2011). Salubrious effects of dextrazoxane against teniposide-induced DNA damage and apoptosis in murine marrow cells. *Mutagenesis* 26(4), 533-543). **IF 3.18**
29. Siddiqui MA, **Saquib Q**, Ahamed M, Ahmad J, Al-Khedhairi A.A, Abou-Tarboush FM, Musarrat J. (2011). Effect of Trans-resveratrol on rotenone-induced cytotoxicity in human breast adenocarcinoma cells. *Toxicology International* 18(2), 105-110.
30. **Saquib, Q.**, Al-Khedhairi, A.A., Al-Arifi, Dutta, S., Dasgupta, S., Musarrat, J. (2010) Methyl thiophanate as a DNA minor groove binder produces MT-Cu(II)-DNA ternary complex preferably with AT rich region for initiation of DNA damage. *International Journal of Biological Macromolecules* 47 (2010) 68–75. **IF 2.45**
31. **Saquib, Q.**, Al-Khedhairi, A.A., Al-Arifi, S., Dwivedi, S., Mustafa, J., Musarrat, J. (2010) Fungicide methyl thiophanate binding at sub-domain IIA of human serum albumin triggers conformational change and protein damage. *International Journal of Biological Macromolecules* 47 (2010) 60–67. **IF 2.45**
32. **Saquib, Q.**, Al-Khedhairi, A.A., Singh, B.R., Arif, J.M, Musarrat, J. Genotoxic fungicide methyl thiophanate as an oxidative stressor inducing 8-oxo-7,8-dihydro-2'-deoxyguanosine adducts in DNA and mutagenesis. *Journal of Environmental Science and Health (B)* (2010) 45, 1-6. **IF 0.88**
33. **Saquib, Q.**, Al-Khedhairi, A.A., Al-Arifi, S., Dhawan, A., Musarrat, J. (2009) Assessment of methyl thiophanate-Cu (II) induced DNA damage in human lymphocytes. *Toxicology In Vitro* 23, 848-854. **IF 2.77**

34. Musarrat, J., **Saquib, Q.**, Azam, A., Naqvi, S.A.H. (2009) Zinc oxide nanoparticles-induced DNA damage in human lymphocytes. International Journal of Nanoparticles 2, 402-415.

RESEARCH PROJECTS:

- 1) Principal Investigator in project entitled: The Plastics Puzzle on Human Health: Functional Toxicogenomic Study on Effects of Bisphenols to Human Hepatic Cells, project No. NPST Project No. 15-MED4052-02, Funded by National Plan for Sciences and Technology, King Saud University, Riyadh, KSA (**Reviewed by American Association for the Advancement of Science (AAAS), USA, and Recommended for funding, Sanctioned, 2015**).
- 2) Principal Investigator in project entitled: Toxicogenomic Investigation on Hazards of Organophosphorous Flame Retardants (OPFRs): Connections Among Genome Function, Cell Death and Carcinogenesis, project No. NPST Project No. 13-ENV2116-02, Funded by National Plan for Sciences and Technology, King Saud University, Riyadh, KSA (**Reviewed by American Association for the Advancement of Science (AAAS), USA, and Highly Recommended for funding, Sanctioned, 2014**).
- 3) Co-Principal Investigator in project entitled: Bio-prospection of Arabian Medicinal Plants for Antiglycation Agents for Developing of a Novel Molecular Therapeutic Approach for Diabetes, project No. NPST Project No. 12-MED2491-02, Funded by National Plan for Sciences and Technology, King Saud University, Riyadh, KSA (Currently Running).
- 4) Co-Principal Investigator in project entitled: Effects of polybrominated flame retardants from electronic waste on the cellular DNA and carcinogenesis, project No. NPST Project No. 10-ENV-1314-02, Funded by National Plan for Sciences and Technology, King Saud University, Riyadh, KSA (Completed 2013).
- 5) Co-Principal Investigator in project entitled: Assessment of DNA Damage and Toxicological Potential of Nanoparticles, project No. NPST Project No. 10- NAN1115-02, Funded by National Plan for Sciences and Technology, King Saud University, Riyadh, KSA (Completed 2012).

LABORATORY SKILLS:

Molecular Biology Techniques

- RT² PCR Array of Human Stress and Toxicity Pathway analysis by qPCR analysis.

- Flow cytometry: Cell cycle, apoptosis analysis using Annex-V FITC staining, measuring mitochondrial membrane potential, intracellular ROS generation, Ca^{2+} influx, nitric oxide (NO) generation, esterase activity of human and cells.
- Analysis of human apoptotic and oxidative stress genes by qPCR.
- Western blot and immunofluorescence analysis of apoptosis related proteins.
- DNA damage analysis using Comet assay (SCGE) in human lymphocytes, animal organ, cell lines and plant cells.
- Chromosomal break analysis by cytokinesis blocked micronucleus (CBMN) assay in human lymphocytes and mouse/rat bone marrow cells.
- Cytotoxicity analysis using MTT and NRU assays.
- Histopathological analysis of mouse/rat organ sections.
- Isolation and purification of Human Serum Albumin from blood.
- Assessment of DNA and protein degradation using agarose gel electrophoresis and SDS-PAGE.
- Isolation and purification of bacterial plasmid DNA, mammalian genomic DNA, RNA, gel electrophoresis, gel documentation, ELISA.
- Fluorescence spectrophotometer based bio-physical interaction studies of DNA and Protein.

Analytical techniques

- Fluorescent microscopy, High Performance Liquid Chromatography (HPLC), Gas Chromatography Mass Spectrophotometry (GC-MS), UV/Vis. Spectrophotometer, Cyclic Voltammetry, Nanodrop, Fluorescence Microplate reader, Lyophilization.

Cell culture and Microbial techniques:

- Hand on experience in maintenance of *in vitro* cell lines (WISH, MCF-7, HepG2), culturing human lymphocytes and animal handling. Isolation and characterization of bacteria, cultivation and preservation of microbial cultures, Ames mutagenicity assay, *E. coli* K12 genotoxicity assay, plasmid *lacZ* mutagenicity assay, bioremediation

and biodegradation of xenobiotics using selected bacterial strains, plant growth promotion studies with bacterial strains.

PROFESSIONAL TRAININGS:

- Organized a workshop on Molecular Tools for Assessment of Genotoxicity for Masters and Ph.D. Students on November 20, 2014 at King Saud University.
- Organized a workshop on Nanoparticle Toxicity for King Saud University for Masters Students on October 23, 2013 at King Saud University.
- Organized a training course on techniques of Polymerase Chain Reaction (PCR) from 10-12 January 2009 at King Saud University.
- Organized the Workshop entitled “DNA Research Chair: A Gateway to Knowledge Economy” on 24 May 2009 at KSU.
- Participated in the “The First International Conference in Biotechnology Towards Knowledge-Based Economy” at KSU on February 16-18, 2009.

FELLOWSHIPS/AWARDS AND HONOURS:

- “Young Scientist” award for best oral presentation on the work entitled “Impact of Methylthiophanate on DNA Stability” in “International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting” on January 1-3, 2008, AMU, India.
- Potential reviewer of peer reviewed journals: Chemosphere, Environmental Science and Pollution Research.
- Shared the “Best Poster” award on the work entitled “In-silico Analysis and Molecular Modeling of the Phenazine 1-Carboxylic Acid (PCA) Antibiotic genes/Proteins of the Soil Strain NJ-101 of *Pseudomonas areuginosa*” in “International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting” on January 1-3, 2008, AMU, India.
- Shared the “Best Poster” award on the work entitled “Evaluation of pendimethalin induced DNA Damage and Cytotoxicity in Human Lymphocytes” in “International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting” on January 1-3, 2008, AMU, India.
- Selected as the top10 best paper presenter “Shri Sitaram Joglekar Award” in the “25th Annual Convention of the IACR & Silver Jubilee Symposium on Molecular Profiling” held at ACTREC, Navi Mumbai (2006).

Research and Teaching Experience:

- **2009-Present:** Assistant Professor and sharing teaching load of general biology (Course 145) to B.Sc. students in Department of Zoology, College of Science, King Saud University, Riyadh, Saudi Arabia.
- **January 2007 to October 2008** as Research Fellow (RF) in project “Assessment of Unani Medicines for Toxic Heavy Metals and their Protective Role in Environmental Genotoxicity and Mutagenicity”. (CCRUM, Department of AYUSH, Ministry of Health & Family Welfare, Government of India.
- **March 2003 to October 2006** as Research Fellow (RF) in project “Molecular and Biochemical Characterization of Rhizospheric Bacteria for development of Super-Bioinoculants with Collateral Biocontrol and Bioremediation Potential”. Department of Biotechnology, Government of India.
- **October 2002 to February 2003** as Research Assistant (RA) in project “Agrichemical Induced Structural Modification and Oxidative Damage to Biological Macromolecules”. The Muslim Association for Advancement of Science, Government of India.
- Summer training on project entitled “Anaerobic Fermentation and production of Succinic Acid” at Regional Research Laboratory Jammu (RRL), Council of Scientific and Industrial Research, India.

COMPUTER SKILLS:

- Windows 7 (MS office 2010), Statistical Software Instant (Graphpad), Sigma plot 11.0, Comet IV Imaging Software (Perceptive Instruments, UK), BAARC Comet Analysis Software, BD-Biosciences Flow cytometry Softwares (Cell Quest, Mod Fit), Beckman Coulter EPICS flow cytometry software, Photoshop.

OTHER SKILLS:

- Hard working, resourceful, friendly, creative and solution oriented person, I am frequently able to come up with new and innovative approaches to my assigned problems and to face up deadlines.
- Highly motivated, passion for Science, problem solving, intuition and perseverance.

- Capable for interpretation of data and skilled enough to draft manuscript for publication in reputed journal.

Abstracts Published in National and International Conferences/Symposia

1. **Q. Saquib**, P. Xia, M.A. Siddiqui, J.A Siddiqui, Y. Xie, M. Faisal, J. Zhang, A.A. Al-Khedhairi, X. Zhang, B.A. Ali, S.T. Khan, R. Ahmad, S. Dwivedi, J. Musarrat. *Transcriptomic Evidence on the Activation of HIF-1 α , TNFSF10, NOS2 Signalling in Nickel Oxide Nanoparticles Induced Apoptosis in HepG2 Cells: Oxidative Stress, DNA Damage, Mitochondrial Dysfunction Are the Key Players. 2015 In Vitro Biology Meeting at Tucson, Arizona, USA from May 30 to June 3, 2015. (Oral Presentation)*
2. J Musarrat, K Ali, MA Ansari, **Q Saquib**, M Siddiqui, ST Khan, AA Alkhedhairi. (2015). Green Synthesis of nanoparticles and their role as nano-antibiotics and anti-biofilm agent. *Planta Medica* 2015; 81 - OA44. DOI: 10.1055/s-0035-1545126
3. **Saquib Q**, Al-Khedhairi A.A, Ahmad J, Siddiqui MA, Faisal M, Dwivedi S, Musarrat J (June 10-13, 2014). Toxicogenomic Investigation on Nickel Oxide Nanoparticles (NiO-NPs): Connections among Gene Function, DNA Damage and Cell Death. Proceedings of ESTIV 2014, Egmond ann Zee, The Netherlands (**Oral Presentation**).
4. **Saquib Q**, Al-Khedhairi A.A, Siddiqui MA, Ahmad J, Dwivedi S, Khan ST, Musarrat J (November 20-22, 2013). Toxicogenomic Changes, Oxidative Stress and DNA Damage are Key Factors for Nanoparticles Induced Cellular Anomalies: An Insight into the Molecular Mechanism of Cell Death. Proceedings of Nanosafety 2013, Saarbrucken, Germany (**Oral Presentation**).
5. **Saquib Q**, Musarrat J, Al-Khedhairi A.A, Siddiqui M, Attia S.M, Faisal M, Siddiqui J, Dwivedi S, Khan ST. (March 11-18, 2013). Nickel oxide Nanoparticles Provoke Intrinsic Apoptotic Pathway in HepG2 Cells, Male Wistar Rats and Tomato Seedling Roots. 52nd Annual Meeting of Society of Toxicology, San Antonio, Texas, USA.
6. J Musarrat, **Q Saquib**, S Dwivedi, A Al-Salem, MA Siddiqui, AA Al-Khedhairi., (2012). Assessment of DNA Damage, Mutagenesis and Anti-Mutagenic Activity of Unani (Greek) Herbal Medicines. *Planta Medica* 78 - OP18.
7. **Q. Saquib**, J. Musarrat, A.A. Al-Khedhairi, M.A. Siddiqui, S. Dwivedi, S.M. Attia. An insight into the cellular and molecular mechanism of pesticide toxicity. Montreal 2012 International Biomedicine & Chemistry Forum. Held in Montreal, Canada, April 26-27, 2012.
8. SM Attia; Bakheet SA; AL-Rasheed NM; **Saquib Q**; Al-Khedhairi AA; Musarrat J. Salubrious effects of dexrazoxane against teniposide-induced DNA damage and

apoptosis in murine marrow cells. The Annual Meetings of the Society for Free Radical Research (SFRR) and the 40th Annual Meeting of the European Environmental Mutagen Society (EEMS). Held in Oslo, Norway. Sept 12-18, 2010.

9. MA Siddiqui, MP, Kashyap, **Q Saquib**, AA Al-Khedhairi, Saud Alarifi, J Musarrat, AB Pant (2010) Prophylactic potential of Trans-resveratrol against 4-hydroxynonenal-induced damages in PC12 cells. 1st International Conference of Biological Sciences, Cairo, Egypt (September 27-29, 2010).
10. Javed Musarrat, **Q Saquib**, Abdulaziz A. Al-Khedhairi, Saud A. Alarifi, Maqsood Siddiqui (2010) Methyl thiophanate as a DNA minor groove binder produces MT-Cu(II)-DNA ternary complex preferably with AT rich region for initiation of DNA damage, 2nd International Conference of Biological and Environmental Sciences, (2nd ICBES), Mansoura University, Egypt (March 15-20, 2010).
11. MA Siddiqui, AB Pant, **Q Saquib**, AA Al-Khedhairi, J Musarrat, and S Srivastava. Metabolic fate of 4-Hydroxy Trans 2- Nonenal in cultured PC-12 cells in 1st Annual Conference of "Society of Professional Biotechnologists (SPB-2009)" during December, 1-2, 2009 at Kanpur, India.
12. **Saquib, Q.**, Dhawan, A., Mustafa, J., Singh, B.R., Musarrat, J. (2008) "Impact of Methylthiophanate on DNA Stability". Proceedings of the "International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting".
13. Singh, B.N., Singh, B.R., **Saquib, Q.**, Singh, R.L., Singh, D.P., Singhai, P.K., Musarrat, J., Singh, H.B (2008) "Antioxidant, Antimutagenic and Anti-quorum Sensing Activities of red Onion (*Allium cepa*) peel Extracts. Proceeding of the "International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting".
14. Singh, B.R., Usmani, S., **Saquib, Q.**, Dwivedi, S., Bano, N., Musarrat, J. (2008) "In-silico Analysis and Molecular Modeling of the Phenazine 1-Carboxylic Acid (PCA) Antibiotic genes/Proteins of the Soil Strain NJ-101 of *Pseudomonas aeruginosa*". Proceeding of the "International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting".
15. Ansari, S.M., **Saquib, Q.**, Singh, B.R., Usmani, S., Dwivedi, S., Anwar, S., Musarrat, J. (2008) "Evaluation of pendimethalin induced DNA Damage and Cytotoxicity in

Human Lymphocytes". Proceeding of the "International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting".

16. **Saquib, Q.**, Singh, B.R., Musarrat, J. (2008) "Fluorescence Quenching and In-silico Molecular Modeling/Docking on Methylthiophanate Induced Fragmentation in Human Serum Albumin". Proceeding of the "International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting".
17. Usmani, S., Dwivedi, S., **Saquib, Q.**, Singh, B.R., Anwar, S., Musarrat, J. (2008) "heavy Metals Analysis of certain Unani Medicines and Their Mutagenic Activity Using bacterial Assay System". Proceeding of the "International Symposium on the Predictive, Preventive and Mechanistic Mutagenesis & XXXIII EMSI Annual Meeting".
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PERSONAL:

Date of Birth : 14 January 1979

Nationality : Indian

Sex : Male

Marital Status : Married