

Curriculum Vitae

Maqsood Ahmed Siddiqui, PhD

Associate Professor

Department of Zoology

College of Science

King Saud University

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Field of Specialization:

In Vitro Cellular and Molecular Toxicology using cell and tissue culture of human and animal origin.

Current Research Area:

Toxicity assessments of nanoparticles, environmental chemicals, and pesticides with special emphasis on cytotoxicity, oxidative stress mediated DNA damages, mRNA expression of apoptotic marker genes involved in cell death using qRT-PCR and protein expression by immunocytochemistry and western blotting methods using *in vitro* cell culture and *in vivo* rat models and anticancer activities of various medicinal plant extracts and newly synthesized drugs.

Research Interests and Intended Field:

- Pharmacology and Toxicology
- Cancer Research
- Cytotoxicity Assessments
- Cellular and Molecular Nanotoxicology
- Oxidative Stress Mediated Cellular Damages
- Neurodegeneration and Regeneration
- Cardiovascular Toxicology
- Stem Cell Research

Academic Qualifications:

Doctorate (PhD): **Biochemistry-2009**

Dr. RML Avadh University, Faizabad, India

Work place: Indian Institute of Toxicology Research (IITR), Post Box: 80, M.G. Marg, Lucknow, India.

Title of Thesis: Effects of lipid peroxidation derived aldehydes on neuronal membrane functions and neurotransmitter receptors.

Post Graduation (M.Sc.) in 2003 from CSJM University Kanpur, India

Graduation (B.Sc.) in 2000 from University of Lucknow, Lucknow, India

Diploma in Computer Application in 1999 from University of Lucknow, Lucknow, India
Lucknow

Professional Experience:

Profile: Associate Professor

Period: June, 2015 – Till date

Institution: Department of Zoology, College of Science, King Saud University, Riyadh, SA.

Profile: Assistant Professor

Period: September, 2009 – June, 2015

Institution: Department of Zoology, College of Science, King Saud University, Riyadh, KSA.

Profile: Post Doctoral Fellow

Period: November, 2007 – December, 2008

Institution: Division of Cardiology, Department of Medicine, University of Louisville, Louisville, KY, USA- 40202.

Profile: Research Fellow

Period: December, 2003- November, 2007

Mentor: Dr. A.B. Pant, Scientist

Institution: *In Vitro* Toxicology Laboratory, Indian Institute of Toxicology Research, Post Box: 80, M.G. Marg, Lucknow-226001, India.

Teaching/Supervisory Experience:

Involved in the teaching Biology subject (Course-145) to Pre-Medical students in the Department of Zoology, King Saud University, Riyadh, KSA.

Thought Course-641 to PhD students in the Department of Zoology, King Saud University, Riyadh, KSA.

Supervised Masters and Graduate students, how to perform toxicity experiments using various cell lines at the Department of Zoology, King Saud University, Riyadh, KSA.

Co-supervisor of more than 20 M.Sc/M.Tech students for their dissertation work (Designing experiments and solving their experimental problems) during my stay at Indian Institute of Toxicology Research, Lucknow, India.

Member of Scientific Societies:

- Society of Toxicology (SOT), USA
- British Science Association, London, UK
- International Society for Neurochemistry, Switzerland
- The Kentucky Academy of Sciences, USA
- Society of Toxicology (STOX), India
- Indian Academy of Neurosciences, India
- Saudi Biological Society, Kingdom of Saudi Arabia
- The U.P. Association for the Science & Technology Advancement, India
- Association of Indian Researchers and Scientists, Riyadh, KSA
- Middle East Molecular Biology Society, UAE, Dubai

Member of Editorial Board:

- Member of *Editorial Board* for “**Genetic Testing and Molecular Biomarkers**”, an International Journal of **Mary Ann Liebert, Inc. Publisher, USA**. Link: <http://www.liebertpub.com/editorialboard/genetic-testing-and-molecular-biomarkers/18/>)
- Member of *Editorial Board* for “**Frontiers in Pharmacology**”, an International Journal of **Frontiers Publisher, USA**. Link: <http://journal.frontiersin.org/journal/pharmacology#editorial-board>)
- Member of *Editorial Board* for “**SCiTz Gynecology & Reproductive Medicine**”, an International Journal of **Scitechz Group**, Green tree Drive, Suite 101 Dover, DE 19904, USA. Link: http://scitechz.com/Gynecology_Editorialboard.html)
- *Editorial Board Member* for “**Neuroscience Research Letters**”, an International Journal of **Bioinfo Publication Group**. (Link: <http://www.bioinfopublication.org/journal.php?opt=azjou&jouid=BPJ0000290&detail=editorial>)
- *Editorial Board Member* for “**Austin Journal of Lung Cancer Research**” of Austin Publishing Group, New Jersey, USA. (Link: <http://austinpublishinggroup.com/lung-cancer-research/editorialBoard.php>)
- *Member of Editorial Board* for “**Journal of Basic and Applied Plant Science**” of Elyns Publishing Group, New Jersey 08830, USA. Link: <https://www.elynsgroup.com/journal/j-bas-app-pla-sci/ebm/Maqsood>)
- *Editorial Board Member* for ‘**International Journal of Neurology and Neurosurgery (IJNNS)**’ of Red Flower Publication Pvt. Ltd., India. Link: http://www.rfppl.co.in/editorial_board.php?jid=12
- *Editorial Board Member* for “**EC Pharmacology and Toxicology**” Journal of **E-Cronicon Publishing Group**, London W1H 1PJ United Kingdom. Link: (<https://www.ecronicon.com/ECPT-EB.php>)

- Editorial Board Member for “EC Neurology” Journal of **E-Cronicon Publishing Group**, London W1H 1PJ United Kingdom. **Link:** (<https://www.ecronicon.com/neurology-editorial-panel.php>)

Reviewer of Scientific Journals:

- PLoS ONE
- Journal of Hazardous Materials
- Colloids and Surfaces B: Biointerfaces
- Molecular Neurobiology
- Food and Chemical Toxicology
- European Journal of Pharmacology
- Scientific Reports
- Oxidative Medicine and Cellular Longevity
- Frontiers in Pharmacology
- Cellulose
- Cell Proliferation
- Pharmacognosy Magazine
- Toxicology and Industrial Health
- Human and Experimental Toxicology
- The Journal of Toxicological Sciences
- Journal of Food Science and Technology
- Environmental Geochemistry and Health (EGAH)
- BioMed Research International
- Current Drug Metabolism
- Journal of Liver
- Journal of Carcinogenesis & Mutagenesis
- Journal of Community Medicine & Health Education
- International Journal of Genomic Medicine
- Pharmaceutical Biology
- African Journal of Pharmacy and Pharmacology
- Toxicology International
- African Journal of Biotechnology
- Journal of King Saud University (Science)
- Journal of Ecophysiology and Occupational Health

- Saudi Journal of Biological Sciences
- Medical Sciences
- Pediatrics & Therapeutics
- Genetic Testing and Molecular Biomarkers
- Scientifica
- Measurement
- Journal of Environmental Sciences
- Biological Trace Element Research
- Materials Chemistry and Physics
- Tropical Medicine & Surgery
- Journal of Gastrointestinal & Digestive System
- Journal of Optoelectronics and Advanced Materials
- Journal of Translational Toxicology
- Journal of Plant Health
- Natural Product Research
- Brazilian Archives of Biology and Technology
- Journal of Ethnopharmacology
- World Journal of Gastroenterology
- Journal of Biomedical Research
- Journal of Applied Pharmaceutical Science
- Open Science Journal

Honors and Awards:

- ***National Merit Scholarship awarded by Board of Education, Allahabad, Uttar Pradesh, India*** for securing the first position in the college in High School (10th standard) examination.
- ***First Prize Award for the “Best Research in the hub”*** to our paper “Biogenic synthesis of silver nanoparticles using an endophytic fungus *Amylomyces rouxii* strain KSU-09” authored (Braj Raj Singh, Saurabh Dwivedi, Abdulaziz A. Al-Khedhairi, Saud Alarifi, Quaiser Saquib, **Maqsood A Siddiqui**, Ameer Azam, Alim Naqvi and Javed Musarrat) in the area of nanotechnology at the “***25th Annual Meeting of Saudi Biological Sciences Title: Nanotechnology in Life Sciences***” during **May 11-13, 2010** at **King Faisal University, Al-Ahsa, Saudi Arabia**.
- Shared the King Saud University ***Research Excellence Award*** for ***outstanding performance*** of the Al-Jeraisy Chair for DNA Research, King Saud University, Saudi Arabia for the year of 2011.

- **Jyotsnamoyee Raghunath Bhattacharya Young Scientist Award** by Indian Academy of Neurosciences (2011) to our paper (MP Kashyap, AK Singh, **MA Siddiqui**, V Kumar, VK Tripathi, VK Khanna, S Yadav, SK Jain and AB Pant (2010). Caspase cascade regulated mitochondria mediated apoptosis in monocrotophos exposed PC12 cells. **Chemical Research in Toxicology**. 23 (11): 1663-1672) in the area of neuroscience in International symposium on *Recent Trends in Neurosciences & XXIX Annual Conference of Indian Academy of neuroscience* held in New Delhi during October 30 –November 01, 2011.
- Awarded “**Certificate for Reviewing (March 2014)**” by *The Editors of Food and Chemical Toxicology Journal, Elsevier, Amsterdam, The Netherland*.
- Award for the “**Outstanding Contribution in Reviewing (May 2015)**” by *The Editors of the journal of Food and Chemical Toxicology, Elsevier, Amsterdam, The Netherland*.
- Awarded “**Recognized Reviewer Certificate (October 2015)**” by the Editors of the journal of *European Journal of Pharmacology. Elsevier, Amsterdam, The Netherland*.
- Awarded “**Recognized Reviewer Certificate (November 2015)**” by the Editors of the journal of *Colloids and Surfaces B: Biointerfaces. Elsevier, Amsterdam, The Netherland*.
- Awarded “**Certificate for Reviewing (April 2016)**” by *The Editors of Food and Chemical Toxicology Journal, Elsevier, Amsterdam, The Netherland*.
- Awarded “**Certificate for Reviewing (November 2014)**” in cooperation with *INTERNATIONAL MEASUREMENT CONFEDERATION by The Editors of MEASUREMENT, Elsevier, Amsterdam, The Netherland*.

Research Publications:

1. **Siddiqui MA**, Wahab R, Ahmad J, Farshori NN, Musarrat J, Al-Khedhairi AA (2017). Evaluation of cytotoxic responses of raw and functionalized multi-walled carbon nanotubes in human breast cancer (MCF-7) cells. **Vacuum**. In Press/Online Available (<https://doi.org/10.1016/j.vacuum.2017.05.022>)
2. **Maqsood A. Siddiqui**, Rizwan Wahab, Javed Ahmad, Nida N. Farshori, Quaiser Saquib, Shams T. Khan, Abdullah M. Al-Salem, Javed Musarrat, and Abdulaziz A. Al-Khedhairi (2017). Zinc Oxide Nanoparticles: Mechanism(s) of Cell Death Induced in Human Epidermoid Larynx Cell Line (HEp-2). **Nanoscience and Nanotechnology Letters**. 9: 570–579.
3. Khan ST, Malik A, Wahab R, Abd-Elkader OH, Ahamed M, Ahmad J, Musarrat J, **Siddiqui MA**, Al-Khedhairi AA (2017). Synthesis and characterization of some abundant nanoparticles, their antimicrobial and enzyme inhibition activity. **Acta Microbiologica et Immunologica Hungarica**. Feb 15 (0):1-4.
4. Al-Oqail MM, Al-Sheddi ES, Al-Massarani SM, **Siddiqui MA**, Ahmad J, Musarrat J, Al-Khedhairi AA, Farshori NN (2017). Nigella sativa seed oil suppresses cell proliferation and induces ROS dependent mitochondrial apoptosis through p53 pathway in hepatocellular carcinoma cells. **South African Journal of Botany**. 112: 70-78.

5. Ahmad J, **Siddiqui MA**, Akhtar MJ, Alhadlaq HA, Alshamsan A, Khan ST, Wahab R, Al-Khedhairi AA, Al-Salim A, Musarrat J, Saquib Q (2017). Copper doping enhanced the oxidative stress-mediated cytotoxicity of TiO₂ nanoparticles in A549 cells. **Human & Experimental Toxicology**. *In Press/Online Available* (<http://journals.sagepub.com/doi/pdf/10.1177/0960327117714040>)
6. Nida N Farshori, Abdul Rauf, **Maqsood A Siddiqui**, Ebtessam S Al-Sheddi, Mai M Al-Oqail (2017). A facile one-pot synthesis of novel 2, 5-disubstituted-1, 3, 4-oxadiazoles under conventional and microwave conditions and evaluation of their *in vitro* antimicrobial activities. **Arabian Journal of Chemistry**. **10 (Suppl 2): S2853-S2861 (IF: 3.613)**.
7. Mai M. Al-Oqail, **Maqsood A. Siddiqui**, Ebtessam S. Al-Sheddi, Quaiser Saquib, Javed Musarrat, Abdulaziz A. Al-Khedhairi and Nida N. Farshori (2016). Verbescina encelioides: cytotoxicity, cell cycle arrest, and oxidative DNA damage in human liver cancer (HepG2) cell line. **BMC Complementary and Alternative Medicine**. **16: 126. (IF: 2.020)**
8. **Maqsood A Siddiqui**, Saima Rasheed, Quaiser Saquib, Abdulaziz A Al-Khedhairi, Mansour S. Al-Said, Javed Musarrat, Muhammad Iqbal Choudhary (2016). In-Vitro dual inhibition of protein glycation, and oxidation by some Arabian plants. **BMC Complementary and Alternative Medicine**. **16: 276. (IF: 2.020)**
9. Rizwan Wahab, Farheen Khan, You bing Yang, I.H. Hwang, Hyung-Shik Shin, Javed Ahmad, Sourabh Dwivedi, Shams T. Khan, **Maqsood A. Siddiqui**, Quaiser Saquib, Javed Musarrat, Abdulaziz A. Al-Khedhairi, Yogendra Kumar Mishra and Bahy A. Ali (2016). Zinc oxide quantum dots: multifunctional candidates for arresting C2C12 cancer cells and their role towards caspase 3 and 7 genes. **RSC Advances**. **6: 26111–26120. (IF: 3.289)**.
10. Quaiser Saquib, **Maqsood A. Siddiqui**, Javed Ahmed, Abdullah Al-Salim, Sabiha M. Ansari, Mohammad Faisal, Abdulaziz A. Al-Khedhairi, 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: 37–49. (IF: 4.836)**
11. M Atif, Muhammad Fakhar-e-Alam, Najeeb Abbas, **Maqsood A. Siddiqui**, Anees Ahmad Ansari, Abdulaziz A. Al-Khedhairi, and Zhiming M. Wang. In-vitro cytotoxicity of mesoporous SiO₂@Eu(OH)₃ core-shell nanospheres in MCF-7. **Journal of Nanomaterials**. **Volume 2016 (7691861): 1-6. (IF: 1.758)**
12. Ebtessam S. Al-Sheddi, Nida N. Farshori, Mai M. Al-Oqail, Javed Musarrat, Abdulaziz A. Al-Khedhairi, **Maqsood A. Siddiqui** (2016). Protective effect of *Lepidium sativum* seed extract against hydrogen peroxide induced cytotoxicity and oxidative stress in human liver cells (HepG2). **Pharmaceutical Biology**. **54 (2): 314–321 (IF: 1.546)**

13. M Atif, W A Farooq, **Maqsood A Siddiqui**, Abdulaziz A Al-Khedhairi (2016). Preliminary study of spectral features of normal and malignant cell cultures. **Laser Physics**. 26 (4): 045601. (IF: 1.102).
14. Saquib Q, Faisal M, Alatar AA, Al-Khedhairi AA, Ahmed M, Ansari SM, Alwathnani HA, Okla MK, Dwivedi S, Musarrat J, Praveen S, Khan ST, Wahab R, **Siddiqui MA**, Ahmad J (2016). Genotoxicity of ferric oxide nanoparticles in *Raphanus sativus*: Deciphering the role of signaling factors, oxidative stress and cell death. **Journal of Environmental Sciences**. 47 (2016) 49-62. (IF: 2.208)
15. 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**. 36 (10): 1284-1293. (IF: 2.722)
16. Ebtessam S Al-Sheddi, Nida N Farshori, Mai M Al-Oqail, Shaza M Al-Massarani, Abdullah M Al Salem, Javed Musarrat, Abdulaziz A Al-Khedhairi, **Maqsood A Siddiqui**. *Portulaca oleracea* Linn seed extract ameliorates hydrogen peroxide-induced cell death in human liver cells by inhibiting reactive oxygen species generation and oxidative stress. **Tropical Journal of Pharmaceutical Research**. 15 (8): 1643-1649. (IF: 0.543)
17. Mai M. Oqail, Ebtessam S. Al-Sheddi, Javed Ahmad, Rizwan Wahab, **Maqsood A Siddiqui**, Javed Musarrat, Abdulaziz A. Al-Khedhairi, Nida N Farshori (2015). Anticancer Activity of Chloroform Extract and Sub-fractions of *Nepeta deflersiana* on Human Breast and Lung Cancer Cells: An *In vitro* Cytotoxicity Assessment. **Pharmacognosy Magazine**. 11 (44): 598-605. (IF: 0.831)
18. **Maqsood A Siddiqui**, Quaiser Saquib, Maqsood Ahamed, Nida N Farshori, Javed Ahmad, Rizwan Wahab, Shams T. Khan, 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: Biointerfaces**. 125: 73–81. (IF: 3.902)
19. Maqsood Ahamed, Hisham A. Alhadlaq, Javed Ahmad, **Maqsood A. Siddiqui**, Shams T. Khan, Javed Musarrat, Abdulaziz A. Al-Khedhairi (2015). Comparative cytotoxicity of dolomite nanoparticles in human larynx HEP2 and liver HepG2 cells. **Journal of Applied Toxicology**. 35: 640–650. (IF: 2.722)
20. Khan ST, Wahab R, Ahmad J, Al-Khedhairi AA, **Siddiqui MA**, Saquib Q, Ali BA, Musarrat J (2015). CoO Thin Nanosheets Exhibit Higher Antimicrobial Activity Against Tested Gram-positive Bacteria Than Gram-negative Bacteria. **Korean Journal of Chemical Engineering Research**. 53 (5): 565-569.
21. Yousuf I, Arjmand F, Tabassum S, Toupet L, Khan RA, **Siddiqui MA** (2015). Mechanistic insights into a novel chromone-appended Cu(ii) anticancer drug entity: in vitro binding profile with DNA/RNA substrates and cytotoxic activity against MCF-7 and HepG2 cancer cells. **Dalton Transactions**. 44 (22): 10330-10342. (IF: 4.177)

22. Sourabh Dwivedi, Quaiser Saquib, Abdulaziz A. Al-Khedhairi, 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**. **132: 290-298. (IF: 3.902)**
23. Ebtessam S Al-Sheddi, Mai M Al-Oqail, Quaiser Saquib, Abdulaziz A Al-Khedhairi, **Maqsood A Siddiqui**, Javed Musarrat, Nida N Farshori (2015). Novel All Trans-Retinoic Acid Derivatives: Cytotoxicity, Inhibition of Cell Cycle Progression and Induction of Apoptosis in Human Cancer Cell Lines. **Molecules**. **2015, 20, 8181-8197. (IF: 2.465).**
24. 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-Khedhairi (2015). Utilization of photocatalytic ZnO nanoparticles for deactivation of safranin dye and their applications for statistical analysis. **Physica E**. **69: 101–108. (IF: 1.904)**
25. Mahendra P. Kashyap, Abhishek K. Singh, Dharmendra K. Yadav, **Maqsood A. Siddiqui**, Ritesh K. Srivastava, Vishal Chaturvedi, Navneet Rai (2015). 4-Hydroxy-trans-2-nonenal (4-HNE) induces neuronal SH-SY5Y cell death via hampering ATP binding at kinase domain of Akt1. **Archives of Toxicology**. **89 (2): 243-58. (IF: 6.637)**
26. Ebtessam S Al-Sheddi, Nida N Farshori, Mai M Al-Oqail, Javed Musarrat, Abdulaziz A Al-Khedhairi, **Maqsood A Siddiqui** (2015). Portulaca oleracea Seed Oil Exerts Cytotoxic Effects on Human Liver Cancer (HepG2) and Human Lung Cancer (A-549) Cell Lines. **Asian Pacific Journal of Cancer Prevention**. **16 (8): 3383-3387. (IF: 1.500)**
27. Javed Ahmad, Hisham A Alhadlaq, **Maqsood A Siddiqui**, Quaiser Saquib, Abdulaziz A. Al-Khedhairi, Javed Musarrat, Maqsood 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: 2.868)**
28. Javed Ahmad, Rizwan Wahab, **Maqsood A. Siddiqui**, Javed Musarrat, Abdulaziz A. Al-Khedhairi (2015). Zinc oxide quantum dots: a potential candidate to detain liver cancer cells. **Bioprocess and Biosystems Engineering**. **38: 155–163. (IF: 1.901)**
29. Farshori NN, Al-Sheddi E, Al-Oqail M, Hassan W, Al-Khedhairi AA, Musarrat J, **Siddiqui MA** (2015). Hepatoprotective potential of Lavandula coronopifolia extracts against ethanol induced oxidative stress mediated cytotoxicity in HepG2 cells. **Toxicology and Industrial Health**. **31 (8): 727-37 (IF: 1.688)**
30. 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 agents (Abstract). **Planta Medica**. **81(5): OA44. DOI: 10.1055/s-0035-1545126 (IF: 1.990)**
31. Saquib Q, Xia P, **Siddiqui MA**, Siddiqui JA, Xie Y, Faisal M, Zhang J, Al-Khedhairi AA, Zhang X, Ali BA, Khan ST, Ahmad R, Swivedi, S, Musarrat J (2015). Transcriptomic Evidence on the Activation of HIF-1 alpha, TNFS F10, NOS2

- Signalling in Nickel Oxide Nanoparticles Induced Apoptosis in HepG2 Cells: Oxidative Stress, DNA Damage, Mitochondrial Dysfunction Are the Key Players. ***In Vitro Cellular & Developmental Biology-Animal*** (Meeting Abstract): A-1005 Volume: 51 Pages: S28-S28 Supplement: 1. (IF: 0.971)
32. Sourabh Dwivedi, **Maqsood A Siddiqui**, Nida N Farshori, Maqsood Ahamed, Javed Musarrat, Abdulaziz A. Al-Khedhairi (2014). Synthesis, characterization and toxicological evaluation of iron oxide nanoparticles in human lung alveolar epithelial cells. ***Colloids and Surfaces B: Biointerfaces***. 122: 209–215. (IF: 3.902)
33. Nida Nayyar Farshori, Ebtesam Saad Al-Sheddi, Mai Mohammad Al-Oqail, Javed Musarrat, Abdulaziz Ali Al-Khedhairi, **Maqsood Ahmed Siddiqui** (2014). Cytotoxicity Assessments of *Portulaca Oleracea* and *Petroselinum Sativum* Seed Extracts on Human Hepatocellular Carcinoma Cells (HepG2). ***Asian Pacific Journal of Cancer Prevention***. 15 (16): 6633-6638. (IF: 1.500)
34. Rizwan Wahab, **Maqsood A. Siddiqui**, Quaiser Saquib, Sourabh Dwivedi, Javed Ahmad, Javed Musarrat, Abdulaziz A. Al-Khedhairi, and 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: Biointerfaces***. 117: 267-276. (IF: 3.902)
35. Ebtesam S Al-Sheddi, Nida N Farshori, Mai M Al-Oqail, Javed Musarrat, Abdulaziz A Al-Khedhairi, **Maqsood A Siddiqui** (2014). Cytotoxicity of *Nigella Sativa* Seed Oil and Extract Against Human Lung Cancer Cell Line. ***Asian Pacific Journal of Cancer Prevention***. 15 (2): 983-987. (IF: 1.500)
36. Aloqail M, Al-Sheddi E, **Siddiqui MA**, Musarrat J, Al-Khedhairi A, Farshori, N. (2014). Anticancer activity of sub-fractions of chloroform extracts of *Nepeta deflersiana* on human breast and lung cancer cells: An in vitro cytotoxicity assessment. ***Planta Medica***. 80 (16): 1546-1546 (LP28). (IF: 1.990)
37. **Siddiqui MA**, Ahmad J, Al-Khedhairi AA, Musarrat J, Alhadlaq HA, Ahamed M (2013). Copper oxide nanoparticles induced mitochondria mediated apoptosis in human hepatocellular carcinoma HepG2 cells. ***PLoS ONE***. 8 (8): e69534. (IF: 3.540).
38. Khan MS, Dwivedi S, Priyadarshini M, Tabrez S, **Siddiqui MA**, Jagirdar H, Al-Senaidy AM, Al-Khedhairi AA, Musarrat J (2013). Ribosylation of bovine serum albumin induces ROS accumulation and cell death in cancer line (MCF-7). ***European Biophysics Journal***. 42 (11-12): 811-818. (IF: 1.444).
39. Agrawal M, Kumar V, Singh AK, Kashyap M P, **Siddiqui MA**, Khanna V K, and Pant AB (2013). *Trans-resveratrol* protects ischemic PC12 cells by inhibiting the hypoxia associated transcription factors and increasing the levels of antioxidant defense enzymes. ***ACS Chemical Neuroscience***. 4 (2): 285-294. (IF: 4.348)
40. **Siddiqui MA**, Ahmad J, Farshori NN, Saquib Q, Jahan S, Kashyap MP, Ahamed M, Musarrat J, Al-Khedhairi AA (2013). Rotenone-induced oxidative stress and apoptosis in human liver HepG2 cells. ***Molecular and Cellular Biochemistry***. 384 (1-2): 59-69 (IF: 2.613).
41. Saquib Q, Al-Khedhairi AA, Ahmad J, **Siddiqui MA**, Dwivedi S, Khan ST, Musarrat J. 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): 289-297. (IF: 3.847)
42. Nida N Farshori, Ebtesam S Al-Sheddi, Mai M Al-Oqail, Javed Musarrat, Abdulaziz A Al-Khedhairi, **Maqsood A Siddiqui** (2013). Anticancer Activity of Petroselinum sativum Seed Extracts on the Human Breast Cancer Cells (MCF-7). **Asian Pacific Journal of Cancer Prevention**. 14 (10): 5719-5723. (IF: 1.500)
43. Mai M Al-Oqail, Nida N Farshori, Ebtesam S Al-Sheddi, Javed Musarrat, Abdulaziz A Al-Khedhairi, **Maqsood A Siddiqui** (2013). *In Vitro* Cytotoxic Activity of Seed Oil of Fenugreek Against Various Cancer Cell Lines. **Asian Pacific Journal of Cancer Prevention**. 14 (3): 1829-1832. (IF: 1.500)
44. Alarifi S, Ali D, Y AO, Ahamed M, **Siddiqui MA**, Al-Khedhairi AA (2013). Oxidative stress contributes to cobalt oxide nanoparticles-induced cytotoxicity and DNA damage in human hepatocarcinoma cells. **International Journal of Nanomedicine**. 8:17-23. (IF: 4.320)
45. Javed Ahmad, Syed A. Hasnain, **Maqsood A. Siddiqui**, Maqsood Ahamed, Javed Musarrat, Abdulaziz A. Al-Khedhairi (2013). MicroRNA in carcinogenesis and cancer diagnostics: A new paradigm. **Indian Journal of Medical Research**. 137: 680-694 (IF: 1.446)
46. Ebtsam S. Al-Sheddi, Nida N. Farshori, Mai M. Al-Oqail, Wafaa H.B. Hassan, Javed Musarrat, Abdulaziz Al-Khedhairi, **Maqsood A. Siddiqui** (2013). Evaluation of cytotoxicity and oxidative stress induced by alcoholic extract and seed oil of *Lepidium Sativum* in human liver cell line HepG2. **African Journal of Biotechnology**. 12 (24): 3854-3863. (IF: 0.57)
47. Alarifi S, Ali D, Alkahtani S, **Siddiqui MA**, Ali BA (2013). Arsenic trioxide-mediated oxidative stress and genotoxicity in human hepatocellular carcinoma cells. **OncoTargets and Therapy**. 6: 75-84. (IF: 2.272)
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49. **MA Siddiqui**, V Kumar, MP Kashyap, M Agarwal, AK Singh, S Jahan, VK Khanna, AA Al-Khedhairi, J Musarrat, AB Pant (2012). Short term exposure of 4-hydroxynonenal induces mitochondria mediated apoptosis in PC12 cells. **Human and Experimental Toxicology**. 31 (4): 336-345. (IF: 1.604)
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34. Javed Ahmad, Braj Raj Singh, Abdulaziz A. Al-Khedhairi, Saud Alarifi, Maqsood A Siddiqui and Javed Musarrat. “**Biodiversity and Characterization of Sunn hemp begomovirus based on *in-silico* structural and functional analysis of recombinant coat protein**” in “**26th Annual Meeting of Saudi Biological Sciences**” and a

symposium on "*Climate Change and Biodiversity*" during **May 10-12, 2011** at College of Science, *Taif University, Taif, Saudi Arabia*.

35. Abdullah Al-Salem, Maqsood A Siddiqui, Abdulaziz A Al-Khedhairi, Saud Alarifi, Javed Musarrat. "**Titanium dioxide and Zinc fluoride nanoparticles induced cellular morphology and cytotoxicity in MCF-7 cells**" in "*27th Annual Meeting of Saudi Biological Sciences*" and a symposium on "*Economics of Environment and Natural Resources*" during **March 6-8, 2012** at College of Science, *Jazan University, Jazan, Saudi Arabia*.
36. MA Siddiqui, M Ahamed, J Ahmad, Q Saquib, R Wahab, ST Khan, S Dwivedi, A Al-Salem, AA Al-Khedhairi, J Musarrat, AB Pant. "**4-Hydroxynonenal induced apoptotic changes in PC12 cells: Protection by *trans*- resveratrol**" in "*27th Annual Meeting of Saudi Biological Sciences*" and a symposium on "*Economics of Environment and Natural Resources*" during **March 6-8, 2012** at College of Science, *Jazan University, Jazan, Saudi Arabia*.
37. Rizwan Wahab, Maqsood A Siddiqui, Maqsood Ahamed, Javed Ahmad, Abdullah Al-Salem Abdulaziz A Al-Khedhairi, Javed Musarrat. "**Use of zinc oxide nanoparticles as an anti-microbial Nanomedicine**" in "*27th Annual Meeting of Saudi Biological Sciences*" and a symposium on "*Economics of Environment and Natural Resources*" during **March 6-8, 2012** at College of Science, *Jazan University, Jazan, Saudi Arabia*.
38. J Musarrat, Q Quaiser Saquib, S Dwivedi, A Al-Salem, M A Siddiqui, AA Al-Khedhairi. "**Assessment of DNA Damage, Mutagenesis and Anti-Mutagenic Activity of Unani (Greek) Herbal Medicines**" in "*11th Annual Oxford International Conference on the Science of Botanicals (ICBS)*" during **April 16-19, 2012** at *Oxford, Mississippi, USA*.
39. Quaiser Saquib, Javed Musarrat, Abdul-Aziz A Al-Khedhairi, Maqsood A Siddiqui, Sourabh Dwivedi, Sabry M. Attia. "**An Insight into the cellular and molecular mechanism of pesticide toxicity**" in "*Montreal 2012 International Biomedicine & Chemistry Forum*" during **April 26-27, 2012** at *EPS Global Medical Development Inc., Montreal, Quebec, Canada*.
40. M Atif, MS AlSalhi, V Masilamani, MA Siddiqui, and J Musarrat. "**Spectral characterization of cultured normal and malignant cells**" in "*21th International Laser Physics Workshop (LPHYS'12)*" during **July 23–27, 2012** at *Calgary, Canada*.
41. Javed Musarrat, Quaiser Saquib, Maqsood A Siddiqui, Sourabh Dwivedi, Javed Ahmad, and Abdulaziz A. Al-Khedhairi. "**Novel approaches for assessment of metal oxide nanoparticles induced oxidative stress, DNA damage and mutagenesis**" in "*The XXXII Annual Conference of Society of Toxicology (STOX), India and International Symposium on New Frontiers in Toxicology*" on "*New Paradigms in Toxicology (NPT-2012)*" during **December, 5-7, 2012** at CSIR-Indian Institute of Toxicology Research (CSIR-IITR), *Lucknow, India*.
42. Nida N Farshori, Ebtsam S Al-Sheddi, Mai M Al-Oqail, Wafaa HB Hassan, Abdulaziz Al-Khedhairi, Javed Musarrat, Maqsood A Siddiqui, Aditya B Pant. "**Hepatoprotective potential of *Lavandula coronopifolia* extracts against ethanol**"

- induced oxidative stress mediated cytotoxicity in HepG2 cells” in *“The XXXII Annual Conference of Society of Toxicology (STOX), India and International Symposium on New Frontiers in Toxicology”* on *“New Paradigms in Toxicology (NPT-2012)”* during **December, 5-7, 2012** at CSIR-Indian Institute of Toxicology Research (CSIR-IITR), **Lucknow, India**.
43. **MA Siddiqui**, NN Farshori, M Ahamed, J Ahmad, AA Al-Khedhairy, J Musarrat and AB Pant. **Ameliorative effects of trans-resveratrol on 4-hydroxynonenal induced apoptosis in cultured neuronal cells** in *“The XXXII Annual Conference of Society of Toxicology (STOX), India and International Symposium on New Frontiers in Toxicology”* on *“New Paradigms in Toxicology (NPT-2012)”* during **December, 5-7, 2012** at CSIR-Indian Institute of Toxicology Research (CSIR-IITR), **Lucknow, India**.
44. Q Saquib, J Musarrat, AA Al-Khedhairy, **MA Siddiqui**, SM Attia, M Faisal, JA Siddiqui, S Dwivedi and ST Khan. **Nickel Oxide Nanoparticles Provoke Intrinsic Apoptotic Pathway in HepG2 Cells, Male Wistar Rats and Tomato Seedling Roots** in an International conference and *“52nd Annual meeting of Society of Toxicology and ToxExpoTM”*, during **March 10-14, 2013** at **San Antonio, Texas, USA**.
45. **Siddiqui MA**, Saquib Q, Ahamed M, Farshori NN, Ahmad J, Musarrat J, Al-Khedhairy AA. **Cytotoxicity, Oxidative Stress, and Genotoxicity Induced by Molybdenum Nanoparticles in Mouse Skin Fibroblast (L929) Cells** in an International Conference on *“Nanosafety 2013”*, during **November 20-22, 2013** at **Saarbrücken, Germany**.
46. Saquib Q, Al-Khedhairy AA, **Siddiqui MA**, Ahmad J, Dwivedi S, Khan ST, Musarrat J. **Toxicogenomic changes, oxidative stress, and DNA damage are key factors for nanoparticles induced cellular anomalies: An insight into the molecular mechanism of cell death** in an International Conference on *“Nanosafety 2013”*, during **November 20-22, 2013** at **Saarbrücken, Germany**.
47. Javed Ahmad, **Maqsood A. Siddiqui**, Quaiser Saquib, Abdulaziz A. Al-Khedhairy, Javed Musarrat, Hisham A. Alhadlaq, Maqsood Ahamed. **Toxicological response of nickel nanoparticles in human liver cells lines** in an International Conference on *“Future Prospects of Advancement in Biological Sciences, Health Issues & Environmental Protection (FAB-HEP-2014)”* during **February 7-8, 2014** at **Indira Gandhi Pratishthan, Lucknow, India**.
48. Nida N. Farshori, Ebtesam S. Al-Sheddi, Mai M. Al-Oqail, Javed Musarrat, Abdulaziz A. Al-Khedhairy, **Maqsood A. Siddiqui**. **In Vitro Screening for Anticancer Activity of Petroselinum Sativum Seed Extracts on the Human Breast Cancer Cells** in an International Conference on *“Future Prospects of Advancement in Biological Sciences, Health Issues & Environmental Protection (FAB-HEP-2014)”* during **February 7-8, 2014** at **Indira Gandhi Pratishthan, Lucknow, India**.
49. Sourabh Dwivedi, Javed Musarrat, **Maqsood A. Siddiqui**, Javed Ahmad, Rizwan Wahab, Abdulaziz A. Al-Khedhairy, Maqsood Ahamed. **Biosynthesis of Selenium Nanoparticle and Its Role as a Biosensor for Nanotoxicity Assessment** in an

International Conference on “*Future Prospects of Advancement in Biological Sciences, Health Issues & Environmental Protection (FAB-HEP-2014)*” during **February 7-8, 2014** at *Indira Gandhi Pratishthan, Lucknow, India.*

50. **Maqsood A. Siddiqui**, Javed Ahmad, Nida N. Farshori, Maqsood Ahamed, Javed Musarrat, A.A. Al-Khedhairi. **Rotenone-Induced Apoptosis is Mediated by p53, Bax/Bcl-2 and Caspase-3 in Human Liver HepG2 Cells** in an International Conference on “*Future Prospects of Advancement in Biological Sciences, Health Issues & Environmental Protection (FAB-HEP-2014)*” during **February 7-8, 2014** at *Indira Gandhi Pratishthan, Lucknow, India.*
51. Nida N. Farshori, Ebtessam S. Al-Sheddi, Mai M. Al-Oqail, Javed Musarrat, Abdulaziz A. Al-Khedhairi, **Maqsood A. Siddiqui**. **In Vitro Screening for Anticancer Activity of *Petroselinum Sativum* Seed Extracts on the Human Breast Cancer Cells** in “*29th Annual Meeting of Saudi Biological Sciences*” and a symposium on “*Environment and Development in Gulf Region*” during **February 25-27, 2014** at College of Science, *Dammam University, Dammam, Saudi Arabia.*
52. **Maqsood A. Siddiqui**, Quaiser Saquib, Maqsood Ahamed, Nida N. Farshori, Javed Ahmad, Rizwan Wahab, Javed Musarrat, Abdulaziz A. Al-Khedhairi. **Cytotoxicity, Oxidative Stress, and Genotoxicity Induced by Molybdenum Nanoparticles in Mouse Skin Fibroblast (L929) Cells** in “*29th Annual Meeting of Saudi Biological Sciences*” and a symposium on “*Environment and Development in Gulf Region*” during **February 25-27, 2014** at College of Science, *Dammam University, Dammam, Saudi Arabia.*
53. Ebtessam S. Al-Sheddi, **Maqsood A. Siddiqui**, Nida N. Farshori. **Cytotoxic Evaluation of *Nigella Sativa* Against Human Lung Cancer Cell Line (A-549)** in an “*International Conference on Natural Products 2014 (ICNP 2014)*” and “*30th Malaysian Annual Natural Products Seminar*” during **March 18-19, 2014** at *Palm Garden Hotel, Putrajaya, Malaysia.*
54. Q. Saquib, A. al-Khedhairi, J. Siddiqui, **M. Siddiqui**, M. Faisal, S. Dwivedi, J. Musarrat. **Toxicogenomic investigation on nickel oxide nanoparticles (NiO-NPs): connections among gene function, DNA damage and cell death** in “*The 18th International Congress on In Vitro Toxicology ESTIV2014*” during **June 10-13, 2014** at *Egmond aan Zee, The Netherlands.*
55. M Aloqail, E Al-Sheddi, **M.A. Siddiqui**, J Musarrat, A Al-Khedhairi, N Farshori. **Anticancer activity of sub-fractions of chloroform extracts of *Nepeta deflersiana* on human breast and lung cancer cells: An in vitro cytotoxicity assessment** in “*62nd International Congress and Annual Meeting of the Society of Medicinal Plant and Natural Product Research (GA) 2014*” during **August 31-September 4, 2014** at University of Minho, Campus de Azurem, *Guimarães, Portugal.*
56. Abdulaziz A. Al-Khedhairi, Nida N. Farshori, Ebtessam S. Al-Sheddi, Mai M. Al-Oqail, Javed Musarrat, **Maqsood A. Siddiqui**. **Cytotoxicity assessment of seed extracts of selected Arabian medicinal plants against human liver cell line (HepG2)** in an “*International Conference on Natural Products 2015 (ICNP 2015)*”

organized by Malaysian Natural Products Society during **March 24-25, 2015** at **Double Tree by Hilton Hotel, Johor Bahru, Malaysia.**

57. **Maqsood A. Siddiqui**, Nida N. Farshori, Ebtessam S. Al-Sheddi, Mai M. Al-Oqail, Javed Musarrat, Abdulaziz A. Al-Khedhairi. **Seed extract of *Lepidium sativum* inhibits hydrogen peroxide-induced cytotoxicity and oxidative stress in human liver cell line (HepG2)** in an “*International Conference on Natural Products 2015 (ICNP 2015)*” organized by Malaysian Natural Products Society during **March 24-25, 2015** at **Double Tree by Hilton Hotel, Johor Bahru, Malaysia.**
58. Nida N. Farshori, Ebtessam S. Al-Sheddi, Mai M. Al-Oqail, Quaiser Saquib, **Maqsood A. Siddiqui**, Javed Musarrat, Abdulaziz A. Al-Khedhairi. **Cytotoxicity, Cell Cycle Arrest, and Induction of Apoptosis by ATRA Hybrid Drugs in Human Breast and Liver Cancer Cell Lines** in an “*International Conference on Natural Products 2015 (ICNP 2015)*” organized by Malaysian Natural Products Society during **March 24-25, 2015** at **Double Tree by Hilton Hotel, Johor Bahru, Malaysia.**
59. 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 agents** in the “*15th International Conference on the Science of Botanicals*” during **April 13 –16, 2015** at **Oxford, Mississippi USA.**
60. Saquib Q, Xia P, **Siddiqui MA**, Siddiqui JA, Xie Y, Faisal M, Zhang J, Al-Khedhairi AA, Zhang X, Ali BA, Khan ST, Ahmad R, Swivedi, S, Musarrat J (2015). **Transcriptomic Evidence on the Activation of HIF-1 alpha, TNFS F10, NOS2 Signalling in Nickel Oxide Nanoparticles Induced Apoptosis in HepG2 Cells: Oxidative Stress, DNA Damage, Mitochondrial Dysfunction Are the Key Players in the “2015 In Vitro Biology Meeting”** during **May 30-June 2, 2015** at **Hilton El Conquistador Golf and Tennis Resort, Tucson, Arizona, USA.**
61. **Maqsood A. Siddiqui**, Nida N. Farshori, Ebtessam S. Al-Sheddi, Mai M. Al-Oqail, Quaiser Saquib, Abdulaziz A. Al-Khedhairi. **Differential cytotoxic potential of *Verbesina encelioides* plant extract on human lung, breast, and liver cancer cell lines** in the “*2nd Middle East Molecular Biology Congress and The First Middle East Genetics Forum*” organized by Middle East Molecular Biology Society during **September 17-20, 2015** at **Istanbul Congress Center, Istanbul, Turkey.**
62. Rais Ahmad Khan, Ali Alsalmeh, **Maqsood A. Siddiqui**, Javed Ahmad, Abdulaziz A. Al-Khedhairi, Khalid Al-Farhan, and Jan Reedijk. **In vitro Assessment of Cu(I) and Ag(I) complexes as potential anticancer agents** in an “*International Conference on Recent Advances in Chemical Sciences*” During **March 29-30, 2016** at **Department of Chemistry, Aligarh Muslim University, Aligarh, India.**

Conferences/ Symposia/ Workshops Attended:

1. “*Training workshop on scientific communication*” during **July 24-25, 2004** at Industrial Toxicology Research Centre, **Lucknow, India.**
2. International Conference on “*Safety Assessment of Cosmetics*” during **November 3-5, 2004** organized by Industrial Toxicology Research Centre **Lucknow India.**

3. ***“International Symposium on Diet Causation and Prevention of Cancer and XXX Annual Conference on Environmental Mutagen Society of India”*** during **17-19 March 2005**, organized by Industrial Toxicology Research Centre, **Lucknow**.
4. 3rd SR Naik Memorial Workshop on ***“Computers in Biomedical Sciences”*** during **September 10-11, 2005** at SGPGL, **Lucknow**, India.
5. International Conference on ***“Toxicology, Environmental and Occupational Health (ICTEOH-2005)”*** during **14-17 November 2005**, organized by Industrial Toxicology Research Centre, **Lucknow** in collaboration with Society of Toxicology (STOX), India.
6. ***“Continuing Educational Courses, entitled, Good Laboratory Practices and In silico Methods in Toxicology”*** run through ***“International Conference on Toxicology, Environmental and Occupational Health (ICTEOH-2005)”*** during **14-17 November 2005**, organized by Industrial Toxicology Research Centre, **Lucknow** in collaboration with Society of Toxicology (STOX), India.
7. Conference on ***“Emerging Trends in Neurosciences & XXIII Annual Meeting of Indian Academy of Neurosciences”*** during **December 11-14, 2005**, organized by National Institute of Mental Health and Neurosciences **Bangalore**, India.
8. XIX All India Cell Biology Conference & Symposium on ***“Gene to Genome: Environment & Chemical Interaction (AICBC-2006)”***, during **January 17-20, 2006** at Industrial Toxicology Research Centre, **Lucknow**, India.
9. International conference on ***“Toxicology, Toxicogenomics and Occupational Health (ICTTOH) and 26th Annual meeting of STOX”***, during **October 9-11, 2006** at Jiwaji University, **Gwalior**, India.
10. ***“International Update on Basic and Clinical Neuroscience Advances & XXIV Annual Meeting of Indian Academy of Neurosciences”***, during **December 17-20, 2006** at Industrial Toxicology Research Centre, **Lucknow**, India.
11. Symposium on ***“Expanding Horizons in Pharmacology & XXXIX Annual Conference of the Indian Pharmacological Society”*** during **December 21-23, 2006** at S. M. S. Medical College, **Jaipur**, India.
12. International symposium on ***“Monitoring and modulating global resources of environmental and food contaminants: nature versus chemicals”*** during **October 16-18, 2008** at College of Veterinary Science, Guru Angad Dev Veterinary and Animal Science University, **Ludhiana**, India.
13. ***“XXIX Annual Conference of Society of Toxicology (STOX)”***, India and International symposium on ***“Current Trends in Toxicology & Pre-Clinical Toxicology”*** during **November 4-7, 2009** at National Institute of Nutrition, **Hyderabad**, India.
14. 1st Annual Conference of ***“Society of Professional Biotechnologists (SPB)-2009”*** during **December 1-2, 2009** at **Kanpur**, India.

15. Operator training course on “**COULTER EPICS XL Flow Cytometer**” on **December, 2009** at King Saud University, **Riyadh**, KSA.
16. **25th Annual Meeting of the Saudi Biological Sciences** and a symposium on “**Nanotechnology in Life Sciences**” during **May 11-13, 2010** at King Faisal University, **Al-Ahsa**, Saudi Arabia.
17. Workshop entitled: “**Distribution of the toxic samsum ant in the Kingdom of Saudi Arabia and the use of its toxins as natural products in the treatment of breast cancer**” during **May 24-26, 2010** at Department of Zoology, Faculty of Science, King Saud University, **Riyadh**, KSA.
18. **30th Annual Conference of “Society of Toxicology (STOX), India” and International symposium on “Strategies for Safety Study Requirements for herbal formulations”** during **December 9-11, 2010** at Jamia Hamdard (Hamdard University), **New Delhi**, India.
19. **The 2nd Scientific Meeting on “Natural Products and Drug Discovery”** during **May 2-5, 2011** at Chair of Advanced Proteomics & Cytomics Research and Department of Zoology, College of Science, King Saud University, **Riyadh**, Saudi Arabia.
20. **The 1st International conference on “Halal Food Control & Exhibition”** organized by Saudi Food & Drug Authority during **February 12-15, 2012** at Inter Continental Hotel, **Riyadh**, Saudi Arabia.
21. **27th Annual Meeting of the Saudi Biological Sciences** and a symposium on “**Economics of Environment and Natural Resources**” during **March 6-8, 2012** at Jazan University, **Jazan**, Saudi Arabia.
22. Workshop entitled “**Effective use of Spectroscopy**” on **April 4, 2012** organized by KSU Research Chair in Laser Diagnosis of Cancers, Department of Physics, Faculty of Science, King Saud University, **Riyadh**, KSA.
23. **The Saudi International Biotechnology Conference 2012 on “Nanoscale Materials for Health Technologies: From Science and Engineering to Clinical Translation”** organized by King Abdulaziz City for Science and Technology during **September 18-19, 2012** at Conference Hall, KACST Headquarters, **Riyadh**, Saudi Arabia.
24. Workshop entitled “**Nanotechnology from Concept to Application**” on **November 13, 2012** organized by King Abdulaziz City for Science and Technology (KACST), Riyadh at KACST Headquarters-Conference Hall, King Abdullah Road, **Riyadh**, Kingdom of Saudi Arabia.
25. **The 2nd Saudi International Nanotechnology Conference (2SINC) 2012 on “Nanotechnology innovation opportunities for the future”** organized by King Abdulaziz City for Science and Technology (KACST), Riyadh during **November 11-13, 2012** at Conference Hall, KACST Headquarters, **Riyadh**, Saudi Arabia.
26. International Workshop on “**Role of Histone Deacetylases (HDACs) and their Interacting Proteins in Liver cancer**” during **February 2-3, 2013** organized by Bioproducts Research Chair (BRC) at Department of Zoology, College of Science, King Saud University, **Riyadh**, Saudi Arabia.

27. ***“The 2nd Annual Forum for University Teaching”*** under the title, Assessment of Learning Outcomes, that include number of lectures including keynote session entitled, Using Educational Assessment to improve courses, teaching, and learning during **February 9-12, 2013** organized by King Saud University, **Riyadh**, Saudi Arabia.
28. Workshop entitled ***“The National Plan for Science, Technology and Innovation towards distinguished outcomes for the National Plan Projects”*** on **March 2, 2013** organized by King Saud University (KSU) in collaboration with King Abdulaziz City for Science and Technology (KACST), Riyadh at Bld# 26 (B)-Conference Hall, King Saud University, **Riyadh**, Kingdom of Saudi Arabia.
29. ***The Saudi International Medical Technology Conference 2013*** organized by King Abdulaziz City for Science and Technology (KACST), Riyadh in the cooperation with King Faisal Specialist Hospital and Research Centre during **September 29-30, 2013** at Conference Hall, KACST Headquarters, **Riyadh**, Saudi Arabia.
30. ***The 1st Saudi-Chinese Oil Refinery Forum 2013*** organized by King Abdulaziz City for Science and Technology (KACST), Riyadh in the collaboration with China University of Petroleum, Qingdao, China during **October 28-29, 2013** at Conference Hall, KACST Headquarters, **Riyadh**, Saudi Arabia.
31. International Conference ***“Advanced Technology Forum Conference (ATF) 2014”*** organized by King Abdulaziz City for Science and Technology (KACST), Riyadh during **September 16-18, 2014** at Conference Hall, KACST Headquarters, **Riyadh**, Saudi Arabia.
32. Workshop on ***“SciFinder (An Experts SciFinder Users Orientation)”*** on October 26, 2014 at Room 2B-78 Chemistry Department, College of Science, King Saud University, **Riyadh, Saudi Arabia**.
33. ***“3rd Meeting for Chair Program in the Kingdom”*** during May 12-13, 2014 at King Saud University, Riyadh, Saudi Arabia.
34. ***Workshop on excellence in Petrochemicals: Local and International Prospectives*** at King Saud University, **Riyadh, Saudi Arabia on February 12, 2014**.
35. ***International Conference on Natural Products 2015 (ICNP 2015)*** organized by Malaysian Natural Products Society at **Double Tree by Hilton Hotel, Johor Bahru, Malaysia** during **March 24-24, 2015**.
36. ***The “2nd Middle East Molecular Biology Congress and The First Middle East Genetics Forum”*** organized by Middle East Molecular Biology Society during **September 17-20, 2015** at **Istanbul Congress Center, Istanbul, Turkey**.
37. Attended the workshop on ***“Technical & Ethical Issues in Publishing”*** on **October 13, 2015** organized by **King Saud University** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.
38. Attended the workshop on ***“New Trends in Referencing Styles Workshop”*** on **October 13, 2015** organized by **King Saud University** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.
39. Attended the workshop on ***“Intellectual Property Rights and Copyright Workshop”*** on **October 13, 2015** organized by **King Saud University** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.

40. *Attended the workshop on “Writing for Quality Scientific Journals” on October 13, 2015* organized by **King Saud University** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.
41. *The 2nd Saudi International Conference on Scientific Publishing* organized by *The Deanship of Scientific Research*, King Saud University, during **October 11-13, 2015** at Main Session Hall, Bld-7, King Saud University, **Riyadh**, Saudi Arabia.
42. Attended *“The 3rd Teaching Forum Workshop”* organized by **King Saud University** during **April 4-7, 2016** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.
43. Attended a workshop on *“Research Funding in People’s Republic of China (PRC): Structure and Strategies for international Collaboration”* organized by *Twasol Research Excellence Program (TRE Program)*, **King Saud University, Riyadh, Saudi Arabia** on **January 8, 2017** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.
44. Attended a workshop on *“Research Funding in United State of America (USA): Structure and Strategies for international Collaboration”* organized by *Twasol Research Excellence Program (TRE Program)*, **King Saud University, Riyadh, Saudi Arabia** on **January 9, 2017** at Conference Hall, Bld-17, King Saud University, **Riyadh**, Saudi Arabia.

Overseas Visits:

Visited Nanjing University, **Nanjing, China** from **December 11-19, 2011** as a part of research collaborative program of King Saud University with Dr. Xiaowei Zhang, Professor in Environmental Toxicology, School of the Environment, Nanjing University, Nanjing, China and also participated in the technical training program (wet-lab) on a novel live cell microarray, a state-of-the-art high-through put technique for gene expression studies.

Research Projects completed/ongoing/submitted:

1. Principle Investigator in the project entitled **“Biomonitoring of the natural and synthetic derivatives of brominated organic compounds in the environment and assessment of their genotoxic potential**, funded by the King Saud University, Riyadh, Saudi Arabia. (Grant # KSU-VPP-113), (2010-2011).
2. Co-Principle Investigator in the project entitled **“Effects of polybrominated flame retardants from electronic waste on the cellular DNA and carcinogenesis**, funded by the National Plan for Science and Technology, KACST, Riyadh, KSA (Grant # 10-ENV1314-02), (2012-2014).
3. Principle Investigator in the project entitled **“Bio-prospection of Arabian Medicinal Plants for Antiglycation Agents for Developing a Novel Molecular Therapeutic Approach for Diabetes”** funded by the National Plan for Science and Technology King Abdulaziz City for Science and Technology, Riyadh, KSA (Grant # 12-MED2491-02), (2013-2015).
4. Co-Investigator in project entitled **“Toxicogenomic Investigation on Hazards of Organophosphorus Flame Retardants (OPFRs): Connections Among Genome Function, Cell Death and Carcinogenesis”** approved for the funding by the National

Science, Technology and Innovation Plan, King Abdulaziz City for Science and Technology (KACST), Riyadh, KSA (2016-2018).

5. Co-Investigator in project entitled “**The Plastics Puzzle on Human Health: Functional Toxicogenomic Study on Effects of Bisphenols to Human Hepatic Cells**” approved for the funding under NSTIP (MAARIFAH), King Abdulaziz City for Science and Technology (KACST), Riyadh, KSA (October, 2015).

Hands on Exposure and Technical skills:

In more than ten years of my active research career, I have extensively been exposed to various tools and techniques required to carry out the research in the area of modern cellular and molecular biology with special reference to microtiter based biochemical assays (Intra and Extracellular activities) using software guided analytical tools, expression profile (mRNA and protein) using RT-PCR, RT-PCR^q, western blotting and immunocytochemical localization of intracellular proteins and their quantification by live imaging analysis software, neurotransmitter receptor profile through radioligand binding assay using high throughput liquid handling robotic arm system, ELISA, FACS and confocal microscopy etc.. As my total research work is based on cultured cells, so, I am well versed with all to know, how of cultivation, utilization and troubleshooting of various immortal cell lines and primary cultures of human and animal origin.

Impact of Research:

MP Kashyap, AK Singh, **MA Siddiqui**, V Kumar, VK Tripathi, VK Khanna, S Yadav, SK Jain and AB Pant (2010). Caspase cascade regulated mitochondria mediated apoptosis in monocrotophos exposed PC12 cells. **Chemical Research in Toxicology**. **23 (11): 1663-1672**. [Impact Factor: 4.14]

The paper has been ranked number one (received 516 votes) in the list of hottest fifty papers published in 2010 (one year) in entire range of journals published by American Chemical Society (<http://www.chemfeeds.com/hot.php?time=year>).

This paper has also been included in the final examination (December 16, 2010) of course designed for graduate and advanced undergraduate students in Environmental Sciences & Engineering, Toxicology, and related disciplines at The North Carolina University of Chapel Hill, USA.

Significant Research Contribution:

In my research career, dedicated and sustained efforts have been made to understand the cellular and molecular mechanisms involved in 4-hydroxynonenal induced toxic insult in brain cells. Besides this, attempts were also made to develop and validate newer, more sensitive and cost effective high throughput cell based *in vitro* models as alternative to experimental animals for biomedical research. Such test models have relevance to understand the molecular insights of drugs/ chemical induced toxicity and metabolism. The efforts have been rewarding as developed models got wide acceptance and are being used extensively by the scientists working in the area.

Hereunder, I am detailing the studies carried out in the area of neurotoxicity and developmental neurotoxicity only.

Toxicological consequences of 4-hydroxynonenal in PC12 cells:

4-hydroxynonenal (4-HNE) is one of the most reactive aldehydes generated during lipid peroxidation of biological membranes. Higher concentrations of 4-HNE are known to play a key role in the etiological of various neurodegenerative disorders including Parkinson's disease, Alzheimer's disease, ischemic cerebral stroke, etc. However, the mechanistic insights of 4-HNE induced neuronal injuries are poorly understood. The studies were carried out to understand the complete cascade of events involved in 4-HNE induced neuronal injuries and its metabolism using undifferentiated and nerve growth factor induced differentiated PC12 cells, rat pheochromocytoma cell line known to express most of the markers of neural development, injury and repair. It was observed that 4-HNE induced cytotoxicity was mediated through free radical generated oxidative stress, which led to the mitochondria mediated apoptosis. 4-HNE induced cytotoxicity was also found to be affected to the expression and activity of selected neurotransmitter receptors viz., cholinergic-muscarinic, benzodiazepine, serotonin 5HT_{2A} and dopamine DA-D₂. Differentiated PC12 cells were found to be more vulnerable than non-differentiated cells to 4-HNE even at lower doses with in 1 h of exposure. Protective/ restorative potential of known neuroprotective antioxidants-trans-resveratrol and curcumin was also studied in PC12 cells receiving toxic insult of 4-HNE.

Metabolism of 4-HNE in PC12 cells:

The physiological concentrations of 4-HNE in PC12 cells got metabolized primarily by glutathiolation and oxidation, while higher (pathological) concentrations, a significant fraction of 4-HNE got reduced. Moreover, at higher concentrations, 4-HNE also shows the abundance of two hydrophobic peaks, the structural identities of which has yet not been established. Mass spectroscopic analysis also shows that glutathionyl adduct of 4-HNE is present as two forms-GS-HNE and its reduced metabolite GS-DHN. However, unlike the other cells systems, reduction of GS-HNE is not catalyzed by aldose reductase, since inhibition of aldose reductase, did not abolish the reduction of GS-HNE in PC-12 cells. However, similar to other cells, oxidation of 4-HNE in PC12 cells was significantly inhibited by aldehyde dehydrogenase inhibitor, benomyl, suggesting that aldehyde dehydrogenase-mediated oxidation of 4-HNE is an important route for the elimination 4-HNE in neuronal cells.

Community Services/ Extracurricular activities:

- Served as an expert in the selection committees for the selection of Senior Teachers in IIS, Riyadh, KSA.
- Served as a judge for the “23rd Annual Cluster Meet English Debate Competition” on December 16, 2013 at Indian International School, Riyadh, Saudi Arabia.
- Served as a judge for the “Science Exhibition Competition” on November 5, 2014 at Indian International School, Riyadh, Saudi Arabia.
- Member of various organizing committees of conferences/symposia organized at ITRC, Lucknow during my stay period.

- Active member of various sport activities during my stay at Indian Institute of Toxicology Research, India.
- Member of Executive committee of Association of Indian Researchers and Scientists (AIRS), Riyadh, Saudi Arabia.
- Member of Winner in Cricket Tournament organized by Jamia Hamdard University Alumni on November 14, 2014 at Riyadh, Saudi Arabia.

Personal:

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Date: June 20, 2017

Place: Riyadh, KSA

(Maqsood A. Siddiqui)