

## Resume- Dr. Ali A. Alshatwi

### Ali Abdullah Alshatwi, Ph.D.

#### Professor of Nutrigenomics

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#### Education:

B.A King Saud University, Riyadh, Saudi Arabia.  
M.S King Saud University, Riyadh, Saudi Arabia  
PhD University of Arizona, Tucson, Arizona, USA  
Thesis: Regulatory Mechanisms in The Stabilizations of p53 Tumor  
Suppressor Gene in Zinc Depleted Hepatoblastoma Cells

#### Principal Academic Responsibilities:

- FSN 315: Nutrition Metabolism
- FSN 361: Nutrition during the life cycle
- FSN 506: Nutrition Metabolism

#### Biography and Area of Research

My current research focus on **Nutrigenomics**, particularly the nutrient regulation of gene expression and expression of MicroRNA related to cell death (apoptosis and necrosis). Over the past several years, I have been studying cancer and cancer-related processes with a focus on in vitro approaches. I have been investigating the role of microRNAs (miRNAs) in cancer as well as other aspects of tumor development. MicroRNAs (miRNAs) are recently discovered class of small noncoding RNAs that post-transcriptionally regulate the expression of target mRNA transcripts. Many miRNAs target mRNAs involved in processes aberrant in tumorigenesis, such as proliferation, survival, and differentiation. While previous work has shown a global decrease of mature miRNA expression in human cancers, it is unclear whether this global repression of miRNAs reflects the undifferentiated state of tumors or causally contributes to the transformed phenotype. Cancer cells expressing short hairpin RNAs (shRNAs) targeting three different components of the miRNA processing machinery showed a substantial decrease in steady-state miRNA levels and a more pronounced transformed phenotype. A second area of interest is to study single nucleotide polymorphisms (SNPs) in breast cancer and diabetic patients in Saudi population, which may help to develop prognostic and diagnostic markers for breast cancer. Significant results encourage us to aim our research towards Pharmacogenomics, and development of nutraceuticals.

I am also studying the influence of nano-foods on cancer in mammalian cells, e.g. the influence of food and nano-materials in food with bioactivities on cell cycle modulation and other cellular physiological mechanism, on tumor suppressor genes in cancer and

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

normal human cells. I have published more than 50 research publications in highly cited journals, and have strong links with various industry members and public sectors to his credits.

### Professional Membership:

- American Society for Biochemistry and Molecular Biology
- Member of the Saudi Society for Food and Nutrition (SSFN)
- Member of the Saudi Society Family and Community Medicine
- Saudi Dietc Association
- Advisory Board of American Journal of Tissue Engineering

### Awards and Honors:

- Souk Okaz for scientific excellence and innovation award
- 3 US patent applicaons filed

### Ongoing Research Projects

Title of the Project	Founding Agency	
1- profile of human gut microbial communities and role in the of chronic diseases (obesity and diabetes, and colon cancer ) in Saudi population	<b>International ( highly cited ) Scientific Research Group, KSU</b>	
2- Identification, characterization and in vitro evaluation of food surfactant associated-ultrafine carbonaceous particulates on human colon-, immune- and adult mesenchymal stem- cells	National Plan for Science, Technology and Innovation, KSU, Saudi Arabia	
3- Characterization of microRNAs specific to breast cancer patients of Saudi Population	National Plan for Science, Technology and Innovation, KSU, Saudi Arabia	
4- <i>In vitro</i> toxicity evaluation of food and agricultural related nanoparticles on human primary and established cells	National Plan for Science, Technology and Innovation, KSU, Saudi Arabia	

Updated on 2/10/2015

**Representative Publications:**

**Book chapters**

1. Alshatwi AA and Shafi G. (2012). Effects of Dietary Nutrients on DNA Methylation and Imprinting, DNA Methylation - From Genomics to Technology, Dr. Tatiana Tatarinova (Ed.), ISBN: 978-953-51-0320-2, InTech, Croatia.
2. Akbarsha MA, Kunnathodi F and Alshatwi AA (2011). A Comprehensive Review of Male Reproductive Toxic Effects of Aflatoxin, Aflatoxins - Biochemistry and Molecular Biology, Dr. Ramon G. Guevara-Gonzalez (Ed.), ISBN: 978-953-307-395-8, In Tech, Croatia.
3. Periasamy VS, **Alshatwi AA**, Shafi G, Hasan TN, Akbarsha MA Protocol for *In vitro* and *in vivo* assessments of nanotoxicity (in preparation)

**Publications**

**2015:**

1. Athinarayanan J, **Alshatwi AA**, Periasamy VS, Al-Warthan AA. Identification of Nanoscale Ingredients in Commercial Food Products and their Induction of Mitochondrially Mediated Cytotoxic Effects on Human Mesenchymal Stem Cells. J Food Sci. 2015 Jan 13. doi: 10.1111/1750-3841.12760. [Epub ahead of print]
2. Alshatwi AA<sup>1</sup>, Athinarayanan J, Vaiyapuri Subbarayan P. Green synthesis of platinum nanoparticles that induce cell death and G2/M-phase cell cycle arrest in human cervical cancer cells. J Mater Sci Mater Med. 2015 Jan;26(1):5330. doi: 10.1007/s10856-014-5330-1. Epub 2015 Jan 11.
3. Athinarayanan, Jegan, Vaiyapuri Subbarayan Periasamy, Mohammad Alhazmi, Khalid A. Alatiah, and Ali A. Alshatwi. Synthesis of biogenic silica nanoparticles from rice husks for biomedical applications. Ceramics International 41(1): 275-281, Elsevier, DOI:10.1016/j.ceramint.2014.08.069, 2015.
4. Alshatwi, Ali A., Jegan Athinarayanan, and Vaiyapuri Subbarayan Periasamy. Biocompatibility assessment of rice husk-derived biogenic silica nanoparticles for biomedical applications. Materials Science and Engineering: C 47: 8-16, Elsevier, DOI: 10.1016/j.msec.2014.11.005, 2015.

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

5. Palanisamy Ravichandiran, Jegan Athinarayanan, Dhanaraj Premnath, Vaiyapuri Subbarayan Periasamy, Ali A. Alshatwi, Samuel Vasanthkumar, Synthesis, molecular docking and biological evaluation of novel 6-(4-(4-aminophenylsulfonyl) phenylamino)-5H-benzo [a] phenothiazin-5-one derivatives, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 139, 477–487, Elsevier, DOI:10.1016/j.saa.2014.12.036, 2015.

### **2014:**

6. "P. Subash-Babu, S. Ignacimuthu, Alshatwi AA. Nymphayol increases glucose-stimulated insulin secretion by RIN-5F cells and GLUT4-mediated insulin sensitization in type 2 diabetic rat liver. *Chemico-Biological interactions*. 226:72–81, Elsevier, DOI: 10.1016/j.cbi.2014.12.011, 2014.
7. P. Subash-Babu, Ali A Alshatwi. Hesperetin inhibit adipocyte differentiation in in vitro hMSCs adipogenesis and increase adipolysis via Bax, p21 mRNA expression in preadipocytes. *Journal of biochemical and molecular toxicology*, Wiley, DOI: 10.1002/jbt.21672, 2014.
8. Antonisamy P, Subash-Babu P, Alshatwi AA, Aravinthan A, Ignacimuthu S, Choi KC, Kim JH. Gastroprotective effect of nymphayol isolated from *Nymphaea stellata* (Willd.) flowers: contribution of antioxidant, anti-inflammatory and anti-apoptotic activities. *Chemico-Biological interactions*, 224(5):157-63, Elsevier, DOI: 10.1016/j.cbi.2014.09.020, 2014.
9. Subash-Babu P, Alshatwi AA, Ignacimuthu S. Beneficial Antioxidative and Antiperoxidative Effect of Cinnamaldehyde Protect Streptozotocin-Induced Pancreatic  $\beta$ -Cells Damage in Wistar Rats. *Biomolecules & Therapeutics*, 22(1):47-54. Korean Society of Applied Pharmacology, DOI: 10.4062/biomolther.2013.100, 2014.
10. P. Subash-Babu and Ali A Alshatwi. Evaluation of antiobesity effect of mangiferin in adipogenesis induced human mesenchymal stem cells by assessing adipogenic genes. *Journal of food Biochemistry*. Wiley, DOI: 10.1111/jfbc.12101, 2014.
11. Athinarayanan, Jegan, Vaiyapuri Subbarayan Periasamy, Mohammed A. Alsaif, Abdulrahman A. Al-Warthan, and Ali A. Alshatwi. Presence of nanosilica (E551) in commercial food products: TNF-mediated oxidative stress and altered cell cycle progression in human lung fibroblast cells. *Cell biology and toxicology*, 30(2): 89-100, SpringerLink, DOI: 10.1007/s10565-014-9271-8, 2014.

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

12. Athinarayanan, Jegan, Vaiyapuri Subbarayan Periasamy, and Ali A. Alshatwi. "Biogenic silica–metal phosphate (metal= Ca, Fe or Zn) nanocomposites: fabrication from rice husk and their biomedical applications. *Journal of Materials Science: Materials in Medicine*, 25(7):1637-44. SpringerLink, DOI: 10.1007/s10856-014-5210-8, 2014.
13. Periasamy, Vaiyapuri S., Jegan Athinarayanan, Mohammad A. Akbarsha, and Ali A. Alshatwi. Silica Nanoparticles Induced Metabolic Stress through EGR1, CCND, and E2F1 Genes in Human Mesenchymal Stem Cells. *Applied biochemistry and biotechnology*, 1-12, SpringerLink, 2014.
14. Periasamy, Vaiyapuri S., Jegan Athinarayanan, Mohammad Alhazmi, Khalid A. Alatiah, and Ali A. Alshatwi. Fe<sub>3</sub>O<sub>4</sub> nanoparticle redox system modulation via cell-cycle progression and gene expression in human mesenchymal stem cells. *Environmental Toxicology*, Wiley, DOI: 10.1002/tox.22098, 2014.
15. Periasamy, Vaiyapuri Subbarayan, Jegan Athinarayanan, Ahmed M. Al-Hadi, Fahad Al Juhaimi, and Ali A. Alshatwi. Effects of Titanium Dioxide Nanoparticles Isolated from Confectionery Products on the Metabolic Stress Pathway in Human Lung Fibroblast Cells. *Archives of environmental contamination and toxicology*, 1-13, SpringeLink, 2014.
16. Periasamy, Vaiyapuri Subbarayan, Jegan Athinarayanan, Ahmed M. Al-Hadi, Fahad Al Juhaimi, Mohamed H. Mahmoud, and Ali A. Alshatwi. Identification of Titanium dioxide Nanoparticles in Food Products: Induce Intracellular Oxidative Stress Mediated by TNF and CYP1A Genes in Human Lung Fibroblast Cells. *Environmental toxicology and pharmacology*, 39(1):176-186. Elsevier, DOI: 10.1016/j.etap.2014.11.021, 2014.
17. Alshatwi AA, Hasan TN, Alqahtani AM, Syed NA, Shafi G2, Al-Assaf AH, Al-Khalifa AS. Delineating the anti-cytotoxic and anti-genotoxic potentials of catechin hydrate against cadmium toxicity in human peripheral blood lymphocytes. *Environmental Toxicology and Pharmacology*, 38(2):653-62. Elsevier, DOI: 10.1016/j.etap.2014.07.013, 2014.
18. Alhazmi MI, Hasan TN, Shafi G, Al-Assaf AH, Alfawaz MA, Alshatwi AA. Roles of p53 and Caspases in Induction of Apoptosis in MCF- 7 Breast Cancer Cells Treated with a Methanolic Extract of Nigella Sativa Seeds. *Asian Pacific Journal of Cancer Prevention*, 15(22):9655-60, National Cancer Center, DOI:http://dx.doi.org/10.7314/APJCP.2014.15.22.9655, 2014.
19. Ali A. Alshatwi, Vaiyapuri S. Periasamy, Jegan Athinarayanan. Cytotoxic Effects of Engineered Nanoparticles in Human Mesenchymal Stem Cells. *International*

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

Journal of Medical, Health, Pharmaceutical and Biomedical Engineering, 8(9): 563-566, World Academy of Science, Engineering and Technology, 2014.

### 2013:

20. Alshatwi AA, Shafi G, Hasan TN, Syed NA, Khoja KK. Fenugreek induced apoptosis in breast cancer MCF-7 cells mediated independently of the fas receptor change. Asian Pac J Cancer Prev. 2013;14(10):5783-8.
21. Hasan TN, Shafi G, Syed NA, Alsaif MA, Alsaif AA, Alshatwi AA. Lack of association of BRCA1 and BRCA2 variants with breast cancer in an ethnic population of Saudi Arabia, an emerging high-risk area. Asian Pac J Cancer Prev. 2013;14(10):5671-4
22. Abdulaziz A Alsaif, Tarique N Hasan, Gowhar Shafi, Naveed A Syed, Mohammed A Alsaif, Abdullah H Alsaif, Ali A Alshatwi. Association of Multiple Drug Resistance-1 Gene Polymorphism with Multiple Drug Resistance in Breast Cancer Patients from an Ethnic Saudi Arabian Population. Cancer Epidemiology. 2013.
23. Anees A. Ansari, Gowhar Shafi, Tarique N Hasan, Naveed Ahmed S and Ali A Alshatwi. Luminescent mesoporous LaVO<sub>4</sub>: Eu core-shell nanoparticles: Synthesis, Characterization, biocompatibility and their Toxicity for Biomedical Applications. Journal of Material Chemistry. 2011;21: 19310-19316I
24. Anees A. Ansari, Tarique N. Hasan, Naveed A. Syed, Joselito P. Labis, A. K. Parchur, Gowhar Shafi, Alshatwi AA. (2013) In-vitro cyto-toxicity, genotoxicity and bio-imaging evaluation of one-pot synthesized luminescent functionalized mesoporous SiO<sub>2</sub>@Eu(OH)<sub>3</sub> core-shell microspheres. Nanomedicine: Nanotechnology, Biology and Medicine.
25. Alshatwi AA, V.S. Periasamy, Pandurangan Subash-Babu, Mohammed A. Alsaif, Abdulrahman A Alwarthan, Lei KA. CYP1A and POR gene mediated mitochondrial membrane damage induced by carbon nanoparticle in human mesenchymal stem cells. 2013. Environmental toxicology and pharmacology. 2013. 36:1, 215–222.
26. Alshatwi AA, Vaiyapuri Subbarayan P, Ramesh E, Al-Hazzani AA, Alsaif MA, Alwarthan AA. Aluminium oxide nanoparticles induce mitochondrial-mediated oxidative stress and alter the expression of antioxidant enzymes in human mesenchymal stem cells. Food Addit Contam Part A Chem Anal Control Expo Risk Assess. 2013 Jan;30(1):1-10.

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

27. Hasan TN, Shafi G, Syed NA, Alfawaz MA, Alsaif MA, Munshi A, Lei KY, Alshatwi AA. Methanolic extract of *Nigella sativa* seed inhibits SiHa human cervical cancer cell proliferation through apoptosis. *Nat Prod Commun*. 2013 Feb;8(2):213-6.
28. Ramesh E, Alshatwi AA. Naringin induces death receptor and mitochondria-mediated apoptosis in human cervical cancer (SiHa) cells. *Food Chem Toxicol*. 2013 Jan;51:97-105

### 2012:

29. Alshatwi AA, Tarique N. Hasan, Gowhar Shafi, Naveed Ahmed Syed, Abdullah H. Al-Assaf, Mohammed S. Alamri, and Abdrohman S. Al-Khalifa. Validation of the Antiproliferative Effects of Organic Extracts from the Green Husk of *Juglans regia* L. on PC-3 Human Prostate Cancer Cells by Assessment of Apoptosis-Related Genes. *Evidence-Based Complementary and Alternative Medicine*. 2012;
30. Anvarbatcha Riyasdeen, Vaiyapuri S. Periasamy, Preethy Paul, Alshatwi AA, and Mohammad A. Akbarsha . Chloroform Extract of *Rasagenthi Mezhu*, a Siddha Formulation, as an Evidence-Based Complementary and Alternative Medicine for HPV-Positive Cervical Cancers. (2012) *Evidence-Based Complementary and Alternative Medicine*.
31. Ali A Alshatwi, Tarique N Hasan, Naveed A Syed, Gowhar Shafi and B. Leena Grace. Identification of functional SNPs in BRCA1 associated ring domain (BARD1) gene and in silico analysis of damaging SNPs: Based on data procured from dbSNP database. *PLoS One*. 2012;7(10):e43939.
32. Alshatwi AA, Gowhar Shafi, Tarique Noorul Hasan, Naveed Ahmed Syed, A. Al-Hazzani, Mohammed A Alsaif, Abdulaziz A Alsaif. Differential Expression Profile and Genetic Variants of MicroRNAs Sequences in Breast Cancer Patients. *PLOS-One*. 7(2) 20 February 2012.
33. Periasamy VS, Alshatwi AA. Tea Polyphenols Modulate Antioxidant Redox System on Cisplatin-induced Reactive Oxygen Species Generation in a Human Breast Cancer Cell. *Basic Clin Pharmacol Toxicol*. 2012 Nov 12.
34. Gowhar Shafi, Anjana Munshi, Tarique N. Hasan Naveed Ahmed Syed, Amal A. Al-Hazzani and Alshatwi AA. *Artemisia absinthium* (AA) a novel potential complementary and alternative medicine for breast cancer. *Mol Biol Rep*. 2012 Jul;39(7):7373-9.
35. Alshatwi AA, Ramesh E, Periasamy VS, Subash-Babu P The apoptotic effect of hesperetin on human cervical cancer cells is mediated through cell cycle arrest,

Updated on 2/10/2015



## Resume- Dr. Ali A. Alshatwi

- death receptor, and mitochondrial pathways. *Fundam Clin Pharmacol.* 2012 Jun 29.
36. Alshatwi AA, Tarique N. Hasan, Gowhar Shafi, Mohammed A. Alsaif, Amal A. Al-Hazzani, Abdulaziz A. Alsaif, A single-nucleotide polymorphism in the TP53 and MDM-2 gene modifies breast cancer risk, *Fundam Clin Pharmacol.* 2012;26(3):438-43.
37. Alshatwi AA, Vaiyapuri Subbarayan P, Ramesh E, Al-Hazzani AA, Alsaif MA, Alwarthan AA. Al(2)O(3) nanoparticles induce mitochondria-mediated cell death and upregulate the expression of signaling genes in human mesenchymal stem cells. *J Biochem Mol Toxicol.* 2012 Nov;26(11):469-76.
38. Subash-Babu P, Alshatwi AA Aloe-emodin inhibits adipocyte differentiation and maturation during in vitro human mesenchymal stem cell adipogenesis. *J Biochem Mol Toxicol.* 2012 Aug;26(8):291-300.
39. Periasamy, V.S. Subash-Babu, P. Muthukumaran, V.R. Akbarsha, M.A. Alshatwi, A.A. In Vitro Cytotoxic Effect of Formulated Semecarpus Ghee Nanoemulsion on Human Cervical Cancer (SiHa) Cells. *Advanced Science Letters*, 2012;6:75-79.
40. Alshatwi AA, Subash Babu, Periasamy VS Amal A. Al-Hazzani. Formulation of cashew nut shell liquid (CSNL) nanoemulsion, a potent inhibitor of human MCF-7 breast cancer cell proliferation. *Medicinal Chemistry Research* July 2012, Volume 21, Issue 7, pp 1384-1388.
41. **Ali A. Alshatwi**, Gowhar Shafi, Anjana Munshi, Tarique Noorul Hasan, Mohammad A. Alsaif, David K. Y. Lei. Genetic variation in microRNA and the implications for Breast Cancer Patients of Saudi Women. *PLoS ONE*;Feb2012, Vol. 7 Issue 2, p1
42. Amal A. Al-Hazzani, Tarique N. Hasan, Gowhar Shafi, **Ali A Alshatwi**, Mohammed A. Alsaif, Manal A. Al Obaid, Kai Y. Lei. Methanolic extract of *Nigella sativa* seed inhibits MCF human breast cancer cells proliferation through apoptosis. *Asian Pacific J Cancer Prev*, **12**, 1555-1559.
43. Ali A. Alshatwi. Beneficiary antilipoperoxidative effect of lycopene on H2o2 supplimented oxidative stress rat-a dose dependent study. *Journal of Food Biochemistry* **36**, **2**, 2012 149–158.
44. Ali A. Alshatwi, Tarique N. Hasan, Gowhar Shafi, Adulaziz. A. Alsaif, **Amal A. Al-Hazzani** , Mohammed A. Alsaif and David K. Y. Lei. Genetic variation in *IL-*

Updated on 2/10/2015



## Resume- Dr. Ali A. Alshatwi

6 and *TNF- $\alpha$*  genes with risk of breast cancer in a Saudi population-based case-control study. The Breast Journal, Volume 18 Number 4, 2012 383–385.

### **2011:**

45. Alshatwi AA, Tarique Noorul Hasan, Naveed Ahmed Syed, Gowhar Shafi. Predicting the possibility of two newly isolated phenethereen ring containing compounds from *Aristolochia manshuriensis* as CDK2 inhibitors. Bioinformation. 7(7): 334-338; 2011.
46. Kholud Khoja, Gowhar Shafi, Tarique N. Hasan, **Naveed Ahmed Syed**, Abdrohman S. Al-Khalifa, Abdullah H. Al-Assaf, Ali. A. Alshatwi. Fenugreek, a Naturally Occurring Edible Spice, Kills MCF-7 Human Breast Cancer Cells via an Apoptotic Pathway. Asian Pacific Journal of Cancer Prevention. 12: 3299-3304; 2011.
47. **Ali A. Alshatwi**, Adulaziz. A. Alsaif, Abdulrahman A. Aldiab, Mohammed A. Alsaif, Tarique Noorul Hasan, Anjana Munshi, V S Periasamy, Subash Babu P, Gowhar Shafi, and David K. Y. Lei. Single Nucleotide Polymorphism in the *p21*, and *bcl2* Cancer Susceptibility Genes are likely to increase Breast Cancer Risk . Asian Pac J Cancer Prev. 2011;12(10):2607-10.
48. Ali A. Alshatwi, Tarique N. Hasan, Gowhar Shafi, Adulaziz A. Alsaif, Mohammed A. Alsaif , Amal A. Al-Hazzani and Kei. Y. Lei. Apoptosis-Mediated Proliferation Inhibition of Human Breast Cancer Cells by Lemon Citrus Extract. Asian Pac J Cancer Prev. 2011;12(6):1555-9.
49. **Tarique N. Hasan**, Leena Grace B, Tariq A. Masoodi, Gowhar Shafi, Shiva Shanmugham P, Ali A. Alshatwi., Higher affinity of estrogens towards human progesterone receptor A and B monomers and the risk of breast cancer: A comparative molecular modelling study, Adv Appl Bioinform Chem. 2011;4:29-36.

### **2010 & Before:**

50. **Alshatwi AA**. Catechin hydrate suppresses MCF-7 proliferation through TP53/Caspase-mediated apoptosis. Journal of Experimental & Clinical Cancer Research. 2010; 29:167.
51. Munshi A, Rajeshwar K, Kaul S, Al-Hazzani A, **Alshatwi AA**, Sai Babu M, Usha A, Jyothy A. Interleukin-10-1082 promoter polymorphism and ischemic stroke risk in a South Indian population. Cytokine. 2010; 52(3):221-224.

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

52. **Alshatwi AA**, Al Obaid MA, Al Sedairy SA, Ramesh E, Lei KY. Black and green tea improves lipid profile and lipid peroxidation parameters in Wistar rats fed a high-cholesterol diet. *J Physiol Biochem*. 2010; 67(1):95-104.
53. Alshatwi AA. Breast cancer risk, dietary intake, and methylenetetrahydrofolate reductase (MTHFR) single nucleotide polymorphisms. *Food Chem Toxicol*. 2010 48(7):1881-5.
54. Alshatwi AA, Al Obaid MA, Al Sedairy SA, Al-Assaf AH, Zhang JJ, Lei KY. Tomato powder is more protective than lycopene supplement against lipid peroxidation in rats. *Nutr Res*. 2010 30(1):66-73.
55. Munshi A, Sharma V, Kaul S, Al-Hazzani A, **Alshatwi AA**, Manohar VR, Rajeshwar K, Babu MS, Jyothy A. Estrogen receptor  $\alpha$  genetic variants and the risk of stroke in a South Indian population from Andhra Pradesh. *Clin Chim Acta*. 2010, 411(21-22):1817-21.
56. **Alshatwi AA**, Shafi G, Munshi A, Zhanj JJ, Lei KY (2009) Mdm2/Mdmx and Mdm2/c-Abl Interactions are Accompanied by Reductions in Mdm2/p53 interaction in Zinc-Depleted Human Hepatoblastoma Cells. *FASEB JOURNAL* (2009).
57. Gowhar Shafi, Anjana Munshi, Tarique N Hasan, Ali A Alshatwi, A Jyothy and David KY Lei, Induction of apoptosis in HeLa cells by chloroform fraction of seed extracts of *Nigella sativa*. *Cancer Cell International* (2009) 9; 29 doi:10.1186/1475-2867-9-29.
58. Jun Jun Zhang, Min Wu, Norberta W. Schoene, Wen-Hsing Cheng, Thomas T. Y. Wang, Alshatwi AA, Mohammed Alsaif, and K Y. Lei Effect of resveratrol and zinc on intracellular zinc status in normal human prostate epithelial cells. *American J Physiology* (2009) 297; C632-44.
59. **Alshatwi A.A.** and Alrefai N.A (2007) A Comparison of Serum Omega - 3 Fatty Acid Concentrations Between Patients with Coronary Heart Disease and Healthy Subjects. *Pakistan Journal of Nutrition* , 6 (1): 72-74.

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

60. **Alshatwi A.A.** and Alrefai N.A (2007) A Comparison of Serum Omega - 3 Fatty Acid Concentrations Between Patients with Coronary Heart Disease and Healthy Subjects. Pakistan Journal of Nutrition , 6 (1): 72-74.
61. **Alshatwi A.A.**, Alshmary A. and Al-Khalifa A. (2007) Nutritional Assessment of Hemodialysis Patients. J of Med Sci . 7 (2): 294-298.
62. **Alshatwi A.A.** (2007) A Comparative Study of Nutritional Parameters in Hemodialysis Patients, Bull. Fac. Agric., Cairo Univ., Egypt, (2007) 58: 105-111 .
63. **Alshatwi A.A** (2007) Vitamin B12 and Folate Deficiencies and Hyperhomocysteinemia in Elderly. J of Med Sci. 7 (3): 402-407.
64. **Alshatwi AA**, Han CT, Schoene NW, Lei KY. (2006) Nuclear accumulations of p53 and Mdm2 are accompanied by reductions in c-Abl and p300 in zinc-depleted human hepatoblastoma cells. Exp Biol Med ;231(5):611-8.;231(5):611-8 Page 26  
The Long-Term Comprehensive National Plan for Science, Technology and Innovation.
65. **Alshatwi AA (2006)** Zinc nutritional status of preschool children in Riyadh City. Pakistan Journal of Nutrition. 5(5):429-431
66. **Alshatwi AA** (2006) Iron deficiency in Preschool children in Riyadh City. The new Egyptian Journal of Med ; 35(2) 94-99.
67. **Alshatwi AA** , Fawzy Al-Hudy, AL-Othman A.(1995) Effect of Dietary protein sources and calcium supplementation on calcium balance in rats in journal of Applied Nutrition, 47(4)103-109.
68. Cui L, Schoene NW, Zhu L, Fanzo JC, **Alshatwi A**, Lei KY. (2002) Zinc depletion reduced Egr-1 and HNF-3beta expression and apolipoprotein A-I promoter activity in Hep G2 cells. Am J Physiol Cell Physiol. 2002 Aug;283(2):C623-30.

### Published Abstract

**Alshatwi AA**, Shafi G, Munshi A , Hasan TN, Lei KY Scientific Validation of Nigella sativa Extracts for Cancer Therapy and Drug Discovery: By Studying Crucial Apoptotic Genes NANO CON, 2009

Updated on 2/10/2015

## Resume- Dr. Ali A. Alshatwi

Stephen H K Wong, Y Q Zhao, **Ali Alshatwi**, Libin Cui, Rita S M Shih, Chung-Ting Han, Norberta W Schoene, and Kai Y Lei Zinc deficiency suppresses p21 transcriptional activity in human hepatoblastoma HepG2 cells, *FASEB J.* 2006 20:A609

**Alshatwi A.**, Cui L.B., Han Z.T., and Lei K.Y. (2003) Regulatory Mechanisms in The Stabilizations of p53 Tumor Suppressor Gene in Hepatoblastoma Cell .*FASEB J.* 17(4): A1663

Cui L.B., Wang L.R., Schoene N.W., **Alshatwi A.**, Fanzo J.C., Han Z.T., and Lei K.Y. (2003) Zinc depletion impairs p53 transcriptional activity in HepG2 cells. *FASEB J.* 17(4): A1663

Cui L.B., **Alshatwi A.**, Fanzo J.C., and Lei K.Y. (2002) Differentially expressed genes in zinc-deficient human bronchialepithelial cells detected by cDNA microarray. *FASEB J.* 16(4):A266

### PRESENTED AT CONFERENCE MEETINGS

Participated in Microbiology & Infectious Diseases Congress 2014, Sep 29-30, 2014, London, UK.

Participated and presented a scientific paper “Cytotoxic Effects of Engineered Nanoparticles in Human Mesenchymal Stem Cells International Journal of Medical, Health, Pharmaceutical and Biomedical Engineering” at World of Academy of Science, Engendering and Technology ICT 2014, Sep 26-27, 2014, London, UK.

Participated and presented a scientific paper “Industrial carbon powder induced cell death and mitochondrial membrane damage on human mesenchymal stem cells mediated via CYP1A, TNF3, CDKN1A, EGR1 and E2F1 genes” at European Molecular Biology Laboratory, August 20-23, 2014, Germany.

Participated and presented a scientific paper “SiO<sub>2</sub> nanoparticles cause metabolic stress” at The Academic-Industrial Interface in 21st Century Drug Discovery - satellite to London Tetrahedron Symposium, June 24-27, 2014, London, UK.

Participated and presented a scientific paper “In silico docking analysis and ADMET drug scan and in vitro conformation of Aegle marmelos (Bael) chloroform extract against oncoproteins of hepatocellular cancer cell lines” at Microbiome Conference for R&D and Business collaboration in microbiota research, probiotics, health & disease. April 28-29, 2014, London, UK.

Participated in Ninth Annual Biomarkers Conferences, Feb 25-26, 2014, Manchester, UK.

Updated on 2/10/2015

## **Resume- Dr. Ali A. Alshatwi**

Participated in World Academy of Science, Engineering and Technology conference, July, 08-09, 2013, London, UK.

Participated and presented a scientific paper "Anti-cancer Property of Aegle marmelos Leaves: Finding the Facts Against Hepatocellular Carcinoma HepG2 cell" at Federation of American Societies for Experimental Biology, April 20-24, 2013, Boston, MA, USA.

Participated in the annual conference of British Association for Parenteral Nutrition and Digestive Disorder Federation, June 17-20, 2012, Liverpool, UK.

Participated and presented a scientific paper "Apoptosis inducing ability of fenugreek (*Trigonella foenum graecum*) methanolic extract and the role of proapoptotic genes" at Federation of American Societies for Experimental Biology, April 21-25, 2012, San Diego, CA, USA.

Participated and presented a scientific paper "Association of p53 and mdm-2 Polymorphisms and Expression pattern with Breast Cancer in Saudi Arabia" at Experimental Biology Meeting, April 9-13, 2011, Washington, DC, USA.

Isolation and Characterization of Breast Cancer Specific MicroRNAs in Breast Cancer Cell Lines and Blood Sample. POSTER @ microRNA in HumanDisease & Development [ 2009]. USA.

Participated in a National Center for Nanscience and Technology Conference, Sep 1-3, 2009, China.

Participated and Presented "Zinc deficiency suppresses p21 transcriptional activity in human hepatoblastoma HepG2 cells" at Experimental Biology Meeting, April 1-5, 2006, San Francisco, CA, USA.

Attending, the 4th Saudi Conference on Food & Nutrition, 10-12/12/2006, Riyadh, Saudi Arabia

Attending; Third annual Meeting For the Saudi Society for Food and Nutrition, 10 / 12/ 2006, Riyadh, Saudi Arabia.

Attending, 3rd Training Program, National Commission for Academic Accreditation & Assessment, Quality Improvement on program level, 3-4/12/2006, Riyadh, Saudi Arabia

Attending, 3th Global Conference for Dr. Soliman AlHabibe Center, Nutrition and Chronic Diseases, 12-14/4/2005, Riyadh, Saudi Arabia

Attending and Presented, Meal Planning for Renal Patients, Meal planning Meeting, 20-21/12/2005, King Fahad Hospital, Damam, Saudi Arabia.

Attending; Second annual Meeting For the Saudi Society for Food and Nutrition, 27/12/ 2005, Medical college, King Saud University, Riyadh, Saudi Arabia.

Updated on 2/10/2015

## **Resume- Dr. Ali A. Alshatwi**

Attending; First annual Meeting For the Saudi Society for Food and Nutrition , 22 / 12/ 2004, Medical college, King Saud University, Riyadh, Saudi Arabia.

Participated and Presented " Regulatory Mechanisms in The Stabilizations of p53 Tumor Suppressor Gene in Hepatoblastoma Cell "at Experimental Biology Meeting, 11-15/4/2003, San Diego, California, USA.

Participated " Zinc depletion impairs p53 transcriptional activity in HepG2 cells " at Experimental Biology Meeting, at Experimental Biology Meeting, 11-15/4/2003, San Diego, California, USA

Participated and Presented " Differentially expressed genes in zinc-deficient human bronchialepithelial cells detected by cDNA microarray " at Experimental Biology Meeting, 20-24/ 4/2002, New Orleans, Louisiana, USA

Attended and Presented " Differentially expressed genes in zinc-deficient human bronchialepithelial cells detected by cDNA microarray " at Experimental Biology Meeting, 20-24/ 4/2002, New Orleans, Louisiana, USA Page 27 The Long-Term Comprehensive National Plan for Science, Technology and Innovation

Presented and Participated " Zinc depletion reduced Egr-1 and HNF-3beta expression and apolipoprotein A-I promoter activity in Hep G2 cells " Experimental Biology 2001, Orlando, Florida March 31 - April 4, 2001

### **Supervised and Reviewed Master Thesis**

Supervised many master Students

Reviewed master thesis

### **Committees:**

- Member of Scientific Committee, Saudi Society for Food and Nutrition, 10 / 5 / 1424 H to date
- Chairmen of Academic Accreditation and Assessment Committee, Department of Food 5 / 11 / 1426 H to 1431
- Sciences and Nutrition, College of Food Sciences and Agriculture , King Saud University, 8 / 4 / 1427 H to date
- Member Academic Accreditation and Assessment Committee, College of Food Sciences and Agriculture , King Saud University, 5 / 11 / 1426 H to 1431
- Member of Laboratories and Instruments Committee, Department of Food Sciences and
- Nutrition, College of Food Sciences and Agriculture , King Saud University, 6/8/1426 H to date

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## **Resume- Dr. Ali A. Alshatwi**

- Secretary General Council, Department of Food Sciences and Nutrition, College of Food Sciences and Agriculture, King Saud University, 6/8/1426 to 11 / 8/ 1427 H
- Member of Planning Committee, Department of Food Science and Nutrition, College of Food Sciences and Agriculture, King Saud University 26 / 10 / 1424 H to data
- Member of Graduate Studies Committee, Department of Food Sciences and Nutrition, College of Food Sciences and Agriculture , King Saud University, 16/7/1424 to 6/8/1426H

### **Training**

- Attending training program on Recent Progress of Nanoscience and Nanobiotechnology, including nanoparticle preparation and characterization, encapsulation of drug with nano carriers and nanosefty
- Student Learning Outcome Assessment
- Skill for Effective Texhing
- Planning for Effective Texhing
- Specification and report of Acadmic program
- Developing Personal Research Profile
- Outcome-Based Learning
- Blood borne Pathogens Training, University of Arizona, Tucson, AZ USA
- Laboratory Safety Training, University of Arizona, Tucson, AZ USA
- Radiation Protection Training Course University of Maryland, College Park, USA

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