

**Curriculum Vitae**  
**Karem H. Alzoubi (Karim El-Zu'bi)**  
**Jordan Science Star-Pharmacology, A Royal Recognition by His Majesty**  
**King Abdullah II ben Al Hussein-Jordan**  
**Co-Founder of the Responsible Conduct of Research Fellowship- a Joint**  
**International Degree at University of California/USA, and JUST/Jordan**

**PERSONAL**

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Technology, Faculty of Pharmacy  
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**EDUCATION:**

2001-2005     PhD     Pharmacology  
Department of Pharmacological and Pharmaceutical Sciences,  
College of Pharmacy,  
University of Houston, Houston, Texas, USA  
  
1996-2001     B.S.     Pharmacy, Faculty of Pharmacy,  
Jordan University of Science and Technology, Irbid, Jordan

**ACADEMIC AND PROFESSIONAL APPOINTMENTS:**

2014- Present     Professor of Pharmacology and Therapeutics, Department of Clinical  
Pharmacy,  
Faculty of Pharmacy  
Jordan University of Sciences and Technology, Irbid, Jordan  
  
2015-2019     Dean, Faculty of Pharmacy,  
Jordan University of Sciences and Technology, Irbid, Jordan  
  
2013-2015     Vice Dean, Faculty of Pharmacy,  
Jordan University of Sciences and Technology, Irbid, Jordan

2010- 2014	Associate Professor of Pharmacology and Therapeutics, Department of Clinical Pharmacy, Faculty of Pharmacy Jordan University of Sciences and Technology, Irbid, Jordan
2010-2013	Chairman, Department of Clinical Pharmacy, Faculty of Pharmacy Jordan University of Sciences and Technology, Irbid, Jordan
June-August 2007	Visiting Scholar to conduct postdoctoral research Department of Pharmacological and Pharmaceutical Sciences, College of Pharmacy, University of Houston, Houston, Texas, USA
2006-2010	Assistant Dean, Faculty of Pharmacy Jordan University of Sciences and Technology, Irbid, Jordan
2005-2010	Assistant Professor of Pharmacology and Therapeutics, Department of Clinical Pharmacy, Faculty of Pharmacy Jordan University of Sciences and Technology, Irbid, Jordan

### **AWARDS AND HONORS:**

Science Star of Jordan-Pharmacology-Recognition **by His Majesty King Abdullah II ben Alhussein**- World Science Forum-2017, Nov-07-11, Dead Sea, Jordan.

Khalifah Award for Education (an international award), Distinguished University Professor in the Field of Scientific Research, The government of United Arab Emirates (UAE) under the patronage of H.H. the President of the UAE, Abu Dhabi, UAE (2014-2015).

Young Affiliate in Medical Sciences of The World Academy of Science (TWAS) for the advancement of science in the developing countries, Trieste, Italy (2014-2018)

The Distinguished Researcher Award, The Ministry of Higher Education and Scientific Research, Amman, Jordan (2013)

The Ali Mango Award for Distinguished Researcher in Medical Sciences, Hamdi Mango Center For Scientific Research, University of Jordan, Amman, Jordan, (2013)

The Abdul Hameed Shoman Young Arab Investigator Award for Medical Sciences, the Shoman Forum, Amman, Jordan (2012)

The Hisham Hijjawi Award for Applied Science in the field of Industry and Energy “for the best published applied scientific project”, The Scientific Foundation of Hisham Adeeb Hijjawi, Amman, Jordan (2008)

Best Graduate Student Research Achievement Award, Sigma Xi- The Scientific Research Society, University of Houston, Houston, Texas (2005)

Awarded the Lokhandwala Scholarship, College of Pharmacy, University of Houston, (2004/2005)

Graduate Student's Assistant Teaching Fellowship-Department of Pharmacological and Pharmaceutical Sciences, University of Houston, Houston, Texas (2002-2005)

The Academic Excellence Scholarship for Higher Education- Jordan University of Science and Technology, Irbid, Jordan (2001- 2005)

Dean's honor list- College of Pharmacy, Jordan University of Science and Technology, Irbid, Jordan (1996-2000)

President's honor list- Jordan University of Science and Technology, Irbid, Jordan (1996-1997).

Tuition and fees waiver due to academic excellence- Ministry of Higher Education, Amman, Jordan (1996-1997)

### **AFFILIATIONS:**

THE WORLD ACADEMY OF SCIENCES for the Advancement of Science in Developing Countries, Trieste, Italy (2014-2018).

The Society for Advancement of Science and Technology in the Arab World (SASTA), San Diego, CA, USA (2013).

Chairperson, the MENA region Chapter, the International Brain Research Organization (IBRO), Paris, France (Since Nov/2017)

Society for Nicotine and Tobacco Research, Madison, WI, USA (2012-2013, 2014, 2016-2019)

Society for Neuroscience, WA, USA (student member: 2002-2005, full member since 2006)

Society for Nicotine and Tobacco Research, Europe Chapter (SRNT-E; 2016)

International Brain Research Organization (IBRO), Paris, France (member since 2008)

European Society for Cancer research (EACR), Nottingham NG7 2RD, United Kingdom (2015)

Public Health in the Arab World organization (PHAW), Beirut, Lebanon (member since 2013)

Middle East Molecular Biology Society (MEMBS), Dubai, United Arab Emirates (UAE, Establishing member since 2014)

Society for Faculty members of Jordan University of Science and Technology, Irbid, Jordan (member since 2008)

Jordanian Pharmaceutical Association, Amman, Jordan (member since 2001)

### **RESEARCH INTERESTS:**

Responsible Conduct of Research/Medical Research Ethics/Clinical Trials/Pharmacoepidemiology studies.

Smoking cessation treatment, with special emphasis on waterpipe

Pharmacology of the interactive effects of obesity, stress, obesity, high fat diet, sleep deprivation and hypothyroidism on cognitive functions

Pharmacology of long-term potentiation (LTP), Learning, and memory in the hippocampus

Pharmacogenetics and drug resistance in Jordanian population

Cancer and carcinogens: relation mutagenicity and antimutagenicity.

Clinical Pharmacy and Pharmaceutical care services

Neurogenic hypertension: The pathophysiology of psychosocial stress, obesity, aging and hypothyroidism in the autonomic nervous system.

Hypertension: obesity-induced hypertension and the effect of cholesterol

Pharmacologic characterization of the anti-hyperglycemic effect innovative synthetic compounds and medicinal plants in Jordan

The negative effects of diabetes type II on the peripheral nervous system.

The development of animal models for diabetes type I and II, and obesity.

Asthma devices: Medical teams and patient education; role of the Clinical Pharmacist

Effects of various diets and drugs on spontaneous chromosomal damage in relation to pathological conditions such as cancer

## **FUNDED RESEARCH**

**Ongoing Projects:** (This is a partial list focusing mainly on the projects that I PI)

1. **Dr. Karem Alzoubi (PI, JUST part)**, Dr. Wael Al-delaimy (PI, UCSF), Dr. Omar Khabour (Co-I), and Dr. Kenneth Goodman (Co-I) and several guest lecturers, 2015-2020. “International Research Ethics Education and Curriculum Development”. Sponsor/Agency: National Institute of Health, The Fogarty International Center/via University of California/San Diego (UCSF), USA. **Amount: \$1,235,215.**
2. **Dr. Karem Alzoubi (PI)**, Dr. Mohammed Bani hani (Co-I), Dr. Omar Khabour (Co-I) and others, 2017-2020 “Genetic factors that modulate Helicobacter pylori eradication among Jordanian patients” Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$77700.**

## **Completed Projects:**

- 1) **Dr. Karem Alzoubi (PI, JUST part)**, Dr. Omar Khabour (Co-I), Dr. Alan Shihadeh (PI, AUB) Dr. Thomas Eissenberg (PI, VCU), 2014-2016. “Evaluating REALTIME waterpipe smoke sampling in a natural environment”. Sponsor/Agency: National Institute of Drug Abuse/National Institute of Health/via University of Virginia Commonwealth, USA. **Amount: \$198,679.**
- 2) Dr. Tom Eissenberg (PI), Dr. Omar Khabour (PI, JUST part), **Dr. Karem Alzoubi (Co-I)**, Gordan Ginder and Thomas Eissenberg (PIs, VCU), 2015-2018. “Massey Cancer Center Support Grant – Waterpipe Tobacco Smoking and Cancer Risk Biomarkers”. Sponsor/Agency: National Institute of Drug Abuse/National Institute of Health/via University of Virginia Commonwealth, USA. **Amount: \$180,159.**
- 3) Brian PriMac (Co-I), Dr. Omar Khabour (COI), **Dr. Karem Alzoubi (Co-I)**, Dr. Mohammed azab (Co-I) 2009-2012. “Waterpipe tobacco smoking: trends, toxicants, and capacity building in Jordan”. Sponsor/Agency: National Institute of Health, Bethesda, Maryland, USA. **Amount: \$104,865**
- 4) **Dr. Karem Alzoubi (PI)**, Dr. Ahmad Alkofahi (Co-I), Dr. Omar Khabour (Co-I), 2013-2016. “Protective Effect of Selected Jordanian Medicinal Plant Extracts Against Cancer Development”. Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$229,552**
- 5) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), Dr. Sayer Al azzam (Co-I) 2009-2015. “Developing a model for Pharmacogenetic studies in Jordan”. Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$167,485.**
- 6) Dr. Ammar Almaaytah (PI), Dr. Qosay Albalas (Co-I), and **Dr. Karem Alzoubi (Co-I)**, 2015-2018 “The identification of the in vitro and in vivo antimicrobial and antibiofilm activities of rationally designed hybrid antimicrobial peptides. ” Sponsor/Agency: The

Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$83333.**

- 7) Dr. Wael Al-delaimy (PI), **Dr. Kareem Alzoubi (PI of JUST part)**, Dr. Omar Khabour (Co-I) 2013-2015. "An Assessment of Biomarkers for Active and Secondhand Smoke Exposure in a Random Sample of Jordanian Population" Sponsor/Agency: The San Diego State University Research Foundation, San Diego, USA. **Amount: \$28,007**
- 8) Dr. Sayer Al-azzam (PI), **Dr. Kareem Alzoubi (Co-I)**, Dr. Salah Abu Ruz (Co-I), Dr. Qais Alefan (Co-I) 2012-2015. Developing a model for rationale drug use in Jordan. Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$183,351**
- 9) Dr. Qusai Albalas (PI), **Dr. Kareem Alzoubi (Co-I)**, Dr. Amjad Qandil (Co-I), 2009-2015 "Design and Synthesis of a new lead targeting DPP-4 enzyme to control high blood glucose levels" Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$117,732**
- 10) Dr. Dasan Jaradat (PI), Dr. Samir Altaweel (Co-I), Dr. Tawfiq Arafat (Co-I), **Dr. Kareem Alzoubi (Co-I)**, and others 2014-2017 "Novel Approaches for the Treatment of Diabetes Mellitus and Infectious Diseases by Synthetic Antidiabetic and Antimicrobial Peptides" Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$89000.**
- 11) Dr. Jawan Ibbini (PI), **Dr. Kareem Alzoubi (Co-I)**, and others 2014-2017 "Wound healing properties of Red Soil" Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. **Amount: \$65000.**
- 12) **Dr. Kareem Alzoubi (PI)**, Dr Abeer Rababah (Co-I), et al. 2015-2016. Evaluation of the protective role of Levosaminidan against memory impairment during Diabetes. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 13) **Dr. Kareem Alzoubi (PI)**, Dr Abeer Rababah (Co-I), et al. 2015-2016. Evaluation of the protective role of L-carnitine against memory impairment induced by sleep deprivation. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 14) **Dr. Kareem Alzoubi (PI)**, Dr Omar Khabour (Co-I), et al. 2015-2016. Studying the protective role of pentoxifylline against memory impairment induced by diabetes in rats. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- Dr. Kareem Alzoubi (PI)**, Dr. Linda Tahaine (Co-I) et al. 2015-2016. Studying genetic variations of CB11 gene and its effect on response and side effects in patients treated with Candrdartan. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 15) **Dr. Kareem Alzoubi (PI)**, Dr. Linda Tahaine (Co-I) et al. 2015-2016. Studying genetic variations of Abo gene and its effect on response and side effects in patients treated with Enalapril. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 16) **Dr. Kareem Alzoubi (PI)**, Adnan Masadeh (Co-I) et al. (Co-I) 2013-2015. The effect of waterpipe smoking on heavy metal levels at major body organs in mice. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 17) **Dr. Kareem Alzoubi (PI)**, Dr Omar Khabour (Co-I), et al. 2014-2015. Evaluation of the protective role of *Withania somnifera* against memory impairment in a rat model of

- posttraumatic stress disorder. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 18) **Dr. Karem Alzoubi** (PI), Dr Omar Khabour (Co-I), et al. 2014-2015. Evaluation of the protective role of pentoxifylline against memory impairment in a rat model of posttraumatic stress disorder. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 19) **Dr. Karem Alzoubi** (PI), Dr Omar Khabour (Co-I), et al. 2014-2015. Genotoxicity of tyrosine kinase inhibitors. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 20) Dr Omar Khabour (PI), **Dr. Karem Alzoubi** (Co-I) 2014-2015. Evaluation of tempol effect on genotoxicity induced by cisplatin. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 21) **Dr. Karem Alzoubi** (PI), Dr Omar Khabour (Co-I), et al. 2014-2015. Genotoxicity of combination of Metformin and Glebclamide. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 22) **Dr. Karem Alzoubi** (PI), and Dr Khawa Nuseir (Co-I), et al. 2013-2014. Evaluation of the effect of sildenafil on chronic psychosocial stress-induced memory impairment in rats. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 23) **Dr. Karem Alzoubi** (PI), and Dr Majed Masadeh (Co-I), et al. 2013-2014. Investigation of the susceptibility of standard biofilm forming bacterial isolates of methicillin resistant staphylococcus aureus (MRSA) to selected antibiotics from the fluoroquinolones. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 24) **Dr. Karem Alzoubi** (PI), and Dr Omar Khabour (Co-I), et al. 2013-2014. Evaluation of the effect of melatonin on learning and memory impairment induced by sleep deprivation. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 25) **Dr. Karem Alzoubi** (PI), and Dr Mahmoud Alomari (Co-I), et al. 2013-2014. The effect of waterpipe smoking on memory performance and learning ability: the role of vitamin E and forced swimming exercise to prevent the learning and memory impairment. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - Dr. Karem Alzoubi** (PI), Dr. Omar Khabour, et al. 2012-2014. The effect of genetic variation on choline acetyltransferase gene (Chat) on water pipe tobacco smoking. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 26) Dr. Khabour Omar (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. The addiction behavior of waterpipe smoking in Jordanian population: environmental and genetic approach. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 27) Dr. Sayer Alazzam (PI), and **Dr. Karem Alzoubi** (Co-I), 2013-2014. Pharmacist role in the prevention of medication errors in outpatient pharmacy. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
  - 28) Dr. Khabour Omar (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. Changes in the expression and protein level of matrix metalloproteinases after acute and chronic exposure to waterpipe tobacco smoke. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.

- 29) Dr. Khabour Omar (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. Evaluation of enalapril antagonizing effect of hydrochlorothiazide on DNA damage in human cultured lymphocytes Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology..
- 30) Dr. Khabour Omar (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. The effect of genetic polymorphisms of adiponectin gene on the adverse effects profile of isotretinoin-treated acne patients Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 31) Dr. Khabour Omar (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. Protective effect of tempol on DNA damage induced by norcantharidin in human cultured lymphocytes. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 32) Dr. Sayer Alazzam (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. Evaluation of vitamin B12 effects on DNA damage induced by hydrochlorothiazide. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 33) Dr. Majed Massadeh (PI), **Dr. Karem Alzoubi** (Co-I) 2013-2014. Investigation of the effect of phosphodiesterase inhibitors (PDEs) on the in vitro antibacterial activity of ciprofloxacin. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 34) Dr. Mahmoud Ahmad (PI), **Dr. Karem Alzoubi** (Co-I) 2013-2014. Behavior and neural time-course change to forced versus voluntary exercise. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 35) Dr. Nizar Mhaidat (PI), and **Dr. Karem Alzoubi** (Co-I) 2013-2014. Epigenetic down-regulation of PUMA in colorectal cancer. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 36) Dr. Nizar Mhaidat (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. Expression of glucose regulated protein 78 (GRP78) and colorectal cancer response to chemotherapy. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 37) Dr. Majed Massadeh (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. In vitro and in vivo investigation of the antibacterial activities of some fluoroquinolones against pseudomonas aeruginosa biofilms. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 38) Dr. Salem Barakat (PI), **Dr. Karem Alzoubi** (Co-I), et al. 2013-2014. Gas Chromatography-mass spectroscopy analysis of *Artemisia arborescens* L. and evaluation of its biological activities. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 39) **Dr. Karem Alzoubi** (PI), Dr Omar Khabour (Co-I), and Amal Bawani (Master Student) 2012-2013. Evaluation of the effect of tempol on learning and memory impairment induced by sleep deprivation. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 40) **Dr. Karem Alzoubi** (PI), Dr Nizar Mhaidat (Co-I), et al. 2012-2013. Evaluation of the effect of sildenafil on chronic psychosocial stress-induced memory impairment in rats. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 41) **Dr. Karem Alzoubi** (PI), Dr Ahmad Alkofahi (Co-I), et al. 2012-2013. Determination of oral LD50 and subchronic toxicity study of *Aloysia triphylla* leaf extract in rats. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.



- 42) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), et al. 2012-2013. "The effect of waterpipe smoke exposure on learning and memory functions: possible reversal by nicotine." Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 43) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), et al. 2012-2013. "Evaluation of tempol effect on DNA damage induced by vorinostat". Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 44) Dr. Nizar Mhaidat (PI), **Dr. Karem Alzoubi (Co-I)**, et al. 2012-2013. Study the levels of different cytokines in peripheral blood mononuclear cell cultures of patients with colorectal cancer. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 45) **Dr. Karem Alzoubi (PI)**, Dr. Nizar Mhaidat (Co-I), et al. 2011-2012. The possible preventive effect of caffeine on vascular dementia Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 46) **Dr. Karem Alzoubi (PI)**, and Dr. Omar Khabour (Co-I) 2011-2013. "Role of Streptozocin-induced diabetes in ganglionic transmission and synaptic plasticity in the superior cervical ganglion". Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 47) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), et al. 2011-2012. The combined effect of sleep deprivation and high fat diet, deteriorating major body organs: A possible beneficial effect for vitamin E. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 48) Dr. Sayer Alazzam (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2011-2012. The combined effect of sleep deprivation and high fat diet, deteriorating major body organs: A possible beneficial effect for vitamin E. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 49) Dr. Feras Alali (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2011-2012. The effect of arbutus andrechne L. on improving the memory and cognitive impairment related to sleep deprivation. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 50) Dr. Omar Khabour (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2011-2012. Genotoxicity of structurally-related metal chelating drugs. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 51) Dr. Omar Khabour (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2011-2012. Studying acute inflammatory effects of waterpipe smoking using real-time PCR and conventional techniques. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 52) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), et al. 2010-2011. Evaluation of the effect of pentoxifylline on sleep-deprivation induced cognitive impairment Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 53) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), et al. 2010-2011. Genetic polymorphism of RARA gene and its effect on the clinical outcomes of isotretinoin-treated acne patients. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 54) **Dr. Karem Alzoubi (PI)**, Dr. Omar Khabour (Co-I), et al. 2010-2011. The combined effect of sleep deprivation, and high fat diet on learning and memory: possible beneficial

effect for vitamin E. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.

- 55) **Dr. Karem Alzoubi (PI)**, Dr Sayer Alazzam (Co-I), et al. 2010-2011. Evaluation of vitamin B12 effects on DNA damage induced by pioglitazone. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 56) **Dr. Karem Alzoubi (PI)**, Dr Omar Khabour (Co-I), et al. 2010-2011. Evaluation of vitamin B12 effects on DNA damage induced by some anticancer drugs. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 57) **Dr. Karem Alzoubi (PI)**, Dr Sayer Alazzam (Co-I), et al. 2010-2011. Study the effect of pioglitazone and /or metformin on vascular dementia induced by chronic administration of L-Methionine. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 58) Dr. Sayer Alazzam (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2010-2011. The effect of metformin on vasomotor symptoms in menopausal woman. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 59) Dr. Sayer Alazzam (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2010-2011. The role of type II deiodinase polymorphisms in clinical management of hypothyroid patients treated with levothyroxine. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 60) Dr. Sayer Alazzam (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2010-2011. Clinical and genetic variants related to clopidogrel resistance. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 61) Dr. Nizar Mhaidat (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2010-2011. Evaluation of colchicines effect on cytokine production from peripheral blood mononuclear cells in type I diabetic patients. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 62) Dr. Sayer Alazzam (Co-I), **Dr. Karem Alzoubi (PI)**, et al. 2010-2010. The Effect of simvastatin therapy on selected novel adipocytokines in type 2 diabetic patient. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 63) **Dr. Karem Alzoubi (PI)**, Dr Omar Khabour (Co-I), et al. 2009-2010. The effect of vitamin E on the memory and learning impairment induced by sleep deprivation. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 64) **Dr. Karem Alzoubi (PI)**, Khalid Al-ani (Co-I) 2009-2011. The effect of every other day fasting on high fat diet-induced activity reduction, cognitive impairment, and chromatin changes: modulation by antioxidant vitamins supplementation. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 65) Dr. Mohammed Azab (PI), **Dr. Karem Alzoubi (Co-I)** 2009-2010. The effect of every other day fasting on spontaneous genotoxicity and cytotoxicity in adult rats. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 66) Dr. Sayer Al azzam (PI), **Dr. Karem Alzoubi (Co-I)**, et al. 2009-2010. Vitamin B12 and quality of life in healthy young adult population. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 67) Dr. Sayer Al azzam (PI), **Dr. Karem Alzoubi (Co-I)**, et al 2009-2010. Effect of statins on the leptin-to-adiponectin ratio in type II diabetic patients. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.

- 68) Dr. Sayer Al azzam (PI), **Dr. Karem Alzoubi** (Co-I), et al 2009-2010. The role of genetic polymorphism of leptin receptor on the clinical outcomes of metformin in patients with type II diabetes. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 69) Dr. Nizar Mhiadat (PI), Omar Khabour (Co-I), **Dr. Karem Alzoubi** (Co-I), et al 2009-2010. Correlation between MDR1 gene polymorphisms and clinical outcomes in patients with lymphoma. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 70) Dr. Sayer Al azzam (PI), **Dr. Karem Alzoubi** (Co-I), et al 2009-2010. The Pleotropic effects of statins among type II diabetics patients. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 71) **Dr. Karem Alzoubi** (PI), Dr. Khalid Alani (Co-I), Dr Omar Khabour (Co-I), and Salah Abdulla (MS student) 2008-2009. Study of the effect of vitamin C on chronic psychosocial stress-induced cognitive impairment. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 72) Dr. Feras Alali (PI), **Dr. Karem Alzoubi** (Co-I) and Sanaa Alebini (MS student) 2008-2009. Phytochemical analysis of *Ceratonia seliqua* and assessment of its cognitive impairment caused by chronic and/or acute stress. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology. Amount:
- 73) Dr. Feras Alali (PI), **Dr. Karem Alzoubi** (Co-I) and Laila Saber (MS student) 2008-2009. Phytochemical analysis of *Hypericum Triquetrifolium Turra* and assessment of its cognitive impairment caused by chronic and/or acute stress. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 74) **Dr. Karem Alzoubi** (PI), Dr. Khalid Alani (Co-I), and Gada Tuweiq (MS student) 2007-2008. The combined effect of chronic psychosocial stress and/or high fat-high carbohydrate diet on learning and memory: possible protective role for caffeine. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 75) **Dr. Karem Alzoubi** (PI) 2006-2008. In vivo expression of ganglionic long-term potentiation in superior cervical ganglia from hypertensive aged rats. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.
- 76) Dr. Omar Khabour (PI), **Dr Karem alzoubi** (Co-I) 2006-2008. Changes in spatial memory and BDNF expression to concurrent dietary restriction, voluntary exercise and/or forced exercise. Sponsor/Agency: Deanship of Research, Jordan University of Science and Technology.

## **PUBLICATIONS:**

*My published work has been cited more than 3569 times (Scopus. Jan 2020), and I am holding a Hirsch's (H)-index of 32, which is the highest among all researcher in the fields of Pharmacy and Pharmacology in Jordan (Scopus. Jan 2020).*

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### **Book Chapters:**

1. Alkadhi KA, **Alzoubi KH**. (2014) Abnormal Brain Activity Triggers Long-Term Potentiation in Sympathetic Ganglia: Implication for Sudden Death. In: *Sudden Death in Epilepsy: Forensic and Clinical Issues* by Lather CM et al, 2<sup>nd</sup> ed, Taylor and Francis.
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### **Conference Presentations and Abstracts:**

1. **Alzoubi KH**, Khabour OF, Abu-Eitah RN, Abu-siniyeh AA. 9The Effect of Genetic Variations in Choline Acetyltransferase Gene (CHAT) on Waterpipe Tobacco Smoking Dependence. Third International Conference on Advanced Genetics-2019, November, 13-15, 2019, Baltimore, MD, USA.
2. **Alzoubi KH**, Ahmed M. Khabour OF. Vitamin E prevents the cognitive impairments in post-traumatic stress disorder rat model: Behavioral and molecular study. Society for Neuroscience Meeting 2019, October 18-22, Chicago, IL, USA.
3. **Alzoubi KH**, Protection of Disease/Conditions Induced Memory Impairment by Novel Pharmaceutical Agents. The International Conference and Advanced Neuroscience School "Trauma, Stress and Neurodegeneration: Molecular, Cellular & Behavioral Perspectives", October 04-08, 2019, Beirut, Lebanon.



4. **Alzoubi KH**, Sleep-deprivation induced memory impairment. The International Conference and Advanced Neuroscience School “Trauma, Stress and Neurodegeneration: Molecular, Cellular & Behavioral Perspectives”, October 04-08, 2019, Beirut, Lebanon.
5. **Alzoubi KH**, Omar Khabour, Thomas Eissenberg. Oxidative stress biomarkers changes induced by waterpipe smoking in blood lymphocytes. Society for Research on Nicotine and Tobacco Annual meeting. Feb 20-23, 2019 San Francisco, CA, USA.
6. **Alzoubi KH**, and Khabour OF, Protection of Disease/Conditions Induced Memory Impairment by Novel Pharmaceutical Agents, International Conference on Applied Psychology, Psychiatry and Mental Health”, which is slated for November 26-27, 2018 Los Angeles, USA.
7. **Alzoubi KH**, The Protective Effect Of CEREBROLYSIN On Improving The Memory And Cognitive Impairments: Sleep Deprivation As A Model, 5rd Middle East Molecular Biology Congress and Exhibition. King Hussein Bin Talal Convention Centre, 03-06 Oct.2017 Dead Sea, Jordan.
8. **Alzoubi KH**, Omar Khabour, Hythem Daradka, Rima Nakkash, Thomas Eissenberg. Cigarettes Tobacco and Waterpipe Use among Taibah University Students in Medina of Saudi Arabia: The Impact of Tobacco Sales Ban, Society for Research on Nicotine and Tobacco Annual meeting. Feb 20-24, 2018 Baltimore, VA, USA.
9. Muhamad Ali Shakhathreh, Omar Khabour, **Alzoubi KH**, Majed Masadeh, Emad Hussein, George Bshara, Impact and Influence of Waterpipe Tobacco Smoking on Bacterial Oral Flora. Society for Research on Nicotine and Tobacco Annual meeting. Feb 20-24, 2018 Baltimore, VA, USA.
10. Omar Khabour, Salsabeel Sabi, **Alzoubi KH**, Caroline Cobb, Thomas Eissenberg. Promotor Hypermethylation of P-53 and PAR52 in Blood Lymphocytes and Oral Epithelial Cells is Associated with Waterpipe Smoking. Society for Research on Nicotine and Tobacco Annual meeting. Feb 20-24, 2018 Baltimore, VA, USA.
11. **Alzoubi KH**, Protection of Neurodegenerative Diseases Induced Memory Impairment via Novel Pharmaceutical Agents, International Conference and Advanced Neuroscience School in Neurodegenerative Disorders: Translation into Clinical Neurology”, International Brain Research organization (IBRO) in collaboration with Jordan University of Science and Technology (JUST), November 19-24, 2017. Irbid, Jordan.
12. **Alzoubi KH**, Al Subeh Z, Khabour OF. Evaluating the protective effect of etazolate on anxiety- and depression- like behavior and cognitive impairment induced by post traumatic stress disorder. Society for Neuroscience Meeting 2017, November 11-15, Washington, DC, USA.
13. **Alzoubi KH**, Alkadhi KA. L-Thyroxine normalizes hypothyroidism-induced suppression of CaMKII pathway during hippocampus-dependent learning and memory processes. Society for Neuroscience Meeting 2017, November 11-15, Washington, DC, USA.
14. **Alzoubi KH**, Omar F. Khabour, Thomas E. Eissenberg, Epigenetic Changes Induced by Waterpipe Smoking in The Hippocampus, Third International Conference on Waterpipe Tobacco Smoking Research, "Translating waterpipe tobacco smoking research evidence into practice, policy and regulation", 10-11 Nov, 2017, Beirut, Lebanon

15. **Alzoubi KH**, Protection of Neurodegenerative Diseases Induced Memory Impairment via Novel Pharmaceutical Agents, 4rd Middle East Molecular Biology Congress and Exhibition. Zayed University, 01-04 Nov.2017– Abu Dhabi, UAE.
16. Nusier KQ, **Alzoubi KH**, Azzani, M. The long-term effects of saccharin-induced analgesia in infancy on learning and memory during adulthood in rats: role of endogenous opioid system. Society for Neuroscience Meeting 2016, November 11-16, San Diego, CA, USA.
17. **Alzoubi KH**, Protection of Disease/Conditions Induced Memory Impairment by Novel Pharmaceutical Agents: Novel mechanism of action, 3rd Middle East Molecular Biology Congress and Exhibition. Research Complex – Qatar University, 14-17 Nov.2016– Doha, Qatar.
18. **Alzoubi KH**, Alkofahi AS, Khabour OF, Mhaidat NM. The antimutagenic activity of selected medicinal plants from Jordan. The First International Conference on Pharmaceutical Chemistry-September 05-07-2016 Frankfurt, Germany.
19. **Alzoubi KH**, Khabour OF, Alomari M., Halpoub A., Shihadeh A, Eissenberg T, The beneficial effect of vitamin E in memory impairment induced by waterpipe smoke exposure. Society for Research on Nicotine and Tobacco-Europe meeting. September 8-10, 2016 Prague, Czech Republic.
20. **Alzoubi KH**, Alkofahi AS, Khabour OF, Mhaidat NM. Screening of Selected Medicinal Plants from Jordan for their Protective Properties against Oxidative DNA Damage. A Matter of Life or Death: Mechanisms and Relevance of Cell Death for Cancer Biology and Treatment. An EACR conference. 28 30 Jan 2016, Amsterdam, Netherland.
21. **Alzoubi KH**, and Alkadhi KA. Evaluation the effect of tempol on learning and memory impairment induced by sleep deprivation. Society for Neuroscience Meeting 2015, October 17-21, Chicago, DC, USA.
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23. Khabour OF, **Alzoubi KH**, Mayyas F, Bani Salameh F., and Mhaidat N. Melatonin prevents memory impairment induced by chronic sleep deprivation. Society for Neuroscience Meeting 2015, October 17-21, Chicago, DC, USA.
24. **Alzoubi KH**. Handling of inhaler in actual pulmonary practice: Metered dose inhaler versus dry powder inhalers. Second MENA regulatory conference on bioequivalence biowavers and Bioanalysis biodissolutions and biosimilars. 15-17 September 2015, Amman, Jordan.
25. **Alzoubi KH**, Alkofahi AS, Khabour OF. Screening of the Antioxidative DNA damage activity of some medicinal plants from Jordan. 2nd Mediterranean Symposium on Medicinal and Aromatic Plants, April 22-25, 2015. Antalya, Turkey.
26. Abu Basha E, **Alzoubi KH**, Alsmady M, Solaiman, A, HSU W, Effect of *Ceratonia Sliqua* and *peganum Haemala* extracts on blood glucose level on normal and diabetic rats. 2nd Mediterranean Symposium on Medicinal and Aromatic Plants, April 22-25, 2015. Antalya, Turkey.

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30. **Alzoubi KH**, Protection of Disease/Conditions Induced Memory Impairment by Novel Pharmaceutical Agents, The World Academy of Science (TWAS) 25th General Meeting, Muscat, Sultanate of Oman 25-29 October 2014.
31. **Alzoubi KH**, Alali FQ, Khabour OK, Malkawi B. The Neuroprotective Effect of Arbutus Andrachne L. on Chronic Sleep Deprivation-induced Memory Impairment: The Role of Oxidative Stress. The 6th Conference of the Jordanian Society for Scientific Research, November 23/2013, Amman, Jordan.
32. **Alzoubi KH**, Khabour OK, Al-azzam S. The Role of Multidrug Resistance-1 (MDR1) Variants in Response to Atorvastatin among Jordanians. The 63 Annual Meeting of the American Society for Human Genetics. October 22-26/2013 Boston, MA, USA.
33. Khabour OK, Alomari M, **Alzoubi KH**, Garaibeh M. Alhashimi F. Distribution of hepatic lipase C-514T and G-250A polymorphisms and their association with plasma lipid profile in young Jordanians. The 63 Annual Meeting of the American Society for Human Genetics. October 22-26/2013 Boston, MA, USA.
34. Khabour OK, **Alzoubi KH**, Khader M. Evaluation of vitamin B12 effects on DNA damage induced by Paclitaxel. The 62 Annual Meeting of the American Society for Human Genetics. November 6-10/2012 San Francisco, CA, USA.
35. **Alzoubi KH**, Khabour OF, Azab M, Shqair D, Shihadeh A, Primack B, Eissenberg T, Co exposure and puff topography among Jordanian waterpipe tobacco smokers: Correlation with level of dependence. Society for Research on Nicotine and Tobacco Annual meeting. March 13-16, 2013 Boston, MA, USA.
36. Khabour OF, **Alzoubi KH**, Azab M, Primack B, Eissenberg T. Waterpipe tobacco smoking among university students in Jordan. Society for Research on Nicotine and Tobacco Annual meeting. March 13-16, 2013 Boston, MA, USA.
37. **Alzoubi KH**, Khabour OK, Hussain N, Al-azzam S, Mhaidat N. Evaluation of Vitamin B12 Effects on DNA Damage Induced by Pioglitazone. The 62 Annual Meeting of the American Society for Human Genetics. November 6-10/2012 San Francisco, CA, USA.
38. **Alzoubi KH**. Comparative studies in Smoking cessation pharmacotherapy. The 14<sup>th</sup> Jordanian Pharmacy Conference 26-28 April 2012 in Amman, Jordan.
39. Khabour OF, **Alzoubi KH**, Azab M, Eissenberg T, Mehrotra P, Carroll M, Primack PA, Afifi R, Waterpipe tobacco and cigarettes smoking in Jordan. Society for Research on Nicotine and Tobacco Annual meeting. March 13-16, 2012 Houston, Texas, USA.

40. Alsatari ES, **Alzoubi KH**, Azab M, Khabour OF, Sadiq MF. Assessment of DNA damage in lymphocytes of waterpipe smokers. 2012 Society for Research on Nicotine and Tobacco Annual meeting. March 13-16, 2012 Houston, Texas, USA.
41. **Alzoubi KH**. M. Srivareerat, AM Aleisa. KA Alkadhi. Chronic caffeine treatment prevents stress-induced LTP impairment: The critical role of phosphorylated CaMKII and BDNF. Society for Neuroscience Meeting 2011, November 12-16, Washington, DC, USA.
42. KA Alkadhi, **Alzoubi KH**. M. Srivareerat, Tran TT, AM Aleisa. Role of  $\alpha 7$ - and  $\alpha 4\beta 2$ -nAChRs in the neuroprotective effect of nicotine in chronic stress-induced impairment of hippocampus-dependent memory. Society for Neuroscience Meeting 2011, November 12-16, Washington, DC, USA.
43. Khabour OF, **Alzoubi KH**. Abu Rashid B. The neuroprotective effect of vitamin E in chronic sleep deprivation-induced memory impairment: The molecular role of BDNF and oxidative stress biomarkers. Society for Neuroscience Meeting 2011, November 12-16, Washington, DC, USA.
44. Khabour OF, Wehaibi S, Al-Azzam SI, **Alzoubi KH**, Association of Adiponectin And Leptin Gene Polymorphisms With Hypertension In Type 2 Diabetic Patients. The 61<sup>st</sup> Annual Meeting of the American Society for Human Genetics. October 11-15/2011 Montreal, Canada.
45. Dao A, Srivareerat M, Tran TT, **Alzoubi KH**, Alkadhi KA, Nicotine prevents and stress intensifies impairment of late phase LTP in beta-amyloid rat model of Alzheimer's disease. Society for Neuroscience Meeting 2010, November 13-17, San Diego, CA, USA.
46. **Alzoubi KH**, Khabour OF, Abdo SA, Alzubi MA, Abdul-Razzak KK, Study of the effect of vitamin C on chronic stress-induced cognitive impairment. Society for Neuroscience Meeting 2010, November 13-17, San Diego, CA, USA.
47. **KH Alzoubi**, OF Khabour, LJ Abu-Haweleh. Distribution of CCR-5 $\Delta$ 32, CCR2-64I and SDF1-3'A alleles that modulate drug-response and HIV infection among Jordanians. The 60<sup>th</sup> Annual Meeting of the American Society for Human Genetics. November 2-6/2010 Washington, DC., USA
48. **K. H. Alzoubi**, K. Abdul-razzak, O. Khabour, G. Al-tuweiq, K. Alkadhi. Chronic caffeine administration prevents stress-induced impairment of hippocampus-dependent memory. . The Fifth International Conference of The Royal Medical Services. 3-6 May 2010 at Dead Sea, Amman, Jordan.
49. **K. H. Alzoubi**, K. Abdul-razzak, O. Khabour, G. Al-tuweiq, K. Alkadhi. Chronic caffeine administration prevents high fat diet-induced impairment of hippocampus-dependent learning and memory. Society for Neuroscience Meeting 2009, November 13-17, Chicago, IL, USA.
50. Alkadhi KA, **Alzoubi KH**, Alhaidar I, Aleisa AM. Streptozotocin-induced diabetes impairs ganglionic transmission and synaptic plasticity in the superior cervical ganglion. Society for Neuroscience Meeting 2009, November 13-17, Chicago, IL, USA.
51. Khabour OF, **Alzoubi KH**, Alomari MA, Alzubi MA, Mesmar SM. Changes in spatial memory, BDNF and IGF-I expression to simultaneous dietary restriction and forced exercise. Society for Neuroscience Meeting 2009, November 13-17, Chicago, IL, USA.

52. I. A. Alhaider, T.T. Tran, A. M. Aleisa, **K. H. Alzoubi**, K. A. Alkadhi. Effect of caffeine on cognitive deficits in acutely sleep deprived rats: electrophysiological and molecular evidence. Society for Neuroscience meeting 2009, November 13-17, Chicago, IL, USA.
53. **K. H. Alzoubi**, K. Abdul-razzak, O. Khabour, G. Al-tuweiq, K. Alkadhi, Chronic caffeine administration prevents stress-induced impairment of hippocampus-dependent memory. Society for Neuroscience meeting 2008, November 15-19, Washington, DC: USA.
54. A. M. Aleisa, **K. H. Alzoubi**, I. A. Alhaider, , M. Srivareerat, T. T. Tran, , K. A. Alkadhi Nicotine treatment reverses sleep deprivation-induced impairment of LTP in anesthetized rats. Society for Neuroscience meeting 2008, November 15-19, Washington, DC: USA.
55. M. Srivareerat, **K.H. Alzoubi**, P.R. Zoladz, C.R. Park, J.D. Halonen, K.A. Alkadhi, D.M. Diamond. Differential expression of CaMKII, BDNF, and calcineurin in the hippocampus and amygdale in response to spatial learning and predator stress-induced amnesia. Society for Neuroscience meeting 2008, November 15-19, Washington, DC: USA.
56. I. A. Alhaider, A. M. Aleisa, T. T. Tran, M. Srivareerat, **K. H. Alzoubi**, K. A. Alkadhi. Caffeine prevented the impairment of the spatial learning and memory induced by sleep deprivation. Society for Neuroscience meeting 2008, November 15-19, Washington, DC: USA.
57. Alkadhi KA, **Alzoubi KH**, Alhaider I, Aleisa AM, Srivareerat M. Chronic i.c.v infusion of  $\beta$ -amyloid impairs ganglionic transmission and synaptic plasticity in the superior cervical ganglion. Society for Neuroscience meeting 2008, November 15-19, Washington, DC: USA.
58. O. F. Khabour, **K. H. Alzoubi**, M. Alomari, M. Alzoubi. The combined effect of diet and exercise on memory formation and expression of BDNF. Society for Neuroscience meeting 2008, November 15-19, Washington, DC: USA.
59. **K.H. Alzoubi**, A.M. Aleisa and K.A. Alkadhi. Expression of ganglionic long-term potentiation in sympathetic ganglia of Obese-Zucker rats in vivo: a new mechanism for hypertension. The Fourth International Conference of The Royal Medical Services 12-15 May 2008 in Amman. Jordan.
60. **K. H. Alzoubi**, A. M. Aleisa and K. A. Alkadhi. Expression of gLTP in sympathetic ganglia from stress-hypertensive rats: Molecular evidence. The 12<sup>th</sup> Jordanian Pharmacy Conference and the 26<sup>th</sup> Pan Arab Pharmaceutical Conference 10-12 April 2008 in Amman, Jordan.
61. **K. H. Alzoubi**, A. M. Aleisa, K. A. Alkadhi. Levothyroxin restores hypothyroidism-induced impairment of hippocampus-dependent learning and memory. Society for Neuroscience meeting 2007, November 9-7, San Diego, California: USA.
62. M. Srivareerat, T.T. Tran, **K. H. Alzoubi**, K. A. Alkadhi. Nicotine antagonizes stress and beta-amyloid-induced impairment of synaptic plasticity. Society for Neuroscience meeting 2007, November 9-7, San Diego, California: USA.
63. A. M. Aleisa, G. Helali, S. Attiai, A. Alhosaini, K. Alhosaini, K. A. Alkadhi, **K. H. Alzoubi**, S. Alrejaiei, O. Alshabanahi, A. Alhaider. Sleep deprivation-induced impairment of learning and memory in rats: possible protection by nicotine. Society for Neuroscience meeting 2007, November 9-7, San Diego, California: USA.

64. **K. H. Alzoubi**, A. M. Aleisa, K. A. Alkadhi. Hypothyroidism-induced enhancement of LTD: reversal by nicotine and possible role of NMDA receptors. Society for Neuroscience meeting 2006, October 14-18, Atlanta, Georgia: USA.
65. **K.H. Alzoubi**, K.A. Alkadhi, A.M. Aleisa. In vivo expression of ganglionic long-term potentiation in superior cervical ganglia from aged rats. Jordanian International Pharmaceutical Conference 2006 at Al-Zaytoonah Private University of Jordan, Amman, Jordan, Nov 2006.
66. **K.H. Alzoubi**, A.M. Aleisa, K.A. Alkadhi. Chronic nicotine treatment restores hypothyroidism induced L-LTP impairment: critical role of CREB. Society for Neuroscience Meeting 2005, November 12-16, Washington, DC, USA.
67. T.T. Tran, A.M. Aleisa, **K.H. Alzoubi**, K.A. Alkadhi. Chronic but not acute nicotine treatment reverses stress-induced impairment of LTP in anesthetized rats. Society for Neuroscience Meeting 2005, November 12-16, Washington, DC, USA.
68. M. Srivareerat, **K.H. Alzoubi**, T.T. Tran, K.A. Alkadhi. Adverse effect of chronic stress on alzheimer's induced impairment of hippocampus dependent learning and memory. Society for Neuroscience Meeting 2005, November 12-16, Washington, DC, USA.
69. Aleisa AM; **Alzoubi KH**; Gerges NZ and KA Alkadhi. Chronic nicotine treatment prevents stress-induced impairment of LTP: a possible involvement of protein kinase activation. Society for Neuroscience Meeting 2005, November 12-16, Washington, DC, USA.
70. **K.H. Alzoubi**, A.M. Aleisa, N.Z. Gerges, K.A. Alkadhi. Chronic nicotine treatment reverses hypothyroidism-induced LTP impairment: the critical role of phosphorylated CaMKII and BDNF. Society for Neuroscience Meeting 2004, October 23-27, San Diego, CA, USA.
71. **K.H. Alzoubi**, A.M. Aleisa, K. A. Alkadhi. Differential effects of synaptic plasticity in CA1 but not DG of the hippocampus in obese-zucker rat: Role of calcineurin and phosphorylated CaMKII. Abstract # 33:2005, Sigma Xi Research Day: The Scientific Research Society, University of Houston Chapter, Houston, TX, USA.
72. A.M. Aleisa, **K.H. Alzoubi**, A.S. Bedawi, K.A. Alkadhi. Chronic nicotine treatment prevents stress-induced LTD enhancement: a critical role of BDNF. Society for Neuroscience Meeting 2004, October 23-27, San Diego, CA, USA.
73. K.A. Alkadhi, **K.H. Alzoubi**, A.M. Aleisa. The critical role of CREB in hypothyroidism induced L-LTP impairment. Society for Neuroscience Meeting 2004, October 23-27, San Diego, CA, USA.
74. **Alzoubi KH**; Aleisa AM; Bedawi AS and KA Alkadhi. Chronic Nicotine Treatment Reverses Hypothyroidism-Induced Impairment of hippocampus-dependent learning and memory. Abstract # 46:2004, Sigma Xi Research Day: The Scientific Research Society, University of Houston Chapter, Houston, TX, USA
75. **Alzoubi KH**; Aleisa AM; Bedawi AS and KA Alkadhi. Chronic Nicotine Treatment Reverses Hypothyroidism-Induced Impairment of hippocampus-dependent learning and memory. Society for Neuroscience Meeting 2003, November 4-9, New Orleans, Louisiana, USA.
76. Alkadhi KA; **Alzoubi KH**; Gerges NZ. Spatial learning and memory are associated with increased CaMKII (phosphorylated and total) levels in hippocampal CA1 area.

- Society for Neuroscience Meeting 2003, November 4-9, New Orleans, Louisiana, USA.
77. Aleisa AM; **Alzoubi KH**; Gerges NZ and KA Alkadhi. Chronic Nicotine Treatment prevents stress-Induced short-term memory impairment. Society for Neuroscience Meeting 2003, November 4-9, New Orleans, Louisiana, USA.
  78. Aleisa AM; **Alzoubi KH**; Gerges NZ and KA Alkadhi. Chronic Nicotine Treatment Reverses Hypothyroidism-Induced Impairment of LTP in CA1 of Anesthetized Rats. Society for Neuroscience Meeting 2002, November 2-7, Orlando, Florida, USA.

#### **Press Coverage of Published Research:**

1. Vitamin E May Ease Memory Problems From Lack Of Sleep” Rat Study at <http://www.nutraingredients-usa.com>. November-2011.
2. Vitamin E May Ease Memory Problems From Lack Of Sleep” Rat Study at <http://www.vitaenaturals.com/node/383> November-2011.
3. Vitamin E May Ease Memory Problems From Lack Of Sleep” Rat Study at <http://www.selfgrowth.com/articles/vitamin-e-may-help-ease-memory-problems-associated-with-lack-of-sleep> November-2011.
4. Vitamin E May Ease Memory Problems From Lack Of Sleep” Rat Study at <http://www.drcutler.com/news/vitamin-e-may-support-memory-functions-800642363/> November-2011.
5. Back to the Future: Using Inhalers Correctly by Roth BJ. Respir Care 53, March 2008
6. New studies find that Nicotine, or similar substance, may improves memory, protect against disease; one day may find use as treatment for disorders, News Release, Society For Neuroscience, WA, U.S.A, November- 11-2003
7. UH researchers find neurological benefits in nicotine, Immediate Press Release, University of Houston, Houston, Texas, USA, November-11-2003
8. UH researchers find neurological benefits in nicotine, Press Release, Houston Business Journal, The American City Business Journal Inc., USA, November-14-2003
9. Nicotine may improve memory and protect against disease: Study Press Release, Science Daily LLC at [www.sciencedaily.com](http://www.sciencedaily.com), November-12-2003
10. Nicotine may improve memory and protect against disease: Study Press Release, Yahoo India News, November-12-2003
11. Nicotine metabolite may improve memory, protect against disease, Public Press Release, [www.eurekalert.org](http://www.eurekalert.org), November-11-2003
12. Nicotine improves memory, and helps brain repair itself, Press Release, [www.scienceagogo.com](http://www.scienceagogo.com), November-13-2003
13. New studies find that Nicotine, or similar substance, may improves memory, protect against disease; one day may find use as treatment for disorders, Press Release, [www.intelihealth.com](http://www.intelihealth.com), November-12-2003
14. Nicotine metabolite may improve memory, Press Release , [www.rednova.com](http://www.rednova.com), November- 13-2003
15. Drugs and stress have variety of effects on brain development, Press Release, [www.futurepundit.com](http://www.futurepundit.com), November-12-2003
16. Nicotine for nerves, Press Release , [www.inpharma.com](http://www.inpharma.com), November-17-2003

## **Review and Research Evaluation Services:**

### **Research Organizations/Funds:**

- 2006- Qatar National Research Funds, Doha, Qatar.
- 2008- Health Research Board, Dublin, Ireland
- 2009- The Scientific Research Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan
- 2009- The Higher Counsel for Science and Technology, Amman, Jordan
- 2011- World Conference on Tobacco and Health 2012, held at 20-24 March 2012, Singapore
- 2012- Sultan Qaboos University, Masqat, Oman.
- 2014- Deanship of Research, Aljouf University, Aljouf, Saudi Arabia
- 2015- Deanship of Research, Najraan University, Najraan, Saudi Arabia
- 2015- Middle East Molecular Biology Society (MEMBS, 2015 until Now).
- 2018- Netherlands Organization for Scientific Research (NWO), Amsterdam, Netherlands.
- 2019- Society for Nicotine and Tobacco Research, 2020 Annual Meeting, March 11-14, 2020.

### **Scientific Journals**

- 2005- Behavioral Brain Research
- 2006- Neuroscience Letters
- 2006- Neurosciences
- 2007- Physiology & Behavior
- 2007- Saudi Medical Journal
- 2008- American Journal of Physiology: Regulatory, Interactive and Comparative Physiology
- 2008- Jordan Journal of Pharmaceutical Sciences
- 2009- Neuroendocrinology
- 2009- Advances in Pharmacological Sciences
- 2009- Adolescent Health. Medicine and Therapeutics
- 2010- Journal of Developmental Neuroscience
- 2011- Food and Chemical Toxicology
- 2011- Jordan Journal of Applied Sciences
- 2011- Human and Experimental Toxicology
- 2011- Natural Product Research
- 2011- Journal of Neuroendocrinology
- 2011- Nutritional Research
- 2012- BMC Neuroscience
- 2012- Clinical and Applied Thrombosis/Hemostasis
- 2012- Scandinavian Journal of Immunology
- 2012- Nutritional Neuroscience
- 2012- Current Neuropharmacology
- 2012- Educational Research
- 2013- Mutation Research



2013- Cytotechnology  
 2013- Psychopharmacology & Biological Psychiatry  
 2013- Endocrine  
 2013- Molecular Neurobiology  
 2014- Psychopharmacology  
 2014- Environmental Science and Pollution Research  
 2014- Public Health  
 2015- Jourdan Journal of Medical Sciences  
 2015- Jourdan Journal of Biological Sciences  
 2015- Genetic and Molecular Research  
 2016- Current Neuropharmacology  
 2016- Nutritional Neuroscience  
 2017- Plos One  
 2018- Brain Research Bulletin  
 2018- Saudi Pharmaceutical Journal  
 2018- Pharmacogenomics  
 2019- Tobacco Control  
 2019- PlosOne

### **Consultative services**

- Pre-Clinical study of D-ribose: Toxicology and Pharmacokinetics- Philadelphia Biomedical Product Development Center, Amman, Jordan (2008).
- Pre-clinical comparative study of a number of iron preparations- The International Pharmaceutical Research Center, Amman, Jordan (2009).
- Evaluator for the ACDIMA Research Award- The Arab Company for Drugs Industries and Medical Appliances (2010, 2011, 2015).
- Accreditation and Quality Assurance Commission (Evaluation of Master in Clinical Pharmacy Programs) - Palestinian Authority - Palestine (2011).
- Post-Marketing Study on Some Antihypertensive Drugs- Novartis Pharma-Switzerland (2011-2012).

### **Academic Supervision and Thesis Committees (Master/PHD Students):**

- I supervised 90 PHD or master students as major advisor or co-advisor.
- I have been the internal examiner on over 50 student committees at the faculties of Pharmacy, medicine, Science, and Applied Medical Sciences at Jordan University of Science and Technology, Irbid, Jordan.
- I served as an external examiner for several universities including University of Jordan, Amman, Jordan, Hashemite University, Zarqaa, Jordan, and Israa University, Amman, Jordan.

### **WORKSHOPS AND TRAINING COURSES:**

#### **I have successfully finished the following training courses:**

Modern University Instructional Methods: offered by the Academic Development Center for Science and Technology at the Jordan University of Science and Technology 17-18 September 2013.

Statistical Package for Social Sciences: offered by the Academic Development Center for Science and Technology at the Jordan University of Science and Technology 19-22 September 2013.

Advanced Tobacco Dependence Treatment: Global Experience and Regional Perspective, offered by Global Bridges Healthcare alliance for Tobacco Dependence Treatment and King Hussein Cancer Center, Amman, Jordan, April 15-17-2013.

Tobacco Dependence Treatment: Global Experience and Regional Perspective, offered by Global Bridges Healthcare alliance for Tobacco Dependence Treatment and King Hussein Cancer Center, Amman, Jordan, June 27-30, 2011

Clinical Investigation Training Program (CITP), at the Jordan Food and Drug Administration (JFDA), Amman, Jordan, April-2011

Protecting Human Research Participants, the National Institute of Health, Bethesda, Maryland, USA, July-2010, November-2016

Framework Convention on Tobacco Control (FCTC) policies and their implementation in Arab Countries, offered by the Faculty of Health Science at the American University of Beirut, and the Syrian Center for Tobacco Studies at the American University of Beirut, Beirut, Lebanon, June 28- July 1, 2010

Qualitative Research Methods Versus Quantitative Surveys Pertaining to Waterpipe Smoking: offered by experts from the Department of Psychology at Virginia Commonwealth University (VCU), Virginia, USA and American University of Beirut, Beirut, Lebanon, at the Jordan University of Science and Technology, Irbid, Jordan 25-November-2009

Developing and Implementing Quality Assurance: offered by The British Council In association with the Jordan University of Science and Technology and the Higher Education Policy Institute-UK 7-10 January 2008, Amman, Jordan.

E-learning and WebCT: offered by the Consultative Center for Science and Technology at the Jordan University of Science and Technology 10-13 July 2006.

Testing and Evaluation of University Exams: offered by the Academic Development Center for Science and Technology at the Jordan University of Science and Technology 15-17 November 2005.

The Safe Use of Radioactive Material: offered by the Safety and Risk Management Department, University of Houston, Houston, Texas, USA. 04-05 June 2003.

**I have given several courses and workshops including:**

“Tips and Pointers for Successful Scientific Proposal Writing” a workshop held at The Isra Univesrity, Amman, Jordan (January 29, 2020).

“Copyrights and Plaigarism” as part of the a Workshop entitled "Research Excellnece from Application to Publication" held by the Academic Development and Quality Assurance Center, Jordan University of Science and Technology, Jordan (January 15/16, 2020).

“Responsible Conduct of Research: Clinical and Pre-Clinical Studies Workshop" Organized by the Responsible conduct of Research Program, University of California, USA in collaboration with International Brain Research organization (IBRO), and American University of Beirut as part of the International Conference and Advanced Neuroscience School “Trauma, Stress and Neurodegeneration: Molecular, Cellular & Behavioral Perspectives”, October 04-08, 2019, Beirut, Lebanon.

“Preparing Manuscripts for Submission to Increase Publications Rate” as part of the a Workshop entitled "Research Excellnece from Application to Publication" held by the Academic Development and Quality Assurance Center, Jordan University of Science and Technology, Jordan (July 04/05, 2019, January 15/16, 2020).

“Institutional Review Board” as part of the a Workshop entitled "Responsible Conduct of Research" held at the Faculty of Nursing, Jordan University of Science and Technology, Jordan (April-25-2019).

“Science, Technology and Design in Golden Islam” as part of “Practical ethics: Religion, Science and Ethics” symposium, University of California/San Diego, CA, USA (Nov-29, 2018).

“Bioethics of Clinical Trials, Pharmacoepidemiology studies, Biological samples handling and Pre-clinical studies” a **10-weeks course** as part of “The Research Ethics Education program in Jordan and the MENA”, which is an international fellowship program offered by the University of California/San Diego and Jordan University of Science and Technology, Irbid, Jordan (March-May, 2016, 2017, 2018, 2019).

“Ethics in Biomedical Research Workshop" Organized by the Responsible conduct of Research Program, University of California, USA in collaboration with the Faculty of Medicine of Fez, and the Ethics Committee of Fez at The Sidi Mohamed Ben Abdullah University, Fez, Morocco and Moffitt Cancer Center & Research Institute, Florida, USA (11-12, May, 2018 at Fez, Morocco).

A Workshop entitled "Writing for Publication" held at Deanship of Research, Jordan University of Science and Technology, Jordan 15-01-2018.

“Research ethics and Responsible conduct of Research Professional Development Workshop”  
Organized by the Responsible conduct of Research Program, University of California, USA in collaboration with International Brain Research organization (IBRO) in collaboration with Jordan University of Science and Technology (JUST) as part of the International Conference and Advanced Neuroscience School in Neurodegenerative Disorders: Translation into Clinical Neurology, November 19-24, 2017, Irbid, Jordan.

“The History of Human Research Ethical codes” and "Introduction into Ethical Principles of Clinical Studies" and " Guidelines for Research Animal Care and Use " As a part of the comprehensive workshop of “The Research Ethics Education program in Jordan and the MENA”, which is an international fellowship program offered by the University of California/San Diego and Jordan University of Science and Technology, Irbid, Jordan (25-30, July, 2015, 06-11, August, 2016, and 29-07-04-08/2017).

“Introduction into Responsible Conduct of Research " In collaboration with The Society for the Advancement of Science and Technology in the Arab World (SASTA) head during 3rd Middle East Molecular Biology Congress & Exhibition, Doha, Qatar (14-17, November, 2016).

“Excellence in Pharmaceutical Research” A seminar as a part of the open Pharmaceutical Day at the Faculty of Pharmacy, Hashemite University, Zarqaa, Jordan (07, April, 2015).

“The Concept of Scientific Research” A seminar as a part of a workshop entitled “Research School’ organized by the Standing Committee on Research Exchange (SCORE) and the International Federation of Medical Students’ Associations (IFMSA) at Jordan University of Science and Technology, Irbid, Jordan (12-13, September, 2012).

“The Reality of Scientific Research in Jordanian Universities’, a discussion forum, The Second Pharmacy Students Conference, Amman, Jordan (July, 2012).

“Doctor of Pharmacy: Education and Job Description’. A seminar as a part of a workshop entitled “Doctor of Pharmacy and Clinical Pharmacy’. Jordan Hospital, Amman, Jordan (March, 2012).

A couple of workshops entitled “Pharmacotherapy of Hypertension” and “Pharmacotherapy of Obesity” As a part of the Continuous Education Program for Pharmacists, The Clinical Pharmacy Committee, The Jordanian Pharmaceutical Association, Amman, Jordan (January-March, 2012).

A Workshop entitled “Practicing Smoking Cessation counseling” by Dr. Karem Alzoubi/JUST, Dr. Mousa Alomari/JUST, Dr. Jorge Burgus University of Iowa/USA, held at the Faculty of Pharmacy, JUST (19/21-Feb-2012).

A workshop entitled “Clinical Pharmacy and Pharmaceutical Care” As a part of the Continuous Education Program for Pharmacists, The Clinical Pharmacy Committee, The Jordanian Pharmaceutical Association, Amman, Jordan (November, 2011).

A seminar entitled “Doctor of Pharmacy: Education and Job Description” As a part of a workshop entitled “Doctor of Pharmacy and Clinical Pharmacy”. The Jordanian Pharmaceutical Association, Amman (November, 2011), and Irbid (February, 2012), Jordan

A seminar entitled “Pharmacotherapy in Smoking Cessation” as a part of Tobacco Dependence Treatment: Global Experience and Regional Perspective workshop, offered by Global Bridges Healthcare alliance for Tobacco Dependence Treatment and King Hussein Cancer Center, Amman, Jordan, June 27-30, 2011

Workshop entitled “Pharmacological and non-pharmacological methods for management of obesity” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (April, 2011).

Workshop entitled “Pharmacotherapy of Smoking Cessation” As a part of the Continuous Education Program for Pharmacists, The Drug Information Center, Pharmacy One, Amman, Jordan (April, 2011).

Workshop entitled “Skills in Clinical Pharmacy” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (December, 2009).

Workshop entitled “Pharmacotherapy of Adrenal Gland Diseases” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (July-August, 2009).

Workshop entitled “Pharmacotherapy of Thyroid Gland Diseases” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (July-August, 2009).

Workshop entitled “Pharmacotherapy of Hypertension” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (May-June, 2009).

Workshop entitled “Pharmacotherapy of Obesity” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (May-June, 2009).

Seminar presentations series in a course entitled “New Trends in Treating Hypertension, Diabetes & Heart Diseases” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association, Amman, Jordan (May-June, 2007).

Seminar presentation entitled “Obesity: latest guidelines and methods of treatment” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association/ Irbid branch, Irbid, Jordan (May-June, 2007).

Seminar presentation entitled “The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)” As a part of the Continuous Education Program for Pharmacists, The Jordanian Pharmaceutical Association/ Irbid branch, Irbid, Jordan (February-March, 2007).

Seminar presentation entitled “The Role of Clinical Pharmacist in The Medical Team”. Jordan Pharmaceutical association & Private Hospitals association in collaboration with Gulf Pharmaceutical Industries Co. “Julphar”, Amman, Jordan (August, 2006).

A seminar entitled “Pharmacology of Local Anesthetics” as a part of a tutorials and training course for dentists “ MaxiCourse ® Jordan”, The American Academy of Implant Dentistry in collaboration with Faculty of Dentistry, Jordan University of Science and Technology and Beirut Implant Dentistry Center, Irbid, Jordan (April, 2006).

Seminars presented as a part of Drug Literature Review, Department of Pharmacological and Pharmaceutical Sciences, The University of Houston, Houston, Texas:

- a. Long Term Potentiation (LTP): Are the presynaptic mechanisms involved in LTP induction (2002)
- b. Late Phase of Long Term Potentiation (L-LTP): The Involvement of CREB and synaptic capture. (2003)
- c. Developmental lead exposure: Effect on Long Term Potentiation (LTP) (2003)
- d. Glutamate Receptors Distribution in the Hippocampus: Gender Difference (2004)
- e. Upregulation of NMDA Receptor Responses by Metabotropic Glutamate Receptors (2004)

Seminars presented for the PHD Dissertation Committee, Department of Pharmacological and Pharmaceutical Sciences, The University of Houston, Houston, Texas:

1. Does Nicotine Reverses Hypothyroidism-Induced Learning and Memory Impairment? (2004).
2. Nicotine Neuroprotective Effects in Hypothyroidism-Induced Learning and Memory Impairment (2005).

## **TEACHING EXPERTISE**

- a. Courses taught repeatedly (2005-present), Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Sciences and Technology, Irbid, Jordan (For Bachelor in Pharmacy, Doctor of Pharmacy; PharmD or Master in Clinical Pharmacy students):
  1. PHAR 342 Clinical Pharmacy and Therapeutics I (pharmacotherapy of the ANS and CNS)
  2. DPHAR 344 Pharmaceutical Care and Therapeutics I (for PharmD; the ANS and CNS)
  3. PHAR 363 Drug Information Resources for PharmD students.
  4. PHAR 401, PHAR 402 and D PHAR 508 Pharmaceutical practical training courses, which involve lecturing and practical community pharmacy training for both pharmacy and PharmD.

5. PHAR 441 Clinical Pharmacy and Therapeutics II (pharmacotherapy of the microbial diseases and cancer)
6. PHAR 443 Therapeutics: Neurologic and Psychiatric Disorders (pharmacotherapy of neurological and psychiatric disorders for PharmD students)
7. PHAR 444 Clinical Pharmacy and Therapeutics III (pharmacotherapy of the respiratory, cardiovascular and renal systems)
8. PHAR 446 Therapeutics I (pharmacotherapy of the respiratory, cardiovascular and renal systems)
9. DPHAR 443 Pharmaceutical Care and Therapeutics II (for PharmD; Antimicrobials and cancer)
10. PT 482 Introduction into pharmacology course for physiotherapy students.
11. PHAR 541A Clinical Pharmacy and Therapeutics IV (pharmacotherapy of the endocrine, GI and reproductive systems)
12. PHAR 541B Therapeutics: Endocrine and Renal Diseases (Pharmacotherapy of the endocrine and renal system for PharmD students).
13. PHAR 542 Clinical Pharmacy (an elective course; advanced pharmacotherapy of psychiatric disorders)
14. PHAR 544 Therapeutics: Women and Men health (Pharmacotherapy of the women diseases; gynecology and obstetrics; and men diseases; urology).
15. PHAR 566 Clinical Studies Evaluation (An introduction into clinical research methodology, design and evaluation for PharmD students).
16. PHAR 594 Advanced Therapeutics (an elective course; advanced pharmacotherapy of psychiatric disorders for PharmD students).
17. DPHAR 545 Pharmaceutical Care and Therapeutics IV (for PharmD; the endocrine, GI and reproductive systems).
18. PHAR 675 Clinical Training: Pharmaceutical Clinical Research for PharmD students (a practical course that involve the conduction of actual clinical research project. This course is part of the sixth year clinical training for PharmD students).
19. PHAR 667, and PHAR 668 Clinical Seminars: these courses are part of the clinical training for sixth year PharmD students that involve a series of seminars that pertain to students' hospital training.
20. DPHAR 601, DPHAR 602, DPHAR 603, DPHAR 604, PHAR 675, PHAR 692, PHAR 707, PHAR 703 PHAR 704 AND PHAR 708 Clinical Training: Supervising clinical training for PharmD and Master in Clinical Pharmacy students at the university affiliated hospitals. This involve the discussing clinical cases admitted to the hospital wards, direct evaluation of student performance by written exams and oral presentation, directing and supervising clinical research projects, and continuous evaluation of the training programs.
21. PHAR 710 Research Methodology course for Master's in Clinical Pharmacy student (Basic research methods and ethics in human and animal, with emphasis on clinical pharmacology and therapeutics related research topics and ideas.
22. PHAR 741 and PHAR 742 Advanced Therapeutics (selected topics in clinical pharmacology and therapeutics for Master's of Clinical Pharmacy students).
23. PHAR 765 Advanced Pharmacology (selected topics in pharmacology for Master's of Clinical Pharmacy students).

24. PHAR 774 Drug information (electronic and non-electronic methods and resources to obtain information on drugs for Master's of Clinical Pharmacy students).
- b. Additional courses taught at Applied Science University, Amman, Jordan (Summer-2008), Department of Clinical Pharmacy, Faculty of Pharmacy (For Bachelor in Pharmacy students):
  1. Pharmacology: This is third year basic pharmacology course that cover topics of antimicrobial chemotherapy, anticancer agents, and endocrine system pharmacology)
  2. Therapeutic: this is a fourth year course that topics cardiovascular and renal system therapeutics.
- c. Additional courses repeatedly at Alalbait University, Mafraaq, Jordan (Springs- 2009/2010), Faculty of Nursing (Basic Pharmacology: for Bachelor of nursing students).
- d. Additional courses repeatedly at The Hashemite University, Zarqaa, Jordan (Fall and spring- 2012, Fall-2013), Faculty of Nursing (Advanced Pharmacology: Psychiatry, for nursing students. An advanced course for Master student in Psychiatric Nursing).
- e. Additional courses repeatedly at The Alisra University, Amman, Jordan (Spring- 2013, Fall- 2014, 2014/2015), Faculty of Pharmacy (for Master in Pharmaceutical Sciences students).
  1. Advanced Pharmacology: This is an advanced course in pharmacology that cover selected topics in clinical molecular and cellular pharmacology)
  2. Clinical Pharmacokinetics and Therapeutic Drug Monitoring: This is an advanced course in clinical monitoring of medications.
  3. Research Methodology (Basic research methods and ethics in human and animal, with emphasis on clinical pharmacology and therapeutics related research topics and ideas).
  4. Biochemical Pharmacology (The fundamental so f this science, cell signaling and drug targets at all levels)
- f. Courses taught at the College of Pharmacy, University of Houston, Houston, Texas, USA. Teaching the Pharmacy Skills Program PHAR 4251 (2002- 2005), which involves discussing clinical cases with Pharm D. students pertaining to the following courses:
  - 1.Principles of Drug Action (PHAR 2362) (2001-2003)
  - 2.Organ systems I (Neurophysiology) PCOL 6450 (2003-2004)
  - 3.Organ systems II (Organ Physiology) PCOL 6451 (2004-2005)

## **COMMITTEES AND SERVICES**

### **External Committees and Services**

Member, On-Site Evaluation Committee for Petra University/Amman/Jordan Faculty of Pharmacy (for Quality Assurance Certificate), Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (Nov-2019).

Member, Pharm D and BSc in Pharmacy National Competencies Committee, Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (May-2019).



Member, Pharm D and BSc in Pharmacy National Competencies Exam Committee, Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (May-2019).

Member, On-Site Evaluation Committee for Faculty of Pharmacy (for Quality Assurance Certificate), Amman Private University/Amman/Jordan, Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (May-2019).

Member, On-Site Evaluation Committee for Faculty of Pharmacy, Mutah University/Karak/Jordan, Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (Dec-2018).

Member, On-Site Evaluation Committee for Faculty of Pharmacy, Middle East Private University/Amman/Jordan, Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (April-2018).

Member, On-Site Evaluation Committee for Faculty of Pharmacy, Aqaba University of Technology/Aqaba/Jordan, Higher Institutions Accreditation Bureau of Jordan, Amman, Jordan (Feb-2018).

Member, the Medical College Establishment Committee, the Ministry of Higher Education and Scientific Research, Amman, Jordan, (Feb/2018).

Member, Pharmacy Profession Committee, Jordan Medical Counsel, Amman, Jordan, (Sep/2017).

Member of Clinical Studies Committee and **Clinical site/Studies Inspector, Jordan Food and Drugs Administration (JFDA)**, Amman, Jordan (2013-2016): This committee supervises all clinical studies, and IRB committees working in the country. It involves direct inspection of CROs all over Jordan.

Member, The National Forum for Health Policy Research, Jordan, (July/2015)

Member of the Editorial Board, Jordan Pharmaceutical Journal (May/2015- Sep-2019)

Member of the Editorial Board, Austin Journal of Sleep Disorders, (2014- present)

Member of the Editorial Board, the International Journal of Comprehensive Pharmacy (2010)

Director, Clinical Pharmacy Committee, The Jordanian Pharmaceutical Association, Amman, Jordan, (2011-2014)

Member, The Scientific Committee, The Jordanian Pharmaceutical Association, Irbid branch, Irbid, Jordan (2011)

Faculty representative to the World Hypertension Day activities in association with NOVARTIS and PHARMACY ONE, Amman, Jordan (May-2009, May-2010)

Member, the Comprehensive Pharmacy Exam Committee, University of Kalamoon, Der-Atia, Syria (2009, 2010)

Chairperson, Public Education Committee, The Jordanian Pharmaceutical Association, Irbid branch, Irbid, Jordan (2007)

Representative of the Faculty of Pharmacy, Jordan University of Science and Technology at the Jordanian Pharmaceutical Association, Irbid branch, Irbid, Jordan (2006-2007)

Member, the Research Day Committee, The Jordanian Pharmaceutical Association/Irbid branch, Irbid, Jordan (2007)

### **Jordan University of Science and Technology**

Member, Dean's Council, Jordan University of Science and Technology (2015-present)

Member, University Council, Jordan University of Science and Technology (2009/2010, 2015-present)

Member, University Animal Research Committee, Jordan University of Science and Technology (2009-Present)

Member, Center Tenders Committee, Jordan University of Science and Technology (2014-2015)

Member, The Organizing Committee, The 1st Funded Research Conference, Deanship of Research, Jordan University of Science and Technology (2012)

Member, Student Academic Conduct Committee, Deanship of Student, Jordan University of Science and technology (2009-2011)

Member, University Web site Reviewing Committee, Jordan University of Science and Technology (2007)

Member, Animal House and Research Building Committee "the new location", Jordan University of Science and Technology (2008/2009)

Member, Animal House and Research Management and Equipment Establishment Committee "the new location", Jordan University of Science and Technology (2009/2010)

Member, Preparative Committee for Higher Education Quality Assurance Workshop, Jordan University of Science and Technology (2007)

**Faculty of Pharmacy/ Jordan University of Science and Technology**

Director, Higher Accreditation and Quality Assurance Committee, Faculty of Pharmacy (2016-present)

Director, Faculty's Counsel, Faculty of Pharmacy (2015-present)

Director, Research Committee, Faculty of Pharmacy (2015-present)

Director, Graduate Studies Committee, Faculty of Pharmacy (2015-present)

Director, Course Accreditation and Transfer Committee, Faculty of Pharmacy (2009-2011)

Director, Laboratory and Faculty Supplies Committee, Faculty of Pharmacy (2011-2014)

Director, Faculty Bulletin and Web Site Committee, Faculty of Pharmacy (2007-2010)

Director/Member, Curriculum and Study Plan Committee, Faculty of Pharmacy (2006-2014, Director: 2014-2015)

Web Site Administrative Officer, Faculty of Pharmacy, major job is to develop, write, and update the website for the Faculty of Pharmacy (2006-2010).

Establishing communication, getting down a signed agreement of mutual collaboration between the Faculty of pharmacy/Jordan University of Science and Technology and the College of Pharmacy at the University of Houston (2008), which resulted in the acceptance of two doctoral students in Pharmacology at the University of Houston/USA

Member, Clinical Pharmacy Services/Department Establishing Committee At King Abdulla University Hospital, Faculty of Pharmacy, Jordan University of Science and Technology (2009)

Member, Faculty of Pharmacy Counsel, Faculty of Pharmacy (2006-2007, 2010-2015)

Member, the Graduate Studies Committee, Faculty of Pharmacy (2010-2014)

Member, the Accreditation and Quality Control Committee, Faculty of Pharmacy (2010-2013)

Member, the Clinical Pharmacy and Pharmacy Practice Committee, Faculty of Pharmacy (2011/2012)

Member, the Patient counseling simulation/role-plays Supervision Committee, Faculty of Pharmacy (2011/2012)

Member, the Bachelor of Pharmacy/the Track System Curriculum Development Committee, Faculty of Pharmacy (2012)

Member, the Community Pharmacy Training Curriculum Development Committee, Faculty of Pharmacy (2012)

Member, the Community Pharmacy Training Implementation and Follow-up Committee, Faculty of Pharmacy (2012)

Member, Faculty Bulletin and Web Site Committee, Faculty of Pharmacy (2006-2007)

Member, Continuous Education Committee, Faculty of Pharmacy (2006/2007, 2010-2013)

Member, Course Accreditation and Transfer Committee, Faculty of Pharmacy (2011-2013)

Member, Conferences and Scientific Days Committee, Faculty of Pharmacy (2006-2007)

Member, Community Pharmacy Training Committee, Faculty of Pharmacy (2006-2014)

Member, Scientific Committee, Faculty of Pharmacy (2005/2006)

Member, Doctor of Pharmacy program (PharmD) Curriculum Committee, Faculty of Pharmacy (2005/2006)

**The Department of Clinical Pharmacy/Faculty of Pharmacy/ Jordan University of Science and Technology**

Director, the Non-traditional PharmD Curriculum Development Committee, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2012)

Coordinator of Clinical Training programs for Pharmacy Doctor (PharmD) and Master in Clinical Pharmacy at university affiliated hospitals (2006-2011)

Director, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2010-2013)

Director, Higher Education Committee, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2010-2013)

Director, the Research Committee, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2010-2013)

Director, Clinical Training Committee, Department of Clinical Pharmacy, Faculty of Pharmacy (2006-2008, 2010-2013)

Director of Council Affairs for the Department of Clinical Pharmacy Council meetings, Faculty of Pharmacy (2006-2010)

Representative of the Department of Clinical Pharmacy, the Faculty of Pharmacy College Council (2006-2008)

Member, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2005-present)

Member and Director of Council Affairs, Higher Education Committee, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2006-2013)

Member, the Research Committee, Department of Clinical Pharmacy Council, Faculty of Pharmacy (2006-2016)

#### **Community services and activities:**

- Organized a free medical day at King Nour Al-Hussein School in Irbid, Jordan (March 2008).
- "الصيدلة معنا احلى" Campaign: This activity is a part of the faculty campaign to raise awareness about the role of the Clinical Pharmacist to patient care. This activity was in the form of lectures, workshops, and open discussions to other Pharmacy, PharmD students. Faculty of Pharmacy, Jordan University of Science and Technology (October/2011- Present).
- Writing articles in Arabic language about drug addiction and abuse for public at "Jordan free of Drugs" Journal. Antinarcotics Department, Public Security Directorate, Amman, Jordan (January/2012- Present).
- An Awareness campaign entitled "Consult your Pharmacist": This a university level activity directed to the campus community where graduating level PharmD student were given the opportunity to provide pharmaceutical care advice to other students and employees at the university through several booths that are specialized in certain services such as diabetes care, smoking cessation, hypertension management, alternative and herbal medicine ETC.. The Medical buildings, Jordan University of Science and Technology (18-24-March-2012).
- Consult Your Pharmacist: Toward Better Pharmaceutical Care: This activity is a part of the faculty campaign to raise awareness about the role of the Clinical Pharmacist to patient care. This activity was in the form of a booth at the gallery associated with the conference. The 14<sup>th</sup> Jordanian Pharmacy Conference 26-28 April 2012 in Amman, Jordan.
- Pharmaceutical Counseling Day: A free pharmaceutical counseling and clinical pharmacy services day on June-23-2012, at Arabella Mall, Irbid, Jordan.

- The Woman in Pharmaceutical Eyes: A free pharmaceutical counseling activity directed toward women held under the supervision of the Faculty of Pharmacy- Jordan University of Science and Technology in association with the Jordanian Pharmaceutical Association. November-17-2012, Irbid at Professional Associations Complex, Irbid, Jordan.
- Participated in a free medical day at Hartha High School, Hartha, Bani Kenanah, Irbid, Jordan (December 2012).
- Participated in a free medical day at Ramtha High School, Ramtha, Irbid, Jordan (April 2013).
- Participated in a free medical day at Elzermal High School, Alkurah, Irbid, Jordan (May 2013).
- Participated in a free medical day at Alhusun Technical High School, Irbid, Jordan (May 2013).
- Participated and co-organized a free medical day at Alturrah High School, Ramtha, Jordan (November 2013).
- Participated and co-organized a free medical day at Samoo High School, Alkura, Irbid, Jordan (December, 2013).
- Organized a free medical day at Saidoor High School, Alwsteiah, Irbid, Jordan (April, 2014).
- Organized a free medical day at Princess Haya Bint Alhussein High School, AlRamtha, Jordan (April, 2014).
- Organized a free medical day at Kufr Khal Youth center, Jerash, Jordan (April, 2015).
- Organized a free medical day at Lub Youth center, Madaba, Jordan (June, 2015).
- Organized a free medical day at Sakhra High School, Skhara, Irbid, Jordan (October, 2015).
- Organized a free medical day at Jenin Alsafa High School, Jenin Alsafa, Irbid, Jordan (November, 2015).
- Organized a free medical day at Alataya Charity, Aldhelail, Zarqa, Jordan (March, 2016).
- Organized a free therapy counseling activity at Bait Raas High School, Bait Raas, Irbid, Jordan (March, 2016).
- Supervised Medication and Chronic Diseases Counseling Campaign at Major park area in Irbid, Jordan (April. 2016).

- Organized a free medical day at Haleimah Alsaadyah High School, Ramtha, Irbid, Jordan (May, 2016).
- Organized a free medical day at Alsanaabel Charity, Husn Refugees Camp, Irbid, Jordan (August, 2016).
- Organized a free medical day at AlJuhfeeyai, Irbid, Jordan (September, 2016).
- Participated in organizing a free medical day at Alsanaabel Charity, Husn Refugees Camp, Irbid, Jordan (August, 2016).
- Participated and co-organized the Diabetes Campaign at Irbid City Center, Irbid, Jordan (November 2016).
- Co-organized a free medical day at Enbeh, Mazaar, Irbid, Jordan (December, 2016).
- Participated and co-organized the Cancer Free Campaign at Arabella City Center, Irbid, Jordan (February 2017).
- Co-founder, the Doctor of Pharmacy: Towards Optimal Pharmaceutical Care volunteers Campaign (<http://pharmdjust.wixsite.com/pharmd/pharmdjust-5>), Jordan (2011-2019 and ongoing).
- Participated and co-organized over 50 Free Medical and Awareness days as part of the Doctor of Pharmacy: Towards Optimal Pharmaceutical Care volunteers Campaign, Jordan (2011-2019 and ongoing).