

Curriculum Vitae

NAME

Nour A. Al-Sawalha, Pharm.D, Ph.D.

EDUCATION

Responsible Conduct of Research fellowship from University of California, San Diego, 2017-2018.

Ph.D. degree in Pharmacology, University of Houston, Houston, Texas, 2009-2013.
Thesis Title: Activation of β 2-adrenoceptors is Required for Mucin Production in Airway Bronchial Epithelial Cells.

Master Degree in Clinical Pharmacy, Jordan University of Science and Technology (J.U.S.T), Irbid, Jordan, 2007-2009. Thesis Title: Chemotherapy-Induced Endoplasmic Reticulum Stress in Human Colorectal Cancer.

Doctor of Pharmacy (Pharm. D), Jordan University of Science and Technology (J.U.S.T), Irbid, Jordan, 2001-2007.

Scientific Secondary School Diploma, Rosary Sister College, Irbid, Jordan, 2001.

POSITIONS HELD

Current Position:

Acting Vice Dean of Faculty of Pharmacy, October 2020-current
Jadara University,
Irbid, Jordan, 21110.

Associate Professor, October 2018-current.
Dept. of Clinical pharmacy
Jordan University of Science and Technology
Irbid, Jordan 22110
E-mail: nasawalha@JUST.edu.jo
National Database for Researchers ID: 8977

Previous Positions:

Assistant Professor, October 2013-October 2018
Dept. of Clinical pharmacy

Jordan University of Science and Technology
Irbid, Jordan 22110

AWARDS AND HONORS

Outstanding Woman in Health and Medical Sciences award, 5th Venus International Women Awards - VIWA 2020

First place award (oral presentation). 1st PPS symposium 2013, Houston, TX.

ASPET Graduate Student Travel Award, Experimental Biology 2012, San Diego, CA.

Full Tuition and Grants for PhD degree at University of Houston from Jordan University of Science and Technology (J.U.S.T), Irbid, Jordan.

Full Tuition and Grants for the master degree from Jordan University of Science and Technology (J.U.S.T), Irbid, Jordan.

Full Tuition and Grants for the Years 2003, 2004, 2005, 2006 & 2007 from Ministry of Higher Education, Jordan.

Dean List Years 2002, 2003, 2004, 2005, 2006 & 2007, Jordan University of Science and Technology (J.U.S.T), Irbid, Jordan.

PROFESSIONAL SOCIETY MEMBERSHIPS

Jordan pharmaceutical association, 2007-current

American Society for Pharmacology and Experimental Therapeutics, 2011-current.

American Association for the Advancement of Science, 2012

The Rho Chi Society, an academic honor society in Pharmacy, University of Houston, TX, 2012-current.

British Pharmacology Society, 2012-current.

American Society of Integrative Pathology, 2012-current.

PUBLICATIONS

Research Articles

Al-Sawalha NA, Pokkunuri ID, Alzoubi KH, Khabour OF, Almomani BN. Waterpipe Tobacco Smoke Exposure during Lactation-Susceptibility of Reproductive Hormones and Oxidative Stress Parameters in Male Progeny Rats. *Reprod Sci*. 2021 Jan;28(1):37-42.

Thaka'a K. Al-Omouh, Karem H. Alzoubi, Omar F. Khabour, Fawzi M. Alsheyab, Ahmed Abu-siniyeh, **Nour A. Al-Sawalha**, Fadia A. Mayyas, Caroline O. Cobb & Thomas Eissenberg (2020) The CHRNA5 polymorphism (rs16969968) and its association with waterpipe smoking addiction among Jordanians, *Arab Journal of Basic and Applied Sciences*, 27:1, 450-455.

Almomani BA, Al-Keilani MS, **Al-Sawalha NA**. Knowledge and views about genetics: a public-based cross-sectional study. *Eur J Hum Genet*. 2020 Apr;28(4):417-423.

Almomani BA, **Al-Sawalha NA**, Al-Keilani MS, Aman HA. The difference in knowledge and concerns between healthcare professionals and patients about genetic-related issues: A questionnaire-based study. *PLoS One*. 2020 Jun 19;15(6):e0235001.

Al-Sawalha NA, Almahmmod Y, Awawdeh MS, Alzoubi KH, Khabour OF. Effect of waterpipe tobacco smoke exposure on the development of metabolic syndrome in adult male rats. *PLoS One*. 2020 Jun 19;15(6):e0234516.

Al-Sawalha NA, Gaugazeh HT, Alzoubi KH, Khabour OF. Maternal waterpipe tobacco smoke exposure during lactation induces hormonal and biochemical changes in rat dams and offspring. *Basic Clin Pharmacol Toxicol*. 2020 Sep 18.

Al-Sawalha N, Alzoubi K, Khabour O, Karaoghlanian N, Ismail Z, Shihadeh A, Eissenberg T. Effect of electronic cigarette aerosol exposure during gestation and lactation on learning and memory of adult male offspring rats. *Physiol Behav*. 2020 Jul 1;221:112911.

Taha HR, **Al-Sawalha NA**, Alzoubi KH, Khabour OF. Effect of E-Cigarette aerosol exposure on airway inflammation in a murine model of asthma. *Inhal Toxicol*. 2020 Nov-Dec;32(13-14):503-511.

Al-Sawalha NA, Al-Filali MS, Alzoubi KH, Khabour OF. Effect of Prenatal Waterpipe Tobacco Smoke Exposure on Cardiac Biomarkers in Adult Offspring Rats. *J Cardiovasc Pharmacol Ther*. 2019 Nov;24(6):567-574.

Al-Sawalha NA, Pokkunuri ID, Alzoubi KH, Khabour OF, Almomani BN. Waterpipe Tobacco Smoke Exposure during Lactation-Susceptibility of Reproductive Hormones and Oxidative Stress Parameters in Male Progeny Rats. *Reprod Sci.* 2020 Aug 3.

Almomani BA, **Al-Sawalha NA**, Al-Keilani MS, Aman HA. The difference in knowledge and concerns between healthcare professionals and patients about genetic-related issues: A questionnaire-based study. *PLoS One.* 2020 Jun 19;15(6):e0235001.

Al-Sawalha N, Alzoubi K, Khabour O, Karaoghlanian N, Ismail Z, Shihadeh A, Eissenberg T. Effect of electronic cigarette aerosol exposure during gestation and lactation on learning and memory of adult male offspring rats. *Physiol Behav.* 2020 Jul 1;221:112911.

Al-Sawalha NA, Almahmmod Y, Awawdeh MS, Alzoubi KH, Khabour OF. Effect of waterpipe tobacco smoke exposure on the development of metabolic syndrome in adult male rats. *PLoS One.* 2020 Jun 19;15(6):e0234516.

Almomani BA, Al-Keilani MS, **Al-Sawalha NA**. Knowledge and views about genetics: a public-based cross-sectional study. *Eur J Hum Genet.* 2020 Apr;28(4):417-423.

Al-Sawalha NA, Karem Alzoubi, Omar Khabour, Nareg Karaoghlanian, Zahi Ismail, Alan Shihadeh, Thomas Eissenberg. Effect of Electronic cigarette aerosol Exposure During Gestation and Lactation on Learning and Memory of Adult Male Offspring Rats. *Physiology and Behavior*, 2020 Jul 1;221:112911.

Tahaine L, Alkyam M., **Al-Sawalha NA**, Jaber D, Albsoul-Younes AM. Evaluation of the clinical pharmacist's role in educating women about the benefits and risks of combined oral contraceptive pills in Jordan. *Journal of Pharmaceutical Health Services Research*, 2020.

Al-Sawalha NA, Alshogran OY, Awawdeh MS, Almomani BA. The effects of l-Carnosine on development of metabolic syndrome in rats. *Life Sci.* 2019 Oct 11;116905.

Al-Sawalha NA, Alzoubi KH, Khabour OF, Alyacoub W, Almahmood Y. Effect of waterpipe tobacco smoke exposure during lactation on learning and memory of offspring rats: Role of oxidative stress. *Life Sci.* 2019 Jun 15;227:58-63.

Almomani BA, Al-Eitan LN, **Al-Sawalha NA**, Samrah SM, Al-Quasmi MN. Association of genetic variants with level of asthma control in the Arab population. *J Asthma Allergy.* 2019 Jan 23;12:35-42.

Al-Sawalha NA, AlSari RR, Khabour OF, Alzoubi KH. Influence of prenatal waterpipe tobacco smoke exposure on renal biomarkers in adult offspring rats. *Inhal Toxicol.* 2019 Apr;31(5):171-179.

Al-Sawalha NA, Almahmmod YM, Alzoubi KH, Khabour OF, Alyacoub WN. Influence of prenatal waterpipe tobacco smoke exposure on reproductive hormones and oxidative stress of adult male offspring rats. *Andrologia*. 2019 Sep;51(8):e13318.

Almomani BA, Al-Eitan LN, **Al-Sawalha NA**, Samrah SM, Al-Quasmi MN. Association of genetic variants with level of asthma control in Arab population. *Journal of Asthma and Allergy*,. 2019 Jan 23;12:35-42.

Al-Hindi AI, Khabour OF, Alzoubi KH, **Al-Sawalha NA**. The attitude of blood donors towards the use of their samples and information in biomedical research. *J Blood Med*. 2018 Sep 25;9:145-151.

Almomani BA, Mokhemer E, **Al-Sawalha NA**, Momany SM. A novel approach of using educational pharmaceutical pictogram for improving inhaler techniques in patients with asthma. *Respir Med*. 2018 Oct;143:103-108.

Khabour OF, Alzoubi KH, **Al-Sawalha N**, Ahmad MB, Shihadeh A, Eissenberg T. The effect of chronic exposure to waterpipe tobacco smoke on airway inflammation in mice. *Life Sciences*. 2018 May 1;200:110-114.

Al-Sawalha N, Alzoubi K, Khabour O, Alyacoub W, Almahmmod Y, Eissenberg T. Effect of prenatal exposure to waterpipe tobacco smoke on learning and memory of adult offspring rats. *Nicotine Tobacco Research*. 2018 Mar 6;20(4):508-514

Long P. Nguyen, **Nour A. Al-Sawalha**, Sergio Parra, Indira Pokkunuri, Ozozoma Omoluabi, Adedoyin A.Okulate, Elizabeth Windham Li, Matthew Hazen, Jose M. Gonzalez-Granado, Craig J. Daly, JohnC.McGrath, Michael J. Tuvim, Brian J. Knoll ,Burton F. Dickey, and Richard A. Bond. β_2 -Adrenoceptor signaling in airway epithelial cells promotes eosinophilic inflammation, mucous metaplasia, and airway contractility. *Proc Natl Acad Sci U S A*. 2017 Oct 24;114(43):E9163-E9171.

Al-Sawalha N, Al-Bo'ul H, Alzoubi K, Khabour O, Thanawala V. Effect of prenatal waterpipe tobacco smoke on airway inflammation in murine model of asthma of adult offspring mice. *Inhalation Toxicology*, 2017 Jul;29(8):366-373.

Al-Keilani M, **Al-Sawalha NA**. The potential of phenylbutyrate as adjuvant chemotherapy: an overview of cellular and molecular anticancer mechanisms. *Chem Res Toxicol*. 2017 Oct 16;30(10):1767-1777.

Al-Sawalha NA, Sawalha A, Tahaineh L, Almomani BA, Maha Al-Keilani. Healthcare providers' attitude and knowledge regarding medication use in breastfeeding women: a Jordanian national questionnaire study. *J Obstet Gynaecol*. 2017 Sep 14:1-5.

Al-Sawalha NA, Migdadi AM, Alzoubi KH, Khabour OF, Qinna NA. Effect of waterpipe tobacco smoking on airway inflammation in murine model of asthma. *Inhalation Toxicology*. 2017 Feb;29(2):46-52.

Al-Keilani MS, Almomani BA, **Al-Sawalha NA**, Shhabat BA. Self-Monitoring of Blood Glucose among Patients with Diabetes in Jordan: Perception, Adherence, and Influential Factors. *Diabetes Research and Clinical Practice*, 2017 Jan 17;126:79-85.

Al-Sawalha NA, Knoll BJ. Statins in Asthma: A Closer Look into the Pharmacological Mechanism of Action. *Pharmacology*. 2016 Sep 8;98(5-6):279-283.

Al-Sawalha NA, Tahaineh L, Sawalha A, Almomani BA. Medication Use in Breastfeeding Women: A National Study. *Breastfeed Med*. 2016 Sep;11:386-91.

Forkuo GS, Kim H, Thanawala VJ, **Al-Sawalha N**, Valdez D, Joshi R, Parra S, Pera T, Gonnella PA, Knoll BJ, Walker JK, Penn RB, Bond RA. Phosphodiesterase 4 Inhibitors Attenuate the Asthma Phenotype Produced by β 2-Adrenoceptor Agonists in Phenylethanolamine N-Methyltransferase-Knockout Mice. *Am J Respir Cell Mol Biol*. 2016 Aug;55(2):234-42.

Almomani BA, **Al-Sawalha NA**, Samrah SM, Gamble JM, Al Momani MA. Asthma insights from Jordan: cross-sectional observational study. *J Asthma*. 2016 2016;53(4):349-55.

Al-Sawalha N, Pokkunuri I, Omoluabi O, Kim H, Thanawala VJ, Hernandez A, Bond RA, Knoll BJ. Epinephrine Activation of the β 2-Adrenoceptor Is Required for IL-13-Induced Mucin Production in Human Bronchial Epithelial Cells. *PLoS One*. 2015 Jul 10;10(7):e0132559.

Forkuo GS, Thanawala VJ, **Al-Sawalha N**, Bond RA, Walker JK. Reply: Adverse effects of long-acting beta-agonists on airway hyperresponsiveness. *Am J Respir Cell Mol Biol*. 2013 Sep;49(3):502.

Thanawala VJ, Forkuo GS, **Al-Sawalha N**, Azzegagh Z, Nguyen LP, Eriksen JL, Tuvim MJ, Lowder TW, Dickey BF, Knoll BJ, Walker JK & Bond RA. β 2-Adrenoceptor agonists are required for development of the asthma phenotype in a murine model. *Am. J. Respir. Cell Mol. Biol*. 2013; 48:220-229.

Aburahma SK, Khader YS, Alzoubi K, **Sawalha N**. Complementary and alternative medicine use in a pediatric neurology clinic. *Complement Ther Clin Pract*. 2010; 16(3):117-20.

Mhaidat NM, Alali FQ, Matalqah SM, Matalka II, Jaradat SA, **Al-Sawalha NA**, Thorne RF. Inhibition of MEK sensitizes paclitaxel-induced apoptosis of human colorectal cancer cells by downregulation of GRP78. *Anticancer Drugs*. 2009; 20(7):601-6.

Abstracts

Long P. Nguyen, Ozozoma Omoluabi, Bhupinder Singh, Indira D. Pokkunuri, **Nour Sawalha**, Michael J. Tuvim, Brian J. Knoll, Burton F. Dickey and Richard A. Bond. Blockade or Deletion of the Beta₂-Adrenoceptor Inhibits IL-13 Induced Mucous Metaplasia in Mice and Cultured Human Airway Epithelial Cells. American Thoracic Society. 2011

Indira Pokkunuri, **Nour Al-Sawalha**, Ozozoma Omoluabi, Long Nguyen, Burton Dickey, Richard Bond, Brian Knoll. β_2 AR signalling in normal human bronchial epithelial cells is required for interleukin-13 induced expression of the mucin MUC5AC and the secretion of proinflammatory chemokines. BPS Winter Meeting 2011, London, UK

Al-Sawalha N, Pokkunuri I, Omoluabi O, Bond RA & Knoll BJ. Role of β_2 - adrenoceptor signaling and mitogen activated protein kinases in IL-13 induced mucus production in human airway epithelial cells. **ASPET Graduate Student Travel Award to NA**. Experimental Biology 2012, San Diego, CA.

Thanawala VJ, **Al-Sawalha N**, Forkuo GS, Omoluabi O, Knoll BJ & Bond RA. Epinephrine is required for the IL-13 induced increase in inflammatory cells in murine airways. Experimental Biology 2012, San Diego, CA.

Al-Sawalha N, Pokkunuri I, Omoluabi O, Bond RA & Knoll BJ. Role of β_2 -adrenoceptor signaling and mitogen activated protein kinases in IL-13 induced mucus production in human airway epithelial cells. Lung Research Day (Sponsored by the Gulf Coast Consortia) 2012, Houston, TX.

Forkuo GS, Thanawala VJ, **Al-Sawalha N**, Omoluabi O, Knoll BJ & Bond RA. β_2 -agonists are required for the development of the asthma phenotype in murine model of asthma. Lung Research Day (Sponsored by the Gulf Coast Consortia) 2012, Houston, TX.

Thanawala VJ, **Al-Sawalha N**, Forkuo GS, Omoluabi O, Knoll BJ & Bond RA. Epinephrine is required for the IL-13 induced increase in inflammatory cells in murine airways. Lung Research Day (Sponsored by the Gulf Coast Consortia) 2012, Houston, TX.

Al-Sawalha N, Pokkunuri I, Hernandez A, Bond RA & Knoll BJ. Mitogen activated protein kinases and cAMP-dependent kinases mediate β_2 -adrenoceptor dependent mucin MUC5AC expression in normal human bronchial epithelial cells in response to IL- 13. BPS Winter Meeting 2012, London, UK.

Al-Sawalha N, Pokkunuri I, Bond RA & Knoll BJ. Pro-inflammatory Role of β_2 -Adrenoceptor Signaling in Human Airway Epithelial Cells in Response to IL-13. Experimental Biology 2013, Boston, MA.

Forkuo GS, Thanawala VJ, **Al-Sawalha N**, Knoll BJ & Bond RA. The Role of the β_2 -Adrenoceptor Gs Pathway in the Development of the Asthma Phenotype in Murine Models. Experimental Biology 2013, Boston, MA.

Thanawala VJ, Forkuo GS, **Al-Sawalha N**, Knoll BJ, Leff P & Bond RA. Role of Biased Signaling by β -Blockers in the Development of an Asthma Phenotype in a Murine Model. Experimental Biology 2013, Boston, MA.

Nour Al-Sawalha, Indira Pokkunuri, Ozozoma Omoluabi, Vaidehi Thanawala, Adrian Hernandez, Richard A. Bond, Brian J. Knoll. cAMP-dependent Kinases and ERK1/2 Mediate β_2 -Adrenoceptor Dependent Mucin Production in Normal Human Bronchial Epithelial Cells in Response to IL-13. 4th GPCR colloquium 2013, Boston, MA.

Nour Al-Sawalha, Indira Pokkunuri, Ozozoma Omoluabi, Vaidehi Thanawala, Adrian Hernandez, Richard A. Bond, Brian J. Knoll. cAMP-dependent Kinases and ERK1/2 Mediate β_2 -Adrenoceptor Dependent Mucin Production in Normal Human Bronchial Epithelial Cells in Response to IL-13. **First place award on oral presentation to NA.** 1st PPS symposium 2013, Houston, TX.

Nour A. Al-Sawalha, Christina Senny, Adrian Hernandez, Daniel Valdez, Indira Pokkunuri, Vaidehi Thanawala, Richard A. Bond, Brian J. Knoll. Role of cAMP signaling in Mucin Production in Response to IL-13 in Human Bronchial Epithelial Cells. Experimental Biology 2014, San Diego, CA.

V. Thanawala; D. Valdez; **N. Al-Sawalha**; G. Forkuo; B. Knoll; R. Bond. The signaling bias of certain beta-blockers predicts their therapeutic efficacy in a murine model of asthma. 17th World Congress of Basic and Clinical Pharmacology, 2014, Cape Town, South Africa.

Hanadi Ahmad Albo'ul, **Nour Al-Sawalha**, Karem Alzoubi, Omar Khabour. Effect of prenatal waterpipe tobacco smoke on airway inflammation in murine model of adult offspring mice. The 4th conference for Faculties of Pharmacy in Jordan and The 2nd International Conference on Research Ethics in Jordan: Clinical Trials, August 2017, Jordan.

Ala'a Migdadi, **Nour Al-Sawalha**, Karem H. Alzoubi, Omar F. Khabour, Nidal A. Qinna. Effect of waterpipe tobacco smoking on airway inflammation in murine model of asthma. The 4th conference for Faculties of Pharmacy in Jordan and The 2nd International Conference on Research Ethics in Jordan: Clinical Trials, August 2017, Jordan.

Yehia M. Almahmmod, Weam N. Alyacoub, **Nour A. Al-Sawalha**, Karem H. Alzoubi, Omar F. Khabour. Toxic Effect of prenatal waterpipe tobacco smoke exposure during different stages of gestation on pregnancy outcomes. The 4th conference for Faculties of Pharmacy in Jordan and The 2nd International Conference on Research Ethics in Jordan: Clinical Trials, August 2017, Jordan.

CONFERENCES

American Thoracic Society. 2011, USA.

BPS Winter Meeting 2011, 2012, London, UK.

Experimental Biology 2012, 2014, CA, USA.

Lung Research Day (Sponsored by the Gulf Coast Consortia) 2012, Houston, TX.

Experimental Biology 2013, MA, USA.

4th GPCR colloquium 2013, MA, USA.

The 4th conference for Faculties of Pharmacy in Jordan and The 2nd International Conference on Research Ethics in Jordan: Clinical Trials, August 2017, Jordan.

17th World Congress of Basic and Clinical Pharmacology, 2014, Cape Town, South Africa.

Co-Charing in ASU Pharmacy Third Conference and The Third Conference of the Association of Faculties of Pharmacy at Jordanian Universities, April 2017, Applied Science University, Amman, Jordan.

Co-Charing in "International Conference and Advanced Neuroscience School in Neurodegenerative Disorders: Translation into Clinical Neurology", November, 2017, Jordan University of Science and Technology, Irbid, Jordan.

Moderator in ASU Pharmacy Fourth Conference and The Fourth Conference of the Association of Faculties of Pharmacy at Jordanian Universities, January 2019, Applied Science University, Amman, Jordan.

REVIEWER

Review articles from:

- Bioscience Reports.
- Toxicology Letters.
- Jordan Journal of Pharmaceutical Sciences.
- Breastfeeding Medicine
- Tobacco Induced Diseases
- Drug and Chemical Toxicology
- Journal of Inflammation

EDITOR

Editor of Journal of Analytical Toxicology and Applications

TEACHING COURSES

- Advanced Pharmacology (For Pharm.D and B. Pharmacy students)
- Advanced Therapeutics (For master students)
- Clinical Clerkship 1 (For master students)
- Clinical Clerkship 2 (For master students)
- Clinical Seminar 1 (For Pharm.D students)
- Clinical Seminar 2 (For Pharm.D students)
- Clinical Training: Hospital Pharmacy (For Pharm.D students)
- Clinical Training: Intensive Care Unit (For Pharm.D students)
- Clinical Training: Neuropsychiatry (For Pharm.D students)
- Clinical Training: Drug Information Center (For Pharm.D students)
- Clinical Training: Research rotation (For Pharm.D students)
- Community Pharmacy (For Pharm.D students)
- Drug Information (For master students)
- Drug Information Resources (For Pharm.D and B. Pharmacy students)
- Pharmacology-1 (For Pharm.D and B. Pharmacy students)
- Pharmacology-2 (For Pharm.D and B. Pharmacy students)
- Therapeutic-Comprehensive (For Pharm.D students)
- Therapeutics-Respiratory and Gastrointestinal systems (For Pharm.D students)

WORKSHOPS AND TRAINING

Endnote training session, Houston, Texas 2012.

Isolation of mice tracheal epithelial cells, Baylor College of Medicine, Houston, Texas 2013.

Orientation workshop, The Academic Development Center at JUST, 2013.

Statistical analysis using SPSS, The Academic Development Center at JUST, 2014.

E-learning: Open Learning Resources, The Academic Development Center at JUST, 2014.

How to get published author workshop at JUST, Taylor & Francis Research Seminar, 2016.

Course Planning and Curriculum Development, The Academic Development Center at JUST, 2017.

Teaching Methods and Strategies, The Academic Development Center at JUST, 2019.

ACCOMPLISHMENTS AND COMMUNITY SERVICE

Participation in Free Medical Day in Kufrasad, Irbid, April 2019

Participation in Free Medical Day in Hai L Torokman, Irbid, November 2018

Organizing Free Medical day in Dogarah, Irbid, November 2018

Organizing JUST WALK at JUST, November 2018. The collected money (~2500 JOD were deposited at Student Support fund at JUST.

Organizing International Child day, King Abdullah II Gardens, Irbid, October 2018

Conducting "Research Misconduct" workshop in collaboration with Responsible Conduct of Research (RCR) program (a joint program between the University of California San Diego and Jordan University of Science and Technology), June 25th and July 8th, 2018 and April 22nd 2019.

Establishing and conducting the "Career Paths" event at Jordan University of Science and Technology that focuses on introducing Pharm.D and pharmacy students to the different career paths that they can pursue after graduation, 2014, 2015, 2016, 2017, 2018.

Supervising the published article "Breastfeeding, the right for the baby and health of mother", Al-Ghad newspaper, 2015.

Supervising the published article "What you do not know about Celiac disease", Al-Ghad newspaper, 2016.

Supervising the published article "Grout: treatment and prophylaxis", Al-Ghad newspaper, 2016.

Participation of Diabetes education day, Irbid City Center, November 2016.

Participation in organizing free medical day in Al-Ramtha, Ramtha, December 2016.

Organizing International Cancer Day, Arabella Mall, Irbid, February 2017
Participation in organizing free medical day in Kufor-Khal, Irbid, February 2017
Participation in organizing educational medical day at Irbid Girls Community College, Al-Balqa' Applied University, March, 2017.
Participation in organizing free medical day in Aqraba, Irbid, April 2017.
Participation in organizing educational medical day at Al-Husson secondary school, April, 2017.
Participation in organizing JUST International Pharmacy Conference: Challenges vs Opportunities, The 4th conference for Faculties of Pharmacy in Jordan and The 2nd International Conference on Research Ethics in Jordan: Clinical Trials, August 2017, Jordan University of Science and Technology, Irbid, Jordan.
Participation in organizing Alumni Reunion ceremony of the Faculty of Pharmacy, August 2017.
Participation in organizing free medical day in Harima, Irbid, October 2017.
Participation in organizing free medical day in Ballas, Ajloun, November 2017.
Organizing Diabetes International day, Arabella Mall, Irbid, November 2017.
Organizing Universal Child day, Arabella Mall, Irbid, November 2017.
Participation in organizing International Conference and Advanced Neuroscience School in Neurodegenerative Disorders: Translation into Clinical Neurology”, November, 2017, Jordan University of Science and Technology, Irbid, Jordan.

FACULTY AND DEPARTMENT MEMBERSHIPS

Revising the syllabi as part of the ACPE requirements at Department of Clinical Pharmacy, chair, 2019.
Scientific days and conferences committee at Faculty of Pharmacy, 2013, 2014, 2016, 2017, 2018, 2019,2020.
Continual education committee at Faculty of Pharmacy, 2014-2015.
Quality Control and Accreditation committee at Faculty of Pharmacy, 2014-2015.
Community Service committee at Faculty of Pharmacy, 2015-2016.
Clinical Pharmacy and Pharmacy practice committee, 2016-2017, 2018-2019.
Authentication committee at Faculty of Pharmacy, 2017-2018.
Clinical Pharmacy Department research proposals evaluation committee, 2013, 2014, 2015.
Administrative member of “Pharm.D Campaign: Toward the ideal Pharmaceutical care”, 2016-current.
National Committee of Narcotics, Antinarcotics Department, Public Security Directorate, 2017-2018.

FUNDED RESEARCH

α CGRP, NPY, SP, VIP, and PACAP as potential biomarkers in multiple sclerosis, Co-Investigator, SRF, 2018-current.

Effect of waterpipe Tobacco Smoke Exposure during lactation on fertility of adult male offspring rats. 2019-current.

Effect of Waterpipe Tobacco Smoke and E-cigarette Exposure During Pregnancy and Lactation on Dams and Offspring rats. 2018-current.

Effect of Waterpipe Tobacco Smoke and E-cigarette Exposure During Pregnancy and Lactation on Dams and Offspring rats. 2018-2019.

Effect of Effect of L-carnosine on the development of metabolic syndrome in rats, 2017-2019.

Effect of acute and chronic waterpipe tobacco smoke exposure on liver biomarkers of adult rats, 2017-2019.

Effect of prenatal waterpipe tobacco smoke on kidney biomarkers of adult offspring rats, 2017-2018.

Effect of waterpipe smoke on the development of metabolic syndrome in adult rats, 2017-2018.

Effect of prenatal waterpipe tobacco smoking exposure on heart markers of adult offspring rats, 2017-2018.

Effect of waterpipe tobacco smoking exposure during breastfeeding on learning and memory of young adult offspring rats, 2017- 2018.

Effect of prenatal waterpipe smoke on fertility in adult male offspring rats. Funded by Jordan University of Science and Technology. 2016-2017

Effect of prenatal waterpipe smoke on allergen driven murine model of asthma in adult offspring mice. Funded by Jordan University of Science and Technology. 2015-2017

Effect of Prenatal Exposure to waterpipe smoking on Learning and Memory in Young Rats. Funded by Jordan University of Science and Technology. 2015-2017

Role of simvastatin in stress-induced asthma. Funded by Jordan University of Science and Technology. 2014-2016

Waterpipe and asthma: effect and treatment. Funded by Jordan University of Science and Technology. 2015-2016

Factors that Exacerbate Asthma: a Jordanian National Study. Funded by Jordan University of Science and Technology. 2014-2016

Awareness of Medication Safety Among Breastfeeding Women and Healthcare Professionals: a Jordanian National Study. Funded by Jordan University of Science and Technology. 2015-2016

MASTER STUDENTS' THESIS COMMITTEE

1. Ala'a Migdadi, 2015-2016, Principal investigator, JUST/School of Pharmacy: Waterpipe and asthma: effect and treatment.
2. Hanadi Al-Boul, 2015-2016, Principal investigator, JUST/School of Pharmacy: Effect of prenatal waterpipe smoke on allergen driven murine model of asthma in adult offspring mice.
3. Marya Al-filali, 2016-2018, Principal investigator, JUST/School of Pharmacy: Effect of prenatal waterpipe tobacco smoking exposure on heart markers of adult offspring rats.
4. Riham Al-Sari, 2017-2018, Principal investigator, JUST/School of Pharmacy: Effect of prenatal waterpipe tobacco smoke on kidney biomarkers of adult offspring rats.
5. Shatha Bani Amer, 2017-current, Principal investigator, JUST/School of Pharmacy: Effect of acute and chronic waterpipe tobacco smoke exposure on liver biomarkers of adult rats.
6. Hassanah Quqazah, 2017- 2018, Co-Principal investigator, JUST/Forensic Medicine: Effect of waterpipe tobacco smoking during breastfeeding on mothers' and pups' nutritional, hormonal and biochemical profile in rat model.
7. Huda Taha, 2019-2020. Principal investigator, JUST/School of Pharmacy: Effect of E-cigarette exposure on development of asthma in murine model.
8. Noor Keiwan, 2019-2020. Principal investigator, JUST/School of Pharmacy. The Knowledge and Attitudes of Community Pharmacists about Appropriate Dosing of Antibiotics among Pediatrics in Jordan
9. Rahaf Butran, 2018-2020. Co-Principal investigator, JUST/Forensic Medicine. The effect of electronic cigarettes exposure on learning and memory functions: behavioral and molecular analysis
10. Rand Mbaidein, 2018-current, Co-Principal investigator, JUST/Forensic Medicine: Neurotoxicity of Zinc Oxide Nanoparticles and Protective Effect of Folic Acid
11. Ayman Yasein. 2019-current. Co-Principal investigator, JUST/School of Pharmacy. Evaluating the potential protective effect of Vitamin E against Electronic Cigarettes smoking-induced memory impairment: the role of oxidative stress
12. Abdulah Khweili, 2020-current. Co-Principal investigator, JUST/School of Pharmacy. Exploring the Chemical Composition and Anti-inflammatory Effect of Beetroot (*Beta vulgaris* L.) Juice
13. Wala' Qasim. 2020-current. Co-Principal investigator, JUST/School of Nutrition. A Prospective Open-Label Comparative Study of the Effects of Matcha Tea on Obesity

MASTER STUDENTS' EXAM COMMITTEE

1. Asma Ararawi, 2015, JUST/school of Pharmacy: Assessing the differential effect of endoplasmic reticulum stress on brain and peripheral Angiogenesis.
2. Afaf Khasawneh, 2016, JUST/School of Pharmacy: Evaluation of Clinical Pharmacist role in Managing Iron Deficiency Anemia Patients.
3. Tasneem Qarmash, 2016.
4. Rania Mahafdah, 2016, JUST/School of Pharmacy: Evaluation of the effect of melatonin on learning and memory impairment induced by high-fat high carbohydrates diet in rats.
5. Sahar Edaily, 2016, JUST/School of Pharmacy: Evaluation of Enoxaparin dosing regimens used in obese patients in Jordan.
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7. Eyad Gaith, 2020: JUST/School of Medicine/Forensic Medicine and Toxicology: The effect of palm dates and omega 3 on memory and cognitive impairment induced by oxidative stress resulting of diabetes mellitus- animal model
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TRAINING AND RESEARCH

Waterpipe tobacco smoke and E-cigarettes research area with the focus on the effect of waterpipe tobacco smoke during pregnancy and breastfeeding on adult offspring utilizing animal models.

Metabolic syndrome area where we focus on the treatment regimens and the molecular mechanism that is involved.

Clinical research with the focus on asthma and the safety of medication use during breastfeeding.

Asthma research areas that focused on identifying the underlying mechanism of the beneficial effect of subsets of β -blockers in asthma using a 3D model of primary bronchial epithelial cells. Cell culture, immunohistochemistry, immunofluorescence, real time

quantitative PCR and immunoblotting are the major techniques were used in these studies.

Oncology research focusing on chemotherapy induced ER-stress of human colorectal cancer cells to identify the response to chemotherapy, detect the occurrence of apoptosis using various techniques as flow cytometry, and to understand the involved pathway of apoptosis using immunoblotting techniques.

Clinical clerkships in different fields covering cardiovascular diseases, respiratory and infectious diseases, oncology, dermatology, ENT and rheumatology, endocrinology, nephrology as well as pediatric clerkships at King Hussein Medical Center and King Abdulla University hospitals, Jordan.

REFERENCES

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