

## *Curriculum Vitae*

### NAME

Nour A. Al-Sawalha, Pharm.D, Ph.D.  
National Database for Researchers ID: 8977

### 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  $\beta$ 2-adrenoceptors is Required for Mucin Production in Airway Bronchial Epithelial Cells.
- Master's degree in clinical pharmacy, Jordan University of Science and Technology, Irbid, Jordan, 2007-2009. Thesis Title: Chemotherapy-Induced Endoplasmic Reticulum Stress in Human Colorectal Cancer.

### PROFESSIONAL QUALIFICATIONS

- Certified Quality Assessor by Accreditation and Quality Assurance Commission for Higher Education Institutions (AQACHEI), 2024.
- Doctor of Pharmacy (Pharm. D), Jordan University of Science and Technology, Irbid, Jordan, 2007.

### POSITIONS HELD

#### Current Position:

- **Professor of Pharmacology**  
Department of Clinical Pharmacy, Jordan University of Science and Technology, Irbid, Jordan 22110  
October 2022 – Present
- **Vice Dean for Accreditation and Quality Assurance**  
Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, Jordan 22110  
September 2023 – Present
  - Led and coordinated the preparation of self-study reports for **ACPE (Accreditation Council for Pharmacy Education)**, **Malaysian Accreditation**, and **National Accreditation** for both BPharm and PharmD degrees, ensuring compliance with all relevant accreditation standards.
  - Managed the preparation of the **qualification placement applications** for various programs, including **PharmD**, **BSc in Biological and Pharmaceutical Manufacturing**, **MSc in Clinical Pharmacy**, **Medicinal Chemistry and Pharmacognosy**, **Pharmaceutical Technology**, **Biomedical Ethics**, **Pharmacology and Experimental Therapeutics**, **Pharmacoeconomics**, and **PhD in Pharmacy**, ensuring alignment with accreditation requirements and standards.

### Previous Positions:

- Chair of Clinical Pharmacy Department, September 2021-September 2023, Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, Jordan 22110
- Acting Vice Dean of Faculty of Pharmacy, October 2020-October 2021, Jadara University, Irbid, Jordan, 21110.
- Associate Professor, October 2018-October 2022. Department of Clinical pharmacy, Jordan University of Science and Technology, Irbid, Jordan 22110
- Assistant Professor, October 2013-October 2018, Department 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). 1<sup>st</sup> 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

- Roba Bdeir, **Nour A Al-Sawalha**, O'la Al-Fawares , Lama Hamadeneh, Alia Khawaldeh. Effects of empagliflozin on gonadal functions of hyperglycemic male wistar rats. PLoS One. 2024 Jun 17;19(6):e0305636.
- Maha S Al-Keilani, Basima A Almomani, Saied A Jaradat, **Nour A Al-Sawalha**, Majdi Al Qawasmeh. Alpha Calcitonin Gene-related Peptide, Neuropeptide Y, and Substance P as Biomarkers for Diagnosis and Disease Activity and Severity in Multiple Sclerosis. CNS Neurol Disord Drug Targets. 2024;23(4):512-524.

- Aiman A Yaseen, Karem H Alzoubi, **Nour Al-Sawalha**, Omar F Khabour, Anan Jarab, Shirin Ali, Samina Salim, Thomas Eissenberg. The impact of electronic cigarette aerosol exposure on spatial memory formation: Modulation by orally administered vitamin E. *Neurotoxicology*. 2024 Nov 1;105:263-271. doi: 10.1016/j.neuro.2024.10.014.
- Shoroq M Altawalbeh, Osama Y Alshogran, **Nour A Al-Sawalha**, Malak Mohammad Al-Saleem. Clinical Outcomes and Direct Medical Expenditures Associated with Intensive Care Unit Admission for Inpatients With COVID-19 in Jordan: A Retrospective Cohort Study. *Value Health Reg Issues*. 2023 Jan;33:76-82.
- Tamam El-Elimat, Wala'a M Qasem, **Nour A Al-Sawalha**, Mahmoud M AbuAlSamen, Ramzi T Munaïem, Reema Al-Qiam, Ahmed H Al Sharie. A Prospective Non-Randomized Open-Label Comparative Study of The Effects of Matcha Tea on Overweight and Obese Individuals: A Pilot Observational Study. *Plant Foods Hum Nutr*. 2022 Sep;77(3):447-454.
- Tamam El-Elimat, Abdullah R Al-Khawlani, **Nour A Al-Sawalha**, Marwan M Sa'ed, Reema Al-Qiam, Ahmed H Al Sharie, Nidal A Qinna. The effect of beetroot juice on airway inflammation in a murine model of asthma. *J Food Biochem*. 2022 Dec;46(12):e14381.
- Maha S Al-Keilani, Basima A Almomani, **Nour A Al-Sawalha**, Majdi Al Qawasmeh, Saïed A Jaradat. Significance of serum VIP and PACAP in multiple sclerosis: an exploratory case-control study. *Neurol Sci*. 2022 Apr;43(4):2621-2630. doi: 10.1007/s10072-021-05682-5.
- Karem H Alzoubi, Omar F Khabour, **Nour A Al-Sawalha**, Nareg Karaoghlanian, Alan Shihadeh, Thomas Eissenberg. Time course of changes in inflammatory and oxidative biomarkers in lung tissue of mice induced by exposure to electronic cigarette aerosol. *Toxicol Rep*. 2022 Aug 5;9:1484-1490.
- Huda R Taha, Nour Keewan, Farah Slati, **Nour A Al-Sawalha**. Remdesivir: A Closer Look at Its Effect in COVID-19 Pandemic. *Pharmacology*. 2021;106(9-10):462-468.
- **Nour A Al-Sawalha**, Basima A Almomani, Enas Mokhemer, Samah F Al-Shatnawi, Roba Bdeir. E-cigarettes use among university students in Jordan: Perception and related knowledge. *PLoS One*. 2021 Dec 31;16(12):e0262090.
- **Al-Sawalha NA**, Bdeir R, Sohaib A, Saad M, Inghaimesh T, Khabour OF, Alzoubi KH, Shihadeh A. Effect of E-cigarettes aerosol exposure during lactation in rats: Hormonal and biochemical aspects. *Environ Toxicol Pharmacol*. 2021 Nov;88:103759.
- Keewan N, **Al-Sawalha NA**, Almomani BA. The knowledge of community pharmacists about appropriate dosing of antibiotics among paediatrics: A national study from Jordan. *Int J Clin Pract*. 2021 Nov;75(11):e14652.
- Al-Keilani MS, Almomani BA, **Al-Sawalha NA**, Al Qawasmeh M, Jaradat SA. Significance of serum VIP and PACAP in multiple sclerosis: an exploratory case-control study. *Neurol Sci*. 2021 Oct 26.
- Alzoubi KH, Batran RM, **Al-Sawalha NA**, Khabour OF, Karaoghlanian N, Shihadeh A, Eissenberg T. The effect of electronic cigarettes exposure on learning and memory functions: behavioral and molecular analysis. *Inhal Toxicol*. 2021 May-Jul;33(6-8):234-243.
- **Al-Sawalha NA**, Almomani BA, Al-Shatnawi SF, Almomani BN. Attitudes and Knowledge of the Harmful Effects of Waterpipe Tobacco Smoking among university students: A study from Jordan. *Environ Sci Pollut Res Int*. 2021 Aug;28(32):43725-43731.
- Mahmoud M AbuAlSamen, Tamam El-Elimat, Basima A Almomani, **Nour A Al-Sawalha**. Knowledge and perceptions of synthetic cannabinoids among university students in Jordan. *PLoS One*. 2021 Jun 24;16(6):e0253632.
- El-Elimat T, AbuAlSamen MM, Almomani BA, **Al-Sawalha NA**, Alali FQ. Acceptance and attitudes toward COVID-19 vaccines: A cross-sectional study from Jordan. *PLoS One*. 2021 Apr 23;16(4):e0250555.

- **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*. 2021 Feb;128(2):315-321.
- **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.
- 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-Omoush TK, Alzoubi KH, Khabour OF, Alsheyab FM, Abu-Siniyeh A, **Al-Sawalha NA**, Mayyas FA, Cobb CO, Eissenberg T. The [CHRNA5](#) Polymorphism (rs16969968) and its Association with Waterpipe Smoking Addiction among Jordanians. *Arab J Basic Appl Sci*. 2020;27(1):450-455.
- **Al-Sawalha N**, Alzoubi K, Khabour O, Karaoghlani 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-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.
- 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 Karaoghlani, 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*, Volume 11, Issue 1, March 2020, Pages 33–38.
- **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**, Alshogran OY, Awawdeh MS, Almomani BA. The effects of l-Carnosine on development of metabolic syndrome in rats. *Life Sci*. 2019 Oct 11;116:905.
- **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.
- **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.
- **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.
- 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.

- 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.
- 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.
- 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.  $\beta_2$ -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-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 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-Sawalha NA**, Sawalha A, Tahaine 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**, Tahaine 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  $\beta_2$ -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  $\beta_2$ -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.  $\beta_2$ -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**

- 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.
- **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.
- **Al-Sawalha N**, Pokkunuri I, Bond RA & Knoll BJ. Pro-inflammatory Role of  $\beta_2$ -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  $\beta_2$ -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  $\beta$ -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  $\beta_2$ -Adrenoceptor

Dependent Mucin Production in Normal Human Bronchial Epithelial Cells in Response to IL-13. 4<sup>th</sup> 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  $\beta_2$ -Adrenoceptor Dependent Mucin Production in Normal Human Bronchial Epithelial Cells in Response to IL-13. **First place award on oral presentation to NA**. 1<sup>st</sup> PPS symposium 2013, Houston, TX.
- **Al-Sawalha N**, Pokkunuri I, Omoluabi O, Bond RA & Knoll BJ. Role of  $\beta_2$ - 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  $\beta_2$ -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.  $\beta_2$ -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  $\beta_2$ -adrenoceptor dependent mucin MUC5AC expression in normal human bronchial epithelial cells in response to IL- 13. BPS Winter Meeting 2012, London, UK.
- 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 Beta<sub>2</sub>-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.  $\beta_2$ 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

## CONFERENCES

- Technical Committee, The 5th International Conference of the Faculty of Pharmacy: "Multidisciplinary Pharmaceutical Research", June 7th - 8th, 2023, Irbid, Jordan University of Science and Technology, Irbid, Jordan.
- Co-chairman of "COVID-19 Pandemic: Pharmaceutical & Biomedical Research and Perspectives", an international Pharmaceutical conference, March 10-11, 2020 Jadara University, 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.

- 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.
- 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.
- 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.
- 4<sup>th</sup> GPCR colloquium 2013, MA, USA.
- Experimental Biology 2013, MA, USA.
- Lung Research Day (Sponsored by the Gulf Coast Consortia) 2012, Houston, TX.
- Experimental Biology 2012, 2014, CA, USA.
- BPS Winter Meeting 2011, 2012, London, UK.
- American Thoracic Society. 2011, USA.

## **REVIEWER**

Served as a reviewer for several articles submitted to:

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

## **TEACHING COURSES**

- Pharmacology-1 (For Pharm.D and B. Pharmacy students)
- Pharmacology-2 (For Pharm.D and B. Pharmacy students)
- Advanced Pharmacology (For Pharm.D and B. Pharmacy students)
- Drug Information Resources (For Pharm.D and B. Pharmacy students)
- Therapy-1 (For B. Pharmacy students)
- Therapeutic-Comprehensive (For Pharm.D students)
- Therapeutics-Respiratory and Gastrointestinal systems (For Pharm.D students)
- Drug Information (For master students)
- Advanced Therapeutics (For master students)
- Clinical Biomarkers (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)

## **WORKSHOPS AND TRAINING**

### **Presenting:**

- “Research Integrity” workshop for academic staff for promotion purposes in collaboration with RCR, JUST, 2022,
- “Research integrity and research misconduct” workshop for undergraduate students, JUST, 2022.
- “Research Misconduct” workshop for academic staff at Jadara University, 2020.
- “Research Misconduct” workshop for graduate students in collaboration with RCR, JUST, 2019.
- “Research Misconduct” workshop for graduate students in collaboration with RCR, JUST, 2018.

### **Attending:**

- Measuring and analyzing student learning outcomes, Deanship of Academic Development and Quality Assurance, JUST, 2023.
- Critical Thinking and Creative Thinking, The Academic Development Center at JUST, 2021.
- Teaching Methods and Strategies, The Academic Development Center at JUST, 2019.
- Course Planning and Curriculum Development, The Academic Development Center at JUST, 2017.
- Collaborative Institutional Training Initiative (CITI) program course- Stage 1 - Basic Course held by Responsible Conduct of Research (RCR), 2017.
- How to get published author workshop at JUST, Taylor & Francis Research Seminar, 2016.
- E-learning: Open Learning Resources, The Academic Development Center at JUST, 2014.
- Statistical analysis using SPSS, The Academic Development Center at JUST, 2014.
- Orientation workshop, The Academic Development Center at JUST, 2013.
- Isolation of mice tracheal epithelial cells, Baylor College of Medicine, Houston, Texas 2013.
- Endnote training session, Houston, Texas 2012.

## **ACCOMPLISHMENTS AND COMMUNITY SERVICE**

- Member of Animals Care Unit Committee, JUST, 2021-current.
- Establishing and conducting the “Career Paths” event, JUST, 2014, 2015, 2016, 2017, 2018, 2021, 2022, 2023, 2024.
- Organizing 15 workshops in “Career Paths” event, June 7<sup>th</sup>-8<sup>th</sup>, 2023, JUST, Irbid.
- Organizing JUST WALK at JUST, November 2018. The collected profit (~2500 JOD were deposited at “Student Support fund” at JUST.
- Administrative member of “Pharm.D Campaign: Toward the ideal Pharmaceutical care”, 2016-current
- Participated in writing the results of a study about “the acceptance and attitudes of COVID-19 vaccine in Jordan”, published in Alrai newspaper, Amman, Jordan, 24/12/2020
- 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 International Child day, King Abdullah II Gardens, Irbid, October 2018
- Member of National Committee of Narcotics, Antinarcotics Department, Public Security Directorate, 2017-2018.
- 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 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.
- 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.
- Supervising the published article "Breastfeeding, the right for the baby and health of mother", Al-Ghad newspaper, 2015.

#### **FACULTY OF PHARMACY MEMBERSHIPS, JUST (SELECTED):**

- College Counsel, member, 2021, 2022, 2023, 2024.
- Quality Control and Accreditation committee, chair, 2023, 2024.
- Quality Control and Accreditation committee, member, 2014-2015, 2021, 2022.
- Scientific days and conferences committee, member, 2013, 2014, 2016, 2017, 2018, 2019, 2020.
- Formulation of the agreement with KAUH to organize the clinical service, member, 2023.
- Academic Staff criterion for Malaysian Accreditation committee, Chair, 2023.
- Academic Advising committee, member, 2022, 2023.
- Student initiatives and activities committee, member, 2022, 2023.
- Career Paths committee, Chair, 2022, 2023.
- Qualification placement application (for accreditation and quality assurance Commission for Higher Education Institution) committee, member, 2022-2023.
- ACPE interim report preparation committee, member, 2021, 2022, 2023.
- Development of PhD in Pharmaceutical Sciences committee, member, 2021, 2022, 2023.
- Graduate studies committee, member, 2021, 2022, 2023.
- Laboratories committee, member, 2021, 2022, 2023.
- Strategic planning committee, member, 2021, 2022, 2023
- Selection criteria of clinical pharmacist appointment committee, (part timers-clinical training), member, 2021, 2022, 2023.
- Curriculum and Course schedule committee, member, 2021, 2022, 2023.

- Clinical Pharmacy and Pharmacy practice committee, member, 2016-2017, 2018-2019.
- Authentication committee, member, 2017-2018.
- ACPE accreditation committee, member, 2016-2018.
- Continuous education committee, member, 2014-2015.
- Community Service committee, member, 2015-2016.
- Social committee, member, 2021, 2022, 2023.

#### **DEPARTMENT OF CLINICAL PHARMACY MEMBERSHIPS, JUST (SELECTED):**

- Department Counsel, Chair, 2021, 2022, 2023.
- Quality Control committee, Chair, 2021, 2022, 2023.
- Preparing the syllabus and content of Pharmacy Practice Lab, Chair, 2023.
- Department appointment committee, member, 2023
- Graduate studies committee, Chair, 2021, 2022, 2023.
- Part timers interviewing committee, Chair, 2021.
- Clinical Training committee, 2019, 2020.
- Department promotion committee, 2019, 2022.
- Final Exams evaluation committee, 2017, 2018, 2022, 2023.
- Revising the syllabi as part of the ACPE requirements, Chair, 2019.
- Research proposals evaluation committee, 2013, 2014, 2015.
- Mark review committee, chair, 2021, 2022, 2023.
- Community Pharmacy training committee, member, 2022, 2023.
- Establishing the instructions for community pharmacy training, member, 2023.
- Establishing the instructions for clinical training, Chair, 2023.

#### **FUNDED RESEARCH**

- $\alpha$ CGRP, NPY, SP, VIP, and PACAP as potential biomarkers in multiple sclerosis, Co-PI, Scientific Research Support Fund, Ministry of Higher Education and Scientific Research, Amman, Jordan. 2018-current.
- Effect of Matcha Tea in the prevention of Obesity in Rats, JUST, 2021-current
- The impact of Empagliflozin on cardiac biomarkers in diabetic rats, JUST, 2022-2023
- Effects of Empagliflozin on Gonadal Functions of Diabetic Male Rats, JUST, 2021-2023.
- Effect of Empagliflozin in diabetes induced learning and memory impairments, JUST, 2021-2023.
- Electronic cigarettes use among university students in Jordan: prevalence, perception and knowledge, JUST, 2020-2021
- Effect of waterpipe Tobacco Smoke Exposure during lactation on fertility of adult male offspring rats, JUST, 2019-2020
- Effect of Waterpipe Tobacco Smoke and E-cigarette Exposure During Pregnancy and Lactation on Dams and Offspring rats, JUST, 2018-2021.
- Effect of Waterpipe Tobacco Smoke and E-cigarette Exposure During Pregnancy and Lactation on Dams and Offspring rats, JUST, 2018-2019.
- Effect of Effect of L-carnosine on the development of metabolic syndrome in rats, JUST, 2017-2019.

- Effect of acute and chronic waterpipe tobacco smoke exposure on liver biomarkers of adult rats, JUST, 2017-2019.
- Effect of prenatal waterpipe tobacco smoke on kidney biomarkers of adult offspring rats, JUST, 2017-2018.
- Effect of waterpipe smoke on the development of metabolic syndrome in adult rats, JUST, 2017-2018.
- Effect of prenatal waterpipe tobacco smoking exposure on heart markers of adult offspring rats, JUST, 2017-2018.
- Effect of waterpipe tobacco smoking exposure during breastfeeding on learning and memory of young adult offspring rats, JUST, 2017- 2018.
- Effect of prenatal waterpipe smoke on fertility in adult male offspring rats, JUST, 2016-2017
- Effect of prenatal waterpipe smoke on allergen driven murine model of asthma in adult offspring mice, JUST, 2015-2017
- Effect of Prenatal Exposure to waterpipe smoking on Learning and Memory in Young Rats, JUST, 2015-2017
- Role of simvastatin in stress-induced asthma, JUST, 2014-2016
- Waterpipe and asthma: effect and treatment, JUST, 2015-2016
- Factors that Exacerbate Asthma: a Jordanian National Study, JUST, 2014-2016
- Awareness of Medication Safety Among Breastfeeding Women and Healthcare Professionals: a Jordanian National Study, JUST, 2015-2016

#### **MASTER STUDENTS' THESIS COMMITTEE**

- Zahra Obeidat, 2023-current. Co-Principal investigator, JUST/School of Pharmacy. Phytochemical Analysis and Hepatoprotective Effect of Matcha Tea on Paracetamol-Induced Liver toxicity in Rats.
- Amani Aldohon, 2021-2023. Principal investigator, JUST/School of Medicine: The impact of Empagliflozin on renal biomarkers in diabetic rats.
- Abdulah Khweili, 2020-2021. Co-Principal investigator, JUST/School of Pharmacy. Exploring the Chemical Composition and Anti-inflammatory Effect of Beetroot (*Beta vulgaris* L.) Juice
- Wala' Qasim. 2020-2021. Co-Principal investigator, JUST/School of Nutrition. A Prospective Open-Label Comparative Study of the Effects of Matcha Tea on Obesity.
- Farah Saliti, 2021-2022. Principal investigator, JUST/School of Pharmacy: The impact of Empagliflozin on cardiac biomarkers in diabetic rats.
- Ayman Yasein. 2019-2020. 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.
- 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.
- Huda Taha, 2019-2020. Principal investigator, JUST/School of Pharmacy: Effect of E-cigarette exposure on development of asthma in murine model.

- 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
- Rand Mbaidein, 2018-2021, Co-Principal investigator, JUST/Forensic Medicine: Neurotoxicity of Zinc Oxide Nanoparticles and Protective Effect of Folic Acid
- Riham Al-Sari, 2017-2018, Principal investigator, JUST/School of Pharmacy: Effect of prenatal waterpipe tobacco smoke on kidney biomarkers of adult offspring rats.
- Shatha Bani Amer, 2017-2019, Principal investigator, JUST/School of Pharmacy: Effect of acute and chronic waterpipe tobacco smoke exposure on liver biomarkers of adult rats.
- 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.
- 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.
- Ala'a Migdadi, 2015-2016, Principal investigator, JUST/School of Pharmacy: Waterpipe and asthma: effect and treatment.
- 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.

#### **MASTER STUDENTS' EXAM COMMITTEE**

- Duaa Marwan Al-Hourani, 2023, JUST/School of Medicine. Smoking Cessation Counseling Practices Among Healthcare Providers in Jordan: Applying the Trans-theoretical Model of Behavior Change.
- Ahlam Mohammad Harb Semreen, 2023. University of Sharjah/ School of Pharmacy. Molecular changes in brain cancer cells treated with paclitaxel, and/or etoposide: A Multi-omics approach.
- Aya Ahmad Abdallah Hasan, 2023. Al-Zaytoonah University/School of Pharmacy: Molecular Changes Associated with Novel Carboxamide Derivatives' Treatment of Triton WR1339 Induced Hyperlipidemic Rats.
- Bayan Kamel Al-Tal, 2021, JUST/School of Pharmacy: Phytochemical analysis and hepatoprotective effects of Rhus Coriaria L. (Sumac) fruits on Paracetamol-induced liver toxicity in rats.
- Mohamad Bahader, 2020: Al-Zaytoonah University/School of Pharmacy: Tamoxifen Resistance and its Role in Migration and Invasion of an *in Vitro* Cell Line Model at the Molecular Level.
- 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
- Ghadid'a Ma'abrah, 2018: JUST/School of Medicine/Forensic Medicine and Toxicology: Evaluation of Vitamin C in waterpipe smoking effect on learning and memory.
- Afaf Khasawneh, 2016, JUST/School of Pharmacy: Evaluation of Clinical Pharmacist role in Managing Iron Deficiency Anemia Patients.
- Tasneem Qarmash, 2016.
- 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.

- Sahar Edaily, 2016, JUST/School of Pharmacy: Evaluation of Enoxaparin dosing regimens used in obese patients in Jordan.
- Asma Ararawi, 2015, JUST/school of Pharmacy: Assessing the differential effect of endoplasmic reticulum stress on brain and peripheral Angiogenesis.

## REFERENCES

- Prof. Moh'd Taleb Obaidat, President of Jadara University, Irbid, [president@jadara.edu.jo](mailto:president@jadara.edu.jo)
- Prof. Sayer Al-Azzam, Dean of College of Pharmacy, JUST, Jordan, [salazzam@just.edu.jo](mailto:salazzam@just.edu.jo)
- Prof. Kareem Alzoubi, Dean of College of Pharmacy, Sharjah University, UAE. [kelzubi@sharjah.ac.ae](mailto:kelzubi@sharjah.ac.ae)
- Prof. Richard Bond, Department of Pharmacological and Pharmaceutical Sciences, University of Houston, Houston, Texas. [RABond@UH.Edu](mailto:RABond@UH.Edu).