

# CURRICULUM VITAE

**Belal Al-Husein MS, PhD**

## **Current Position:**

*Assistant Dean*

*Associate Professor, Department of Clinical Pharmacy*

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

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## **EDUCATION:**

June 2015-August 2016

**University of California San Diego Extension**

*Fellowship in Responsible Conduct of Research*

Aug 2008 – Dec 2012

**University of Georgia**, Augusta, Georgia

*Ph.D in Clinical and Experimental Therapeutics*, with Dr. Somanath Shenoy, PhD

Thesis: Molecular mechanisms regulating simvastatin-mediated inhibition of prostate cancer cellular functions in vitro and tumor growth in vivo.

October 2000- February 2002

**Jordan University of Science and Technology**

*MS in Clinical Pharmacy*, GPA 80.2/100

October 2000- February 2002

**Jordan University of Science and Technology**

*Bachelor of Pharmacy*, GPA 86.2/100; Rank was 1 among 122 students

## **PROFESSIONAL EXPERIENCE**

November 27<sup>th</sup>, 2019 to date

Associate Professor, Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology, Jordan

September 5<sup>th</sup>, 2019-date

Assistant Dean, Faculty of Pharmacy, Jordan University of Science and Technology, Jordan

February 2013-November 26<sup>th</sup>, 2019

Assistant Professor, Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology, Jordan

2003-2008

Full-time lecturer, Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology, Jordan; Supervisor of Clinical Pharmacy MS students and PharmD students in King Abdullah University Hospital (KAUH)

2002-2003

Part- time lecturer, Jordan University of Science and Technology, Jordan

## ***Professional Affiliations and Licensure***

2017-present: Member, American Association for Cancer Research (AACR)

2011: Member of Rho Chi, Since October 4th, 2010.

2000-present: member, Jordanian Pharmaceutical Association (JPhA)

## ***Awards/Honors***

2000: Graduated First in Class with Excellence and Honor Notion.

2008-2013: Predoctoral Fellowship (Jordan University of Science and Technology-Jordan).

## ***Abstracts***

1. AACR Annual Meeting 2019, 29/3-2/4 2019, Atlanta, GA, USA. Poster presentation: Interaction of atorvastatin and CX3CR1-fractalkine in androgen-dependent prostate cancer cells: Effect on PI3K pathway.
2. AACR Annual Meeting 2018, 14-18/4/2018, Chicago, IL, USA. Poster presentation: Immunomodulatory effect of statins on Regulatory T Lymphocytes in human colorectal cancer is determined by the stage of disease.
3. The 6th International Jordanian Congress of Allergy & Immunology, 26-28 July 2017, Amman, Jordan. Speaker on Personal Project: Immunomodulatory effect of statins on human colorectal cancer: Effect on T-regulatory cells.
4. Southern Translational Education and Research (STAR) conference, September 6th-7th, 2012, Augusta, GA. Simvastatin inhibits micrometastasis of invasive prostate cancer cells via inhibition of integrin  $\alpha v \beta 3$  interactions with endothelial ICAM1, (Belal Al-Husein, Anna Goc, and Somanath P.R. Shenoy).
5. Hematology Oncology Pharmacy Association (HOPA) conference, March 21st-24th, 2012, Orlando, FL. Effects of Simvastatin on Prostate Tumor Cells Survival, Proliferation, Invasion and Micrometastasis, (Belal Al-Husein, Anna Goc, Samith T. Kochuparambil, Ahmad Al-Azayzih and Somanath P.R. Shenoy).
6. UGA Conference on Drug Discovery, October 17, 2011, VA Research Day, May 28th 2011 and GHSU, March 25th, 2011. Glycogen Synthase Kinase-3 (GSK-3) and Prostate cancer: Novel insights challenge existing paradigms (Al-Husein B, Goc A and Somanath, P.R.).
7. Graduate Research Day at MCG, STaR conference, and VA Research Day, 2010. Targeting Glycogen Synthase Kinase-3: An Emerging Concept for Prostate Cancer Therapy, (Al-Husein B, Goc A and Somanath, P.R.).

## ***Publications***

1. NM Ayoub, DR Ibrahim, AE Alkhalifa, **BA Al-Husein**. Crizotinib induced antitumor activity and synergized with chemotherapy and hormonal drugs in breast cancer cells via downregulating MET and estrogen receptor levels. *Investigational New Drugs*, 1-12. doi: 10.1007/s10637-020-00989-0.
2. **BA Al-Husein**, NM Mhaidat, RM Sweidan. Interaction of Atorvastatin and CX3CR1/Fractalkine in Androgen-Dependent Prostate Cancer Cells: Effect on PI3K Pathway. Accepted for publication, Volume 13, Number 3 (September), 2020.
3. Muflih S, **Al-Husein BA**, Karasneh R, Alzoubi KH. Physicians' Attitudes and Ethical Obligations to Pharmacogenetic Testing. *J Multidiscip Healthc*. 2020 Mar 10;13:249-258

4. SA Banihani, SM Shuaibu, **BA Al-Husein**, SS Makahleh. Fresh Pomegranate Juice Decreases Fasting Serum Erythropoietin in Patients with Type 2 Diabetes. *Int J Food Sci.* 2019 Apr 18;2019:1269341
5. **BA Al-Husein**, SI Al-Azzam, KH Alzoubi, OF Khabour, MB Nusair, S Alzayadeen. Investigating the Effect of Demographics, Clinical Characteristics, and Polymorphism of MDR-1, CYP1A2, CYP3A4, and CYP3A5 on Clopidogrel Resistance. *Journal of cardiovascular pharmacology* 2018, 72 (6), 296-302
6. **BA Al-Husein**, SBH, Bara'Dawah, SM Al Bashir, KM Al-Sawalmeh, NM Ayoub. Immunomodulatory effect of statins on Regulatory T Lymphocytes in human colorectal cancer is determined by the stage of disease, *Oncotarget*, 2018, 9 (87), 35752
7. OY Alshogran, EF Al-Obaidi, **BA Al-Husein**, AO Oweis. Evaluation of the Effect of Uremic Serum on Hepatic Reductase Functional Expression. *Drug metabolism letters*, 2018, 12 (1), 75-81
8. Al-U'datt DG, **Al-Husein BA**, Qasaimeh GR. A mini-review of c-Met as a potential therapeutic target in melanoma. *Biomed Pharmacother.* 2017 Jan 17;88:194-202.
9. Mhaidat NM, **Al-Husein BA**, Alzoubi KH, Hatamleh DI, Khader Y, Matalqah S, Albsoul A. Knowledge and Awareness of Colorectal Cancer Early Warning Signs and Risk Factors among University Students in Jordan. *J Cancer Educ.* 2016 Dec 9. [Epub ahead of print]
10. Khabour OF, Alzoubi KH, Abu Thiab TM, **Al-Husein BA**, Eissenberg T, Shihadeh AL. Changes in the expression and protein level of matrix metalloproteinases after exposure to waterpipe tobacco smoke. *Inhal Toxicol.* 2015;27(13):689-93
11. Goc A, **Al-Husein B**, Katsanevas K, Steinbach A, Lou U, Sabbineni H, DeRemer DL, Somanath PR. Targeting Src-mediated Tyr216 phosphorylation and activation of GSK-3 in prostate cancer cells inhibit prostate cancer progression in vitro and in vivo. *Oncotarget.* 2014 Feb 15;5(3):775-87.
12. Al-Azzam S, Alzoubi KH, Ayoub NM, Khader YS, Karasneh RA, **Al-Husein BA**, Al-Horani MA. An audit on public awareness of depression symptoms in Jordan. *Int J Occup Med Environ Health.* 2013 Aug;26(4):545-54.
13. **Al-Husein B**, Goc A, Somanath PR. Suppression of interactions between prostate tumor cell-surface integrin and endothelial ICAM-1 by simvastatin inhibits micrometastasis. *J Cell Physiol.* 2013 Nov;228(11):2139-48.
14. Goc A, Al-Azayzih A, Abdalla M, **Al-Husein B**, Kavuri S, Lee J, Moses K, Somanath PR. P21 activated kinase-1 (Pak1) promotes prostate tumor growth and microinvasion via inhibition of TGF $\beta$  expression and enhanced MMP9 secretion. *J Biol Chem.* 2013 Feb 1;288(5):3025-35
15. **Al-Husein B**, Abdalla M, Trepte M, Deremer DL, Somanath PR. Antiangiogenic therapy for cancer: an update. *Pharmacotherapy.* 2012 Dec;32(12):1095-111.
16. Goc A, Kochuparambil ST, **Al-Husein B**, Al-Azayzih A, Mohammad S, Somanath PR. Simultaneous modulation of the intrinsic and extrinsic pathways by simvastatin in mediating prostate cancer cell apoptosis. *BMC Cancer.* 2012 Sep 14;12(1):409.
17. Kaddour-Djebbar I, Choudhary V, Lakshmikanthan V, Shirley R, El Gaish M, Al-Shabrawey M, **Al-Husein B**, Zhong R, Davis M, Dong Z, Bollag WB, Kumar MV. Diltiazem enhances the apoptotic effects of proteasome inhibitors to induce prostate cancer cell death. *J Pharmacol Exp Ther.* 2012 Jun;341(3):646-55.
18. Goc A, **Al-Husein B**, Kochuparambil ST, Liu J, Heston WW, Somanath PR. PI3 kinase integrates Akt and MAP kinase signaling pathways in the regulation of prostate cancer. *Int J Oncol.* 2011 Jan;38(1):267-77.
19. Kochuparambil ST, **Al-Husein B** [co-first author], Goc A, Soliman S, Somanath PR. Anticancer efficacy of simvastatin on prostate cancer cells and tumor xenografts is associated with inhibition of Akt and reduced prostate-specific antigen expression. *J Pharmacol Exp Ther.* 2011 Feb;336(2):496-505.
20. Kichina JV, Goc A, **Al-Husein B**, Somanath PR, Kandel ES. PAK1 as a therapeutic target. *Expert Opin Ther Targets.* 2010 Jul;14(7):703-25.
21. Mhaidat NM, Alzoubi KH, Al-Sweedan S, **Alhusein BA**. Prevalence of depression among cancer patients in Jordan: a national survey. *Support Care Cancer.* 2009 Nov;17(11):1403-7.
22. Al-Azzam SI, **Al-Husein BA**, Abu-Dahoud EY, Dawoud TH, Al-Momany EM. Etiologies of acute renal failure in a sample of hospitalized Jordanian patients. *Ren Fail.* 2008;30(4):373-6.

23. Al-Azzam SI, **Al-Husein BA**, Alzoubi F, Masadeh MM, Al-Horani MA. Self-medication with antibiotics in Jordanian population. Int J Occup Med Environ Health. 2007;20(4):373-80.
24. Al-Azzam SI, Abu-Dahoud EY, El-Khatib HA, Dawoud TH, **Al-Husein BA**. Etiologies of chronic renal failure in Jordanian population. J Nephrol. 2007 May-Jun;20(3):336-9

**Grants Awarded as Principal Investigator (Title of Research, Funding Body, Period active, Funding (USD))**

1. **Immunomodulatory Effect of Statins on Human Colorectal Cancer: Effect on T-regulatory Cells**, Deanship of Scientific Research - JUST, 2015-2016, \$10000
2. **In vitro effects of Atorvastatin. on Prostate Cancer Stem Cells.**, Deanship of Scientific Research - JUST, 2016 - ongoing, \$25800
3. **Evaluating the Synergistic Effect of addition of Rosiglitazone to Bortezomib in Multiple Myeloma**, Deanship of Scientific Research - JUST, 2016-2017, \$10700
4. **The effect of Atorvastatin on Fractalkine Receptor in Prostate Cancer Cells**, Deanship of Scientific Research - JUST, 2017-2018, \$12676
5. **Synergistic Effect of Imatinib and sorafenib on chronic myeloid leukemia cells**, Deanship of Scientific Research - JUST, 2017-2018, \$9155
6. **Synergistic effect of Venetoclax and Teglicar in Multiple Myeloma Cell Lines**, Deanship of Scientific Research - JUST, 2018-2019, \$7676
7. **Synergistic Effect of Imatinib and Survivin Inhibitor on Imatinib-sensitive and Imatinib-resistant chronic myeloid leukemia cell lines**, Deanship of Scientific Research - JUST, 2018-2019, \$8398
8. **Synergistic effect of Atorvastatin in combination with Trametinib on colorectal cancer cells.**, Deanship of Scientific Research - JUST, 2019 - ongoing, \$9155

#### **Courses Taught:**

1. Pharmacology (3)
2. Immunology and Vaccines
3. Therapeutics-Immunology, Hematology and Oncology (For Pharm.D Students)
4. Advanced Therapeutics
5. Clinical Cases
6. Clinical Pharmacokinetics (For Pharm D Students)
7. Clinical Seminar (1) (For Phd Students)
8. Clinical Seminar (2) (For Phd Students)
9. Clinical Training: Paediatrics (For Pharm.D Students)
10. Clinical Training: Critical Care (For Pharm.D Students)
11. Clinical Training: Oncology (For Pharm D Students)
12. Clinical Training: Pediatric Oncology
13. Community Pharmacy (For Pharm.D Students)
14. Comprehensive Therapeutics
15. Introduction to Therapeutics (For Pharmd Students)
16. Immunology and Vaccines (For Pharm D Students)
17. Pharmaceutical Practical Training
18. Seminar
19. Therapeutics-Cardiovascular System (For Pharm D Students)
20. Therapeutics-Comprehensive (For Pharm.D Students)
21. Therapeutics-Paediatric Health (For Phrm.D Students)

**Graduate Students** (Student, **Project Title**, Defense Period, Role)

1. Shuaibu M. Shuaibu, ***The Effect of Fresh Pomegranate Juice on Erythropoietin Serum Level in Patients with Type 2 Diabetes and healthy individuals***, August 2014, Co-PI
2. Eshrak Gamal, ***Evaluating the Synergistic Effect of Addition of Rosiglitazone to Bortezomib in Multiple Myeloma***, November 2017, PI
3. Suzan Qawaqzeh, ***Potassium 3-beta-hydroxy-20-oxo pregn-5-ene-17-alpha-yl sulfate (PHOZ), a promising potent inhibitor of glucose regulated protein 78-KDa (GRP78)***, August 2015, PI
4. Bara' Dawah, ***Immunomodulatory Effect of Statins on Human Colorectal Cancer: Effect on T-regulatory Cells***, August 2016, PI
5. Dima Hatamleh, ***Colorectal cancer early warning signs and risk factors awareness among undergraduate students in Jordanian universities.***, January 2016, Co-PI
6. Montaser Haddad, ***Effect of Feno-fibrate on levels of key mediators of tumor cell metastasis***, May 2017, Co-PI
7. Alex Ballout, ***Heme Oxygenase-1 gene promoter length polymorphism and nitric oxide synthase isoforms in patients with sickle cell anemia.***, August 2017, Co-PI
8. Amani Walid, ***WAVE Proteins and P-glycoprotein in Chemoresistance Hematological Malignancies Cell Lines***, May 2019, Co-PI
9. Muna Domeir, ***Evaluation of the Effect of Selective Aurora Kinase Inhibitor (VX 680) on Prostate Cancer Cell Proliferation, Motility, Invasion, and Micrometastasis.***, September 2017, Co-PI
10. Esra'a Al-Obaidi, ***The effect of uremic serum from patients with kidney disease on metabolic reduction***, December 2017, Co-PI
11. Fatema Redha, ***Investigation of the Synergistic Effect of Combination of Imatinib and Sorafenib on Chronic Myeloid Leukemia Cells***, December 2017, PI
12. Dua Issa, ***Investigation of the synergistic effect of the Trametinib and Atrial Natriuretic Peptide (Vessel Dilator) on collateral cancer cells: Effect on Mitogen activated Protein Kinase/ extracellular signal-regulated kinase Pathway.***, December 2018, Co-PI
13. Rand Nofal, ***Synergistic Effect of Imatinib and Survivin Inhibitor on Imatinib-sensitive and Imatinib-resistant chronic myeloid leukemia cell lines.***, July 2019, PI
14. Eslam Zoebi, ***Synergistic effect of Atorvastatin in combination with Erlotinib on colorectal cancer cells.***, Pending, PI
15. Sara Alawi, ***Synergistic effect of combination of venetoclax and teglicar in multiple myeloma cell line .***, April 2019, PI
16. Dalia Ibrahim, ***Evaluation for the effect of Crizotinib and Lapatinib on Proliferation, invasion and migration of breast cancer cells***, Pending, Co-PI
17. Mona Faris, ***Expression of immune markers in breast cancer tissues and assessment of associations with clinicopathologic characteristics, prognostic factors and molecular subtypes in breast cancer patients***, Pending, Co-PI
18. Hiba Nazazleh, ***Pending***, Pending, Co-PI