

CURRICULUM VITAE

Osama Haitham Osama Abusara

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Education

- Ph.D. (Pharmacy and Pharmaceutical Sciences) 2017, The University of Manchester, Manchester, United Kingdom
- B.Sc. (Pharmacy) 2014, The University of Jordan, Amman, Jordan
- High School 2009, The Modern American School, Amman, Jordan

Ph.D. Dissertation

Neuropeptide Antagonists for Cancer Treatment, The University of Manchester, Manchester, United Kingdom.

Employment

Academic Positions

- Associate Professor of Pharmacology, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
December 18, 2023 – present
- Assistant Professor-A of Pharmacology, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
April 12, 2023 – December 17, 2023
- Assistant Professor-B of Pharmacology, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
September 05, 2017 – April 11, 2023

Administrative Positions

- Vice Head of the Department of Pharmacy, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
September 20, 2023 – September 19, 2024
- Head of the Department of Pharmacy, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
October 01, 2020 – September 30, 2022

- Vice Head of the Department of Pharmacy, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
October 01, 2019 – September 30, 2020

Other

- Staff Pharmacist, Aster Orange Pharmacy, Amman, Jordan
July 15, 2018 – April 12, 2019

Research Interests

- Multidisciplinary; within the field of Pharmacy and Pharmaceutical Sciences:
 - Pharmacology
 - Clinical Pharmacology
 - Clinical Pharmacy / Pharmacy Practice
 - Experimental Therapeutics
 - Drug Discovery and Peptide Synthesis

Membership in Scientific Societies and Associations

- Jordan Pharmacists Association / February 05, 2014

Honors and Awards

- "Edexcel Top Achievers' Certificate" from Edexcel International, United Kingdom for outstanding results in Arabic, Chemistry, Maths, and Physics during the General Certificate of Education (GCE) A Level May/June 2009 examination series, 2010

Fellowships and Scholarships

- PhD Scholarship from Al-Zaytoonah University of Jordan (October, 2014 – September, 2017).

Teaching Experience

- ***Graduate Courses***
 - 1) Advanced Pharmacology for Nurses
- ***Undergraduate Courses***
 - 1) Pharmacology (2)
 - 2) Pharmacology (3)
 - 3) Pharmacology Laboratory
 - 4) Pharmacology for Nurses
 - 5) Pharmaceutical Communication Skills
 - 6) Clinical Pharmacy Laboratory (1) Clinical Cases
 - 7) Professional Pharmacy Practice (2)
 - 8) Legislations and Pharmaceutical Ethics
 - 9) Pharmaceutical Field Training

Supervision of Graduate Research

- 1) Islam Hlalat (M.Sc.), Co-Supervisor. “Nanoemulsion-loaded in situ gels for hair growth”, 2023/2024 and 2024/2025. Faculty of Pharmacy, Al-Zaytoonah University of Jordan.
- 2) Alia Abu Zaid (M.Sc.), Co-Supervisor. “Impact of anticancer drug combinations on small cell lung cancer cell lines using 2D and 3D models”, 2023/2024. Faculty of Pharmacy, Al-Zaytoonah University of Jordan.
- 3) Rasha Debas (M.Sc.), Co-Supervisor. “Comparison between the inflammation status of several organs after whole body exposure with waterpipe and cigarettes smoke: In vivo study on rats”, 2021/2022 and 2022/2023. Faculty of Pharmacy, Al-Zaytoonah University of Jordan.

Grants

- 1) Principal Investigator – Grant No. (27/06/2024-2025), “The Biological Evaluation of Several Compounds and/or Natural Extracts”, Deanship of Scientific Research and Innovation, Al-Zaytoonah University of Jordan, Amman, Jordan
- 2) First Research Associate – Grant No. (14/8/2021-2022), “Identifying Synergistic Combinations of Chemotherapy-Loaded Polyquercetin Nanoparticles and Natural Products to Optimize Anticancer Nanomedicines”, Deanship of Scientific Research and Innovation, Al-Zaytoonah University of Jordan, Amman, Jordan
- 3) Principal Investigator – Grant No. (32/11/2020-2021), “The Investigation of Cytotoxicity of a Short Peptide, When Isomerism of Amino Acids is Employed, on Small Cell Lung Cancer Cell Lines”, Deanship of Scientific Research and Innovation, Al-Zaytoonah University of Jordan, Amman, Jordan

Membership of Committees

- **National and International**

- National

- 1) Examination Committee (Written and Oral Exams) for Pharmacists Graduates from International Universities, Jordanian Pharmacists Association, Amman, Jordan, January 2021

- **University**

- 1) Academic Staff Promotion Application Evaluating Committee (to Associate Professor Rank) (a department committee)
- 2) ACPE International-Accreditation Steering Committee (a faculty committee)
- 3) Master Thesis Defense Committee (Co-Supervisor) – Islam Hlalat (M.Sc.) – “Nanoemulsion-loaded in situ gels for hair growth” – Faculty of Pharmacy, 2024/2025
- 4) Member of the Organizing Committee for “Al-Zaytoonah International Pharmaceutical Conference 2024 (ZIPC 2024)” at Al-Zaytoonah University of Jordan, 2023/2024, 2024/2025
- 5) Master Thesis Defense Committee (Co-Supervisor) – Alia Abu Zaid (M.Sc.) – “Impact of anticancer drug combinations on small cell lung cancer cell lines using 2D and 3D models” – Faculty of Pharmacy, 2023/2024
- 6) Master Thesis Defense Committee (Internal Examiner) – Ruba Almaletti (M.Sc.) – “The Application of Pharmacoinformatic Methods for the Prioritization of Drug Targets and Therapeutics for Multisystem

- Inflammatory Syndrome in Children (MIS-C)” – Faculty of Pharmacy, 2023/2024
- 7) Master Thesis Defense Committee (Internal Examiner) – Alaa Jihad Al-Zayadneh (M.Sc.) – “The effect of single nucleotide polymorphisms (SNPs) of cytokines on the pathogenesis of Systemic Lupus Erythematosus with arthritis among Jordanians patients” – Faculty of Pharmacy, 2022/2023
 - 8) Master Thesis Defense Committee (Internal Examiner) – Otrujja Alkhaldi (M.Sc.) – “Development and Evaluation of Mitoxantrone-Loaded Polyquercetin Nanoparticles and their Potential Synergism with other Anticancer Agents” – Faculty of Pharmacy, 2022/2023
 - 9) University Council
 - 10) ACPE International-Accreditation Follow-Up Committee (a faculty committee)
 - 11) Master Thesis Defense Committee (Internal Examiner) – Dana Zaiter (M.Sc.) – “Sequence Analysis of *N-Acetyltransferase 2* Gene Among Type II Diabetic Patients in Jordan” – Faculty of Pharmacy, 2022/2023
 - 12) Master Thesis Defense Committee (Co-Supervisor) – Rasha Debas (M.Sc.) – “Comparison between the inflammation status of several organs after whole body exposure with waterpipe and cigarettes smoke: In vivo study on rats” – Faculty of Pharmacy, 2022/2023
 - 13) Research arbitration in the field of Health and Pharmaceutical Sciences for “The 1st Scientific Conference for Graduate Students” at Al-Zaytoonah University of Jordan, 2022/2023
 - 14) Member of the Scientific Committee for “Al-Zaytoonah International Pharmaceutical Conference 2022 (ZIPC 2022)” at Al-Zaytoonah University of Jordan, 2021/2022, 2022/2023
 - 15) Master Thesis Defense Committee (Internal Examiner) – Saif Barbouk (M.Sc.) – “Predictors of Response and Secondary Failure to Albiglutide Therapy in Type 2 Diabetic Patients” – Faculty of Pharmacy, 2021/2022
 - 16) Computing and E-Learning Committee (a faculty committee)
 - 17) Curricular Equivalence, Academic Advisement, Training, and Alumni Follow-Up Committee (a department committee)
 - 18) Cultural, Social, and Sports Activities - Safety, Environment and Community Services Committee (a department committee)
 - 19) Curriculum and Learning Resources Committee (a department committee)
 - 20) ACPE Self-Assessment Report Steering Sub-Committee (a faculty committee)
 - 21) Quality Assurance Committee (a faculty committee)
 - 22) Graduate Studies Committee / Domain: Faculty (a faculty committee)
 - 23) Graduate Studies Committee / Domain: Department (a department committee)

Participation in or organization of curricular and/or extra-curricular activities

- Extra-Curricular Activities
 - 1) Organizing and Participating in a workshop entitled “Projecting Human Pharmacokinetics in Drug Discovery and Development: Insider Perspective”; conducted at Al-Zaytoonah University of Jordan on 5th – 6th August 2024 by Dr. Ayman Fawzi El-Kattan, President of El-Kattan PharmADME Consulting Services, USA.

Publications

- Papers in refereed journals

1) Rima Hajjo, Dima A. Sabbah, Sanaa K. Bardaweel, **Osama H. Abusara**; *Epidemiology Analysis of COVID-19 Data and Associated Effects of Pandemic Containment Procedures, Viral Variants and Vaccines: Lessons Learned from Middle Eastern Jordan's Experience*; Advances in Public Health; Volume 2024, Article ID 2977631, 18 pages.

Research Article

2) **Osama H. Abusara**, Alaa M. Hammad, Rasha Debas, Even Al-Shalabi, Mohammed Waleed, F. Scott Hall; *The inflammation and oxidative status of rat lung tissue following smoke/vapor exposure via E-cigarette, cigarette, and waterpipe*; Gene 935, 149066.

Research Article

3) Otrujja Alkhalidi, Samah Abusulieh, **Osama H. Abusara**, Suhair Sunoqrot; *Development of Mitoxantrone-Loaded Quercetin Nanoparticles for Breast Cancer Therapy with Potential for Synergism with Bioactive Natural Products*; International Journal of Pharmaceutics 665, 124674.

Research Article

4) Alaa M. Hammad, **Osama H. Abusara**, Suhair Sunoqrot, Sawsan I. Khdaif, F. Scott Hall; *Sex Differences in Withdrawal-Induced Anxiety in Rats After Exposure to Tobacco Smoke*; Neuroscience Letters 833, 137834.

Research Article

5) Hamza Abumansour[§], **Osama H. Abusara**[§], Wiam Khalil, Hassan Abul-Futouh, Ali I. M. Ibrahim, Mohammad K. Harb, Dina H. Abulebdah, Worood H. Ismail; *Biological evaluation of levofloxacin and its thionated derivatives: antioxidant activity, aldehyde dehydrogenase enzyme inhibition, and cytotoxicity on A549 cell line*; Naunyn-Schmiedeberg's Archives of Pharmacology 397, 6963-6973

([§] = Authors equally contributed to the work)

Research Article

6) Balqis A. Ikhmais, Alaa M. Hammad, **Osama H. Abusara**, Lama Hamadneh, Hamza Abumansour, Qasem M. Abdallah, Ali I. M. Ibrahim, Lina Elsaem, Mariam Awad, Rahaf Alshehada; *Investigating Carvedilol's Repurposing for the Treatment of Non-Small Cell Lung Cancer via Aldehyde Dehydrogenase Activity Modulation in the Presence of β -Adrenergic Agonists*; Current Issues in Molecular Biology 45 (10), 7996-8012.

Research Article

7) Suhair Sunoqrot, Samah Abusulieh, **Osama H. Abusara**; *Identifying synergistic combinations of Doxorubicin-Loaded polyquercetin nanoparticles and natural Products: Implications for breast cancer therapy*; International Journal of Pharmaceutics 645, 123392.

Research Article

8) Hala H. Halawah, Nimer S. Alkhatib, Abdulaali R. Almutairi, Mohammad Saleh, Shiraz S. Halloush, Omar Rashdan, Lama Masadh, **Osama H. Abusara**, Ivo Abraham; *Cost-Efficiency Analysis and Expanded Treatment Access Modeling of Conversion to Rituximab Biosimilars from Reference Rituximab in Jordan*; Journal of Medical Economics 26 (1), 835-842.

Research Article

- 9) **Osama H. Abusara**, Samar Bishtawi, Walid Al-Qerem, Wassan Jarrar, Lubna Al-Khareisha, Sawsan I. Khdaire; *Pharmacists' knowledge, familiarity, and attitudes towards biosimilar drugs among practicing Jordanian pharmacists: A cross sectional study*; Journal of King Saud University – Science 35 (6), 102767.

Research Article

- 10) Malek Zihlif[§], **Osama H. Abusara**[§], Walid Al-Qerem, Mahmood Al-Ibadah, Tareq M. Mahafza, Fatima M. Al-Akhras and Naseem T. Mahafza; *CRHR1 polymorphism at rs242941, rs242940, and rs72834580: association of symptoms improvement with intranasal corticosteroids in allergic rhinitis Jordanian patients*; Drug Metabolism and Personalized Therapy, Accepted 04 April 2023, Published Online 22 May 2023.

([§] = Authors equally contributed to the work)

Research Article

- 11) Worood H. Ismail[§], **Osama H. Abusara**[§], Balqis Ikhmais, Hassan Abul-Futouh, Suhair Sunoqrot, Ali I. M. Ibrahim; *Design, Synthesis, and Biological Activity of Coniferyl Aldehyde Derivatives as Potential Anticancer and Antioxidant Agents*; Jordan Journal of Pharmaceutical Sciences 16 (2-Supplement 1), 368-380.

([§] = Authors equally contributed to the work)

Research Article

- 12) **Osama H. Abusara**, Ali I. M. Ibrahim, Hamzah Issa, Alaa M. Hammad, Worood H. Ismail; *In Vitro Evaluation of ALDH1A3-Affinic Compounds on Breast and Prostate Cancer Cell Lines as Single Treatments and in Combination with Doxorubicin*; Current Issues in Molecular Biology 45 (3), 2170-2181.

Research Article

- 13) Rima Hajjo, Dima A. Sabbah, **Osama H. Abusara**, Reham Kharmah, Sanaa Bardaweel; *Targeting Human Proteins for Antiviral Drug Discovery and Repurposing Efforts: A Focus on Protein Kinases*; Viruses 15 (2), 568.

Review

- 14) Rima Hajjo, Dima A. Sabbah, **Osama H. Abusara**, Abdel Qader Al Bawab; *A Review of the Recent Advances in Alzheimer's Disease Research and the Utilization of Network Biology Approaches for Prioritizing Diagnostics and Therapeutics*; Diagnostics 12 (12), 2975.

Review

- 15) Rania Hamed, Amani D Abu Kwiak, Yasmeen Al-Adhami, Alaa M Hammad, Rana Obaidat, **Osama H Abusara**, Rana Abu Huwajj; *Microemulsions as Lipid Nanosystems Loaded into Thermoresponsive In Situ Microgels for Local Ocular Delivery of Prednisolone*; Pharmaceutics 14 (9), 1975.

Research Article

- 16) Walid Al-Qerem, Abdel Qader Al Bawab, **Osama Abusara**, Nimer Alkhatib, Robert Horne; *Validation of the Arabic version of medication adherence report scale questionnaire and beliefs about medication -specific questionnaire: A factor analysis study*; PLOS ONE 17 (4), e0266606.

Research Article

- 17) Abdel Qader Al Bawab, Walid Al-Qerem, **Osama Abusara**, Nimer Alkhatib, Maha Mansour, Robert Horne; *What Are the Factors Associated with Nonadherence to Medications in Patients with Chronic Diseases?*; Healthcare 9 (9), 1237.

Research Article

- 18) Balqis Ikhmais, Alaa M Hammad, Walid Al-Qerem, **Osama H Abusara**, Jonathan Ling; *Conducting COVID-19-Related Research in Jordan: Are We Ready?*; Disaster Medicine and Public Health Preparedness 16 (3), 967-974.

Research Article

- 19) Suhair Sunoqrot, Even Al-Shalabi, Dima A. Sabbah, May Al-Majawleh, **Osama H. Abusara**; *Remote Teaching and Learning in a Pandemic: Reflections from Chemistry Instructors at a Pharmacy School in Jordan*; Journal of Chemical Education 97 (9), 3129-3134.

Research Article

- 20) **Osama Haitham Abusara**, Sally Freeman, Harmesh Singh Aojula; *Pentapeptides for the treatment of small cell lung cancer: Optimisation by N^{ind} -alkyl modification of the tryptophan side chain*; European Journal of Medicinal Chemistry 137, 221-232.

Research Article

- 21) Shaun C Offerman[§], Manikandan Kadirvel[§], **Osama H Abusara**[§], Jennifer L Bryant, Brian A Telfer, Gavin Brown, Sally Freeman, Anne White, Kaye J Williams, Harmesh S Aojula; *N-tert-Prenylation of the indole ring improves the cytotoxicity of a short antagonist G analogue against small cell lung cancer*; MedChemComm 8 (3), 551-558.

([§] = Authors equally contributed to the work)

Research Article