

Prof. Ammar Almaaytah

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SHORT BIOGRAPHY

Prof. Ammar Almaaytah holds the position of Professor within the Department of Pharmaceutical Technology at Jordan University of Science & Technology (JUST). Currently, he serves as the Dean of Pharmacy and holds the role of Director at the recently established Center for Sustainable Development Studies and Technology at JUST. Additionally, he serves as a Higher Education Reform Expert at the National Erasmus + Office.

Dr. Almaaytah completed his Ph.D. studies in Pharmaceutical Biotechnology at Queen's University Belfast in the United Kingdom. His research pursuits cover a wide spectrum in fields such as Drug Discovery, Development of Antimicrobial Drugs, and Biological Therapeutics. Noteworthy is Prof. Almaaytah's significant research journey, reflected in the publication of over 53 peer-reviewed papers in international recognized journals.

In prior engagements, Prof. Almaaytah played pivotal roles as the Dean of Pharmacy and Dean of International Programs at Middle East University. Notably, he played a crucial part in initiating a pioneering educational initiative in Jordan, known as the MPharm program, which marked the first Joint Bachelor's degree collaboration in the country. This program was developed in partnership with the esteemed Strathclyde University in the UK. His leadership also contributed to securing ACPE accreditation for the faculty and attaining the Gold Standard Quality Assurance certificate from the Accreditation and Quality Assurance Commission for Higher Education Institutions in Jordan.

Moreover, Dr. Almaaytah undertook the responsibilities of Assistant to the President for International Relations and Director of the International Relations Office at JUST. In these roles, he demonstrated leadership in advancing global involvement and establishing strategic affiliations with renowned international higher education institutions. Under his guidance, the International Relations Office achieved significant accomplishments, forging 33 partnerships with European Universities through the Erasmus + ICM program.

Beyond his academic commitments, Prof. Almaaytah maintains a strong connection with the Jordanian Food and Drug Administration (JFDA). He has been instrumental in his capacity as a technical advisor, contributing to various regulatory committees.

EDUCATION

2007 – 2010	Ph.D., Pharmaceutical Biotechnology Queen's University Belfast	Belfast, UK
2001 – 2006	BSc, Pharmacy University of Jordan	Amman, Jordan
2001	General Secondary Certificate Amman Baptist School	Amman, Jordan

ACADEMIC EXPERIENCE

Sep, 2019-Present	Professor of Pharmaceutical Biotechnology & Applied Microbiology , Faculty of Pharmacy, <i>Jordan University of Science & Technology. Irbid, Jordan</i>
July, 2015-Sep, 2019	Associate Professor of Pharmaceutical Biotechnology & Applied Microbiology , Faculty of Pharmacy, <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Sep, 2010-July, 2015	Assistant Professor , Faculty of Pharmacy, <i>Jordan University of Science & Technology. Irbid, Jordan</i>

ADMINISTRATIVE EXPERIENCE

Sep, 2023-Present	Dean of Pharmacy , <i>Jordan University of Science & Technology</i>
Oct, 2022-Present	Director , Center for Sustainable Development Studies & Technology, <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Sep, 2018-Aug, 2022	Dean of Pharmacy , <i>Middle East University. Amman, Jordan</i>
Sep, 2020-Aug, 2021	Dean of International Programs , <i>Middle East University. Amman, Jordan</i>
Dec, 2016-Aug, 2018	Assistant to the President for International Relations , <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Dec, 2017-Aug, 2018	Director , Strategic Planning Office, <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Sep, 2016-Aug, 2018	Director , International Relations Office (IRO), <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Sep, 2016-Dec, 2016	Director , Public Relations & Media Unit, <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Nov, 2015-Aug, 2016	Director , Alumni Relations Office, <i>Jordan University of Science & Technology. Irbid, Jordan</i>
Sep, 2014-Aug, 2015	Acting Chairman , Department of Pharmaceutical Technology, <i>Jordan University of Science & Technology. Irbid, Jordan</i>

Sep, 2014-Aug, 2015 **Assistant Dean**, Faculty of Pharmacy, *Jordan University of Science & Technology. Irbid, Jordan*

PROFESSIONAL EXPERIENCE

Aug, 2023-Present **Member**, Scientific Research Committee, *Jordan Center for Disease Control. Amman, Jordan*

Mar, 2023-Present **Member**, Pharmacy Postgraduate Committee, *Jordan Medical Council . Amman, Jordan*

Nov, 2020-Present **Member**, *National Clinical & Pharmaceutical Studies Committee, Jordanian Food and Drug Administration (JFDA). Amman, Jordan*

Mar, 2020-Present **Associate Editor**, Pharmacy Education Journal, *International Pharmaceutical Federation. Hague, Netherlands*

May, 2017-Present **Higher Education Reform Expert**, *National Erasmus + Office. Amman, Jordan*

Mar, 2020-May, 2020 **Member**, COVID-19 National Response Committee for the Enhancement of Pharmaceutical Manufacturing, *Jordanian Prime Ministry. Amman, Jordan*

Mar, 2019-Dec, 2019 **Member**, Pharmacy Quality Assurance and Accreditation Higher Committee, *Accreditation & Quality Assurance Commission for Higher Education Institutions. Amman, Jordan*

Feb, 2016-Apr, 2019 **Chair**, Scientific Committee, 1st FIP Regional Conference, *International Pharmaceutical Federation. Amman, Jordan*

Feb, 2018-Mar, 2018 **Member**, International Visitor Leadership Program (IVLP), *Department of State. Washington, USA*

Nov, 2017-Oct, 2020 **Advisor**, National Drugs Registration Committee, *Jordanian Food and Drug Administration (JFDA). Amman, Jordan*

Nov, 2013-April, 2015 **Member**, National Generic Drugs Registration Committee, *Jordanian Food and Drug Administration (JFDA). Amman, Jordan*

Apr, 2014-Aug, 2014 **Member**, Biosimilars National Regulations Drafting Committee, *Jordanian Food and Drug Administration (JFDA). Amman, Jordan*

ACADEMIC COMMITTEES & COUNCIL MEMBERSHIP

- ❖ International Level:
 - International Pharmaceutical Federation (FIP) Academic Dean's Council, Member.

- ❖ University Level (Middle East University):
 - Middle East University Dean's Council, Member.
 - Academic Promotion and Tenure Committee, Member.
 - Quality Assurance Committee, Member.
 - Strategic Planning Committee, Member.

- ❖ University Level (JUST):
 - University Council.
 - Strategic Planning Steering Committee, Member.
 - Marketing Plan Steering Committee, Member.
 - Center of Excellence for Innovative Projects Steering Committee, Member.
 - Alumni Relations Steering Committee, Member.
 - University's website committee, Member.

- ❖ Faculty Level:
 - Industry linkage Committee, Member.
 - Strategic Planning Committee, Member.
 - Scientific Research Committee, Member.
 - Students Discipline Committee, Member.
 - Experiential Learning Committee, Member.

TEACHING EXPERIENCE

- ❖ Postgraduate Courses:
 - PHAR 747: Pharmaceutical Microbiology

- ❖ Undergraduate Courses:
 - PHAR 460: Pharmaceutical Biotechnology
 - PHAR 251: Pharmaceutical Microbiology
 - PHAR 462: Pharmaceutical Microbiology and Biotechnology
 - PHAR 464: Pharmaceutical Microbiology and Biotechnology Lab
 - PHAR 565: Gene and Protein Therapy
 - PHAR 573: Advanced Pharmaceutical Microbiology

GRADUATE STUDIES

1. **Aseel Alrashdan** “The development of novel antimicrobial peptide-levofloxacin conjugate Reactive oxygen species-Responsive micelles with synergistic activity against multi drug resistant bacteria and low toxicity” 2023 (Ongoing).
2. **Bayan Bataineh** “The Development of Chitosan based Nano-Carriers for the Reduction of the Toxicity of Highly Potent Cathelicidin Derived Antimicrobial Peptides Against Clinical Isolates of Multi-Drug Resistant Bacteria” 2023 (Ongoing).
3. **Nadaa Lataifeh** “Assessment of Biofilm Production Capacity, Antimicrobial Susceptibility Profile, and Prevalence of Virulence Genes of *Staphylococcus aureus* Isolated from Clinical Blood Culture Specimens in Jordan” – April 2018
4. **Zina Shubair** “Activity of antimicrobial peptide WLBU2 and synergism with antibacterial agents against multidrug resistant *Acinetobacter baumannii* and *Klebsiella pneumoniae*” – July 2018.
5. **Bahaa Rawashdeh** “Rational design and functional characterization of a new hybrid peptide with High potency against multidrug resistance bacteria *in vitro*” – July 2018.
6. **Mohammad Alqaoud** “The design of highly potent ultrashort conjugated antimicrobial peptides against planktonic and biofilm forming methicillin-resistant *Staphylococcus aureus*” - July 2017.
7. **Gubran Khalil** “The Development of Ultrashort Antimicrobial Peptide Nanoparticles with Potent Antimicrobial and Antibiofilm Activities against Multidrug Resistant Bacteria” - May 2017.
8. **Ahmad Farajallah** “Proteomic design and functional characterization of a modified synthetic peptide with potent antimicrobial activity against clinical isolates of multidrug resistant Gram-positive Bacteria” - Nov 2016.
9. **Adan Alnaamneh** “In vitro synergistic activities of the antimicrobial peptide MelitAP-27 with conventional antibiotics against multidrug-resistant bacteria” - Mar 2016.
10. **Mais Mahasneh** “The effect of simvastatin on TRAIL-induced apoptosis in colorectal cancer cells” - May 2015.
11. **Mohamad Alfandi** “Design and functional characterization of novel hybrid peptides with anticancer activity based on the secondary structure of the anticancer peptides: BMAP-27, Citropin 1.1 and Melittin” - Jun 2014.
12. **Ahmad AbuAlhaija** “Effect of charge modification and the number of positively charged amino acids on the anticancer and antimicrobial activity of AamAP1, a naturally identified membrane active peptide” - June 2014.
13. **Suha Dadou** “Oral Delivery of Teriparatide using Chitosan based Nanoparticles” - Oct 2013.
14. **Shadi Tarazi** “Characterization of the antimicrobial and antibiofilm activities of

Mauriporin, a multifunctional peptide from the venom of the Moroccan scorpion *Androctonus mauritanicus*" - Oct 2013.

15. **Julia Hajaj** "Dispensing of non-Prescribed Antibiotics in Jordan" - May 2013.

16. **Najat Alkhatatbeh** "Molecular characterization of Oxaliplatin induced apoptosis in breast cancer cells" - July 2011.

GRANTS & EXTERNAL FUNDING

Total Grants: 235000 \$

❖ **Research Grants:**

- **Ammar Almaaytah**, Qosay Albalas, Karem Alzoubi., "In vitro and In vivo antibacterial and antibiofilm activities of peptides designed as hybrids based on the primary amino acid sequence of antimicrobial peptides", Project No. 123/2015, Scientific Research Fund, **81000 \$**.
- **Ammar Almaaytah**, Nizar Mhaidat, Tareq Mukattash, "Discovery and identification of Novel anticancer agents from the venom of the scorpion *Centruroides exilicauda*" Project No. 114/2011, Supported by the Deanship of Research, JUST, **13000 \$**.
- **Ammar Almaaytah**, Nizar Mhaidat, Majed Massadeh and Tareq Mukattash., "The Design and synthesis of a prodrug derived from the anticancer peptide Citropin 1.1 with selective activity against highly invasive metastatic tumors." Project No. 112/2012, Supported by the Deanship of Scientific Research at JUST, **8500 \$**
- **Ammar Almaaytah**, Khaldoun Albdour, Ahmad Abualhaija., "Effect of charge modification and the number of positively charged amino acids on the biological activity and target selectivity of the anticancer peptide AamAP-S1 towards neoplastic cell lines." Project No. 381/2013, Supported by the Deanship of Scientific Research at JUST, **12000 \$**
- **Ammar Almaaytah**, Yara Altall and Qosay Albalas., "The design and functional characterization of the antimicrobial and antibiofilm activities of MelitAP-27, a rationally designed hybrid peptide" Project No. 385/2013, Supported by the Deanship of Scientific Research at JUST, **7200 \$**.
- **Ammar Almaaytah**, Sireen Bataineh, Ya'u Ajingi., "Peptide consensus sequence prediction and determination as a scaffold for the design of peptides with potent antimicrobial and antibiofilm activities." Project No. 85/2014, Supported by the Deanship of Scientific Research at JUST, **7800 \$**.
- **Ammar Almaaytah**, Qosay Albalas, Niar Alshari, Adan Alnaamneh., "In vitro synergistic activities of the antimicrobial peptide MelitAP-27 with conventional antibiotics against multidrug-resistant bacteria." Project No. 462/2014, Supported by the Deanship of Scientific Research at JUST, **6800 \$**.
- **Ammar Almaaytah**, Obadah Alqudah., "The effect of antimicrobial synergism between the antimicrobial peptide AamP1-lysine and traditional antibiotics on multidrug resistance bacteria" Project No. 134/2015, Supported by the Deanship of Scientific Research at JUST, **6500 \$**.

- **Ammar Almaaytah.**,” In vivo antimicrobial activity of the synthetic hybrid peptide MelitAP-27 against multi-drug resistant bacteria.” Project No. 63/2016, Supported by the Deanship of Scientific Research at JUST, **11500 \$.**
 - **Ammar Almaaytah,** Ahmad Farajallah.” Proteomic design and functional characterization of a modified synthetic peptide with potent antimicrobial activity against clinical isolates of multidrug-resistant Gram-positive Bacteria.” Project No. 164/2016, Supported by the Deanship of Scientific Research at JUST, **5700 \$.**
 - **Ammar Almaaytah,** Mohammad Alqaoud.” The design of highly potent ultrashort conjugated antimicrobial peptides against planktonic and biofilm forming methicillin-resistant Staphylococcus aureus” Project No. 276/2016, Supported by the Deanship of Scientific Research at JUST, **7500 \$.**
 - **Ammar Almaaytah,** Nidaa Sharideh, Gubran Khalil.” The development of ultrashort antimicrobial peptide nanoparticles with potent antimicrobial and antibiofilm activities against multidrug resistant bacteria” Project No. 636/2016, Supported by the Deanship of Scientific Research at JUST, **6500 \$.**
 - **Ammar Almaaytah.**, “Antimicrobial Activity of In-house Designed Ultra Short Antimicrobial Peptides Alone or in Combination with Colistin Against Colistin Resistant Clinical Isolates of Gram-Negative Bacteria” Project No. 740/2022, Supported by the Deanship of Scientific Research at JUST, **12000 \$.**
- ❖ **International External Grants:**
- **Ammar Almaaytah,** Center for Sustainable Development Studies and Technology” The Development of Efficient Social Accountability Strategies for Better Health Outcomes within Jordan”. Funded by the Spanish Agency for International for International Cooperation (AECID and the European Commission in Jordan and Rased, **50000 \$.**

PUBLICATIONS

Total Citations: 1198, h-index: 19

1. Almaaytah, A., Zhou, M., Wang, L., Chen, T., Walker, B., & Shaw, C. (2012). Antimicrobial/cytolytic peptides from the venom of the North African scorpion, *Androctonus amoreuxi*: biochemical and functional characterization of natural peptides and a single site-substituted analog. *Peptides*, 35(2), 291-299.
2. Al-Balas, Q., Hassan, M., Al-Oudat, B., Alzoubi, H., Mhaidat, N., & Almaaytah, A. (2012). Generation of the first structure-based pharmacophore model containing a selective “zinc binding group” feature to identify potential glyoxalase-1 inhibitors. *Molecules*, 17(12), 13740-13758.
3. Mukattash, T. L., Shara, M., Jarab, A. S., Al-Azzam, S. I., Almaaytah, A., & Al Hamarneh, Y. N. (2012). Public knowledge and awareness of cardiovascular disease and its risk factors: a cross-sectional study of 1000 Jordanians. *International Journal of Pharmacy Practice*, 20(6), 367-376.

4. Al-Balas, Q., Mhaidat, N, Hassan, M & Almaaytah A. (2013). In Silico Identification of Novel Leukotriene A4 Hydrolase Inhibitors as Potential Anti-Inflammatory Agents. *Jordan Journal of Chemistry (JJC)*, 8(3), 199-211.
5. Al-Balas, Q. A., Amawi, H. A., Hassan, M. A., Qandil, A. M., Almaaytah, A. M., & Mhaidat, N. M. (2013). Virtual lead identification of farnesyltransferase inhibitors based on ligand and structure-based pharmacophore techniques. *Pharmaceuticals*, 6(6), 700-715.
6. Almaaytah, A., Tarazi, S., Mhaidat, N., Al-Balas, Q., & Mukattash, T. L. (2013). Mauriporin, a novel cationic α -helical peptide with selective cytotoxic activity against prostate cancer cell lines from the venom of the scorpion *Androctonus mauritanicus*. *International journal of peptide research and therapeutics*, 19, 281-293.
7. Mhaidat, N. M., Alkofahi, A. S., Hamouri, R., Al-Maaytah, A. M., Shoter, A., Haddad, Y., & Al-Rawi, N. A. (2013). Altholactone: A Novel, Selective, and Safe Antitumor Agent. *World Journal of Cancer Research*, 1(2), 118-123.
8. Almaaytah, A., & Albalas, Q. (2014). Scorpion venom peptides with no disulfide bridges: a review. *Peptides*, 51, 35-45.
9. Al-Balas, Q. A., Sowaileh, M. F., Hassan, M. A., Qandil, A. M., Alzoubi, K. H., Mhaidat, N. M., ... & Khabour, O. F. (2014). Novel N-substituted aminobenzamide scaffold derivatives targeting the dipeptidyl peptidase-IV enzyme. *Drug Design, Development and Therapy*, 129-163.
10. Almaaytah, A., Tarazi, S., Alsheyab, F., Al-Balas, Q., & Mukattash, T. (2014). Antimicrobial and antibiofilm activity of mauriporin, a multifunctional scorpion venom peptide. *International journal of peptide research and therapeutics*, 20, 397-408.
11. Almaaytah, A., Tarazi, S., Abu-Alhaijaa, A., Altall, Y., Alshar'i, N., Bodoor, K., & Al-Balas, Q. (2014). Enhanced antimicrobial activity of AamAP1-Lysine, a novel synthetic peptide analog derived from the scorpion venom peptide AamAP1. *Pharmaceuticals*, 7(5), 502-516.
12. Al-Shar'i, N. A., Hassan, M., Al-Balas, Q., & Almaaytah, A. (2015). Identification of possible glyoxalase II inhibitors as anticancer agents by a customized 3D structure-based pharmacophore model. *Jordan Journal of Pharmaceutical Sciences*, 108(3244), 1-21.
13. Almaaytah, A., Tarazi, S., Al-Fandi, M., Abuilhaija, A., Al-shar'i, N., Al-Balas, Q., & Abu-Awad, A. (2015). The design and functional characterization of the

- antimicrobial and antibiofilm activities of BMAP27-melittin, a rationally designed hybrid peptide. *International Journal of Peptide Research and Therapeutics*, 21, 165-177.
14. Almaaytah, A., Mukattash, T. L., & Hajaj, J. (2015). Dispensing of non-prescribed antibiotics in Jordan. *Patient preference and adherence*, 1389-1395.
 15. Almaaytah, A., Alnaamneh, A., Abualhaijaa, A., Alshari', N., & Al-Balas, Q. (2016). In vitro synergistic activities of the hybrid antimicrobial peptide MelitAP-27 in combination with conventional antibiotics against planktonic and biofilm forming bacteria. *International Journal of Peptide Research and Therapeutics*, 22, 497-504.
 16. Dakiche, H., Khali, M., Abu-el-Haija, A. K., Al-Maaytah, A., & Al-Balas, Q. A. (2016). Biological activities and phenolic contents of *Argania spinosa* L (Sapotaceae) leaf extract. *Tropical Journal of Pharmaceutical Research*, 15(12), 2563-2570.
 17. Al-Balas, Q. A., Hassan, M. A., Al-Shar'i, N. A., Mhaidat, N. M., Almaaytah, A. M., Al-Mahasneh, F. M., & Isawi, I. H. (2016). Novel glyoxalase-I inhibitors possessing a "zinc-binding feature" as potential anticancer agents. *Drug design, development and therapy*, 2623-2629.
 18. Mukattash, T. L., Hayajneh, W. A., Ibrahim, S. M., Ayoub, A., Ayoub, N., Jarab, A. S., ... & Almaaytah, A. (2016). Prevalence and nature of off-label antibiotic prescribing for children in a tertiary setting: a descriptive study from Jordan. *Pharmacy Practice (Granada)*, 14(3), 0-0.
 19. Almaaytah, A., Ajingi, Y. U., Abualhaijaa, A., Tarazi, S., Alshar'i, N., & Al-Balas, Q. (2016). Peptide consensus sequence determination for the enhancement of the antimicrobial activity and selectivity of antimicrobial peptides. *Infection and drug resistance*, 1-17.
 20. A Al-Balasa, Q., A Hassana, M., A Al Jabala, G., A Al-Shar, N., M Almaaytah, A., & El-Elimata, T. (2017). Novel thiazole carboxylic acid derivatives possessing a "zinc binding feature" as potential human glyoxalase-I inhibitors. *Letters in Drug Design & Discovery*, 14(11), 1324-1334.
 21. Almaaytah, A., Mohammed, G. K., Abualhaijaa, A., & Al-Balas, Q. (2017). Development of novel ultrashort antimicrobial peptide nanoparticles with potent antimicrobial and antibiofilm activities against multidrug-resistant bacteria. *Drug design, development and therapy*, 3159-3170.
 22. Al-Balas, Q. A., Hassan, M. A., Al-Shar'i, N. A., El-Elimat, T., & Almaaytah, A. M. (2018). Computational and experimental exploration of the structure-activity relationships of flavonoids as potent glyoxalase-I inhibitors. *Drug Development Research*, 79(2), 58-69.

23. Almaaytah, A., Qaoud, M. T., Khalil Mohammed, G., Abualhaijaa, A., Knappe, D., Hoffmann, R., & Al-Balas, Q. (2018). Antimicrobial and antibiofilm activity of UP-5, an ultrashort antimicrobial peptide designed using only arginine and biphenylalanine. *Pharmaceuticals*, 11(1), 3.
24. Al-Balas, Q., Al-Shar'i, N., Banisalman, K., Hassan, M., Al Jabal, G., & Almaaytah, A. (2018). Design, synthesis and biological evaluation of potential novel zinc binders targeting human glyoxalase-I; A validated target for cancer treatment. *Jordan Journal of Pharmaceutical Sciences*, 11(1).
25. Almaaytah, A., Qaoud, M. T., Abualhaijaa, A., Al-Balas, Q., & Alzoubi, K. H. (2018). Hybridization and antibiotic synergism as a tool for reducing the cytotoxicity of antimicrobial peptides. *Infection and drug resistance*, 835-847.
26. Almaaytah, A., Farajallah, A., Abualhaijaa, A., & Al-Balas, Q. (2018). A3, a scorpion venom derived peptide analogue with potent antimicrobial and potential antibiofilm activity against clinical isolates of multi-drug resistant gram positive bacteria. *Molecules*, 23(7), 1603.
27. Almaaytah, A., Albalas, Q., & Alzoubi, K. H. (2018). In vivo antimicrobial activity of the hybrid peptide H4: a follow-up study. *Infection and Drug Resistance*, 1383-1386.
28. Al-Balas, Q. A., Hassan, M. A., Al-Shar'i, N. A., Al Jabal, G. A., & Almaaytah, A. M. (2019). Recent advances in glyoxalase-I inhibition. *Mini Reviews in Medicinal Chemistry*, 19(4), 281-291.
29. Almaaytah, A., & Elhajji, F. D. (2019). Comparative Cost Efficiency of the Originator Drug of Infliximab and its Biosimilar for the Treatment of Rheumatoid Arthritis in the MENA Region. *International Journal of Pharmaceutical Investigation*, 9(1).
30. Al Tall, Y., Abualhaijaa, A., Alsaggar, M., Almaaytah, A., Masadeh, M., & Alzoubi, K. H. (2019). Design and characterization of a new hybrid peptide from LL-37 and BMAP-27. *Infection and drug resistance*, 1035-1045.
31. Almaaytah, A., Abualhaijaa, A., & Alqudah, O. (2019). The evaluation of the synergistic antimicrobial and antibiofilm activity of AamAP1-Lysine with conventional antibiotics against representative resistant strains of both Gram-positive and Gram-negative bacteria. *Infection and drug resistance*, 1371-1380.
32. Al-Sha'er, M. A., Al-Balas, Q. A., Hassan, M. A., Al Jabal, G. A., & Almaaytah, A. M. (2019). Combination of pharmacophore modeling and 3D-QSAR analysis of potential glyoxalase-I inhibitors as anticancer agents. *Computational Biology and Chemistry*, 80, 102-110.

33. Swedan, S., Shubair, Z., & Almaaytah, A. (2019). Synergism of cationic antimicrobial peptide WLBU2 with antibacterial agents against biofilms of multi-drug resistant *Acinetobacter baumannii* and *Klebsiella pneumoniae*. *Infection and Drug Resistance*, 2019-2030.
34. Al-Balas, Q. A., Al-Smadi, M. L., Hassan, M. A., Al Jabal, G. A., Almaaytah, A. M., & Alzoubi, K. H. (2019). Multi-armed 1, 2, 3-selenadiazole and 1, 2, 3-thiadiazole benzene derivatives as novel glyoxalase-I inhibitors. *Molecules*, 24(18), 3210.
35. Tall, Y. A., Al-Rawashdeh, B., Abualhajaa, A., Almaaytah, A., Masadeh, M., & Alzoubi, K. H. (2020). Functional characterization of a novel hybrid peptide with high potency against gram-negative bacteria. *Current Pharmaceutical Design*, 26(3), 376-385.
36. Alaraj, M., Kosinska, I., Al-Trad, B. D., Almaaytah, A., Hussein, T. D., Hossain, A., & Saadh, M. J. (2020). Differential expression of glycogen synthase kinase 3 α and 3 β isomers in brain cortex of mice following high doses of glucose.
37. Saadh, M. J., Sa'adeh, I. J., Dababneh, M. F., Almaaytah, A. M., & Bayan, M. F. (2020). Production, immunogenicity, stability, and safety of a vaccine against *Clostridium perfringens* beta toxins. *Veterinary World*, 13(8), 1517.
38. Al-Shar'i, N. A., Al-Balas, Q. A., Hassan, M. A., El-Elimat, T. M., Aljabal, G. A., & Almaaytah, A. M. (2021). Ellagic acid: A potent glyoxalase-I inhibitor with a unique scaffold. *Acta Pharmaceutica*, 71(1), 115-130.
39. Altaani, B. M., Almaaytah, A. M., Dadou, S., Alkhamis, K., Daradka, M. H., & Hananeh, W. (2020). Oral delivery of teriparatide using a nanoemulsion system: design, in vitro and in vivo evaluation. *Pharmaceutical Research*, 37, 1-15.
40. Almaaytah, A., Mashaqbeh, H., & Haddad, R. (2020). Current status of biosimilar regulations in the MENA region. *Int J Res Pharm Sci*, 11(3), 3443-3449.
41. Almaaytah, A. (2020). Budget impact analysis of switching to rituximab's biosimilar in rheumatology and cancer in 13 countries within the Middle East and North Africa. *ClinicoEconomics and Outcomes Research*, 527-534.
42. Almaaytah, A., & Salama, A. (2020). Acceptance of COVID-19 vaccination among Jordanian adults: a cross sectional study. *Systematic Reviews in Pharmacy*, 1291-1297.
43. Alaraj, M., Acar, T., Kosinska, I., Al-Trad, B., Almaaytah, A. M., Saadh, M. J. & Ashfaque, H. (2021). Pretreatment with *Salvadora persica* L.(Miswak) aqueous extract alleviates paracetamol-induced hepatotoxicity, nephrotoxicity, and

hematological toxicity in male mice. *Veterinary World*, 14(3), 589.

44. Saadh, M. J., Almaaytah, A. M., Alaraj, M., Dababneh, M. F., Sa'Adeh, I., Aldalaen, S. M., ... & DAYYIH, W. (2021). Punicalagin and zinc (II) ions inhibit the activity of SARS-CoV-2 3CL-protease in vitro. *European Review for Medical & Pharmacological Sciences*, 25(10).
45. Salama, A., Almaaytah, A., & Darwish, R. M. (2021). The design of alapropoginine, a novel conjugated ultrashort antimicrobial peptide with potent synergistic antimicrobial activity in combination with conventional antibiotics. *Antibiotics*, 10(6), 712.
46. Saadh, M. J., Tanash, S. A., Almaaytah, A. M., Sa'adeh, I. J., Aldalaen, S. M., & Al-Hamaideh, K. D. (2021). Immunodiagnosis of cattle fascioliasis using a 27 kDa *Fasciola gigantica* antigen. *Veterinary World*, 14(8), 2097.
47. Almaaytah, A. M. M. A. R. (2022). A PHARMACEUTICAL GUIDE TO ADALIMUMAB BIOSIMILARS. *Farmacia*, 70(3), 379-385.
48. ALMAAYTAH, A. (2022). TECHNICAL GUIDANCE ON THE PHYSICOCHEMICAL AND FUNCTIONAL COMPARABILITY EXERCISE FOR TRASTUZUMAB BIOSIMILARS. *International Journal of Applied Pharmaceutics*, 14(4), 71-76.
49. Almaaytah, A. (2022). ANTIMICROBIAL PEPTIDES AS POTENTIAL THERAPEUTICS: ADVANTAGES, CHALLENGES AND RECENT ADVANCES. *Farmacia*, 70(6).
50. Darwish, R., Almaaytah, A., & Salama, A. (2022). The design and evaluation of the antimicrobial activity of a novel conjugated penta-ultrashort antimicrobial peptide in combination with conventional antibiotics against sensitive and resistant strains of *S. aureus* and *E. coli*. *Research in Pharmaceutical Sciences*, 17(6), 612.
51. Al Tall, Y., Al-Nassar, B., Abualhaijaa, A., Sabi, S. H., & Almaaytah, A. (2023). The design and functional characterization of a novel hybrid antimicrobial peptide from Esculentin-1a and melittin. *Pharmacia*, 70(1), 161-170.
52. Sabi, S. H., Qnais, E. Y., Al Tall, Y. R., Almaaytah, A. M., & Masaadeh, M. M. (2023). Pharmaco-epigenetics: Histone modification and personalized medicine. *Pharmacia*, 70(2), 337-349.
53. Almaaytah, A. (2023). A Review of the Non-clinical and Clinical Requirements for the performance of a comparability exercise for Bevacizumab biosimilars. *Research Journal of Pharmacy and Technology*, 16(7), 3499-3506.