

**Name** Ruba Ibraheem Issam Malkawi  
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**Languages** Native Arabic and excellent communication skills in English

## **Employment history**

### **Dean of Quality Affairs January 2022- Current**

- Directors establish and maintain a quality system to ensure a company's facilities, equipment, personnel, methods, processes, and procedures conform to both internal guidelines and regulatory standards
- Apply for the American Accreditation Council for Pharmacy Education for Jadara University

### **Assistant professor, Jadara University: September 2021- January 2022**

- Under the direction of the Program Chair or designee, Teaching Associates typically are responsible for providing classroom and/or laboratory instruction, making assignments to students, preparing course materials, administering examinations, assessing student performance, tutoring students and determining course grades. Incumbents may assist faculty with field experience, supervision, simulation exercises and/or research projects.
- Researcher

### **Associate demonstrator at Lincoln University: February 2018 – March 2020, at medicinal chemistry, pharmacy, anatomy and physiology modules**

- Demonstrate practical exercises and techniques/ undergraduate and postgraduate students
- Supervising in setting up practical equipment prior to the laboratory practical.
- Marking students work and progress during the practical and the final write-up
- Student support/ risk assessment trainee

### **Lecturer in Microbiology, biotechnology and pharmaceutical science courses at Jordan University of Science and Technology. Irbid-Jordan: Sep 2017 – Jan 2018**

- Teaching assessment and module leader
- curriculum developing/ staff leading and module coordinator
- Setting practical and theoretical exams for undergraduate students
- Assessment of students projects and progress during the course and the final exams

**Research assistant at Jordan University of Science and Technology. Irbid-Jordan: Apr 2017 – Aug 2017**

- Researcher for the novel extraction and purification of a new plant extract for anticancer drug

**Part-time lecturer for pharmaceutical technology, Microbiology and biotechnology courses at Jordan University of Science and Technology. Irbid-Jordan: Sep 2014 – Apr 2017**

- Demonstrate practical exercises/techniques to undergraduate students.
- Work with other senior lecturer colleagues in supervising undergraduate and postgraduate students and setting up practical equipment prior to the laboratory practical.
- Marking students work and progress during the practical and the final exams.

**Pharmacist in Jordan, Jun 2013 – Sep 2013**

- Helping patients and the public, assessing their conditions, and making decisions about which medicines they should take.
- Dispensing medicines and offering your patients advice and practical help on keeping healthy

**Memberships**

- Member at science innovation Union
- Member at Jordan pharmaceutical association
- Science Council

**Education and Qualification**

**\*2019-2021**

**PhD Degree in Molecular biology/Life science, pharmacology  
department University of Liverpool**

**Foundation Building, Brownlow Hill, Liverpool, L69 7ZX**

Thesis title:

Synthesis and structure activity relationship of teixobactin analogue.

Aim:

Design and development of potent synthetic antimicrobial peptides against multi-drug resistant pathogens.

*Various analogs of teixobactin were synthesized for the development of a more potent analog of teixobactin through detailed investigation of structure-activity relationship (SAR) study. I worked on a medium-complexity peptide call teioxbactin. This new antibiotic has been discovered on 2015 and it has potent activity against Gram-positive bacteria no at Gram-negative bacteria. I did synthesized more than 100 analogs to finally end up with the right analog that works effectively against the Gram-negative bacteria. Moreover, I did create a simpler, and less costly method to synthesize this antibiotic.*

**\*2014\_ 2017**

**Master's degree in pharmaceutical technology  
Jordan University of Science and technology  
Po.Box 1195, Irbid 22110, Jordan**

**Cumulative/Yearly average in master`s degree is 91.9 %**

Dissertation tile:

**ORAL DELIVARY OF LIRAGLUTIDE USING CHITOSAN**

Aim:

- Oral delivery of Liraglutide peptide is compromised due to its degradation in the gastrointestinal system.
- *Develop an oral delivery system for Liraglutide, to overcome the degradation of the peptide and enhance its bioavailability. The developed system is W/O microemulsion of Nanoparticles. Polyelectrolyte complex was prepared using low molecular weight chitosan and hydroxyl propyl beta-cyclodextrin. Liraglutide LMWC and HP-βCD were prepared at different ratios. I had converted the method of delivery of the Liraglutide from SC injections to oral form. Liraglutide is a drug used for type two diabetes patients. The oral form of the drug was tested on rabbits and diabetic rats and found to be efficient and effective.*

**\*2009 – 2014**

**Bachelor Degree in Pharmacy  
Jordan University of science and technology  
Po.Box 1195, Irbid 22110, Jordan**

**Cumulative/Yearly Average in Bachelor`s Degree is 85.6 %**

**\*2003 – 2009**

**High school Degree  
Malka school for Girls  
Malka , Um el kheer street, Irbid, Jordan**

### **Volunteer positions**

**Volunteer at Liverpool University for Oxford trails on COVID-19 vaccine: Aug 2020-Sep 2020**

- Helping in receiving the volunteers
- Helping in explaining the nature of the vaccine and the impact
- leading or managing the entrance of the volunteer to get vaccinated.

**Volunteer in translator in Jordan, Dec 2016 – Jan 2017**

- Translator from Arabic to English to help the Syrian refugees in Jordan in the NGOs

### **Awards and Publications**

- Nominated and awarded a full training session from DAAD to attend the summer school (COSIMENA) that held in Cairo, Alexandria under the title “Training for innovation- how

science and technology can contribute to a better life for all”, at the premises in the Arab Academy for Science, Technology and Maritime Transport, from 16-29 September 2017.

- Nominated and awarded a full PhD scholarship from Jordan government.
- **Malkawi R**, Revolutionizing drug delivery innovation: leveraging ai-driven chatbots for enhanced efficiency, International Journal of Applied Pharmaceutics, International Journal of Applied Pharmaceutics, 6(2):52-56. Available from <https://journals.innovareacademics.in/index.php/ijap/article/view/50182/29727>
- Jarwan B, Tawalbeh J, **Malkawi R**. Assessment of Phenol and Antioxidant Content of Olive Varieties and Their Potential Health Benefits for Colon Health. S M B, editor. The Scientific World Journal. 2023 Oct 12 ;2023:1–8. Available from: <https://www.hindawi.com/journals/tswj/2023/9165902/>
- **Malkawi, R.**, Jarwan, B., & Tawalbeh, J. (2023). Article no.JPRI.97852 Original Research Article Malkawi et al. Assessing the Awareness, Attitude, and Knowledge of Senior Pharmacy Students in Jordanian Universities Regarding Antibiotic Use and Resistance: A Study of the Medical Curriculum. Journal of Pharmaceutical Research International, 35(5), 41–52. <https://doi.org/10.9734/JPRI/2023/v35i57328>
- **Malkawi, R.**, Malkawi, W. I., Al-Mahmoud, Y. & Tawalbeh, J. Current Trends on Solid Dispersions: Past, Present, and Future. Adv Pharmacol Pharm Sci 2022, 1–17.(2022)
- **Malkawi, R.** et al. Cysteines and Disulfide-Bridged Macrocyclic Mimics of Teixobactin Analogues and Their Antibacterial Activity Evaluation against Methicillin-Resistant Staphylococcus Aureus (MRSA). Pharmaceutics 10, 183 (2018) Impact factor, 6

### **Articles ready to publish from my PhD thesis:**

- Understanding the role of the ring size and amidation of the macrocycle of Teixobactin, to be submitted soon in organic & biomolecular chemistry journal
- Synthesis and Antibacterial Evaluations of Teixobactin Analogues Containing Quaternary and Ternary Cationic Building Blocks, to be submitted soon
- Exploring the diversity of position 10 for teixobactin analogues with variable hydrocarbon alkyl chain lengths, to be submitted soon
- Design, synthesis and structure-activity relationship of teixobactin analogues containing non-proteogenic amino acids and their antimicrobial evaluations, to be submitted soon

### **Additional courses with certificates**

- Digital media analytics: social media research plans, Purdue, USA
- Communication and interpersonal skills at work, university of Leeds, UK
- Making successful decisions through the strategy, law & ethics model, university of Michigan

### **Key skills**

- Providing comprehensive knowledge on NMR, DSC, TGA, UV, Zetasizer size analysis, Enzyme-linked immunosorbent assay (ELISA) analysis, Dissolution and analysis
- Generic laboratory techniques such as density measurements, PH, Viscosity and particles characterisation IR, LCMS/MS, GC-MS, HPLC, thin-layer chromatography and flash chromatography.
- Good understanding of Solid-Phase Peptide synthesis.
- Proficient in various scientific software such Chemdraw Bio Office and Science finder.
- Seamless integration into any team or organisation with the ability to work autonomously.
- Safe compliance with all the necessary health and safety policies and industry best practices within a controlled environment.
- Strong communication skills both written and verbal to a wide range of business stakeholders.
- Experienced in transferring sophisticated topics to individuals in a more simplistic format.
- Multilingual; Fluent in Arabic and English.

### **Research Interests**

- \*Oral delivery of peptides and proteins.
- \*Technologies for tracking drug in-vivo.
- \*Polymers and their behavioral characteristics in different technologies.
- \*Peptide synthesis

### **Interested and Hobbies**

- \*Reading: I am interested in Philosophy and Arabic literature
- \*Sport especially running.

### **References**

To be provided upon requested

