






PERSONAL INFORMATION **Mohammad H. Alsaggar**



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WORK EXPERIENCE

- 29/03/2022-PRESENT Associate Professor**
Jordan University of Science and Technology
School of Pharmacy
Irbid (Jordan)
Associate Professor and Primary Investigator in Pharmaceutical Biotechnology and Gene Therapy
- 05/09/2022–PRESENT Vice Director – Consultative Center for Science and Technology**
Jordan University of Science and Technology
Irbid (Jordan)
- 01/10/2019–PRESENT Consultant – Jordanian Food and Drug Administration**
Post-Approval Changes Committee - Originators
Biological Drugs Specialist
Amman (Jordan)
- 01/09/2019–01/09/2022 Chairman of Pharmaceutical Technology Department**
Jordan University of Science and Technology
School of Pharmacy
Irbid (Jordan)
- 01/09/2017–31/08/2019 Assistant Dean for Academic Affairs**
Jordan University of Science and Technology
School of Pharmacy
Irbid (Jordan)
- 11/07/2016–28/03/2022 Assistant Professor**
Jordan University of Science and Technology
School of Pharmacy
Irbid (Jordan)
Assistant Professor and Primary Investigator in Pharmaceutical Biotechnology and Gene Therapy
- 10/08/2015–15/05/2016 University Teaching Assistant**
University of Georgia
Department of Pharmaceutical and Biomedical Sciences
Athens, GA (USA)
Teaching and supervising 4th year students in B.Sc. in Pharmacy in various drug development and pharmaceutical industry techniques laboratory
- 10/09/2009–01/08/2010 University Teaching Assistant**

Jordan University of Science and Technology
Department of Pharmaceutical Technology
Irbid (Jordan)

Teaching Pharmacy Practice, Pharmaceutical Microbiology and Pharmaceutical Biotechnology laboratories to 4th year Pharmacy and PharmD student.

01/02/2009–01/09/2009 **Pharmacist**

A'esha Community Pharmacy

Al-Ramtha (Jordan)

Run the pharmacy and dispense prescriptions, provide counselling to patients and to supervise training students and technicians.

EDUCATION

13/06/2022 **Certified Innovation Associate**

Global Innovation Management Institute.
Massachusetts, USA.

15/07/2018–01/10/2019 **Fellowship in Responsible Conduct of Research**

University of California San Diego/Extension and Jordan University of Science and Technology, Irbid (Jordan)

Courses and summer practicum for a total of 16 units of graduate studies

15/08/2011–01/05/2016 **PhD in Pharmaceutical and Biomedical Sciences**

University of Georgia, Athens, GA (USA)

Gene Delivery and Gene Therapy Lab, Advisor: Dr. Dexi Liu.

- Establishment and optimization of metastatic tumor models in mice using hydrodynamic cell delivery.
- Quantitative assessment of tumor growth and sensitivity to anticancer therapies.
- Therapeutic assessment of selected genes in various diseases models in mice.
- Techniques include cell culture, DNA cloning, DNA and RNA purification, analysis of gene expression, tissue histology, serum biochemistry and others.

10/09/2004–25/01/2009 **B.Sc. in Pharmacy**

Jordan University of Science and Technology, Irbid (Jordan)

GPA: 92.1%; Distinguished Grade.

Rank: 2nd out of 360.

20/08/2003–01/08/2008 **Jordanian Tawjehi**

Mus'ab Ben Omair High school, Al-Ramtha (Jordan)

GPA: 93.4%; excellent Grade.

ADDITIONAL INFORMATION

- Affiliations**
- **JPSA:** *Jordanian Pharmacy Student Association*
 - **JPA:** *Jordanian Pharmacists Association*
 - **AAPS:** *American Association of Pharmaceutical Scientists*
 - **AACR:** *American Association of Cancer Research*
 - **ASGCT:** *American Society of Gene and Cell Therapy*
 - **JFDA:** *Jordanian Food and Drug Association (Post-Approval Changes Committee)*

- Courses**
- Phar 122 Introduction To Pharmacy
 - Phar 401 Pharmaceutical Practical Training
 - Phar 402 Community Pharmacy (For PharmD students)
 - Phar 453 Pharmaceutical Microbiology
 - Phar 460 Pharmaceutical Biotechnology
 - Phar 551 Pharmaceutics 4 (For PharmD students)
 - Phar 558 Pharmaceutical Regulatory Affairs
 - Phar 574 Gene and Protein Therapy
 - Phar 955 Advanced Pharmaceutical Biotechnology
 - Phar 998 Doctoral Comprehensive Examination

- Committees**
- 09/2017 - 08/2018 Faculty Course Equivalency Committee (Chair)
 - 09/2017 - 08/2018 Faculty Community Service Committee (Member)
 - 09/2017 - 08/2018 Faculty Curriculum Committee (Member)
 - 09/2017 - 08/2019 Department Scientific Research Committee (Member)
 - 09/2018 - 08/2020 Faculty Curriculum Committee (Head)
 - 09/2018 - 08/2019 Faculty Scientific and Cultural Committee (Member)
 - 09/2019 - 08/2021 Department Quality Assurance Committee (Chair)
 - 09/2019 - Present Faculty of Pharmacy Board (Member)
 - 09/2018 - Present Faculty Community Pharmacy Training Committee (Member)
 - 09/2019 - Present Department Graduate Studies Committee (Chair)
 - 09/2018 - Present Faculty Course Equivalency Committee (Member)
 - 09/2019 - Present Faculty Accreditation and Quality Assurance Committee (Member)
 - 09/2019 - Present Faculty Performance Assessment Committee (Member)
 - 09/2020 - Present Faculty Curriculum Committee (Member)
 - 09/2019 - Present Faculty Graduate Studies Committee (Member)
 - 09/2019 - Present Faculty Laboratory and Supplies Committee (Member)
 - 10/2018 - Present Accreditation Council for Pharmacy Education (ACPE) Central Faculty Committee: Member.
 - 10/2019 - Present Accreditation Council for Pharmacy Education (ACPE) Faculty

Subcommittee #9: Chair

- 10/2019 - Present Post-Approval Changes Committee, Jordanian FDA

Workshops

- Biosimilars Workshop. Jordanian Association of Pharmaceutical Manufacturers- Jordanian Food and Drug Association. May 16, 2022.
- Fellowship in Responsible Conduct of Research: University of California San Diego/Extension and Jordan University of Science and Technology, Irbid (Jordan). Courses and summer practicum for a total of 16 units of graduate studies. 15/07/2017–01/10/2019.
- “Research Excellence: From Application To Publication” training course. Academic Development and Quality Assurance Center, Jordan University of Science and Technology, Irbid, July 4-11, 2019
- Responsible Science in the “Genomic Era”. Jordan National Committee for Ethics of Science and Technology (JNCEST) and Princess Haya Biotechnology Center – JUST. Nov 5, 2017
- “The Curriculum Mapping” workshop. Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, March 28, 2017
- “Statistical Data Analysis Using R Software” training course. Academic Development and Quality Assurance Center, Jordan University of Science and Technology, Irbid, January 25-26, 2017.
- “Statistical Data Analysis Using Minitab” training course. Academic Development and Quality Assurance Center, Jordan University of Science and Technology, Irbid, January 16-17, 2017.

Conferences

- The 26th International Conference of Arab Pharmacists. Amman, Jordan. Apr 10-12, 2008
- The 2nd Annual Research Retreat, Champion, PA, Jun 6-7, 2011.
- Graduate Pharmaceutical Sciences Research Day. Duquesne University, PA. Nov, 2011.
- The American Association of Cancer Research (AACR) Annual Meeting. Washington D.C. April 6-10,2013.
- The American Society of Gene and Cell Therapy (ASGCT) 18th Annual Meeting, New Orleans, LA May 13-16, 2015.
- The UGA Conference on Drug Discovery. Athens, GA. Nov 19, 2015.
- The 4th conference for Faculties of Pharmacy in Jordan and JUST International Pharmacy Conference. Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, August 2-4, 2017.
- The 2nd International Conference on Ethics in Jordan: Clinical Trials. Responsible Conduct of Research Program in collaboration with the School of Pharmacy at JUST. Irbid, August 2-4, 2017.
- The 20th Congress of the Arab Association of the Faculties of Pharmacy. The 5th International Conference of the Jordanian Faculties of Pharmacy. The 2nd International Conference of the Faculty of Pharmacy at Isra University. Amman, November 7-9, 2017.

- IBRO-MENA International Conference and Advanced Neuroscience School in Neurodegenerative Disorders: Translational into Clinical Neurology. Jordan University of Science and Technology, Irbid, November 19th-20th, 2017.
- Graduate Symposium of Pharmaceutical Research. Applied Sciences University. Amman, Jordan. 2019.
- Vaccines Evidence-Based Approach Summit. MENA Center for Research & Development and Internship. Amman, Jordan. Aug 27-28, 2021.
- Scientific Day on Diabetes and Hypertension. Granada College, Al-Balqa Applied University. Irbid, Jordan.
- The 7th School of Pharmacy Conference on “Covid-19: Challenges and Perspectives”. AlZarqa University. Al-Zarqa, Jordan. March 17, 2022.
- Insight Symposium, Pharmaceutical Sciences Across Borders. American Association of Pharmaceutical Scientists (AAPS) and Virginia Commonwealth University. Virginia, USA. Jun 10-12, 2022.

M.Sc Theses

- **Examiner:** *Assessing the effect of breast cancer cells on the behavior of brain microvascular endothelial cells* (12/2017) By. Laila I. Alhusban. Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Major Adviser:** *Attenuation of adipose tissue inflammation blocks progression of diet-induced obesity in mice* (08/2018) By. Shifa A. Bdour. Department of Biotechnology and Genetic Engineering, Faculty of Science and Arts, Jordan University of Science and Technology.
- **Examiner:** *Effect of cannabidiol on the pharmacokinetics of carbamazepine* (10/2018) By. Tareq N. Khamis. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Major Adviser:** *SAMA peptide... A rationally designed antimicrobial and anticancer peptide* (12/2019) By. Ala'a M. Altarawneh. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Major Adviser:** *HAZ, novel peptide with broad-spectrum antimicrobial activity* (12/2019) By. Mohammad K. Alhazabreh. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Examiner:** *Persistence Phenotype and Biofilm Formation in Clinical Isolates of Acinetobacter Baumannii* (08/2020) By. Dua'a Y. Alawneh. Department of Biotechnology and Genetic Engineering, Faculty of Science and Arts, Jordan University of Science and Technology.
- **Examiner:** *Characterization and Antimicrobial Susceptibility Patterns of Bacteria Isolated from Human Urine* (11/2020) By. Inas I. Alrafayeh. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Examiner:** *Characterization and Antimicrobial Susceptibility Patterns of Bacteria Isolated from Blood Samples from Patients in KAUH* (11/2020) By. Majd A. Alzedan. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Co-Advisor:** *Functional and Toxicological Evaluation of New Rationally Designed Antimicrobial Peptides* (12/2020) By. Afnan M. Ayyad. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Co-Advisor:** *Evaluation of Peptides Activity and Toxicity on Several Types of Bacteria* (12/2020) By. Hanin K. Al-Shogran. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
- **Co-Advisor:** *Endocrine Toxicity of Zinc Oxide Nanoparticles and Antagonistic Effects of Sage Extract* (04/2021) By. Yasmeeen S. Abojwaid. Department of Toxicology and

- Forensic Medicine, Faculty of Medicine, Jordan University of Science and Technology.
- **Co-Advisor:** Phytochemical Analysis and Hepatoprotective Effects of Rhus Coriaria L. (SUMAC) Fruits on Paracetamol-Induced Liver Toxicity in Rats. (12/2021) By. Bayan K. Al-Tall. Department of Medicinal Chemistry and Pharmacognosy, Faculty of Pharmacy, Jordan University of Science and Technology.
 - **Major Advisor:** Study of The Efficacy and Toxicity of Rationally Designed Antimicrobial Peptide (03/2022) By Anwar Abu Al-Kahsi. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
 - **Examiner:** Synergistic Effect of Antibiotics and Novel Strategies of Nanoparticles for Eradication of Pathogenic Biofilms (05/2022) By Zeinab Al-Tal. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.
 - **Examiner:** Investigating the Synergistic Antibacterial Effect of Antibiotics and Nanoparticles Against Multidrug Resistant Biofilms (06/2022) By Noor Bany-Ali. Department of Pharmaceutical Technology, Faculty of Pharmacy, Jordan University of Science and Technology.

- Publications 1. Mohammad Alsaggar** and Dexi Liu (2014) Gene delivery: an essential component for successful gene therapy. In "*Drug Delivery*", Edited by Ashim Mitra, Deep Kwatra, and Aswani Dutt Vadlapudi, Jones & Bartlett Learning, Burlington, MA, USA, pp 381-398.
2. Yahya Alhamhoom, **Mohammad Alsaggar** and Dexi Liu (2015) Future perspective – towards targeting at the cellular level, In "*Advances and Challenges in the Delivery of Oligonucleotide-based Therapies*", (Volume 2), pp 2-17. doi: 10.4155/fseb2013.14.10.
3. **Mohammad Alsaggar** and Dexi Liu (2015) Physical methods for gene transfer. In "*Non-Viral Vectors for Gene Therapy: Physical Methods and Medical Translation*." L. Huang, D. Liu, and E. Wagner (eds), *Advances in Genetics* 89: pp1–24.
4. **Mohammad Alsaggar** and Dexi Liu (2014) Liver-targeted gene and cell therapies: an overview, In "*Gene Therapy and Cell Therapy through the Liver*," Shuji Terai and Takeshi Suda (eds), Springer Japan KK, Tokyo, Japan, pp 1-11. doi: 10.1007/978-4-431-55666-4_1.
5. **Mohammad Alsaggar**, Qian Yao, Houjian Cai and Dexi Liu (2016) Differential growth and responsiveness to cancer therapy of tumor cells in different environments. *Clinical and Experimental Metastasis*, 33(2): pp 115-124.
6. Mingming Gao, Yongjie Ma, **Mohammad Alsaggar** and Dexi Liu (2016) Dual Outcomes of Rosiglitazone Treatment on Fatty Liver. *AAPS Journal*. Jul;18(4):1023-31.
7. **Mohammad Alsaggar**, Michael Mills and Dexi Liu (2017) Interferon beta overexpression attenuates adipose tissue inflammation and high fat diet-induced obesity and restores glucose homeostasis. *Gene Therapy*. Jan;24(1):60-66.
8. Hardik Mody, Sau Wai Hung, **Mohammad Alsaggar**, Jazmine Griffin, and Rajgopal Govindarajan (2016) Inhibition of S-Adenosylmethionine-Dependent Methyltransferase Attenuates TGF- β 1-induced EMT and Metastasis in Pancreatic Cancer: Putative Roles of miR-663a and miR-4787-5p. *Molecular Cancer Research*. Nov;14(11):1124-1135.

9. **Mohammad Alsaggar** and Dexi Liu (2018) Organ-based drug delivery. *Journal of drug targeting*. May:26 (5-6), 385-397.
10. Yara Al Tall, Ahmad Abualhajjaa, **Mohammad Alsaggar**, Ammar Almaaytah, Majed Masadeh, Karem H Alzoubi (2019) Design and characterization of a new hybrid peptide from LL-37 and BMAP-27. *Infection and drug resistance*. 12, 1035.
11. Yara Al Tall, Ahmad Abualhajjaa, Mohammed T Qaoud, **Mohammad Alsaggar**, Majed Masadeh, Karem H Alzoubi (2019) The Ultrashort Peptide OW: A New Antibiotic Adjuvant. *Current Pharmaceutical Biotechnology*. Jul: 20 (9), 745-754.
12. **Mohammad Alsaggar**, Shifa Bdour, Quataibah Ababneh, Tamam EI-Elimat, Nidal Qinna, Karem Alzoubi (2020) Silibinin attenuates adipose tissue inflammation and reverses obesity and its complications in diet-induced obesity model in mice. *BMC Pharmacology and Toxicology*. 2020 Jan 23;21(1):8.
13. **Mohammad Alsaggar**, Alaa Al-Tarawneh, Yara Al Tall, Mohammad Al-Hazabreh (2022) SAMA peptide, a rationally designed antimicrobial peptide. *Journal of Applied Pharmaceutical Science*. 12(01):182–189.
14. Majed Masadeh, Afnan Ayyad, Razan Haddad, **Mohammad Alsaggar**, Karem Alzoubi, Nasr Alrabadi (2022) Functional and toxicological evaluation of the MAA-41: a novel rationally designed antimicrobial peptide using hybridization and modification methods from LL-37 and BMAP-28. *Current Pharmaceutical Design*. 2022;28(26):2177-2188.
15. **Mohammad Alsaggar**, Mohammad Al-Hazabreh, Yara Al Tall, Alaa Al-Tarawneh, Majed Masadeh (2022) HAZ, a novel peptide with broad-spectrum antibacterial activity. *Saudi Pharmaceutical Journal*. In Press.
16. Nid'a Alshraiedeh, Farah Atawneh, Rasha Bani-Salameh, Rawan Alsharedeh, Yara Al Tall and **Mohammad Alsaggar** (2022) Identification and Characterization of Bacteria Isolated from Patients with Cystic Fibrosis in Jordan. *Annals of Medicine*. In Press.