

**CONTACT**

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Personal Information

Religion: Islam

Nationality: Jordanian

Date of Birth: 03/06/1973

Marital Status: Married

LANGUAGES

Arabic – very good

English – very good

RESEARCH INTEREST

My research interests lie in the field of Animal physiology and Immunohistological study of the skin with a particular focus on the application of cosmetic dermatology and wound healing in diabetic patients by using ointments and creams made from plant extracts, essential oils and nanoparticles in diverse areas of biology, including wound healing, inflammation and immunology in *vitro* and in *vivo* studies. Another area of interest revolves around the using snail slime on treatment of different skin disorders and using plant extract in anti-nociception and fertility studies.

EDUCATION

PhD in Biology, The university of Jordan/ Jordan
(*Excellent*)

Thesis 2017- 2021

(Effect of *Globularia arabica* L., *Malva sylvestris* L., and *Rhus coriaria* L., Methanolic Extracts on Cutaneous Wound Healing and Anti-Inflammatory Activity in Diabetic Rats: Histological and Physiological Study)

Master of Science degree in Biology, Mutah University/ Jordan
(*Excellent*).

Thesis 2011 - 2013

(Assessment of Antibacterial and Antioxidant Activities of MeOH Extracts of *Euphorbia hierosolymitana*, *Fritillaria libanotica*, *Artemisia inculta*, and *Achillea santolina* selected from Al-karak region).

Bachelor of Science degree in Biology, Mutah University/ Jordan
(*good*)

1991-1995

Publication Related To Physiology And Wound Healing

1. **Alsarayreh AZ**, Oran SA, Shakhanbeh JM. Effect of *Rhus coriaria* L. methanolic fruit extract on wound healing in diabetic and non-diabetic rats. **J Cosmet Dermatol.** **2021**;00:1–11. doi:10.1111/jocd.14668
2. **Alsarayreh AZ**, Attalah Oran S, Shakhanbeh JM. In vitro and in vivo wound healing activities of *Globularia arabica* leaf methanolic extract in diabetic rats. **J Cosmet Dermatol.** **2022**;00:1–13. doi:10.1111/jocd.14882
3. **Ahmad Z Alsarayreh**, PhD, Khaled M Khleifat, PhD, Sa'ed M Al-Dalain, PhD, **Alsarayreh, AZ.**, Oran, S.A., Shakhanbeh, J.M., ...Alfarrayeh, I.I., Alkaramseh, A.M. Efficacy of methanolic extracts of some medicinal plants on wound healing in diabetic rats, **Heliyon**, **2022**, 8(8), e10071
4. **Alsarayreh, A. Z.**, Khleifat, K. M., Al-Dalain, S. E. M., Al-

- Saraireh, Y. M., Al Qaisi, Y. T., Alfarrayeh, I. I., & Al-Qaraleh, S. Y. (2023). Globularia arabica methanolic leaf extract has higher efficacy on burn wound healing in diabetic rats compared to malva slyvestries methanolic leaf extract. *Journal of Burn Care & Research*, 44(3), 563-572.
5. **Alsarayreh AZ**, Oran SA, Shakhanbeh JM. Evaluation of Anti-inflammatory Activity of Methanol Extract of Rhus coriaria L.in Diabetic Rats.**Trop J Nat Prod Res.** 2021; 5(8):1409-1413.
 6. **Alsarayreh A.**, Al Qaisi Y., Khleifat K., Oran S., alhawamdeh M., Qaralleh H.,(2024). Anti-inflammatory activity of some medicinal plants extracts commonly used in traditional medicine in healthy and diabetic rats. *Mor. J. Chem.*, 12(3), 1254-1269
 7. Al-Qaisi, T., Al-Rawadeih, S., **Alsarayreh, A.**, Al Qaisi, Y., Al-Limoun, M., Alqaraleh, M., & Khleifat, K. (2024). The effects of Anchusa azurea methanolic extract on burn wound healing: Histological, antioxidant, and anti-inflammatory evaluation. *Burns*.
 8. Alkhadhrh M, Issa R, Al-Halaseh LK, Lilian Alnsour Ahmad Alsarayreh , Yaseen Al Qaisi ,Sina M. Matalqah , Safwan Aladwan . Investigating the inhibitory effects of carotenoidsfortified Helix aspersa slime on oxidative stress, collagenase and tyrosinase enzyme activities. *J Cosmet Dermatol.* 2024;00:1-10. doi:10.1111/jocd.16455

Publication Related To Nanotechnology and Biotechnology

9. Assi, G. Al, Al-Bashaereh, A., **Alsarayreh, A.**, Qaisi, Y. Al, Al-Majali, I., Khleifat, K., Alqaraleh, M., Qaralleh, H., and Al-Farrayeh, I. (2023). "Evaluation of Antibacterial, Antioxidant and Anti-inflammatory Properties of Methanol Extract of Varthemia iphionoides." *Trop. J. Nat. Prod. Res.*, 7(1), 2107–2114.
10. Al-Qaraleh, S. Y., Al-Zereini, W. A., Oran, S. A., **Al-Sarayreh, A. Z.**, & Sa'ed, M. (2022). Evaluation of the antioxidant activities of green synthesized selenium nanoparticles and their conjugated polyethylene glycol (PEG) form in vivo. *OpenNano*, 8, 100109.
11. Khleifat, K., Alqaraleh, M., Al-limoun, M., Alfarrayeh, I., Khatib, R., Qaralleh, H., **Al-Sarayreh, A** & Hajleh, M. A. (2022). The ability of rhizopus stolonifer MR11 to biosynthesize silver nanoparticles in response to various culture media components and optimization of process parameters required at each stage of biosynthesis. *Journal of Ecological Engineering*, 23(8).
12. Al-Soub, A., Khleifat, K., Al-Tarawneh, A., Al-Limoun, M., Alfarrayeh, I., **Al Sarayreh, A.**, ... & Albashaireh, A. (2022). Silver nanoparticles biosynthesis using an airborne fungal

isolate, *Aspergillus flavus*: optimization, characterization and antibacterial activity. *Iranian Journal of Microbiology*, 14(4).

13. Khaled Khleifat, Mousa Magharbeh, Moath Alqaraleh, Mutaz Al-Sarayrah, Ibrahim Alfarrayeh, Yaseen Al Qaisi, **Ahmad Alsarayreh**, Mohammad Alkafaween. Biodegradation kinetics and modeling of phenol Using *Curtobacterium flaccumfaciens* as Plant-Growth-Promoting Bacterium. *Heliyon*.2022.e10490.
14. Al Qaisi, Y. T., Khleifat, K. M., Alfarrayeh, I. I., & **Alsarayreh, A. Z.** (2022). In Vivo Therapeutic Effect of Some Medicinal Plants' Methanolic Extracts on the Growth and Development of Secondary Hydatid Cyst Infection. *Acta Parasitologica*, 1-14.
15. Yaseen Al Qaisi, Khaled Khleifat, Sawsan Oran, Ibrahim Alfarrayeh, **Ahmad Alsarayreh**, Mohammad Abu lubad and Bushra Al Tarawneh. (2022). The in vivo preventive effect of some medicinal plant extracts on the development of hydatid cyst infection. *Asia-Pacific Journal of Science and Technology*. Accepted.
16. Ibrahim Alfarrayeh, Abdullah Alosmoush, **Ahmad Alsarayreh** and Yaseen Al Qaisi. (2022). Survey of medicinal plants sold in local markets in Ghor As-Safi, southern Jordan. *Medicinal Plants*. 14 (2); 183-186.
17. Al-Sarairah YM, Youssef AMM, **Alsarayreh AZ**, Al Hujran TA, Al-Sarayreh S, Al-Shuneigat JM, Alrawashdeh HM (2021) Phytochemical and anti-cancer properties of *Euphorbia hierosolymitana* Boiss. crude extracts. *J Pharm Pharmacogn Res* 9(1): 13–23
18. Abu Hajleh, M.N.; Al-limoun, M.; Al-Tarawneh, A.; Hijazin, T.J.; Alqaraleh, M.; Khleifat, K.; Al-Madanat, O.Y.; Qaisi, Y.A.; **AlSarayreh, A.**; Al-Samydai, A.; et al. Synergistic Effects of AgNPs and Biochar: A Potential Combination for Combating Lung Cancer and Pathogenic Bacteria. *Molecules* 2023, 28, 4757. <https://doi.org/10.3390/molecules28124757>
19. Khleifat, K. M., Al-Tawarah, N. M., Al-Kafaween, M. A., Al-Ksasbeh, W., Qaralleh, H., Alqaraleh, M., **Alsarayreh AZ**... & Mohd Hilmi, A. B. (2023). Memory Enhancing and Neurogenesis Activity of Honey Bee Venom in the Symptoms of Amnesia: Using Rats with Amnesia-like Alzheimer's Disease as a Model. *Current Alzheimer Research*, 20(3), 190-201.
- 20- Qaisi, Y. A., Alfarrayeh, I., **Alsarayreh, A.**, Al-Khlifeh, E., & Oran, S. (2023). In vitro antiprotozoal activity of some medicinal plants methanolic extracts against *Entamoeba histolytica* and *Giardia lamblia*. *Medicinal Plants-International Journal of Phytomedicines and Related Industries*, 15(1), 106-115

- 21- Husein, N. F., Al-Tarawneh, A. A., Al-Rawashdeh, S. R., Khleifat, K., Al-Limoun, M., Alfarrayeh, I., **Alsarayreh AZ** & Al-Qaisi, Y. T. (2023). Ruta graveolens methanol extract, fungal-mediated biosynthesized silver nanoparticles, and their combinations inhibit pathogenic bacteria. *Journal of Advanced Pharmacy Education & Research*| Apr–Jun, 13(2).
- 22- Alfarrayeh II, Al-Alwani SS, Al Qais YT, **Alsarayreh AZ**, Al-Omari L, Alhmoud JF, Alqaraleh M. The Toxic Impact of Silver Nanoparticles Synthesized Extracellularly by *Aspergillus flavus* on Breast Cancer Cells (MDA-MB-231), as Well as Their Antibacterial Activity. *Trop J Nat Prod Res.* 2023; 7(9):3936-3943. <http://www.doi.org/10.26538/tjnpr/v7i9.14>
23. Ibrahim Alfarrayeh, Heba Al-Nedawi, Yaseen Al Qaisi, **Ahmad Alsarayreh**, Haitham Qaralleh, Laila Al-omari and Nedaa Husien, Investigation of Antibacterial and Anti-Biofilm Potential of Ethanol and Dichloromethane Extracts from *Salvadora persica* and *Chamaemelum nobile*: A Comparative study with LC-MS Characterization, *Medicinal plants journal*, 2023.
24. Al Qaisi, Y., Alfarrayeh, I., **Alsarayreh, A.**, Khleifat, K., & Abu-Nwas, N. (2024). Assessment of Antioxidant Potential, Cytotoxicity, and Anticancer Activity of Methanolic Extracts from Selected Wild Medicinal Plants. *Phytomedicine Plus*, 100534.
25. Husein N, Qaralleh H, Al-Tarawneh A, AlSarayreh A, Al Qaisi Y, Al-limoun M, et al. Modeling phenol biodegradation with *Pantoea agglomerans* as plant-growth-promoting bacteria. *J Adv Pharm Educ Res.* 2024;14(2):63-71. <https://doi.org/10.51847/iVmeFBDAX0>.
26. Alkhadhrh M, Issa R, Al-Halaseh LK, Lilian Alnsour **Ahmad Alsarayreh**, Yaseen Al Qaisi, Sina M. Matalqah, Safwan Aladwan. Investigating the inhibitory effects of carotenoid-fortified *Helix aspersa* slime on oxidative stress, collagenase and tyrosinase enzyme activities. *J Cosmet Dermatol.* 2024;00:1-10. doi:10.1111/jocd.16455
27. Al-Shamayleh, W, Qaralleh, H, Al-Madadheh, OA, Al Qaisi, Y, **AlSarayreh, A.** Inhibitory Effect of the Marine Sponge *Amphimedon chloros* Extracts Against Multidrug-Resistant Bacteria. *Trop J Nat Prod Res.* 2024;8(8): 8061 – 8067 <https://doi.org/10.26538/tjnpr/v8i8.20>
28. Al-Qaisi, T., Al-Rawadeih, S., **Alsarayreh, A.**, Al Qaisi, Y., Al-Limoun, M., Alqaraleh, M., & Khleifat, K. (2024). The effects of *Anchusa azurea* methanolic extract on burn wound healing: Histological, antioxidant, and anti-inflammatory evaluation. *Burns*
29. Alhawamdeh MF, Alsarayreh AZ, Al Qaisi YT, Masood A, Alhawamdeh NF, Alhroob HA. *In Vivo* Comparative Study Between Articaine and Mepivacaine on Hepatic and Pancreatic Function Using Diabetic Rat Model. *Trop J Nat Prod Res.* 2024; 8(8):7996-8000. <https://doi.org/10.26538/tjnpr/v8i8.10>
30. Al-Edimat, S. Y., Khleifat, K., Oriquat, G. A., Khleifat,

A. M., **Za'al Alsarayreh, A.**, & Al Qaisi, Y. T. The Correlation between Jordan's Iron Shortage, Vitamin D Status and Anaemia.

31. Alqaraleh, Moath, et al. "Bioactive potency of extracts from *Stylissa carteri* and *Amphimedon chloros* with silver nanoparticles against cancer cell lines and pathogenic bacteria." *Biomedical Reports* 22.2 (2025): 1-19.

32. Alqaraleh, Moath, et al. "Sustained Glipizide Release and Enhanced Hypoglycemia With Nano-Mesoporous SBA-15 in Diabetic Mice." *Journal of Biochemical and Molecular Toxicology* 40.3 (2026): e70759.

TECHNICAL SKILLS

- 1. Tissue culture.**
- 2. Microtechniques .**
- 3. Animal handling .**
- 4. Take samples from animals .**
- 5. Performing Enzyme assay, Proliferation assay, Inflammation assay, Toxicity assay.**

TEACHING EXPERIENCE

Undergraduate Courses

- 1. Skin pathology**
- 2. Skin, Hair and Nails Pathology and disorders Histology**
- 3. Pathology**
- 4. Molecular biology**
- 5. General biology**
- 6. Medical analysis**
- 7. Immunology**
- 8. Hematology**
- 9. Physiology**
- 10. Histology**
- 11. Plant and Plant anatomy**
- 12. Microbiology**

COMMUNICATION SKILLS

1. The ability to motivate the members by presenting different ideas.
2. providing coordination and communication as well as the ability to understanding and accepting other opinion.
3. The ability to work under any conditions for the implementation of the project and completion to the fullest.
4. The ability to overcome any problem during work and find a fitting solution.

WORK EXPERIENCE

Lab Supervisor and Part-time Lecturer (November 1997 – till now)

A. Teaching the following laboratories:

- 1- Microbiology.
- 2- General Biology 105 and 106.
- 3- Parasitology.
- 4- Histology and Micro techniques.
- 5- Comparative anatomy.
- 6- Clinical Chemistry.
- 7- Vertebrate and Invertebrates
- 8- Animal Physiology.

B- Working as a research assistant with prof. Khaled, A. Al-Tarawneh, Dr. Merzah Al-Homady, Prof. Joma'h Al-Shakhanbeh and Prof. Khaled khleifat. On a project named by (Detecting the Chemical Components of some Medicinal Plant Extracts and The Effect of these components on Reproductive organs, sexual activity and aggression behavior for male mice).

C- Working as a research assistant with Prof. Mufeed Batarseh ,July 2009 on the following projects:

- 1- Reuse of treated wastewater and gray water for agricultural purposes.
- 2- Pesticides Residues in some Medicinal Plants and their Products

PUBLICATION

1. **Alsarayreh AZ**, Oran SA, Shakhanbeh JM. Effect of Rhus coriaria L. methanolic fruit extract on wound healing in diabetic and non-diabetic rats. **J Cosmet Dermatol.** 2021;00:1–11. doi:10.1111/jocd.14668
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3. **Alsarayreh, AZ.**, Oran, S.A., Shakhanbeh, J.M., ...Alfarrayeh, I.I., Alkaramseh, A.M. Efficacy of methanolic extracts of some medicinal plants on wound healing in diabetic rats, **Heliyon**, 2022, 8(8), e10071
4. **Ahmad Z Alsarayreh**, PhD, Khaled M Khleifat, PhD, Sa'ed M Al-Dalain, PhD, Yousef M Al-Saraireh, PhD, Yaseen T Al Qaisi, PhD, Ibrahim I Alfarrayeh, PhD, Samer Y AL-Qaraleh, PhD, Globularia arabica Methanolic Leaf Extract Has Higher Efficacy on Burn Wound Healing in Diabetic Rats Compared to Malva slyvestries Methanolic Leaf Extract, **Journal of Burn Care & Research**, Volume 44, Issue 3, May/June 2023, Pages 563–572, <https://doi.org/10.1093/jbcr/irac089>
5. **Alsarayreh AZ**, Oran SA, Shakhanbeh JM. Evaluation of Anti-inflammatory Activity of Methanol Extract of Rhus coriaria L.in Diabetic Rats.**Trop J Nat Prod Res.** 2021;

6. Assi, G. Al, Al-Bashaereh, A., **Alsarayreh, A.**, Qaisi, Y. Al, Al-Majali, I., Khleifat, K., Alqaraleh, M., Qaralleh, H., and Al-Farrayeh, I. (2023). "Evaluation of Antibacterial, Antioxidant and Anti-inflammatory Properties of Methanol Extract of *Varthemia iphionoides*." *Trop. J. Nat. Prod. Res.*, 7(1), 2107–2114.
7. Al-Qaraleh, S. Y., Al-Zereini, W. A., Oran, S. A., **Al-Sarayreh, A. Z.**, & Sa'ed, M. (2022). Evaluation of the antioxidant activities of green synthesized selenium nanoparticles and their conjugated polyethylene glycol (PEG) form in vivo. *OpenNano*, 8, 100109.
8. Khleifat, K., Alqaraleh, M., Al-limoun, M., Alfarrayeh, I., Khatib, R., Qaralleh, H., **Al-Sarayreh, A** & Hajleh, M. A. (2022). The ability of *rhizopus stolonifer* MR11 to biosynthesize silver nanoparticles in response to various culture media components and optimization of process parameters required at each stage of biosynthesis. *Journal of Ecological Engineering*, 23(8).
9. Al-Soub, A., Khleifat, K., Al-Tarawneh, A., Al-Limoun, M., Alfarrayeh, I., **Al Sarayreh, A.**, ... & Albashaireh, A. (2022). Silver nanoparticles biosynthesis using an airborne fungal isolate, *Aspergillus flavus*: optimization, characterization and antibacterial activity. *Iranian Journal of Microbiology*, 14(4).
10. Khaled Khleifat, Mousa Magharbeh, Moath Alqaraleh, Mutaz Al-Sarayrah, Ibrahim Alfarrayeh, Yaseen Al Qaisi, **Ahmad Alsarayreh**, Mohammad Alkafaween. Biodegradation kinetics and modeling of phenol Using *Curtobacterium flaccumfaciens* as Plant-Growth-Promoting Bacterium. *Heliyon*.2022.e10490.
11. Yaseen Al Qaisi, Khaled Khleifat, Ibrahim Alfarrayeh, **Ahmad Alsarayreh**. In vivo therapeutic effect of some medicinal plants' methanolic extracts on the growth and development of secondary Hydatid cyst infection. *Acta Parasitologica*.
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17. Abu Hajleh, M.N.; Al-limoun, M.; Al-Tarawneh, A.; Hijazin, T.J.; Alqaraleh, M.; Khleifat, K.; Al-Madanat, O.Y.; Qaisi, Y.A.; **AlSararayreh, A.**; Al-Samydai, A.; et al. Synergistic Effects of AgNPs and Biochar: A Potential Combination for Combating Lung Cancer and Pathogenic Bacteria. *Molecules* 2023, 28, 4757. <https://doi.org/10.3390/molecules28124757>
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- 19- Alfarrayeh II, Al-Alwani SS, Al Qais YT, **Alsarayreh AZ**, Al-Omari L, Alhmoud JF, Alqaraleh M. The Toxic Impact of Silver Nanoparticles Synthesized Extracellularly by *Aspergillus flavus* on Breast Cancer Cells (MDA-MB-231), as Well as Their Antibacterial Activity. *Trop J Nat Prod Res.* 2023; 7(9):3936-3943 <http://www.doi.org/10.26538/tjnpr/v7i9.14>
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administration of methanolic extracts of some Jordanian medicinal plants on wound healing in diabetic rats. *J Sur Re Rep: JSRR*-103.

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26. Alkhadhrh M, Issa R, Al-Halaseh LK, Lilian Alnsour **Ahmad Alsarayreh** , Yaseen Al Qaisi ,Sina M. Matalqah , Safwan Aladwan . Investigating the inhibitory effects of carotenoidsfortified *Helix aspersa* slime on oxidative stress, collagenase and tyrosinase enzyme activities. *J Cosmet Dermatol.* 2024;00:1-10. doi:10.1111/jocd.16455
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REFERENCES

1. Jumah Mutie Shakhanbeh, Professor of Animal Physiology, Mutah University, Department of Biological Sciences, Karak – Jordan, Mobile: 0795510920 E-mail: jusha@mutah.edu.jo
2. Khaled M Khleifat Professor of Microbiology and Biotechnology E-mail: alkhkha@mutah.edu.jo , alkh_kha@hotmail.com Mutah University, Dept. of Biology, College of Science, P. O. Box (7) Mutah, Karak, 61710, Jordan Tel #: 00 962 (79)-9010-339 (cellular)
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4. Aiman Ibraheem Al-Qtaitat Professor of Anatomy and Histology Faculty of Medicine, E-mail: aimanaq@mutah.edu.jo , P. O. Box (7) Mutah, Karak, 61710, Jordan Tel #: 00 962 0779793268