

	Dr. Samer Y. Al-Qaraleh, Ph.D. <i>Lecturer in Microbiology and Immunology</i> Faculty of Dentistry, Mutah University, Jordan
Professional Summary	Ph.D. in Microbiology and Lecturer in Microbiology and Immunology at Faculty of Dentistry, Mutah University, Jordan, with interdisciplinary expertise in nanobiotechnology, antimicrobial materials, and cancer biology. Experienced in teaching across Dentistry, Medicine, and Pharmacy, with research focused on green synthesis and biomedical applications of nanoparticles as antimicrobial, antioxidant, anti-inflammatory, and anticancer. Author and co-author of 20+ Scopus-indexed publications, with 300+ citations and an h-index of 10, including Q1 and Q2 publications. Experienced in quality assurance, accreditation, E-learning, curriculum development, and academic administration, with leadership experience as Assistant Dean. Committed to research excellence, innovative teaching, and interdisciplinary academic collaboration.
Education	Ph.D. in Biological Sciences (Microbiology) — University of Jordan Amman, Jordan June 2022
Research Interests	▪ Green synthesis and biomedical applications of nanoparticles. ▪ Antimicrobial materials and infection control. ▪ Cancer biology and tumor microenvironment.
Teaching Experience	Courses taught in Medical Faculties: Dentistry ▪ Medical Microbiology ▪ Immunology ▪ General Biology Medicine ▪ Medical Microbiology ▪ Immunology Pharmacy ▪ Immunology ▪ Epidemiology ▪ Nanotechnology ▪ Nutrition
Academic Experiences	▪ Lecturer in Microbiology and Immunology, Faculty of Dentistry, Mutah University. Sep 2026 – Present. ▪ Part-time lecturer in Microbiology and Immunology, Faculty of Medicine, Mutah University. Sep 2022. ▪ Part-time lecturer in Immunology, Epidemiology, Nutrition, and Nanobiotechnology, Faculty of Pharmacy, Mutah University. Sep 2022.
Administrative Experience	▪ Assistant Dean for Student Affairs — Faculty of Dentistry, Mutah University Oct 2024 – Present ▪ Assistant Dean for Quality and E-Learning Affairs — Faculty of Dentistry, Mutah University Oct 2024 – Present ▪ Member of Genetic Counseling Society, Faculty of Medicine, Mutah University Oct 2024 – Present ▪ Member of Accreditation and Quality Assurance Committee — Faculties of Dentistry, Medicine, and Pharmacy, Mutah University 2022 – Present ▪ Member of the investigation committee — Faculty of Dentistry, Mutah University Oct 2022 – Present

	▪ Assistant Dean for Quality and E-Learning Affairs — Faculty of Allied Medical Sciences, Mutah University Oct 2022 – Oct 2024
Selected Publications	Scopus Metrics: Publications: 20+, Citations: 300+, h-index: 10 1. Musallam D. Al Shawawreha, Samer Y. Al-Qaraleh, Aiman Al-Qtaitat, Sara S. Alqaraleh, Almuthna A. Alqtaitat, (2026), Exploring the Relationship Between Trace Mineral Imbalance and Hematological Alterations in Thalassemia. Research Journal of Pharmacy and Technology. Accepted. VOL:19; ISSUE:09. (Q2). 2. Jaffal, S., Thipayarat, A., Alqaraleh, S., Wongwiwat, J., & Supanivatin, P. (2025). Jasmine sambac L. essential oil attenuates inflammation and pain via TRPV1. <i>Inflammopharmacology</i>, 33(10), 6099–6110. https://doi.org/10.1007/s10787-025-01929-1. 3. Samer Y Al-Qaraleh; Wael A Al-Zereini; Sawsan A Oran; Osama Y Al-Madanat; Aiman I Al-Qtaitat; and Abdalrahim Alahmad. (2024), Enhanced anti-breast cancer activity of green synthesized selenium nanoparticles by PEGylation: induction of apoptosis and potential anticancer drug delivery system, <i>Adv. Nat. Sci.: Nanosci. Nanotechnol.</i> 15 (2024) 025006 (10pp). https://doi.org/10.1088/2043-6262/ad4bae. (Q2). 4. Samer Y. Alqaraleh; Wael A. Al-Zereini; Nesrin R. Mwafi; Sahar M. Jaffal; Aiman I. Al-Qtaitat. (2024), The green synthesis of selenium nanoparticles: a comprehensive review on methodology, characterization, and biomedical applications. <i>Research Journal of Pharmacy and Technology</i>. 17, (8). https://doi.org/10.52711/0974-360X.2024.00629 (Q2). 5. Samer Y. Al-Qaraleh, Wael A. Al-Zereini, Sawsan A. Oran, Ahmad Z. Al-Sarayreh, and Sa'ed M. Al-Dalain. (2022), Evaluation of the antioxidant activities of green synthesized selenium nanoparticles and their conjugated polyethylene glycol (PEG) form in vivo. <i>OpenNano Journal</i>. https://doi.org/10.1016/j.onano.2022.100109. (Q1). 6. Samer Alqaraleh, Wael Al-zereini, and Sawsan Oran. (2023), Phyto-decoration of selenium nanoparticles using <i>Moringa peregrina</i> (Forssk.) Fiori aqueous extract: chemical characterization and bioactivity evaluation. <i>Biointerface Research in Applied Chemistry</i>. 13, (2): 112. https://doi.org/10.33263/BRIAC132.112. (Q3, IF: 1.949). 7. Samer Y. Al-Qaraleh. (2023), Metallic Nanoparticles Applications in Cosmetology: A Comprehensive Review. <i>Nanomedicine and Nanotechnology Open Access</i>. 8, (3). https://doi.org/10.23880/nnoa-16000238. (IF: 1.49). 8. Ezz Al-Dein M. Al-Ramamneh, Ayoup M. Ghrair, Ashok K. Shakya, Khalid Y. Alsharafa, Khalid Al-Ismail, Samer Y. Al-Qaraleh, Jacek Mojski, and Rajashri R. Naik. (2022). Efficacy of <i>Sterculia diversifolia</i> Leaves Extract: Volatile Compounds, Antioxidant and Anti-Inflammatory Activity, and Green Synthesis of Potential Antibacterial Silver Nanoparticles. <i>Plants</i>. 11: 2492. https://doi.org/10.3390/plants11192492. (Q1, IF:4.658). 9. Abdalrahim Alahmad, Wael A. Al-Zereini, Tahani J. Hijazin, Osama Y. Al-Madanat, Ibrahim Alghoraibi, Omar Al-Qaraleh, Samer Al-Qaraleh, Armin Feldhoff, Johanna-Gabriela Walter, Thomas Scheper. (2022), Green synthesis of silver nanoparticles using <i>Hypericum perforatum</i> L. aqueous extract with the evaluation of its antibacterial activity against clinical and food pathogens. <i>Pharmaceutics</i> 2022, 14, 1104. https://doi.org/10.3390/pharmaceutics14051104. (Q1, IF: 6.734). 10. Al-Maathidy A. Q, Karawya Q, Al-Qaraleh S. Y, Al-Qtaitat A. (2023), Histological Study of the Possible Protective Effect of <i>Spirulina Platensis</i> on Dibutyl Phthalate (DBP)-Induced Pulmonary Alveolar Changes in Adult Male Albino Rats. <i>Biomed Pharmacol J</i>;16(2): 915-926. https://dx.doi.org/10.13005/bpj/2674. 11. Ahmad Z Al-Sarayreh, Khaled M Khleifat, Sa'ed M Al-Dalain, Yousef M Al-Saraireh, Yaseen T Al-Qaisi, Ibrahim I Al-Farrayeh, Samer Y AL-Qaraleh. (2022), <i>Globularia arabica</i> methanolic leaf extract has higher efficacy on burn wound healing in diabetic rats compared to <i>Malva sylvestris</i> methanolic leaf extract. <i>Journal of Burn Care and Research</i>. https://doi.org/10.1093/jbcr/irac089. (Q1, IF: 2.2). 12. Sati Y Al-Dalain, Moawiya A. Haddad, Samer Y Alqaraleh. (2023), Utilizing Sweet Lupin as a nutritional supplement and its therapeutic properties to create chicken burgers that are healthy. <i>Current Research in Nutrition and Food Science Journal</i>; 11(1). https://dx.doi.org/10.12944/CRNFSJ.11.1.11 (Q3). 13. Haddad M. A, Dalain S. Y. A, Fraihat A. H. A, Parisi S, Parisi A, Arabiat S, Alqaraleh S. Y. (2023). Use of Fresh Pumpkin Fruits for Producing Chicken Sausage Suggests Functional Properties. <i>Curr Res Nutr Food Sci</i>; 11(2). http://dx.doi.org/10.12944/CRNFSJ.11.2.17 (Q3).

	14. Samer Y. Alqaraleh and Khaled Tarawneh. (2016), Antioxidant Activity of Methanolic Extracts of Aloysia triphylla, Ceratonia siliqua, Cupressus sempervirens and Punica granatum Selected from Karak Region-Jordan. American-Eurasian Journal of Agriculture & Environment Sciences 16 (3): 479-486. https://10.5829/idosi.aejaes.2016.16.3.12847. (IF: 0.12). 15. Nofal S. Al-Ameiri, Muwaffaq R. Karajeh, and Samer Y. Qaraleh. (2015), Molds Associated with olive fruits infested with olive fruit fly, Bactrocera oleae and their effects on some oil quality traits. Jordan Journal of Biological Sciences. 8 (3): 217–220. 16. Published books: Green Nanoscience for Health and Healing. 2025, Eliva Press. https://www.elivapress.com/en/book/book-5255043439/
Laboratory Skills	▪ Cell culture, PCR, ELISA. ▪ Bacterial identification and sensitivity testing ▪ SEM, FTIR, XRD, UV-Vis, EDX
Professional Activities	▪ Accreditation committees. ▪ Quality assurance. ▪ Curriculum development
Professional Development & Training	▪ Dealing with Suspected and Confirmed COVID-19 Cases (USAID & Jordan MOH) Sep 2024 ▪ Practicing Academic Work (Jordanian Ministry of Higher Education) 2023 ▪ Erasmus+ Fostering Academia-Industry Collaboration 1 & 2 (University of Teramo, Italy) 2018, 2019 ▪ Internal Auditing for ISO/IEC 17025:2005 (USAID, Jordan) Dec 2011 ▪ Reviewer certificate profile: https://reviewer.springernature.com/dashboard/certificates
Contact Details	Email: Garalleh75@mutah.edu.jo Google Scholar: https://scholar.google.com/citations?user=BMqapLkAAAA. Scopus: https://www.scopus.com/authid/detail.uri?authorId=56825949500. LinkedIn: https://www.linkedin.com/in/samer-alqaraleh/.
References	Available upon request