Sara Al Tamam

PhD Researcher in Genetics, Molecular and Cellular Biology

University of Pavia, Italy

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Profile

Biologist and biotechnologist with a background in molecular biology, genetics, and biotechnology, and research interests in molecular mechanisms underlying virus–host interactions. Experienced in laboratory procedures, biological sample analysis, and scientific research. Currently pursuing doctoral research at the University of Pavia, focusing on the molecular recognition of host receptors by gammaretroviruses.

Education and Research

PhD in Genetics, Molecular and Cellular Biology 2026–present
University of Pavia, Italy
Tentative project title: Towards a Mechanistic Understanding of Gammaretrovirus Recognition of Host Receptors.
Supervisor: Professor Francesca Magnani
Co-supervisor: Professor Rosella Tricarico

Master of Science in Molecular Biology and Genetics Oct 2024–Oct 2026
University of Pavia, Italy
Master's thesis: Towards a Mechanistic Understanding of Gammaretrovirus Recognition of Host Receptors.

Bachelor of Science in Biology and Biotechnology Oct 2019–Jun 2023
American University of Madaba, Jordan
Final grade: 96.20%. Relevant coursework included genetics, molecular biology, microbiology, zoology, ecology, and biotechnology.

Research Interests

- Molecular mechanisms of virus–host interactions.
- Gammaretroviral envelope proteins and host receptor recognition.
- Molecular biology, protein biochemistry, and structural biology.
- Genetics, biotechnology, and experimental approaches to understanding biological systems.

Professional Experience

Medical Technologist Aug 2023–Mar 2024
Biolab Medical Laboratory, Amman, Jordan
Performed laboratory procedures and assisted with diagnostic testing. Handled biological samples, followed laboratory standards, and contributed to sample processing, documentation, and reporting.

Volunteer Tutor Oct 2021–Jun 2023
American University of Madaba, Jordan
Provided academic tutoring and mentoring in biology and biotechnology subjects. Selected based on academic performance and departmental ranking.

Selected Research Projects

- *The Effect of Methanolic Sabal palmetto Extract on Breast Cancer Cells.*
- *Correlates of SARS-CoV-2 Variants on Deaths, Case Incidence and Case Fatality Ratio Among the Continents.*
- *Vitamin D: Implications in COVID-19.*
- *Anthropogenic Not Climatic Correlates Are the Main Drivers of Expansion of Non-Native Common Myna Acridotheres tristis in Jordan.*

Publications and Achievements

- Certificate of acceptance from *Genes* (ISSN 2073-4425), July 2021, for the manuscript entitled *Correlates of SARS-CoV-2 Variants on Deaths, Case Incidence and Case Fatality Ratio Among the Continents for the Period of 1 December 2020 to 15 March 2021.*
- Participant, 3rd International Scientific Conference of AlKafeel University (ISCKU 2021), March 2021.

Research and Laboratory Skills

- DNA and protein extraction from biological samples.
- Polymerase chain reaction (PCR) and primer design.
- Agarose gel electrophoresis and DNA quantification.
- Bacterial transformation and plasmid preparation.
- Cell culture maintenance and aseptic techniques.
- Preparation of laboratory reagents and buffers.
- Spectrophotometry, sample analysis, and scientific data interpretation.
- Laboratory documentation and experimental record keeping.

Languages

Arabic: Native or bilingual proficiency **English:** Native or bilingual proficiency **Italian:** Elementary proficiency