



# Amr Shaker Bishr

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Cairo, Egypt 11571

## Professional Summary

Experienced Assistant Professor of Microbiology and Immunology with almost five years of experience. Excellent reputation for delivering a wide range of effective and inclusive teaching and supporting learning activities, and to assess the work and progress of students and provide them with constructive feedback, and to Supervise undergraduate & post graduate research students.

## Skills

### Technical and Laboratory skills:

- Bacterial culture and preservation
- Microscopical examination of bacteria using different staining techniques
- Identification of bacteria using API identification system as well as different biochemical tests
- Polymerase chain reaction
- Gel electrophoresis
- Primer design
- Bacterial transformation
- Chromosomal and plasmid DNA extraction
- Computer-assisted analysis of DNA and protein sequences
- DNA cloning with plasmid vectors

## Work History

12/2020 - Current

### **Full-time Assistant Professor of Microbiology and Immunology**

***Faculty of Pharmacy, Ain Shams University, Cairo, Egypt***

- Prepare and deliver lectures to undergraduate or graduate students on topics such as: General Microbiology, Immunology, Pharmaceutical Microbiology, Bacteriology, Virology & Parasitology, Biotechnology, Public health, Industrial Microbiology, and Microbiological Quality Control.
- Assess the work and progress of students and provide them with constructive feedback.
- Supervise undergraduate or graduate teaching, internship, and research work.
- Review papers for publication in journals.
- Perform administrative duties, such as handling multiple tasks related to the quality assurance unit.

02/2025 - Current

**Part-time Lecturer of Microbiology and Immunology**

***Faculty of Pharmacy, Modern University for Technology & Information, Cairo, Egypt***

- Prepare and deliver lectures to undergraduate students on: Pharmaceutical Microbiology, Infection & Immunity, and General Microbiology courses.
- Evaluate and grade students' class work, laboratory work, assignments, and papers.

02/2021 - Current

**Part-time Lecturer of Microbiology and Immunology**

***Faculty of Pharmacy, Future University in Egypt, Cairo, Egypt***

- Prepare and deliver lectures to undergraduate students on: Pharmaceutical Microbiology, Infection & Immunity, and General Microbiology courses.
- Evaluate and grade students' class work, laboratory work, assignments, and papers.

02/2021 - 07/2021

**Part-time Lecturer of Microbiology**

***Faculty of Pharmacy, British University in Egypt, Cairo, Egypt***

- Prepare and deliver lectures to undergraduate students on Public health and preventive medicine course.
- Evaluate and grade students' class work, laboratory work, assignments, and papers.

08/2021 - Current

**Leader of Biotechnology Module Team**

***Immune Modulation Certificate (IMCert) project, Cairo, Egypt***

This project aims to development of educational and training excellence concerning immune modulation, monitoring and intervention, due to specific exposure (chemical pollution, food and water contamination, climate and poor hygiene) involved in diseases of high concern in Egypt (infections, chronic inflammation, parasitology, cancer, etc.) by establishing an interdisciplinary diploma curriculum in partnership with teams in Europe, combines building the capacity of the educator staff and postgraduate students in both academic and technical competences at the faculties scientific background.

06/2024 - Current

**Head of Teaching and Learning Standards in the Quality Assurance Unit**

***Faculty of Pharmacy, Ain Shams University, Cairo, Egypt***

Monitor, assess, and improve the quality of teaching, learning, leadership, and student outcomes.

12/2014 - 10/2020

**Assistant Lecturer of Microbiology and Immunology**  
**Faculty of Pharmacy, Ain Shams University, Cairo, Egypt**

- Prepare and deliver laboratory content to undergraduate students on topics such as: General Microbiology & Immunology, Medical Microbiology, Pharmaceutical Microbiology, Parasitology, Microbiological and Pharmacological Quality Control.
- Select and obtain materials and supplies, such as textbooks and laboratory equipment.
- Prepare materials for laboratory activities and course materials, such as syllabi, homework assignments, and handouts.
- Maintain student attendance records, grades, and other required records.

10/2009 - 11/2014

**Demonstrator of Microbiology and Immunology**  
**Faculty of Pharmacy, Ain Shams University, Cairo, Egypt**

- Prepare and deliver laboratory content to undergraduate students on topics such as: General Microbiology & Immunology, Medical Microbiology, Pharmaceutical Microbiology, Parasitology, Microbiological and Pharmacological Quality Control.
- Select and obtain materials and supplies, such as textbooks and laboratory equipment.
- Prepare materials for laboratory activities and course materials, such as syllabi, homework assignments, and handouts.
- Maintain student attendance records, grades, and other required records.

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**Education**

- 10/2020 **Ph.D., Microbiology And Immunology, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt**
- Title of the Research Point: "Molecular and Physiological Characterization of Bacterial Macrolide Resistance Mechanisms as an Approach of Infection Control".
  - The aim of the study was to detect the genes coding for the enzymes responsible for macrolide resistance (mainly from Gram-positive bacteria), followed by purification and characterization of these enzymes, and studying the use of different combinations for the purpose of infection control.
- 11/2014 **Master of Science, Microbiology And Immunology, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt**
- Title of the Research Point: "Genotypic and phenotypic studies on resistance to macrolides in certain bacteria involved in respiratory tract infections".
  - The goal of the study was to detect the prevalence of plasmid-carried macrolide resistance genes among some selected Respiratory tract pathogenic bacteria.

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## Accomplishments

- As a part of my teaching job, I am involved in teaching the following courses in different levels:
- General Microbiology and Immunology
- Pharmaceutical Microbiology
- Parasitology
- Medical Microbiology
- Biotechnology
- Microbiological and Pharmacological Quality Control of pharmaceutical products
- Pathology
- Cell Biology
- Public health and preventive medicine
- Infection and Immunity

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## Certifications

I received certificates for actively attending and participating in the following events:

- Attending and presenting a poster in the 7th Conference for Ain Shams University "Internationalization and Mobilization"
- Attending and presenting a poster in the 8th Conference for Ain Shams University "Creativity..Innovation..Industry"
- Attending the 9th Conference for Ain Shams University "Fourth Generation Universities between Reality and Aspiration"
- Attending workshop organized by National and Kapodistrian University of Athens– Greece country from May 21, until May 26, 2022 for the project " Immune Modulation Certificate for Post Graduate Students Enabled by Blended Learning (IMCert.)
- Attending workshop organized by Leipzig University – Germany from February 5, until February 10, 2023 for the project " Immune Modulation Certificate for Post Graduate Students Enabled by Blended Learning (IMCert.)

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## Publications

- **Muath Suliman, Amr S. Bishr, Sally T.K. Tohamy, Samar S. Mabrouk, Nasser S. M. Ismail, Abdallah M. Samy, Khaled M. Aboshanab (2025).** Pristinamycin-antibiotic combinations against methicillin-resistant *Staphylococcus aureus* recovered from skin infections. *BMC Infectious Diseases* (2025) "**Received acceptance**"
- **Muath Suliman, Amr S. Bishr, Sally T.K. Tohamy, Mohammad Y. Alshahrani, Khaled M. Aboshanab (2025).** Solid-state fermentation of pristinamycin by *Streptomyces pristinaespiralis* NRRL ISP-5338 using D-optimal design. *Bioprocess and Biosystems Engineering* (2025)

- **Khaled M. Aboshanab, Amr S. Bishr, Siti Azma Jusoh, Mohammad Y. Alshahrani, Khondaker Miraz Rahman and Ahmed M. Alafeefy (2025).** Anticancer, antimicrobial and molecular docking analysis of newly synthesized iodoquinazoline derivatives. *AMB Express* (2025) 15:95
- **Sally T.K. Tohamy, Amr S. Bishr, Muath M. Suliman, Mohammad Y. Alshahrani, Khaled M. Aboshanab (2025).** D-optimal design model and biosynthetic pathway for gentamicin production by *Micromonospora purpureochromogenes* NRRL B-16094. *BMC Microbiology* (2025) 25:309
- **Muath M. Suliman, Amr S. Bishr, Khaled M. Aboshanab (2025).** Deciphering hygromycin B biosynthetic pathway and D-optimal design for production optimization. *World Journal of Microbiology and Biotechnology* 2025 Apr 28;41(5):155.
- **Rana M. Amr, Amr S. Bishr, Bishoy T. Saad, Mohammad Y. Alshahrani, Khaled M. Aboshanab, Nadia A. Hassouna (2025).** A novel thermostable lytic phage vB\_EF\_Enf3\_CCASU-2024-3 against clinical *Enterococcus faecium* and *Enterococcus faecalis*. *AMB Express* volume 15, Article number: 65 (2025)
- **Amr S. Bishr, Salma M. Abdelaziz, Ibrahim S. Yahia, Mahmoud A. Yassien, Nadia A. Hassouna, Khaled M. Aboshanab (2021).** Association of Macrolide Resistance Genotypes and Synergistic Antibiotic Combinations for Combating Macrolide-Resistant MRSA Recovered from Hospitalized Patients. *Biology* 2021, 10(7), 624; 06 Jul 2021.
- **Amr S. Bishr, Khaled M. Aboshanab, Mahmoud A. Yassien, Nadia A. Hassouna (2019).** Macrolide resistance pattern of staphylococci collected from hospitalized patients in Egypt. *Archives of Pharmaceutical Sciences Ain Shams University* 2019; Vol. 3(2):285-293
- **Amr S. Bishr, Khaled Aboshanab, Mohammad Aboulwafa, Nadia Hassouna (2014).** Plasmid-carried macrolides target site modification *erm* and efflux *msr* genes in some *Staphylococcus* spp. From lower respiratory tract infected patients. *Archives of Clinical Microbiology*. 5(5:1) 2014.

## Languages

Arabic: Native language

English:

C2

Proficient