

Nehal Mohammed Khairy Yousif

Lecturer & Researcher in Microbiology and Immunology

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SUMMARY

Highly accomplished Lecturer and Researcher in Microbiology and Immunology with over 20 years of professional experience in academic teaching, scientific research, quality assurance, and laboratory practice. Possessing strong expertise in microbiology, immunology, parasitology, infection control, and biomedical research, with a proven record in peer-reviewed publications, curriculum development, and academic administration. Seeking to contribute to a reputable academic or research institution by delivering high-quality education, advancing scientific research, supporting accreditation and quality systems, and mentoring future healthcare and research professionals.

EDUCATION

School Education

- Nabawia Mousa Language School, Nasr City, Cairo, Egypt

Infection Control Certified Diploma, 2025

- Faculty of Medicine, Ain Shams University

Immune Modulation Certificate Diploma (IMCERT)

- Postgraduate blended learning diploma funded by the European Commission (ERASMUS+)
- December 2022 – July 2024 (60 Credit Hours – Practical & Theoretical)
- Subjects include Basic & Clinical Immunology | Functional Genomics | Immunotoxicology | Flow Cytometry

Ph.D. in Microbiology & Immunology, 2019

- Faculty of Pharmacy, Beni-Suef University, Egypt

M.Sc. in Microbiology & Immunology, 2012

- Faculty of Pharmacy, Cairo University, Egypt

Premaster Courses, 2006

- Grade: Distinction (Excellent with Honor)
- Faculty of Pharmacy, Cairo University

B.Sc. in Pharmaceutical Sciences, 2003

- Grade: Distinction (Excellent with Honor)
- Ain Shams University

THESIS TITLES & SUPERVISORS

M.Sc. Thesis

Title: “Study on the Use of Apitherapy as a Hepatoprotective Tool”

Supervisors:

- Prof. Alaa El-Din Shawky – Microbiology & Immunology, Faculty of Pharmacy, Cairo University
- Prof. Ahmed Mohran – Professor of Parasitology, NODCAR

Ph.D. Thesis

Title: “Immunological and Molecular Characterization of *Toxoplasma gondii* after Treatment with Miltefosine”

Supervisors:

- Prof. Amal Eissa Safaan – Faculty of Pharmacy, Beni-Suef University
- (Currently Dean of Faculty of Pharmacy, Menoufia University)
- Prof. Ashraf Barakat – Professor of Zoonotic Diseases, National Research Center
- Assoc. Prof. Samuel Tanas Malek – Parasitology Department, NODCAR
- Assoc. Prof. Ahmed Samir Khairalla – Faculty of Pharmacy, Beni-Suef University

WORK EXPERIENCE

Lecturer of Microbiology & Immunology

Faculty of Pharmacy, Sinai University – Kantara Branch

March 2021 – Present

- Deliver undergraduate and Pharm D courses in Microbiology, Immunology, Infection Control, Parasitology, and Public Health using modern teaching strategies.
- Coordinate departmental educational quality activities, including course reports, learning outcomes assessment, and accreditation requirements.
- Participate in academic administration through examination control, questionnaire development, and community engagement initiatives.

Researcher of Microbiology & Immunology

Head of Parasitology Department – Egyptian Drug Authority (EDA)

(Former National Organization for Drug Control & Research – NODCAR)

December 2019 – February 2021

- Lead parasitology research activities, including experimental design, data analysis, and supervision of laboratory teams.
- Conduct microbiological and immunological studies in compliance with national regulatory and quality standards.
- Prepare scientific reports and contribute to regulatory evaluations related to drug safety and efficacy.

Head of Parasitology Department

National Organization for Drug Control & Research (NODCAR)

2015 – 2020

- Manage departmental operations, including staff supervision, laboratory scheduling, and quality assurance procedures.
- Oversee parasitological testing, method validation, and research projects related to drug control

and evaluation.

- Ensure compliance with national and international laboratory standards and participate in institutional audits.

Research Assistant – Microbiology

Parasitology Department, NODCAR

2006 – 2015

- Assist in microbiological and parasitological research, including sample preparation, culturing, and experimental analysis.
- Support senior researchers in conducting laboratory experiments and maintaining accurate documentation.
- Participate in method development, data collection, and preliminary statistical analysis.

Quality Control Specialist – Microbiology Department

National Organization for Drug Control & Research (NODCAR)

2004 – 2006

- Perform microbiological quality control tests, including sterility testing, microbial limit testing, and antibiotic potency assays.
- Apply Good Laboratory Practice (GLP) and ISO standards in routine quality control procedures.
- Prepare quality reports and ensure proper documentation in accordance with regulatory requirements.

ACADEMIC & ADMINISTRATIVE EXPERIENCE

Faculty of Pharmacy – Sinai University (Kantara Branch)

Full-time Lecturer of Microbiology & Immunology

- Deliver Pharm D courses including Biotechnology, General Microbiology & Immunology, Infection Control, Cell Biology, Medical Microbiology & Immunology, Public Health, Parasitology, and Pathology.
- Develop and update course content for Infection Control, Immunology, Cell biology and Pathology in alignment with academic standards and intended learning outcomes.
- Serve as Head of the Central Questionnaire Committee, Quality Assurance Unit, Faculty of Pharmacy.
- Act as Microbiology Department Quality Coordinator, overseeing course evaluation, academic documentation, and accreditation requirements.
- Member of the Examination Paper Evaluation and Measurement Committee, Quality Assurance Unit.
- Member of the Examination Control Division, Faculty of Pharmacy.
- Member of the Faculty Scheduling Committee, Faculty of Pharmacy.
- Provide academic advising for irregular and at-risk students.
- Supervise summer training programs for undergraduate pharmacy students.
- Supervise graduation projects, mentoring final-year students in research design, data analysis, and scientific writing.

STUDENT ACTIVITIES

- Main Supervisor of a Bio-iChallenge funded project (March 2024), guiding fourth-year students in the first stage of project selection on a biotechnology project with positive environmental

applications.

- Supervisor of student awareness campaigns on parasitic diseases affecting children, females, and immunocompromised individuals in schools, shelters, and hospitals in Ismailia and Kantara East (March 2024).
- Academic Supervisor of a Master's student, Faculty of Pharmacy, Cairo University (2023).

RESEARCH PUBLICATIONS (PEER-REVIEWED)

Original Articles

- Serological profile of toxoplasma gondii in HIV/AIDS patients and its association with disease progression. Microbial Pathogenesis 2026, [Volume 216](#), July 2026, 108523
- “Anti-cryptosporidium efficacy and metabolite profiling of *Schfflera arboricola* L. leaves extract.”. Open Veterinary Journal **2026**, 16 (5), 3080
- “Incorporation of different antibiotics on MOF-supported filter paper for control of zoonotic foodborne antibiotic-resistant Salmonella species”. Open Veterinary Journal, (**2026**), Vol. 16(6): 4056-4066. DOI: 10.5455/OVJ.2026.v16.i6.71
- “*Toxoplasma gondii* infection in aborted women and sheep in El-Beheira and Alexandria, Egypt: A sero-immunological and molecular study.” Iraqi Journal of Veterinary Sciences, Mar. **2025**.
- “Exploring the multifaceted bioactivities of silver nanoparticles synthesized from red algae *Hypnea pannosa*: Antimicrobial, antibiofilm, and insecticidal potentials.” Feb. **2025**. DOI: 10.1016/j.ejbt.2024.12.001
- “Phytochemical Analysis of *Centaurea calcitrapa* L. aerial flowering parts serial solvent extracts and its antibacterial and antioxidant activities.” MDPI, Jul. **2024**. [Link](#)
- “Biomedical promise of Aspergillus-biosynthesized selenium nanoparticles: A green synthesis approach to antiviral, anticancer, antibiofilm, anti-inflammatory and antibacterial applications.” Pharmaceuticals, Jul. **2024**.
- “*Cryptosporidium* in fish: Morphological characterization, prevalence and molecular epidemiology.” Egyptian Journal of Aquatic Biology and Fisheries, Dec. **2023**.
- “Biological risk assessment of Miltefosine in concomitant infection with opportunistic toxoplasmosis.” Journal of Infection in Developing Countries, **2019**.
- “Enhancement of the anti-schistosomal activity of Praziquantel by using Propolis and/or Royal Jelly.” Journal of Drug Research, Egypt, Vol. 33, No.1, pp. 49–56, **2012**.
- “Neopterin as a biomarker in liver fibrosis of *Schistosoma mansoni*.” Medical Journal of Cairo University, Vol. 79, No.1, Jun. **2011**.

Presentations

- Oral Presentation: “Tissue tropism of Miltefosine in treatment of Toxoplasmosis.” 5th International Conference, “Medical Research and Health Challenges in the Arab World”, Sharm El Sheikh, Egypt, Oct. 2016.
- Poster Presentation: “Enhancement of the anti-schistosomal activity of Praziquantel by using Propolis and/or Royal Jelly.” 3rd International Scientific Conference of FOCU, Cairo, Egypt, Apr. 2012.

DIPLOMAS & TRAINING COURSES

Diplomas & Certifications

1. Infection Control Diploma, Faculty of Medicine, Ain Shams University, Sep. 2025.
2. Accreditation from NAQAA: Program and Course Specification & Evaluation of Intended Learning Outcomes, Oct. 2024.

3. Immune Modulation Certificate (IMCERT) for Postgraduate Students, funded by European Commission (ERASMUS+), Dec. 2022 – Jan. 2023 (Pilot phase).

Professional & Academic Training

- Teaching Strategies & Effective Learning, NAQAA, Feb. 2024, Sinai University.
- Methods of Assessment Workshop, Apr. 2023, Sinai University.
- Written Assessment Training, Mar. 2023, Sinai University.
- Basic Principles in Assessment, Mar. 2023, Sinai University.
- Academic Advisor Training, Feb. 2023, Sinai University.
- Internal Reviewer for Examination Paper, Nov.–Dec. 2023, Sinai University.
- Program Evaluation, Mar. 2023, Sinai University.
- Standard Setting, Mar. 2023, Sinai University.
- Blueprinting, Mar. 2023, Sinai University.
- Research Plan Workshop, Feb. 2023, Sinai University.
- Effective Manager in Higher Education Institutions, Dec. 2022, Sinai University.
- MARS Systematic Review & Meta-analysis Workshop, Jun. 2023.
- Biostatistics Programming using R, Jan. 2022–present.
- Bioinformatics Intensive Course, Nov. 2021 – Jan. 2022, MARS Academy.
- Harvard Egypt-CSRT Clinical Research Training Program, 2020 (Ranked Top 10).
- High Performance Liquid Chromatography (HPLC) – Advanced Level, Dec. 2019, NAWAH Scientific.
- ISO 9001:2015 Awareness, Nov. 2019, Egyptian Society for Accreditation.
- Tissue Culture Workshop, Jan. 2019, Veterinary Hospital of Armed Forces & Arab Society of Stem Cells and Molecular Biology.
- Proposal Writing for Master & PhD Candidates, Dec. 2018, DAAD Kairo Akademie.
- Molecular Medical Parasitology Hands-on Course, Nov. 2016 – Jan. 2017, Kasr Al-Ainy School of Medicine.
- Clinical Key Training Course, Nov. 2016, National Training Institute, Cairo.
- Workshops on PCR & Molecular Techniques, 2014–2017, ARC & NODCAR.
- QMS ISO 9001:2008 Awareness Training Program, 2012.
- Basic Facilities for Emergency Nursing, 2004, Faculty of Nursing, Cairo University.

CONFERENCES & SYMPOSIUMS

- **Speaker:** 5th International Conference of Arab Society, Medical Research and Health Challenges in the Arab World, Sharm El Sheikh, Egypt, Oct. 29–31, 2016.
- **Attendee:** International Scientific Conference of FOCU 2012, Good Pharmacy Practice, Cairo University, Apr. 25–26, 2012.
- **Attendee:** 45th Annual Conference of Ain Shams University Medical Congress (ASUMC), Smart Solutions in Health Care, Medical Microbiology & Immunology Department, ASU, Triumph Hotel, Cairo, Apr. 9–11, 2025.
- **Attendee:** World Hand Hygiene Day, Faculty of Medicine, Ain Shams University, May 8, 2025, Theme: “It Might Be Gloves, It Is Always Hand Hygiene”.
- **Attendee:** Annual Conference of The National Cancer Institute, Cairo University, Bridging Gaps in Oncology, Nov. 28–29, 2024.
- **Attendee:** 16th Annual International Congress of the Egyptian Association for the Study of Liver

and Gastrointestinal Diseases (EASLGD), Grand Nile Tower, Cairo, Mar. 6–8, 2018.

- **Attendee:** 7th Annual Conference of the Egyptian Society of Liver Cancer (ESLC), Grand Nile Tower, Cairo, Dec. 20–21, 2017.
- **Attendee:** 6th SCITA “Biofans” Conference, 2017.
- **Attendee:** International Conference of Biovision, Alexandria, 2016.

SKILLS

Technical & Professional Skills

- Advanced teaching of Microbiology, Immunology, Parasitology, Pathology, Biotechnology, Infection Control, and Public Health for Pharm D and undergraduate programs.
- Development and design of academic curricula, course specifications, and learning outcomes.
- Supervision of graduation projects, postgraduate research, and summer training programs.
- Strong experience in academic quality assurance systems, accreditation standards, and internal reviews.
- Preparation and evaluation of examinations, assessment tools, and question banks.
- Conducting peer-reviewed scientific research and writing publications in high-impact journals.
- Laboratory expertise in microbiological quality control and biomedical research, including:
 - Sterility testing, bacterial and fungal counts, biological assay of antibiotics.
 - Microbiological quality control inspection using HPLC (Agilent, Hitachi).
 - Spectrophotometric analysis.
 - Measurement of immunological parameters using ELISA reader.
 - Automated cell counting for CBC profiling.
 - Evaluation of parasitic load and antiparasitic therapy effects.
 - Cell line propagation and cytology studies, including drug effect assessment ex vivo.
 - Induction of parasitic infections in laboratory animals and measurement of biological parameters (liver/kidney function).
 - Study of molluscicidal effects of chemicals.
 - Mice handling and injections (oral, subcutaneous, intraperitoneal).

Technical & Digital Skills

- Molecular biology techniques: Real-Time PCR, Conventional PCR, ELISA, Flow Cytometry.
- Microbiological and parasitological laboratory techniques.
- Cell culture, cytology, and experimental animal handling.
- Statistical data analysis using SPSS, GraphPad Prism, and R programming.
- Bioinformatics and functional genomics applications.
- Chromatographic analysis using HPLC systems (Agilent, Hitachi).
- Microsoft Office (Word, Excel, PowerPoint) for academic and research purposes.
- Use of digital academic platforms, online learning systems, and research databases.

Soft (Personal) Skills

- Strong leadership and academic mentoring abilities.
- Excellent communication and presentation skills in English.
- Ability to work effectively under pressure and manage multiple responsibilities.
- High level of organization, time management, and attention to detail.
- Analytical thinking and scientific problem-solving skills.
- Teamwork, collaboration, and interdisciplinary coordination.
- Commitment to continuous professional development and lifelong learning.

LANGUAGES

- Arabic: Native
- English: Proficient (Written & Spoken)

PERSONAL INFORMATION

- Nationality: Egyptian
- Marital Status: Married
- Date of Birth: June 26, 1982

REFERENCES

1. Prof. Rafat Shaban

- Department of Zoonosis, Veterinary Research Division, National Research Centre, Giza, Egypt
- Mobile: +20 100 528 0571

2. Prof. Samar Solyman

- Professor of Microbiology & Immunology, Faculty of Pharmacy, Suez Canal University
- Head of Microbiology Department, Faculty of Pharmacy, Sinai University
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