

Ahmed El-Sayed Massoud

Alzahraa Street, Alameria, Alexandria, Egypt - 23511
sci.ahmedelsayed.2016@alexu.edu.eg • +2010-68-19-07-24
LinkedIn: www.linkedin.com/in/ahmedelsayed97
Linktree: linktr.ee/ASM0697

Education

Alexandria University Alexandria, EG
Master of Science Candidate, Molecular Biology Division Sep 2022 - Present

Alexandria University Alexandria, EG
Bachelor of Science, Molecular Biology/Microbiology. GPA: **3.69** out of **4**

- Grade: **Excellent**. Percentage: **90.70 %** Jun 2019
- Ranked as the 1st student of the molecular biology major discipline.
- Senior Thesis: Genetic therapy of Diabetes Mellitus - Type 1
Focused on the role of gene and protein overexpression against T1DM, genetic vaccination as a potential therapeutic and preventive approach.
- Relevant Coursework: [Biotechnology, Metabolism, Cellular Imaging, Bioinformatics]

Research Contributions (Publications & Scholarly Activities)

Publications

	Title	Journal
1	Zayed, M., Massoud, A. , Hassan, F., Elwakeel, E., Mahmoud, Y., & Jeong, B.-H. (2025). Harnessing adipose ferroptosis: A promising novel pathway for obesity treatment. <i>Current Obesity Reports</i> , 14(1), 74. https://doi.org/10.1007/s13679-025-00669-1	Current Obesity Reports (Springer Nature) - Q1 IF: 11
2	Pharmacological modulation of ferroptosis: Preclinical promise, clinical facts, and translational challenges	Under review
3	Regulation of miR-107 and miR-145 Mediates the Analgesic Action of Betanin in a rat model of complete Freund's adjuvant-induced inflammatory pain	Under review
4	Moringa oleifera extract protects against cuprizone-induced demyelination by targeting redox imbalance and NF-kB-mediated neuroinflammation: In vivo and in silico insights	Under review
5	Targeting mitochondrial dysfunction with engineered mesenchymal stem cell-derived extracellular vesicles for neurodegenerative therapies	Under review
6	Integrating Single-Cell Sequencing and Proteomics to Unravel Stem Cell Heterogeneity: Implications for Precision Regenerative Medicine	Under review

Poster Presentations

The City of Scientific Research and Technological Applications - SRTA City Borg Al-Arab, Alexandria
Jul 2019

- Participated in the design and presentation of a scientific poster titled 'C.A.S.E. Study: Engineered Stem Cells Combating Cancer', focusing on the therapeutic potential of reprogramming patient-derived stem cells to target cancer.

Peer Review Activities

- Contributed to the peer-review process of Open Veterinary Journal as an invited reviewer. Nov 2025

Internships & Grants

Academy of Scientific Research and Technology - ASRT

Cairo, Egypt

ASRT Master's Scholar

Sep 2022 – Oct 2023

- Recipient of the prestigious Scientists for Next Generation (SNG) Program scholarship, 8th batch, awarded by ASRT based on academic merit for a master's degree.

Egypt Scholars Incorporation

Remote Learning

Research Intern

Jan 2023 - Nov 2023

- Completed ES Basic Lab 10, a structured course teaching fundamental scientific research skills and technical tools through recorded and interactive lectures.
- Collaborated in a team of six to design and present a project titled “Antibiotic Resistance & Global Warming”, applying learned concepts and enhancing teamwork skills.
- Graduated with excellence from the Basic Lab, qualifying for ES Advanced Lab 10, a research internship focused on the practical application of research skills, including producing and publishing scientific articles.

Tawakkol Karman International Foundation - TKF

Remote Learning

Intern

Apr 2022 – Jun 2023

- The internship focused on empowering youth within the ‘Leaders for Future Program’, conducted by TKF.
- The program included three diplomas in ‘Peace Building and Human Rights’, ‘Labor Market Preparation’, and an ‘Intensive English Language Diploma’, as well as a preparatory course for TOEFL or IELTS exams in its final stage, delivered by English Castle Institute in Istanbul, Turkey.

Medical Biotechnology Department at SRTA City

Borg Al-Arab, Alexandria

Research Intern

Jul 2019 – Jul 2019

- The internship focused on “The Effect of Some Pharmaceutical & Natural Products as Anti-cancer Agents”, gaining hands-on experience with techniques such as PCR, electrophoresis, flow cytometry, and tissue culture.

Pharmaceutical & Fermentation Industries Development Center at SRTA City

Borg Al-Arab, Alexandria

Research Intern

Jan 2019 – Feb 2019

- The internship focused on “Basic Tissue Culture & Molecular Biology Techniques” and involved hands-on experience with techniques such as Western blotting, PCR, ELISA, and tissue culture.

Professional Experience

Alamein International University

New Alamein, Matrouh

Full-time Teaching Assistant

Oct 2023 - Present

- Full-time teaching assistant at the Molecular Biotechnology Program, Field of Advanced Basic Sciences.
Link: <https://aiu.edu.eg/profile/ahmed-elsayed-massoud>
- Assist in teaching basic biology, molecular biology, and biotechnology courses, including
 - Biology I (Anatomy and Cell Biology)
 - Biology II (Histology and Physiology)
 - Introduction to Biotechnology
 - Cell & Molecular Biology (for the Biomedical Engineering Program, Faculty of Engineering)
 - Vertebrates
 - Cellular Structure & Cell Communication
 - Bioinformatics
 - Cell Culture Principles & Techniques
 - Molecular Biology I
 - Molecular Biology II
 - Graduation Project
 - Recombinant DNA Technology
- Assist in preparing course assignments and labs, and answer keys for assignments under the guidance of the

course instructor, in addition to exam proctoring and attendance recording.

- Supervise and assess students during the “Practical Training and Internship” graduation requirement.
- Help in managing course LMS contents and interact with students using discussion groups and forums on the LMS and via other communication means.
- Member of the “Academic Advising,” “Quality Assurance & Accreditation,” “Devices & Labs Preparation,” “Exams Supervision & Control,” “Reporting & Events Documentation,” and “Coursera” committees.
- Participate in the preparation of quality assurance and accreditation files.
- Fully responsible for student academic advising, event preparation and faculty logistics, in addition to leading administrative tasks, meetings, and conferences in my role as the senior teaching assistant.
- Hold office hours (face-to-face and online) to support and guide students.

El-Safwa Medical Laboratory Medical Laboratory Specialist

Amria City, Alexandria
Aug 2019 – Dec 2021

- Collect, handle, and prepare samples and reagents for analysis.
- Report needs for chemicals and glassware to ensure continuous availability.
- Perform clinical biochemical tests (liver profile, kidney profile, heart profile, lipid profile, etc.).
- Perform hematological tests (CBC manual and automated, ABO grouping, BT, CT, etc.).
- Perform serological and microbiological tests (CRP, RF, microbial culturing, and antibiotic assays).
- Carry out urine and stool tests investigating for pus, RBCs, salts, and parasites. Write down the results.
- Carry out qualitative & quantitative *H. pylori* (Ag, Ab), *Typhi/Paratyphi* (Ag, Ab), drug abuse tests, HCG, virus tests, and others.
- Operate instruments such as a spectrophotometer, centrifuge, microscope, pipettes, and ELISA reader.

Skills

Technical Skills & Laboratory Experience:

- **Molecular & Cellular Techniques:** Tissue culture, nucleic acid and protein extraction, purity assessment, conventional and qPCR, electrophoresis, and bacterial transformation.
- **Biochemical Assays:** ELISA, colorimetric assessment of oxidative stress parameters, and measurement of antioxidant enzymes.
- **Neurobehavioral & Animal Studies:** Rotarod and hotplate testing, animal dissection (rat, fish, lizard, pigeon, toad), spinal cord extraction via hydraulic extrusion.
- **Microbiology Techniques:** Media preparation, bacterial and fungal culturing, antibiotic sensitivity testing, Gram staining, acid-fast staining.

Computer & Bioinformatics Skills:

- **Office & Design Tools:** MS Word, PowerPoint, Excel, and Teams; Canva, Picsart, Adobe Photoshop, BioRender, and Canvas LMS.
- **Reference & Research Management Tools:** EndNote, Mendeley, Sciwheel.
- **Scientific & Computational Tools:** ImageJ, SPSS; proficient in molecular docking and the use of standard bioinformatics tools, including AutoDock, Biovia Discovery, ChimeraX, PyMOL, ChemSketch, SwissADME, SwissModel, ProTox, ScanProsite, PubChem, and others within NCBI, EBI, SIB, and PDB.
- **Specialized Skills:** Bio-scientific Illustrations | View my illustrations!

Language: Arabic (native), English (TOEFL ITP - B2), French (A1 level), and German (A1 level).

Courses, Workshops & Conferences

Courses

- Diploma in Analytical Techniques in Purification of Biomolecules - Alison

2024

▪ Introduction on Nanotechnology - Edraak	2023
▪ Science Communication - Udemy	2022
▪ SPSS Statistics Essential Training - LinkedIn Learning	2022
▪ Excel Essential Training (Office365/Microsoft 365) - LinkedIn Learning	2022
▪ Basic First Aid skills – Edraak	2022
▪ Editing and Proofreading Made Simple - LinkedIn Learning	2022
▪ Writing with Proper Punctuation - LinkedIn Learning	2022
▪ Emotional Intelligence Basics – LinkedIn Learning	2022
▪ Speaking Confidently and Effectively - LinkedIn Learning	2022
▪ Critical Thinking and Problem Solving - LinkedIn Learning	2022
▪ Introduction to Scientific Writing - Education Clinic Inc.	2022
▪ Basics of Scientific Research – Egypt Scholars Inc.	2019
▪ Computer basics and MS Office - Alexandria University	2018

Workshops

▪ Western Blot Practical Techniques, Achieving Reliable and Reproducible Results Workshop – By Agitech & Bio-Rad at SRTA City	2024
▪ Finding Funding and Writing a Winning Proposal: Structure and Tips for Writing – TICO AIU	2023
▪ How to Deliver Inspiring Presentations - CABI	2022
▪ How to Craft Captivating Slides - CABI	2022
▪ How to Plan Thoughtful Oral Presentations - CABI	2022
▪ Structuring your article correctly - Researcher Academy Elsevier	2022
▪ How to find the protocols and methods you need for your research – Springer Nature	2022
▪ Common Mistakes in Manuscript Writing - IET	2022
▪ How to Write Professional Response to Reviewers - CABI	2022
▪ How to Write Professional Review Report - CABI	2022
▪ How to review your manuscript before submission - CABI	2022
▪ How to write Conclusions, Abstract, Title & References - CABI	2022
▪ How to write Results and Discussions - CABI	2022
▪ How to write the Introduction and Materials & Methods - CABI	2022
▪ Entrepreneurship Workshop in the City of Scientific Research and Technological Applications	2019
▪ Scientific Research Workshop - Industrial Microbiology and Applied Chemistry Volunteers	2017
▪ Soft Skills Workshop - European Association of Geoscientists and Engineers	2016
▪ Leadership skills - Tamdeen for Training and Management Consulting	2015

Conferences

▪ 3 rd Scientific Conference: Emerging Technologies and Their Relationship to Sustainable Development - City of Scientific Research and Technological Applications, Borg Al-Arab City.	2025
▪ Annual Arab Asian Biotechnology Conference (AABC 2025): Desert Biotechnology and Sustaining Life in Arid Regions - Bibliotheca Alexandrina, Egypt	2025
▪ 12 th STUDENT & 5 th POST-GRADUATE Conference for Research & Innovation - Faculty of Science, Alexandria University	2025
▪ The 9 th Alexandria SBS Bowel Diseases: The Art and Science in Clinic and Research - Faculty of Medicine, Alexandria University	2024
▪ The 2 nd International Conference of the City of Scientific Research and Technological Applications	2024
▪ First International Conference of the Egyptian Society of Biological and Biomedical Sciences	2024
▪ Young Pharmaceutical Scientists Association - YPSA Online Conference on 23 rd to 28 th of July	2022

Extracurricular Activities

Undergraduate Research Initiative (URI)

Online
Sep 2025

- Delivered a volunteer lecture on searching for reliable scientific resources, critical reading of research papers, and reference management tools, during the Sci. Green Camp, organized by the URI, Alexandria University.
Link: <https://youtu.be/BVAsf40ujD0>

Health Promotion Week - AIU

Oct 2023 - Present

- Team Leader for Health Promotion Week, Faculty of Science, Alamein International University, leading and supervising multiple student teams, coordinating logistics, and ensuring the smooth execution of educational and outreach activities focused on personal and environmental health awareness.

American Society for Microbiology (ASM)

Oct 2022 - Present

- Active member of the American Society for Microbiology. Membership ID: 200334234.

Mendeley, Elsevier

Jul 2022 - Present

- Registered as a Mendeley Advisor to share reference management skills and host training sessions.

Scholarjobs

Online platform
Feb 2022 - Present

- Founded a website to help fresh graduates and the unemployed in their path through the publication and creation of job advertisements and scholarship-related content.

Candidate for Ideal student of the year - Faculty of Science, Alexandria university

Jan 2019

Upgrade Alexandria (NGO)

Alexandria, Egypt
2017 - 2018

- Volunteered as an organizer of scientific and soft-skills events and workshops for students.

Al-Furqan Charity Organization (NGO)

Alexandria, Egypt
2013 - 2016

- Participated in the preparation and packaging of free snacks for fasting travelers during the month of Ramadan.
- Participated in many campaigns for cleaning and planting streets.

Awards

Recognized as the Best Faculty Member, Faculty of Science, Alamein International University (2024, 2025).

Undergraduate Excellence Award, Faculty of Science, Alexandria University (2019).

References

1. **Prof. Dr. Mohamed Salem:** Director of Academic Programs, Field of Advanced Basic Sciences, Alamein International University
 - Email: msalem@aiu.edu.eg
2. **Prof. Sherine Abdel Salam:** Professor of Molecular Biology, Zoology Department, Alexandria university
 - Ph.D. at Bordeaux Segalen University - Email: sherine.abdel.salam@alexu.edu.eg
3. **Prof. Dr. Marwa Eltoweissy:** Professor of Molecular biology, Zoology Department, Alexandria university
 - Ph.D. at Medical University of Göttingen, Germany - Email: marwaeltoweissy@alexu.edu.eg
4. **Ass. Prof. Nefertiti El-Nikhely:** Associate Professor of Biochemistry, Alamein International University
 - Ph.D. at Max Planck Institute for Heart & Lung, Germany - Email: nelnikhely@aiu.edu.eg