MOHAMED NABEEL MALASH, M.Sc., Ph.D.

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EDUCATION

February 2012- July 2020: Genetic Engineering and Biotechnology Research Institute (GEBRI), University of Sadat City – Sadat city, Egypt.

PhD, Genetic Engineering and Biotechnology: Molecular Microbiology

Thesis title: "Production of a Lytic Transglycosylase from a Group of Novel Extremophilic Peptidoglycan Hydrolases"

 Isolation and characterization of novel extremophilic enzymes from metagenomic samples from harsh environments. Bioinformatics and lab work were conducted in the Biology Department, American University in Cairo (AUC).

October 2004- May 2009: Genetic Engineering and Biotechnology Research Institute (GEBRI), Menofia University – Sadat city, Egypt.

Master of Science, Genetic Engineering and Biotechnology: *Industrial Biotechnology* (85.86%)

Thesis title: "Production of Cephalosporin C (CPC) using the fungus Cephalosporium acremonium".

- Applied Ultraviolet-light mutagenesis for strain genetic improvement of *Cephalosporium acremonium* ATCC 11550.
- Selected high antibiotic-producers among the mutants by agar diffusion method, and then the final selection of the highest producer was carried out in shake flasks and concentration was measured by HPLC.
- Carried out a series of batch and fed-batch fermentation experiments in stirred-tank bioreactor and shake flasks to study different metabolic parameters of the mutant.

September 1997 - May 2002: Faculty of Pharmacy, Tanta University – Tanta, Egypt.

Bachelor of Pharmaceutical Sciences with cumulative grade very good with honor (80.31%, ranked 12th out of 802)

PROFESSIONAL EXPERIENCE

October 1st, 2020-Present: Ahram Canadian University (ACU), Faculty of Pharmacy – 6th of October, Egypt.

Lecturer in Microbiology and Immunology Department

September 2009-September 2020: Ahram Canadian University (ACU), Faculty of Pharmacy – 6th of October, Egypt.

Assistant Lecturer in Microbiology and Immunology Department:

January 2013-June 2020: Biology Department, American University in Cairo (AUC)

Research Assistant and Teaching Assistant:

- Bioinformatics data analysis under supervision of Prof. Rania Siam, Professor of Microbiology, Chair of the Biology Department.
- Teaching Assistant in the "Current Health Issues" (Fall 2015) instructed by Prof. Rania Siam.
- Conducting my PhD bioinformatics and lab research in the Biology Department supervised by Prof. Rania Siam.

September 2011-September 2012: Taif University, Faculty of Pharmacy – Taif, KSA.

Lecturer in Pharmaceutical Microbiology Department

- Prepared and taught the practical courses of Biology, Pharmaceutical Microbiology, Clinical Immunology, and Parasitology.
- Prepared practical and written exams for the practical sections for the above-mentioned courses.
- Participated in the establishment of Pharmaceutical Biotechnology Research Unit (PBRU).
- Member of Staff Development Committee and Quality Assurance Unit.
- Honored by the faculty administration for my contributions in the educational and research activities in the faculty.

March 2004-September 2009: Minufiya University Students' Hopital – Shibin Elkom, Minufiya, Egypt.

Inpatient Pharmacist

July 2004-July 2005: Apex Pharma Co.–Heliopolis, Cairo, Egypt

Medical Representative (part time)

March 2003-March 2004: Egyptian Naval Forces Hospital–Alexandria Naval Base Soldier and Pharmacist

July 2002-February 2007: Community pharmacies in Shibin Elkom, Menofia and Alexandria.

WORKSHOPS AND TRAININGS

August 15th to October 18th, 2022: Wellcome Connecting Science (WCS) and Pan African Bioinformatics Network for H3Africa (H3ABioNet)

• "Genome Sequencing Bioinformatics Course (GSB 2023)"

March 22nd to October 25th, 2022: Wellcome Connecting Science (WCS) and Pan African Bioinformatics Network for H3Africa (H3ABioNet)

- "Next Generation Sequencing Bioinformatics Training course (NGS Bioinformatics_2022)" (March 22nd to June 20th).
- "Introduction to Bioinformatics (IBT 2022)" (July 17th to October 25th)

May 8th to November 16th, 2022: Nasser Higher Military Academy, Egypt

• "Thinking Methods and Future Studies" Armed Forces Strategic Studies Center (May 8th to May 25th).

- "Strategic Studies and National Security" National Defense College (May 29th to June 12th).
- "Crisis Management and Negotiation" National Defense College (June 19th to July 5th).
- *"Decision Makers" National Defense College (July 17th to August 2nd).*
- "Technological Advancement and Its Effects on National Security" National Defense College (October 30th to November 16th)

September 2015: American University in Cairo (AUC)- New Cairo Campus, AUC Avenue, Egypt

- *"Teaching Assistant Training"*
- "Academic Integrity"

May 20th, 2015: Institute of International Education and held in Ahram Canadian University (ACU)

"Research Design, Assessment, and Write-Up" (6 hours).

February 18th and 19th, 2015: Biotechnology Center (BTC), Faculty of Pharmacy, Cairo University

"Advanced Bioinformatics Workshop".

January 28th, 2015: Biotechnology Center (BTC), Faculty of Pharmacy, Cairo University

• "Pulsed Field Gel Electrophoresis".

May 24th to June 21st, 2014: Scientific Informatics Research Academy (SIRA)-Egypt

• "Bioinformatics Basics" (30 hours).

November 2013-March 2014: Ahram Canadian University (ACU)- 6th of October city, Egypt

- "Strategic Planning of Institutions of Higher Education" presented by the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) (2 day).
- "Team Leadership Workshop" presented by Institute of International Education-Lotus Organization (1 day).
- "Road to Accreditation-How to Write Self-Study Report" presented by ACU Faculty of Pharmacy Quality Unit (2 days).
- "Road to Accreditation-Pharmacy NARS and Program ILOs" presented by ACU Faculty of Pharmacy Quality Unit (2 days).

February 2012 and March 2012: Taif University – Taif, KSA

- "Innovation in Teaching Health Sciences: From Words to Action" presented by Faculty of Education, Purdue University, USA (3 days).
- "Quality Requirement in E-Learning and Learning Management Systems" (2 days)
- "Applied Course in Biostatistics and Use of SPSS in Medical Research" (2 days)

October 2010: German Academic Exchange Service (DAAD) in DAAD premises– Zamalek, Cairo, Egypt

• "Proposal Writing Workshop"

January 2010: Ahram Canadian University (ACU) - 6th of October city, Egypt.

• *"Institutional Self-Evaluation of Higher Education"* presented by the National Authority for Quality Assurance and Accreditation of Education (NAQAAE).

August 2007 and May 2008: Hebiraw Co. for Pharmaceutical Raw Materials - Qena, Egypt.

- Production, research, and quality control units. (Total 7 days)
 - Inoculation of the stirred-tank bioreactor.
 - Use of HPLC to determine concentrations of cephalosporin C and its intermediates.
 - Identification and isolation of phenotypic variants of *Cephalosporium acremonium*.

PUBLICATIONS

- Ziko L, Adel M, **Malash MN**, Siam R (2020) Specialized Metabolism Gene Clusters from Red Sea Brine Pool Microbial Metagenomes. *BMC BIOINFORMATICS 21(SUPPL 20)*
- Malash, M.N., Hussein, N.A., Muawia, S., Nasr, M.I., and Siam, R. (2020). An optimized protocol for high yield expression and purification of an extremophilic protein. *Protein Expr. Purif.* 169, 105585
- Ziko L, Adel M, **Malash MN**, Siam R (2019) Insights into Red Sea Brine Pool Specialized Metabolism Gene Clusters Encoding Potential Metabolites for Biotechnological Applications and Extremophile Survival. *Marine Drugs.* **17(5)**:273.
- A.M. Michael and M.N. Malash (2015) A Validated Assay of Urease Enzyme in Different Sources Using Silver Nanoparticles. *Food Anal. Methods.* 8(10):2482-2486 (DOI: 10.1007/s12161-015-0139-1)
- S.H. Hassanein, M.I. Nasr, R.M. Abd El-Aziz, A.F. Elbaz, and **M.N. Malash** (2009) Induction of Cephalosporin C in *Cephalosporium acremonium* Using U.V. Light and Selection of a Mutant that Showed Highest Fermentation Capability. *Minufiya J. Agric. Res.* **34(1)**:35-55

EXTRACURRICULAR ACTIVITIES

- **February 2017** General Supervisor of Ibn Sina Medical Convoy to El-Amerya territory, Alexandria Governorate with students and staff of Faculty of Pharmacy, Ahram Canadian University (3 days).
- **February 2014** Leaded Ibn Sina Medical Convoy to Bayad El-Arab, Bani Suef Governorate with students and staff of Faculty of Pharmacy, Ahram Canadian University (3 days).
- **February 2013** Participated in Ibn Sina Medical Convoy to Arab ElTarabeen village, Helwan with students and staff of Faculty of Pharmacy, Ahram Canadian University (3 days).
- August 2010 Participated in Ibn Sina Medical Convoy to Kerdasa territory, Giza Governorate with students and staff of Faculty of Pharmacy, Ahram Canadian University (3 days).

PERSONAL DATA

Date of Birth: July 28th, 1980

Nationality: Egyptian