



Amro Hanora

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Personal

Name: Amro Mohamed Said AbdelLatif Hassan Hanora
Date of birth: 19 September, 1970 , Egypt
Gender: Male
Nationality: Egyptian
Marital Status: Married

**Academic
Qualifications**

Ph.D.: Lund University, November 2005, Biotechnology Department.
B.SC.: Alexandria University, May 1992, Pharmaceutical science.

Work history

- Head of Department of Microbiology and Immunology from October 2019 to Now
 - Professor of Microbiology and Immunology, Faculty of pharmacy, Suez Canal University since 4-9-2016.
 - Working Head of Department of Microbiology and Immunology from October 2012 to October 2015
 - Associate professor in Microbiology and Immunology Department, Faculty of Pharmacy, Suez Canal University from 31/7/2011- 3/9/2016.
 - Lecturer in Microbiology and Immunology Department, Faculty of Pharmacy, Suez Canal University from 28/2/2006 – 30/7/2011.
 - Instructor in Microbiology and Immunology Department, Faculty of Pharmacy, Suez Canal University from 1994 to 2001.
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**Statement
of teaching
activities**

List of courses taught

Undergraduates

A) Clinical Pharmacy program

- 1- **Cell biology (MD 102):** cell components, organelles, quorum sensing, protein, protein structure protein trafficking.
 - 2- **General Microbiology and Immunology (PM 401):** introduction, basic structure of bacteria cells, microbial metabolism, microbial genetics, Basic immunology.
 - 3- **Parasitology (MD 406):** Nematodes (common features, classification, characters, pathogenesis, diseases, treatment and control of different members).
 - 4- **Clinical Microbiology (PM 502):** different diseases caused by different classes of bacteria, viruses, fungi, lab diagnosis, treatment and control of different microbial infections.
 - 5- **Pathophysiology (MD 507):** Introduction to pathophysiology, cell injury, inflammation and immune response, autonomic nervous system in health and disease, endocrine disorders, pancreatic disorders, fluid and electrolyte imbalance, vascular and haematological disorders, disease of urinary, pulmonary and digestive systems.
 - 6- **Pathology (MD 608):** The study of the etiology, principle diagnostic features, and main characteristics of diseases of the cardiovascular system, respiratory tract, central nervous system and other important organ systems of the body.
 - 7- **Pharmaceutical Microbiology (PM 704):** sterilization and different sterilization methods, Non antibiotics antimicrobial agents, evaluation of antibiotics and non antibiotics antimicrobial agents, microbiological quality control of pharmaceutical products, biological products (vaccines and sera), cosmetics and toiletries.
 - 8- **Pharmaceutical Biotechnology (PM 703):** fermentation technology, major biotechnological products, biotransformation, bio insecticides, etc., recombinant DNA techniques, gene therapy, production of monoclonal antibodies, applications of genetic engineering in biotechnology.
 - 9- **Public health (MD 710):** basic concepts of public health and epidemiology, communicable and non communicable diseases, occupational diseases, environmental health, mental and family health, nutrition, modeling in public health, disasters and public health.
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B) Old Pharmacy program

1- Pharmaceutical Microbiology: introduction, basic structure of bacteria cells, microbial metabolism, microbial genetics, sterilization and different sterilization methods, Non antibiotics antimicrobial agents, evaluation of antibiotics and non antibiotics antimicrobial agents, microbiological quality control of pharmaceutical products, biological products (vaccines and sera), cosmetics and toiletries, fermentation technology, major biotechnological products.

2- Public Health: Nematodes (common features, classification, characters, pathogenesis, diseases, treatment and control of different members). Different diseases caused by different classes of bacteria, viruses, fungi, lab diagnosis, treatment and control of different microbial infections.

C) New Pharmacy program

1- Cell biology (MD 101): cell components, organelles, quorum sensing, protein, protein structure protein trafficking.

2- General Microbiology and Immunology (PM 201): introduction, basic structure of bacteria cells, microbial metabolism, microbial genetics, Basic immunology.

Postgraduates

A) Old program

- 1- Industrial Microbiology
- 2- Immunology
- 3- Virology
- 4- Elective topics

B) New program

- 1- Biotechnology
- 2- Sterilization

C) PharmD program

- Pharmaceutical Immunology
 - Teaching Bioinformatics and Statistical genetics for undergraduate students, Faculty of computer and informatics, Suez Canal University.
 - Teaching Bioinformatics course for graduate students, Faculty of Science, Suez Canal University.
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- Teaching theoretical and supervising the practical courses of Microbiology and Immunology, Faculty of Pharmacy - Sinai University.

Examiner

- Microbiology and Immunology for under and postgraduate students, Faculty of Pharmacy, Suez Canal University, Ismailia, Egypt.
- External oral examiner for undergraduate students Cairo University – Tanta University - Ain Shams University – Zagazig University – Helwan University- Azhar University- Future University – Nahda University - Sinai University.

Statement of research interests**Fields of research:**

- Natural products biosynthetic gene clusters.
 - Whole genome sequencing for drug discovery.
 - Protein expression and purification.
 - The effect of Quorum sensing (QS) and Quorum sensing inhibitors (QSI) derived from bacteria and eukaryotic organisms such as fungi and amoeba on secondary metabolite biosynthesis, biofilm formation and antibiotic resistance.
 - Large-scale production and purification of biologically active compounds from cell cultures such as plasmid DNA vector for gene therapy applications and therapeutic proteins.
 - Biodegradation of pharmaceutical compounds found in ground and underground waters.
 - Occurrence of Pharmaceutical trace elements in environment. Microbial adherence to mammalian tissues: screening for non- antimicrobial antiadherent agents, mechanisms of antiadherent activity.
 - Microbial resistance to different antimicrobial agents: Role of quorum system in resistance, mechanisms of multidrug resistance, phospholipases as virulence factors.
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- Microbial virulence factors (detection, characterization, possible mechanisms of inhibition)

Hand on Experience:

- Strong hands-on skills including DNA, RNA and protein purification, electrophoresis analysis both PAGE, SDS-PAGE and agarose gel electrophoresis, PCR, RT-PCR, DGGE, DAPI staining, molecular cloning, protein expression and DNA sequencing, different enzyme activity assays, and ELISA.
- Familiar with the most popular tools in Bioinformatics like Sequence analysis, Sequence alignment, Sequence similarity searches, BLAST, and Phylogenetic analysis.
- Mass spectroscopy, LC-MS, ESI-MS, MALDI-MS.
- Downstream process (DSP) applications and fermentation.

Supervised
Thesis

Supervision of graduate students and theses defenses

Thesis Completed:

PhD Thesis:

- 1- **Nagwa Hassan Mohamed Kamel Elnwshy**, Faculty of Science, Suez Canal University “Bio-remediation of some Pharmaceutical Residues in Aquatic Ecosystem” The student was graduated in 2012.
 - 2- **Marwa Essam Abdel Hamid Aly**, Faculty of Pharmacy, Cairo University “The Evolution of Shiga Toxins of *Enterohemorrhagic Escherichia coli* (EHEC) and possible application in reverse vaccinology” The student was graduated in 2014.
 - 3- **Noha Mohamed Mohamed ElShaffy**, Faculty of Veterinary Medicine, Suez Canal University “The inhibitory effect of normal honey on chromosome and plasmid encoded genes of multi-drug resistance *S. aureus* isolated from different sources including fishes” student was graduated in 2015
 - 4- **Hany Rashed Abdel Saber Hashem**, Faculty of Pharmacy, Suez Canal
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University “Carbapenem and Multidrug Resistance in *Pseudomonas aeruginosa*” The student was graduated in 2015.

- 5- **Mahmoud Mohamed Bendary Mohamed**, Faculty of Pharmacy, Suez Canal University “Molecular typing and detection of *Staphylococcus aureus* virulence and antibiotics resistance genes” The student was graduated in 2016.

Master thesis:

- 1- **Mona Radwan Ahmed El Sayed**, Faculty of Pharmacy, Suez Canal University “Molecular Characterization of Manzamine –producing Sponges from Red Sea” The student was graduated in 2009.
- 2- **Shaimaa Mohamed Ismail Ali**, Faculty of Faculty of Veterinary Medicine, Suez Canal University “ Molecular Characterization of Bacterial Species isolated from clinical and subclinical mastitis in cattle” The student was graduated in 2012.
- 3- **Merhan Nabih El-Mansy**, Faculty of Dentistry, Suez Canal University “Expression of B-cell lymphoma-2 at late stages of hamster pouch-dimethylbenz(a)anthracene model” The student was graduated in 2012.
- 4- **Marwa Mohamed Mahmud Resk**, Faculty of Science, Suez Canal University “Implanted Medical Devices and their Impact as a Reservoir for Recurrent Microbial Infection” The student was graduated in 2013.
- 5- **Naira Mohamed Ahmed Lotfi**, Faculty of Science, Suez Canal University “Morphological and molecular responses of *Chironomus* species (Diptera, Chironomidae) to toxic compounds in Lake Manzala, Egypt” The student was graduated in 2014.
- 6- **Ahmed Farouk**, Faculty of Faculty of Veterinary Medicine, Suez Canal University “”The student was graduated in 2015.
- 7- **Mohammed Ramadan Gomaa Husdien**, Faculty of Pharmacy, Suez Canal University “Molecular Characterization of Human Skin
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Metagenome” The student was graduated in 2016.

- 8- **Mohammed Salah Ali Attia**, Faculty of Pharmacy, Suez Canal University “Isolation and Molecular Characterization of Pathogen Causing Urinary Tract Infection and Their Susceptibility Testing for different Antibiotics” The student was graduated in 2016.
- 9- **Hanaa Mohamoud Hasan Alam Eldin Ahmed**, Faculty of Computers and Information, Helwan University “Mining of Hepatitis C virus Data for Egyptians in the newly developed Database (HCVDBegy) ” The student was graduated in 2016.

(B) Theses in process

PhD Thesis:

- 1- **Amira Hashesh**, Faculty of Science, Suez Canal University “Biotechnological production of chitosan from stone crab chitin impact of biological and genetic factors” PhD 2012
 - 2- **Farag Mari**, Faculty of Pharmacy, Suez Canal University “Preparation and Characterization of Metal Nanoparticles Incorporated with Potential Anticancer Agents using Biotechnological and Gamma Irradiation Processes” PhD 2013
 - 3- **Mohamed Abd ElBast Mourad**, Faculty of Agriculture, Suez Canal University “Potential Use of Nitrogen Fixers as Plant Growth Promoting Rhizobacteria” PhD 2013
 - 4- **Eman Gouda**, Faculty of Advanced Science, Beni Suif University, Study new technique for vaccine development, Reverse Vaccinology, PhD 2014.
 - 5- **Hala Salah Helal**, Faculty of Pharmacy, Cairo University “Mining Red Sea microbiota for bioactive compounds and their potential application in nanoparticles-based combinations” PhD 2015.
 - 6- **Samar Moustafa Abd El Mawla El Adawy**, Faculty of Science, Suez Canal University “Isolation and Molecular Characterization of Antimicrobial and Antitumor Producer Bacteria from Red Sea
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Nudibranch” PhD 2015.

- 7- **Rehab Emam Farhan Emam**, Faculty of Pharmacy, Suez Canal University “Molecular Epidemiology and Genotyping of *Pseudomonas aeruginosa* Strains Isolated From Burns and Wounds Infections” PhD 2015.

Master thesis:

- 1- **Amany**, Faculty of Science, Suez Canal University “Evaluation of the molecular toxicity of the Egyptian scorpion *Leiurus quinquestriatus* venom” Master 2012.
 - 2- **Nada Mohamed Ezz El Deen**, Faculty of Pharmacy, Suez Canal University “Detection of Nanobacteria in Kidney stones” Master 2012.
 - 3- **Asmaa Mohamed Hesham**, Faculty of Pharmacy, Suez Canal University “Molecular Characterization and Genotyping of HBV in Patients with Chronic Hepatitis in Suez Canal Area” Master 2012.
 - 4- **Nahla Hasan Mohamed Mahmoud Tealap**, Faculty of Pharmacy, Suez Canal University “Resistance of *Enterobacteriaceae* for Aminoglycosides, Chloramphenicol, Macrolides and Tetracycline” Master 2013.
 - 5- **Tamer Mohamed Ali Moussa**, Faculty of Pharmacy, Suez Canal University “Molecular Resistance of *Staphylococcus aureus* for antibiotics” Master 2013.
 - 6- **Mariam Emil**, Faculty of Pharmacy, Suez Canal University “” Master 2013.
 - 7- **Manar El Samak**, Faculty of Pharmacy, Suez Canal University “Biosynthetic potential of bioactive producer from Family Actinomycetes” Master 2013.
 - 8- **Heba Samir Mohamed Khalil**, Faculty of Dentistry, Suez Canal University “Evaluation of the effect of Titanium Dioxide
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Nanoparticles addition in conventional glass Ionomer as a restorative material in Pediatric Dentistry” Master 2014.

- 9- **Hossamuddin Hassan Mohammed El-Feky**, Faculty of Pharmacy, Suez Canal University “Biosynthetic potential of microbiota associated with the marine sponges in Red Sea” Master 2015.
 - 10- **Engy Mahmoud Ahmed**, Faculty of Pharmacy, Suez Canal University “Antiviral activity of Nano-particle ribavirin against measles virus” Master 2015.
 - 11- **Mahmud Mohammed Bakr Arabi**, Faculty of Pharmacy, Suez Canal University “The Use of Silver Nanoparticles to Control Biofilms Growth in Sterile Rooms” Master 2014.
 - 12- **Ahmed**, Faculty of Science, Port Said University “” Master 2015.
 - 13- **Ramadan Yahia**, Faculty of Pharmacy, Suez Canal University “Production of quorum sensing by marine derived bacteria” 2013.
 - 14- **Dalia Salah Mohamed Zidan**, Faculty of Science, Suez Canal University “Molecular Studies on secondary metabolites production by Actinomycetes isolated from groundwater in South Sinai” Master 2015.
 - 15- **Dalia Magdy Mahmoud Megahd**, Faculty of Pharmacy, Suez Canal University “The application of reverse vaccinology for the development of new vaccine candidates against *Staphylococcus aureus*” Master 2015.
 - 16- **Mohamed Abdelmoinem**, Faculty of Pharmacy, Suez Canal University “Testing the immunogenicity of the purified proteins selected by reverse vaccinology for the development of new vaccine candidates against *Staphylococcus aureus*” Master 2015.
 - 17- **Mohamed Reda**, Faculty of Pharmacy, Suez Canal University “The expression and purification of proteins selected by reverse
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vaccinology for the development of new vaccine candidates against *Staphylococcus aureus*” Master 2015.

- 18- **Nagat Abdulrahim Mohamed Abdulrahim**, Fish Farming and Technology Institute, Suez Canal University “Screening For Quorum-Sensing Inhibitors and Quenchers from Marine Derived Bacteria” Master 2016.

Theses defenses

A member in the committees in charge for defense of the following theses:

Master Theses (Reviewer and committee defense member)

- 1- **Marwa Essam Abdel Hamid Aly**, Faculty of Pharmacy, Cairo University “ Detection of relevant virulence factor of *Escherichia coli* isolates by conventional and molecular methods” Graduated 2011.
 - 2- **Mariam Hassan Abdel Elmoneam Haikal**, Faculty of Pharmacy, Cairo University “A study on the production of relevant biosurfactant(s) by biodegrading Bacterial isolates” Graduated 2014.
 - 3- **Haidy Talaat Zaki**, Faculty of Veterinary Medicine, Zagazig University “Beta –lactamases plasmid genes in ampicillin resistant *Escherichia coli*” Graduated 2014.
 - 4- **Walaa Ahmed Eraqi**, Faculty of Pharmacy, Cairo University “Bio-engineering for microbial production of Rhamnolipid(s) biosurfactant” Graduated 2014.
 - 5- **Nashwa Harb Mohamed Abdel Maksoud**, Faculty of Science, Suez Canal University “Assessment of Epstein –Barr virus and Cytomegalovirus in Chronic Hepatitis C virus Patients” Graduated 2014.
 - 6- **Alaa Abdel-Rhman Abd Alla Mohammed**, Faculty of Veterinary Medicine, Zagazig University “Gene expression analysis of some cytokines in response to thymoquinone activity” Graduated 2014.
 - 7- **Rahma Maghawri Abdel Hamid Issa**, Faculty of Pharmacy, Suez
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Canal University “Assessment of Epstein-Barr (EBV) virus infection in relation to the response of chronic hepatitis C virus infected patients to interferon based therapy” Graduated 2015.

8- **Aya Ahmed Ali Mousa**, Faculty of Pharmacy, Suez Canal University “Molecular Characterization of Fluconazole Resistance in Clinical Isolates of *Candida* species” Graduated 2015.

9- **Ola Mohamed Sherif Abd EL Tawab**, Faculty of Pharmacy, Cairo University “Phenotypic and molecular characterization of bacterial isolates causing perioperative infections following open-heart surgeries in Aswan Heart Centre” Graduated 2015.

10- **Ahmed Abdel Fattah Abdel Moaty Saad Zayed**, Faculty of Pharmacy, Cairo University “Detection of antibiotic resistance gene(s) and sensitivity allele(s) in *E. coli*; a new approach of reversion of antibiotic-resistance by vector mediated delivery of the dominant sensitivity genes” Graduated 2015.

Scientific Production	<u>Thesis</u> <ul style="list-style-type: none">● Ph. D Thesis: Primary Recovery of Biologically Active Compounds Using Macroporous Monolithic Hydrogels.
Awards	<ol style="list-style-type: none">1- A long-term scholarship for PhD studies (Lund University) from Egyptian government.2- Visiting researcher to Professor Sidney Crow’s lab at the Department of Biology, Georgia State University, USA3- Post doctoral fellowship at Professor Margo Haygood’s lab at the Environmental and bimolecular systems department, Oregon Health and Science University (OHSU), Oregon, USA4- Post doctoral fellowship at Professor Sidney Crow’s lab at the Department of Biology, Georgia State University, USA, funded by Science and Technology Development Fund (STDF) (October 2009 to March 2010)
Conferences	<ol style="list-style-type: none">1- 25th International Symposium on Chromatography (ISC). October 4-8 Paris, France.2- 5th Swedish Bioinformatics workshop. November 26-27th, 2004 Lund, Sweden.

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- 3-19th International Symposium on Microsacle Bioseparation. MSB kobe. July 31-August 4, 2005 Kobe , Japan.
 - 1- CbioSep center days
 - 2- Invited speaker to workshop "Principle and Application on Biotechnology". Which hold at Biotechnology Research Center, Suez Canal University (SCU) from 5-9th of November 2006.
 - 3- Organization committee for "The First conference of the Egyptian Humboldtians, Science and technology without frontiers" Ismailia June 25-28, 2007. Oral presentation "Colors in Biotechnology"
 - 4- Participation on "*Teredinibacter turnerae* Genome Annotation Jamboree" holds at Ocean Genome Legacy (OGL), Ipswich, USA 13-16 March 2008.
 - 5- Characterization of a modular polyketide synthase secondary metabolite biosynthetic gene cluster from *Teredinibacter turnerae*, a symbiont of shipworms (Teredinidae). Amaro Trindade-Silva, **Amro Hanora**, Vinicius Vizzone, Sherif Elshahawi, Joyce Yang, Dan Distel, Eric Schmidt, Carlos Soares, Margo Haygood. Poster at the 12th International Symposium on Microbial Ecology ISME12 August 17-22, 2008 Cairns, Australia.
 - 6- Prepared and presented the lectures and practical sessions in "Introduction to Bioinformatics" workshop held at Biotechnology Research Center (BRC) at Suez Canal university, Ismailia, Egypt between 17-19 February 2009
 - 7- Secondary metabolite biosynthetic gene clusters from *Teredinibacter turnerae*, a symbiont of shipworms (Teredinidae). **Amro Hanora**, Amaro Trindade-Silva, Vinicius Vizzone, Sherif Elshahawi, Joyce Yang, Dan Distel, Eric Schmidt, Carlos Soares, Margo Haygood. Poster at the 31th Egyptian Pharmacy Society Conference December 23-25, 2008 Cairo, Egypt.
 - 8- Analysis of Bacterial Communities of Two Red Sea Sponges. **Amro Hanora**, Mona Radwan, Dina M. Abo-Elmatty, Soad H. Abou-El-Ela, Russell T. Hill .Poster at The 16th Conference of The Egyptian Society For Medical Microbiology (ESMM) Cairo, Egypt between 20-21 March 2009.
 - 9- Identification of a Putative Catechol-Siderophore Biosynthetic Gene Cluster from the shipworm symbiont, *Teredinibacter turnerae*. Amaro Trindade-Silva, **Amro Hanora**, Brian Fishman, Yutaka Kato, Sherif Elshahawi, Carlos Soares, Margo Haygood. Poster at the Philippine Mollusk Symbiont ICBG Research Symposium May 11, 2009, Portland,
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Oregon.

- 10- Characterization of a modular polyketide synthase secondary metabolite biosynthetic gene cluster from *Teredinibacter turnerae*, a symbiont of shipworms (Teredinidae). Amaro Trindade-Silva, **Amro Hanora**, Vinicius Vizzone, Sherif Elshahawi, Joyce Yang, Dan Distel, Eric Schmidt, Carlos Soares, Margo Haygood. Poster at the Philippine Mollusk Symbiont ICBG Research Symposium May 11, 2009, Portland, Oregon.
 - 11- Secondary metabolome of *Teredinibacter turnerae*, a symbiont of shipworms (Teredinidae). Amaro Trindade-Silva, **Amro Hanora**, Brian Fishman, Vinicius Vizzone, Sherif Elshahawi, Joyce Yang, Dan Distel, Eric Schmidt, Carlos Soares, Margo Haygood. Poster at the Philippine Mollusk Symbiont ICBG Research Symposium May 11, 2009, Portland, Oregon.
 - 12- *Teredinibacter turnerae*, a multitolerant symbiont of shipworms (Teredinidae). Margo Haygood, Joyce C. Yang, Nathan Ekborg, Yvette Luyten, Amaro Trindade-Silva, Carlos A.G. Soares, Sherif Elshahawi, **Amro Hanora**, Eric W. Schmidt, Naomi Ward, Jonathan Eisen, Jonathan Badger, and Daniel Distel. SIM Annual Meeting and Exhibition, Westin Harbour Castle- Toronto, ON Canada, July 26-30, 2009.
 - 13- Capacitive biosensor for quantification of plasmid DNA. Apon Numnuam, Martin Hedström, **Amro Hanora**, Proespichaya Kanatharana, Panote Thavarungkul, Bo Mattiasson. PACCON 2010, Pure and Applied International Conference. Challenges in chemistry for sustainable Development, January 21-23, 2010. Hold in Sunee Grand Hotel and Convention center, Ubonratchathani, Thailand.
 - 14- Exploring The Potential of Biosynthetic Gene Clusters in Sponge Associated Fungi From Red Sea, Egypt. **Amro Hanora** and Sidney Crow. Georgia State University Poster Day March 27, 2010. Atlanta, Georgia, USA
 - 15- The 1st international conference on advanced basic and applied sciences (ABAS) hold in Hurgada, Egypt between 6-9 November 2013.
 - 16- The 5th international conference on Natural Toxins hold in Cairo, Egypt between 17-19 December 2012.
 - 17- The 1st Young Researchers Conference at Suez Canal University, Ismailia, Egypt between 6-7 March 2013.
 - 18- Organized and lecturing the “Introduction to Bioinformatics Workshop” held at Biotechnology Research Center (BRC) at Suez Canal University, Ismailia, Egypt between 20-23 November 2013.
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- 19- The 10th Scientific Conference of Clinical Pathology hold in Ismailia, Egypt between 16-17 December 2013.
 - 20- Attend the workshop “Goals of information and communication technology project” hold at Faculty of pharmacy, Suez Canal University, Ismailia, Egypt in 23 December 2013.
 - 21- Organized and lecturing the “Principle of Biotechnology workshop” held at Biotechnology Research Center (BRC) at Suez Canal University, Ismailia, Egypt between 25-27 March 2014.
 - 22- The 2nd international conference on advanced basic and applied sciences (ABAS) hold in Sokhna, Egypt between 2-4 April 2014.
 - 23- The 6th international conference on Natural Toxins hold in Cairo, Egypt between 15-16 December 2014.
 - 24- Organized and lecturing the “Molecular Biology techniques, Molecular Cloning (Bioinformatics) workshop” held Center of Excellence in Molecular and Cellular Medicine at Suez Canal University, Ismailia, Egypt in 8th of September 2015.
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Workshop

1. Finding Funding and writing winning proposals:” An Overview of the Grants ARENA” held 9th June, 2009, University Council Meeting Hall, Suez Canal University.
 2. Education Enhancement of Pharmacy Courses, held 10th September, 2007, Suez Canal University- Faculty of Pharmacy.
 3. Clinical Pharmacy Seminars Series “ Georgia university – college of pharmacy – office of postgraduate continuing education& outreach” held 2nd November, 2009, Misr international university – faculty of pharmacy.
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Funded Grants and Proposals:

Principle investigator

- 1- Fermentative Production of Antimicrobial Drug Leads from Red Sea Sponges-Associated Microbes (Project number 2009-6420, funded by SIDA, Sweden)
- 2- Rapid detection of coronavirus ‘CoVID-19’ using Signature Sequence immobilized on Capacitive biosensor (Project 6906, Funded by Academy of Science and Technology)
- 3- Characterization of metagenome and metatranscriptome of Microbes associated with Marine Invertebrates (Project 155, Funded by Academy of Science and Technology)

Co-principle investigator in the following research projects:

- 4- A Biotechnological Approach to the Development of Bioactive Compounds from Marine Fungi. (US-Egypt joint research grant) Grant number (BIO6-002-011)
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- 5- A Biotechnological Approach towards the Development of New Pharmaceuticals from Red Sea Sponge, *Latrunclia* species. (Egyptian Academy of Science and Technology).
 - 6- Isolation and Molecular Characterization of Manzamine-Producing Bacteria from Red Sea Sponges. (US-Egypt Joint research grant) Grant number (BIO8-002-011) Contract/Agreement Number: 229.
 - 7- Academic partner in Philippine Mollusk Symbiont International Cooperative Biodiversity Group (ICBG project) (website <http://www.pms-icbg.org/>).
 - 8- Development of *Staphylococcus aureus* Vaccine (Project 15001, Funded by STDF)
 - 9- Screening of antiviral activity of bacteria associated with marine invertebrates against COVID 19. (Project Funded by Academy of Science and Technology)

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- Membership In Professional Organizations:**
- 1- Swedish center of Bioseparation (CbioSep).
 - 2- Biotechnology research center at Suez Canal University.
 - 3- Syndicate of Egyptian pharmacy.
 - 4- Egyptian Society of Medical Microbiology.
 - 5- Society of applied Microbiology.
 - 6- Egyptian Society for Biotechnology.

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- Accreditation experience:**
- Lead and Technical Assessor for EGAC.
 - Attend ISO/IEC 17025:2005 Assessor Training course.
 - Attend ISO/IEC 17025: 2017 Assessor training course held in EGAC, Cairo between 25/3/2018 to 28/3/2018.
 - Currently, lead and technical assessor for EGAC.
 - Attend IAHF Halal Assessor Training course, organized by IHAF and EGAC, held in Ramses Hilton –Cairo, Egypt between 16/7/2018 to 18/7/2108.
 - Attend ISO/IEC 17043 Assessor Training course.
 - Technical Assessor for ISO 17043.
 - Attend ISO 13528 technical Aspect of PT course.
 - Technical assessor to up to 500 testing laboratories in different variety of specialization including food, pharmaceutical, cosmetic and water analysis.
 - Assessment of ISO microbiological standard methods including some of the followings:
 - Horizontal method for the enumeration of presumptive
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Bacillus cereus — Colony-count technique at 30 °C –ISO 7932:2004.

- Horizontal method for the enumeration of Coliform — Colony-count technique–ISO 4832:2006.
 - Horizontal method for the enumeration of -glucuronidase-positive Escherichia coli- ISO 16649-2:2001.
 - Horizontal methods for the detection and enumeration of Enterobacteriaceae- ISO 21528-2:2004.
 - Horizontal method for the detection of Salmonella spp.- ISO 6579:2002.
 - Horizontal method for the enumeration of coagulase-positive Staphylococci (Staphylococcus aureus and other species) –ISO 6888-1:1999/Amd 2003
 - Horizontal method for the detection and enumeration of presumptive Escherichia coli- 7251:2005.
 - Enumeration of presumptive Escherichia coli- ISO 118661:2005.
 - Detection and enumeration of Legionella-ISO 11731-2:2004.
 - Horizontal method for the enumeration of microorganisms- ISO 4833-1:2013.
 - Horizontal method for the enumeration of yeasts and moulds - ISO 21572-2:2008.
 - Qualitative and quantitative determination of HCV RNA.
 - Qualitative and quantitative determination of HBV DNA.
 - Qualitative determination of Avian flu.
 - Qualitative determination of Swine flu.
 - Enumeration of yeasts & molds- BAM 2001 (Bacteriological Analytical Manual).
 - Aerobic plate count- BAM 2001 (Bacteriological Analytical Manual).
 - Enumeration of Fecal Streptococcus- Compendium of methods for the microbiological examination of foods (4th edition NMKL No.68 5th edition 2011)
 - Enumeration of thermotolerant fecal coliform- NMKL 125:1996.
 - Determination of bacterial endotoxin - EP: 2014 Method 2.6.14 (Method A) -BP:2014 Appendix XIVC (Method A).
 - Determination of Tetanus & DiphtheriaToxoids using flocculation method- EP: 2014 Monograph 0445 EP: 2014
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Method 2.7.27.

- Determination of Hepatitis B Surface Antibodies using ELISA Method- EP:2014 Monograph 0722.
- Identification and determination of heamagglutinin content SRID assay- EP:2014 Monograph 0869 EP:2014 Monograph 0158.
- Determination of Total Aerobic Microbial Count (TAMC)- USP ; 38 <61>.
- Enumeration of Clostridium perfringens- ISO 7937: 2004.
- Detection of Listeria monocytogen- ISO 11290-1:1999 AMD 2004.
- Detection of Shigella spp.- ISO 21567: 2004.
- Detection of Campylobacter spp.- ISO 10272-1: 2006.
- Enumeration of culturable micro-organisms- ISO 6222:1999
- Detection and enumeration of intestinal enterococci- ISO 7899-2:2000
- Detection and enumeration of Escherichia coli and coliform bacteria- ISO 9308-1:2000.
- Detection and enumeration of Pseudomonas aeruginosa - ISO 16266:2006
- Detection and enumeration of Salmonella- ISO 19250:2010
- Detection and enumeration of Legionella- ISO 19250:2010.
- Enumeration of yeasts & moulds colony - count technique in products with water activity ≤ 0.95 - ISO 21527-2/2008.
- Sterility Testing- USP 35
- Test for Pyrogen (LAL), Total bacterial count, total fungal count, antibiotic assay- USP 32.
- Microbiological examination of non-sterile products: microbial enumeration tests- USP 38 part (61) (2015) & EP 8th edition.
- Microbiological examination of non-sterile products: microbial enumeration test: Detection of E.coli- USP 38 part (61) (2015) & EP 8th edition.

Reviewer

- Reviewer For Scientific proposal and projects
 - Reviewer For Research Articles for publication, Reviewer for African Journal of Biotechnology (AJB), International Journal for
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Biotechnology and Molecular Biology Research (IJBMBR) and Research in Pharmaceutical Biotechnology (RPB)

- Reviewer For Research Articles for awards

Activities

- An active member of the implementation team of Higher Education Enhancement of Pharmacy Courses Project (HEEPF), Faculty of Pharmacy, Suez Canal University, Ismailia- Egypt.
 - An active member of the implementation team of Quality Assurance and Accreditation Project (QAAP), Faculty of Pharmacy, Suez Canal University, Ismailia- Egypt.
 - Member of executive Committee of Quality Assurance Unit - Faculty of Pharmacy, Suez Canal University, Ismailia- Egypt.
 - Academic advisor for second year student (clinical Pharmacy Program).
 - Clinical Pharmacy Coordinator from September 2011 to September 2015.
 - PharmD program Coordinator from October 2015 to September 2019.
 - Technical expert for EGAC since 2011 to 2016.
 - Technical Assessor for EGAC since January 2016 to 2017.
 - Lead Assessor for EGAC since January 2018 to now.
 - Member of Department council.
 - Member of Faculty council from 2011 to now.
 - Member of graduate student community since 2011 to September 2019.
 - Member of scientific committee in Egyptian Drug Authority (EDA) formally known as National Organization for Research and Control of Biologicals (NORCB) Since March 2019
 - Member of scientific committee of biological in Egyptian Drug Authority (EDA) formally known as Pharmaceutical Affairs Central Administration (CAPA) since March 2019
 - Member of technical committee for Drug control in Egyptian Drug Authority (EDA) formally known as Pharmaceutical Affairs Central Administration (CAPA) by ministerial declare no. 677 for year 2019.
 - Member of stability committee for biological products and vaccines in Egyptian Drug Authority (EDA) since October 2020
 - Member of Stability committee for pharmaceutical products in Egyptian Drug Authority (EDA) since January 2020.
 - Member of Emergency Use Approval (EUA) for biological products by
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ministerial declare no. 210 for year 2020 in Egyptian Drug Authority (EDA)

- Member of Pricing committee for pharmaceutical products since 2020 and update by EDA presidential declare no. 643 for year 2021 in Egyptian Drug Authority (EDA)
- Member of Biotechnology Center Board at Faculty of Pharmacy, Cairo University since August 2021
- Member of Scientific Evaluation committee for promoting Associate Professor and Professor in Agriculture Research Center by declare no. 4564 dated 11/10/2021
- Member of Biotechnology Network at Academy of Scientific Research and Technology (ASRT)

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