

## Abdelaziz Ahmed Elgaml, PhD, MSc, BSc



CURRENT ADDRESS	
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Email	<a href="mailto:elgamel3a@mans.edu.eg">elgamel3a@mans.edu.eg</a>
PERSONAL	
Sex	Male
Marital Status	Married
Nationality	Egyptian
Birthday	4 <sup>th</sup> November 1985
EDUCATION	
03/2022-08/2023	<b>Alexander von Humboldt foundation fellowship for experienced researchers holder.</b> Department of Molecular Internal Medicine, University Clinic, <a href="#">Würzburg University, Würzburg, GERMANY</a> . Title of research project: “Control of the apoptosis-necroptosis signaling network by the type III secretion system effector protein NleB from <i>Citrobacter rodentium</i> ”.
02/2021	Accepted by the <b><u>Alexander von Humboldt foundation fellowship for experienced researchers.</u></b>
04/2011-09/2014	<b>Ph.D. Degree</b> in Pharmaceutical Sciences (Microbiology). Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, <a href="#">Okayama University, Okayama, JAPAN</a> . Title of Ph.D. dissertation: “Regulation systems of virulence factors expression and production in <i>Vibrio vulnificus</i> ”.
03/2011	Accepted by the <b><u>MONBUKAGAKUSHU (JAPAN MEXT) Scholarship</u></b> for 2011 as PhD student by the embassy of Japan in Egypt.
06/2008-08/2010	<b>Master Degree</b> in Pharmaceutical Sciences (Microbiology). Faculty of Pharmacy, <a href="#">Mansoura University, Mansoura, EGYPT</a> . Title of master dissertation: “Molecular diagnosis of gram negative bacteria in urinary tract infections”.
09/2002-05/2007	<b>Bachelor Degree</b> of Pharmaceutical Sciences. Faculty of Pharmacy, <a href="#">Mansoura University, Mansoura, EGYPT</a> . Degree excellent with honor, ranked as the third student throughout the 5 years-period of study.

<b>WORK EXPERIENCE</b>	
<b>09/2023-present</b>	<p><b>Associate Professor</b> in Microbiology and Immunology Department, Faculty of Pharmacy, <a href="#">Mansoura University, Mansoura, EGYPT</a>.</p> <ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Supervision of postgraduate students.</li> <li>c) Training under-graduate and post-graduate students on different experimental techniques and research methodologies.</li> <li>d) Teaching Microbiology and Molecular biology courses for 2<sup>nd</sup> year and clinical pharmacy students.</li> <li>e) Teaching Parasitology courses for 4<sup>th</sup> year and clinical pharmacy students.</li> </ul> <p>Teaching Microbiology and Molecular biology courses for post-graduate students of Microbiology, clinical pharmacy and quality control diplomas.</p>
<b>03/2022-08/2023</b>	<p><b>Experienced researcher</b> in Molecular Internal Medicine Department, University Clinic, <a href="#">Würzburg University, Würzburg, GERMANY</a>.</p> <ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Training under-graduate and post-graduate students on different experimental techniques and research methodologies.</li> </ul>
<b>12/2019-02/2022</b>	<p><b>Associate Professor</b> in Microbiology and Immunology Department, Faculty of Pharmacy, <a href="#">Mansoura University, Mansoura, EGYPT</a>.</p> <ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Supervision of postgraduate students.</li> <li>c) Training under-graduate and post-graduate students on different experimental techniques and research methodologies.</li> <li>d) Teaching Microbiology and Molecular biology courses for 2<sup>nd</sup> year and clinical pharmacy students.</li> <li>f) Teaching Parasitology courses for 4<sup>th</sup> year and clinical pharmacy students.</li> <li>g) Teaching Microbiology and Molecular biology courses for post-graduate students of Microbiology, clinical pharmacy and quality control diplomas.</li> </ul>
<b>10/2014-11/2019</b>	<p><b>Assistant Professor</b> in Microbiology and Immunology Department, Faculty of Pharmacy, <a href="#">Mansoura University, Mansoura, EGYPT</a>.</p> <ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Supervision of postgraduate students.</li> <li>c) Training under-graduate and post-graduate students on different experimental techniques and research methodologies.</li> <li>d) Teaching Microbiology and Molecular biology courses for 2<sup>nd</sup> year and clinical pharmacy students.</li> <li>e) Teaching Parasitology courses for 4<sup>th</sup> year and clinical pharmacy students.</li> <li>f) Teaching Microbiology and Molecular biology courses for post-graduate students of Microbiology, clinical pharmacy and quality control diplomas.</li> </ul>
<b>04/2011-09/2014</b>	<p><b>Researcher (Ph.D. student)</b> in the Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, <a href="#">Okayama University, Okayama, JAPAN</a>.</p> <ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Training under-graduate and post-graduate students on different experimental techniques and research methodologies.</li> </ul>
<b>09/2010-03/2011</b>	<p><b>Teaching assistant</b> in Microbiology and Immunology Department, Faculty of Pharmacy, <a href="#">Mansoura University, Mansoura, EGYPT</a>.</p>

	<ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Teaching practical Microbiology and Molecular biology courses for 2<sup>nd</sup> year and clinical pharmacy students.</li> <li>c) Teaching practical Parasitology courses for 4<sup>th</sup> year and clinical pharmacy students.</li> <li>d) Teaching practical Microbiology and Molecular biology courses for post-graduate students of Microbiology, clinical pharmacy and quality control diplomas.</li> </ul>
<i>11/2007-08/2010</i>	<p><b>Demonstrator</b> in Microbiology and Immunology Department, Faculty of Pharmacy, <u><a href="#">Mansoura University, Mansoura, EGYPT.</a></u></p> <ul style="list-style-type: none"> <li>a) Research.</li> <li>b) Teaching practical Microbiology and Molecular biology courses for 2<sup>nd</sup> year and clinical pharmacy students.</li> <li>c) Teaching practical Parasitology courses for 4<sup>th</sup> year and clinical pharmacy students.</li> <li>d) Teaching practical Microbiology and Molecular biology courses for post-graduate students of Microbiology, clinical pharmacy and quality control diplomas.</li> </ul>

### **EQUIPMENT HANDLING**

Throughout my research work, I handled a lot of equipment such as PCR machines (thermocyclers), computerized ELIZA readers, real-time PCR instruments, sequencers, vertical and horizontal gel electrophoresis gel submarines, dual gel caster (for protein separation), Western blotting equipment, laminar flow hood, flow cytometers, spectrophotometers, incubators, autoclaves, ovens, water bathes, shakers, centrifuges, homogenizer and microscopes.

### **RESEARCH SKILLS**

1. Handling of clinical specimens.
2. Isolation and identification of bacteria in clinical specimens.
3. Determination of antibiotic sensitivity patterns of bacterial isolates.
4. Isolation of DNA (genomic or plasmid) from bacteria.
5. Qualitative polymerase chain reaction.
6. Quantitative real time polymerase chain reaction.
7. Separation of DNA using horizontal gel electrophoresis.
8. Construction of insertion mutations (Homologous recombination).
9. Isolation of protein from bacteria.
10. Separation of protein using vertical gel electrophoresis.
11. Western blotting analysis.
12. Sequencing.
13. Determination of the homology between microorganisms.
14. Using Genbank (<http://www.ncbi.nlm.nih.gov/>) different tools.
15. Using different DNA and protein softwares as ImageJ software, Curvature Analysis program, Virtual Footprint program..ect.
16. Cell culture.
17. Flow cytometry (FACS analysis).
18. Binding studies.
19. ELISA.
20. Cytotoxicity studies.
21. Construction of transient and stable transfectants.
22. Cloning.
23. Production and purification of proteins.

## RESEARCH INTERESTS

### “Cell biology, Microbiology and Molecular biology”

1. Accurate diagnosis and biodiversity of bacteria using different molecular biology methodologies.
2. Comparative studies between conventional methods and molecular methods used for identification of bacteria.
3. Studying the different mechanisms of resistance of bacteria to different antibiotics.
4. Studying the different mechanisms of pathogenicity of bacteria.
5. Studying the regulation systems of virulence factors production and development of resistance in bacteria.
6. Quorum sensing: studying how bacteria communicate with each other to either produce virulence factors or to develop resistance to certain antibiotic.
7. Expression of proteins of vital functions as immunological proteins.
8. Virology (Hepatitis B Virus & Hepatitis C Virus).
9. TNF superfamily and development of specific recombinant proteins as effective therapy.
10. Expression of proteins of vital functions as immunological proteins.
11. Study novel target pathways for cancer and liver diseases treatment.
12. Characterization of combination therapy to enhance cancer cell sensitivity.
13. Characterization of natural and synthetic drugs as novel, safe and effective drugs for different human diseases such as cancer, inflammatory diseases and diabetes and explore their molecular mechanisms of action.
14. Discovery of novel biomarkers for different human diseases.

## LANGUAGE PROFICIENCY

	<b>Arabic</b>	Mother tongue
	<b>English</b>	Excellent (Reading, Writing, Speaking, Listening)
	<b>Japanese</b>	Fair
	<b>German</b>	Fair

## COMPUTER SKILLS

	UNESCO <b>International Computer Driving License certificate (ICDL)</b> , which involves the following: 1-Basic Concepts of Information Technology 2-Using the Computer and Managing Files 3-Word Processing 4-Spread Sheets (Excel) 5-Database (Access) 6-Presentation (PowerPoint) 7-Information and Communication (Internet).
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## TRAINING

	<ul style="list-style-type: none"> <li>• Technology utilization in teaching, Mansoura University (15 h, 11-13/5/2008).</li> <li>• Effective communication skills, Mansoura University (15 h, 15-17/6/2008).</li> <li>• Profession ethics, Mansoura University (15 h, 20-22/7/2008).</li> <li>• Ethics of scientific research, Mansoura University (15 h, 01-03/3/2009).</li> <li>• Effective presentation methods, Mansoura University (15 h, 26-28/7/2009).</li> <li>• University teacher preparation program (40 h, 14-24/11/2009).</li> <li>• Quality standards in the teaching process (15 h, 26-28/12/2010).</li> <li>• Time management and meetings (15 h, 23-26/1/2011).</li> </ul>
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	<ul style="list-style-type: none"> <li>• Financial and legal aspects of the University (10 h, 9-10/11/2014).</li> <li>• Strategic Planning (10 h, 16-17/11/2014).</li> <li>• Scientific Publications (10 h, 23-24/11/2014).</li> <li>• Organizing scientific conferences (10 h, 30-11 to 1/12/2014).</li> <li>• University administration (10 h, 29-30/3/2015).</li> <li>• The research team organization (10 h, 21-22/6/2015).</li> <li>• Examination and evaluation systems of students (10 h, 8-9/9/2015).</li> <li>• Local and international competitive research projects (10 h, 15-16/11/2015).</li> <li>• Preparation and design of electronic tests (10 h, 27-28/3/2016).</li> <li>• Electronic management and indexing of references (10 h, 8-9/1/2018).</li> <li>• Statistical analysis skills (10 h, 16-17/9/2018).</li> <li>• Design of personal websites for faculty members (10 h, 22-23/7/2019).</li> <li>• Quality of performance in scientific departments (10 h, 01-02/6/2020).</li> <li>• Crisis and disaster management (10 h, 22-23/2/2021).</li> <li>• The art of successful leadership (10 h, 30-31/8/2021).</li> <li>• How to design interdisciplinary studies programs in education and scientific research (10 h, 15-16/1/2023).</li> <li>• Cyber security (10 h, 06-07/8/2023).</li> <li>• Member in scientific research board, Faculty of pharmacy, Mansoura University.</li> </ul>
<b>PROFESSIONAL SKILLS</b>	
	<ul style="list-style-type: none"> <li>• Good scientific knowledge in all fields of Pharmacy and Drugs.</li> <li>• Good medical information.</li> <li>• Good experience in prescribing OTC drugs and very good knowledge about Egyptian and some international market drugs.</li> <li>• Good presentation skills using PowerPoint data show and overhead projector.</li> <li>• Good ability to write reports (handwritten or using MS office programs).</li> <li>• Good time and money management.</li> <li>• Good communication skills.</li> <li>• High creative thinking.</li> </ul>

## **TEACHING EXPERIENCE**

### **1- Bachelor of Pharmaceutical Sciences Program – Faculty of Pharmacy – Mansoura University:**

1. General Microbiology and Immunology.
2. Parasitology.
3. Public health.
4. Pharmaceutical Microbiology.
5. Medical Microbiology.
6. Pharmaceutical Biotechnology.

### **2- Clinical Pharmacy Program - Faculty of Pharmacy – Mansoura University:**

1. General Microbiology and Immunology.
2. Pharmaceutical Biotechnology.
3. Biological Standardization.
4. Public Health and Preventive Medicine.
5. Parasitology.
6. Antimicrobial Agents and Chemotherapy.
7. Clinical Microbiology.
8. Pharmaceutical Microbiology.
9. Pharmaceutical Biotechnology.

### **3- Biomedical Engineering Program – Faculty of Engineering – Mansoura University:**

1. General Microbiology and Immunology.
2. Biopharmaceutical Measures.

### **4- Faculty of Pharmacy - Delta University:**

1. General Microbiology and Genetics.

### **5- Faculty of Pharmacy - Horus University:**

1. General Microbiology and Immunology.
2. Pharmaceutical Biotechnology.
3. Biological Standardization.
4. Public Health and Preventive Medicine.
5. Parasitology.
6. Antimicrobial Agents and Chemotherapy.
7. Clinical Microbiology.
8. Pharmaceutical Microbiology.
9. Pharmaceutical Biotechnology.

### **6- Postgraduate Programs (Diplomas, MSc and PhD):**

1. Laboratory diagnostic bacteriology and bacterial diseases.
2. Mycotic and viral diseases and their methods of laboratory diagnosis, immunology, sera and vaccines
3. General microbiology, chemistry, physiology, and genetics of microorganisms.
4. Microbiological fermentation, antibiotics, quality control of parenteral and microbiological methods of analysis of pharmaceuticals.
5. Practical part of diploma of microbiology.
6. Antimicrobial agents.
7. Clinical immunology.
8. Teaching special courses for Master and PhD students.
9. Bioinformatics.

## **OTHER ACTIVITIES**

- Member in Community Service Affairs and Environmental Development.
- Member in the Committee of public affairs.
- Member in the Committee of Credits hour's systems application.
- Member in the Committee of Community of human resources development.
- Member in the Committee of Scientific Research of the continuous improvement for qualifications and accreditation projects.
- Member in the Board Department of Microbiology.
- Microbiology and Immunology Department coordinator in clinical pharmacy program.
- Member in the Executive Committee to prepare the strategy for postgraduates studied of Faculty of Pharmacy.
- Member in committee of preparing Clinical Pharmacy program specification and Clinical Pharmacy program Self-annual report.
- Member in committee of preparing Self-annual report of Faculty of pharmacy (Students and graduates standards, Academic standards and educational programs, Teaching and learning).
- Member in the Committee of examination chemicals and equipments specifications.
- Participation in the preparation of the theoretical and practical exams for undergraduate and graduate students.
- Supervision of the practical course for undergraduate and graduate students.
- Participation in the control of undergraduate, clinical pharmacy programme and postgraduate students.
- Supervision on the summer training of the undergraduate students.
- Participation in the supervision and arbitration of scientific articles for diploma students.
- Proctoring during periodical and final practical and theoretical exams.

## PUBLICATIONS

1. Mohamed Hussain, Mohamed Hassan, Bashir Bashir, Tarig Gamar, Elmuaiz Gasmalbari, Ahmed Mohamed, Wadah Osman, Asmaa Sherif, **Abdelaziz Elgaml**, Aisha Alhaddad, Kholoud Ghazawi, Samar Miski, Bayan Ainousah, Yusra Andijani, Sabrin Ibrahim, Gamal Mohamed, Ahmed Ashour (2023): Potential therapeutic target and vaccines for SARS-CoV-2. **Pathogens**. 12: 926
2. Mohamed Hussain, Malik Mohamed, Hisham Altayb, Ahmed Mohamed, Ahmed Ashour, Wadah Osman, Asmaa Sherif, Kholoud Ghazawi, Samar Miski, Sabrin Ibrahim, Gamal Mohamed, Ikhlas Sindi, Ahmad Alshamrani, **Abdelaziz Elgaml** (2023): Comparative genomic analysis of multi-drug resistant *Pseudomonas aeruginosa* sequence type 235 isolated from Sudan. **Microorganisms**. 11:1432.
3. Mohammed El-Mowafy, Mohamed Elegezy, Mohamed El-Mesery, **Abdelaziz Elgaml** (2023): Novel method for cloning of hepatitis B virus DNA using the In-Fusion enzyme. **Gene Reports**. 31:101765.
4. Khaled Aboelsuod, Fatma Sonbol, Tarek El-Banna, **Abdelaziz Elgaml** (2023): Emergence of Multidrug-resistant Carbapenemases and MCR-1 Producing *Pseudomonas aeruginosa* in Egypt. **Journal of Pure and Applied Microbiology**. 17:486-498.
5. Fatma Sonbol, Tarek El-Banna, **Abdelaziz Elgaml**, Khaled Aboelsuod (2022): Impact of quorum sensing system on virulence factors production in *Pseudomonas aeruginosa*. **Journal of Pure and Applied Microbiology**. 16:1226-1238.
6. Mohammed El-Mowafy, **Abdelaziz Elgaml**, Naglaa Abass, Amany Mousa, Mohamed Amin (2022): The antimicrobial peptide alpha defensin correlates to type 2 diabetes via the advanced glycation end products pathway. **African Health Sciences**. 22:303-311.
7. Gehad Abdel Wahab, Amal Sallam, **Abdelaziz Elgaml**, Mohamed Lahloub, Mohamed Afifi (2022): Antioxidant, antimicrobial and anti-quorum sensing compounds from *Salix babylonica*. **South African Journal of Botany**. 147:774-781.
8. Akram Abbas El Awady, Rami M. Elshazli, Ahmed Akram El Awady, **Abdelaziz Elgaml**, Ahmed K.Khalifa, AhmadSettini (2022): Association of *CTLA4 c.49A > G (rs231775; p.Thr17Ala)* gene variant with the risk of hepatocellular carcinoma and gastric cancer: A meta-analysis and meta-regression. **Meta Gene**. 31:100999.
9. Mohamed Shaker, Nada Eisa, **Abdelaziz Elgaml**, Ahmed El-Mesery, Mohamed El-Shafey, Mohamed El-Dosoky, Mohammed El-Mowafy, Mohamed El-Mesery (2021): Ingestion of mannose ameliorates thioacetamide-induced intrahepatic oxidative stress, inflammation and fibrosis in rats. **Life Sciences**. 286:120040.
10. Salma Sultan, Mohammed El-Mowafy, **Abdelaziz Elgaml**, Tamer A. E. Ahmed, Hebatollah Hassan, Walid Mottawea (2021): Metabolic influences of gut microbiota dysbiosis on inflammatory bowel disease. **Frontiers of Physiology**. 12:715506.
11. Eman El-Baz, **Abdelaziz Elgaml**, Rasha Barwa (2021): Impact of the global regulator SarA on toxins production in *Staphylococcus aureus*. **Journal of Microbiology, Biotechnology and Food Research**. e4155-e4155.



- 12 **Abdelaziz Elgaml**, Mohamed Elegezy, Mohamed El-Mesery, Mohammed El-Mowafy (2021): Natural variability in surface antigen and reverse transcriptase domain of hepatitis B virus in treatment-naïve chronic HBV-infected Egyptian patients. **Virus Research**. 302:198422.
- 13 Mohamed El-Mesery, Mohammed El-Mowafy, Laila Youssef, Ahmed El-Mesery, Sally Abed, **Abdelaziz Elgaml** (2021): Serum soluble fibrinogen-like protein 2 represents a novel biomarker for differentiation between acute and chronic Egyptian hepatitis B virus-infected patients. **Journal of Interferon and Cytokine Research**. 41:52-59.
- 14 Eman M. Shehab El-Din, **Abdelaziz Elgaml**, Youssif M. Ali, Ramadan Hassan (2021): Inhibition of the classical pathway of complement activation impairs bacterial clearance during *Enterococcus faecalis* infection. **Infection and Immunity**. 89(5):e00660-20.
- 15 Rami M. Elshazli, Adam Kline, **Abdelaziz Elgaml**, Mohamed H. Aboutaleb, Mohamed M. Salim, Mahmoud Omar, Ruhul Munshi, Nicholas Mankowski, Mohammad H. Hussein, Abdallah S. Attia, Eman A. Toraih, Ahmad Settin, Mary Killackey, Manal S. Fawzy, Emad Kandil (2021): Gastroenterology manifestations and COVID-19 outcomes: A meta-analysis of 25,252 cohorts among the first and second waves. **Journal of Medical Virology**. 93:2740-2768.
- 16 Nourhan H. El-Subbagh, Rana Rabie, Aya A. Mahfouz, Khaled M. Aboelsuod, Mohamed Y. Elshabrawy, Haneen M. Abdelaleem, Basant E. Elhammady, Weam Abosaleh, Lamiaa A. Salama, Sara Badreldeen, Mohamed Yasser, **Abdelaziz Elgaml** (2021): Characteristic Features of Coronavirus Disease-2019 (COVID-19) Pandemic: Attention to the Management and Control in Egypt. **Journal of Disaster Research**. 16:70-83.
- 17 Mohammed El-Mowafy, **Abdelaziz Elgaml**, Mohamed El-Mesery, Salma Sultan, Tamer A. E. Ahmed, Ahmed I. Gomaa, Mahmoud Aly, Walid Mottawea (2021): Changes of Gut-Microbiota-Liver Axis in Hepatitis C Virus Infection. **Biology (Basel)**. 10(1):55.
- 18 Mohamed N. Amin, Mohammed El-Mowafy, Ali Mobark, Naglaa Abass, **Abdelaziz Elgaml** (2021): Exercise-induced downregulation of serum interleukin-6 and tumor necrosis factor-alpha in Egyptian handball players. **Saudi Journal of Biological Sciences**. 28:724-730.
- 19 Salma Sultan, Mohammed El-Mowafy, **Abdelaziz Elgaml**, Mohamed El-Mesery, Ahmed El Shabrawi, Mohamed Elegezy, Riadh Hammami, Walid Mottawea (2021): Alterations of the Treatment-Naive Gut Microbiome in Newly Diagnosed Hepatitis C Virus Infection. **ACS Infectious Diseases**. 7:1059-1068.
- 20 Rami M Elshazli, Eman Ali Toraih, **Abdelaziz Elgaml**, Mohammed El-Mowafy, Mohamed El-Mesery, Mohamed N Amin, Mohammad H Hussein, Mary T Killackey, Manal S Fawzy, Emad Kandil (2020): Diagnostic and prognostic value of hematological and immunological markers in COVID-19 infection: A meta-analysis of 6320 patients. **PlosOne**. 15(8):e0238160.
- 21 Eman Toraih, Rami Elshazli, Mohammad Hussein, **Abdelaziz Elgaml**, Mohamed Amin, Mohammed El-Mowafy, Mohamed El-Mesery, Assem Ellythy, Juan Duchesne, Mary Killackey, Keith Ferdinand, Emad Kandil, Manal S Fawzy (2020): Association of cardiac biomarkers and comorbidities with increased mortality, severity, and cardiac injury in COVID-19 patients: A meta-regression and decision tree analysis. **Journal of Medical Virology**. 92:2473-2488.
- 22 Yomna Hagag, **Abdelaziz Elgaml**, Hany Kenawy, Ramadan Hassan (2020): Impact of *sarA* mutation on immune system evasion and stress response in *Staphylococcus aureus*. **Egyptian Journal of Medical Microbiology**. 29:1-8.

- 23 Fatma Abdel Bar, Marwa Elsbaey, Noha Taha, **Abdelaziz Elgaml**, Gamal Abdel-Fattah (2020): Phytochemical, antimicrobial and antiquorum-sensing studies of pulicaria undulata L.: a revision on the structure of 1 $\beta$ ,2 $\alpha$ ,3 $\beta$ ,19 $\alpha$ ,23-pentahydroxy-urs-12-en-28-oic acid. **Natural Product Research**. 34:804-809.
- 24 Rami Elshazli, Eman Toraih, **Abdelaziz Elgaml**, EmadKandil, Manal S.Fawzy (2020): Genetic polymorphisms of TP53 (rs1042522) and MDM2 (rs2279744) and colorectal cancer risk: An updated meta-analysis based on 59 case-control studies. **Gene**. 734:144391.
- 25 Dareen Ibrahim, Fatma Abdel Bar, **Abdelaziz Elgaml**, Sahar Gedara, Ahmed Gohar (2019): Antimicrobial, antiquorum-sensing and *Ex-vivo* antispasmodic activity of *Adhatoda vasica*. **Journal of pharmaceutical research international**. 31:1-16.
- 26 Mohammed El-Mowafy, **Abdelaziz Elgaml**, Mona Shaaban (2019): New approaches for competing microbial resistance and virulence. Book chapter in Microorganisms book, pages: 1-25. <http://dx.doi.org/10.5772/intechopen.90388>. **IntechOpen**.
- 27 Mai El-Naggar, **Abdelaziz Elgaml**, Fatma Abdel Bar, Farid Badria (2019): Antimicrobial and antiquorum-sensing activity of *Ricinus communis* extracts and ricinine derivatives. **Natural Product Research**. 33:1556-1562.
- 28 Abeer M Abd El-Aziz, **Abdelaziz Elgaml**, Youssif M. Ali (2019): Bacteriophage therapy increases complement mediated lysis of bacteria and enhances bacterial clearance after acute lung infection with MDR *Pseudomonas aeruginosa*. **The journal of infectious diseases**. 219:1439-1447.
- 29 Mona Shaaban, **Abdelaziz Elgaml**, El-Sayed E.Habib (2019): Biotechnological applications of quorum sensing inhibition as novel therapeutic strategies for multidrug resistant pathogens. **Microbial Pathogenesis**. 127:138-143.
- 30 Yomna Hagag, **Abdelaziz Elgaml**, Hany Kenawy, Ramadan Hassan (2018): Biofilm patterns of *Staphylococcus aureus* clinical isolates collected from Mansoura University hospitals, Egypt. **New Egyptian Journal of Microbiology**. 50:20-33.
- 31 Amany Mostafa, Waleed Bayoumi , Mohamed El-Mesery, **Abdelaziz Elgaml** (2019): Molecular design and synthesis of new 3,4-Dihydropyrimidin-2(1H)-ones as potential anticancer agents with VEGFR-2 inhibiting activity. **Anti-Cancer Agents in Medicinal Chemistry**. 19:310-322.
- 32 Gehad Abdel Wahab, Amal Sallam, **Abdelaziz Elgaml**, Mohamed Farid Lahloub, Mohamed S. Afifi (2018): Antioxidant and antimicrobial activities of *Salix babylonica* extracts. **World Journal of Pharmaceutical Sciences**. 6:1-6.
- 33 Mohamed El-Mesery, Mohammed El-Mowafy, **Abdelaziz Elgaml**, Laila Youssef, Sally Abed (2017): Correlation of Serum Soluble Fibrinogen-Like Protein 2 with Soluble FAS Ligand and Interferon Gamma in Egyptian Hepatitis C Virus-Infected Patients and Hepatocellular Carcinoma Patients. **Journal of Interferon and Cytokine Research**. 37:342-347.
- 34 Mohammed El-Mowafy, **Abdelaziz Elgaml**, Mohamed El-Mesery, Mohamed Elegezy (2017): Molecular analysis of Hepatitis B virus sub-genotypes and incidence of preS1/preS2 region mutations in HBV-infected Egyptian patients from Mansoura. **Journal of Medical Virology**. 89:1559-1566.
- 35 **Abdelaziz Elgaml**, Shin-ichi Miyoshi (2017): Regulation systems of protease and hemolysin production in *Vibrio vulnificus*. **Microbiology and Immunology**. 61:1-11.

- 36 Mahmoud Khalil, **Abdelaziz Elgaml**, Mohammed El-Mowafy (2017): Emergence of Multidrug-Resistant New Delhi Metallo- $\beta$ -Lactamase-1-Producing *Klebsiella pneumoniae* in Egypt. **Microbial Drug Resistance**. 23:480-487.
- 37 Mohamed El-Mesery, Mohamed Shaker, **Abdelaziz Elgaml** (2016): The SMAC mimetic BV6 induces cell death and sensitizes different cell lines to TNF- $\alpha$  and TRAIL-induced apoptosis. **Experimental Biology and Medicine**. 241:2015-2022.
- 38 El-Shaymaa Abdel-Sattar, Shin-ichi Miyoshi, **Abdelaziz Elgaml** (2016): Regulation of *Vibrio mimicus* metalloprotease (VMP) production by the quorum-sensing master regulatory protein, LuxR. **Journal of Basic Microbiology**. 56:1051-1058.
- 39 **Abdelaziz Elgaml**, Shin-ichi Miyoshi (2015): Role of the Histone-Like Nucleoid Structuring Protein (H-NS) in the Regulation of Virulence Factor Expression and Stress Response in *Vibrio vulnificus*. **Biocontrol Science**. 20:263-274.
- 40 **Abdelaziz Elgaml**, Shin-ichi Miyoshi (2015): Presence of Nitric Oxide-Sensing Systems in the Human Pathogen *Vibrio vulnificus*. **Biocontrol Science**. 20:199-203.
- 41 **Abdelaziz Elgaml**, Kazutaka Higaki, Shin-ichi Miyoshi (2014): Effects of temperature, growth phase and *luxO*-disruption on regulation systems of toxin production in *Vibrio vulnificus* strain L-180, a human clinical isolate. **World Journal of Microbiology and Biotechnology**. 30:681- 691.
- 42 **Abdelaziz Elgaml**, Kazutaka Higaki, Shin-ichi Miyoshi (2013): Regulation system of serine protease production in *Vibrio vulnificus* strain NCIMB 2137, a metalloprotease-gene negative strain isolated from a diseased eel. **Aquaculture**. 416–417:315-321.
- 43 **Abdelaziz Elgaml**, Ramadan Hassan, Rasha Barwa, Shadi Shokralla, Wael El-Naggag (2014): Antimicrobial susceptibility and sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) typing of Gram negative bacteria isolated from urinary tract infections in Mansoura, Egypt. **Journal of Microbiology and Antimicrobials**. 6:43-50.
- 44 **Abdelaziz Elgaml**, Ramadan Hassan, Rasha Barwa, Shadi Shokralla, Wael El-Naggag (2013): Analysis of 16S ribosomal RNA gene segments for the diagnosis of Gram negative pathogenic bacteria isolated from urinary tract infections. **African Journal of Microbiology Research**. 7:2862-2869.
- 45 Wael El-Naggag, Ramadan Hassan, Rasha Barwa, Shadi Shokralla, **Abdelaziz Elgaml** (2010): Molecular diagnosis of Gram negative bacteria in urinary tract infections. **Egyptian Journal of Medical Microbiology**. 19:93-106.

## ATTENDED CONFERENCES AND WORKSHOPS

1. **Abdelaziz Elgaml (2023)**: The 31<sup>st</sup> International Conference of the Arab Society of Infection Control and Prevention in association with the Arabic Institute for Continuous Development. 2<sup>nd</sup> to 4<sup>th</sup> November 2023. (oral presentation).
2. **Abdelaziz Elgaml (2023)**: Conventional versus recent advances in medical microbiology. The 30<sup>th</sup> International Conference of the Egyptian Society of Medical Microbiology (ESMM) in association with the American Society of Microbiology (ASM). 28<sup>th</sup> September 2023. (oral presentation).
3. **Abdelaziz Elgaml (2022)**: Recent diagnostic, preventive and therapeutic approaches for infectious diseases in medical microbiology. The 29<sup>th</sup> International Conference of the Egyptian Society of Medical Microbiology (ESMM) in association with the American Society of Microbiology (ASM). 2<sup>nd</sup> to 3<sup>rd</sup> September 2022. (oral presentation).
4. **Abdelaziz Elgaml (2022)**: The international day for the hands cleanliness. The Egyptian Society for infection prevention in association with the Arabic institute for the continuous development. 5<sup>th</sup> May 2022. (oral presentation).
5. **Abdelaziz Elgaml (2021)**: Emerging infections: The undeniable nuisance. The 29<sup>th</sup> Annual Conference of the Egyptian Society for infection control (ESIC). 4<sup>th</sup> to 6<sup>th</sup> November 2021. (oral presentation).
6. **Abdelaziz Elgaml (2021)**: COVID-19 pandemic: The Egyptian versus global experience. The 28<sup>th</sup> International Conference of the Egyptian Society for Medical Microbiology (ESMN). 23<sup>th</sup> October 2021. (oral presentation).
7. **Abdelaziz Elgaml (2020)**: One safety paradigm: Patient, provider and public safety. The 28<sup>th</sup> Annual Conference of the Egyptian Society for for infection control (ESIC). 5<sup>th</sup> to 7<sup>th</sup> November 2020. (oral presentation).
8. **Abdelaziz Elgaml (2020)**: Superbugs threat: The problem and its solutions. The 26<sup>th</sup> International Conference of the Egyptian Society for Medical Microbiology (ESMN) – In association with Microbiology Department, Faculty of Pharmacy, Cairo University.. 7<sup>th</sup> March 2020. (oral presentation).
9. **Abdelaziz Elgaml (2019)**: The 8<sup>th</sup> German Science "DAAD Kairo COSIMENA". 16<sup>th</sup> July 2019. Conrad Cairo Hotel. (workshop).
10. Abeer M Abd El-Aziz, **Abdelaziz Elgaml**, Youssif M Ali (2019): The Internationalization of Higher Education Conference. 18<sup>th</sup> to 20<sup>th</sup> March 2019. Mansoura University, Egypt. (poster presentation).
11. **Abdelaziz Elgaml (2018)**: Nosocomial infections: The challenge of emergence and reemerging infections. The 24<sup>th</sup> Conference of the Egyptian Society for Medical Microbiology (ESMN) – In association with Microbiology Department, Faculty of Pharmacy, Cairo University. (oral presentation).
12. Eman El-Baz, **Abdelaziz Elgaml**, Rasha Barwa (2017): Impact of global regulators on antimicrobial resistance and virulence factor production in *Staphylococcus aureus*. The 1<sup>st</sup> International Conference of Pharmaceutical Sciences (MU-PHARM 2017). April 9<sup>th</sup> to 11<sup>th</sup>, 2017. Faculty of Pharmacy, Mansoura university, Mansoura, Egypt. (oral and poster presentation).

13. **Abdelaziz Elgaml** (2017): New Era of Microbiology. The 23<sup>th</sup> Conference of the Egyptian Society for Medical Microbiology (ESMN). (oral presentation).
14. Mahmoud Khalil, **Abdelaziz Elgaml**, Mohammed El-Mowafy (2017): Emergence of Multidrug-Resistant New Delhi Metallo- $\beta$ -Lactamase-1-Producing *Klebsiella pneumoniae* in Egypt. German-Egyptian Network for Innovation and Development (GENID) Conference. February 22<sup>nd</sup> & 23<sup>rd</sup>, 2017. Intercontinental City Stars, Cairo, Egypt. (poster presentation).
15. **Abdelaziz Elgaml** (2016): Quorum sensing cascades in bacteria. The 3<sup>rd</sup> Scientific Conference of Microbiology & Immunology Department, Faculty of Pharmacy, Mansoura university. November 22<sup>nd</sup>, 2016. Faculty of Pharmacy, Mansoura university, Mansoura, Egypt. (oral presentation).
16. **Abdelaziz Elgaml** (2016): Quorum sensing cascades: complexity and biodiversity. 1<sup>st</sup> PharmaSchool International Conference of Pharmaceutical Science. February 15-16<sup>th</sup>, 2016. Faculty of Pharmacy, Mansoura university, Mansoura, Egypt. (oral presentation).
17. **Abdelaziz Elgaml** (2015): New strategies for treatment of multi-drug resistant bacteria. The 21<sup>st</sup> Conference of the Egyptian Society for Medical Microbiology (ESMN) – Antimicrobial resistance: A growing health issue. April 25<sup>th</sup>, 2015. Hilton - Dreamland, Cairo, Egypt. (oral presentation).
18. **Abdelaziz Elgaml** and Shin-ichi Miyoshi (2013): Regulation system of serine protease production in *Vibrio vulnificus* strain NCIMB 2137, a metalloprotease-gene negative strain. Infection Research Conference. December 18<sup>th</sup>, 2013. Okayama University, Okayama, Japan (oral presentation).
19. **Abdelaziz Elgaml** and Shin-ichi Miyoshi (2012): Quorum sensing regulation of virulence factors expression in *Vibrio vulnificus*. Bioactive Okayama 2012 International Conference. September 13<sup>th</sup>-14<sup>th</sup>, 2012. Okayama University, Okayama, Japan. (oral and poster presentation).

## MEMBERSHIP OF SCIENTIFIC COMMITTEES

- 1- Egyptian society of medical microbiology (ESMM).
- 2- American society of microbiology (ASM).

## SUPERVISION OF GRADUATE STUDENTS

### 1- PhD students:

1. **Eman Rabea, 2016:** Role of the classical pathway of immunological complement system activation during bacterial infection.
2. **Khaled Abo-elsood, 2023:** The potential impact of AIRE and FOXP3 genetic variants with the susceptibility to psoriasis among Egyptian subjects.

### 2- Master Students:

1. **Yomna Hagag, 2015:** Role of some virulence factor of *Staphylococcus aureus* in immune system evasion.
2. **Eman El-Baz, 2016:** Impact of the global regulator SarA on antimicrobial resistance and virulence factor production in *Staphylococcus aureus*.
3. **Khaled Abo-elsood, 2018:** Impact of quorum sensing system on virulence factors production and antimicrobial resistance in *Pseudomonas aeruginosa*.
4. **Mohamed Shabrawy, 2021:** Association of genetic polymorphisms of T-cell immunoglobulin mucin variants with systemic lupus erythematosus among Egyptian patients.

## AWARDS

1. **Alexander von Humboldt foundation fellowship for experienced researchers (2021).**  
Sponsored by the Alexander von Humboldt foundation.
2. **MONBUKAGAKUSHU (JAPAN MEXT) research student scholarship (2011).**  
Sponsored by the embassy of Japan in Egypt.
3. **Excellence Certificate** for the best master theses (2010).  
Sponsored by the Pharmacy Syndicate, Cairo in Egypt.
4. **Excellence Certificates** for being among the top ten ranked students throughout the 5 years-period of study in the Faculty of Pharmacy, Mansoura University, Mansoura, Egypt (2002-2007).  
Sponsored by the Faculty of Pharmacy, Mansoura University and Pharmacy Syndicate, Mansoura in Egypt.

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1- Google Scholar ID:	<a href="https://scholar.google.com/eg/citations?hl=en&amp;user=NZxlQ1EAAAAJ">https://scholar.google.com/eg/citations?hl=en&amp;user=NZxlQ1EAAAAJ</a>
2- Scopus ID:	<a href="https://www.scopus.com/authid/detail.uri?authorId=55878172000">https://www.scopus.com/authid/detail.uri?authorId=55878172000</a>
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REFERENCES
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