Dr. Eva Adel Edward Farid

Job Title: Associate professor at Microbiology and Immunology Department. **Address**: Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, 1-El-Khartoum Square, El-Azarita, Alexandria, Egypt.

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PERSONAL INFORMATION

Birth Date: 17th November, 1987

Nationality: Egyptian

Marital Status: Married

Languages: Excellent written and spoken command of English Language.

Holding the International English language testing system, ILETS certificate, and the Local TOEFL certificate with general grade Excellent.

Arabic is the native language.

ACADEMIC STUDIES

- ❖ 2016: Ph.D. in Pharmaceutical Sciences, Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University; thesis title: "Study of resistance to carbapenems among Enterobacteriaceae clinical isolates: a new threat to the efficacy of lifesaving antibiotics in Egypt".
- ❖ 2013: Master in Pharmaceutical Sciences, Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University; thesis title: "Molecular characterization of some selected Gram-positive clinical isolates with varying resistance to gentamicin, rifampicin and some glycopeptides".

❖ 2010: Bachelor of Pharmaceutical Sciences with Distinction Honor (one of the three top students), Faculty of Pharmacy, Alexandria University.

ACADEMIC EMPLOYMENTS

- ❖ 2022 till now: Associate professor in Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University.
- ❖ 2017 2022: Lecturer in Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University.
- ❖ 2013 2017: Assistant lecturer in Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University.
- ❖ 2010 2013: Demonstrator in Microbiology and Immunology Department, Faculty of pharmacy, Alexandria University.

TEACHING EXPERIENCE

- Supervising practical courses of Pharmaceutical Microbiology for undergraduate pharmacy students, Faculty of Pharmacy, Alexandria University.
- ❖ Supervising practical courses of **Public Health** for undergraduate pharmacy students, Faculty of Pharmacy, Alexandria University.
- ❖ Supervising practical courses of **Pharmaceutical Biotechnology** for undergraduate pharmacy students (Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Supervising practical courses of **Parasitology** for undergraduate pharmacy students (Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Supervising practical courses of **Parasitology** for undergraduate pharmacy students (PharmD Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Supervising practical courses of **Pharmaceutical Microbiology** for undergraduate pharmacy students (Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Delivering lectures of **Pharmaceutical Microbiology** for undergraduate pharmacy students, Faculty of Pharmacy, Alexandria University.

- ❖ Delivering lectures of **Public Health** (**Parasitology**) for undergraduate pharmacy students, Faculty of Pharmacy, Alexandria University.
- ❖ Delivering lectures of **Pharmaceutical Biotechnology** for undergraduate pharmacy students (Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Delivering lectures of **Parasitology** for undergraduate pharmacy students (Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Delivering lectures of **Parasitology** for undergraduate pharmacy students (PharmD Clinical Pharmacy Program), Faculty of Pharmacy, Alexandria University.
- ❖ Delivering lectures of **Advanced Molecular Microbiology** for postgraduate students (Master Degree), Faculty of Pharmacy, Alexandria University.
- ❖ Delivering lectures of **Advanced General Microbiology** for postgraduate students (Master Degree), Faculty of Pharmacy, Alexandria University.

ACADEMIC SUPERVISIONS

❖ M.Sc. thesis: "A study of the antimicrobial and anti-inflammatory activity of some selected probiotics *in vitro* and *in vivo*".

Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.

❖ M.Sc. thesis: "Correlation between multiple antibiotic resistance and virulence of *Pseudomonas aeruginosa* clinical isolates from Alexandria".

Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.

❖ M.Sc. thesis: "Molecular study on cloning of selected *Pseudomonas aeruginosa* antigens and their investigation as potential vaccine candidates".

Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.

❖ M.Sc. thesis: "Characterization of virulence determinants among quinolone-sensitive and quinolone-resistant *Staphylococcus aureus* clinical isolates".

Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.

- ❖ M.Sc. thesis: "Molecular study on selected antibiotic resistant Staphylococcus spp. clinical isolates in Alexandria, Egypt".
 - Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.
- **❖** Ph.D. thesis: "Characterization of the resistance and virulence profiles of multidrugresistant *Acinetobacter baumannii* clinical isolates collected from hospital laboratories in Alexandria, Egypt".
 - Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.
- ❖ M.Sc. thesis: "Investigation of colistin activity and its possible resistance mechanisms among carbapenem-resistant Gram-negative bacteria isolated from bloodstream infections from hospital laboratories in Alexandria, Egypt".
 - Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.
- **❖** Ph.D. thesis: "Genomic characterization of carbapenem-resistant *Pseudomonas* aeruginosa clinical isolates from Alexandria, Egypt".
 - Department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University.

Professional Training Courses and Attended Workshops

- * "Research Ethics", Faculty and Leadership Development Center, Alexandria, Egypt (July 2011).
- ❖ "Quality Standards in the Education Process", Faculty and Leadership Development Center, Alexandria, Egypt (July 2011).
- * "Conference Organization", Faculty and Leadership Development Center, Alexandria, Egypt (July 2011).
- * "Effective Presentation Skills", Faculty and Leadership Development Center, Alexandria, Egypt (July 2011).

- * "Exams and Student Evaluation Systems", Faculty and Leadership Development Center, Alexandria, Egypt (August 2011).
- **❖ "Local TOEFL Certificate"** with general grade Excellent, scored 653/680 (March 2013).
- * "Tasks of the Quality Assurance Units Coordinators" "Code: QA0015", Quality Assurance Unit, Faculty of Engineering, Alexandria University, Egypt (April 2013).
- * "Ethical Conduct and Code of Ethics", Faculty and Leadership Development Center, Alexandria, Egypt (November 2013).
- * "Research Team Management", Faculty and Leadership Development Center, Alexandria, Egypt (December 2013).
- * "University Management", Faculty and Leadership Development Center, Alexandria, Egypt (January 2014).
- * "References Management System", Faculty and Leadership Development Center, Alexandria, Egypt (February 2014).
- * "The Credit Hour System", Faculty and Leadership Development Center, Alexandria, Egypt (February 2014).
- **❖ "International English Language Testing System, IELTS Certificate"**, scored 7 (May 2016).
- * "CellPress Journals Awareness", Faculty of Pharmacy, Alexandria University, Egypt (July 2018).
- * "Assessment: The Real Driver for Competency-based Education in Pharmacy", Faculty of Pharmacy, Alexandria University, Egypt (July 2018).
- * "Flipping classroom and web-2 tools" Faculty of Pharmacy, Alexandria University, Egypt (November 2018).
- "International Publishing of Research", Faculty and Leadership Development Center, Alexandria, Egypt (November 2019).
- * "Palliative Care Medicine", Faculty of Pharmacy, Alexandria University, Egypt (February 2020).
- * "Web 2.0 Tools (Google Classroom)", Faculty of Agriculture, Alexandria University, Egypt (March 2020).
- * "Technical Writing", Faculty and Leadership Development Center, Alexandria, Egypt (May 2020).
- ❖ "Design and Production of Digital Content", Faculty and Leadership Development Center, Alexandria, Egypt (May 2020).

- * "Moodle Learning Management System", Online Training: Digital Transformation Leaders, Alexandria University (June 2020).
- ❖ "Funded Research Implementation and Research Team Management", Faculty and Leadership Development Center, Alexandria, Egypt (January 2021).
- * Workshop entitled: "Self-study for institutional accreditation", Online workshop (January 2021).
- * "Legal and Financial Aspects in University", Faculty and Leadership Development Center, Alexandria, Egypt (February 2021).
- * "Focus on Nutraceuticals to Nanonutraceuticals to Nanopharmaceuticals", Online workshop using Microsoft Teams (April 2021).
- * "Preparation of the test item for the medical sector", Online workshop using Microsoft Teams (April 2021).
- * "Best Practice Scientific Writing Workshop", Online workshop using Microsoft Teams (May 2021).
- * "Competitive Research Projects Proposals", Faculty and Leadership Development Center, Alexandria, Egypt (June 2021).
- * "JoVE Webinar" "JoVE: Bringing Text to Life", Online workshop (September 2021).
- **❖ JoVE Workshop" "Accelerate Your Science Research and Education Through JoVE",** Online workshop (September 2022).
- ❖ "Undergraduate Research Initiative and Deliverables", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).
- * "Scientific Writing and Plagiarism", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).
- * "Data Collection Instruments", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).
- * "Ethical Considerations in Research", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).
- ❖ "Opportunities for Multidisciplinary Research for Undergraduates", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).
- ❖ "International Publishing", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).

* "References Management", Online workshop organized by Innovation In Pedagogy and Aiding Distance Learning Center, Alexandria University (July 2023).

ATTENDED CONFERENCES

- ❖ "International Conference on Pharmaceutical and Biological Sciences", held in Dubai, United Arab Emirates (March 2014).
- * "BioVision Alexandria 2014 Conference" "New life sciences: The next decade", held at the Bibliotheca Alexandrina, Alexandria, Egypt (April 2014).
- ❖ "The 5th Annual Scientific Conference of Faculty of Pharmacy", held at Faculty of Pharmacy, Alexandria University, Egypt (November 2017).
- ❖ "International Conference on Pharmaceutical & Healthcare Sciences, PHS 2019", held in Alexandria, Egypt (November 2019).
- * "PHS 2020 WEBINAR" "Personalized Medicine: A Challenging Health Care Model for Human Wellness" (November 2020).
- * "PHS 2021 WEBINAR" "Artificial Intelligence in Healthcare" (November 2021).
- * "2nd International Conference & Exhibition on Pharmaceutical & Healthcare Sciences, PHS 2022: Egypt Vision for Healthcare 2030", held in Alexandria, Egypt (November 2022).
- * "PHS 2023 SYMPOSIUM" "Nutraceuticals: An Evolving Approach In Healthcare", held at the Convention Centre, Faculty of Medicine, Alexandria University (November 2023).

PROFESSIONAL DEVELOPMENT

❖ <u>Poster presenter</u> at the "International Conference on Pharmaceutical and Biological Sciences", held in Dubai, United Arab Emirates (March 2014). Poster title: "Antimicrobial efficacy of some antibiotics combinations tested against some molecular characterized multi-resistant Staphylococcus clinical isolates, in Egypt". Authors: Eva. A. Edward, Nourhan. H. Fanaki, Hoda. M. Omar and Nihal. H. Moussa.

- ❖ <u>The main speaker</u> of a public lecture entitled: "*The Hidden Heroes in Solving the Plastic Pollution Crisis in Oceans*", held on 21st February 2019, at Faculty of Pharmacy, Alexandria University, Egypt.
- ❖ Co-author poster presenter at "Dubai International Pharmaceuticals & Technologies Conference & Exhibition, DUPHAT 2019", held in Dubai, United Arab Emirates (February 2019). Poster title: "In-vitro and in-vivo comparative activities of a novel fluoroquinolone, zabofloxacin, with older fluoroquinolones against MRSA isolated from Alexandria Main University Hospital". Authors: Nelly M. Mohamed, Azza S. Zakaria, Eva A. Edward and Amany Abdel-Bary.
- ❖ Co-author poster presenter at "The First Scientific Forum for Graduate Studies, Faculty of Pharmacy, Alexandria University 2019", held at Faculty of Pharmacy, Alexandria University (May 2019). Poster title: "In vitro and in vivo activity of zabofloxacin and older fluoroquinolones against MRSA isolates from Alexandria Main University Hospital, Egypt". Authors: Nelly M. Mohamed, Azza S. Zakaria, Eva A. Edward and Amany Abdel-Bary.
- ❖ Poster presenter at "International Conference on Pharmaceutical & Healthcare Sciences, PHS 2019", held in Alexandria, Egypt (November 2019). Poster title: "Evaluation of citric acid and clove oil as edible anti-virulence and resistance-modifying agents against problematic Klebsiella clinical isolates in Egypt". Authors: Eva. A. Edward, Hoda. M. Omar and Hoda M. Fathy.
- ❖ Co-author poster presenter at "International Conference on Pharmaceutical & Healthcare Sciences, PHS 2019", held in Alexandria, Egypt (November 2019). Poster title: "Evaluation of ciclopirox as a virulence-modifying agent against multidrug resistant Pseudomonas aeruginosa clinical isolates from Egypt". Authors: Azza S. Zakaria, Eva A. Edward and Nelly M. Mohamed.
- * Co-author poster presenter at "Dubai International Pharmaceuticals & Technologies Conference & Exhibition, DUPHAT 2020", held in Dubai, United Arab Emirates (February 2020). Poster title: "Proteomic study of the role of antifungal caspofungin in the sensitization of methicillin-resistant Staphylococcus aureus (MRSA)

isolates towards zabofloxacin, a novel fluoroquinolone". Authors: Nelly M. Mohamed, Azza S. Zakaria and **Eva A. Edward**.

- * Poster presenter at "2nd International Conference & Exhibition on Pharmaceutical & Healthcare Sciences, PHS 2022", held in Alexandria, Egypt (November 2022). Poster title: "Whole genome characterization of the high-risk clone ST383 Klebsiella pneumoniae with a simultaneous carriage of bla_{CTX-M-14} on IncL/M plasmid and bla_{CTX-M-15} on convergent IncHI1B/IncFIB plasmid from Egypt". Authors: Eva. A. Edward, Nelly M. Mohamed and Azza S. Zakaria.
- ❖ Co-author poster presenter at "2nd International Conference & Exhibition on Pharmaceutical & Healthcare Sciences, PHS 2022", held in Alexandria, Egypt (November 2022). Poster title: "Genomic Insights into a Colistin-Resistant Uropathogenic Escherichia coli Strain of O23:H4-ST641 Lineage Harboring mcr-1.1 on a Conjugative IncHI2 Plasmid from Egypt". Authors: Azza S. Zakaria, Eva A. Edward and Nelly M. Mohamed.
- ❖ Co-author poster presenter at "2nd International Conference & Exhibition on Pharmaceutical & Healthcare Sciences, PHS 2022", held in Alexandria, Egypt (November 2022). Poster title: "Evaluation of the antimicrobial and anti-inflammatory activity of selected probiotics isolated from dietary supplements in vitro and in vivo". Authors: Mona S. El Far, Mervat A. Kassem, Azza S. Zakaria, and Eva A. Edward.

PROFESSIONAL MEMBERSHIPS

- ❖ Member of the General Syndicate of Pharmacists (2010- till now).
- ❖ Member of the Syndicate of Pharmacists of Alexandria (2010- till now).
- ❖ Staff member of the department of Microbiology & Immunology, Faculty of Pharmacy, Alexandria University (2017- till now).
- ❖ Member of the "Academic Advising Committee" for clinical pharmacy students, Faculty of Pharmacy, Alexandria University (2017- till now).
- ❖ Member of the "Committee of Arrivals affairs", Faculty of Pharmacy, Alexandria University (during the academic years 2017/2018 & 2018/2019).

- ❖ Member of the "Standard of Scientific Research and Scientific Activities" in the Quality Assurance and Performance Development Unit, Faculty of Pharmacy, Alexandria University (2018- till now).
- ❖ Member of the "Quality Assurance Coordinators Committee" at the department of Microbiology and Immunology, Faculty of Pharmacy, Alexandria University (2018- till now).
- ❖ Member of the "Artistic Committee", Faculty of Pharmacy, Alexandria University (since the academic year 2018/2019- till now).
- ❖ Member of the "Libraries Committee", Faculty of Pharmacy, Alexandria University (2019- till now).
- ❖ Member of the "Organizing Committee" for "The First Scientific Forum for Graduate Studies", Faculty of Pharmacy, Alexandria University (2019).
- ❖ Member of the "Internal Follow-up Committee" in the Quality Assurance and Performance Development Unit, Faculty of Pharmacy, Alexandria University (2019- till now).
- ❖ Member of the editorial board of "International Journal of Medical Microbiology & Immunology" (February 2021- till now).

PUBLICATIONS

- **1.** Nourhan. H. Fanaki, Hoda. M. Omar, Nihal. H. Moussa and **Eva. A. Edward** (2014): *Molecular characterization of some selected Enterococcus clinical isolates with varying resistance to gentamicin, rifampicin, and some glycopeptides*. Egypt. J. Biotechnol.; 46:1-21.
- **2.** Nourhan. H. Fanaki, Hoda. M. Omar, Nihal. H. Moussa and **Eva. A. Edward** (2014): *The antimicrobial efficacy of vancomycin or teicoplanin combinations with gentamicin or rifampicin against selected Egyptian Staphylococcus clinical isolates*. Egypt. J. Biotechnol.; 47: 99-113.
- **3.** Nourhan. H. Fanaki, Hoda. M. Omar and **Eva. A. Edward** (2015): *Emergence of resistance to carbapenems among Escherichia coli clinical isolates: a new threat to the efficacy of life saving antibiotics in Egypt*. Egypt. J. Biotechnol.; 50:144-170.
- **4.** Nourhan. H. Fanaki, Hoda. M. Omar, Amal M. Khalil and **Eva. A. Edward** (2018): Prevalence of carbapenem resistant Klebsiella and Proteus clinical isolates: a real

- threat to the Egyptian health care system. Int. J. Curr. Microbiol. App. Sci.; 7(4): 2041-2057.
- **5.** Nelly M. Mohamed, Azza S. Zakaria, **Eva A. Edward** and Amany Abdel-Bary (2019): In vitro and in vivo activity of zabofloxacin and other fluoroquinolones against MRSA isolates from a University Hospital in Egypt. Pol. J. Microbiol.; 68(1):59-69.
- **6.** Azza S. Zakaria, **Eva A. Edward**, and Nelly M. Mohamed (2019): *Evaluation of ciclopirox as a virulence-modifying agent against multidrug resistant Pseudomonas aeruginosa clinical isolates from Egypt*. Microbiol. Biotechnol. Lett.; 47(4): 651-661.
- **7. Eva A. Edward**, Nelly M. Mohamed and Azza S. Zakaria (2020). Resensitization of fluconazole-resistant urinary Candida spp. isolates by amikacin through downregulation of efflux pump genes. Pol. J. Microbiol.; 69(1): 73-84.
- **8.** Nelly M. Mohamed, Azza S. Zakaria and **Eva A. Edward** (2020). *Antifungal caspofungin sensitizes MRSA isolates towards zabofloxacin, a proteomic study*. J. Pure Appl. Microbiol.; 14(1): 559-572.
- **9. Eva A. Edward**, Hoda M. G. Omar and Hoda M. Fathy (2020). *Evaluation of citric acid and clove oil as safe anti-virulence and resistance-modifying agents against problematic Klebsiella clinical isolates in Egypt*. J Microbiol Biotech Food Sci; 9 (6): 1060-1067.
- **10.** Azza S. Zakaria, **Eva A. Edward** and Nelly M. Mohamed (2021). *Genomic insights into a colistin-resistant uropathogenic Escherichia coli strain of O23:H4-ST641 lineage harboring mcr-1.1 on a conjugative IncHI2 plasmid from Egypt*. Microorganisms; 9: 799.
- 11. Azza S. Zakaria, Mervat A. Kassem, Mona S. El Far and Eva A. Edward (2021). Characterization, in vitro evaluation of probiotic potential and antagonistic activity of selected lactic acid bacteria strains isolated from natural origin against some human pathogens. Bull. Pharm. Sci.; 44(1): 225-241.
- **12. Eva A. Edward,** Nelly M. Mohamed and Azza S. Zakaria (2022). Whole genome characterization of the high-risk clone ST383 Klebsiella pneumoniae with a simultaneous carriage of bla_{CTX-M-14} on IncL/M plasmid and bla_{CTX-M-15} on convergent IncHI1B/IncFIB plasmid from Egypt. Microorganisms; 10: 1097.
- **13.** Nelly M. Mohamed, Azza S. Zakaria and **Eva A. Edward** (2022). *Genomic characterization of international high-risk clone ST410 Escherichia coli co-harboring ESBL-encoding genes and bla_{NDM-5} on IncFIA/IncFIB/IncFII/IncQ1 multireplicon plasmid and carrying a chromosome-borne bla_{CMY-2} from Egypt. Antibiotics; 11: 1031.*

- **14.** Azza S. Zakaria, **Eva A. Edward** and Nelly M. Mohamed (2022). *Pathogenicity islands in uropathogenic Escherichia coli clinical isolate of the globally disseminated O25:H4-ST131 pandemic clonal lineage: First report from Egypt*. Antibiotics; 11: 1620.
- **15.** Abdelrahman S. Hamad, **Eva A. Edward**, Eman Sheta, Hamida M. Aboushleib and Mohammed Bahey-El-Din (2023). *Iron acquisition proteins of Pseudomonas aeruginosa as potential vaccine targets: In silico analysis and in vivo evaluation of protective efficacy of the hemophore HasAp. Vaccines; 11: 28.*
- **16.** Mona S. El Far, Azza S. Zakaria, Mervat A. Kassem, Abdalla Wedn, Maha Guimei and **Eva A. Edward** (2023). *Promising biotherapeutic prospects of different probiotics and their derived postbiotic metabolites: in-vitro and histopathological investigation*. BMC Microbiol; 23: 122.
- **17. Eva A. Edward**, Marwa R. El Shehawy, Alaa Abouelfetouh and Elsayed Aboulmagd (2023). *Prevalence of different virulence factors and their association with antimicrobial resistance among Pseudomonas aeruginosa clinical isolates from Egypt*. BMC Microbiol; 23, 161.

Other Activities

- * Reviewer for the international journal "Biofouling" (2020).
- * Reviewer for the international journal "Access Microbiology" (2020).
- **❖** Reviewer for the international journal "International Journal of Medical Microbiology & Immunology" (2021).
- * Reviewer for the international journal "Antimicrobial Resistance & Infection Control" (2023).
- * Reviewer for the international journal "BMC Research Notes" (2023).
- * Reviewer for the international journal "BMC Microbiology" (2023).
- ❖ Appointment as a reviewer of "World Journal of Public Health (WJPH)" (from November 2022 to November 2024).
- ❖ Joining the editorial board of "Journal of Nutraceuticals and Health" (May 2023).