

Curriculum Vitae

HODA MOHAMED GAMAL EL DIN OMAR

**Department of Pharmaceutical
Microbiology
Faculty of Pharmacy
University of Alexandria
Egypt
Phone: 203 5446089-01001706205
Fax: 203 4873273
E-mail:dr_hodaomar@yahoo.com**



Personal History:

Date & Place of birth: 9/10/1960, Alexandria, Egypt
Marital Status: Married, 2 children
Language Proficiency: English & French

Education:

1. **Ph.D.** in Pharmaceutical Microbiology (1995) entitled "Comparative efficacies of some new fluoroquinolones against different clinical isolates using simulated *in-vivo* model"
2. **M.Sc.** in Pharmaceutical Microbiology (1989) entitled "Effect of curing of R-plasmids on their persistence among Enterobacteria"
3. **B.** in Pharmaceutical sciences with the grade **distinction honor** (1983), Faculty of Pharmacy, University of Alexandria, Egypt

Appointments:

- 1- Emeritus Professor of Microbiology and Immunology (9/10/2020-present), Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, Egypt.
- 2- Head of Microbiology and Immunology Department (1/8/2018 – 9/10/2020), Faculty of Pharmacy, Alexandria University, Egypt.
- 3- Professor of Microbiology and Immunology (26/4/2016– 9/10/2020), Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, Egypt.
- 4- Assistant professor of Microbiology and Immunology (24/6/2008- 26/4/2016), Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, Egypt.

- 5- Lecturer of Microbiology and Immunology (26/4/1995-23/6/2008), Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, Egypt.
- 6- Assistant lecturer of Microbiology and Immunology (30/9/1989-25/4/1995), Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, Egypt.
- 7- Demonstrator of Microbiology and Immunology (16/10/1983-29/9/1989), Microbiology and Immunology Department, Faculty of Pharmacy, Alexandria University, Egypt.

Teaching Experience:

- 1- Participate in teaching lectures of Pharmaceutical Microbiology to undergraduate pharmacy students, Faculty of pharmacy, University of Alexandria.
- 2- Supervising laboratory courses of Pharmaceutical Microbiology for undergraduate pharmacy students, Faculty of pharmacy, University of Alexandria.
- 3- Participate in teaching special Pharmaceutical Microbiology courses to graduate pharmacy students, Faculty of pharmacy, University of Alexandria.
- 4- Participate in teaching lectures of Pharmaceutical Microbiology to undergraduate dentistry students, faculty of dentistry, Alexandria University, Academic year: 2008/2009.

Research Experience:

Supervising master students in Pharmaceutical Microbiology:

1. **M.Sc. In Pharmaceutical Microbiology (granted 2010),entitled: Microbiological studies on certain antihistaminic-antibiotic combinations.**
2. **M. Sc. In Pharmaceutical Microbiology (granted 2010),entitled: Optimization of Monoclonal (Anti-CD3) production by Hybridoma cell at different scales.**
3. **M.Sc. In Pharmaceutical Microbiology (granted 2013),entitled: Microbiological studies on cross resistance between commonly used disinfectants and antibiotics in microorganisms isolated from hospitals.**
4. **M.Sc. In Pharmaceutical Microbiology (granted 2013),entitled:**

Molecular characterization of some selected Gram-positive clinical isolates with varying resistance to gentamicin, rifampicin and some glycopeptides.

5. **M. Sc. In Pharmaceutical Microbiology (granted 2014),entitled: Microbiological study of bacterial resistance to cefepime, a fourth generation cephalosporin.**
6. **M. Sc. In Pharmaceutical Microbiology (granted 2019), entitled: Microbiological study of Linezolid activity against Gram-Positive Cocci.**
7. **M. Sc. In Pharmaceutical Microbiology, entitled : Evaluation of the anti-quorum sensing activity of some selected compounds against uropathogenic *E.coli* clinical isolates.**
8. **M. Sc. In Pharmaceutical Microbiology, entitled : Phenotypic and genotypic characterizations of virulence factors and carbapenem resistance in *Acinetobacter baumannii* clinical isolates.**
9. **M. Sc. In Pharmaceutical Microbiology, entitled : Phenotypic screening and molecular characterization of carbapenemase-producing Gram-negative bacilli isolated from hospitalized patients in Alexandria.**
10. **M. Sc. In Pharmaceutical Microbiology, entitled : Co-existence of antibiotic resistance and virulence factors in carbapenem resistant *Klebsiella pneumoniae* clinical isolates from Alexandria.**
11. **M. Sc. In Pharmaceutical Microbiology, entitled : Comparison of genotypic features between two groups of antibiotic resistant *Klebsiella pneumoniae* clinical isolates.**

Supervising Ph.D students in Pharmaceutical Microbiology:

1. **Ph.D. In Pharmaceutical Microbiology (granted 2015), entitled: Molecular Detection of the virulence and antibiotic resistance determinants in some selected Gram-negative nosocomial isolates.**
2. **Ph.D. In Pharmaceutical Microbiology (granted 2016), entitled: Evaluating the anti-inflammatory effect of some natural extracts on experimental ulcerative colitis.**
3. **Ph.D. In Pharmaceutical Microbiology (granted 2017),entitled: Emergence of resistance to carbapenems among Enterobacteriaceae: a new threat to the efficacy of life saving antibiotics in Egypt.**

Scientific meetings attended:

1. The eleventh International Conference on the Egyptian Society of Medical Microbiology (ESMM), 6-7/3/2003.
2. Biovision Alexandria 2004, "The new Life Sciences: Ethics, Patents & The poor", 3-6/4/2004, Bibliotheca Alexandrina Conference Center.
3. Biovision Alexandria 2006, "The new Life Sciences: changing lives" 26-29-4-2006, Bibliotheca Alexandrina Conference Center.
4. the 2nd Eastern Mediterranean Regional Infection Control Congress & the 16th Annual conference of the Egyptian Society of Infection Control, 9th -12th November, 2007- Helnan Palestine Hotel, Alexandria, Egypt
5. the First International Conference of the Quality Assurance and Accreditation center Cairo University: Quality and accreditation the present and prospective, 15-4-2008 Conference center, Cairo University.
6. Biovision Alexandria, New Life Science :” Future Prospects” . 11-15 April, 2010.
7. The 17th International Conference of the Egyptian Society for Medical Microbiology (ESMM) “New Modalities in Microbiology” 25-26 April, 2010, Cairo, Egypt.
8. The 16th Conference (4th International) Medical Research Institute, Alexandria University “Advances in Medical Research Quality in Medical Education and Practice” 19th-22nd October, 2010.
9. The International conference on “Challenges Facing Health” Bibliotheca Alexandrina– Alexandria –Egypt 7-8 November, 2012.
10. The 17th Conference (5th International) Advances in Medical Research, “Obesity”. Medical Research Institute, Alexandria University. 13th -16th November, 2012.
11. The 14th Arab International Conference on Material Science,” Materials for biomedical Applications”. Alex, Egypt, 1-3 December 2013.
12. BioVision Alexandria, New Life Science “The Next Decade” 7-9 April 2014.

Posters:

- 1. Effect of the antihistaminic azelastine on the antibacterial activity of selected antibiotics.** Presented in Biovision Alexandria, 2010, New Life Sciences: Future Prospects .
- 2. Efficient monoclonal antibody production (Anti-CD 3) by hybridoma cells in basket spinner using free and immobilized cell systems.** Presented in the 3rd International Conference on Biotechnology for the Wellness Industry and Wellness Industry Exhibition. Kuala Lumpur, Malaysia, 2010.
- 3. Production of monoclonal antibody, Anti-CD3 by hybridoma cells cultivated in Basket Spinner under free and immobilized conditions.** BMC Proceedings 2013, 7(Suppl 6):P57 From 23rd European Society for Animal Cell Technology (ESACT) Meeting: Better Cells for Better Health, Lille, France. 23-26 June 2013.
- 4. Novel Photoactive Antimicrobial Nanofibers for Biomedical Applications .** Presented in FIP Centennial Congress of Pharmacy and Pharmaceutical Sciences. Amsterdam, Holland, 2013.
- 5. Antimicrobial efficacy of some antibiotic combinations tested against some molecular characterized multiresistant staphylococcus clinical isolates in Egypt.** Presented in the International Conference on Pharmaceutical and Ecological Sciences. Dubai, UAE, 2014.
- 6. Composite antimicrobial nanofiber-reinforced chitosan membrane for wound healing.** Presented in the 14th Arab International Conference on Material Science, "Materials for biomedical Applications". Alex, Egypt, 2013.
- 7. Wound healing properties of methylene blue eluting nanofibers in an immunocompromized rat model.** Presented in the 14th Arab International Conference on Material Science, "Materials for biomedical Applications". Alex, Egypt, 2013.
- 8. Novel antimicrobial nanofiber- reinforced chitosan membrane for enhanced healing of infected wounds.** Presented in Biovision Alexandria 2014, New Life Sciences: The Next Decade.
- 9. Methylene blue-nanofibers for photodynamic therapy of infected wounds in immunocompromized rats.** Presented in Biovision Alexandria 2014, New Life Sciences: The Next Decade.
- 10. Methylene blue-eluting nanofibers as a potential biomaterial for antimicrobial photodynamic therapy (APDT).** Presented in

the 14th Arab International Conference on Material Science,
"Materials for biomedical Applications". Alex, Egypt,2013.

Other Activities:

1. Supervision of summer training program of third year students in public pharmacies.
2. Member of the executive team of the faculty's quality assurance unit from 2008 - 2015.
3. Member of the faculty council, academic year: 2012/2013.
4. Member of the student's affairs' committee, academic years: 2011/2012, 2012/2013.
5. Member of the community service affairs and environment development committee, academic year: 2014-present.
6. Attending the Faculty & Leadership Development center (**FLDC**) courses:
 - Skills of Effective Thinking** (11-14/12/2004)
 - Skills of Effective Communication** (2-5/4/2005)
 - Management of Scientific Research** (24-27/4/2005)
 - New trends in teaching** (21-24/5/2005)
 - Code of Ethics** (8-10/10/2005)
 - Teaching with technology** (28-30/10/2006)
 - Writing scientific paper and international publication** (17-19/3/2007)
 - Preparing research project** (8,9/10/2011)
 - Managing time and meetings** (22,23/10/2011)
 - Research team management** (22,23/5/2012)
 - Quality standards in teaching** (13,14/11/2013)
 - Strategic planning** (20,21/11/2013)
 - Research ethics** (27,28/11/2013)
7. Attending workshops, conferences and public lectures held in the faculty and other places:
 - **Recent Drug Delivery systems**(Industrial Pharmacy Dept.): 14/11/2011.
 - **Infection control** (Microbiology Dept.): 3/12/2011.
 - **Lactococcus lactis delivery vectors** (Microbiology Dept.): 11/2/2012.
 - **Antibiotic Abuse** (Assist. Prof. Dr. Mervat Kassem, Microbiol.Dept): 25/3/2012.
 - **Nano Technology in Pharmaceutical Research** (Industrial Pharmacy Dept.): 29/3/2012.

- **The secret of the Cancer cell** (Prof. Dr. Hosny Fouad, Pharmacology Dept.): 25/12/2012.
- **Viral Hepatitis**(Assist. Prof. Dr. Nadia El-Guink, Microbiology Dept.): 6/12/2012.
- **Diabetes Mellitus**(Prof. Dr. Hosny Fouad, Pharmacology Dept.):2/2012.
- **General Research Direction**(Prof. Dr.A.Rahman Ahmed, Distinguished Professor of Pharmacology, Department of pharmacology and Toxicology, school of Medicine, East Carolina University, North Carolina, USA Visiting Professor At Alexandria University, Egypt): 12/4/2015.

- أخلاقيات مهنة الصيدلة (نقابة الصيادلة بالإسكندرية) ٢٠١١/١٢
- دور عضو هيئة التدريس فى تطوير مهنة الصيدلة (نقابة الصيادلة بالإسكندرية) ٢٠١٢/٢/٢٣
- أهمية التدريب الصيفى فى الحياة المستقبلية (نقابة الصيادلة بالإسكندرية) ٢٠١٢/٤/٢٦
- الألزهايمر (الدكتورة/ يسر رفعت إستشارى النفسية والعصبية والدكتورة/ سحر حلمى إستشارى الصحة العامة وطببية الوبائيات) ٢٠١٢/١٠/٢١
- المؤتمر العلمى لقسم الميكروبيولوجيا الصيدلانية: ٢٠١٢/٧/١٧
- المؤتمر العلمى لقسم الميكروبيولوجيا الصيدلانية: ٢٠١٤/٦/٢٦
- المؤتمر العلمى لقسم الميكروبيولوجيا الصيدلانية: ٢٠١٥/٥/١٤
- يوم تثقيفى صحى عن إستخدام الدواء فى رمضان (لجنة إعرف دوائك بجمعية تطبيق وتطوير الصيدلة) ٢٠١٥/٦/١٦.

Publications:

1. A. E. El-Kholy, H. M. Abou-Shleib and **H. G. Omar** (1990): **Effective elimination of drug resistance (R-factor) in Enterobacteria.** Alex. J. Pharm. Sci.; 4(2): 165-168.
2. H.A. El-Enshasy, U.I. Beshay, A. I. El-Diwany, **H.G. Omar**, A.E. El-Kholy and R. El-Najar (2003): **Improvement of Rifamycin production by *Amycolatopsis mediterranei* in Batch and Fed Batch cultures.** Acta Microbiologica Polonica; 52 (3): 301-313.
3. N.H. Fanaki, **H.G. Omar** and E. Aboulmagd (2004): **Effect of Acetylcysteine on the antibacterial activity of some antibiotics against multiple resistant clinical isolates.** Alex. J. Pharm. Sci., 18 (2): 79-83.

4. M.E. Aggag, M.A. Fawzy, N.H. Fanaki, **H.G. Omar** and D.R. Gouda (2006): **Some factors affecting the antimicrobial activity of Chitosan**. N.Egypt.J.Microbiol.,14:1-17.
5. H.A. El-Enshasy, U.I. Beshay, A.I. El-Diwany, **H.G. Omar**, A.E. El- Kholy and R. El Najar (2007): **Rifamycins production by *Amycolatopsis mediterranei* in Batch and repeated Batch cultures using immobilized cells in alginate and modified alginate beads**. J. Applied Sci., 7(10): 1381-1389.
6. Y. Abdel Fattah, H.A. El-Enshasy, M.A. Fawzy, **H.G. Omar**, E. Aboulmagd and R. Abou Zahra(2007): **Application of factorial experimental designs for optimization of cyclosporine A production by *Tolypocladium inflatum* in submerged culture**.J.Microbiol.Biotechnol. 17(12): 1930-1936.
7. H.A. El-Enshasy, Y. Abdel Fattah, A. Atta, M.A. Fawzy, **H.G. Omar**, E. Aboulmagd and R. Abou Zahra (2008): **Kinetics of cell growth and cyclosporine A production by *Tolypocladium inflatum* during process scaling up from shake flask to bioreactor**. J.Microbiol.Biotechnol. 18(1): 128-134.
8. **Hoda M. G. Omar (2008): Comparative Bactericidal Activity of Five Fluoroquinolones Used In ophthalmology and their Combinations with Anti-inflammatory eye Drops Against Ocular Bacterial Isolates**. N.Egypt. Microbiol. (19): 93-121.
9. A.M. Youssef, M.N.S. Saudi, **H.M.G. Omar** & A.M. Baraka. (2008): **Synthesis and biological evaluation of some monopyrazolyl and dihydrobipyrazolyl derivatives as anti – inflammatory- Antimicrobial agents**, Alex.J. Pharm. Sci. 21(2): 103-111
10. M.A. Aboul Ela, H.M. Hammada, C.S. Zaki, A.M. El- lakany, N.M. Ghazy & **H.G. Omar** (2008): **HPTLC study & biological activity of Artemisia monosperma (2008) Alex. J. Pharm. Sci 22(2): 107-110**
11. M.A.El-Nakeeb,H.M.AbouShleib,A.M.Khalil,**H.G.Omar**,O.M.El-Halfawy.(2011): ***In Vitro* Antibacterial Activity of some antihistaminics belonging to different groups against multi-drug resistant clinical isolates**. Brazilian J.Microbiol.;42:980-991
12. M.A.El-Nakeeb,H.M.AbouShleib,A.M.Khalil,**H.G.Omar**,O.M.El-Halfawy.(2011): **Membrane permeability alteration of some bacterial clinical isolates by selected antihistaminics**. Brazilian J.Microbiol.; 42: 992-1000
13. M.A.El-Nakeeb,H.M.AbouShleib,A.M.Khalil,**H.G.Omar**,O.M.El-Halfawy.(2011): **Reversal of antibiotic resistance in Gram-positive bacteria by the antihistaminic azelastine**.APMIS; 120: 215-220

14. N.H.Fanaki, **H.M.G.Omar**, N.H.Moussa and E. 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.
15. N.H.Fanaki,**H.M.G.Omar**, N.H.Moussa and E. 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
17. E.A.El-Sayed,**H.G.Omar** and H.A.El-Enshasy(2014): **Effect of Cultivation Scale and Shear Stress on Cell Growth and Oxytetracycline Production by *Streptomyces rimosus* in Semi-Defined Medium.** J. Pure Appl. Microbiol.;8(1):121-128
18. M.A.El-Nakeeb,H.M.Abou-Shleib,**H.G.Omar** and S. Daniel(2015): **Correlation between reduced susceptibility to biocides and multi antibiotic resistance among bacterial isolates in an Egyptian hospital.** Egypt.J.Biotechnol.; 40:1-22
19. E.A.El-Sayed,**H.G.Omar** and H.A.El-Enshasy(2015): **Development of fed-batch cultivation strategy for efficient Oxytetracycline production by *Streptomyces rimosus* at semi-industrial scale.** Braz.Arch.Biol.Technol.; 58(5):676-685
20. H.M.Abou-Shleib,**H. M.Omar**,R.Abozahra,A.El-Sheredy and K.Baraka(2015): **Correlation of quorum sensing and virulence factors in *Pseudomonas aeruginosa* isolates in Egypt.**J.Infect.Dev.Ctries;9(10):1091-1099
21. H. M.Abou-shleib, **H. M. G. Omar**, R. Abozahra and K. Baraka (2015)**Molecular detection of a novel quorum sensing system regulating some virulence factors in *Stenotrophomonas maltophilia* clinical isolates in Egypt.** Egypt.J.Biotechnol.;50:107-118
22. N.H.Fanaki, **H.M.Omar** and E.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.
23. 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.
24. Maarouf L, **Omar H**, El-Nakeeb M, Abouelfetouh A. **Prevalence and mechanisms of linezolid resistance among staphylococcal**

clinical isolates from Egypt. Eur J Clin Microbiol Infect Dis.2021
Apr; 40(4): 815-823.
Doi :10.1007/s10096-020-04045-w.
Epub 2020 Oct 26. PMID: 33104900