# Curriculum Vitae

## Personal Information

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| **Name** | **Mohamed Mahrous Amin Hasanin Emara** | | |
| **Gender** | Male | **Nationality:** | Egyptian |
| **Birth Date** | 25/07/1976 | **Birth Place** | Cairo, Egypt |
| **Religion** | Muslim | **Marital Status** | Married |
| **Telephone** | +201060564729 | **Military Status** | Exempted |
| **Address** | Street11, Block 45, Group 17,Madinaty, New Cairo, Egypt | | |
| **Work address** | Faculty of Pharmacy, Helwan University, Ain Helwan**,** Egypt, Post Box: 11795 | | |
| **E-mails** | mohamed_emara@pharm.helwan.edu.eg &mohamedmicro@gmail.com | | |
| **Languages:** | **Arabic**: Mother tongue & **English**: Excellent | | |
| **Scopus** | **http://www.scopus.com/authid/detail.url?authorId=7004828362(Scopus Author ID: 7004828362)** | | |
| **Google Scholar** | **http://scholar.google.co.uk/citations?user=87ite-UAAAAJ&hl=en** | | |
| **Researchgate** | **https://www.researchgate.net/profile/Mohamed_Emara4** | | |
| **Loop** | **http://loop.frontiersin.org/people/359555/overview (Loop profile: 359555)** | | |
| **Web of Science** | ***Web of Science* Researcher ID: C-8220-2013** | | |

| ORCID | https://orcid.org/0000-0001-7708-9435 |
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## Academia Career

| Date | Position | Institute |
|---|---|---|
| **October 2021-Now** | Vice Dean for Education and Students Affairs<br>Professor of Microbiology and Immunology | Faculty of Pharmacy, **Helwan** University, Egypt |
| **May 2021-June 2023** | Professor of Microbiology and Immunology, Head of Department of Microbiology and Immunology | Faculty of Pharmacy, **Helwan** University, Egypt |
| **May 2021** | Professor of Microbiology and Immunology, Head of Department of Microbiology and Immunology<br>Coordinator of clinical pharmacy program (credit hours system) | Faculty of Pharmacy, **Helwan** University, Egypt |
| **March 2021** | Professor of Microbiology and Immunology, Department of Microbiology and Immunology (full time)<br>Coordinator of clinical pharmacy program (credit hours system) | Faculty of Pharmacy, **Helwan** University, Egypt |
| **October 2017 – March 2021** | Associate Professor of Microbiology and Immunology, Department of Microbiology and Immunology (full time)<br>Coordinator of clinical pharmacy program (credit hours system) (2017-2019) & (2019-2021) | Faculty of Pharmacy, **Helwan** University, Egypt |
| **October 2016-September 2017** | Associate Professor of Microbiology and Immunology and Acting Head of Microbiology Department (full time) | **Heliopolis** University for Sustainable Development |
| **March 2016 - September 2016** | Associate Professor of Microbiology and Immunology (full time) | Faculty of Pharmacy, Helwan University, Egypt |

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| **Feb 2011 - till March 2016** | Lecturer of Microbiology and Immunology (full time) | Faculty of Pharmacy, **Helwan** University, Egypt |
| **2015 - till now** | Visitor Lecturer of Microbiology and Immunology (part time) | Faculty of Pharmacy, **KafrElsheikh** University (**KSU**), Egypt |
| **2015 - till now** | Visitor Lecturer of Microbiology and Immunology (part time) | Faculty of Nursing, **KafrElsheikh** University (**KSU**), Egypt |
| **2012 - 2015** | Visitor Lecturer of Microbiology and Immunology (part time) | Faculty of Pharmacy, **Misr** International University (**MIU**), Egypt |
| **2012 - 2014** | Visitor Lecturer of Microbiology and Immunology (part time) | Faculty of **Nursing**, **Helwan** University, Egypt |
| **Nov 2009 – Nov 2010** | Responsible for operation and management of Flowcytometry Unit (Deputy Manager) | The School of Molecular Medical Sciences, Faculty of **Medicine** and Health Sciences, The University of **Nottingham**, UK |
| **Jul 2006 – Nov 2010** | Scholarship holder and research candidate (governmental mission) | The School of Molecular Medical Sciences, Faculty of Medicine and Health Sciences, The University of **Nottingham**, UK. |
| **Aug 2003 – Jul 2006** | Assistant Lecturer in the Department of Microbiology and Immunology | Faculty of Pharmacy, **Helwan** University, Egypt |
| **Jan 2000 - Aug 2003** | Teaching Assistant in the Department of Microbiology and Immunology | Faculty of Pharmacy, **Helwan** University, Egypt |

## Education

| Date | Degree | Field | Institution |
|---|---|---|---|
| Nov, 2010 | Ph.D. | Immunology | Faculty of Medicine and Health Sciences, the University of Nottingham, UK.<br>**Thesis title "The Molecular Basis of Allergenicity"** |
| Jun, 2003 | M.Sc. | Microbiology | Faculty of Pharmacy, Helwan University, Egypt.<br>**Thesis title: "A study for development of methods used for determination of antibiotics efficiency against bacteria and fungi"** |
| May, 1999 | B.Sc. | Pharmaceutical Sciences | **Faculty of Pharmacy, Helwan University, Egypt** |

# Scientific and Professional Activities

## *Scientific Prizes*

| Date | Title | Institute |
|---|---|---|
| 2008 | Best poster presentation | School of Molecular Medical Sciences- The University of Nottingham, UK |
| 2018 | جائزة الجامعة التشجيعية<br>University Encouragement Award | جامعة حلوان<br>*Helwan University*. |

## Teaching Experience and administrative activities

- Teaching career started in 2000.

- Teaching laboratory sections of Microbiology and Immunology for 2nd and 3rd years Students. Faculty of Pharmacy, Helwan University (2000-2006).
- Teaching courses of General Microbiology and Immunology, Parasitology and Pathology, Medical Microbiology, Microbiology of Infectious Diseases, Pharmaceutical Microbiology, Applied Biotechnology and public health at Faculty of Pharmacy, Helwan University (2011-2016) and (2017-till now).
- Teaching courses of Basic Microbiology, Immunology, Medical Microbiology, Diagnostic Microbiology, Biotechnology and public health at Faculty of Pharmacy, Misr International University (MIU) (2012-2015).
- Updating the Scientific contents for the following courses: General Microbiology and Immunology, Microbiology of Infectious diseases, Pharmaceutical Microbiology and Biotechnology, and Applied Biotechnology.
- Supervising laboratories courses
- Preparation and evaluation of practical and theoretical exams.
- Creating and updating the course specification for the following courses: General Microbiology and Immunology, Microbiology of Infectious diseases, Pharmaceutical Microbiology and Biotechnology and Applied Biotechnology.
- Put the scientific course content for the elective course entitled: ”Applied Biotechnology”.
- Solely, update the official website for Faculty of Pharmacy, Helwan University, Egypt.

- Teaching the general course “computer and information technology” to pre-master students, Faculty of Pharmacy, Helwan University, Egypt. (2011-till 2016).
- Teaching courses of Microbiology and Immunology, Medical Microbiology, Pharmaceutical Microbiology, Biotechnology and public health at Faculty of Pharmacy, Heliopolis University for sustainable development (2016-2017).
- Teaching courses of General Microbiology and Immunology, Pharmaceutical Microbiology, Virology, Public health at Faculty of Pharmacy, Kafr El-Sheikh University (2015- till now).
- Teaching courses of Cell Biology (MD102) and (MED201C), General Microbiology and Immunology (PM401), Pharmaceutical Microbiology (PM502) and Clinical Microbiology (PM704) at Faculty of Pharmacy, Helwan University, Egypt (2017-till now) {Clinical Pharmacy Program, Credit hours programs}.
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## Research Experiences

- Cell Culture Techniques
- DNA and RNA isolation
- Techniques for generation of human dendritic cells
- Dendritic cells- T-cells co-culture
- Re-tagging Technique
- Flowcytometry and cell sorting (well-trained on Beckman coulter Altra and FC-500 models).
- Enzyme-Linkd ImmunoSorbent Assay (ELISA)

- Poly Acrylamide Gel Electrophoresis (PAGE)
- Western Blotting (WB)
- Fluorescence and confocal microscopy
- Conventional and real time PCR
- Gene Knockdown Techniques (siRNA and shRNA)
- Immunoprecipitation.
- Microtome sectioning
- Preparation and staining of paraffin-embedded tissue sections
- Assessment of tissue inflammation and fibrosis using different staining techniques.
- Microbial pathogenesis
- Bacteriocin-Producing Probiotic

## General Skills

- Very **competent** ⇨ Microsoft Word processing, Microsoft Spreadsheets, Microsoft Powerpoint, Windows, Hardware, Internet, E-mail, Statistics and graphing software (Graph-pad prism), Flowcytometry analysis softwares (WinMDI and Weasel) and References citing software (Endnote).
- Good ⇨ at Microsoft Front page, Microsoft Outlook Express.

## Research Interests

- Allergen recognition by human dendritic cells.
- Characterization of allergens.
- Studying of ligands-receptors binding and interactions.
- Studying the role of various receptors in allergy and allergic sensitization both*in-vitro* and *in-vivo*.
- Exploring the role of various genes in different biological processes through gene silencing techniques.
- Isolation and characterization of bacterial enzymes.
- Identification of novel receptors or adhesion molecules for various bacteria using re-tagging technique.
- Studying and exploring the molecular mechanism of MDR in various types of cancer cells.
- Studying quorum sensing in bacteria.
- Studying mechanism of antibiotic resistance in bacteria.
- Antimicrobial, biocidal and cytotoxic activities of various types of nanoparticles.
- Studying Mechanisms of Microbial Pathogenesis in Gram negative bacteria.
- Isolation and characterization of bacteriocins from lactic acid bacteria.
- Biofilm-producing bacteria.
- Development of rapid diagnostic tests for bacteria and viruses.
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# Training courses and certified workshops

| Title of workshop | Offering institute |
|---|---|
| Basic statistics | The Graduate School, University of Nottingham, UK |
| Building confidence in oral presentation | The Graduate School, University of Nottingham, UK |
| Building a bibliography | The Graduate School, University of Nottingham, UK |
| Communication skills | The Graduate School, University of Nottingham, UK |
| Creating a poster in powerPoint | The Graduate School, University of Nottingham, UK |
| Continuing as an academic researchers | The Graduate School, University of Nottingham, UK |
| Essential information skills for new researchers in medicine and health sciences | The Graduate School, University of Nottingham, UK |
| Exploiting the power of MS word : combining chapters into the thesis | The Graduate School, University of Nottingham, UK |
| Exploiting the power of MS word: long documents and papers | The Graduate School, University of Nottingham, UK |
| Further presentation skills for researchers | The Graduate School, University of Nottingham, UK |
| Getting started with research design and statistics | The Graduate School, University of Nottingham, UK |
| Getting going on your thesis | The Graduate School, University of Nottingham, UK |

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| How to become an academic researcher | The Graduate School, University of Nottingham, UK |
| Introduction to SPSS for researchers | The Graduate School, University of Nottingham, UK |
| Introduction to library skills (Basic and Advanced) | The Graduate School, University of Nottingham, UK |
| International Computer Driving License (ICDL) | The Graduate School, University of Nottingham, UK |
| MS Excel functionality (Entering, formatting and sorting data) | The Graduate School, University of Nottingham, UK |
| MS PowerPoint: Developing a professional presentation | The Graduate School, University of Nottingham, UK |
| Nature of the doctorate and the supervision process | The Graduate School, University of Nottingham, UK |
| Preparing and presenting an effective CV for PhD and MPhil students | The Graduate School, University of Nottingham, UK |
| Referencing and citing using Endnote and Reference manager | The Graduate School, University of Nottingham, UK |
| The PhD support group-writing up workshops | The Graduate School, University of Nottingham, UK |
| Scientific Publishing. | Competency Development and Ongoing. Training Center , Helwan University, Egypt |
| Communication skills | Competency Development and Ongoing. Training Center , Helwan University, Egypt |

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| Time management | Competency Development and Ongoing. Training Center , Helwan University, Egypt |
| Credit hours | Competency Development and Ongoing. Training Center , Helwan University, Egypt |
| Research team management. | Competency Development and Ongoing. Training Center , Helwan University, Egypt |
| Strategic planning | Competency Development and Ongoing. Training Center , Helwan University, Egypt |
| Ethics of profession | FLDC, Helwan University |
| Creative thinking | FLDC, Helwan University |
| الاختبارات التحصيلية (المقالية والموضوعية)<br>الاتصال الفعال في أنماط التعليم المختلفة | FLDC, Helwan University |
| انشاء وتشغيل بنوك الأسئلة | FLDC, Helwan University |
| تحليل البيانات باستخدام النظرية التقليديةICC<br>في الفترة من IRTوالنظرية الحديثة | FLDC, Helwan University |
| اخلاقيات البحث العلمي | FLDC, Helwan University |
| تنظيم المؤتمرات العلمية | FLDC, Helwan University |
| الجوانب القانونية بالجامعات | FLDC, Helwan University |

## Society Memberships

*British Society of Immunology (BSI).

*British Society of Allergy and Clinical Immunology (BSACI).

*Society for General Microbiology (SGM).

*Member of the Egyptian syndicate of pharmacists.

## Reviewer at the following Journals

1. **Frontiers in Microbiology**
2. **Journal of Applied Microbiology**
3. **Microbial Drug Resistance**
4. **Journal of Basic Microbiology**
5. **Journal of Global Antimicrobial Resistance**
6. **Journal of Microbiology, Biotechnology and Food Sciences**
7. **Cogent Food and Agriculture**
8. **Journal of Cogent Biology**
9. **Journal of Genetic Engineering and Biotechnology**
10. **Royal Society of Chemistry (RSC)**
11. **Journal of Molecular Biosystems.**
12. **Pakistan Journal of Zoology**
13. **The Journal of Animal and Plant Sciences.**
14. **Journal of Advanced Pharmacy research.**
15. **Vaccination Research**
16. **Canadian Journal of Microbiology**
17. **Journal of Biomaterials**
18. **International Journal of Genetic Engineering**
19. **Journal of immunological investigations**
20. **Journal of Animal and Plant Sciences-JAPS**
21. **Phytotherapy Research**

# Supervision of scientific researches

## Theses supervision:

## 1- PhD Theses

**1- Ph.D. thesis entitled** "Studying the pathogenic contributions of some Shigella candidates' genes and their potential in vaccine development".

**2- Ph.D. thesis entitled** "Coordinated regulation of virulence in *Salmonella enterica*".

**3- Ph.D. thesis entitled** "Characterization of different bacterial biofilm phenotypes and evaluation of novel approaches in treatment of biofilm-related infections".

**4- Ph.D. thesis entitled** "Studies on virulence factors, antimicrobial resistance and immune responses to *Klebsiella pneumoniae*".

# 2- MSc Theses

**1- M.Sc. thesis entitled** "Studies on antagonistic activities of some bacterial isolates against quorum sensing system controlling phenazine production in *Pseudomonas aureofaciens*".

**2- M.Sc. thesis entitled** "Microbiological and molecular studies on susceptibility of *staphylococcus aureus* clinical isolates to vancomycin".

**3- M.Sc. thesis entitled** "Phytochemical and biological study on a plant belonging to genus *Pachypodium* family Apocyanaceae".

**4- M.Sc. thesis entitled** "Immunological study on HCV patients associated with autoimmunity".

**5- M.Sc. thesis entitled** "Studies on the antiviral potential of bacteriocins isolated from lactic acid bacteria".

**6- M.Sc. thesis entitled** "Study of the distribution and diversity of the ocular microbiome among diabetic and non-diabetic individuals".

**7- M.Sc. thesis entitled** “Studies on heteroresistance to various antibiotics in Gram negative clinical isolates”.

**8- M.Sc. thesis entitled** "Study of the correlation between virulence determinants and carbapenemase production in selected Gram-negative clinical isolates".

**9- M.Sc. thesis entitled** "Prevalence and Antibiotic Resistance Patterns of Multidrug-Resistant (MDR) Bacteria Isolated from Different pediatric intensive care units in Cairo University Specialized Pediatric Hospital".

**10-M.Sc. thesis entitled** “Studies on indole production by Escherichia coli: Potential impact on virulence and antibiotic tolerance of selected Gram-negative clinical isolates".

**11- M.Sc. thesis entitled** "Biosynthesis and characterization of silver nanoparticles and chitosan-nanoparticle conjugate mediated by fungi with antimicrobial and antibiofilm potentialities".

**12- M.Sc. thesis entitled “**Characterization of AmpC production among Enterobacteriacea family and testing their susceptibility to Cefepime”.

**13- M.Sc. thesis entitled "**"Studying the Antimicrobial resistance and virulence traits of some positive lactose fermenters Enterobacteriaceae recovered from Egyptian ready-to-eat (RTE) street foods"

# Scientific Projects

## STDF project

## Title: Therapeutic model for RNA Interference and miRNAMimicking to Target the Multidrug Resistance in Cancer Cell

**ID:** 4361 **Type of grant:** Basic and applied.

### Project synopsis

A significant percentage of cancer deaths is attributed to failure of chemotherapeutic programs. The development of multidrug resistance (MDR) is attributed to over-expression of membrane-bound efflux proteins. The present proposal aims to employ a new promising gene therapy technology, RNA interference and miRNA mimicking to halt the expression of efflux proteins in cancer cells. The impact will be to have a new therapeutic model in combination with common chemotherapeutic agents. Strategies in the silencing of RNA will be performed in different cancer cell lines, including multiplexed, pooled and chemically modified using different concentrations of siRNA and/or miRNA, to overcome resistance and immune triggering.Assessment of the potency and safety of these therapeutic models will be executed at the geneand protein levels. The expected output of this research work will introduce new molecules forpharmaceutical development as gene therapy for MDR. Application of different siRNAs and/ormiRNAs targeting different genes, using multiplexed, pooled and chemically-modifiedsiRNAs/miRNAs, safety, toxicity, and potency assessment make this work innovative.

## External Examiner for Under Graduate Students At:-

- Faculty of Pharmacy, Cairo University, Cairo, Egypt.
- Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- Faculty of Pharmacy, Tanta University, Cairo, Egypt.
- Faculty of Pharmacy, Alexandria University, Cairo, Egypt.
- Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.
- Faculty of Pharmacy, Zagazig University,Al-Sharqia, Egypt.
- Faculty of Pharmacy, Al-Azhar University for Girls, Cairo, Egypt.
- Faculty of Pharmacy, Al-Azhar University for Boys, Cairo, Egypt.
- Faculty of Pharmacy, Misr International University (MIU), Cairo, Egypt.
- Faculty of Pharmaceutical Sciences & Pharmaceutical Industries – FutureUniversity in Egypt (FUE).
- Faculty of Pharmacy, Ahram Canadian University (ACU), 6$^{th}$of October City, Giza,Egypt.
- Faculty of Pharmacy, 6$^{th}$ October University, 6$^{th}$October, Egypt
- Faculty of Pharmacy, October University for Modern Sciences and Arts (MSA), 6$^{th}$October, Egypt.
- Faculty of Pharmacy, Misr University for Science and Technology (MUST), 6$^{th}$October, Egypt.
- Faculty of Pharmacy, British University in Egypt (BUE), Shorouk City, Egypt.

- Faculty of Pharmacy, Egyptian Modern University for technology and Information (MTI), El-hadaba El-Wosta, Mokatam, Egypt.
- Faculty of Pharmacy, Egyptian Russian University, Badr City, Egypt.
- Faculty of Pharmacy, Delta University, Mansoura: Gamasa – Costal International Road, Egypt.
- Faculty of Pharmacy, Nahda University in BeniSuef, BeniSuef, Egypt.

## Posters

1. **Metal and metal Oxide nanoparticles : A paradigm shift in treatment of multidrug resistant organisms**

   Selwan Hamed, Mohamed Emara, Riham M Shawky, Ramadan A El-domany and Tareq Youssef

   Conference: National conference on biochemistry and molecular biology, At MSA University, 6 of October, Egypt, Volume: 14

2. **The Role of Mannose Receptor in IgE Production in an in vivo Model of Cat Allergy**

   Amir M Ghaemmaghami, Mohamed Emara and Farouk Shakib

3. **Allergen Recognition by Human Dendritic Cells: The Critical Role of DC-SIGN**

   Amir M Ghaemmaghami, Mohamed Emara, Luisa Martinez-Pomares and Farouk Shakib

4. **Carbohydrate Moieties Mediate Allergen Uptake by Human Dendritic Cells**

   Amir M Ghaemmaghami, Mohamed Emara and Farouk Shakib

5. **Allergen recognition by human dendritic cells**

   Mohamed Emara, Amir M GhaemmaghamiandFarouk Shakib

## Publications

1- Ahmed A. Hamed; **Mohamed Emara**; Reham M. Shawky; Shimaa fisal. Chitosan-silver nanoparticles conjugate mediated by endophytic fungus Talaromyces sp. 7S1: antimicrobial, antibiofilm and anticancer. Egyptian Journal of Chemistry 2023;

2- Shaimaa Faisal, Ahmed A Hamed, Riham Shawky, **Mohamed Emara**. Chitosan-Silver Nanoparticles: A Versatile Conjugate for Biotechnological Advancements. Journal of Advanced Pharmacy Research 2023; 7(3) 163-169.

3- Shaimaa Wahman, **Mohamed Emara**, Riham M Shawky. In-vitro assessment of staphylococci biofilms formed under biologically relevant conditions and correlation to the biofilm genotype. Research Journal of Pharmacy and Technology 2023; 16(5) 2273-2279.

4- Nasma Maged Elemary, **Mohamed Mahrous Emara**, Elhady Tahoun AA, Walied Abdo Sobhy, Ramadan Ahmed Eldomany Immune Response And Pathophysiological Features Of Klebsiella Pneumoniae In Mice. The Journal of the Pakistan Medical Association 2023; 73(4) S322-S329.

5- Nasma Maged Elemary, **Mohamed Mahrous Emara**, Elhady Tahoun AA, Ramadan Ahmed Eldomany. Correlation Between Antimicrobial Resistance And Virulence Genes In Klebsiella Pneumoniae Isolates From Egypt. The Journal of the Pakistan Medical Association 2023; 73(4) S274-S281.

6- Shaimaa Wahman, Riham Mahmoud Shawky, **Mohamed Emara**. Biologically-Relevant Staphylococcus aureus Biofilm Phenotype Characterisation And Liability To Novel Antibiofilm Drugs. The Journal of the Pakistan Medical Association 2023; 73(4) S167-S173.

7- Ali SM, Abdel-Gawad MM, Azab M, Hamed S, **Emara M**, and Shawky RM. Comparative analysis of the ocular surface microbiome in type-1, type-2 diabetes mellitus and healthy individuals. J Appl Microbiol 2023;134.

8- Selwan Hamed, **Mohamed Emara**. Antibacterial and Antivirulence Activities of Acetate, Zinc Oxide Nanoparticles, and Vitamin C Against *E. coli* O157:H7 and *P. aeruginosa*. Current Microbiology 2023; 80(2) 57.

9- Alaa G Al-Shebiny, Riham Shawky, **Mohamed M Emara**. Heteroresistance: A gray side of antimicrobial susceptibility testing. Journal of Advanced Pharmacy Research 2023; 7(2) 101-110.

10- Shaimaa Wahman, Riham Shawky, **Mohamed Emara**. Bacterial Biofilms: A Current Clinical Dilemma and a Promising Therapeutic Target. Journal of Advanced Pharmacy Research 2023; 7(2) 87-100.

11- Maryam Abdel-Gawad, Shima Ali, MarwaAzab, Riham Shawky, **Mohamed Emara**. Relationship between COVID-19 and Human Gut Microbiome, Nutritional Factors, Type 2 Diabetes, and Obesity. Journal of Advanced Pharmacy Research 2022; 6(2) 84-93.

12- NM Elalem, RM Shawky, R Bahy, AAH Boselia, **M Emara**. The Diversity of Bacteriocin and Its Antiviral Potential: An Overview. Egyptian Journal of Medical Microbiology 2021; 30 (4), 175-180.

13- Mahgoub S, Abosalem H, **Emara M**, Kotb N, Maged A, Soror S. Restoring NK cells functionality via cytokine activation enhances cetuximab-mediated NK-cell ADCC: A promising therapeutic tool for HCC patients. Mol Immunol 2021; 137:221-7.

14- Abosalema H, Mahgoub S, **Emara M**, Kotb N, Soror S. Interrupted crosstalk between natural killer cells and anti-epidermal growth factor receptor: a possible role in hepatocellular carcinoma treatment failure. Curr Cancer Drug Targets

15- Hamed S, Shawky RM, **EMARA M**, Slauch JM, Rao CV. HilE is required for synergistic activation of SPI-1 gene expression in *Salmonella enterica* serovar Typhimurium. BMC Microbiol 2021; 21:49.

16- Abosalema H, Mahgoub S**, Emara M**, Kotb N, Soror S. Interrupted crosstalk between natural killer cells and anti-epidermal growth factor receptor: a possible role in hepatocellular carcinoma treatment failure. Curr Cancer Drug Targets 2021.

17- Ramadan A. El-domany, Omayma A. Awadalla, Samya A. Shabana, Mona A. El-Dardir and **MOHAMED EMARA** (2020). Analysis of the correlation between antibiotic resistance patterns and virulence determinants in pathogenic Klebsiella pneumoniae isolates from Egypt. Microb Drug Resist. Published Online:27 Oct 2020https://doi.org/10.1089/mdr.2020.0236.

18- **EMARA, M**.; Moustafa, W. H.; El-Maged, M. A.; El-Kemary, N. M.; El-domany, R. (2020). A. Detectionof blaSPM-1 and blaSIM-2 Metallo-β-Lactamases Genes in Imipenem-Resistant Pseudomonas aeruginosa ClinicalIsolates Recovered from Two University Hospitals in Egypt. J. Adv. Pharm. Res., 4 (3), 111-118.
DOI: 10.21608/aprh.2020.29194.1106

19- **EMARA M**, Mohsen E, Shawky RM, El-Domany RA. Assessment of the Prevalence of Non-Organ-Specific Autoantibodies in Egyptian Patients with HCV. Immunol Invest. 2019 Dec 10:1-11.

20- Hamed S, Wang X, Shawky RM, **EMARA M,**Aldridge PD, Rao CV (2019). Synergistic action of SPI-1 gene expression in Salmonella entericaserovartyphimurium through transcriptional crosstalk with the flagellar system. BMC Microbiol. 2019 Sep 5;19(1):211. doi: 10.1186/s12866-019-1583-7.

21- Nesma M. Abdeltwab, **MOHAMED EMARA**, Taghrid S. El-Mahdy, Mohammed A. El-Magd, Walaa H. Moustafa, Ramadan A. El-domany (2019). First report of imipenem-resistant Pseudomonas aeruginosa clinical isolates harboring blaGIM-1 gene in the Middle East region. N. Egypt. J. Microbiol. Vol. 52, January, 2019.

22- El-Mahdy TS,Al-Agamy MH, **EMARA M**, Barakat A, Goering RV (2019). Complex Clonal Diversity of Staphylococcus aureus Nasal Colonization among Community Personnel, Healthcare Workers, and Clinical Students in the Eastern Province, Saudi Arabia. Biomed Res Int. 2018 Dec 18; 2018:4208762. doi: 10.1155/2018/4208762.

23- Ahmed R. Hamed, **MOHAMED EMARA**, Maha M. Soltan, Shaymaa M. M. Yahya, Heba K. Nabih, Ghada H. Elsayed (2018). Investigating the role of miRNA-98 and miRNA-214 in chemoresistance of HepG2/Dox cells: studying their effects on predicted ABC transporters targets. Medicinal Chemistry Research.volume27, pages531–537.

24- SelwanHamed, **MOHAMED EMARA**, Riham M Shawky, Ramadan A El-domany and Tareq Youssef (2017). N-Acetylcysteine Potentiates the Antimicrobial Activity of Gold Nanoparticles: A Paradigm Shift in Treatment of Multidrug Resistant Pathogens. EC Microbiology 10.3 :110-121.

25- Hamed S., **EMARA M.**, Shawky R.M., El-Domany R.A., and Youssef T (2017). Silver nanoparticles: Antimicrobial activity, cytotoxicity, and synergism with N-acetyl cysteine. J Basic Microbiol 57: 659-668.

26- El-Domany, R. A., **EMARA, M**., El-Magd, M. A., Moustafa, W. H., and Abdeltwab, N. M. (2017). Emergence of Imipenem-Resistant Pseudomonas aeruginosa Clinical Isolates from Egypt Coharboring VIM and IMP Carbapenemases. Microb Drug Resist. 23(6):682-686.

27- Mahmoud RY, Li W, Eldomany RA, **EMARA M**, Yu J (2016). The ShigellaProU System is Required for Osmotic Tolerance and Virulence. Virulence, 8: 362-374.

28- Yahya, S. M., Hamed, A. R., **EMARA, M**., Soltan, M. M., Abd-Ellatef, G. E. &Abdelnasser, S. M. (2015). Differential effects of c-myc and ABCB1 silencing on reversing drug resistance in HepG2/Dox cells. TumourBiol, 37, 5925-32.

29- SelwanHamed, **MOHAMED EMARA**, RihamM.Shawky, Ramadan A. El-domany and Tareq Youssef (2015). N-acetyl cysteine substantially enhances the antimicrobial activity of zinc oxide nanoparticles against multidrug resistant pathogens. Int. J. Adv. Res. Biol. Sci. 2(12): 45–59.

30- Mahmoud, R. Y., Stones, D. H., Li, W., **EMARA, M,**Eldomany, R. A., Wang, D., Wang, Y., Krachler, A. M. & Yu, J (2015). The Multivalent Adhesion Molecule SSO1327 plays a key role in *Shigellasonnei* pathogenesis. MolMicrobiol**.**

31- Wahman, S., **EMARA, M**., Shawky, R. M., El-domany, R. A. &Aboulwafa, M. M. (2015). Inhibition of quorum sensing-mediated biofilm formation in Pseudomonas aeruginosa by a locally isolated Bacillus cereus. J Basic Microbiol,55, 1406-1416.

32- Mohammed Ghonime, **MOHAMED EMARA,**RihamShawky, HeshamSoliman, Ramadan El-Domanyand Ahmed Abdelaziz (2015). Immunomodulation of RAW 264.7 murine macrophage functions and antioxidant activities of eleven plant extracts. *Immunol Invest*, 44, 237-252.

33- Taghrid S. El-Mahdy and **MOHAMED EMARA** (2013). Characterization of Erythromycin, Clindamycin and Tetracycline Resistance Rates in Coagulase-Negative

Staphylococci Isolated From the Faces of Acne Patients and Controls in the Eastern Region, Saudi Arabia. New Egyptian journal of Microbiology. Sept. 2013, 36:152-163.

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