



Microbiology and Immunology dept. Guide, 2022

### Microbiology and Immunology Department Guide



**(2022)** 





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### Introduction

The Department of Microbiology and Immunology - Faculty of Pharmacy - Mansoura University was established in 1971 and was under the direct supervision of the Department of Pharmaceutics - Faculty of Pharmacy - Mansoura University. At the present time, the Department of Microbiology and Immunology is one of the most important medical departments in the faculty that teach undergraduate students, clinical pharmacy program and graduate programs.

The department includes twenty-three faculty members and seventeen assistant faculty members. The department also includes an administrative structure consisting of two secretaries in addition to six technicians and four workers. The Department of Microbiology and Immunology is located in Educational Building (B) on two floors (first and second floors) and includes three laboratories for students and two research laboratories in addition to a laboratory Microarray.

The department teaches courses for the undergraduate, clinical pharmacy and postgraduate programs that include within its framework spread of basic knowledge in biology of microorganisms, microbial genetics, immunology, parasitology, biotechnology, microbial diseases and how to treat them and prevent their spread. At the level of postgraduate studies also, the department offers distinguished programs for obtaining diploma, Master and PhD in pharmaceutical sciences (Microbiology and Immunology), in addition to advanced research programs aimed at preparing students to contribute to the application of the correct scientific methodology.

The department of Microbiology and Immunology is always keen on contribution with other departments to the graduation of highly qualified pharmacists who are fully aware of the importance of microbiology in many pharmaceutical fields. In addition, we look forward to building and developing research programs that help solve social problems and improve the performance of pharmaceutical





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companies in quality control and production of pharmaceutical products.

We hope that Allah help us to fulfill the department's mission in a manner that benefits the college, the university, and our beloved Egypt.

#### **Department Email:**

 $\underline{MicrobiologyImmunologyMansoura@yahoo.com}$ 





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### **Faculty Mission and Vision**

#### **Faculty Mission**

The Faculty of Pharmacy, Mansoura Univ. is committed to progression and continuous development of the educational process, post-graduate studies, research programs and community service; aiming to graduate distinct pharmacists who assemble the needs of local and regional market, and researchers of competitive level, in the framework of academic standards and community values.

#### **Faculty Vision**

To achieve leadership in education, research, and community service in all pharmaceutical domains, locally and regionally.





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### **Department Mission and Vision**

#### **Department Mission**

- Spreading basic knowledge of microbiology, microbial genetics, immunology, parasitology, biotechnology, microbial diseases and their treatment among undergraduate students.
- Spreading basic knowledge of advanced microbiology, molecular biology, industrial biotechnology, control of sterile pharmaceutical products among post graduate students.
- Conducting research on pathogenic bacteria, fungi, and viruses, and production of important pharmaceutical products.

#### **Department Vision**

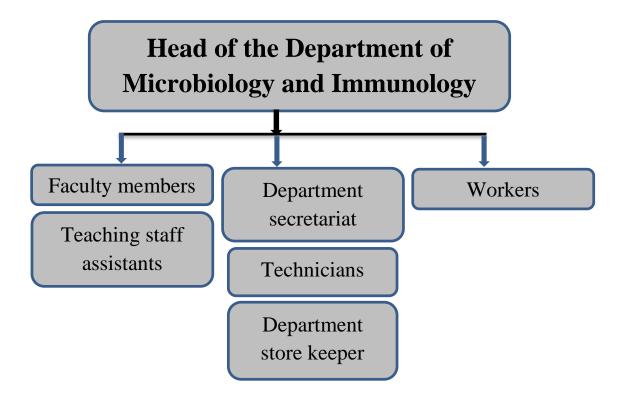
Our vision is to contribute with other departments in graduation of highly qualified pharmacists that are aware with the relevance of microbiology in different pharmaceutical fields. Additionally, we are looking forward to construct and develop of research programs that help to solve the community problems and improving the performance of pharmaceutical companies in quality control and production of pharmaceutical products.





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### The department's organizational structure







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## Department infrastructure

The department of Microbiology and Immunology includes the first and second floors of the educational building (B), which contains:

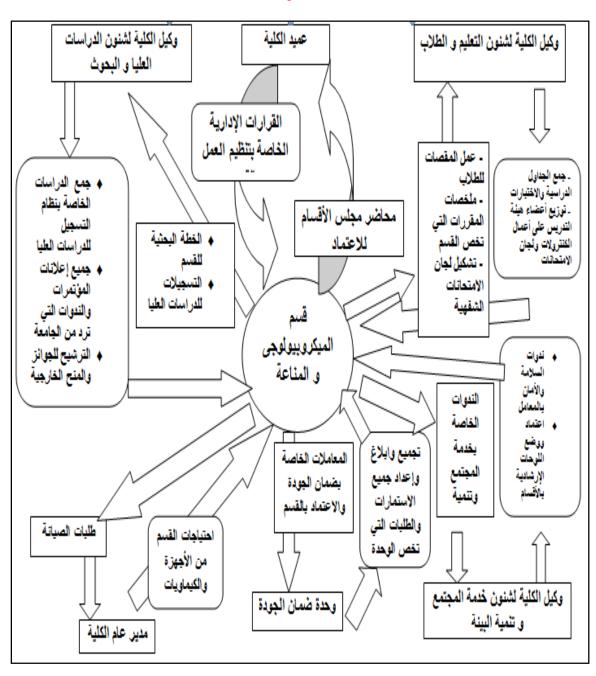
| M | Infrastructure Elements   | The job/purpose                       |  |
|---|---|---------------------------------------|--|
| 1 | Department board room on the first floor, upstairs  | Meetings                              |  |
| 2 | Faculty rooms (6)   | The use of faculty members            |  |
| 3 | Teaching assistant rooms (2)  | The use teaching assistants           |  |
| 4 | Student labs (3)  | Practical lessons for students        |  |
| 5 | Research laboratory (1) and the molecular biology and microarray lab on the first floor, upstairs | Scientific research in the department |  |
| 6 | Research laboratory (2) Ground floor  | Scientific research in the department |  |
| 7 | Electrophoresis room-First floor upstairs   | Scientific research in the department |  |
| 8 | Secretarial room (1) First floor upstairs   | The use of the department secretary   |  |
| 9 | Technicians and workers rooms(3)  | The use of technicians and workers    |  |





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# Interchangeable relations between Microbiology & Immunology department and the Faculty administration

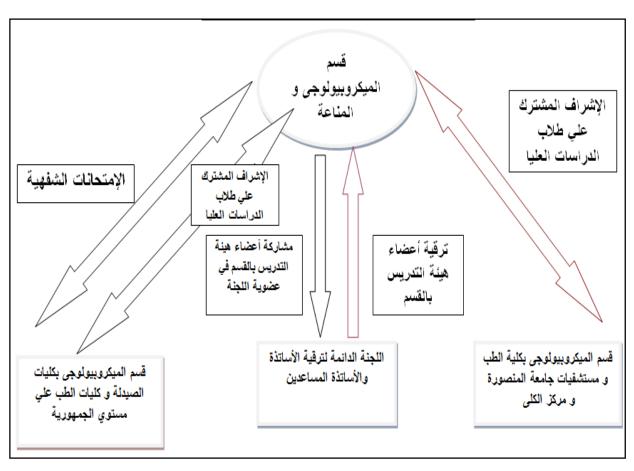






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# Interchangeable relations between Microbiology & Immunology department and other departments







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#### **Faculty Members Affairs: -**

## 1. Names of the Heads of the Department of Microbiology and Immunology

| M | The name  | Occupation   | Period            |  |
|---|---|--|-------------------|--|
| 1 | Prof. Dr. Mohamed Adel El-<br>Sokkary (May Allah bless his<br>soul) | Emeritus professor From the inception of department until 20 |                   |  |
| 2 | Prof. Dr. Sami Khaira ( May<br>Allah bless his soul)                | Professor  | From 2002 to 2005 |  |
| 3 | Prof. Dr. Wael Abbas Elnaggar                                       | Emeritus professor(Loaned)                                   | From 2005 to 2011 |  |
| 4 | Prof.Dr. Ramadan Hassan<br>Ibrahim                                  | Emeritus professor   | From 2011 to 2016 |  |
| 5 | Prof. Dr.Rasha Mohamed Fathy<br>Barwa                               | Professor  | From 2016 to 2020 |  |
| 6 | Prof.Dr. El-Sayed Elsherbiny<br>Habib                               | Professor  | From 2020 So far  |  |





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## 2. The names of the faculty members who held administrative positions in the college

| M | The name   | Occupation            | administrative position  |
|---|--|-----------------------|--|
| 1 | Prof. Dr. Mohamed Adel<br>El-Sokkary (May Allah<br>bless his soul) | Emeritus<br>professor | Vice Dean for Graduate Studies and<br>Research Affairs - from 11/23/1983 to<br>11/22/1986                                |
| 2 | Prof. Dr. Rasha Mohamed<br>Fathy Barwa                             | Professor             | Vice Dean for Education and Student<br>Affairs from 01/08/2018   |
| 3 | Prof.Dr.Mohammed Yousif<br>Ali                                     | Professor<br>(Loaned) | Program Manager of Professional Master in quality control and drug analysis for the academic year 2017/2018              |
| 4 | Prof.Dr.Hany Ibrahim<br>Kenawy                                     | Professor             | Program Manager of Professional Master in Immunology and Regenerative Medicine starting from the academic year 2018/2019 |

#### 3. Staff members

| M | The name  | Occupation                     |
|---|---|--------------------------------|
| 1 | Prof. Dr. Mohamed Adel El-Sokkary (May Allah bless<br>his soul) | Emeritus professor             |
| 2 | Prof. Dr. Mohammad Abul-Hassan (May Allah bless his soul)       | Professor                      |
| 3 | Prof. Dr. Wael Abbas Elnaggar                                   | Emeritus professor<br>(Loaned) |
| 4 | Prof. Dr. Samy Khair Allah (May Allah bless his soul)           | Professor                      |
| 5 | Prof.Dr. Ramadan Hassan Ibrahim Hassan                          | Emeritus professor             |
| 6 | Prof.Dr.El-Sayed Elsherbiny Habib                               | Professor                      |





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|----|---|--|
| 7  | Prof.Dr. Khaled Hussein Abd El Galil        | Professor                                    |
| 8  | Prof. Dr. Rasha Mohamed Fathy Barwa         | Professor                                    |
| 9  | Prof.Dr.Mohammed Yousif Ali                 | Professor (Loaned)                           |
| 10 | Prof.Dr.Mona Ibrahim Awad Shaaban           | Professor                                    |
| 11 | Prof.Dr.Hany Ibrahim Kenawy                 | Professor                                    |
| 12 | Prof.Dr.Mohamed Mohamed Adel Elsokkary      | Professor                                    |
| 13 | Prof.Dr.Eman Salama Abdelmegeed             | Professor                                    |
| 14 | Prof.Dr. Shaymaa Hassan Mohamed Hassan      | Professor (Loaned)                           |
| 15 | Dr. Areej Mostafa El-Mahdy                  | Associate Professor<br>(Loaned)              |
| 16 | Dr. Dina Eid El-Sayed Rizk                  | Associate Professor                          |
| 17 | Dr. Mohammed Asaad Zaki Hassan Elmowafy     | Associate Professor                          |
| 18 | Dr. Heba Shehta Abdullah Said               | Associate Professor                          |
| 19 | Dr.Aber Mohamed AbdelAziz Ibrahim           | Associate Professor                          |
| 20 | Dr.Abdelaziz Ahmed Elgamal                  | Associate professor<br>(internal secondment) |
| 21 | Dr.Shady Kamal George ShokrAllah            | Lecturer (Wife escort)                       |
| 22 | Dr. Rehab Mohamed Elbargisy                 | Lecturer (Husband escort)                    |
| 23 | Dr. Walid Abd El- Fattah El-Sayed Mottawea  | Lecturer (Wife escort)                       |
| 24 | Dr. Hanan Reda Shehata                      | Lecturer (Husband escort)                    |
| 25 | Dr. Soha Lotfy Eldamarawy Elshaer           | Lecturer                                     |
| 26 | Dr. Enas Yasser Mohammed Abdelhaleem Sultan | Lecturer                                     |





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### 4. Teaching assistants

| M  | The name  | Occupation                           |  |
|----|---|--------------------------------------|--|
| 1  | Rana Muhammad Reda Assistant lecturer                     |                                      |  |
| 2  | Maha Ahmed El Sayed Mabrouk                               | Assistant lecturer                   |  |
| 3  | Alaa Mohamed Mahmoud Aboelenin                            | Assistant lecturer                   |  |
| 4  | Dina Ashraf Ramadan Ahmed                                 | Assistant lecturer                   |  |
| 5  | Sarah Abd Elhamid Abd Elkader Ibrahim<br>Mosa             | Assistant lecturer                   |  |
| 6  | Yomna Ahmed Fuad Hagag Awd                                | Assistant lecturer ( Husband escort) |  |
| 7  | Michael Mohsen Kamel Girgis Assistant lecturer (Foreign m |                                      |  |
| 8  | Mohamed Elhossen Ragab Ahmed<br>Eladawy                   | Assistant lecturer (Foreign mission) |  |
| 9  | Zeinab Mahmoud Anwer Mohamed Helal                        | Assistant lecturer                   |  |
| 10 | Dalia Mohamed Abu Khalil Sheta                            | Demonstrator (Grant)                 |  |
| 11 | Wesam Ahmed Ibrahiem                                      | Demonstrator                         |  |
| 12 | Omnia Tawfeek Metwally Bahgat                             | Demonstrator                         |  |
| 13 | Mai Adel Abdelaziz Amin                                   | Demonstrator                         |  |
| 14 | Ahmed Rezk Ragab Shalaby                                  | Demonstrator                         |  |
| 15 | Eman Shaaban Ibrahim Ramadan                              | Demonstrator                         |  |
| 16 | Samaa Sameh Mohammed Bakr                                 | Demonstrator                         |  |
| 17 | Mohamed Maher Mahmoud Elserwy Demonstrator                |                                      |  |





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### 5- Statistics of staff members and teaching assistants

|  |                   | Working | Vacation | Total |
|--|-------------------|---------|----------|-------|
| Professor                                  | Emeritus          | 1       | 1        | 2     |
| Tiolessor                                  | Working           | 7       | 2        | 9     |
| Associate Professor                        | Emeritus          | -       | -        | -     |
|  | Working           | 4       | 1        | 5     |
| Lecturer                                   | Lecturer lecturer |         | 5        | 7     |
| Total staff me                             | embers            | 14      | 9        | 23    |
| Teaching assistants lecturer               |                   | 6       | 3        | 9     |
|  | Demonstrator      | 7       | 1        | 8     |
| Total supporting staff                     |                   | 13      | 4        | 17    |
| Total (staff members+ teaching assistants) |                   | 27      | 13       | 40    |





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### Tree of staff members and teaching assistants in Microbiology and Immunology department

أساتذة متفرغون





















































































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### **6- Department employees**

#### A. Technicians

| No. | Name                        | Notes                     |
|-----|-----------------------------|---------------------------|
| 1   | Hania Abdel Fattah          | Pensioner                 |
| 2   | Saad Mahmoud Ibrahim        | Pensioner                 |
| 3   | Abeer Mahmoud Hassanein     |                           |
| 4   | Salah El Hawary             |                           |
| 5   | Hanan El-Sayed Metwally     |                           |
| 6   | Zainab Mohammed Al-Sharqawi |                           |
| 7   | Azmy Ibrahim Tawfik         | Moved from the department |
| 8   | Ahmed Sabry                 |                           |
| 9   | Ali Shawqi Ali              | Moved from the department |
| 10  | Ayman Shebl Mohamed Abdel   |                           |
| 10  | Razek                       |                           |



Some technicians in Microbiology and Immunology department





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#### **B. Secretaries**

| No. | Name                      | Notes |
|-----|---------------------------|-------|
| 1   | Marwa Mujahid Abdel Wahab |       |
| 2   | Najwa Ibrahim Ahmed       |       |

#### C. Workers

| No. | Name                             | Notes                              |
|-----|----------------------------------|------------------------------------|
| 1   | Kariman Abdel Fattah             |                                    |
| 2   | Mohamed El Sayed                 |                                    |
| 3   | Reda Ibrahim Al-Battah           |                                    |
| 4   | Khadija Lutfi Al-Sayed           |                                    |
| 5   | Riyad Muhammad Ali Siam          | Day-laborer moved in August 2019   |
| 6   | Sameh Ibrahim Mohamed<br>Marawan | Day-laborer                        |
| 7   | <b>Amal Mohamed Abdel Jalil</b>  | Day-laborer moved in November 2019 |
| 8   | Amira Ahmed Youssef              | Day-laborer moved in December 2019 |



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Faculty of pharmacy
Microbiology and Immunology dept.



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**Workers of Microbiology and Immunology department** 

### 7- Statistics of the department's employees

|             | Vacation | Working | Total |
|-------------|----------|---------|-------|
| Secretaries | -        | 2       | 2     |
| Technicians | -        | 6       | 6     |
| Workers     | -        | 5       | 5     |
| Total       | -        | 13      | 13    |





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#### **Education and student affairs:**

## A brief overview of the department showing the importance of studying the department's courses for pharmacy students

The department teaches undergraduate, clinical pharmacy and postgraduate courses that include the spread of basic knowledge in microbiology, microbial genetics, immunology, parasitology, biotechnology, microbial diseases and how to treat them. It also includes the spread of basic knowledge in advanced microbiology, molecular biology, industrial biotechnology, and control of sterile pharmaceutical products. It also includes conducting research on pathogenic bacteria, fungi and viruses, and producing important pharmaceutical products. At the level of postgraduate studies also, the department offers distinguished programs for obtaining diploma, master's and doctorate degrees in pharmaceutical sciences (microbiology and immunology), in addition to advanced research programs aimed at preparing students to contribute to the application of the correct scientific methodology.

## List of the courses taught and supervised by Microbiology and Immunology department

First: General program

| No.               | Course                              | Code   | Level             |  |
|-------------------|-------------------------------------|--------|-------------------|--|
| Credit hour bylaw |                                     |        |                   |  |
| 1                 | Microbiology                        |        | Two (2011 bylaw)  |  |
| 2                 | 2 Parasitology and Pathology        |        | Four (2011 bylaw) |  |
| 3                 | 3 Public health                     |        | Four (2011 bylaw) |  |
| 4                 | Parasitology                        | PM322  | Three             |  |
| 5                 | Pharmaceutical Microbiology         | PM 321 | Three             |  |
| 6                 | Medical microbiology and immunology | PM 413 | Four              |  |
| 7                 | Pathology                           | PM 514 | Five              |  |





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| 8  | Public health                                      | PM 525  | Five                               |
|----|--|---------|------------------------------------|
| 9  | Pharmaceutical biotechnology                       | PM 526  | Five                               |
| 10 | Advanced immunology                                | PME 07  | Elective course (Four and Five)    |
|    | Pharm D  | ) bylaw |                                    |
| 11 | General microbiology and immunology                | PM 221  | Two                                |
| 12 | Pharmaceutical Microbiology                        | PM 323  | Three                              |
| 13 | Parasitology and Virology                          | PM 312  | Three                              |
| 14 | Pharmaceutical biotechnology                       | PM 414  | Four                               |
| 15 | Medical microbiology                               | PM 515  | Five                               |
| 16 | Pathology  | MD 512  | Five                               |
| 17 | Public health                                      | PM 526  | Five                               |
| 18 | Microbiological control of pharmaceutical products | PME 012 | Elective course (Four and Five)    |
| 19 | Infection control and antimicrobial Stewardship    | PME 011 | Elective course<br>(Four and Five) |





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#### Second: Clinical Pharmacy program

| No. | Course  | Code          | Level                              |  |  |
|-----|---|---------------|------------------------------------|--|--|
|     | Modified and Unified bylaw                      |               |                                    |  |  |
| 1   | General microbiology and immunology             | PM 401        | Two                                |  |  |
| 2   | Parasitology                                    | <b>MD 406</b> | Two                                |  |  |
| 3   | Clinical microbiology                           | PM 502        | Three                              |  |  |
| 4   | Pathology                                       | MD 608        | Three                              |  |  |
| 5   | Pharmaceutical Microbiology                     | PM 704        | Four                               |  |  |
| 6   | Pharmaceutical biotechnology                    | PM 703        | Four                               |  |  |
| 7   | Public health                                   | <b>MD 710</b> | Four                               |  |  |
| 8   | Biological Standardization                      | PM E5         | Elective course (Four and Five)    |  |  |
| 9   | Antimicrobial Agent                             | PM E6         | Elective course<br>(Four and Five) |  |  |
| Ph  | arm D bylaw                                     |               |                                    |  |  |
| 10  | General microbiology and immunology             | PM 401        | Two                                |  |  |
| 11  | Pathology                                       | MD 404        | Two                                |  |  |
| 12  | Parasitology and Virology                       | PM 503        | Three                              |  |  |
| 13  | Pharmaceutical Microbiology and Antimicrobials  | PM 502        | Three                              |  |  |
| 14  | Public health and Preventive Medicine           | PM 805        | Four                               |  |  |
| 15  | Medical microbiology                            | PM 704        | Four                               |  |  |
| 16  | Biotechnology                                   | PM 906        | Five                               |  |  |
| 17  | Bioinformatics                                  | PM E13        | Elective course<br>(Four and Five) |  |  |
| 18  | Infection control and antimicrobial Stewardship | PM E12        | Elective course<br>(Four and Five) |  |  |





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#### Scientific content of the courses of the <u>credit hour</u> bylaw

#### PM 321 Pharmaceutical Microbiology

Classification & Morphology of Microorganisms, Bacterial growth & cell death, General virology, General Mycology, Physical & chemical methods of sterilization & sterility test, Disinfection & preservation, Evaluation of Disinfectant & antimicrobial Agents,

#### PM 322 Parasitology

Classical and modern parasitology concentrating on protozoan and worm parasites of major medical/veterinary importance. Topics include basic principles of parasitology, life cycles, epidemiology, host-parasite interactions, drug treatments and vector control programs.

#### PM 413 Medical Microbiology and Immunology

Three major topics "bacteriology, mycology and virology". The important microorganism causing disease. Morphology and characters, virulence factors "surface antigen, toxins and enzymes", pathogenesis, the disease caused by infectious microorganism, clinical and laboratory diagnosis, prophylaxis, epidemiology, vaccination and treatment. Molecular and cellular immunology, including antigen and antibody structure, function and reaction between them, effector mechanisms, complement, and cell mediated immunity. Autoimmunity, and vaccination.

#### PM 526 Pathology

The study of biochemical, structural and functional changes in cells, tissues and organs, which are caused by diseases.

#### PM 525 Public Health

Introduction to individual and population health by exploring health as an evolving and multidimensional concept. Historical and theoretical perspectives will be explored with a focus on chronic disease prevention, injury prevention, health promotion, and health.

#### PM 514 Pharmaceutical Biotechnology

Molecular basis of Bacterial genetics The traditional and molecular methods strategically applied to problems related to microbial biotechnology and environmental microbiology. Industrial uses of microorganisms and efforts to genetically modify microorganisms for specific purposes. Topics include: history and development, microbial products, microbial biomass as a protein source, bioremediation, N2 fixation, detection and monitoring of genetically engineered microorganisms, sequence and phylogenetic analysis followed by probe design, and other modem techniques of environmental microbiology.





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#### PME 07 Advanced Immunology

A recent study topic in congenital and acquired, both- humoral and cellular immunity. Methods of communication between the cells and function of Cytokines in it. Theories of Development and differentiation of B and T lymphocytes. The study of the molecular and genetic level of the immune system in addition to immune control mechanisms. Immunodeficient and examples on selected autoimmune diseases and their causes. The use of modern methods in the diagnosis of infectious diseases and immune diseases. Definition of animals used for experiments to study the human immune diseases.

#### Scientific content of the courses of Pharm D bylaw

#### PM 221 General Microbiology and Immunology (الميكروبيولوجيا العامة والمناعة)

The course provides students with a combination of laboratory and theoretical experience exploring the general aspects of microbiology. It includes knowledge of microorganisms, their morphology, diversity, cell structure and function, cultural characteristics, identification of microorganisms, microbial nutrition. It also explores the basic concepts microbial growth, cultivation and reproduction. It also clarifies different mechanisms of transport across bacterial cell membrane. The course also covers the principles of genetic characters including DNA and RNA structures, replication, different forms of mutation and mutagenic agents. Moreover, it introduces the modern concepts of medical immunology, with an emphasis on host parasite relationship, Non-specific and specific immunity, Mechanism of protective immunity. Molecular and cellular immunology, including antigen and antibody structure, function and reaction between them, effect or mechanisms, complement, and cell mediated immunity and in vitro antigen antibody reactions

#### PM 312 Parasitology and Virology (الطفيليات والفيروسات)

Part of this course will focus on parasitic infections of humans with knowledge concerning biological, epidemiological and ecological aspects of parasites causing diseases to humans with special attention to different parasitological related diseases in Egypt causing serious health problems. This part of the course will discuss medical helminthology, protozoology and entomology concerning their morphological features, life cycle, pathogenesis, clinical manifestations, different diagnostic techniques, the most recent lines of treatment and prevention with control strategy for each parasitic infection. Moreover, it also cover laboratory diagnosis of human parasitic infections. The other part of the course provides students with the essential knowledge to recognize the epidemiology, mechanisms of pathogenesis, clinical picture, methods of laboratory





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diagnosis, treatment, prevention and control measures of RNA and DNA viral infections in humans.

#### PM 323 Pharmaceutical Microbiology (الميكروبيولوجيا الصيدلية)

This course describes in detail the physical and chemical methods of bacterial eradication and how to effectively control microbial growth in the field of pharmaceutical industry / hospitals. It further describes the means of preservation of pharmaceutical products, as well as cosmetics. Sterilization, sterilization indicators, sterility testing and aseptic area. Validation of sterilization process. Moreover, it explains the different groups of antimicrobials, their mechanism of action and resistance of microbes to biocides. Microbiological evaluation of antiseptics, disinfectants and preservatives. Antibiotics, classification and mechanism of action including the new categories and new approaches to overcome bacterial resistance & antibiotics clinical abuse. Antiviral and antifungal agents. Assay of antimicrobial activity

#### PM 414 Biotechnology (التقنية الحيوية)

Introduction to biotechnology, fermentation technology, fermentation process and fermenters, Fermented products (Antibiotics, vitamins, amino acids, interferons, interleukins, monoclonal antibodies, vaccines and etc.... Bioremediation, N2 fixation, detection and monitoring of genetically engineered microorganisms. Genetic Engineering, PCR, Recombinant DNA Technology and Applications of recombinant DNA in the pharmaceutical and medical fields. Basics of Gene therapy and its applications in monogenic and polygenic disorders. Other modem techniques of environmental microbiology.

#### PM 515 Medical Microbiology (الميكروبيولوجيا الطبية)

The course aims at studying microorganisms causing infectious disease in human beings. The infectious diseases, their etiology, pathogenesis and clinical manifestation, routes of transmission, treatment and techniques in detection and identification of pathogenic bacteria and fungi of major significance to public health will be studied. The course also focusses on immunological diseases and disorders in immunity including hypersensitivity, immuno-deficiency disorders, autoimmunity and auto-immune diseases and organ transplantation.

#### (علم الامراض) MD 512 Pathology

The main aim of Pathology course is to provide students with knowledge and skills for common diseases affecting body organs and system. It helps the student to understand the causes (etiology) of disease, the mechanisms of its development (pathogenesis) and the associated alterations of structure (morphologic changes) and function (clinical manifestations and complications) to be able to determine the most likely diagnosis of the disease.





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PM 526 Public Health (الصحة العامة)

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This course aims at understanding all scientific disciplines required for health education and promotion directed to the community health. How epidemiology acts as the bases of public health actions will be taught. Detailed scientific information and practices programs will be provided for nosocomial infections, control of communicable, noncommunicable diseases including active and passive immunization, improving mental, social, environmental, occupational, geriatric and family health, use of sufficient and balanced food and nutrition, supplying safe drinking water, treating and disposing wastes and proper intervention during disasters

### PME 011 Infection control and antimicrobial stewardship (مكافحة العدوى و الاشراف على مضادات الميكروبات)

The course includes infection prevention and control practices, the chain of infection, standard and transmission-based precautions, barriers and use of personal protective equipment, strategies for preventing the spread of infectious disease to healthcare workers and patients and disposal of biohazard waste. The course also addresses the improvement of antimicrobial agents prescription in the clinical practice through the application of stewardship programs in medical institutions. The course focuses on all elements and considerations required for the establishment and implementation of a successful antimicrobial policy.

### PME 012 Microbiological control of pharmaceutical products (المستحضرات الصيدلة)

The course includes methods for quantitative estimation of the biological activity of antimicrobial agents and vaccines according to pharmacopeias. The microbial estimation of non-sterile pharmaceutical products according to USP. Determination of endotoxin limit in sterile pharmaceutical products by LAL test according to USP. Assay of antiviral agents.





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## Photos of practical lessons for undergraduate and clinical pharmacy students in Microbiology and Immunology department













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Third: Postgraduate Studies, Cultural Relations and Research Affairs:

Post graduate programs (Diploma, Master, PhD, Pharm D and Professional Master)

#### **Diploma**

| No.                       | Course                                      | Code       |  |
|---------------------------|---|------------|--|
|                           | Microbiology Diploma                        |            |  |
| 1                         | General Bacteriology                        | PMD-101    |  |
| 2                         | General Mycology & Virology                 | PMD-102    |  |
| 3                         | Antimicrobial agents                        | PMD-103    |  |
| 4                         | General Immunology                          | PMD-104    |  |
| 5                         | Biotechnology                               | PMD-105    |  |
| 6                         | Diagnostic Microbiology                     | PMD-106    |  |
| 7                         | Microbiological Quality control & Quality   | PMD-107    |  |
|                           | assurance Course                            |            |  |
| 8                         | Environmental Microbiology                  | PMD-108    |  |
| 9                         | 9 Advanced Microbiological Techniques PMD-1 |            |  |
|                           | Quality Control and Drug Analysis Dipl      | oma        |  |
| 10                        | Microbiological Quality control             | PAD-104    |  |
|                           | Cosmetic products Diploma                   |            |  |
| 11                        | Microbial Quality control and Quality       | PTD -B106  |  |
|                           | Assurance of cosmetics                      | F 1D -D100 |  |
| Clinical Pharmacy Diploma |   |            |  |
| 12                        | Antimicrobial and Immuno therapy            | PPD-109    |  |
| 13                        | Clinical laboratory tests                   | PPD-110    |  |

#### **Master**

| No. | Course                     | Code    |
|-----|----------------------------|---------|
| 1   | Advanced Microbiology      | PM-201  |
| 2   | Medical Immunology         | PMD-202 |
| 3   | Antimicrobial chemotherapy | PMM-203 |
| 4   | Infectious diseases        | PMD-204 |





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| 5 | <b>Industrial Microbiology and Biotechnology</b> | PMM-205 |
|---|--|---------|
| 6 | Bioinformatics                                   | GCM-204 |

#### **PhD**

| No. | Course                                  | Code     |
|-----|---|----------|
| 1   | Advanced Biotechnology I                | PMP -301 |
| 2   | Advanced Immunology and Immunopathology | PMP-302  |
| 3   | Clinical Microbiology                   | PMP-303  |
| 4   | Environmental Microbiology              | PMP 304  |
| 5   | Advanced Biotechnology II               | PMP-305  |

#### Pharm D Program

| No. | Course   | Code       |
|-----|--|------------|
| 1   | Treatment of Infectious diseases and immunological disorders | PP-PDP 203 |
| 2   | Bioinformatics   | PP-PDP 207 |
| 3   | Clinical laboratory investigation                            | PP-PDP-213 |

#### **Professional Master in Immunology and Regenerative medicine**

| No. | Course              | Code    |
|-----|---------------------|---------|
| 1   | Basic Immunology    | IMR111  |
| 2   | Lab safety          | IMR 116 |
| 3   | Advanced Immunology | IMR121  |
| 4   | Bioinformatics      | IMR 126 |

#### • IMR111: Basic Immunology:

This course helps the student to know all the components of the immune system and their functions, understand the interrelationship between these elements and be able to analyze their role both in normal and imbalanced immune response.





### Microbiology and Immunology dept. Guide, 2022

#### • IMR 116: Lab safety

This module deals with safety guidelines and procedures for working with biohazardous materials, recombinant DNA molecules and Blood borne Pathogens. Content will also include lab policies, responsibilities and requirements for research involving the use of biological materials. This module helps to safe lab practices to minimize the risk of spills and chemical or biological exposures.

Laboratories involve many chemicals, procedures, and operations that require specific safety precautions.

#### • IMR121: Advanced Immunology:

Advanced immunology is a course in which fundamental immunology concepts are both reinforced and extended through the study of human diseases of the immune system. The role of the immune system in human health and disease is described in detail, with examples showing how the immune dysfunction leads to chronic inflammatory diseases such as rheumatoid arthritis (autoimmune diseases) and asthma (hypersensitivity), cancer immunology, immunogenetics and immune deficiency. Throughout the course students will also learn about Applied Immunology, with focusing on transplantation immunology, vaccine technology and immunotherapeutics. Problem-based learning exercises will be used to demonstrate these topics. Analyze the medical literature reporting immunologic advances pertinent to their patients, cite the rationale for use of new immunodiagnostic and immunotherapeutic modalities in their patients, and to serve as thought leaders within their medical community.

#### • IMR 126: Bioinformatics

Bioinformatics is an integration of mathematical, statistical and computational methods to analyze biological, biochemical and biophysical data. It deals with methods of storing, retrieving and analyzing biological data, such as nucleic acid and protein sequences, structures, functions, pathways and genetic interactions. Bioinformatics include the use of computer in solving information problems in life sciences; mainly it involves the creation of extensive electronic database on genomes and protein sequences. Secondarily it involves techniques such as the three-dimensional modeling of bimolecular and biological systems.





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#### **Professional Master in Quality Control and Drug Analysis**

| No. | Course                          | Code   |
|-----|---------------------------------|--------|
| 1   | Microbial quality control       | QC 114 |
| 2   | Vaccines, sera and biomolecules | QC 122 |
| 3   | Antimicrobial agents            | QC 128 |

#### • QC 114: Microbial quality control:

This course will cover recent techniques used in sterilization of pharmaceutical preparations, surgical tools, instruments, and dressing in addition to sterility assurance levels required for pharmaceuticals. Validation of the sterilization process, limits and tests for detection microbial contamination will be also included.

#### • QC 122: Vaccines, sera and biomolecules:

This course will cover recent techniques used for evaluation of vaccine and antisera used in medicine, in addition to production and preparation of modern biological molecules produced by biotechnology including recombinant proteins, monoclonal antibodies, aptamers ect......

#### • QC 128: Antimicrobial agents:

This course will cover general classification and characteristics of antimicrobial chemotherapeutic agents including antibiotics, antifungal, antiviral, disinfectants and preservatives. It will also cover resistance to antimicrobial agents, selective toxicity of antimicrobial agents, and evaluation of antimicrobial agents, antimicrobial combination and their evaluation.

#### • The department's research plan includes the following titles:

- 1. Studying the virulence factors of some microbes isolated from hospitals and foodstuffs, and how to reduce their danger.
- 2. Molecular microbiology.
- 3. Microbiological studies on fungal infection
- 4. Production of some important enzymes using biotechnology





### Microbiology and Immunology dept. Guide, 2022

- 5. Comparison between microbes isolated from different clinical and environmental sources
- 6. Immunity and how microbes escape from the immune system
- 7. Studying the effect of drugs used in treatment and the causes of antimicrobial resistance and how to increase their therapeutic effectiveness.

#### Research groups in the department

| M | Research group  | Members  |
|---|---|--|
| 1 | Study of the virulence factors of some microbes isolated from hospitals and food and how to reduce their severity | Dr. Rasha Barwa Dr. Mona Shabaan Dr. Mohamed M. Adel El- Sokkary Dr. Abeer abdelaziz Dina Ashraf Mohamed El-Adawy  |
| 2 | Molecular microbiology  | Dr. Ramadan Hassan Dr. Rasha Barwa Dr. Mohamed Youssif Ali Dr. Mona Shabaan Dr. Mohamed M. Adel El- Sokkary Dr. Abdelaziz El-gamal Dr. Mohamed Asad Dr. Soha Lotfy Elshaer |
| 3 | Study the effects of drugs used in treatment, microbial resistance and how to increase their effectiveness        | Dr. Ramadan Hassan Dr. Rasha Barwa Dr. Mona Shabaan Dr. Eman Salama Dr. Dina Eid Alaa M. Aboelenin   |
| 4 | Comparison of microbes isolated from different clinical and environmental sources                                 | Dr. Ramadan Hassan Dr. Rasha Barwa Dr. Soha Lotfy Elshaer Omnia tawfeek  |
| 5 | Immunology and how the microbes escape from the immune system   | Dr. Ramadan Hassan<br>Dr. Rasha Barwa<br>Dr. Mohamed Youssif Ali   |





### Microbiology and Immunology dept. Guide, 2022

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|---|-------------------------------------|---------------------------------|
|   |                                     | Dr. Hani Kenawy                 |
|   |                                     | Dr. Abeer abdelaziz             |
|   |                                     | Dr. Dina Eid                    |
|   |                                     | Dr. Abdelaziz El-gamal          |
|   |                                     | Enas Yasser Mohammed            |
|   |                                     | Maha Mabrouk                    |
|   |                                     | Yomna Hagag                     |
|   |                                     | Michael Mohsen                  |
|   |                                     | Dr. Ramadan Hassan              |
|   |                                     | Dr. Hani Kenawy                 |
|   | The production of important enzymes | Dr. Eman Salama                 |
| 6 | in Biotechnology                    | Dr. Mohamed M. Adel El- Sokkary |
|   |                                     | Dr. Mohamed Asad                |
|   |                                     | Sarah A. Abd Elkader            |

### Scientific devices in the department

| M  | Device name               | Number | Use   |
|----|---------------------------|--------|---|
| 1  | Water bath                | 10     | Scientific research in the department and the use of students |
| 2  | Circulatory water bath    | 1      | Scientific research in the department and the use of students |
| 3  | Hot air oven              | 5      | Scientific research in the department and the use of students |
| 4  | Digital Electric balance  | 5      | Scientific research in the department and the use of students |
| 5  | <b>Automatic Pipettes</b> | 32     | Scientific research in the department                         |
| 6  | Laminar flow hood         | 4      | Scientific research in the department                         |
| 7  | Centrifuge                | 1      | Scientific research in the department                         |
| 8  | Spectrophotometer         | 1      | Scientific research in the department                         |
| 9  | Cooling centrifuge        | 2      | Scientific research in the department                         |
| 10 | Thermocycler              | 1      | Scientific research in the department                         |





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Microbiology and Immunology dept. Guide, 2022

## Photos of some research devices in Microbiology and Immunology department



**Gradient PCR Machine** 



**Real time-PCR Machine** 



DNA gel electrophoresis apparatus & Gel documentation system





Microbiology and Immunology dept. Guide, 2022



**ELIZA** reader



**Microarray System** 



Water distillation system





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Colorimeter



**Autoclave** 





## Microbiology and Immunology dept. Guide, 2022

#### Thesis supervision

The department supervises a number of internal- and external-registered master's and PhD students, explaining their instructions as follow

#### **A- Master's students**

| M | Student<br>name  | Thesis title   | Supervisors   | Registration date             | Notes    |
|---|--|--|---|-------------------------------|----------|
| 1 | Omaima<br>Mohammed<br>Al-<br>Sharbini<br>Atta Allah<br>Ibrahim | The diversity of beta-<br>lactam resistance in<br>clinical isolation<br>from staphylococcus  | <ul> <li>Prof.Dr Eman salama<br/>ahmed abdelmagid</li> <li>Prof.Dr. Hani Ibrahim<br/>Kenawy</li> </ul>  | 4/6/2013                      | External |
| 2 | Heba<br>Alsaeed<br>Abu Al-<br>Farah<br>Mohammed<br>Hassan      | The effect of the integration of certain medications and antibiotics on the Pseudomonas aeruginosa isolated from pulmonary infection       | <ul> <li>Prof. Dr. EL Sayed EL Shirbiny Mohamed Habib</li> <li>Prof.Dr. Mohamed Adel El-Sokkary</li> </ul>  | 08/10/2014                    | External |
| 3 | Samar<br>Magdy Al-,<br>Sayed<br>Ahmed El-,<br>Sherbini         | Molecular characterization and assessment of the sensitivity of isolated intestinal bacteria from different food sources of antimicrobials | <ul> <li>Prof.Dr Rasha         Mohamed Fathy         Barwa</li> <li>Prof. Dr. Maha Abdo         Mohammed Abdo Al-         Ashmawy Dr. Dina         Eid El-Sayed Rizk</li> </ul> | 30/8/2017                     | External |
| 4 | Nourhan<br>Hussein<br>Ibrahim<br>Ismail Al-<br>Sabbagh         | Molecular studies on<br>the prevalence of<br>quinolone-resistant<br>genes among gram-<br>negative bacteria                                 | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan     </li> <li>Dr. Abeer Mohamed         Abd El-Aziz     </li> </ul>   | 30/8/2017                     | External |
| 5 | Ayah<br>Ayman<br>Mahfouz                                       | Studies on macrolide<br>resistance -<br>Lincusamide -<br>Streptogramin (MLS)<br>in clinical isolations                                     | <ul> <li>Prof.Dr Mona Ibrahim<br/>Awad Shabaan</li> <li>Dr. Heba Shehta Said</li> </ul>   | June 2018<br>Section<br>Board | External |





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|--------|--|--|--|----------------------|----------|
| 6      | Omnia<br>Tawfeek<br>Metwally<br>Bahgat | of Staphylococcus aureus Studies on the relationship between infection with different offspring patterns of Escherichia coli and kidney injuries | <ul> <li>Prof.Dr Rasha</li></ul>   | 01/01/2019           | Internal |
| 7      | Wessam<br>Ahmed<br>Mohamed<br>Ibrahim  | Study comparing clinical insulation of methicillin-resistant staphylococcus aureus and ant methicillin -sensitive                                | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan</li> <li>Prof.Dr. Hani Ibrahim         Kenawy</li> <li>Dr. Mohammed Asaad         El-Mowafy</li> </ul> | 10/06/2019           | Internal |
| 8      | Mai Adel<br>Abd El-<br>Aziz Amin       | Characterization of large antibiotic-resistant Pseudomonas aeruginosa isolated from hospitals  | <ul> <li>Prof.Dr Rasha         Mohamed Fathy         Barwa</li> <li>Prof.Dr. Mohamed         Adel El-Sokkary</li> <li>Dr. Abeer Mohamed         Abd El-Aziz</li> </ul> | 7/11/2019            | Internal |
| 9      | Magi<br>Hamid Abd<br>El , Majid        | Studies to produce<br>microbial enzymes to<br>treat respiratory<br>diseases  | <ul> <li>Prof.Dr. Mohamed<br/>Adel El-Sokkary</li> <li>Dr. Heba Shehta Said</li> </ul>   | 2020/2/10            | External |
| 10     | Leqaa<br>Lotfy Ali<br>Ali Badawy       | Strategies to overcome microbial resistance and virulent factors in gram-resistant clinical isolations of the last sanctuary of antimicrobials   | <ul> <li>Prof.Dr Mona Ibrahim<br/>Awad Shabaan</li> <li>Dr. Soha Lotfy<br/>Eldamarawy Elshaer</li> </ul>   | 10/5/2020            | External |
| 11     | Mai Ahmed<br>Ibrahim<br>Awad           | Targeting microbial resistance and ferocity factors in staphylococcus resistant to the last sanctuary of   | <ul> <li>Prof.Dr Mona Ibrahim<br/>Awad Shabaan</li> <li>Dr. Abeer Mohamed<br/>Abd El-Aziz</li> </ul>   | June 2020<br>Council | External |





## Microbiology and Immunology dept. Guide, 2022

|    |                               | antimicrobials   |   |                      |          |
|----|-------------------------------|--|---|----------------------|----------|
| 12 | Mai Abd<br>EL-azim<br>Mahmoud | Molecular studies on<br>Cresper Kaz systems<br>in Pseudomonas<br>aeruginosa  | <ul> <li>Prof.Dr Rasha         Mohamed Fathy             Barwa     </li> <li>Dr. Mohammed Asaad             El-Mowafy</li> </ul>        | June 2020<br>Council | External |
| 13 | Salma<br>Ahmed<br>Saad        | Study on the effect of certain inhibitors on virulent factors in multi-resistant polyseptoccus clinically isolated drugs | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan     </li> <li>Dr. Soha Lotfy         Eldamarawy Elshaer     </li> </ul> | 19/1/2022            | External |

#### **B- PhD students**

| M | Student<br>name                             | Address of the message   | Supervisors   | Registration date | Observations          |
|---|---|--|---|-------------------|-----------------------|
| 1 | Fatma Wael<br>Abbas Al ,<br>Najjar          | Comparative studies of disease islands of staphylococcus aureus isolated from different clinical sources | <ul> <li>Prof.Dr Ramadan<br/>Hassan Ibraheim<br/>Hassan</li> <li>Prof.Dr. Hani<br/>Ibrahim Kenawy</li> <li>Dr. Soha Lotfy<br/>Eldamarawy<br/>Elshaer</li> </ul>                     | 26/03/2015        | External              |
| 2 | Maha<br>Ahmed Mr.<br>Mabrouk                | The role of collictin 11 in natural immunity and its association with microbial infection                | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan</li> <li>Dr. Mohammed         Yossif Ibrahim Ali</li> <li>Dr. Abeer         Mohamed Abd El-         Aziz</li> </ul> | 05/07/2017        | Assistant<br>lecturer |
| 3 | Heba Abdul<br>Saboor<br>Mohammed<br>Showman | Assessment of biological activity of some microbial products   | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan     </li> <li>Prof.Dr. Hani         Ibrahim Kenawy     </li> </ul>  | 29/5/2017         | External              |





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|---------|---|--|---|------------|-----------------------|--|--|
|         |   |  | Dr. Heba Shehta     Said  |            |                       |  |  |
| 4       | Rana<br>Mohammad<br>Reda Abdul<br>Aziz Al-Baz<br>Mohammed | Molecular<br>characterization of<br>different resistance<br>groups in clinical<br>Escherichia coli<br>isolations | <ul> <li>Prof.Dr Rasha<br/>Mohamed Fathy<br/>Barwa</li> <li>Prof.Dr Eman<br/>salama ahmed<br/>abdelmagid</li> <li>Dr. Heba Shehta<br/>Said</li> </ul>   | 17/12/2017 | Assistant lecturer    |  |  |
| 5       | Mohammed<br>Ramadan<br>Hassan<br>Ibrahim                  | Comparative studies between clinical isolations of hyperly severe and stereotypical pneumococcal kalpicella      | <ul> <li>Prof.Dr Rasha         Mohamed Fathy         Barwa</li> <li>Prof.Dr Eman         salama ahmed         abdelmagid</li> <li>Dr. Mohammed         Asaad El-Mowafy</li> </ul>             | 19/06/2018 | External              |  |  |
| 6       | Alaa<br>Mohamed<br>Mahmoud<br>Aboelenin                   | Evaluation of therapeutic systems in multi-antibiotic-resistant clinical Acinetobacter baumanii solations        | <ul> <li>Prof.Dr Rasha         Mohamed Fathy         Barwa</li> <li>Prof.Dr Mona         Ibrahim Awad         Shabaan</li> <li>Dr. Mohammed         Asaad El-Mowafy</li> </ul>                | 10\12\2018 | Assistant<br>lecturer |  |  |
| 7       | Dina Ashraf<br>Ramadan<br>Ahmed El-<br>Sayed              | Applications of bacteriophage as a modern treatment method against many antibiotic-resistant bacteria            | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan</li> <li>Prof.Dr Mona         Ibrahim Awad         Shabaan</li> <li>Dr. Abeer         Mohamed Abd El-         Aziz</li> </ul> | 10/12/2018 | Assistant<br>lecturer |  |  |
| 8       | Sarah Abd<br>Elhamid<br>Abd Elkader<br>Ibrahim<br>Mosa    | Studies on microbial production and evaluation of glutaminase as an anti-cancer                                  | <ul> <li>Prof.Dr Ramadan         Hassan Ibraheim         Hassan</li> <li>Prof.Dr. Mohamed         Adel El-Sokkary</li> <li>Dr. Heba Shehta</li> </ul>   | 30/12/2018 | Assistant<br>lecturer |  |  |





## Microbiology and Immunology dept. Guide, 2022

|   |                                  |  |   | Said   |            |                       |
|---|----------------------------------|--|---|--|------------|-----------------------|
| 9 | Yomna<br>Ahmed Fuad<br>Hagag Awd | Study on the use of<br>different biological<br>factors to protect<br>against Acinetobacter<br>baumanii infection | • | Prof.Dr Ramadan<br>Hassan Ibraheim<br>Hassan<br>Prof.Dr. Hani<br>Ibrahim Kenawy<br>Dr. Heba Shehta<br>Said | 30/12/2018 | Assistant<br>lecturer |

#### Thesis granted by the department

| M | Student<br>name               | MSc<br>or<br>PhD | Thesis title   | Supervisors  | Date | Notes    |
|---|-------------------------------|------------------|--|--|------|----------|
| 1 | Areej<br>Mostafa El-<br>Mahdy | MSc              | Studies on the production of antimicrolial agents by actinemycetes isolated from Egyptian soil   | <ul> <li>Prof. Mohamed Adel El-Sokkary</li> <li>Prof. Wael El- Naggar</li> <li>Dr El-Sayed El- Sherbini Habib</li> </ul>       | 2008 | Internal |
| 2 | Eman<br>Salama<br>Abdelmegeed | MSc              | Study on the antimicrobial effect of antazoline hydrochloride ex vivo and in vivo in ophthalmic preparations and contact lens solutions. | <ul> <li>Prof. Mohamed     Adel El-Sokkary</li> <li>Dr Samy Khair Allah</li> </ul>   | 2005 | Internal |
| 3 | Hanan Reda<br>Hassan          | MSc              | A comparative study on<br>bacterial resistance and<br>some virulence factors in<br>each of Escherichia coli<br>and Streptococcus         | <ul><li>Dr Ramadan Hassan</li><li>Dr Rasha Barwa</li></ul>   | 2009 | Internal |
| 4 | Dina Eid<br>Rizk              | MSc              | Studies on potential inhibitors of antibiotic-inhibiting bacterial enzymes   | <ul> <li>Prof. Mohamed         Adel El-Sokkary</li> <li>Prof Wael Abbas El-         Naggar</li> <li>Dr El-Sayed El-</li> </ul> | 2008 | Internal |





| MIC | Microbiology and Immunology dept. |     | Guide, 2022  |   |      |          |
|-----|-----------------------------------|-----|--|---|------|----------|
|     |                                   |     |  | Sherbini Habib  |      |          |
| 5   | Rehab El-<br>Bargisy              | MSc | P20 The effect of biofilm<br>formation on the efficacy<br>of different antimicrobials<br>against bacterial clinical<br>isolates  | <ul> <li>Prof Samy</li> <li>Kheira Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr El-Sayed El-Sherbini Habib</li> </ul>                   | 2008 | Internal |
| 6   | Shaymaa<br>Hassan<br>Mohamed      | MSc | Studies on some exogenous<br>and endogenous enzymes<br>produced by different<br>species of Pseudomonas                           | <ul> <li>Prof. Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr El-Sayed El-Sherbini Habib</li> </ul>   | 2007 | Internal |
| 7   | Abdelaziz<br>Elgaml               | MSc | Molecular diagnosis of<br>Gram negative bacteria in<br>urinary tract infections  | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> </ul>                        | 2010 | Internal |
| 8   | Abeer<br>Mohamed<br>Abd El-Aziz   | MSc | Ex vivo studies on combinations of beta-lactams and beta-lactamase inhibitors on clinically isolated resistant bacterial strains | <ul> <li>Prof Samy Khair</li> <li>Allah</li> <li>Prof Wael Abbas El-<br/>Naggar</li> </ul>  | 2007 | Internal |
| 9   | Fatma Wael<br>El-Naggar           | MSc | Studies on strains of Pseudomonas ariginosa producing mineral beta- lactamase isolated from different clinical sources           | <ul> <li>Dr Ramadan</li> <li>Hassan</li> <li>Dr El-Sayed El-Sherbini Habib</li> <li>Dr Rasha Barwa</li> </ul>                             | 2010 | Internal |
| 10  | Mohamed<br>Asaad El-<br>Mowafy    | MSc | Studies on some factors<br>affecting the production of<br>hygromycin A produced by<br>Streptomyces hygroscopic<br>strain         | <ul> <li>Prof. Mohamed</li> <li>Adel El-Sokkary</li> <li>Prof Samy Khair</li> <li>Allah</li> <li>Dr El-Sayed El-Sherbini Habib</li> </ul> | 2007 | Internal |
| 11  | Mohamed<br>Mohamed                | MSc | The effect of some natural and chemical factors on the   | • Prof Samy Khair<br>Allah  | 2002 | Internal |





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|--------|-------------------------------------|-----------|---|---|------|----------|
|        | Adel El-<br>Sokkary                 |           | production of gynamicin<br>by Micromonospora<br>purpurea  |   |      |          |
| 12     | Mohammed<br>Youssef Ali             | MSc       | Studies on antibodies to some microbial enzymes   | • Prof. Mohamed Adel<br>El-Sokkary Prof Samy<br>Khair Allah   | 2004 | Internal |
| 13     | Mona<br>Ibrahim<br>Awad<br>Shaaban  | MSc       | A comparative study on the activities of some endotoxins produced by Gram-negative bacilli in the presence of some antibiotics                                    | • Prof Samy Khair<br>Allah  | 2002 | Internal |
| 14     | Rasha<br>Mohamed<br>Fathy Barwa     | MSc       | Multidrug resistance in<br>Gram-negative bacteria<br>isolated from clinical<br>sources  | <ul><li>Prof Wael Abbas</li><li>El-Naggar</li><li>Prof Samy Khair</li><li>Allah</li></ul>                     | 2001 | Internal |
| 15     | Nehal<br>Ahmed<br>Talaat            | MSc       | Genetic and phenotypic diversification of methicillin-resistant Staphylococcus aureus isolates from different clinical sources from Mansoura University Hospitals | <ul> <li>Dr Ramadan</li> <li>Hassan</li> <li>Dr El-Sayed El-Sherbini Habib</li> <li>Dr Rasha Barwa</li> </ul> | 2010 | Internal |
| 16     | Hany<br>Ibrahim El-<br>Kenawy       | MSc       | Studies on some enzymes produced from streptococcus group (A)   | • Prof. Mohamed Adel<br>El-Sokkary Prof Samy<br>Kheira  | 2005 | Internal |
| 17     | Heba Shehta<br>Abdallah             | MSc       | Diversification of<br>Klebsiella pneumonia<br>isolated from clinical<br>sources   | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr Khaled Abd</li> <li>El Galil</li> </ul>               | 2009 | Internal |
| 18     | Walid Abd<br>El-Fattah El-<br>Sayed | MSc       | Studies on extracellular antimicrobial infusion in  | <ul><li>Prof Samy</li><li>Kheira Allah</li><li>Dr El-Sayed El-</li></ul>                                      | 2007 | Internal |





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|----|--|-----|--|--|------|----------|
|    | Mottawea                               |     | clinically isolated Gram-  | Sherbini Habib   |      |          |
|    |  |     | negative bacilli   | • Dr Wael Abbas El-<br>Naggar  |      |          |
| 19 | Eman<br>Salama<br>Abdelmegeed          | PhD | A Comparative study on gram-negative bacterial infections in Mansoura University Hospitals, Egypt  | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr Ramadan</li> <li>Hassan</li> <li>Dr El-Sayed El-Sherbini Habib</li> <li>Dr Shady Kamal</li> <li>George</li> </ul>        | 2009 | Internal |
| 20 | Rasha<br>Mohamed<br>Fathy Barwa        | PhD | Studies on extended-<br>spectrum beta-lactamases<br>obtained clinically from<br>Staphylococcus aureus and<br>some Gram-negative<br>bacilli | <ul> <li>Prof. Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr Wael Abbas</li> <li>El-Naggar</li> <li>Prof Samy Kheir</li> <li>Allah</li> </ul>                                     | 2007 | Internal |
| 21 | Shady<br>Kamal<br>George<br>ShokrAllah | PhD | Microbiological studies on<br>highly resistant bacterial<br>strains isolated from<br>clinical sources                                      | <ul> <li>Prof. Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr Wael Abbas</li> <li>El-Naggar</li> <li>Prof Samy Kheir</li> <li>Allah</li> <li>Dr Mostafa</li> <li>Ronagy</li> </ul> | 2007 | Internal |
| 22 | Mona<br>Ibrahim<br>Awad<br>Shaaban     | PhD | Studies on the production<br>of penicillin and its<br>biologically active<br>metabolites by Aspergillus<br>and Penicillium                 | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Prof. Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr El-Sayed El-Sherbini Habib Prof</li> <li>Nancy Keller</li> </ul>         | 2010 | Internal |
| 23 | Soha Lotfy<br>Elshaer                  | MSc | Quorum Sensing Mediating Bacterial Resistance and Virulence Factors in Clinical Isolates of <i>Pseudomonas</i>                             | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> <li>Dr Mona Shaaban</li> </ul>  | 2015 | Internal |





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|--------|------------------------------------|-----|---|---|------|----------|
|        |                                    |     | aeruginosa.   |   |      |          |
| 24     | Sarah<br>Magdy<br>Ibrahim          | MSc | Studies on different types<br>of microorganisms isolated<br>from meat products in<br>Egyptian market                      | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> <li>Dr Shaymaa Hassan</li> </ul>                                     | 2015 | Internal |
| 25     | Eman<br>Mohamed<br>Rabea           | MSc | The relation between bacteriuria and HCV in patients with ileal neobladder  | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> <li>Dr Mohamed</li> <li>Mohamed Adel El-Sokkary</li> </ul>           | 2015 | Internal |
| 26     | Lamiaa Adel<br>Salama              | MSc | Epidemiological studies on<br>the incidence of <i>Klebsiella</i><br>pneumoniae isolated from<br>Mansoura hospitals, Egypt | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa Dr</li> <li>Mona Shaaban</li> </ul>                                       |      | Internal |
| 27     | Enas Yasser<br>Sultan              | MSc | Studies on enterotoxin production by different strains of <i>Staphylococcus aureus</i> isolated from various sources      | <ul> <li>Prof. Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr Rasha Barwa</li> <li>Dr Shaymaa Hassan</li> </ul>                           | 2016 | Internal |
| 28     | Mahasen<br>Mohamed<br>Ahmed        | MSc | Detection of some<br>foodborne pathogens in the<br>Egyptian food market by<br>using polymerase chain<br>reaction          | <ul> <li>Dr Rasha Barwa</li> <li>Dr Maha El-</li> <li>Ashmawy</li> <li>Dr Mohamed</li> <li>Mohamed Adel El-</li> <li>Sokkary</li> </ul> | 2016 | External |
| 29     | Somaya<br>Antar El-<br>Sayed       | MSc | Studies on Inhibition of cell to cell communication to control the infection of Pseudomonas aeruginosa                    | <ul><li>Prof Khaled Abd</li><li>El Galil</li><li>Dr Mona Shaaban</li></ul>  | 2014 | External |
| 30     | Zafer Hazeb<br>Gaber               | MSc | Studies on Enterotoxins of<br>Escherichia coli strains<br>isolated from various<br>sources                                | <ul><li>Prof Ramadan</li><li>Hassan</li><li>Dr Eman Salama</li><li>Abdelmegeed</li></ul>  | 2014 | External |





| IVIICI | robiology and in                    | iiiiuiioi | ogy dept.   | Guide, 2   | UZZ  |          |
|--------|-------------------------------------|-----------|---|--|------|----------|
| 31     | Wafaa Ez El-<br>Arab Ahmad          | MSc       | The relation between bacteriuria and HCV in patients with ileal neobladder  | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Hassan Abo</li> <li>El-Ainen</li> <li>Dr Essam El-Sawy</li> <li>Dr Mohamed</li> <li>Mohamed Adel El-Sokkary</li> </ul> | 2014 | External |
| 32     | Heba Adel<br>Ramadan                | MSc       | Molecular study on clinical isolates of Pseudomonas aeruginosa isolated from different sources in Mansoura Hospitals                          | <ul><li>Prof Ramadan</li><li>Hassan</li><li>Dr Rasha Barwa</li></ul>   | 2015 | External |
| 34     | Abdel Halim<br>Abed Abdel<br>Hameed | MSc       | Studies on Pantone Valentine lucocidin produced by isolated Staphylococcus aureus isolates from different clinical and environmental sources. | <ul> <li>Prof Mohamed</li> <li>Adel El-Sokkary</li> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Shaymaa Hassan</li> </ul>   | 2016 | External |
| 35     | Areej<br>Mostafa El-<br>Mahdy       | PhD       | Description of some clinically important virulence factors associated with enterobacteriaceae   | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr Ramadan</li> <li>Hassan</li> <li>Dr Essam El-Sawy</li> </ul>   | 2011 | Internal |
| 36     | Eman<br>Mohamed<br>Ahmed            | PhD       | Microbiological and<br>molecular study on<br>medicinal strains of<br>Pseudomonas ariginosa<br>resistant to carbapenems                        | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Prof Ahmed</li> <li>Ahmed Abd El-Aziz</li> <li>Prof Maysaa El-Sayed Zaki</li> </ul>                                 | 2011 | Internal |
| 37     | Dina Eid<br>Rizk                    | PhD       | Phenotypic and genotypic characterization of some virulence factors in Pseudomonas aeruginosa   | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr Rasha Barwa</li> </ul>  | 2012 | Internal |





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|------|------------------------------------|-----|--|---|------|----------|
|      |                                    |     | strains isolated from<br>different clinical sources in<br>Mansoura University<br>Hospitals   |   |      |          |
| 38   | Rehab El-<br>Bargisy               | PhD | Comparative Studies on<br>Staphylococcus aureus<br>Isolates Associated with<br>Infections in Diabetic and<br>Non-diabetic Patients | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr El-Sayed El-Sherbini Habib</li> </ul> | 2012 | Internal |
| 39   | Shymaa<br>Hassan<br>Abdel<br>Rhman | PhD | Phenotypic and genotypic studies on antibacterial efflux pumps in Pseudomonas aeruginosa   | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Prof Mohamed</li> <li>Adel El-Sokkary</li> <li>Dr Rasha Barwa</li> </ul>       | 2011 | Internal |
| 40   | Abeer<br>Mohamed<br>Abd El-Aziz    | PhD | The role of some proteins<br>and exotoxin A in<br>protection against infection<br>with Pseudomonas<br>aeruginosa                   | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Dr Mohammed</li> <li>Youssef Ali</li> </ul>                                    | 2011 | Internal |
| 41   | Abdel-Halem<br>Abdel-<br>Hamed     | MSc | tudies on leukocidins toxins and antimicrobial resistance in Staphylococcus aureus isolated from various clinical sources          | <ul> <li>Prof Mohamed</li> <li>Adel El-Sokkary</li> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Shaymaa Hassan</li> </ul>          | 2016 | External |
| 42   | Rana Reda<br>El-Baz                | MSc | Virulence factors profile of<br>Staphylococcus aureus<br>isolated from different<br>clinical sources                               | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> <li>Dr Dina Eid Rizk</li> </ul>                                  | 2016 | Internal |
| 43   | Maha<br>Ahmed<br>Mabrook           | MSc | The role of some virulence factors of Staphylococcus aureus in inhibiting the  | <ul><li>Prof Ramadan</li><li>Hassan</li><li>Dr Mohammed</li><li>Youssef Ali</li></ul>   | 2017 | Internal |





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|--------|---|--------|---|---|------|----------|
|        |   |        | innate immune response  | • Dr Abeer M. Abd El-<br>Aziz   |      |          |
| 44     | Mohamed<br>Ramadan<br>Hassan<br>Ibrahim | MSc    | Study of the presence and molecular characterization of carbapenem resistance genes in clinically isolated Gram-negative bacilli.     | <ul> <li>Prof Khaled Abd</li> <li>El Galil</li> <li>Dr Rasha Barwa</li> <li>Dr Essam El-</li> <li>Sawy</li> </ul>   | 2017 | External |
| 45     | Ahmed<br>Mohamed<br>El-Sandouby         | MSc    | Evaluation of LAL Test<br>Interference in Some<br>Egyptian Parenteral Drugs<br>Alone and in Combinations                              | <ul> <li>Prof Wael Abbas</li> <li>El-Naggar</li> <li>Prof Ramadan</li> <li>Hassan</li> <li>Prof El-Sayed El-Sherbini Habib</li> </ul>                     | 2017 | External |
| 46     | Dina Ashraf<br>Ramadan                  | MSc    | Virulence characteristics of methicillin resistant Staphylococcus aureus isolated from different clinical sources                     | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> <li>Dr Mohamed</li> <li>Mohamed Adel El-Sokkary</li> </ul>                             | 2017 | Internal |
| 47     | Alaa<br>Mohamed<br>Aboelenin            | MSc    | The effect of some permeabilizers on the action of some antimicrobial agents against clinical isolates of some Gram-negative bacteria | <ul><li>Prof Ramadan<br/>Hassan</li><li>Dr Eman Salama<br/>Abdelmegeed</li></ul>  | 2018 | Internal |
| 48     | Nehal<br>Ahmed<br>Talaat                | PhD    | Molecular Identification<br>and Virulence Factors<br>Determination in Candida<br>Species Isolated from<br>Egyptian Patients           | <ul> <li>Prof Ramdan</li> <li>Hassan</li> <li>Prof Mohamed</li> <li>Adel</li> <li>El-Sokkary</li> <li>Dr Rasha Barwa</li> <li>Dr Dina Eid Rizk</li> </ul> | 2018 | External |
| 49     | Soha Lorfy<br>Elshaer                   | PhD    | Comparative Study<br>between Pathogenic and<br>Environmental  | <ul><li>Prof Ramadan</li><li>Hassan</li><li>Prof Rasha</li><li>Barwa</li></ul>  | 2019 | Internal |





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|----|------------------------------------|-----|---|--|------|----------|
|    |                                    |     |   | Dr Shaymaa Hassan  |      |          |
| 50 | Heba Adel<br>Ramadan               | PhD | The use of neomolysin and its constituent parts in the protection against infection with pneumococcal streptococcus | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Mohammed</li> <li>Youssif Ali</li> <li>Dr Abeer M. Abd El-Aziz</li> </ul>                | 2019 | External |
| 51 | Yomna<br>Hagag                     | MSc | Impact of sarA Mutation on Immune System Evasion and Stress Response in Staphylococcus aureus                       | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Prof Hany</li> <li>Kenawy</li> <li>Dr Abdelaziz Elgaml</li> </ul>                           | 2018 | Internal |
| 52 | Sarah Abd<br>Elhamid<br>Abdelkader | MSc | Cloning and expression of recombinant hyaluronidase enzyme from Staphylococcus aureus using Escherichia coli        | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Eman Salama</li> <li>Abdelmegeed</li> <li>Dr Mohamed Asaad</li> <li>El-Mowafy</li> </ul> | 2018 | Internal |
| 53 | Eman Samy<br>Zaher                 | MSc | Expression and purification of human IL-2 protein from Escherichia coli   | <ul><li>Prof Ramadan<br/>Hassan</li><li>Dr Mohamed Asaad<br/>El-Mowafy</li></ul>   | 2018 | External |
| 54 | Abdelbaky<br>Beshir                | MSc | Prevalence and Mechanisms of Carbapenem Resistance Among Acinetobacter baumannii Clinical Isolates in Egypt         | <ul><li>Prof Ramadan</li><li>Hassan</li><li>Dr Heba Shehta</li></ul>   | 2018 | External |
| 55 | Reham<br>Mohamed<br>Reda           | MSc | Molecular characterization<br>of different bacteria<br>isolated from various eye<br>diseases                        | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Rasha Barwa</li> <li>Dr Abeer M. Abd El-Aziz</li> </ul>                                  | 2019 | External |
| 56 | Mostafa<br>Mohamed<br>Ghorah       | MSc | Corrigendum to  "Association between  Virulence Factors and  Extended Spectrum Beta-                                | <ul><li>Dr Rasha Barwa</li><li>Dr Areej Mostafa El-<br/>Mahdy</li></ul>  | 2019 | External |





| Microbiology and Immunology dept. Guide, 2022 |                             |     |  |   |      |          |
|---|-----------------------------|-----|--|---|------|----------|
|   |                             |     | Lactamase Producing Klebsiella pneumoniae Compared to Nonproducing Isolates"   |   |      |          |
| 57  | Michael<br>Mohsen<br>Girgis | MSc | Immunization with proline rich region of pneumococcal surface protein A has no role in protection against Streptococcus pneumoniae serotype 19F          | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Mohammed</li> <li>Youssef Ali</li> <li>Dr Abeer M. Abd El-Aziz</li> </ul>                     | 2020 | Internal |
| 58  | Eman Adel<br>Younis         | MSc | Impact of the global regulator sara on toxins production in staphylococcus aureus  | <ul><li>Prof Rasha</li><li>Barwa</li><li>Dr Abdelaziz Elgaml</li></ul>  | 2021 | External |
| 59  | Mohamed<br>Eladawy          | MSc | Antimicrobial resistance<br>and virulence<br>characteristics in ERIC-<br>PCR typed biofilm forming<br>isolates of P. aeruginosa                          | <ul> <li>Prof Rasha</li> <li>Barwa</li> <li>Dr Mohamed</li> <li>Mohamed Adel El-Sokkary</li> <li>Dr Mohamed Asaad</li> <li>El-Mowafy</li> </ul> | 2020 | Internal |
| 60  | Aya Hassan<br>Elasmer       | MSc | Seroepidemiology, Antimicrobial Susceptibility and Virulence Characteristics of Clinical Klebsiella pneumoniae Isolates in Mansoura University Hospitals | <ul> <li>Dr Mohammed<br/>Youssef Ali</li> <li>Dr Dina Eid Rizk</li> </ul>   | 2020 | External |
| 61  | Zeinab<br>Mahmod<br>Anwar   | MSc | Prevalence and characterization of Streptococcus pyogenes clinical isolates from   | <ul><li>Prof Ramadan</li><li>Hassan</li><li>Dr Dina Eid Rizk</li></ul>  | 2021 | Internal |





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|-------|-------------------------------------|-----|---|--|------|----------|
|       |                                     |     | different hospitals and clinics in Mansoura   |  |      |          |
| 62    | Ahmed<br>Osama Rifai                | MSc | Possible antivirulent activity of some agents against clinical isolates of Pseudomonas aeruginosa                               | <ul><li>Dr Hany</li><li>Kenawy</li><li>Dr Abeer M. Abd El-Aziz</li></ul>   | 2021 | External |
| 63    | Eman Rabie<br>Shehab El-<br>Din     | PhD | Inhibition of the Classical Pathway of Complement Activation Impairs Bacterial Clearance during Enterococcus faecalis Infection | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Mohammed</li> <li>Youssef Ali</li> <li>Dr Abdelaziz Elgaml</li> </ul>                                      | 2021 | External |
| 64    | Lamiaa Adel<br>Abo El-Ez            | PhD | Phenotypic and genotypic characterization of Extended Spectrum β-lactamases producing Proteus mirabilis isolates                | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Prof Rasha</li> <li>Barwa</li> <li>Dr Hazem Saleh</li> </ul>  | 2021 | External |
| 65    | Enas Yasser<br>Sultan               | PhD | Production of inhibitors for<br>the alternative pathway of<br>complement  | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Prof Hany</li> <li>Kenawy</li> <li>Dr Dina Eid Rizk</li> </ul>  | 2021 | Internal |
| 66    | Mahasen<br>Ahmed<br>Ebaya           | PhD | Purification, Characterization, and Biocatalytic and Antibiofilm Activity of a Novel Dextranase from Talaromyces sp.            | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Mohamed</li> <li>Mohamed Adel El-</li> <li>Sokkary</li> <li>Dr Mohamed Asaad</li> <li>El-Mowafy</li> </ul> | 2021 | External |
| 67    | Sarah<br>Magdy<br>Khalifa           | PhD | β-lactam resistance associated with β-lactamase production and porin alteration in clinical isolates of E. coli and K.          | <ul> <li>Prof Ramadan</li> <li>Hassan</li> <li>Dr Eman Salama</li> <li>Abdelmegeed</li> <li>Dr Abeer M. Abd El-Aziz</li> </ul>                               | 2021 | External |





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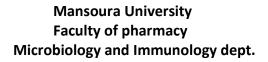
pneumoniae

#### Images from students' MSc and PhD thesis defenses



















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## The published scientific researches in the local and international conferences and journals:

| M  | Research title  | Authors   | Publisher   |
|----|---|---|---|
| .1 | Prevalence of Toxins and<br>Antimicrobial Resistance<br>among E. coli Isolated from<br>Meat.  | Shaymaa H. Abdel-Rhman,<br>Sara M. Khalifa, Khaled H.<br>Abd El Galil, Rasha M.<br>Barwa (2015)   | Advances in Microbiology,<br>5:737-747, DOI:<br>org/10.4236/aim.2015.511<br>078.                              |
| .2 | Studies on Enterotoxins and<br>Antimicrobial Resistance in<br>Staphylococcus aureus Isolated<br>from Various Sources                              | Enas Yasser Shaymaa Hassan Mohammed , Rasha Barwa, Abdel-Rhman Mohammed Adel El-Sokkary (2016)  | Advances in Microbiology, 6(04), 263-275. doi: 10.4236/aim.2016.64026.  |
| .3 | Role of OAS-1 and MxA Gene<br>Polymorphisms in<br>Susceptibility and Treatment<br>of HCV Patients.  | Dalia M. El<br>BelgihyHosamZaghloul,<br>Khaled H. Abd El Galil,<br>Mahmoud El Bendary (2015)  | International Journal of Advanced Research, 3(6): 1251-1266.  |
| .4 | PEG-fluorescein-GOx<br>hydrogel for glucose<br>biosensing   | SrilayaMopidevi, Jun Chen,<br>Xiaoyu Ma, Khaled Hussein<br>Abd El Galil, Yu Lei, (2015):  | ScienceJet, 4: 159.   |
| .5 | Hepatoprotective and anti-<br>tumor effects of targeting<br>MMP-9 in hepatocellular<br>carcinoma and its relation to<br>vascular invasion markers | Mohammed A. F. Elewa,<br>Mohammed M. Al-Gayyar,<br>Mona F. Schaalan, Khaled H.<br>Abd El Galil, Mohamed A.<br>Ebrahim, Mamdouh M. El-<br>Shishtawy (2015) | Clin Exp Metastasis,<br>(2014/2015 Impact Factor:<br>3.491) 32:479–493, DOI:<br>10.1007/s10585-015-9721-<br>6 |
| .6 | Nephroprotective role of dipyridamole in diabetic nephropathy: Effect on inflammation and apoptosis   | Nehal M. Elsherbiny,<br>Mohammed M.H. Al-Gayyar,<br>Khaled H. Abd El Galil<br>(2015)  | Life Sciences (2014/2015: 2.702), 143:8–17, DOI: org/10.1016/j.lfs.2015.10.0                                  |
| .7 | Prevalence and characterization of extended-spectrum beta-lactamases producing Enterobacteriaceae in healthy children and associated risk factors | S. M. Hijazi, M. A. Fawzi, F.<br>M. Ali and K. H. Abd El<br>Galil (2016)  | Ann Clin Microbiol<br>Antimicrob (Impact factor<br>2015: 2.189)15:3, DOI:<br>10.1186/s12941-016-0121-<br>9.   |





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|---------|---|---|---|
| .8      | Virulence Factors Profile of Staphylococcus aureus Isolated From Different Clinical Sources   | RH Rana El-baz, Dina Eid<br>Rizk, Rasha Barwa   | N. Egypt. J. Microbiol.<br>1/01/2016                              |
| .9      | Comparative study on prevalence and antimicrobial susceptibility of Escherichia coli and Listeria monocytogenes isolated from raw milk in Egypt | Mahasen M.A. Ebaya, Maha<br>A.M. AL-Ashmawy,<br>Mohamed M. EL-Sokkary,<br>Khaled H. Abdelgalil and<br>Rasha Barwa | N. Egypt. J. Microbiol.<br>1/01/2016                              |
| .10     | Effect of Tyrosol and Farnesol<br>on Virulence and Antibiotic<br>Resistance of Clinical Isolates<br>of Pseudomonas aeruginosa                   | SH Abdel-Rhman, AM El-<br>Mahdy, M El-Mowafy.2015   | BioMed Research<br>International.                                 |
| .11     | Toxin gene profile and antibiotic resistance of Staphylococcus aureus isolated from clinical and food samples in Egypt                          | Elbargisy, R.M., Rizk, D.E. and Abdel-Rhman, S.H. 2016  | AJMR. 10(13): 428-437   |
| .12     | Studies on leukocidins expression and antimicrobial sensitivity in <i>Staphylococcus aureus</i> isolated from various clinical sources          | Abdel-Halem A. Abdel-<br>hamed, Shaymaa H. Abdel-<br>Rhman, Mohamed Adel El-<br>Sokkary (2016)                    | African Journal of Microbiology Research, 10(17), 591-599.        |
| .13     | Effect of Tyrosol on<br>Staphylococcus aureus<br>Antimicrobial Susceptibility,<br>Biofilm Formation and<br>Virulence Factors                    | Shaymaa H. Abdel-Rhman and Dina E. Rizk (2016):   | African Journal of<br>Microbiology Research,<br>10(20), 687-693   |
| .14     | Synthesis of novel dyes based on curcumin for the creation of antibacterial silk fabrics  | H.E.Gaffer, H.M.Mashaly,<br>Sh.H.Abdelrahman (2016)   | Pigment & Resin<br>Technology (In press)                          |
| .15     | Evaluation of total RNA isolation methods from Staphylococcus aureus  | Shaymaa H. Abdel-Rhman (2016)   | N. Egypt. J. Microbiol. 43, 50-57                                 |
| .16     | Regulation of Vibrio mimicus metalloprotease (VMP) production by the quorumsensing master regulatory protein, LuxR.                             | El-Shaymaa Abdel-Sattar,<br>Shin-ichiMiyoshi, <u>Abdelaziz</u><br><u>Elgaml</u> (2016):                           | Journal of Basic<br>Microbiology. doi:<br>10.1002/jobm.201600002. |
| .17     | Cathelicidin antimicrobial peptide: a novel regulator of  | Pound LD, Patrick C,<br>Eberhard CE, Mottawea W,  | Diabetes. 2015 Dec;<br>64(12):4135-47.                            |





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|----------------|---|---|--|
|                | islet function, islet<br>regeneration and selected gut<br>bacteria  | Wang GS, Abujamel T,<br>Vandenbeek R, Stintzi A,<br>Scott FW  |  |
| .18            | Altered Intestinal Microbiota-<br>Host Mitochondria Crosstalk<br>in New Onset Crohn's Disease.  | Mottawea W, Chiang C-K, Mühlbauer M, Starr AE, Abujamel T, Deeke SA, Zhou H, Shokralla S, Hajibabaei M, Singleton R, Benchimol EI, Butcher J, Jobin C, Figeys D, Mack D, and Stintzi A.           | Under Third Revision;<br>Nature Communications   |
| .19            | Proteomic analysis of intestinal biopsies from a pediatric inflammatory bowel disease inception cohort identifies proteins that differentiate Crohn's disease from ulcerative colitis | Amanda E. Starr, Shelley A. Deeke, Zhibin Ning, Cheng- Kang Chiang, Xu Zhang, Walid Mottawea, Ruth Singleton, Eric I. Benchimol, Ming Wen, David R. Mack, Alain Stintzi, and Daniel Figeys (2016) | Gut 2016;<br>doi:10.1136/gutjnl-2015-<br>310705  |
| .20            | Atopobiumparvulum modulates the severity of mucosalInflammation in pediatric Crohn's disease.   | Walid Mottawea, Cheng-<br>Kang Chiang, Marcus<br>Mühlbauer, Amanda E. Starr,<br>TurkiAbujamel, Shelley A.<br>Deeke, Christian Jobin,<br>Daniel Figey1, David Mack,<br>and Alain Stintzi (2015)    | Cell symposium on Human<br>Immunity and Microbiome<br>in Health and Disease.<br>Montreal, QC, Canada.<br>Poster presentation.  |
| .21            | Dysbiosis in the sulfate reducing bacteria component of pediatric IBD patients  | Guillaume Romain, Walid<br>Mottawea, David Mack and<br>Alain Stintzi. 2015.   | Cell symposium on Human<br>Immunity and Microbiome<br>in Health and Disease.<br>Montreal, QC, Canada.<br>Contributed experimental<br>data used in poster<br>presentation given by<br>Guillaume Romain. |
| .22            | Host protein biogeographical alterations at the intestinal mucosal-luminal interface in new-onset pediatric inflammatory bowel disease.   | Shelley A. Deeke, Amanda E. Starr, Xu Zhang, Walid Mottawea, David Mack, Alain Stintzi and Daniel Figeys. 2015.   | Systems Biology of Infection Symposium - 2nd Edition. Ascona, Switzerland. Contributed experimental data used Oral Presentation given by Shelley Deeke.  |





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|--------|--|--|--|
| .23    | Host protein biogeographical alterations at the intestinal mucosal-luminal interface in new-onset pediatric inflammatory bowel disease.  | Shelley A. Deeke, Amanda E. Starr, Xu Zhang, Walid Mottawea, David Mack, Alain Stintzi and Daniel Figeys (2015). | Systems Biology of Infection Symposium - 2nd Edition. Ascona, Switzerland. Contributed experimental data used in poster presentation given by Shelley Deeke. |
| .24    | Quorum sensing inhibiting activity of Streptomyces coelicoflavus isolated from soil.   | Hassan Ramadan, Mona I.<br>Shaaban, Fatma Abdel Bar,<br>Areej El-Mahdy and<br>ShadiShokralla                     | Front. Microbiol. (2016)<br>doi:<br>10.3389/fmicb.2016.00659.  |
| .25    | Antiquorum sensing activity of some medicinal plants. S  | Rwaida A. Al-Haidari, Mona<br>I. Shaaban, Sabrin R.M.<br>Ibrahim, Gamal A.<br>Mohamed.                           | Afr J Tradit Complement<br>Altern Med. (2016)<br>13(5):Inpres  |
| .26    | Ribosomal DNA and Plastid<br>Markers Used to Sample<br>Fungal and Plant<br>Communities from Wetland<br>Soils Reveals Complementary<br>Biotas.  | Porter TM, Shokralla S, Baird<br>D, Golding GB, Hajibabaei<br>M  | PloS one 11 (1), e0142759  |
| .27    | Scale Monitoring of Plants<br>through Environmental DNA<br>Metabarcoding of Soil:<br>Recovery, Resolution, and<br>Annotation of Four DNA<br>Markers.   | NA Fahner, S Shokralla, DJ<br>Baird, M Hajibabaei (2016)<br>NA Fahner, S Shokralla, DJ<br>Baird, M Hajibabaei    | PloS one 11 (6), e0157505  |
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| for epidemiological typing of                      | Lamiaa Adel (2014)             |                                |  |  |
| multi-drug-resistance                              |                                |                                |  |  |
| Klebsiella pneumoniae isolated                     |                                |                                |  |  |
| from Mansoura hospitals.                           |                                |                                |  |  |
| Occurrence and                                     | Wholife C.M. Abdel Dhmon       |                                |  |  |
| characterization of                                | Khalifa, S.M., Abdel-Rhman,    | Easterian Iournal of           |  |  |
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| Antimicrobial susceptibility                       |                                |                                |  |  |
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| polyacrylamide gel                                 | Abdelaziz Elgaml, Ramadan      |                                |  |  |
| electrophoresis (SDS-PAGE)                         | Hassan, Rasha Barwa,           | Journal of Microbiology        |  |  |
| typing of Gram negative                            | ShadiShokralla and Wael El-    | and Antimicrobials             |  |  |
| bacteria isolated from urinary                     | Naggar (2014)                  |                                |  |  |
| tract infections in Mansoura,                      |                                |                                |  |  |
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| resistance associated genes of                     | RashaBarwa and HebaAdel        | N. Egypt. J. Microbiol.        |  |  |
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| aeruginosa   |                                |                                |  |  |
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| Klebsiella pneumoniae isolated                     | , , ,                          |                                |  |  |
| from Mansoura hospitals.                           |                                |                                |  |  |
| Occurrence and                                     | Khalifa, S.M., Abdel-Rhman,    |                                |  |  |
| characterization of  Staphylococcus aureus in meat | H. SH., Abd El Galil, K. H.,   | Egyptian Journal of            |  |  |
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| inMansoura, Egypt                                  | (2014)                         |                                |  |  |
| Antimicrobial susceptibility                       |                                |                                |  |  |
| and sodium dodecyl sulfate                         |                                |                                |  |  |
| polyacrylamide gel                                 | Abdelaziz Elgaml, Ramadan      |                                |  |  |
| electrophorogic (SDS-PACE)                         | Hassan, Rasha Barwa,           | Journal of Microbiology        |  |  |
| typing of Gram negative                            | ShadiShokralla and Wael El-    | and Antimicrobials             |  |  |
| bacteria isolated from urinary                     | Naggar (2014)                  | una i minimieroonais           |  |  |
| tract infections in Mansoura,                      | - 1.05m (2011)                 |                                |  |  |
| Egypt  |                                |                                |  |  |
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| .166 | Climate Change-Induced Drought Impacts, Adaptation and Mitigation Measures in Semi-Arid Pastoral and Agricultural Watersheds.   | Muralikrishnan L, Padaria<br>RN, Choudhary AK, Dass A,<br>Shokralla S, El-Abedin TKZ,<br>Abdelmohsen SAM,<br>Mahmoud EA, Elansary HO. | Sustainability; 14(1):6.<br>https://doi.org/10.3390/su1<br>4010006<br>(2022)                              |

### Selected group of conferences and workshops

| N<br>0. | Name        | The title of the conference/ workshop  | The organizer/ the meeting place            |
|---------|-------------|--|---|
| 1       | Prof. Rasha | 1- Workshop on "Manufacturing efficient and inefficient pharmaceutical raw materials in Egypt"-2nd May 2016.                 | Faculty of pharmacy,<br>Mansoura University |
| 1       | Barwa       | 2-Work shop on "Characterization of the graduate new programs and courses by credit hours system"-15 <sup>th</sup> May 2016. | Faculty of pharmacy,<br>Mansoura University |





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|           |                                  | 3-The first annual conference of experimental 12th Septemeper 2015 – research  | Nile center/ Pediatric<br>Hospital                                    |
|           |                                  | 4-Training course Protocol of External Visits. Quality assurance Center at Mansoura University. 29th Febraury 2016 - 3rd March 2016.                                     | Quality Assurance<br>Center in Mansoura<br>University                 |
|           |                                  | 5-Global Forum for education and scientific research. 4 <sup>th</sup> -6 <sup>th</sup> April 2019  | The ministry of higher education-The administrative capital           |
|           |                                  | 6- Microsoft expression web 15 <sup>th</sup> August – 15 <sup>th</sup> September 2007  |   |
|           |                                  | 7- Video workshop on How to Write a Competitive Proposal for Framework7  | Faculty of Pharmacy-<br>Mansoura University                           |
|           |                                  | 8-Workshop on polymerase chain reaction  | Children's Hospital-<br>Mansoura University                           |
|           |                                  | 1-1 <sup>st</sup> PharmaSchool International conference of Pharmaceutical Sciences 15th-16th February 2016   |   |
| 2         | Prof. Hany<br>Kenawy             | 2-6th International Conference of Oncology Center<br>Mansoura University-3rd Annual Meeting of<br>African Breast Cancer and Woman Health<br>Foundation 5th-7th May 2016. | Mansoura university Oncology Center Mansoura University               |
|           |                                  | 3-A member of the International Complement Society.  |   |
|           |                                  | 4-A member of the European Complement Society  |   |
| 3         | Dr. Shaymaa<br>Hassan<br>Ibrahim | 1-1st PharmaSchool International Conference of<br>Pharmaceutical Science<br>th-16th February 201615  | Mansoura university   |
| 4         | Dr. Walid<br>Mottawea            | 1-Cell symposium on Human Immunity and Microbiome in Health and Disease. Montreal, QC, Canada.   | Canadian Human<br>Immunology Network,<br>McGill University,<br>Canada |





| biology and Imm               | Guide, 2022  |   |
|-------------------------------|--|---|
|                               |  |   |
|                               | 2-Systems Biology of Infection Symposium - 2nd Edition. Ascona, Switzerland.   | University of Basel   |
| Prof.<br>Mohammed<br>Mohammed | 1-Work shop at the veterinary medicine authority AVL   | Way bridge-England  |
| Adel<br>ELSokkary             | 2-Work shop on Microarray  | Munich-Germany  |
|                               | 1-Rapid Diagnosis of Viral Infections and Cell<br>Culture Practice   | Faculty of Medicine-<br>Mansoura University   |
| Prof. El-<br>Sayed E.         | 2-The 17 th International Conference of The Egyptian Society of Medical Microbiology   | Cairo   |
| Habib                         | 3-The 4 <sup>th</sup> scientific conference (The usage of the biotechnology techniques in the veterinary medicine).  | Faculty of Veterinary<br>Medicine- Mansoura<br>University   |
| Dr. Eman<br>Salama            | Rapid Diagnosis of Viral Infections and Cell<br>Culture Practice   | Faculty of Medicine-<br>Mansoura University   |
| Prof.<br>Ramadan              | The 17 th International Conference of The Egyptian Society of Medical Microbiology   | Cairo   |
| Hassan<br>Ibrahim             | 26 Icc 26th International Congress of<br>Chemotherapy  | Toronto-Canada  |
| Prof. Khaled                  | 1-The 3 rd General meeting, Control/ Tracking number: 03-GM-1539-May 18-22, American Society for Microbiology.  Development of a rapid and quantitative method for the detection of Hepatitis A virus HM 175.  | Washington D.C, USA   |
| Hussien<br>Abdelgalil         | 2-The 26th Int'l Congress of Chemotherapy (ICC) and Infection AMMI. The Changing Climate of Infectious Diseases.  Molecular Characterization of Some quinolone resistance determining markers amongst clinical | Toronto, Canada   |
|                               | Prof. Mohammed Mohammed Adel ELSokkary  Prof. El- Sayed E. Habib  Dr. Eman Salama  Prof. Ramadan Hassan Ibrahim  Prof. Khaled Hussien  | 2-Systems Biology of Infection Symposium - 2nd Edition. Ascona, Switzerland.  Prof. Mohammed Adel ELSokkary  1-Rapid Diagnosis of Viral Infections and Cell Culture Practice  2-The 17 th International Conference of The Egyptian Society of Medical Microbiology 3-The 4th scientific conference (The usage of the biotechnology techniques in the veterinary medicine).  Prof. Eman Salama  Prof. Ramadan Hassan Ibrahim  Prof. Ramadan Hassan Ibrahim  Prof. Khaled Hussien Abdelgalil  Prof. Khaled Hussien Abdelgalil  Adel Calture Practice  1-Work shop at the veterinary medicine authority AVL  2-Work shop on Microarray  1-Rapid Diagnosis of Viral Infections and Cell Culture Practice  The 17 th International Conference of The Egyptian Society of Medical Microbiology  26 Icc 26th International Congress of Chemotherapy  1-The 3 rd General meeting, Control/ Tracking number: 03-GM-1539-May 18-22, American Society for Microbiology.  Development of a rapid and quantitative method for the detection of Hepatitis A virus HM 175.  2-The 26th Int'l Congress of Chemotherapy (ICC) and Infectious Diseases.  Molecular Characterization of Some quinolone |





| IVIICIC | crobiology and immunology dept. Guide, 2022 |  |  |  |
|---------|---|--|--|--|
|         |   | isolates of K. pneumoniae in Egypt.  3-Abstract in Cold Spring Harbor Laboratory's   |  |  |
|         |   | meeting on Retroviruses  | New York, USA  |  |
|         |   | 4-Kumamoto AIDS Seminar GCOE Joint International symposium   | Kumamoto, Japan  |  |
|         |   | 5-An oral presentation in 23rd Annual meeting of<br>the Japanese Society for AIDS Research.<br>ApomRNA editing enzyme APOBEC1-dependent<br>restriction of HIV-1 in rabbit cells  | Nagoya, Japan  |  |
|         |   | 1-Food Research Institute 2009 spring Meeting -<br>Wisconsin Madison - University of Wisconsin<br>Madison, Food research institute.  | USA  |  |
| 10      | Prof. Mona<br>Ibrahim<br>Shabaan            | 2-Academic stuff mobility, Erasmus Project KA 107 For the visit from Mansoura University, Egypt To University of Medicine and Pharmacy, Craiova, Romania 15th-20th, April 2019.  "Advanced methods for competing microbial resistance" | Microbiology & Immunology Department, Faculty of Pharmacy, Mansoura university |  |
|         |   | 3-3rd ACSTM/6th ACSE 12-14 Feb/ 2019,<br>Dubai/UAE (Oral talk entitled; Antimicrobial<br>Activity of Biosynthesized ZnO-nanoparticles<br>Prepared by Streptomyces Isolate Purified from<br>Submarine Soil).                            | Dubai- United Arab<br>Emirates   |  |
|         | Dr. Abdelaziz<br>ELgamal                    | Okayama University, Okayama, Japan (oral presentation)   |  |  |
| 11      |   | Bioactive Okayama 2012 international conference<br>Poster & Oral presentation  | Japan  |  |
|         |   | Egyptian-French Seminar and Workshop of Molecular Biology and Immunology   | Children's Hospital-<br>Mansoura University                                    |  |





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### List of patent holders

| No. | Name   | Job title             | Patented   | Date      |
|-----|--|-----------------------|--|-----------|
| 1   | Prof: Mohamed Adel<br>El Sokkary (May<br>Allah bless his soul) | Emeritus professor    | A specialized device for sterilization using dry, wet or ultraviolet heat  | 2000/7/31 |
| 2   | Prof. Mohamed Adel<br>El Sokkary (May<br>Allah bless his soul) | Emeritus<br>professor | An innovative method for sterilization using a simple, easy-to-operate autoclave called (mini-autoclave).  | 2000/5/31 |
| 3   | Prof. Mohamed Adel<br>El Sokkary (May<br>Allah bless his soul) | Emeritus<br>professor | The use of the method of vacuuming air and gases in a closed cycle in sterilization, mixing and storage of all kinds of materials and other products           | 1994/3/31 |
| 4   | Prof. Mohamed Adel<br>El Sokkary (May<br>Allah bless his soul) | Emeritus<br>professor | A method for sterilizing blood<br>products and derivatives<br>outside the body by exposure<br>to ultraviolet rays and<br>sterilization gases                   | 2011/12/7 |
| 5   | Prof. Mona Ibrahim<br>Awad Shaban                              | Professor             | Production and manufacture of allergy tests and vaccines   | 2015/2016 |
| 6   | Prof. Mona Ibrahim<br>Awad Shaban                              | Professor             | A method for the preparation of titrated extracts of allergens for use in allergy tests and vaccines from strains available in the local Egyptian environment. | 2019/3/27 |
| 7   | Prof. Mohamed<br>Mohamed Adel El<br>Sokkary                    | Professor             | Economic microarray printer  | 2011/4/13 |
| 8   | Dr: Abeer Mohamed<br>Abd El Aziz                               | Associate professor   | A method for the preparation of titrated extracts of allergens for use in allergy tests and vaccines from strains available in the local Egyptian environment. | 2019/3/27 |





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### Research projects in the department

| No. | Project name                                      | Research team                     |
|-----|---|-----------------------------------|
|     | ,   | Prof: Mohamed Adel El- Sokkary    |
|     | Identification of microbes using microarray       | (principal investigator)          |
| 1   | technology  | Prof: Mohamed Mohamed Adel        |
|     |   | El- Sokkary                       |
|     |   | Dr: Mohammed Asaad El Mowafy      |
| 2   | Preparation of standardized allergen extract      | Prof: Mona Ibrahim Awad Shaban    |
| 2   | for skin testing and allergy vaccines             | Dr: Abeer Mohamed Abd El Aziz     |
|     |   | Prof: Ramadan Hassan Ibrahim      |
|     |   | (Principal investigator)          |
| 3   | Production of Signal Modulatory Molecules         | Prof: Mona Ibrahim Awad Shaban    |
| 3   | from Soil Bacteria                                | Prof: Fatma Abd El Bar            |
|     |   | Dr: Areej Mostafa El-Mahdy        |
|     |   |                                   |
|     |   | Prof: Wael Abbas El Naggar        |
|     | A 1 4' 1 -4 - 1 - 6 14'-1 '- 4 4                  | (Principal investigator)          |
| 4   | Analytical study for multiple resistance to       | Prof: Khaled Hussein Abd El Galil |
|     | antibiotics in Gram- negative clinical isolates   | Prof: Rasha Mohamed Fathy Barwa   |
|     |   | Dr: Shady Kamal George            |
|     |   | Prof: Wael Abbas El Naggar        |
|     |   | (Principal investigator)          |
| 5   | Characterization of Extended Spectrum β-          | Prof: Khaled Hussein Abd El Galil |
|     | Lactamase produced by Enterobacteriaceae          | Prof: Rasha Mohamed Fathy Barwa   |
|     |   | Dr: Shady Kamal George            |
|     | Bench-top studies on the production of            | Prof: Rasha Mohamed Fathy Barwa   |
|     | hygromycin A by a mutant strain of                | (Principal investigator)          |
| 6   | Streptomyces hygroscopicus NRRL2388               |                                   |
|     | using fermenters and continuous production        |                                   |
|     | Metal nanoparticles with antimicrobial and        | Prof: Mona Ibrahim Awad Shaaban   |
| 7   | antiviral activities against multiple antibiotic- | Dr: Noha Mohamed Saleh            |
|     | resistant pathogens.                              | Dr: Soha Lotfy Elshaer            |
|     | 1   | Prof: Hani Ibrahim Mohamed Kenawy |
|     |   | Prof: Mona Ibrahim Awad Shaban    |
| 0   | Development of biological therapeutics for        | Dr. Dina Eid Rizk                 |
| 8   | some complement-mediated disorders                | Dr: Soha Lotfy Elshaer            |
|     | •   | Dr: Enas Yasser Mohamed           |
|     |   |                                   |





## Microbiology and Immunology dept. Guide, 2022

### External missions, channels, internal missions, grants and postdoctoral assignments:

#### **First: Foreign Missions**

| No | Name                                  | Mission type               |
|----|---------------------------------------|----------------------------|
| 1  | Prof: Walid Abd El Fattah Mottawea    | Foreign Mission-Canada     |
| 2  | Prof: Mohammed Youssif Ali            | Foreign Mission- England   |
| 3  | Prof: Mohamed Mohamed Adel El Sokkary | Foreign Mission- Germany   |
| 4  | Prof: Hany Ibrahim Mohamed            | Foreign Mission- England   |
| 5  | Prof: Mona Ibrahim Awad Shaban        | Joint supervision- USA     |
| 6  | Prof: Ramadan Hassan Ibrahim          | Joint supervision- Germany |
| 7  | Prof: Samy Mahmoud Khair Allah        | Joint supervision- USA     |
| 8  | Prof: Khaled Hussein Abd El Galil     | Joint supervision- USA     |
| 9  | Dr: Shady Kamal George                | Joint supervision- USA     |
| 10 | Prof: El-Sayed Elsherbiny Habib       | Foreign Mission- Japan     |
| 11 | Dr: Hanan Reda Hassan ELsayed         | Foreign Mission- Canada    |
| 12 | Michael Mohsen Girgis                 | Foreign Mission- England   |
| 13 | Muhamed El- Hussin Ragab El Adawy     | Foreign Mission- England   |

#### **Second: Internal missions**

| No. | Name                            | Mission type     |
|-----|---------------------------------|------------------|
| 1   | Prof: Rasha Mohamed Fathy Barwa | Internal mission |





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#### **Third: Scholarship members**

| No.      | Name                                | Mission or Scholarship type |
|----------|-------------------------------------|-----------------------------|
| 1        | Dr: Mohammed Asaad Elmowafy         |                             |
| -        | -                                   | Special grant- Germany      |
| 2        | Dr: Heba Shehta Abdallah Said       |                             |
|          |                                     | Special grant- Japan        |
| 3        | Dr: Abdelaziz Ahmed Abdallah Elgaml |                             |
|          |                                     | Special grant- Japan        |
| 4        | Dalia Mohamed Abu Khalil Sheta      |                             |
| <u>-</u> |                                     | Special grant- Germany      |

#### **Fourth: The members of the scientific missions:**

| No. | Name                            | Scientific mission type |
|-----|---------------------------------|-------------------------|
| 1   | Dr: Mohammed Asaad Elmowafy     | ~.                      |
|     |                                 | Short term -Germany     |
| 2   | Dr: Heba Shehta Abdallah Said   |                         |
|     |                                 | Short term - Japan      |
| 3   | Prof: Mohammed Youssif Ali      | Long term-England       |
|     |                                 |                         |
| 4   | Dr: Hani Ibrahim Mohamed Kenawy | Long term-England       |
|     |                                 |                         |

### **Annual Conference of Microbiology and Immunlogy department:**

- The department's annual conference is held to present the department's achievements, discuss the latest scientific research and see the extent to which it can be applied on the ground and benefit from it.
- The scientific conference also aims at exchanging experiences between the faculty members in the department and enhancing ways of cooperation between them and other departments.





- The department's conference for this year, "the third scientific conference for the Department of Microbiology and Immunology", was held on 11/22/2016.
- The department's conference for this year, "The Fourth Scientific Conference of the Department of Microbiology and Immunology", was held on 14/02/2018.
- The department's conference for this year, "The Fifth Scientific Conference of the Department of Microbiology and Immunology", was held on February 23, 2019.
- The department's conference for this year, "The Sixth Scientific Conference of the Department of Microbiology and Immunology", was held on February 15, 2020.
- The department's conference for this year, "The Seventh Scientific Conference of the Department of Microbiology and Immunology", was held on September 18, 2021.





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## Members of Microbiology and Immunology department at







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The 3<sup>rd</sup> Microbiology Department Conference



The 4<sup>th</sup> Microbiology Department Conference







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The 5<sup>th</sup> Microbiology Department Conference



The 6<sup>th</sup> Microbiology Department Conference







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The 7<sup>th</sup> Microbiology Department Conference



The 24<sup>th</sup> Conference of the Egyptian Society of Medical Microbiology and Immunology







### Microbiology and Immunology dept. Guide, 2022

### Awards received by staff members in the department

### **A- University Appreciation Award**

| Name                      | Occupation               | Date    |
|---------------------------|--------------------------|---------|
| Prof. dr. Mohamed Adel El | Emeritus professor, (May | 1998/97 |
| Sokkary                   | Allah bless his soul)    |         |

### **B- University Incentive Award**

| Name                                  | Occupation | Date      |
|---------------------------------------|------------|-----------|
| Prof. dr. Samy Mahmoud Khair Allah    | Professor  | 1999/98   |
| (May Allah bless his soul)            |            |           |
| Prof. dr. Khaled Hussein Abd El Galil | Professor  | 2014/2013 |
| Prof. dr. Rasha Mohamed Fathy Barwa   | Professor  | 2016/2015 |

### C- University award for scientific creativity

| Name                           | Occupation | Date      |
|--------------------------------|------------|-----------|
| Prof. dr. Mohammed Youssif Ali | Professor  | 2016/2015 |





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### **D-** University Award for Best Thesis (PhD)

| Name                                | Occupation | Date      |
|-------------------------------------|------------|-----------|
| Prof. dr. Rasha Mohamed Fathy Barwa | Professor  | 2010/2009 |

### **E- University Award for Best Thesis (Master)**

| Name                            | Occupation         | Date      |
|---------------------------------|--------------------|-----------|
| Prof: Samy Mahmoud Khair Allah  | Professor          | 1990/1989 |
| (May Allah bless his soul)      |                    |           |
| Prof: Rasha Mohamed Fathy Barwa | Professor          | 2004/2003 |
| Maha Ahmed El-sayed Mabrouk     | Assistant lecturer | 2018/2017 |