

Curriculum Vitae

Personal details

Name: Rasha Mohammad Fathy Ahmad Barwa.

Birthday: 20th January 1975.

Nationality: Egyptian.

Marital status: Married.

Address: Egypt
Mansoura
Mansoura University
Faculty of Pharmacy
Department of Microbiology.

Telephone: Home: +20-50-2343504

Cell phone: +20- 1001964899

E-mail: rasha2000@gmail.com



Qualification degrees

B. Sc. In Pharmaceutical Sciences with excellent grade with honour and awarded the 3rd ranking of the graduation (85 %) in May, 1997.

M. Sc. In Pharmaceutical Sciences (Microbiology):

Thesis title: Multiple Drug resistance in Gram negative bacteria isolated from clinical sources.

University Council Ratification in September 2001.

Ph.D. In Pharmaceutical Sciences (Microbiology):

Thesis title: Studies on extended spectrum β -lactamases obtained from clinical isolates of *Staphylococcus aureus* and some Gram-negative rods.

University Council Ratification in December 2007.

Academic appointments

11/1997 -11/2001: Demonstrator of Microbiology, Faculty of Pharmacy, Mansoura University.

11/2001- 8/2004: Assistant Lecturer of Microbiology, Faculty of Pharmacy, Mansoura University.

8/2004- 9/2007: Internal scholarship.
1/ 2008- 1/2013: Lecturer of Microbiology, Faculty of Pharmacy, Mansoura University.
1/2013 till now: Associate Professor of Microbiology and Immunology, Faculty of Pharmacy, Mansoura University.
4/9/2016 till 31/7/2017: Head of microbiology departement

Teaching activities

- 1- General microbiology for second grade students: Bacterial nutrition, including transport processes, cultivation of microbes and isolation of pure bacterial cultures, identification of microbes, microbial growth curve, measurement of microbial growth, introduction of mycology.**
- 2- Pharmaceutical microbiology for second grade students: Ecology of microorganisms in pharmaceutical industry, Contamination of non-sterile pharmaceuticals in hospitals and community environments, microbial spoilage of pharmaceutical products, sterile pharmaceutical product, preservation of pharmaceutical products.**
- 3- Parasitology for fourth grade students: nematode, arthropoda, trematoda, cestode.**
- 4- Public health for fourth grade students: basic concepts of public health and epidemiology, dynamics of disease spread, environmental health, maternal and child health, nosocomial infection, different classes of pathogenic bacteria and fungi, laboratory diagnosis, treatment and control of different microbial infections.**
- 5- General microbiology and immunology for clinical pharmacy program: introduction, basic structure of bacteria, transport across microbial membrane, introduction to immunology, Innate Immunity, adaptive immunity, serological reaction, deleterious effect of immunity, vaccination.**
- 6- Clinical microbiology for clinical pharmacy program: different diseases caused by different classes of bacteria, fungi, lab diagnosis, treatment and control of different microbial infections.**
- 7- Pharmaceutical microbiology for clinical pharmacy program: microbial contamination and preservation of pharmaceutical product, evaluation of preservative, antimicrobial agents, evaluation of antibiotic, dynamic of disinfectant, evaluation of disinfectant.**
- 8- General microbiology, chemistry, physiology and genetics of microorganisms for microbiology diploma students.**

9- Microbiological fermentation, antibiotics, quality control of parenterals and microbiological methods of analysis of pharmaceuticals for microbiology diploma students.

10- Mycotic and viral diseases and their methods of laboratory diagnosis, immunology, sera and vaccines for microbiology diploma students.

11- Microbiological methods of analysis for quality control and drug analysis diploma students.

12- Special course of microbiology for Pre-Master students.

13- Advanced biotechnology I for ph.D students (credit hour system).

14- Clinical Microbiology for ph.D students (credit hour system).

15- Antimicrobial Chemotherapy for MS.D students (credit hour system).

16- General bacteriology for microbiology and immunology diploma (credit hour system).

17- Infectious diseases and Immunology in Pharm D program.

18- Antimicrobial agent (elective course) for clinical pharmacy program

Evaluation of Scientific Articles

- Multidrug Resistant *Salmonella enterica* strains in South Western Nigeria: Prevalence, and Susceptibility to Ceftriaxone. [Journal of Advances in Medical and Pharmaceutical Sciences](#)
- Detection of esbl, amp c & metallo beta lactamases in clinical isolates of enterobacteriaceae from a tertiary care hospital. [British Microbiology Research Journal](#)
- Assessment of three different Cephalosporins/Clavulanate combination for the confirmation of ESBL isolates from urine samples at National Public Health Laboratory, Kathmandu, Nepal. [International Journal of Medicine and Medical Sciences](#).
- Efficacy of plasmid curing agent on *Streptomyces Longsporesflavns*. [African Journal of Microbiology Research](#)
- Synergistic effect of ampicillin/sodium ascorbate combination against Escherichia coli from urinary tract infection. African Health Sciences.

Supervision of graduate students

(A) Theses completed

PhD theses

- Phenotypic and genotypic studies on antibacterial efflux pumps in Gram negative bacteria.
- Studies on some virulence factors of *Pseudomonas aeruginosa* strains isolated from different sources.

Msc. theses

- Comparative study on antimicrobial resistance and some virulence factors in *E. coli* and Streptococci.
- Molecular diagnosis of Gram negative bacteria in urinary tract infections.
- Genotypic and phenotypic characterization of MRSA isolated from various sources in Mansoura University Hospitals.
- Studies on different types of microorganisms isolated from meat products in Egyptian market.
- Epidemiological studies on the incidence of *Klebsiella pneumoniae* isolated from Mansoura hospitals, Egypt.
- Molecular epidemiological study on clinical isolates of *Pseudomonas aeruginosa* from Mansoura hospitals.
- Quorum Sensing Mediating Bacterial Resistance and Virulence Factors in Clinical Isolates of *Pseudomonas aeruginosa*
- Phenotypic and genotypic study on different Proteus species isolated From Dakahlia and Damietta governorates.
- Studies on Different Genes Harbored by Methicillin Resistant *Staphylococcus aureus* and Their Relation to Virulence Factors.
- Detection of Some Food - borne Pathogens in Egyptian Food Market Using Multiplex PCR
- Studies on enterotoxin production by different strains of *Staphylococcus aureus* isolated from various sources

(B) Theses in process

PhD theses

- Microbiological Studies On Candida Infections In Mansoura Hospitls.
- Comparative Study between Pathogenic and Environmental Isolates of *Escherichia coli*.
- Clinical and Molecular Characterization of *Proteus mirabilis* Isolates from Urinary Tract Infection

Msc. theses

- Study on incidence and molecular characterization of carbapenem resistance genes in Gram-negative bacilli isolated from clinical sources.

- **Comparative Study on some Virulence Factors Associated with Extended Spectrum Beta-lactamases Producing and Non Producing *Klebsiella Pneumoniae***
- **Molecular Characterization of Different Bacteria Isolated from Diverse Ophthalmic Diseases**
- **A Comparative Study on Clinical *Staphylococcus aureus* Isolates with Different Susceptibilities to Vancomycin**
- **Molecular Characterization of Multiple Drug Resistant *Escherichia coli* Isolated From Different Clinical Sources.**
- **Impact of the global regulator Sar on antimicrobial resistance and some virulence factors of *Staphylococcus aureus***

Committee discussion and governance of theses

- **Studies on different types of microorganisms isolated from meat products in Egyptian market.**
- **Phenotypic and Genotypic Study on Different *Proteus* Species Isolated from Dakahleia and Damietta Governorates.**
- **Quorum Sensing Mediating Bacterial Resistance and Virulence Factors in Clinical Isolates of *Pseudomonas aeruginosa*.**
- **Detection of Some Food - borne Pathogens in Egyptian Food Market Using Multiplex PCR.**
- **Studies on enterotoxin production by different strains of *Staphylococcus aureus* isolated from various sources.**
- **Studies on Different Genes Harbored by Methicillin Resistant *Staphylococcus aureus* and Their Relation to Virulence Factors**

Courses attended in the leadership development project (FLDP)

- **“Methods of scientific research” Mansoura University, 21st to 24th August 2005.**
- **“Time management and work pressures” Mansoura University, 27th to 30th August 2005.**
- **“Effective communication skills” Mansoura University, 25th to 28th September 2005.**
- **“Curriculum design” Mansoura University, 18th to 19th December 2005.**
- **“Teaching with technology” Mansoura University, 1st to 4th January 2006.**
- **“Thinking skills” Mansoura University, 5th to 7th February 2006.**

- “Financial and legal aspects in the business college” Mansoura University, 13th to 15th April 2008.
- “Organization of scientific conferences” Mansoura University, 28th to 31th December 2008.
- “Examination systems and evaluation of students” Mansoura University, 26th to 28th July 2009.
- “The credit hour system” Mansoura University, 16th to 18th August 2009.
- “Scientific Publications” Mansoura University, 14th to 16th February 2010.
- “International and local competitive research projects” 4th to 6th July 2010.
- “The research team management” Mansoura University, 17th to 18th March 2013.
- “The application of the academic standards of the program Altalimay” Mansoura University, 18th to 19th August 2013.
- “Undergraduate Management” Mansoura University, 20th to 21th Oct. 2013.
- “Quality standards in the teaching process” Mansoura University, 17th to 18th August 2014.
- “Strategic Planning” Mansoura University, 5th to 6th April. 2015.
- Statistical analysis skills Mansoura University, 20th to 21th September 2016.

Training courses and workshop attended in the faculty and university.

- “Microsoft expression web” Faculty of pharmacy August 2008.
- “Video workshop on how to write a competitive proposal for Framework7” Mansoura University 20th May 2009.
- “Egyptian liver between pain and hope” 18th November Faculty of pharmacy 2009.
- “Provision of virtual labs for the scientific courses in Egyptian universities” Faculty of pharmacy 11th October 2010.
- “Training course on polymerase chain reaction” Faculty of pharmacy 5th October 2010.
- Training workshop on “A roadmap for research funding” Mansoura University 14th May 2012.
- Training course Protocol of External Visits. Quality assurance Center at Mansoura University 29/2/2016-3/3/2016
- Workshop on manufacturing efficient and inefficient pharmaceutical raw materials in Egypt. Faculty of pharmacy, Mansoura University- 22nd May 2016.
- ورشة العمل عن " توصيف برامج ومقررات الدراسات العليا الجديدة بنظام الساعات المعتمدة 15/5/2016

- The basis of student's assessment in oral examinations. Faculty of pharmacy, Mansoura University. 8th September 2016.
- How to manage Moodle. E-Learning Unit Faculty of pharmacy, Mansoura University. 27th September 2016.

Scientific activity

- 1- One of the research team of the research project entitled: “Analytical study for multiple resistance to antibiotics in Gram- negative clinical isolates” funded by Mansoura University starting from 24 February 1999 to 13 June 2004.
- 2- One of the research team of the research project entitled: “Characterization of Extended Spectrum β -Lactamase produced by Enterobacteriaceae” funded by Mansoura University starting from 24 February 1999 to 13 June 2004.
- 3- The principle investigator of the research project entitled: “Bench-top studies on the production of hygromycin A by a mutant strain of *Streptomyces hygroscopicus* NRRL2388 using fermenters and continuous production” funded by Mansoura University starting from January 2009 till 2013.

Reviewing in scientific journal

- Reviewer in the African Health Sciences

International publication

- 1- Sahar M. I. Badr, Rasha M. Barwa (2011): Synthesis of some new [1,2,4]triazolo[3,4-b][1,3,4]thiadiazines and [1,2,4]triazolo[3,4-b][1,3,4]thiadiazoles starting from 5-nitro-2-furoic acid and evaluation of their antimicrobial activity. Bioorganic and Medicinal Chemistry. 19: 4506–4512. (Impact factor= 3.108).
- 2- Barwa, R. Abdelmegeed, E. and Abd El Galil, K. (2012): Occurrence and detection of AmpC β -lactamases among some clinical isolates of Enterobacteriaceae obtained from Mansoura university Hospitals, Egypt. African journal of Microbiology Reserch. 6(41), 6924-6930, (Impact factor= 0.564).
- 3- A Elgaml, R Hassan, R Barwa, S Shokralla, W El-Naggar(2013): Analysis of 16S ribosomal RNA gene segments for the diagnosis of Gram negative pathogenic bacteria isolated from urinary tract infections. African Journal of Microbiology Research 7 (23), 2862-2869
- 4- A Elgaml, R Hassan, R Barwa, S Shokralla, W El-Naggar (2014): Antimicrobial susceptibility and sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) typing of Gram negative bacteria isolated from urinary tract infections in Mansoura, Egypt Journal of Microbiology and Antimicrobials. Vol.

6(2), pp. 43-50.

- 5- Ramadan Hassan, Rasha Barwa, Mona I. Shaaban and Lamiaa Adel (2015): Random amplified DNA polymorphism of *Klebsiella pneumoniae* isolates from Mansoura University Hospitals, Egypt. *African Journal of Microbiology Research*. 9(9), 621:630.
- 6- Abdelmegeed, E., Barwa, R. and Abd El Galil, K. (2015): Comparative study on prevalence and association of some virulence factors with extended spectrum beta-lactamases and AmpC producing *Escherichia coli*. *African Journal of Microbiology Research*. Vol. 9(17), pp. 1165-1174
- 7- Mohamed Adel El-Sokkary, Mohamed Mohamed Adel El-Sokkary, Rasha Aabed and Rasha Barwa (2015): Identification, antibiotic resistance and distribution of different classes of integrons among proteus species isolated from different sources in Dakahleia and Damietta Egyptian Governorates. *African Journal of Microbiology Research*. Vol. 9(19), pp. 1312-1321.
- 8- Shaymaa H. Abdel-Rhman , Sara M. Khalifa , Khaled H. Abd El Galil and Rasha M. Barwa (2015): Prevalence of toxins and antimicrobial resistance among *E. coli* isolated from meat. *Advances in Microbiology*. 5, 737-747.
- 9- Enas Yasser Mohammed, Shaymaa Hassan Abdel-Rhman*, Rasha Barwa, Mohammed Adel El- Sokkary (2016): Studies on Enterotoxins and Antimicrobial Resistance in *Staphylococcus aureus* Isolated from Various Sources. *Advances in Microbiolog*, 6, 263-275.
- 10- Soha El- Shaer, Mona Shaaban, Rasha Barwa, Ramadan Hassan (2016): Control of quorum sensing and virulence factors of *Pseudomonas aeruginosa* using phenylalanine arginyl β -naphthylamide. *Journal of medical microbiology* (under press)

National publication

- 1- Ramadan Hassan, Rasha Barwa and Hanan R. Shehata. (2010): Antimicrobial resistance genes and some virulence factors in *Escherichia coli* and *Streptococcus pyogenes* isolated from Mansoura University Hospitals. *The Egyptian Journal of Medical Microbiology*. 19 (1): 27-40.
- 2- El-Naggar W., Hassan R., Barwa R., Shokralla S. and Elgaml A. (2010): Molecular diagnosis of Gram negative bacteria in urinary tract infections. *The Egyptian Journal of Medical Microbiology*. 19 (1): 93-106.
- 3- El Naggar, W., Habib, E., Shokralla, S., Barwa, R. and Abd El Galil, K. Abdelmegeed, E. (2010): Phenotypic and genotypic characterization of

Extended Spectrum Beta-lactamases produced by Enterobacteriaceae. The Egyptian Journal of Medical Microbiology. 19 (2): 59-66.

- 4- Hassan, R., Habib, E., Barwa, R. and Nouh., N. (2010): Phenotypic and genotypic detection of methicillin resistant *Staphylococcus aureus* isolates at Mansoura University Hospital, Egypt. The Egyptian Journal of Medical Microbiology. 19 (3): 1-8.
- 5- El Naggar, W., Hassan, R., Abd El Galil, K., Shokralla, S., Barwa, R. and Shehta, H. (2010): Molecular characterization of some quinolone resistance determining markers amongst clinical isolates of *K. pneumoniae* in Egypt. The Egyptian Journal of Medical Microbiology. 19 (4): 201-210.
- 6- El-Naggar, W., El-Sokkary, M. A., Barwa, R. and Hassan, S. (2011): Phenotypic and genotypic studies on antibacterial efflux pumps in *Pseudomonas aeruginosa*. The Egyptian Journal of Medical Microbiology. 20 (1): 99-106.
- 7- El-Naggar, W., Abdelaziz, A. , Zaki, E. M., Abd El Galil, K. H., Shokralla, S., Barwa, R. and Khalaf, E. (2011): Biochemical characteristics of carbapenemases extracted from *Pseudomonas aeruginosa* resistant to carbapenems. N. Egypt. J. Microbiol., 29 (2): 352-366.
- 8- El Naggar, W., El-Sokkary, M. A., Barwa, R., Abd El Galil K. H., Shokralla, S., and Abdel-Rhman, H., SH. (2011): Phenotypic and genotypic characteristics in relation to some efflux pump systems in *Escherichia coli* and *Klebsiella pneumonia* clinical isolates. The Egyptian Journal of Medical Microbiology. 20 (3): 1-14.
- 9- Eid D., El Naggar, W., Barwa, R., El-Sokkary, M. A. (2012): Phenotypic and genotypic characterization of some virulence factors in *Pseudomonas aeruginosa* strains isolated from different clinical sources in Mansoura University Hospitals. N. Egypt. J. Microbiol., 32 (2): 151-167.
- 10- Barwa, R., Abd El Galil, K. H. and Habib, E. (2012): Improvement of hygromycin A production by a mutant strain of *Streptomyces hygroscopicus* NRRL2388 using shake flask. N. Egypt. J. Microbiol., 32 (2):168-177.
- 11- Ramadan Hassan, Rasha Barwa and Heba Adel (2014): Comparison of Some Virulence Factors and Antimicrobial Resistance Associated Genes of Biofilm and Non-Biofilm Producing *Pseudomonas aeruginosa*. N. Egypt. J. Microbiol. 37, 1:16

- 12- Khalifa, S.M., Abdel-Rhman, H. SH., Abd El Galil, K. H., Habib, E. and Barwa, R. (2014): Occurrence and characterization of *Staphylococcus aureus* in meat and meat products marked in Mansoura, Egypt. *Egyptian Journal of Medical Microbiology*. 23(3), 47:56.
- 13- Soha El- Shaer, Mona I. Shaaban, Rasha Barwa, Ramadan Hassan: Quorum sensing and virulence factors among *Pseudomonas aeruginosa* isolates from various clinical sources. *N. Egypt. J. Microbiol.* (In press).
- 14- Rana El-baz, Dina Eid Rizk, Rasha Barwa, Ramadan Hassan (2016): Virulence Factors Profile of *Staphylococcus aureus* Isolated From Different Clinical Sources. *N. Egypt. J. Microbiol. Vol. 43, 2016.*
- 15- Mahasen M. A. Ebaya, Maha A. M. AL-Ashmawy, Mohamed M. EL-Sokkary, Khaled H. Abdelgalil, Rasha Barwa (2016): Comparative study on prevalence and antimicrobial susceptibility of *Escherichia coli* and *Listeria monocytogenes* isolated from raw milk in Egypt. *N. Egypt. J. Microbiol. Vol. 43, 2016.*

Referred International Conference Papers

- 1- El Naggar, W., Kheira, S. and Barwa, R. Comparison between antibiogram, SDS-PAGE, and RFLP in typing the resistant Gram Negative bacteria (2004). International Conference on Microbiology and Biotechnology in favour of Man and Environment in Africa and Arab Region. Faculty of Agriculture, 27-29 April, 2004, Mansoura University, Egypt.
- 2- El Naggar, W., Habib, E., Shokralla, S., Barwa, R. and Abd El Galil, K. Abdelmegeed, E. Phenotypic and genotypic characterization of Extended Spectrum Beta-lactamases produced by Enterobacteriaceae (2010). The 17th International Conference of the Egyptian Society for Medical Microbiology (ESMM) 25-26 April, 2010, Cairo, Egypt.

International Conference

- 1- The 19th International Conference of the Egyptian Society for Medical Microbiology (ESMM), 18 May, 2013, Cairo, Egypt.
- 2- The 20th International Conference of the Egyptian Society for Medical Microbiology (ESMM) in collebration with Medical Microbiology and Immunology Departement, Faculty of Medicine, Mansoura University, 27-28 February,2014, Mansoura, Egypt.
- 3- The 21st Conference of the Egyptian Society for Medical Microbiology (ESMM), in collaboration with microbiology department, faculty of medicin, cairo university. 25 April 2015, Hilon- Dreamland

- 4- The 4 th International training course in scientific writing and publications.22-24 April, 2015. Mansoura University Urology and Nephrology center.**
- 5- The first annual conference of experimental research. 2015**

prizes

- **The prize for best Master Thesis- University of Mansoura - 9/7/2004.**
- **The prize for best Ph.D. Thesis - University of Mansoura - 30/6/2010.**
- **Scientific Publishing incentives Awards- 2011- 2013.**

Other activities

- **Member in the Executive Committee of the continuous improvement for qualifications and accreditation projects.**
- **Member in the Committee of Scientific Research of the continuous improvement for qualifications and accreditation projects.**
- **Member in the Committee of Education and Students Affairs from 2009:2011 and from 2013:2015.**
- **Member in the Committee on Graduate Studies and Research for academic year 2015- 2016.**
- **Member in the Faculty Council for academic year 2015- 2016.**
- **A member in the team of the development teaching strategies, learning and calendar of medical sector in Mansoura University in light of the quality assurance standards**
- **Member in the Ethics Committee of Scientific Research From 2010 to 2015.**
- **Member in the Board Department of Microbiology.**
- **Member in the Executive Committee to prepare the strategy for Faculty of Pharmacy.**
- **Member in the Committee of chemicals and equipments specifications and decision.**
- **Member in the Committee of the chemicals and equipments examination since2009.**
- **Member in the Committee inventory of chemicals and equipments since 2011.**
- **Member of the Sub-Committee of the Clinical Pharmacy Programme for the academic year 2012/2013 and 2013/2014.**
- **A member in the control of undergraduate from 2000 till 2013**
- **A member in the control of graduate students for academic year 2008/2009 till 2010/2011.**
- **Head of Control of the Clinical Pharmacy Programme from the academic year 2013/2014.**
- **A Member in the Committee of Internal Audit in faculty of pharmacy for the academic year 2013/2014 and 2014/2015.**

- A member in the coordination committee for admissions in graduate programs for the academic year 2013/2014 and 2014/2015.
- Member in the Committee of the curriculum and academic programs for undergraduate for the academic year 2014/2015.
- Member in the team self-annual report of faculty of Pharmacy since academic year 2010/2011.
- Member in the first and second Scientific Conference for students in academic year 2011/2012 and 2012/2013.
- Membership of the Egyptian Society of Medical Microbiology and Immunology
- Participation in development of the rules to Ethics Committee of Scientific Research, Faculty of Pharmacy, Mansoura University.
- Participation in development of the rules to graduate credit hours system.
- Participation in the development of the Summer Training Manual for faculty of pharmacy students, Mansoura University.
- Participation in the preparation of the Microbiology notebook for undergraduate students.
- Participation in the preparation of the Parasitology notebook for undergraduate students.
- Participation in the preparation of the public health notebook for undergraduate students.
- Participation in the preparation of the theoretical and practical exams for undergraduate and graduate students.
- Participate in the selection of the ideal student in the Faculty of Pharmacy since 2010/2011.
- Supervision of the practical course for undergraduate and graduate students.
- Supervision on the summer training of the undergraduate students.
- Participation in the arbitration of scientific articles for diploma students.
- Supervision on the scientific articles for diploma students.

*** References:**

- 1- Name: Prof. Dr. Wael Abbas El-Naggar
 Title: Professor of Microbiology and Immunology Department, Faculty of Pharmacy, Mansoura University.
 Telephone: +966544354016
 E-mail: elnaggar.wael@gmail.com

2- Name: Prof. Dr. Ramdan Hassan Ibrahim

**Title: Professor and Head of Microbiology and Immunology Department,
Faculty of Pharmacy, Mansoura University.**

Telephone: +2/0163400058

E-mail: rhassan33@hotmail.com

3- Name: Prof. Dr. EL-Sayed E. Habib

**Title: Professor of Microbiology and Immunology Department, Faculty of
Pharmacy, Mansoura University.**

**Professor of Microbiology and Immunology, Faculty of Pharmacy, Tieba
University.**

Telephone: + 966599232585

E-mail: sayedhabib@hotmail.com