

## CURRICULUM VITAE

**UPDATED ON: March 5, 2017**

### **PERSONAL INFORMATION:**

**Name** Kamel

**Family Name** Adwan

**Date and** May 28, 1962

#### **place of Birth**

**Place of Birth** Faroun, Tulkarm, West-Bank, Palestine

**Nationality** Palestinian

**Marital Status** Married, plus four kids

**Instittue** An-Najah N. University

**Address** Department of Biology and Biotechnology, An-Najah N. University, Nablus, West Bank.

Phone: + 970 2340200, Fax: +970 9 2345982

**Home address** Faroun, Tulkarm, West bank, Palestine

**Electronic** adwank@najah.edu OR adwank@yahoo.com

**mail address** <http://staff.najah.edu/adwank>

**Researcher ID** [https://www.researchgate.net/profile/Kamel\\_Adwan](https://www.researchgate.net/profile/Kamel_Adwan)

**Link** <http://najah.academia.edu/KamelAdwan>

### **EDUCATION:**

**1.** Postdoct [January, 1993- June, 1994]: Changes in membrane protein profiles of  $\beta$ -lactam antibiotic resistant strains of *P.aeruginosa*". Biotechnology Research Unit, Middle East Technical University, Ankara, **Turkey**

**2.** Ph.D. [1998-1992]: Microbiology and Molecular Biology, Middle East Technical University, Ankara, **Turkey**

**Thesis title:** Biochemical and genetical aspects of aminoglycoside,  $\beta$ -lactam and quinolone antibiotics resistance among the clinical isolates of *Pseudomonas aeruginosa*

**3.** M.Sc. [1985-1988]: Microbiology, Yarmouk University, Irbid, **Jordan**

**4. B.Sc. [1980-1985] Medical Technology, Yarmouk University, Irbid, Jordan**

**LANGUAGES:**

Arabic, English and some Turkish

**CURRENT POSITION**

Professor of Microbiology and Molecular Biology, Biology and Biotechnology Department, An-Najah N. University, Nablus, Palestine

**Main Duties and responsibilities:**

1. Teaching for different undergraduate as well as postgraduated courses
2. Supervisor for the many MSc dissertations

**EXPERIENCE [POSITIONS AND ACADEMIC STATUS]:**

**2008- present:** Associate Professor, Department of Biological Sciences, An-Najah N. University.

**1994-1996:** Assistant professor, Department of Biological Sciences, An-Najah N. University.

**1996-2000:** Chairman, Department of Biological Sciences, An-Najah N. University.

**1985-1989:** Teaching assistant at Yarmouk University

**February-June 1986:** Instructor at the Arab Community College [Junior University College]

**September 1992- June 1994:** Part time Microbiologist at Duzen laboratories, Ankara, Turkey

**SUPERVISION OF THESIS AND DISSERTATIONS**

Supervisor for research work of 16 MSc students

**1.** Qualitative analysis by pyocin and antibiogram typing of *P. aeruginosa* isolated in Rafeidia hospital, Palestine. 1996. Hani Al-Ahmad. An-Najah National University, Nablus, West Bank, Palestine

**2.** Clinical perspectives of aminoglycosides resistance in Enterobacteriaceae and *Pseudomonas*. 1996. Hanin Al-Asmar. An-Najah National University, Nablus, West Bank, Palestine

**3.** Hepatitis B virus among high-risk groups and highlights on vaccination program in northern Palestine. 1998. Rola Jadallah. An-Najah National University, Nablus, West Bank, Palestine

- 4.** Epidemiologic typing of multi-drug resistant isolates of *Escherichia coli* and *Pseudomonas aeruginosa*. 1999. Motasim Al-Masri. An-Najah National University, Nablus, West Bank, Palestine
- 5.** Typing of methicillin- resistant *Staphylococcus aureus* by quantitative antibiogram and arbitrarily primed PCR. 1999. Alaeddin Abu-zant. An-Najah National University, Nablus, West Bank, Palestine
- 6.** Incidence of antibiotic resistance in clinical Isolates of *Streptococcus pneumoniae* in northern Palestine. 1999. Salma Al-Khalili. An-Najah National University, Nablus, West Bank, Palestine
- 7.** HCV status in northern Palestine. 1999. Ayman Al-Kurdi. An-Najah National University, Nablus, West Bank, Palestine
- 8.** Isolation and RAPD- PCR Characterization of New Entomopathogenic Nematode Strains from Palestine. 2000. Michael Sansour. An-Najah National University, Nablus, West Bank, Palestine
- 9.** Interaction between the biocontrol agents; Entomopathogenic nematodes *Serratia marcesens* and *Beauveria bassiana* isolated from Palestine. 2000. Omar Dar-Issa. An-Najah National University, Nablus, West Bank, Palestine
- 10.** Human Echinococcosis in Palestine: The West Bank. 2000. Mahmoud Daragmeh. An-Najah National University, Nablus, West Bank, Palestine
- 11.** Congenital Hypothyroidism among Palestinian Children of the West Bank. 2001. Issa Ishtehi. An-Najah National University, Nablus, West Bank, Palestine
- 12.** Virological Features of Hepatitis C Virus in Hemodialysis Patients: Northern Districts of Palestine. 2001. Fikri Samarah. An-Najah National University, Nablus, West Bank, Palestine
- 13.** HBV Status among Vaccinated Family Members of HBV Positive Carriers in Northern Palestine. 2001. Khaled Abu-Khater. An-Najah National University, Nablus, West Bank, Palestine
- 14.** Typing of Shiga toxin-producing *Escherichia coli* isolates in Palestine by multiplex arbitrarily primed PCR. 2001. Marwan Budair. An-Najah National University, Nablus, West Bank, Palestine
- 15.** Application of antibiogram, Ribosome Spacer PCR (RS-PCR) and Arbitrarily Primed PCR (AP-PCR) for typing Methicillin-Resistant *Staphylococcus aureus*

(MRSA).2001. Ahmad Saleh. An-Najah National University, Nablus, West Bank, Palestine

**16.** Molecular characterization of methicillin-resistant *Staphylococcus aureus* strains isolated from three Arab countries. 2011. Israr Sabri. Birzeit University, West Bank, Palestine

**17.** Prevalence and molecular characterization of *Cysticercus tenuicollis* cysts in sheep slaughtered in Palestine. 2014. Alaa Jayouse. An-Najah National University, Nablus, West Bank, Palestine

**Examiner for the following MSc dissertations:**

**1.** Identification and Molecular Characterization of *Brucella melitensis* isolated from Sheep and Goats in the West Bank-Palestine. 2010. Elena Awwad. Birzeit University, [External examiner].

**2.** Detection of Bacteria in Cerebrospinal Fluid Using the Universal Method Based on 16S rRNA. 2010. Deema Zughayer. Al-Quds University, [External examiner]

**3.** Detection of cellular kinases involved in HCMV Assembly. 2011. Mohammad Qawasmi. Birzeit University, [External examiner]

**4.** Short hairpin RNA (sh RNA) knockdown of ETS Transcription Factors in Prostate Cell Culture Line. 2011. Jamila Daraghmeh. An-Najah N. University, [Internal examiner]

**5.** Resistance of Staphylococci and Streptococci clinical isolates to Macrolides and functionally related antibiotics in Nablus district. 2014. Naela Sabbah. An-Najah N. University, [Internal examiner]

**LIST OF PUBLICATIONS:**

Citation indices: <https://scholar.google.com/citations?user=1JeU6hEAAAAJ>

**1. Citations 686**

**2. h-index 13**

**3. i10-index 19**

Profile overview: [https://www.researchgate.net/profile/Kamel\\_Adwan](https://www.researchgate.net/profile/Kamel_Adwan)

**1. Research Gate Impact points: 41.2**

**3. Research Gate Score: 24.01**

**5. h-index: 14**

1. **Adwan K.**, Kocabiyik S. and Alaeddinoglu G. Effect of drug usage on aminoglycoside susceptibilities of *P. aeruginosa* isolates. *International Journal of Experimental and Clinical Chemotherapy*. 1990; **3**: 179-183.
2. **Adwan K.**, Kocabiyik S. and Alaeddinoglu G Evaluation of plasmid DNA and protein profiles as epidemiological tools in *P. aeruginosa*. *International Journal of Experimental and Clinical Chemotherapy* 1992; **5**: 37-40.
3. **Adwan K.**, Kocabiyik S. and Alaeddinoglu G. Evaluation of multi-drug resistance in *P.aeruginosa* isolates. *International Journal of Experimental and Clinical Chemotherapy* 1993; **6**:
4. **Adwan K.** and Abu-Hasan N. Gentamicin resistance in clinical strains of *Enterobacteriaceae* associated with reduced gentamicin uptake. *Folia Microbiol* 1998; **43(4)**: 438-440. **Impact Factor: 0.677**
5. **Adwan K.**, Abu-Hasan N. and Al-Asmar H. Analysis of neomycin, kanamycin, tobramycin, and amikacin resistance mechanisms in gentamicin-resistant isolates of *Enterobacteriaceae*. *J. Medical Microbiology* 1998; **47**: 1091-1021. **Impact Factor: 2.50**
6. **Adwan K.** The use of SDS polyacrylamide gel electrophoresis of periplasmic protein to subtype *P.aeruginosa* pyocin type 10/b clinical isolates. *Infection* 1999; **27**: 39-41. **Impact Factor: 2.66**
7. **Adwan K.**, Abu-Hasan N., Hamdan A. and Al-Khalili S. High incidence of penicillin resistance amongst clinical isolates of *S. pneumoniae* in northern Palestine. *J. Med. Microbiol* 1999; **48**:1-4. **Impact Factor: 2.50**
8. **Adwan K.**, Abu-Hasan N. and Abu-Zant A. Typing of methicillin-resistant *Staphylococcus aureus* by quantitative antibiogram and arbitrarily primed PCR. *Assiut Med. J.* 2001; **25**: 65-72.
9. Abu-Hasan N., Daraghmeh M., **Adwan K.**, Al-Qaoud K. and Abdel-Hafez SK. Human cystic echinococcosis in the West Bank of Palestine: surgical incidence and seroepidemiological study. *Parasitol Res.* 2002; **88**:107-112. **Impact Factor: 2.15**
10. **Adwan K.**, Abu-Hasan N., Essawi T. and Bdir M. Isolation and characterization of Shiga toxigenic *Escherichia coli* strains from northern Palestine. *J. Medical Microbiology*. 2002; **51**: 1-4. **Impact Factor: 2.50**

- 11.** Adwan K., Analysis of methicillin-resistant *Staphylococcus aureus* strains isolated in Palestine by arbitrarily primed PCR. *Arab Gulf Journal of Scientific Research*. 2003; **21**: 1-4
- 12.** Essawi T., Adwan K., Abu-Hassan N., Adwan G., Saleh A. Typing of Methicillin-Resistant *Staphylococcus aureus* by Ribosome Spacer and Arbitrarily Primed Polymerase Chain Reaction. *Tur J Med Sci*. 2004; **43**:5-9. **Impact Factor: 0.10**
- 13.** Adwan K., Abu-Hasan N., Adwan G., Jarrar N., Abu-Shanab B. and Al-Masri M. Molecular Epidemiology of Antibiotic-Resistant *Escherichia coli* Isolated from Hospitalized Patients with Urinary Tract Infections in Northern Palestine. *Polish Journal of Microbiology*. 2004; **53**:23-26. **Impact Factor: 0.76**
- 14.** Adwan G., Abu-Hasan N., Adwan K., Jarrar N. and Bdir M. Antibiotimicrobial resistance of Shiga toxin-producing *Escherichia coli* O157 isolates from northern Palestine. *Emirates Medical Journal*. 2004; **22**:249-250.
- 15.** Adwan G., Adwan K., Abu-Shanab B., Abu-Safiya D., Jarrar N. Antibacterial activities of some plant extracts utilized in Palestine in popular medicine. *Tur J Bio*. 2004; **28**:99-102. **Impact Factor: 0.88**
- 16.** Adwan G and Adwan K. Isolation of Shiga toxigenic *Escherichia coli* from raw beef in Palestine. *International journal of Food Microbiology*. 2004; **97**: 81-84. **Impact Factor: 3.33**
- 17.** Adwan K., Abu-Hasan N., Adwan G., Jarrar N., Abu-Shanab B. Abu-Zant A. Nosocomial infection caused by methicillin-resistant *Staphylococcus aureus* in Palestine. *Journal of Microbial Drug Resistance*. 2005; **11**: 75-77. **Impact Factor: 2.15**
- 18.** Adwan, K. Abu-Hasan N., Adwan G., and Abu-Khater K. Hepatitis B surface antibody response of household contacts of hepatitis B virus carriers in Palestine. *Eastern Mediterranean Health Journal*. 2005; **11**: 494-498
- 19.** Adwan G., Abu-Shanab B., Adwan K. Enterotoxigenic *Staphylococcus aureus* in raw milk in the North of Palestine. *Turk J of Biol*. 2005; **29**:229-232. **Impact Factor: 0.88**
- 20.** Jadallah R., Adwan G., Abu-Hasan N., Adwan K. Prevalence of hepatitis B virus markers among high risk groups in Palestine. *Medical Journal of Islamic World Academy of Sciences*, 2005; **15:4**, 157-160.

- 21.** Adwan G., Abu-Shanab B., **Adwan K.**, Abu-Shanab F. Antibacterial effects of nutraceutical plants growing in Palestine on *Pseudomonas aeruginosa*. *Turk J Biol*, 2006; **30**: 239-242. **Impact Factor: 0.914**
- 22.** Abu-Shanab B., Adwan G., Jarrar N., Abu-Hijleh A., Adwan K. Antibacterial activity of four plant extracts in Palestine in folkloric medicine against methicillin-resistant *Staphylococcus aureus*. *Turk J Biol*, 2006; **30**: 195-198. **Impact Factor: 0.914**
- 23.** Adwan G., Abu-Shanab B., **Adwan K.**, Odeh M. Enterotoxigenicity of *S. aureus* isolates recovered from chronic urogenital tract infection in North of Palestine. *Pak J Med Sci*. 2008, **24 (2)**: 246-250. **Impact Factor: 0.16**
- 24.** Adwan G, Abu-Shanab B, **Adwan K.** *In vitro* activity of certain drugs in combination with plant extracts against *Staphylococcus aureus* infections. *Pak J Med Sci*. 2008, **24 (4)**: 541-544. **Impact Factor: 0.16**
- 25.** Kaibni M. H., Farraj M. A., **AdwanK** and Essawi T.A. Community-acquired meticillin-resistant *Staphylococcus aureus* in Palestine. *J Med Microbiol*. 2009; **58**: 644-647. **Impact Factor: 2.297**
- 26.** Abu-Hijleh A., Jarrar N., **Adwan K.** Antibacterial Activity of common Varthemia, *Varthemia iphionoides* Ethanol Extract alone and in Combination with Cefotaxime. *Advances in Biological Research*. 2009; **3**: 144-147.
- 27.** Adwan G, Abu-Shanab B, **Adwan K.** 2010. Antimicrobial activities of some plant extracts alone and in combination with different antimicrobials against multidrug-resistant *Pseudomonas aeruginosa* strains. *Asian Pacific Journal of Tropical Medicine*, 2010; **3(4)**: 266-269. **Impact Factor: 0.502**
- 28.** Jarrar N., Abu-Hijleh A., **Adwan K.** Antibacterial activity of *Rosmarinus officinalis* L., alone and in combination with cefuroxime, against methicillin-resistant *Staphylococcus aureus*. *Asian Pacific Journal of Tropical Medicine*. 2010; **3(2)**: 121-123. **Impact Factor: 0.502**
- 29.** Adwan G, Salameh Y, **Adwan K.** Effect of ethanolic extract of *Ecballium elaterium* against *Staphylococcus aureus* and *Candida albicans*. *Asian Pacific Journal of Tropical Biomedicine*, 2011; **1(6)**: 456-460. **Impact Factor: 0.502**
- 30.** Adwan G, Salameh Y, **Adwan K.** Barakat A. Assessment of antifungal activity of herbal and conventional toothpastes against clinical isolates of *Candida albicans*.

*Asian Pacific Journal of Tropical Biomedicine.* 2012; **2(5):**375-9. **0.37 Impact Factor**

- 31.** Adwan G, Salameh Y, **Adwan K.** Susceptibility of *Candida albicans* isolates to terbinafine and ketoconazole. *IUG Journal of Natural and Engineering Studies.* 2012; **20:** 45-53
- 32.** Awwad E, Farraj MA, Adwan K, Essawi TA. Isolation, identification and molecular characterization of *Brucella* strains isolated from small ruminants in the West Bank, Palestine. *Revue Méd. Vét.* 2011; **162(5):** 236-239. **Impact Factor; 2012: 0.251**
- 33.** Salameh Y, Abdel Fattah M, Abu-Hijleh A, Adwan G, Jarrar N, **Adwan K.** Inhibitory Effect of *Varthemia iphionoides* Extract on the Contractility of isolated Rabbit Ileum. *Journal of Pharmacy Research.* 2011, **4(12):** 4367-4368.
- 34.** Awwad E, Farraj MA, **Adwan K**, Essawi TA. Genotypic variation in the *Brucella melitensis* hemagglutinin gene in vaccine strain and field isolates in Palestine, *Turk. J. Vet. Anim. Sci.*, 2012; 36(4): 395-399. **Impact Factor; 2012: 0.251**
- 35.** Adwan G, **Adwan K**, Bdir S, Abuseir S. Molecular characterization of *Echinococcus granulosus* isolated from sheep in Palestine. *Experimental Parasitology.* 2013; **134:** 195–199. **Impact Factor; 2012: 2.154**
- 36.** Adwan G, **Adwan K**, Jarrar N, Salama Y and Barakat A. Prevalence of *seg*, *seh* and *sei* Genes among Clinical and Nasal *Staphylococcus aureus* Isolates in Palestine. *British Microbiology Research Journal.* 2013; **3(2):** 139-149
- 37.** **Adwan K**, Jarrar N, Abu-Hijleh A, Adwan G, Awwad E and Salameh Y M. Molecular analysis and susceptibility patterns of methicillin-resistant *Staphylococcus aureus* strains causing community- and health care-associated infections in the northern region of Palestine. *American Journal of Infection Control.* 2013; **41:** 195-198. **Impact Factor: 3.246.**
- 38.** **Adwan K.** Fast DNA isolation and PCR protocols for detection of methicillin-resistant *staphylococci*. *Folia Microbiol.* 2013. DOI 10.1007/s12223-013-0259-1  
**58(3) Impact Factor; 0.791**
- 39.** Sabri I, **Adwan K**, Essawi T and Farraj M. Molecular characterization of methicillin-resistant *Staphylococcus aureus* isolates in three different Arab world countries. *Eur J Microbiol Immunol.* 2013. **3:** 183–187. **Impact Factor: 0.379**

- 40.** Adwan K, Jarrar N, Abu-Hijleh A, Adwan G and Awwad E. Molecular characterization of *Escherichia coli* isolates from patients with urinary tract infections in Palestine. *J Med Microbiol* 2014; 63: 229-234. **Impact Factor: 2.297**
- 41.** Adwan G, **Adwan K**, Jarrar N, Amleh A. Molecular detection of nine antibiotic resistance genes in methicillin resistant *staphylococcus aureus* isolates. *Romanian Archives of Microbiology and Immunology* 2014; 73 (1-2):9-18.
- 42.** Adwan G, Issa B. **Adwan K.** Virulence Profile, Fluoroquinolone and Quinolone Resistance of Uropathogenic *Escherichia coli* Isolates Recovered from Thabet Hospital-Tulkarm, Palestine. *British Microbiology Research Journal* 2015; 5(5):412-423
- 43.** Adwan GM, Alqarem BR, **Adwan KM.** Prevalence of foodborne pathogens in meat samples in Palestine. *International Food Research Journal* 2015; 22(5): 1806-1812.
- 44.** Adwan G, Shaheen H, **Adwan K**, Barakat A. Molecular characterization of methicillin resistant *Staphylococcus aureus* isolated from hospitals environments and patients in Northern Palestine. *Epidemiology Biostatistics and Public Health* 2015; 12: e 1 1 1 8 3 – 1 – 9. DOI: 10.2427/11183
- 45.** Othman A, Hamed OA, Jaber f1, Hamed EM, **Adwan k**, Jodeh S, Salghi R, Saadeh H. New routes to prepare superabsorbent polymers free of acrylate cross-linker 2015; doi:10.1007/s13726-015-0373-9. **Impact Factor: 1.806**
- 46.** Awwad E, **Adwan k**, Farraj M, Essawi T, Rumi I, Manasra A, Baraitareanu S, Gurau MR, Danes D. Cell Envelope Virulence Genes among Field Strains of *Brucella melitensis* Isolated in West Bank Part of Palestine. *Agriculture and Agricultural Science Procedia* 2015; 6: 281 – 286. [www.sciencedirect.com](http://www.sciencedirect.com)
- 47.** Ghaleb Adwan, Do'a Rabaya', Kamel Adwan and Suhaila Al-Sheboul. Prevalence of β-lactamases in clinical isolates of *Enterobacter cloacae* in the West Bank-Palestine. *Int J Med Res Health Sci* 2016; 5(7): **49-59**
- 48.** Ghaleb Adwan, Eman Abedrabbo, Kamel Adwan, Suhaila Al-Sheboul. Characterization of Indoor Air Bacterial Isolates from Rafidia Hospital, Nablus-Palestine. *Arch Curr Res Int* 2016; 5(3): 1-11, Article no. ACRI.29066.
- 49.** Ghaleb Adwan, Amani Shtayah, Kamel Adwan, Suhaila Al-Sheboul, Sati Othman. Prevalence and Molecular Characterization of *P. aeruginosa* Isolates in the

West Bank-Palestine for ESBLs, MBLs and Integrons. J Appl Life Sci Int 2016; 8(2): 1-11, Article no. JALSI.29259. DOI: 10.9734/JALSI/2016/29259

**50.** Elena AWWAD, Mohammad FARAJ, Tamer ESSAWI, Israr SABRI, **Kamel ADWAN**, Issa RUMI, Assad MANASRA, Stelian BĂRĂITĂREANU, Maria Rodica GURĂU, Doina DANEŞ. 2016. Detection of Brucella Genome by Real Time PCR from the Milk of Small Ruminants in the West Bank, Palestine. Bulletin UASVM Veterinary Medicine 73(1) / 2016, Print ISSN 1843-5270; Electronic ISSN 1843-5378 DOI:10.15835/buasvmcn-vm:11677.

<http://journals.usamvcluj.ro/index.php/veterinary/issue/current>

**51.** Elena AWWAD, Stelian BĂRĂITĂREANU, Maria Rodica GURĂU, Mohammad FARAJ, Tamer ESSAWI, **Kamel ADWAN**, and Doina DANEŞ: "Epidemiologic approaches of Brucellosis through phylogenetic analysis pattern in Palestine". Journal of international scientific publication: Agriculture and Food, Volume 4, 2016, 267-275, ISSN 1314-8591, www.scientific-publication.net

**52.** Elena AWWAD, Mohammad Farraj, Tamer Essawi, Israr Sabri, **Kamel Adwan**, Issa Rumi, Asad Manasra, Stelian Baraitareanu, Maria Rodica Gurau, Doina Danesh: Validation RT-qPCR Technique for detection of Brucella genome in milk sheep and goat in West Bank, Palestine. 2016. Scientific Bulletin. Series F. Biotechnologies, Vol. XX, <http://biotechnologyjournal.usamv.ro>

## **CONFERENCES and WORKSHOPS:**

### **Conferences**

- 1. 1993:** Turkish Microbiology Congress. (XXV), **Turkey**.
- 2. 1994:** Turkish Microbiology Congress. (XXVI), **Turkey**.
- 3. 1998:** Al-Quds University, Second Scientific Day, Jerusalem, **Palestine**. [Poster].
- 4. September 26-27, 2010:** The second biomedical Research Symposium, Faculty of science, Department of Biology and Biotechnology, an-Nahah National University, Nablus, **Palestine**. [Poster].
- 5. May 12, 201:** The second biomedical Research Symposium, Bethlehem University, Bethlehem, **Palestine**.

### **Workshops**

- 1. March 20, 2010:** Frontiers in Molecular Biology and Biomedicine, Faculty of science, department of Biology and Biochemistry, Birzeit University, **Palestine**.

- 2. January 5 to 7, 2014:** Enhancing diagnostic capacities of Brucellosis, improving the vaccination and control strategies with special emphasis on farmers awareness in Egypt, Algeria, the Palestinian state (PS) and Jordan" Jordan University of Science and Technology, **Jordan.** [Attendance and oral presentation]
- 3. August 20-31, 2000:** Cell and Molecular Biology of gametes, fertilization and early embryonic development "Window to the Zygote 2000", ICRO/UNESCO, Charles University in Prague, **Czech Republic.** [Attendance]

**TEACHING EXPERIENCE:**

Teaching: Twenty years teaching experience at undergraduate and graduate level

**Graduate courses:** Advanced Microbiology, Diagnostic Microbiology and Antibiotics

**Undergraduate courses:** General Biology, General Microbiology, Molecular Biology and Genetics.

**RESEARCH INTERESTS:**

Research interests: Mechanisms of antibiotic resistance among enteric bacteria and MRSA, medicinal plants as antibacterial agents, genetic variation analysis of *B. melitensis* and Uropathogenic *E. coli* (UPEC).

Another line of the research is the use of *Drosophila* as a model system for studying spasmolytic activity of *Varthemia iphionoides* -derived compounds

**On-going research projects**

1. Prevalence and molecular characterization of *Cysticercus tenuicollis* cysts in sheep in Palestine.
2. Comparative study between avian *Escherichia coli* isolates with human Uropathogenic *E. coli* (UPEC) in the west bank part of Palestine.

**FELLOWSHIPS, PRIZES, AWARDS AND RESEARCH GRANT PROJECTS:**

**December 19-30, 2016:** Mobility grant in the framework of Erasmus programme to the Middle east University to teach the following subjects in Bioinformatics:

**GeneBank database search, sequence alignments, dynamics programming, Pam and Blosum matrices, phylogenetic tree and how does BLAST work.**

**In addition, the mobility includes tutorials on BLAST, CLC Main Workbench software, MEGA-7, DnaSP 5.10 and CLC Drug DiscoveryWorkbench\_3\_0\_64**

**2014 and 2015:** Award of Excellence and Quality of Research and Publishing. An-Najah National University, Nablus, Palestine.

**December 2014- January 2015:** Mobility grant in the framework of HERMES programme to the University of Cyprus to do the following research: Drosophila as a model system for studying spasmolytic activity of *Varthemia iphionoides* -derived compounds

**2014:** Member of An Najah research Award for scientific research.

**1999:** Epidemiologic typing of multi-drug resistant isolates of *Escherichia coli* and *Pseudomonas aeruginosa*, Funded by the Islamic Educational, Scientific and Cultural Organization (ISESCO),

**1998:** Incidence of antibiotic resistance in clinical isolates of *Streptococcus pneumoniae* in northern Palestine, Funded by the Third World Academy of Science (TWAS).

#### **OTHER RELEVANT EXPERIENCES OR ACTIVITIES**

**1. October 6, 2009:** Consultant to develop and /or upgrade courses, Microbial Pathogenesis and Nosocomial Infections, to implement the project of “Establishment of Molecular Diagnostic Center at the Clinical laboratory Science program” at Birzeit University, Funded by the World Bank and EC

**2. September 26-27 , 2010:** Member, The organizing and the scientific committee of the second conference on Biotechnology research and applications in Palestine, Faculty of science, Department of Biology and Biotechnology, an-Nahah National University, Nablus, Palestine.

**3. July 12-26, 2010:** International Consultant and Trainer for PCR and pulsed Field gel electrophoresis, Funded by the World Bank (IDA) and European Commision (EC) through the quality Improvement Fund (QIF), Ministry and Higher Education and the contribution of Birzeit University

**4. November 6-7, 2010:** Participant in the Preparatory Committee of the First Palestinian French exhibition Festival, An Najah national University, Palestine.

**5. The academic year 2010-2011:** Participant in monitoring the election of the Student union of An Najah national University, Palestine.

**6. October 29-30, 2011:** Participant in the Second Palestinian French Science Festival, An Najah national University, Palestine.

**7. May 17, 2012 and May 17, 2013:** Evaluator, Projects submitted for Zuhair Hijjawi Award for undergraduate research, AAUJ.

**8. January 1, 2010-present** Editorial- board/ Asian Pacific Journal of Tropical Medicine

**DNA SEQUENCES DEPOSITED AND ANNOTATED VIA GENBANK:**

**1.** *SCCmec* gene (6): GenBank accession numbers, JN108029, JN108030, JN108031, JN108026, JN108027, and JN108028

**2.** *Spa* gene (11): GenBank accession numbers, JX985621, JX985622, JX985623, JX985624, JX985625, JX985626, JX985627, JX985628, JX985629, JX985630, and JX985631

**3.** *blaCTX-M* (3) and *blaTEM* (1): GenBank accession numbers, KF696718, KF696719, KF696720, and KF696717

**4.** Mitochondrial cytochrome c oxidase subunit 1 (*cox1*) gene (20).

KM032284, KM032285, KM032286, KM032287, KM032288, KM032289, KM032290, KM032291, KM032292, KM032293, KM032294, KM032295, KM032296, KM032297, KM032298, KM032299, KM032300, KM032301, KM032302, KM0323

**5.** Cell Envelope Virulence Genes of *Brucella melitensis*

KT357497, KT357498, KT357499, KT357500, KT357501, KT357502, KT357503, KT357504, KT357505, KT357506