

Faculty of Agricultural Sciences and  
Technology  
Palestine Technical University-Kadoorie  
Tulkarm-Palestine  
P.O.Box (7)  
E-mails: [a.m.saleh@ptuk.edu.ps](mailto:a.m.saleh@ptuk.edu.ps)  
[ahmadsaida@yahoo.com](mailto:ahmadsaida@yahoo.com)

## AHMAD M. SALEH

ASSISTANT PROFESSOR

MOLECULAR MICROBIOLOGY AND  
BIOTECHNOLOGY



### ◆ PERSONAL INFORMATION

◆ NAME:	AHMAD MAHMOUD HASAN SALEH
◆ GENDER:	MALE
◆ DATE OF BIRTH:	04/05/1974
◆ PLACE OF BIRTH:	SAIDA-TULKARM
◆ MARITAL STATUS:	MARRIED
◆ NUMBER OF CHILDREN:	4
◆ NATIONALITY:	PALESTINIAN

### ◆ EDUCATIONAL BACKGROUND (ACADEMIC QUALIFICATIONS)

#### ➤ PHD DEGREE

➤ DEGREE:	PhD (Dr. rer. nat.)
➤ SPECIALTY:	Molecular Microbiology and Biotechnology
➤ RATING:	Very Good “ Magna Cum Laude ”
➤ UNIVERSITY:	University of Goettingen
➤ CITY/COUNTRY:	Goettingen/Germany
➤ YEAR:	November 2006.
➤ TYPE OF STUDY:	Full-time ( 4 years; Oct. 2002-Nov. 2006)
➤ MAJOR:	Microbiology
➤ MINORS:	Biochemistry and Genetics
➤ TITLE OF PHD THESIS:	Characterization of Alternative NADH Dehydrogenases in the Respiratory Chain of <i>Toxoplasma gondii</i> as Novel Drug Targets.

#### ➤ MASTER DEGREE

➤ DEGREE:	M.Sc. (Master of Science)
➤ SPECIALTY:	Molecular Biology
➤ RATING:	Very Good
➤ G.P.A:	83.2%
➤ RANK:	Second
➤ UNIVERSITY:	An-Najah National University
➤ CITY/COUNTRY:	Nablus/Palestine.
➤ YEAR:	June 2001.
➤ TYPE OF STUDY:	Full-time ( 4 years; Sep. 1997-June 2001)
➤ MAJOR:	Molecular Microbiology
➤ TITLE OF M.SC. THESIS:	Molecular Typing of Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA) by AntibioGram, Ribosomal Spacer and Arbitrarily Primed-Polymerase Chain Reaction (RS-PCR and AP-PCR), and Pulsed Field Gel Electrophoresis (PFGE).

#### ➤ B.SC. DEGREE

➤ DEGREE:	B.Sc. (Bachelor of Science)
➤ SPECIALITY:	Biological Sciences
➤ RATING:	Very Good
➤ G.P.A:	81.8%
➤ RANK:	FIRST
➤ UNIVERSITY:	Yarmouk University
➤ CITY/COUNTRY:	Irbid/Jordan
➤ YEAR:	June 1997
➤ TYPE OF STUDY:	Full-time ( 4 years; Feb. 1993-June 1997)
➤ MAJOR:	Biology with focus on microbiology courses.

- TITLE OF GRAD. PROJECT: Genotyping of pathogenic *Escherichia coli* by Arbitrarily Primed Polymerase Chain Reaction.
- **TAWJEHI DEGREE**
- DEGREE: Tawjihi (Higher Secondary School Certificate)
- SPECIALITY: Scientific Stream
- RATING: Very Good
- G.P.A: 88.4%
- SCHOOL: Attil Secondary Boys School
- CITY/COUNTRY: Attil/Palestine
- YEAR: June 1992

## ❖ WORK EXPERIENCE

### ❖ **PALESTINE TECHNICAL UNIVERSITY (PTUK)/PALESTINE**

- FACULTY: COLLEGE OF AGRICULTURAL SCIENCES
- ADDRESS: TULKARM-PALESTINE
- EMPLOYMENT PERIOD: JANUARY 2016 – PRESENT
- TITLE: ASSISTANT PROFESSOR
- RESPONSIBILITIES:
  - TEACHING GRADUATE COURSE: MOLECULAR BIOLOGY AND MICROBIAL BIOTECHNOLOGY
  - TEACHING UNDERGRADUATES: BIOLOGY 1 AND 2 (THEORY AND PRACTICAL) MICROBIOLOGY BIOCHEMISTRY
  - EDITOR-IN-CHIEF FOR PTUK RESEARCH JOURNAL

### ♣ **UNIVERSITY OF HAIL/K.S.A.**

- ♣ FACULTY: COLLEGE OF PUBLIC HEALTH  
DEPT. OF PUBLIC HEALTH
- ♣ ADDRESS: Hail, KSA
- ♣ EMPLOYMENT PERIOD: September 2010 – December 2015
- ♣ TITLE: ASSISTANT PROFESSOR
- ♣ **RESPONSIBILITIES:**

#### I. Teaching the following courses :

1. PRINCIPLES OF MICROBIOLOGY (THEORY AND PRACTICAL).
2. MOLECULAR DIAGNOSTICS (THEORY AND PRACTICAL).
3. MEDICAL MICROBIOLOGY (THEORY AND PRACTICAL)
4. GENERAL BIOCHEMISTRY (THEORY AND PRACTICAL)
5. ENVIRONMENTAL MICROBIOLOGY (THEORY AND PRACTICAL)
6. PRINCIPLES OF TOXICOLOGY
7. BIOTECHNOLOGY (THEORY AND PRACTICAL)

**II. Establishment and furnishing of a new** Microbiology teaching lab. as well as an advanced Molecular Diagnostic Microbiology research lab. at the college (as a Head of the Laboratories Committee)

III. Participation in the establishment and operating the Medical Diagnostic Microbiology Labs at the Unit of Molecular Diagnostics and Personalized Medicine (MDxPM) at the University of Hail as an international medical research center and as a reference labs for the local hospitals as well as for the forthcoming University Hospital. (Member of the MDxPM Committee)

IV. Participation in preparation and development of the study plan of the department  
(Member of the Curricula Committee)

V. As a member of the Quality Committee at the college, we are working to achieve the national and international accreditation of our programs. I am responsible for assuring that we meet the needs of accreditation regarding the teaching resources and infrastructure.

**VI. Research:**

- A. Submitted two research proposals to the KACST for funding in the field of molecular diagnostic microbiology from clinical and environmental samples (1 proposals has been accepted) and another 2 proposals were submitted and accepted for funding by the Deanship of Scientific Research at the University of Hail.
- B. Conducting research in a three funded research projects, one is finished and the other 2 are running.

♣ **AL-ISRA PRIVATE UNIVERSITY**

- ♣ FACULTY: Pharmacy and Nursing
- ♣ ADDRESS: Amman, Jordan
- ♣ EMPLOYMENT PERIOD: September 2008 – September 2010 (2 Years)
- ♣ TITLE: ASSISTANT PROFESSOR

♣ **RESPONSIBILITIES:**

**I. Teaching the following courses:**

1. GENERAL AND PHARMACEUTICAL MICROBIOLOGY
2. GENERAL AND PHARMACEUTICAL BIOCHEMISTRY
3. PHARMACOGENETICS
4. PHARMACEUTICAL BIOTECHNOLOGY (FOR POSTGRADUATE STUDENTS)
5. GENERAL BIOLOGY
6. NUTRITION

II. Participation in establishment of the new research labs at the college of pharmacy for the postgraduate program.

III. Conducting research in Pharmacogenetics

♣ **MODERN COMMUNITY COLLEGE OF HEALTH SCIENCES**

- ♣ DEPARTMENT: Health Control
- ♣ EMPLOYMENT PERIOD: September 2007 – August 2008 (1 Year)
- ♣ TITLE: ASSISTANT PROFESSOR
- ♣ RESPONSIBILITIES:
  1. Teaching the Following courses:  
General Microbiology, General Biochemistry.
  2. Head of the Dept. of Health Control

♣ **INSTIT. OF MEDICAL MICROBIOLOGY, UNIV. OF GOETTINGEN**

- ♣ DEPARTMENT: Medical Bacteriology
- ♣ ADDRESS: Goettingen, Germany
- ♣ EMPLOYMENT PERIOD: February 2003 – November 2006 (4 Years)
- ♣ TITLE: SCIENTIFIC RESEARCHER
- ♣ RESPONSIBILITIES:
  1. Conducting scientific research in the field of molecular parasitology.
  2. Supervision of Master students.
  3. Tutoring undergraduate medical students

♣ **AL-ISLAMYA SECONDARY PRIVATE SCHOOL**

- ♣ ADDRESS: Nablus, Palestine
- ♣ EMPLOYMENT PERIOD: September 1997 – September 2002 (5 Years)

- ♣ TITLE: BIOLOGY TEACHER
- ♣ RESPONSIBILITIES:
  1. Teaching biology for secondary classes and science for intermediate classes.
  2. Conducting training workshops for biology teachers under the supervision of the ministry of higher education.
  3. Participation in national school exhibitions.

♣ **YARMOUK UNIVERSITY, DEPT. OF BIOLOGY**

- ♣ FACULTY: Faculty of Science, Department of Biology
- ♣ ADDRESS: Irbid, Jordan
- ♣ EMPLOYMENT PERIOD: June 1996 – June 1997 (1 Year)
- ♣ TITLE: RESEARCH ASSISTANT
- ♣ RESPONSIBILITIES: Conducting a scientific research in medical and molecular microbiology.

◆ **PERFORMED RESEARCH PROJECTS**

- ⇒ Application of conventional and molecular approaches for investigating the microbiological quality of drinking water in Hail, KSA.
- ⇒ The Impact of Genetic Polymorphisms in CYP3A5, CYP3A4, and ABCB1 on Trough Blood Concentrations of Tacrolimus in Jordanian Pediatric Renal Transplants.
- ⇒ **PHD PROJECT:** Characterization of Alternative NADH Dehydrogenases in the Respiratory Chain of *Toxoplasma gondii* as novel drug targets.
- ⇒ **M.SC. PROJECT:** Molecular Typing of Methicillin Resistant *Staphylococcus aureus* (MRSA) by Antibiogram, RS-PCR, AP-PCR and PFGE.
- ⇒ **B.SC. GRADUATION PROJECT:** Genotyping of Pathogenic *Escherichia coli* by Different Molecular Biology Techniques Including PCR, PFGE, and RFLP.

◆ **CURRENT PROJECTS, SCHOLARSHIPS, AND AWARDS**

♣ **CURRENT RESEARCH PROJECTS AND FUNDS:**

- ♣ Prevalence, Genotyping and Antimicrobial Resistance in *Helicobacter pylori* isolated from patients in Hail.

Role: Principal Investigator

Submitted to: KACST ( King Abdulaziz City for Science and Technology)

Budget: 1,500,000 SR (1.5 Millions)

Status: Preliminary Accepted

- ♣ Identification of *Salmonella* spp. in poultry and their products in Hail by using conventional and molecular methods.

Role: Principal Investigator

Submitted to: KACST (King Abdulaziz City for Science and Technology)

Budget: 100,000 SR

Status: Done

- ♣ Identification of Human Pathogenic Strains of Shiga Toxin *Escherichia coli* from Food and Clinical Samples Isolated from Hail Region by Molecular Typing of Shiga Toxin Genes.

Role: Principal Investigator

Submitted to: University of Hail in 2014

Budget: 80000 SR

Status: Running

- ♣ Microbiological, Molecular identification and antimicrobial resistance of *E. coli* in drinking water collected from Hail.

Role: Co-Investigator

Submitted to: University of Hail in 2014

Budget: 85000 SR

Status: Done



#### PREVIOUS GRANTS, SCHOLARSHIPS AND AWARDS:

- ♣ A grant of 7500 JD (≈1000 USD) from Al-Isra Private University to conduct a research project in the field of Pharmacogenetics.
- ♣ Full scholarship awarded by the "Deutscher Akademischer Austausch Dienst" –DAAD- (German Academic Exchange Service - Bonn) for pursuing postgraduate studies towards the PhD degree in Germany (2002-2006).
- ♣ PATENT for a new anti-malarial and anti-toxoplasmosis drug (HDQ) registered by the University of Goettingen, Germany.
- ♣ Annual honor awards from Dept. of Biology, Yarmouk University (1993-1997).



#### RESEARCH AND TECHNICAL SKILLS

##### **RESEARCH :**

Gene cloning; DNA sequencing; Recombinant protein expression and purification; Immunization and polyclonal antibody production; Western, southern and northern blotting; Transfection; Tissue culturing (Culturing of *Toxoplasma gondii* and *Plasmodium falciparum*), Immunofluorescence staining and microscopy; Gene silencing by antisense RNA; Different types of conventional PCR applications; RT-PCR; Quantitative gene expression analysis by light-cycler (real time RT-PCR); Biochemical analysis of enzymatic activity; Drug inhibition assays, and other related molecular biology techniques. Microbial identification and antimicrobial resistance by using Micscan Talkaway, MALDI-TOF-MS Biotyper, the CheckPoints Microarray, QIAcube for automated DNA and RNA extraction, QIAxel for capillary electrophoresis.

##### **COMPUTER:**

Windows XP, Microsoft Office Package (Word, Excel, Power Point, Access, ...etc), Statistical analysis softwares (SPSS, PRISMA ), Bioinformatics (PHYLIP, DNASTar, Clone manager, Enhance, multiple alignments software).

##### **TEACHING:**

Using computer based teaching methods (SMARTBOARD) which include preparation lecture notes on power point presentations with colored illustrations, figures, videos, and animations. Using the internet resources for supporting the taught material, and contacting with students via the internet to access handouts, assignments, and homeworks.



#### ATTENDED CONFERENCES AND WORKSHOPS

1. Workshop for developing skills needed for writing scientific research proposals by the KACST. University of Hail, 05/02/2013.
2. The 3<sup>rd</sup> Scientific day, Philadelphia Private University, 06 January 2009, Amman, Jordan. (Abstract and Presentation)
3. The 2nd Jordanian Egyptian Conference of Biotechnology: Prospects and Challenges, Nov. 11-13 , 2008, Yarmouk University, Jordan. (Abstract and Presentation)
4. The 5th Palestinian Conference of Lab. Medicine. 28-29 March 2008 Arab American University, Jenin, Palestine. (Abstract and Presentation)

5. International Conference: Cell Organelles of Protozoan Parasites: From Basic Science to Drug Targets, Prague 5-7 June 2006. (Poster and Presentation)
6. Cost Action 857 3rd Annual Workshop: Apicomplexan Biology in Post-genomic Era, 17-20 May 2006, Dresden, Germany (Abstract and Presentation)
7. International Congress of Parasitology, 23-25 March 2006, Vienna, Austria. (Poster)
8. 2<sup>nd</sup> Short Course of Young Parasitologists, 19-22 March 2006, Vienna. (Presentation)
9. International Conference of Candidosis (IFOCAN 2005), 23-25 September 2005 Goettingen, Germany.
10. International Annual Congress of the DGHM and VAAM, 25-28 September 2005 Goettingen, Germany. (Abstract and Poster)
11. Workshop of Molecular Biology Techniques at Bethlehem University organized by UNESCO, October 2000.



#### RESEARCH INTERESTS

- ♣ Molecular identification, genotyping, and antibiotic resistance of pathogenic bacteria in environmental and clinical samples.
- ♣ Impact of inter-individual genetic polymorphisms in genes of drug metabolizing enzymes on drug response and disease risk.
- ♣ Prevalence of genetic variations correlated with human genetic disorders in the Arab population.
- ♣ Studying the antimicrobial potential of herbs used in the local public medicine.



#### PUBLICATIONS

1. Prevalence and antimicrobial resistance of *Salmonella* spp. isolated from chicken portions collected from local markets of Hail city. (Submitted)
2. Application of conventional and molecular approaches for investigating the microbiological quality of drinking water in Hail. *Saudi Journal of Biological Sciences*. (In preparation)
3. Lin SS, Kerscher S, **Saleh A**, Brandt U, Gross U, Bohne W. The *Toxoplasma gondii* type-II NADH dehydrogenase TgNDH2-I is inhibited by 1-hydroxy-2-alkyl-4(1H)quinolones. *Biochim Biophys Acta*. 2008 Nov;1777(11):1455-62. <http://www.ncbi.nlm.nih.gov/pubmed/18786503>
4. **Saleh A**, Friesen J, Baumeister S, Gross U, Bohne W. Growth inhibition of *Toxoplasma gondii* and *Plasmodium falciparum* by nanomolar concentrations of 1-hydroxy-2-dodecyl-4(1H)quinolone, a high-affinity inhibitor of alternative (type II) NADH dehydrogenases. *Antimicrob Agents Chemother*. 2007 Apr;51(4):1217-22. <http://www.ncbi.nlm.nih.gov/pubmed/17242151>
5. **Saleh A**, Bohne W. Characterization and gene sequencing of mitochondrial alternative NADH dehydrogenase 1 in *Toxoplasma gondii*. NCBI GenBank ABB17192.1 <http://www.ncbi.nlm.nih.gov/protein/ABB17192.1>

6. **Saleh A**, Bohne W. Characterization and gene sequencing of mitochondrial alternative NADH dehydrogenase 2 in *Toxoplasma gondii*. NCBI GenBank ABA44355.1 <http://www.ncbi.nlm.nih.gov/protein/ABA44355.1>
7. **Saleh A**, Bohne W. Gene sequencing of F1-ATP synthase beta subunit in the mitochondria of *Toxoplasma gondii*. NCBI GenBank ABB17195.1 <http://www.ncbi.nlm.nih.gov/protein/ABB17195.1>
8. **Saleh A**, Bohne W. Gene sequencing of mitochondrial cytochrome c1 in the respiratory chain of *Toxoplasma gondii*. NCBI GenBank ABB17194.1 <http://www.ncbi.nlm.nih.gov/protein/ABB17194.1>
9. **Saleh A**, Bohne W. Sequence and gene structure of flavoprotein subunit of succinate dehydrogenase in the respiratory chain of *Toxoplasma gondii*. NCBI GenBank ABB17193.1. <http://www.ncbi.nlm.nih.gov/protein/ABB17193.1>
10. Tamer ESSAWI, Kamel ADWAN, Nael ABU-HASSAN, Galeb ADWAN, **Ahmed SALEH**. Typing of Methicillin-Resistant *Staphylococcus aureus* (MRSA) By Ribosome Spacer and Arbitrarily Primed Polymerase Chain Reaction. Turk J Med Sci 34 (2004) 5-9 [http://staff.najah.edu/sites/default/files/Typing\\_Of\\_Methicillin-Resistant\\_Staphylococcus\\_Aureus\\_By\\_Ribosome\\_Spacer\\_And\\_Arbitrarily\\_Primed\\_Polymerase\\_Chain\\_Reaction.pdf](http://staff.najah.edu/sites/default/files/Typing_Of_Methicillin-Resistant_Staphylococcus_Aureus_By_Ribosome_Spacer_And_Arbitrarily_Primed_Polymerase_Chain_Reaction.pdf)



#### SCIENTIFIC MEMBERSHIPS

- ♣ The Arab Molecular Biology Organization.
- ♣ German Society of Parasitology (DGP: Deutsche Gesellschaft fuer Parasitologie), Stuttgart, Germany from 2003 – Now.
- ♣ German Foundation of Hygiene and Microbiology (DGHM), Germany from 2003 – Now
- ♣ National Jordanian Society of Biotechnology, Amman-Jordan from 2005 – Now



#### LANGUAGES

- ♣ **English** : Speaking , reading, writing and understanding: very good. (TOEFL score: 550; 213 computer based test).
- ♣ **German**: 6 months of intensive language courses (3 levels) at Goethe Institute of Goettingen, Germany ended with a DSH certificate (Rating: very good)



#### REFERENCES

1. **Dr. Nael Abu Hassan**, PhD Biochemistry; Biology Department, An-Najah N. University, Nablus-Palestine. **Mobile: 0599265620 Email: nsabuhasan@najah.edu** (MSc Supervisor)
2. **Dr. Kamel Adwan**, PhD Microbiology; Biology Department, An-Najah N. University, Nablus-Palestine. **Mobile: 0598559024 E-mail: adwank@yahoo.com** (MSc Supervisor)
3. **Dr. Mazen Salman**, PhD in Phytopathology, PTUK, Palestine. Mobile +970-(0)-598-491-413, [salman\\_mazen@daad-alumni.de](mailto:salman_mazen@daad-alumni.de)
4. **Dr. Belal Rahhal**, PhD in Physiology, Faculty of Pharmacy, An-Najah N. University, Nablus-Palestine. **Mobile: 0599 362 853 Email: belalrahhal@najah.edu**