



## **Curriculum Vitae**

**"MUHAMAD ALI" KHALIL IBRAHIM SHAKHATREH, Ph.D.**

**Department of Medical Laboratory Sciences, Faculty of Applied Medical Sciences,  
Jordan University of Science and Technology,  
Irbid - Jordan.**

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### **EDUCATION:**

- Ph.D.** 2012: Microbiology, University of Dayton: Department of Biology, Dayton, OH (USA)  
**M.Sc.** 2006: Microbiology and Immunology, University of Louisville- School of Medicine  
Louisville, KY (USA).  
**B.Sc.** 1990: Medical Technology, Jordan University of Science and Technology, Irbid- Jordan.

### **PROFESSIONAL EXPERIENCES:**

- 2018- Present** : Associate Professor (Microbiology), Jordan University of Science and Technology,  
Department of Medical Laboratory Science  
**May 2012 – 2018:** Assistant Professor (Microbiology), Jordan University of Science and Technology,  
Department of Medical Laboratory Sciences  
**2007- 2011** : Graduate Teaching Assistant and Graduate Research Assistant, University of Dayton  
(USA), Dayton, OH  
**1999-2003** : Medical Technologist-Teaching assistant and research assistant: Laboratory Instructor  
for Basic (Medical) Microbiology and Diagnostic (Clinical) Microbiology:  
Faculty of Medicine and Faculty of Applied Medical Sciences: Jordan University of  
Science and Technology  
**1993-1999** : Laboratory Technologist “Supervisor” at the Genetics Laboratory- University of Jordan –  
Medical School

## **RESEARCH EXPERTISE:**

- Diagnostic (Medical) Microbiology techniques and clinical microbiology
- Biochemical and Molecular Identification of Bacterial Pathogens
- Molecular microbiology techniques
- Microscopy: Confocal microscopes.
- *In vivo* model of periodontitis: mouse model of *Porphyromonas gingivalis* infection
- Anaerobic Bacteria
- Microbial oral flora
- Antibacterial and antifungal activities of different new synthetic compounds.
- Techniques of antimicrobial activity
- Bacterial biofilms.
- Thin Layer Chromatography (TLC), Polymerase chain reaction (PCR), *in situ* hybridization, RNA isolation, DNA isolation, DNA plasmid mini-preps.
- Construction of promoter reporter fusions.
- Metgenomics
- Microbial diversity
- Bacterial diversity and community of hot springs and Dead Sea.
- Synthesis of silver nanoparticles by pathogenic bacterial strains.
- Bacterial virulence factors evaluation
- Assessment of Antimicrobial susceptibility profiles of clinical bacterial isolates
- *H. pylori* Infection

## **TEACHING EXPERIENCE:**

### **Courses taught repeatedly (2012-present):**

#### **Jordan University of Sciences and Technology, Irbid, Jordan:**

Department of Medical Laboratory Sciences/ Faculty of Applied Medical Sciences;

Faculty of Medicine

Faculty of Dentistry

#### **\*Courses Taught:**

<b><i>Course</i></b>	<b><u>Undergraduate / Graduate Level</u></b>
ADVANCED CLINICAL LABORATORY TRAINING	G
ADVANCED MICROBIOLOGY AND IMMUNOLOGY	G
SPECIAL TOPICS IN CLINICAL MICROBIOLOGY	G
CLINICAL MICROBIOLOGY (I)	U
CLINICAL MICROBIOLOGY (II)	U
CLINICAL MICROSCOPY	U
IMMUNOLOGY	U
ORAL MICROBIOLOGY	U
ADVANCED CLINICAL MICROBIOLOGY AND IMMUNOLOGY I/BACTERIOLOGY	G
ADVANCED DIAGNOSTIC MICROBIOLOGY PRACTICAL TRAINING 1	G
ADVANCED MEDICAL MICROBIOLOGY AND IMMUNOLOGY	G
CLINICAL MICROBIOLOGY HOSPITAL LABORATORY PRACTICE	G
CLINICAL MICROSCOPY - HOSPITAL LABORATORY PRACTICE	U
CLINICAL MICROBIOLOGY HOSPITAL LABORATORY PRACTICE	U

## **RESEARCH INTERESTS:**

### **• Medical Microbiology (Bacteriology):**

- Bacterial Pathogenesis
- Host - Pathogen Interactions
- Bacterial Virulence Genes (Factors)
- Oral microbiology: Microbial Pathogenesis : Oral cavity microorganisms (pathogens and normal flora)
- Antibacterial and antifungal activities of new synthetic compounds

- Bacterial biofilms: Evaluation (assessment) of bacterial biofilm production capacity and antibiotic susceptibility (Antimicrobial Susceptibility Profile)
- Antimicrobial resistance in bacteria : Antibiotic resistance
- *In vivo* dynamics of the quorum sensing - related Interplay during interaction between the bacterium, and its eukaryotic host.
- Microbiological analysis and antimicrobial activity of Jordanian hot-springs water.
- Investigation of the microbial diversity in Jordanian hot springs by metagenomic analysis
- Examining microbial communities in the Dead Sea water through Amplicon sequencing using next-generation technology.
- Effect of waterpipe smoking on oral microbial flora
- Biosynthesis of silver nanoparticles from *Citrobacter freundii* as antibiofilm agents
- *H. pylori* Infections
- Association of bacteria with skin cancer development
- Effect of Breast Milk - Derived Microbiota on Pathogenic bacteria
- Biofilm Formation and Antimicrobial Resistance of *Pseudomonas aeruginosa*

### **JOURNAL REVIEWER ACTIVITIES:**

Reviewer for the Jordan Journal of Biological Sciences (JJBS),

Reviewer for Advances in Applied Microbiology (AAM): (ADV APPL MICROBIOL) journal

### **Publications:**

1. **Shakhatreh MAK**, Rabaiah HH, Khabour OF, Jacob JH, Alzoubi KH. Detection of Virulence Factors and Antimicrobial Susceptibility among Clinical Strains of *Enterococcus faecalis*. Curr Pharm Biotechnol. 2025 Sep 26. doi: 10.2174/0113892010388498250818114856. Online ahead of print. PMID: 41029013
2. **Muhamad Ali K. Shakhatreh**, Nadeen M. Alotaiby , Diala Alshiyab , Zaid Shakhatreh, Jacob H. Jacob, Mo'ath M. Alrjoub. Effect of orally administered *Fusobacterium nucleatum*, *Bifidobacterium animalis*, and *Lactobacillus bulgaricus* on skin cancer development in a mouse model. Jordan Journal of Biological Sciences (JJBS) <https://doi.org/10.54319/jjbs/180311> Volume 18, Number 3, September 2025  
Pages 479 – 485
3. **Shakhatreh MAK**, Al-Ghawrie HM, Meqdam MM, Shakhatreh Z, Khair IY, Tabnjh AK , Jacob JH, Khabour MO, Alzoubi KH. Possible Association of Carbapenemase Production with Susceptibility Pattern and Resistance Genes Among Carbapenemase Producing Enterobacterales from Blood Isolates or Bacteremic Patients. Infection and Drug Resistance. May 2025. 18:2569-2579 . doi: 10.2147/IDR.S519561 eCollection 2025. PMID: 40395971
4. **Shakhatreh MAK**, Al-Rawi OF, Swedan SF, Alzoubi KH, Khabour OF, Al-Fandi M. Biosynthesis of silver nanoparticles from *Citrobacter freundii* as antibiofilm agents with their cytotoxic effects on human cells. Curr Pharm Biotechnol. 2020 Oct 20. doi: 10.2174/1389201021666201020162158. Online ahead of print. PMID: 33081683

5. **Shakhatreh MAK**, Khabour OF, Alzoubi KH, BaniHani MN, Abu-Siniyeh A, Bashir NA, Sabi SH, Mahafdah M. The Influence of IL-1B Gene Polymorphisms on *H. pylori* Infection and Triple Treatment Response Among Jordanian Population. *Appl Clin Genet*. 2020 Jul 2;13:139-145. doi: 10.2147/TACG.S253778. eCollection 2020. PMID: 32669867 Free PMC article.
6. BaniHani MN, Khabour OF, Alzoubi KH, Bashir NA, **Shakhatreh MAK**, Sabi SH, Alrabadi N. The Association between *ABCB1* C1236T/C3435T SNPs and *H. pylori* Infection among Jordanians. *Genes (Basel)*. 2020 Jan 5;11(1):63. doi: 10.3390/genes11010063
7. Hussein EI, Jacob JH, **Shakhatreh MAK**, Al-Razaq MAA, Juhmani AF, Cornelison CT. Detection of antibiotic-producing Actinobacteria in the sediment and water of Ma'in thermal springs (Jordan). *Germes*. 2018 Dec 3;8(4):191-198. doi: 10.18683/germes.2018.1146. eCollection 2018 Dec. PMID: 30775338
8. Jacob H. Jacob, Emad I. Hussein, **Muhamad Ali K. Shakhatreh**, Mutaz A. Abd Al-Razaq, 1 2,3, 4 2 Abdul-Salam F. Juhmani, Ala'a I. Matalka and Christopher T. Cornelison. High-Throughput Sequencing-Based Review of *Bacillus* Diversity in Jordanian Hot Springs Water. *World Applied Sciences Journal* 36 (3): 470-475, 2018 DOI: 10.5829/idosi.wasj.2018.470.475
9. **Muhamad Ali K. Shakhatreh** , Samer F. Swedan , Ma'en A. Al-Odat , Omar F. Khabour. Uropathogenic *Escherichia coli* (UPEC) in Jordan: Prevalence of Urovirulence Genes and Antibiotic Resistance. *Journal of King Saud University – Science*. Available online 21 March 2018  
Article In Press, Accepted Manuscript: DOI: 10.1016/j.jksus.2018.03.009.
10. Mohammad A. Azab, Omar F. Khabour, Karem H Alzoubi, Mohammad A. Alzubi, Majed M. Masadeh, **Muhamad Ali K. Shakhatreh**. Chromosomal damage at bone-marrow cells is induced by exposure of rats to waterpipe water filtrate. *Drug Chem Toxicol*. 2018 Apr 3:1-5. doi: 10.1080/01480545.2018.1452933  
Published online: 03 Apr 2018.
11. **Shakhatreh MAK**, Khabour OF, Alzoubi KH, Masadeh MM, Hussein EI, Bshara GN. Alterations in oral microbial flora induced by waterpipe tobacco smoking. *Int J Gen Med*. 2018 Feb 2;11:47-54.
12. Hussein EI, Jacob JH, **Shakhatreh MAK**, Abd Al-Razaq MA, Juhmani AF, Cornelison CT. Exploring the microbial diversity in Jordanian hot springs by comparative metagenomic analysis. *MicrobiologyOpen*. 2017 Dec;6(6). doi: 10.1002/mbo3.521. Epub 2017 Aug 10.
13. Jacob JH, Hussein EI, **Shakhatreh MAK**, Cornelison CT. Microbial community analysis of the hypersaline water of the Dead Sea using high-throughput amplicon sequencing. *MicrobiologyOpen*. . 2017 Oct;6(5). doi: 10.1002/mbo3.500. Epub 2017 Jul 5.
14. **Shakhatreh MA**, Jacob JH, Hussein EI, Masadeh MM, Obeidat SM, Juhmani AF, Abd Al-Razaq MA . Microbiological analysis, antimicrobial activity, and heavy-metals content of Jordanian Ma'in hot- springs water. *J Infect Public Health*. 2017 Nov - Dec;10(6):789-793. doi: 10.1016/j.jiph.2017.01.010. Epub 2017 Feb 14.

15. **Shakhatreh MA**, Al-Smadi ML, Khabour OF, Shuaibu FA, Hussein EI, Alzoubi KH. Study of the antibacterial and antifungal activities of synthetic benzyl bromides, ketones, and corresponding chalcone derivatives. *Drug Des Devel Ther.* 2016 Nov 8;10:3653-3660.
16. Masadeh MM, Hussein EI, Alzoubi KH, Khabour O, **Shakhatreh MA**, Gharaibeh M. Identification, characterization and antibiotic resistance of bacterial isolates obtained from waterpipe device hoses. *Int J Environ Res Public Health.* 2015 May 13;12(5):5108-15.
17. Al-Bashaireh K, Elserogy AR, Hussein E, **Shakhatreh M**. Genuine or forged? Assessing the authenticity of a confiscated manuscript using radiocarbon dating and archaeometric techniques. *Archaeological and Anthropological Sciences* (p1-7). 2015.
18. **Shakhatreh MAK** and Robinson JB. The cell division gene *ftsZ2* of *Sinorhizobium meliloti* is expressed at high levels in host plant *Medicago truncatula* nodules in the absence of *sinI*. *African Journal of Microbiology Research.* January, 2012. Vol. 6(3), pp. 499-503.
19. Hajishengallis G, Wang M, Liang S, **Shakhatreh MA**, James D, Nishiyama S, Yoshimura F, Demuth DR. Subversion of innate immunity by periodontopathic bacteria via exploitation of complement receptor-3. *Adv Exp Med Biol.* 2008;632:203-19. Review.
20. Hajishengallis G, **Shakhatreh MA**, Wang M, Liang S. Complement receptor 3 blockade promotes IL-12-mediated clearance of *Porphyromonas gingivalis* and negates its virulence *in vivo*. *J Immunol.* 2007 Aug 15;179(4):2359 - 67.
21. Wang M, **Shakhatreh MA**, James D, Liang S, Nishiyama S, Yoshimura F, Demuth DR, Hajishengallis G. Fimbrial proteins of *porphyromonas gingivalis* mediate *in vivo* virulence and exploit TLR2 and complement receptor 3 to persist in macrophages. *J Immunol.* 2007 Aug 15;179(4):2349-5

#### **CONFERENCES, MEETINGS, WORKSHOPS:**

- Participated in pre-implantation genetic diagnosis workshop- Fluorescent in Situ Hybridization (FISH) - Genetics Laboratory-Jordan University: November, 1998.
- Participated in WHO international training course “Surveillance of Food Borne *Salmonella* and Antimicrobial Resistance in Food Borne Pathogens (Level 2): June, 2002.
- Attended American Society for Microbiology-105<sup>th</sup>- General Meeting –Atlanta- Georgia-USA. *Microarrays workshop*: June 5-9, 2005.
- Attended “Testing and Evaluation” workshop; 12 hours. 18-19 July, 2012. Academic Development and Quality Assurance Center. Jordan University of Science and Technology. Jordan
- Attended “Statistical Package for Social Sciences” workshop; 12 hours. 8-9 July, 2012. Academic Development and Quality Assurance Center. Jordan University of Science and Technology. Jordan
- Attended “Scientific Manuscript Writing” workshop, 10-11 Dec, 2014, RESCAP-MED, Dead Sea,

Jordan

- Attended Symposium on Molecular Genetics of Human Diseases: The First German Jordanian Meeting: Molecular Genetics of Human Disease: 2015: Philadelphia University- Jordan.
- Participated in “Assessment & Innovative Teaching in Applied Medical Science” workshop, 19-20 January 2016, Academic Development and Quality Assurance Center. Jordan University of Science and Technology. Jordan
- Attended Biorisk Management (Biosafety) Workshop for Jordanian universities (15th of October, 2017) Biosafety Workshop: Princess Haya Biotechnology Center (PHBC) at the Jordan University of Science and Technology

#### **OTHER ACTIVITIES AND DUTIES:**

2016: Representative of the Department of Medical Laboratory Sciences; Jordan University of Science and Technology for JUST Student Union elections

#### **PRESENTATIONS AND SEMINARS**

##### **ORAL PRESENTATIONS (SCIENTIFIC CONFERENCES):**

Title: Impact and influence of waterpipe tobacco smoking on bacterial oral flora:

2<sup>nd</sup> World Congress On Infectious Diseases: August 24 - 26, 2016 in Philadelphia ; Pennsylvania: USA.

##### **Poster:**

ESCMID/ASM Conference on Drug Development to Meet the Challenge of Antimicrobial Resistance (ESCMID/ASM :European Society for Clinical Microbiology / Infectious Diseases and American Society for Microbiology)

Title: Study of antibiotic susceptibility & biofilm production of bacteria isolated from diabetic foot ulcer patients

LISBON, Portugal: 4-7 September 2018: 4–7 September 2018, Lisbon, Portugal.

##### **CONFERENCE ABSTRACTS:**

Muhamad Ali Shakhathreh, Omar Khabour, Alzoubi KH, Majed Masadeh, Emad Hussein, George Bshara, Impact and Influence of Waterpipe Tobacco Smoking on Bacterial Oral Flora. Society for Research on Nicotine and Tobacco Annual meeting. Feb 21-24, 2018 Baltimore, VA, USA. Poster

Muhamad Ali K Shakhathreh, Omar F Khabour, Karem H Alzoubi, Majed M Masadeh, Emad I Hussein and George N Bshara . Impact and influence of waterpipe tobacco smoking on bacterial oral flora. Jordan University of Science and Technology, Jordan. J Infect Dis Ther 2016, 4:4(Suppl).2nd World Congress on Pediatric Care & Pediatric Infectious Diseases and the International conference on Pediatric Care & Pediatric Infectious Diseases: August 24 - 26, 2016 in Philadelphia ; Pennsylvania: USA

Ammar K. Daoud, Rana A. Shbat, Omar F. Khabour, Mohammad A. Shakhatreh, Ayman M. Abu Awad . Higher Plasma Adiponectin Levels in Patients with Atopic Dermatitis. , Journal of Allergy and Clinical Immunology, Vol 135:2 February 2015. The American Academy of Allergy, Asthma & Immunology (AAAAI) 2015 AAAAI Annual Meeting (February 20-24, 2015), Houston, Texas

## **GRADUATE STUDENTS:**

### **Academic Supervision (Master Students):**

#### **\*\* Major Supervisor for the following M.Sc. students:**

**Sponsor/Agency (Funded Grants): Deanship of Research, Jordan University of Science and Technology.**

1. Ma'en Abdallah Al-Odat: Department of Medical Laboratory Sciences,  
Jordan University of Science and Technology: (Graduated in 2014)  
**Thesis title:** Assessment of Pathogenic Potential of Urinary *Escherichia coli* Isolates by the Detection of Several Urovirulence Genes.
2. Fatima Adamu Shuaibu: Department of Medical Laboratory Sciences, Jordan  
University of Science and Technology: (Graduated in 2014)  
**Thesis title:** Antibacterial and antifungal activities of selected chalcone derivatives
3. Nazik Ali Yousef Ajo: Department of Medical Laboratory Sciences, Jordan University  
of Science and Technology: (Graduated in 2016)  
**Thesis title:** Evaluation of biofilm production and antibiotic susceptibility of bacteria isolated from diabetic foot ulcer patients.
4. Omar Farhan Ammar: Department of Medical Laboratory Sciences, Jordan University  
of Science and Technology: (2016: Defense was in August 2017)  
**Thesis title:** Biosynthesis of silver nanoparticles from *Citrobacter freundii* as Anti-Biofilm Agents with their cytotoxicity effects on human cells.
5. Nada Ghazi Latayfeh: Department of Medical Laboratory Sciences, Jordan University  
of Science and Technology: (2016: Defense was in May 2018)  
**Thesis title:** Assessment of Biofilm Production Capacity, Antimicrobial Susceptibility Profile, and Prevalence of biofilm virulence Genes of *Staphylococcus aureus* Isolated From Clinical Blood Culture specimens in Jordan.
6. Frarah Husam Atawneh: Department of Medical Laboratory Sciences, Jordan University  
of Science and Technology: (2016: Defense was in January 2018 )  
**Thesis title:** Asymptomatic vaginal colonization, virulence, biofilm formation, and antimicrobial resistance of *Streptococcus agalactiae* among Jordanian pregnant women.
7. Hana' Hamad Mohammad Rabaiah : Department of Medical Laboratory Sciences, Jordan University  
of Science and Technology: (Defense was in January, 2019)  
**Thesis title:** Evaluation of antimicrobial susceptibility, biofilm formation capacity, and virulence genes of clinical *Enterococcus faecalis* isolates from northern of Jordan



8. Hadeel Marzouq Al-Ghawrie : Department of Medical Laboratory Sciences, Jordan University of Science and Technology: (Defense was in August 2020)  
**Thesis title:** Detection and Characterization of Carbapenem-Resistant *Enterobacteriaceae* Causing Bacteremia in Jordanian Patients
9. Ansam Issa Alsarayreh : Department of Medical Laboratory Sciences, Jordan University of Science and Technology: (Defense was in August 2021)  
**Thesis title:** Biofilm Formation and Antimicrobial Resistance of *Pseudomonas aeruginosa* among Chronic Suppurative Otitis Media Jordanian Patients
10. Ola Ahmad Alsharif : Department of Medical Laboratory Sciences, Jordan University of Science and Technology: (Defense was in January 2023)  
**Thesis title:** The Effect of Breast Milk - Derived Microbiota on *Streptococcus pneumoniae*
11. Nadeen Motasem Alotaiby: Department of Medical Laboratory Sciences, Jordan University of Science and Technology: (Defense was in January 2023)  
**Thesis title:** Association of *Fusobacterium nucleatum*, *Bifidobacterium animalis*, and *Lactobacillus bulgaricus* on skin cancer Development

**\*\* Co-advisor for the following M.Sc. students:**

1. Heba Mohammad Obeidat: Medical Laboratory Sciences, Jordan University of Science and Technology: (Graduated in 2014)  
**Thesis title:** Prevalence and molecular characteristics of *Streptococcus mutans* isolated from healthy and diabetic individuals.
2. Rana Adnan Shobat: Medical Laboratory Sciences, Jordan University of Science and Technology: (Graduated in 2014)  
**Thesis title:** Association between adiponectin gene polymorphisms and atopic dermatitis.
3. Haytham Qinawi : Periodontology, Jordan University of Science and Technology: (Defense in Feb, 2021)  
**Thesis title:** Antimicrobial susceptibility, biofilm formation capacity and incidence of virulence genes of *E. faecalis* isolated from Jordanian patients with Periodontitis and secondary root canal infections

**\*\*Thesis examination committee member for the following M.Sc. students**

- Hebah Jehad Khaled : Medical Laboratory Sciences: Jordan University of Science and Technology (Defense was in June, 2020)
- Suad Mustafa Al-kloub: Medical Laboratory Sciences: Jordan University of Science and Technology (Defense was in January, 2020)
- Falak Hisham Khasawneh : Medical Laboratory Sciences: Jordan University of Science and Technology ;(Graduated in 2017)
- Wesam Shafeq Ahmed :Clinical Pharmacy ;(Graduated in 2016)
- Nadia Mahmoud Al- Yahya: Medical Laboratory Sciences ;(Graduated in 2016)
- Adan Hasan Alnaamneh: Applied Biological Sciences; Jordan University of Science and Technology (Graduated in 2016).

- Fadya Adnan: Department of Biological Sciences (Biotechnology): Yarmouk University; (Graduated in 2016)
- Musa Hassan Muhammad: Medical Laboratory Sciences ;(Graduated in 2014)
- Munir Garba: Medical Laboratory Sciences ;(Graduated in 2014)
- Razan Fares Alawneh: Medical Laboratory Sciences ;(Graduated in 2014)
- Rama Fauzi Abu-Alhayjaa :Medical Laboratory Sciences ;(Graduated in 2014)
- Rahamat Ismail Ishaq: Medical Laboratory Sciences ;(Graduated in 2014)

#### **EXTERNAL FUNDED RESEARCH:**

- Ongoing Project: Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research , Jordan
- Dr. Karem Alzoubi (PI), Dr. Muhamad Shakhathreh (Co-PI), Dr. Mohammed Bani hani (Co-I), Dr. Omar Khabour (Co-I) and Dr. Nabil Albasheer (Co-PI), 2017-2020 “Genetic factors that modulate Helicobacter pylori eradication among Jordanian patients” Sponsor/Agency: The Scientific Research Support Funds, Ministry of Higher Education and Scientific Research, Amman, Jordan. Amount: \$54440

#### **PROFESSIONAL AFFILIATIONS:**

American Society of Microbiology

#### **COMMUNITY SERVICES:**

Participated in the free medical day in Jumana Bint Abi-Talib School/ Al-Ramtha in 13/11/2014 (conducted medical analyses for students and local residents)

Participated in the free medical day in Almazar Secondary School (Irbid): 13/5/2015 (conducted medical analyses for students and local residents)

#### **FACULTY OF APPLIED MEDICAL SCIENCES COMMITTEES (JUST)**

- 2012- 2013: Medical Laboratory Sciences department representative at Faculty of Applied Medical Science Council (Committee)
- 2013 - 2014: Medical Laboratory Sciences department representative at Faculty of Applied Medical Science Council (Committee)
- 2015 - 2016: Medical Laboratory Sciences department representative at Faculty of Applied Medical Science Council (Committee)
- 2015-2016: Member of student issues: Faculty of Applied Medical Science Council (Committee)

#### **DEPARTMENT OF MEDICAL LABORATORY SCIENCES COMMITTEES (JUST)**

2016 – 2018 : Member of the graduate studies and scientific research committee

2016 – 2017 : Member of the accreditation, curriculum, and field training committee

2015 - 2016 : Member of the graduate studies and scientific research committee

2015 - 2016 : Member of the accreditation, curriculum, and field training committee

2015 - 2016: Member in the scientific and social activities committee

2014 - 2015: Member of the graduate studies and scientific research committee

2014 - 2015: Member of the accreditation, curriculum, and field training committee

2014 - 2015: Member in the scientific and social activities committee

2013 - 2014 : Member in the accreditation, curriculum, and field training committee

2013 - 2014: Member in the scientific and social activities committee

2013 - 2014 : Member in field training assessment and supervision committee

2012 - 2013 : Member in the scientific and social activities committee

2012 - 2013 : Member in the accreditation, curriculum, and field training committee