

CURRICULUM VITAE

MOHAMMAD AL-KAFAWEEN, Ph.D.

PERSONAL DATA

Date of Birth: October 25, 1988

Place of Birth: Al-karak – Jordan

Nationality: Jordanian

Marital Status: Married

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EDUCATION

Qualification	University	Country	Year
Ph.D. In Molecular Microbiology and Cell Biology	Universiti of Sultan Zainal Abidin/ Faculty of health Science	Malaysia	2016-2021
M. SC. In Biology	Mu'tah University/ Faculty of Science	Jordan	2013-2015.
B. SC. In Plant Production	Mu'tah University/Faculty of Agriculture	Jordan	2006-2011.

LANGUAGES

Arabic & English

COMPUTER SKILLS

1. Microsoft Windows, Office package
2. Internet use in research and drug information

FIELD OF SPECIALIZATION

1. Molecular biology
2. Microbiology
3. Cell biology
4. Plant biology

EMPLOYMENT

2011-2013	Teacher at Al-Karak Secondary Schools (Biology).
2013-2014	Teacher at Fursan Al Karak Academy (Biology).
2013 -2015	Research assistant with Prof Khaled Khleifat at Mu'tah University. Faculty of Science.
2016 -2018	Research assistant with Assoc. Prof Hilmi Abu baker at Faculty of Medicine and Health sciences (Microbiology and cell biology) (UniSZA/2017/DPU/37 R0018-R341. Malaysia.
2018 -2020	Research assistant Assoc. Prof Hilmi Abu baker at Faculty of Medicine and Health sciences (Molecular Microbiology). (UniSZA/2018-2020/DPU/13: R0034-R013). Malaysia.

TEACHING EXPERIENCE

1. General biology 1
2. General biology 2
3. Biology I Laboratory
4. Biology II Laboratory
5. Microbiology Lab
6. Cell biology
7. Molecular biology

LIST OF CONFERENCES & WORKSHOPS

1. FSK Postgraduate Colloquium at library auditorium Universiti Sultan Zainal Abidin Terengganu.
2. FSK Postgraduate Colloquium at BA 101 & 102 Universiti Sultan Zainal Abidin Gong Badak Campus.
3. Research Methodology (Universiti Sultan Zainal Abidin Gong Badak Campus).
4. Basic Application and Maintenance for Pipetting and Centrifuge Eppendorf (Universiti Sultan Zainal Abidin Campus Kota).
5. Real-Time PCR Hand-On Course, 11 Sep 2017 - 15 Sep 2017, USM.
6. International Conference On Pharmaceutical Research And Pharmacy Practice Cum 14th Iium-Mps Pharmacy Scientific Conference, Hotel Istana, Kuala Lumpur, Malaysia (19 Oct 2019 - 20 Oct 2019).
7. International Congress Of The Tunisian Society Of Biological Sciences (Atsb) Held In Sousse, Tunisia 25-28-March-2019.
8. International Conference On Pharmaceutical Research And Pharmacy Practice Cum 14th Iium-Mps Pharmacy Scientific Conference, Hotel Istana, Kuala Lumpur, Malaysia (19 Oct 2019 - 20 Oct 2019)
9. International Congress Of The Tunisian Society Of Biological Sciences (Atsb)

Held In Sousse, Tunisia 25-28-March-2019.

10. The First Rmutt Food Innovation And Smart Farm International Conference, Rajamangala University Of Technology Thanyaburi, Thailand, Thailand (05 Jul 2019 - 06 Jun 2019).

11. International Community Health Conference 2017, UniSZA, Malaysia (07 Oct 2017 - 09 Oct 2017).

SKILLS

PCR	Gel Electrophoresis	Antibiofilm Activity
RT-qPCR	RT-PCR	Antibacterial Activity
StepOne software Gene Expression	DNA Extraction	Scanning Electron Microscopy
Microarray	RNA Extraction	Transmission Electron Microscopy
Natural Product	Antioxidant	Plant Extracts
Honey	Propolis	Antibiotic Susceptibility Test
Pathway analysis by software's	DAVID Bioinformatics Resources 6.8	WikiPathways

RESEARCH AREAS OF INTEREST

Understanding the mechanisms of antimicrobial resistance, the role of quorum sensing in biofilm formation and resistance to different antimicrobials.

Studying the synergistic antimicrobial interaction between honey and antibiotics against planktonic and biofilm.

Studying the antimicrobial interaction between honey, propolis, medicinal plant, and antibiotics against planktonic and single and dual species biofilm.

Studying the natural alternative sources for antimicrobial, antibiofilm and anti-virulence as honey, medicinal plants and propolis, which is an effective antimicrobial alternative without development of microbial resistance.

Studying the effects of honey, propolis and medicinal plants on gene expression profiling using microarray and RT-qPCR.

Studying the effectiveness of honey, propolis and medicinal plants against cancer treatment by using experimental animal study.

Assessment of probiotics on planktonic, biofilm formation and virulence-associated genes of *E.coli*, *Salmonella*, *Shigella* and *Campylobacter*.

Studying the combination of probiotics and honey, propolis and medicinal plants on planktonic and biofilm formation and virulence-associated genes of *E.coli*, *Salmonella*, *Shigella* and *Campylobacter*.

Effectiveness of natural product and probiotics on planktonic cultures and static biofilms production by clinical isolates of *Pseudomonas aeruginosa*, *Streptococcus pyogenes*, and *Staphylococcus aureus* by using microarray and real-time PCR.

Studying the comparative genomics of clinical strains of *Pseudomonas aeruginosa*, *Streptococcus pyogenes*, and *Staphylococcus aureus* strains after following treatment with Honey and probiotics using microarray and Real-Time PCR.

Studying the effects of honey on chronic wound, ulcers, and burns.

PUBLICATIONS

1. **Al-kafaween**, M.A., et al., Antibacterial and Antibiofilm activities of Malaysian Trigona honey against *Pseudomonas aeruginosa* ATCC 10145 and *Streptococcus pyogenes* ATCC 19615. Jordan Journal of Biological Sciences, 2020. **13**(1): p. 69 - 76. **Main author. Indexed by: Scopus Q3.**
2. **Al-kafaween**, M.A., et al., *Pseudomonas aeruginosa* and *Streptococcus pyogenes* Exposed Malaysian Trigona Honey In Vitro Demonstrated Downregulation of Virulence Factor. Iranian Journal of Biotechnology, 2020. **18**(4): p. 115-123. **Main author. Indexed by: Scopus ISI Q3.**
3. **Al-Kafaween**, M.A., et al., Antibacterial properties of selected Malaysian Tualang honey against *Pseudomonas aeruginosa* and *Streptococcus pyogenes*. Iranian Journal of microbiology, 2020. **12**(6): p. 565-576. **Main author. Indexed by: Scopus ISI Q3.**
4. **Al-Kafaween**, M.A., et al., Characterization of biofilm formation by *Escherichia coli*: An in vitro study. Journal of Applied Biology & Biotechnology Vol, 2019. **7**(03): p. 17-19. **Main author. Indexed by: Scopus Q4.**
5. **Al-Kafaween**, M.A., et al., Effects of Trigona honey on the Gene Expression Profile of *Pseudomonas aeruginosa* ATCC 10145 and *Streptococcus pyogenes* ATCC 19615. Jordan Journal of Biological Sciences, 2020. **13**(2): p. 133 - 138. **Main author. Indexed by: Scopus Q3.**
6. **Al-Kafaween**, M.A., et al., Effect Of Kelulut Honey On Biofilm Formation Of *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Escherichia coli* And Results In Differential Expression Of Virulence Gene. Jordan Journal of Pharmaceutical Sciences, 2021. **14**(1): 9-26. **Main author. Indexed by: Scopus Q3.**
7. **Al-Kafaween**, M.A., et al., Potential Antibacterial Activity Of Yemeni Sidr Honey Against *Pseudomonas aeruginosa* And *Streptococcus pyogenes*. Anti-Infective Agents, 2021. **19**(4): 1-15. **Main author. Indexed by: Scopus Q4.**
8. **Al-Kafaween**, M.A., et al., Antibacterial activity of selected varieties of Malaysian honey against *Escherichia coli*: A comparative study. The International Arabic Journal of Antimicrobial Agents, 2021. **11**(1:3). **Main author. Indexed by: Scopus Q4.**
9. **Al-Kafaween**, M.A., et al., Evaluation Of Antibacterial And Antibiofilm Activities Of Stingless Bee Trigona Honey(Malaysia)Against *Streptococcus pneumoniae*.The International Arabic Journal of Antimicrobial Agents, 2021. **11**(2:1). **Main author. Indexed by: Scopus Q4.**
10. **Al-Kafaween**, M.A., et al., Effect of Trigona honey on *Escherichia coli* cell culture growth: In vitro study. Journal of Apitherapy, 2019. **5**(2): p. 10-17. **Main author. Another index**
11. **Al-Kafaween**, M.A., et al., Determination of optimum incubation time for formation of *Pseudomonas aeruginosa* and *Streptococcus pyogenes* biofilms in microtiter plate. Bulletin of the National Research Centre, 2019. **43**(1): p. 1-5. **Main author. Another index**
12. **Al-Kafaween**, M.A., et al., In Vitro Investigation on the Effectiveness of Trigona Honey against Biofilm Formation by *Escherichia coli*. EC Microbiology, 2020. **16**(4): p. 83-89. **Main author. Another index.**
13. **Al-Kafaween**, M.A., et al., Effect of Growth Media and Optical Density on Biofilm Formation by *Staphylococcus epidermidis*. EC Microbiology, 2019. **15**(4): p. 277-282. **Main author. Another index.**
14. **Al-Kafaween**, M.A., et al., A Review of Confirmed Cases, Deaths and Recovered of Novel Coronavirus (Covid-19) Based on Current Evidence: A Mini Review. International Journal of Multidisciplinary Sciences and Advanced Technology, 2020. **1**(Special Issue Covid-19): p. 95-107. **Main author. Another index.**

15. Iman albtoush, Abdullah alrawashdeh, **Mohammad A. Kafaween**, Malnutrition in Hemodialysis Patients in Al-Karak Governorate in Jordan. International Journal of Multidisciplinary Sciences and Advanced Technology, 2021. 2(6): 34–41. *Co-author. Another index.*
16. **Al-Kafaween**, M.A., et al., *Pseudomonas aeruginosa* strain:ATCC 10145 Genome sequencing and assembly. BioProject - NCBI. NCBI;PRJNA533327, <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA533327>., 2018. *Main author. NCBI Project.*
17. **Al-Kafaween**, M.A., et al., *Pseudomonas aeruginosa* strain ATCC 10145. Sequence Read Archive (SRA). SRR12680080. NCBI. <https://www.ncbi.nlm.nih.gov/sra/?term=prjna533327>, 2020. *Main author. NCBI Project.*

PROFESSIONAL MEMBERSHIP

1. Member, Member of Microbiology Society, Uk,
2. Member, Member of Malaysian Society for Microbiology

ACADEMIC ECOSYSTEM

1. Reviewer and editorial member for Ijmsat Journal.
2. Reviewer and editorial member for Cell Biology Journal .
3. Reviewer, reviewer for Iranian journal of microbiology.