Khaled M Khleifat
Professor of Microbiology and Biotechnology
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Mutah University, Department of Medical Laboratory Science,
College of Allied Medical Sciences
P. O. Box (7) Mutah, Karak, 61710, Jordan
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PERSONAL DETAILS:

Nationality	: Jordanian
Place & Date of Birth	: Jordan, Wadi Mousa. 15 th, March, 1966
Marital Status	: Married
Dependents	: 2

WORK ADRESS Dept. of Biology, College of Science, Mutah University, P.O.Box (7) Mutah, Karak, 61710, Jordan
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EDUCATION

1972- 1981 AL-Taybeh Preparatory School, Maan, Jordan
1982- 1984 Maan Secondary School, Maan, Jordan
1984- 1988 Biology Dept. Faculty of Science, Sallah-Addin, University, Arbil, Iraq
1990- 1993 Biology Dept. Faculty of Science, Ankara, Turkey
1995- 1999 Biology Dept. Illinois Institute of Technology, Chicago, USA

DEGREE

1988 B. Sc. Microbiology, Faculty of Sciences, Arbil, Iraq
1993 M. Sc. Biology, Faculty of Sciences, Ankara, Turkey
1999 Ph. D. Biology (Illinois Institute of Technology, Chicago, USA

Ph.D. THESIS

2, 4-DNT Dioxygenase Purification from Recombinant E. coli Strain PFJS39, its Characterization and Interaction With the bacterial Hemoglobin Expressed by vgb.

M.Sc. THESIS

Ultra-Structure of Kidney After Bile Duct Ligation in Rabbit

ACADEMIC RANKS

- **1999- 2004** Assistant professor, Mutah University, Jordan
- **2004-2008** Associate Professor, Mutah University, Jordan
- **8/8/2008** Professor in Microbiology (With one year seniority)

FIELD OF SPECIALIZATION

Microbiology (MICROBIAL BIOTECHNOLOGY)
Gene Cloning, Enzyme Purification, Identification of bacteria, Bioremediation, Medical microbiology, Biosynthesis and characterization of nanoparticles. Heavy Metal Uptake, Biochemical and Physiological

Studies, Environmental Pollution and mathematical modeling of the biodegradation

CURRENT RESEARCH INTERESTS

- Medical microbiology
- Nano-biotechnology
- Parasitology
- Anticancer and some physiological studies
- Isolation and identification of organic compounds-degrading bacteria, in different locations in south Jordan.
- Heavy metals uptake in bacteria.
- Bacterial hemoglobin biotechnology:
  - effect on heavy metal bioaccumulation,
  - enzyme productivity,
  - response to antioxidants in bacteria.
- Some local work on environmental pollution including bacterial composition of waste water, Enzyme purification and kinetics.

AWARDS

- **2017** Staff Mobility For Training (Academic Visitor), Staffordshire University, UK, Erasmu+KA, EU-funded academic project programme agreement no. 2 18.1.2017-4.2.2017
- **2010-** DFG preparatory short visit scholarship (Host was Karl-Josef Dietz Bilafiled University/Germany), Jan 10th - 31st 2011.
- **2009** The Scientific Prize for Young Arab Researchers-Abdul Hameed Shoman
- **2008** Attained a one-year seniority for promotion purpose
- **1995-1999** Mutah University Scholarship for Completing the PhD at Chicago, USA.
- **1990-1993** Ministry of Higher Education Scholarship for Completing the MSc, Ankara University, Ankara,, Turky.
- **1984-1988** Ministry of Education Scholarship for Completing the BSc at Irbil, Iraq.

ACADEMIC AND ADMINSTRATION EXPERIENCE

2021-now Head of the Basic Sciences Sector Committee, Jordan's Ministry of Higher Education, Scientific Research and Innovation Fund, Amman, Jordan

2023-now Chairman of the Strategic Plan Committee/College of Allied Medical Sciences

2017-2019 A liaison officer for Prince Hassan Award for Scientific Excellence (The Higher Council for Science and Technology, Amman, Jordan 2017) , in Mutah University

2014-2016 Vice President for Administrative and Financial Affairs, Tafila Technical University (TTU), Jordan

2014-2016 Acting President of the Tafila Technical University several times in the absence of the President of the University

2017-now Chairman of the Quality assurance Committee, Department of Biology, Mutah University. Karak, Jordan

2016- 2017 Member of the Council of the Faculty of Science, Mutah University, Jordan

2016-now Member of the research committee of the Faculty of Science, Mutah University, Jordan

2016-now Member of the graduate committee of the biology department, Mutah University, Jordan

2014- 2016 Chairman of the Accreditation Committee for Journals accredited for promotion purposes. Tafila,Technical University, Tafila, Jordan
2014- 2016 Chairman of the Human Resources Committee-Tafila Technical University, Tafila, Jordan
2014- 2016 Chairman of the Central Tenders Committee-Tafila Technical University, Tafila, Jordan
2014- 2016 Chairman of the health-insurance Tafila Technical University, Tafila, Jordan
2014- 2016 Chairman of the on-campus housing committee Tafila Technical University, Tafila, Jordan
2014- 2016 Chairman of several committees for the drafting of several systems at the University of Tafila, including the financial, the supplies, investment and provident fund and movement and travel-systems, Tafila Technical University, Tafila, Jordan
2014- 2016 Member of the scholarships Committee -Tafila Technical University, Tafila, Jordan
2014- 2016 Member of the Appointment and Promotion Committee-Tafila Technical University, Tafila, Jordan
2014- 2016 Member of the Committee of Scientific Research-Tafila Technical University, Tafila, Jordan
2014- 2016 Member of the University Council, Tafila Technical University, Tafila, Jordan
2013- 2017 Al-Ahaliyya Amman University Trustees Board Member
2009-9-22nd –9-1st 2012

- **Dean of Faculty of Science, Mutah University, Jordan**

2009-9-1st -22-11.2009

- **Vice Dean of Faculty of Science, Mutah University, Jordan**

2009- 2013 Philadelphia University Trustees Board Member,
2000- 2003 Head of the Dept. of Biology, Mutah University, Jordan
2007- 2008 Vice Dean of Faculty of Science, Mutah University, Jordan
2007- 2008 Chairman of post graduate committee in the Faculty of Science, Mutah University, Jordan
2000-2003 Chairman of the Postgraduate Studies Committee at the Dept. of Biology, Mutah University, Jordan
2007-2008 Member of post graduate committee in the Mutah University.
2007-2008 Member of the Council of the Faculty of Science, Mutah University, Jordan
2009-2012 Member of the Committee scholarships- Mutah University, Jordan
2009-2012 Member of the Appointment and Promotion Committee- Mutah University, Jordan
2009-2012 Member of University Council/Mutah University, Jordan
2009-2012 Students Concerns-Committee Member/Mutah University, Jordan
2009-2012 Member of post graduate committee in the Mutah University.

ACADEMIC RECORD

1993-1994	**Lecturer**	•	in Biology, Al-Zaytona University, Amman, Jordan
1994-1995	**Teaching assistant**	•	Dept. of Biology, Mutah University, Karak, Jordan
1997-1998	**Teaching assistant**	•	Dept. of Biology, Illinois Institute of Technology, Chicago, Illinois, USA
1997-1998	**Lecturer**	•	Part-time at Robert Morris College, Chicago, IL, USA
1999-1999	**Post Doctorate**	•	at Medical School, University of Illinois at Chicago,

		USA
1999- 2004	**Assistant Professor**	• Mutah University, Jordan
2000 - 2003	**Chairman**	• of the Postgraduate Studies Committee at the Dept. of Biology, Mutah University, Jordan
2000-2005	**Member**	• of the Council of the Faculty of Science, Mutah University, Jordan

2004-2005	• Member of student discipline committee in the faculty of Sciences, Mutah University, Jordan
2003-onward	• Chair and member of several interrogation committees for academic staff and employees of the faculty of sciences.
2005-onward	• Member of the Research Committee in the college of Science, Mutah University, Karak, Jordan
2006-2007	• On sabbatical leave, Sohar University, Sohar, Oman
2006-2007	• Member of the Research Committee in the Sohar University, Sohar, Oman
2012-2013	On sabbatical leave, Taibah University, Al Madinah Al Munawwarah, Saudia Arabia
2021-2022	On sabbatical leave, Faculty of Pharmacy and Medical Laboratories, Al-Ahliyya Amman University

QUALITY and ACCREDITATION EXPERIENCES

- Develop a complete plan for the establishment of the Department of Applied Life Sciences at Tafila University, Tafila, Jordan
- Chairman of Quality Committee, Department of Life Sciences, Mutah University, Jordan
- Member of a committee to develop the general questions for the proficiency exam for undergraduate students in Jordanian universities
- Member of several committees to approve specialization programs in biology and applied biology
- Enhancing Quality Assurance Management in Jordanian Universities, EQuAM-Training on internal Quality Assurance Management, Sapienza University, Rome, Italy

GRANTS and PROJECTS

36,700 JD	(The Synergistic Effect of Biochar and Biosynthesized Silver Nanoparticles (AgNPs) on Performance of AgNPs against Different Cancer Cells and Pathogenic Bacteria). Al-Ahliyya Amman University (AAU), Duration 2022-continue
27,000 JD	Biosynthesis, characterization and antimicrobial activity of silver nanoparticles by using new fungal species and synergistic activity of silver nanoparticles with various_common medicinal plants used in Jordan. Mutah University, Jordan: Duration 2021-continue
1,100,000 €	Developing tools for sustainable food production in Mediterranean area using microbes **(SUPREME).** ERANETMED-Environmental Challenges and

	Solutions for Vulnerable Communities. Participant researchers from Italy, Cyprus, Greece, Algeria and Jordan (Mutah University),. Researchers from Jordan are Prof. Dr. Khaled M Khleifat, and Prof. Dr. Tayel Al-Hasan, Mutah University: Duration Date: may1st 2017- Dec.1st 2021
70,000 €	Partner and Institutional Coordinator, International credit mobility Erasmus +, projectKA1 with Staffordshire University, Grant no, 2015-2-UK01- KA107-022799, 2017 (Tafila Technical University).
100,000 SR	2,4-DCBA biodegradation were obtained from Taibah University, Deanship of Scientific Research, Saudi Arabia
117,000 JD	Mohammad Wedyan, Khaled Khleifat, Ahmad Alokla (2009) The impact of the Red Sea Canal Project - (Channel of peace) on the ecosystem of the Dead Sea. Research Support Fund, Ministry of higher Education and Scientific Research, Amman, Jordan
10,000 JD	Antioxidant enzymes and minerals regarding rare oxidation in erythrocytes disease idiocy Mongolian blood in Karak, Mutah University, Jordan
7,150 JD	Study the effects of Bacterial Hemoglobin Biotechnology on the Detoxification of Heavy Metals and Beta Galactosidase Activity , Mutah University, Jordan
25,000 JD	Several other grant proposals were obtained from Mutah University, Deanship of Scientific Research

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As Chairman of Tenders Committee at Tafila Technical University, The Most Prominent Achievements Were As Follows:

1. Participating in negotiations with the bidding companies (estimated at about 15 million Jordanian dinars as Gulf grants) at the university in order to alleviate the capital burden in addition to obtaining two cars for the university worth nearly 70,000 Jordanian dinars and receiving 20,000 dinars for the student fund

2. Participating in the tender for alternative solar power generation capacity of 1 MW. through which university buildings were supplied with solar cells that produced electricity to meet the University's energy needs.

3. Implementation and follow-up of the construction of halls, admission, registration buildings, computer center, engineering workshops and the establishment of the laboratories of the department of applied biology, which was established for the first time

4. Establishing the radio station of Tafila Technical University and follow purchasing its equipment

5. Participation in the Energy Committee with the Ministry of Energy in enabling the university to invest in energy through direct offers to reduce the financial burden

SOCIAL ACTIVITIES

- A liaison officer (representative of Mutah University) of the Regional Initiative on Water, Energy and Food Interrelationship (MINARET) held in Karak Municipality. The project was launched by the Royal Scientific Society / National Center for Energy Research (RSS / NERC) in partnership with the International Union for the Conservation of Nature (IUCN)) And Future Pioneers Association for Community Empowerment (FPEC) and funding from the Swedish International Development Agency (Sida).

- Member of the Higher Advisory Committee to the Office of Petra Development and Tourisms Region Authority, Jordan

- Several thanks books from charitable organizations in Tafileh for support and consultation.

RESEARCH EXPERIENCE

- ✓ I Intended several works in my national and international conferences and published more than 70 papers. Right now I am Supervising 6 Master Students and 60 MSc students were already graduated through 2003-2022.

TITLES OF MASTER THESES AND NAMES OF GRADUATE STUDENTS UNDER MY SUPERVISION:

- **I was a co-Advisor of PhD student, Ibrahim Majali, University of Jordan -2012**
- **I am Advisor of PhD student Yasin Taha Alqaisi 2020- University of Jordan 2019-**
- **The effect of different carbon and nitrogen sources on copper uptake by three strain of *E. coli,*** (2004). MSc: Muhamad Odeh Al-limoun.
- **Factors affecting the production of β-Galactosidase in different Strains of *Enterobacter aerogenes*,** (2004) Khalid Y. Al-Sharafa, (Co-advisor).
- Phenol biodegradation by klebsiella Oxytoca, (2005). Ibraheam S. Al- Majali.
- **Effect of wastewater treatment on the bacteria Quality And Quantity at Mutah University plant**, (2005). Waad Al-Shamailah.
- **Isolation of Lanate-degrading bacteria from Jordan Valley**, Feryal Khraisat: University of Jordan, (Co-advisor)
- **Biodegradation of phenol by isolated bacteria from soil of Al-kherbah Al-Samrah in Jordan**, (2006). Sabah Eid Abu – Khalil.
- **Biodegradation of some surfactants by two bacterial Consortiums**, (2005) Nadia Ahmad Al-Maabreh.
- **Activation and inhibition of plant polyphenol oxidase enzyme**, (2004). (Co-advisor): Elshafei M. Badawi.
- **Biodegradation of linear Alkylbenzene Sulfonate by a pure culture of bacteria isolated from Al-kherbeh Al-Samrah, Jordan,** (2006). Reema Atallah Al-Halasah.
- **Effect of Herbal plants on the growth of *pseudomonase aeruginosa***, (2006) (Co-advisor), Haitham N. Qaralleh.
- **Isolation of bacteria causing urinary tract infections**, (2005)**.** Jafar Juma Hassony Al-Kurishy.
- **Using Chlorobenzoic Acid Compounds as growth substrate and detection of their Degrading enzyme in isolated Aeromonas Hydrophlia**, (2009). (Co-advisor). Farah Mohammad Salih Turkey.
- **Biodegradation of 2-Chlorobenzoic acid by *Acinetobacter calcoaceticus*: Effect of some growth conditions**, (2009). Ibrahim Khaled AL- Kafawin:
- **Cadmium-resistant bacteria isolated from Petra City wastewater treatment station**, (2009). Nawel Rashid Adjeroud:
- **Using 3-4 dichlorobenzoic acid as carbon source by Corynbacterium argentinaea**, Shadiya Al-Majali. (2010)
- **Biodegradation of 3-4 dichlorobenzoic acid by bacterial strains isolated from wastewater**, Haya Alawi.(2010)
- **Prevalence and molecular diversity of *Legionella pneumophila* in domestic hot water systems of private apartments, Jafer Alomari (2012)**
- **Antibiotic activity of some fungal isolates from Petra province, Jordan**. Ahmad Salim Khleifat.
- **Assessment of the antioxidant and antimicrobial potentials of Rubus Sanguineus friv. (Rosaceae) leaves and fruits.** Rana Hussain Zeidan.
- **Perforated appendicitis and its effect on urinary tract system**, Baraa Abdulhamid Fraijat.

- **Antimicrobial Activity of bacterial isolates against some pathogenic Bacteria**. Sakhaa Al-Dardasawi.
- **Enhancement of Lipase activity in bacteria by bacterial hemoglobin gene, *vgb*.** Al-Ananza Maisa.
- **Purification and Characterization of Organic Solvent Tolerant Extracellular Lipase from Bacterial Isolate K5B4**. Sadam Attalah Alrawashdeh
- **Antimicrobial and antioxidant activity of honey produced in different Jordanian-producing territories** Sundus Adaileh
- **Characterization, Purification and isolation of extracellular lipase-producing bacteria toward different organic solvents**. Reham Majali.
- . **Antimicrobial and antioxidants of Lantana camara and Capparis spinose**. Mohammad Jaafreh
- **The Production of organic solvents-resistant lipase In local bacterial isolate: optimization of growth conditions**. Nawal Hamadin
- . **Antimicrobial activity of *Verbascum sinaiticum*** Ahmad Alsaudy
- **Characterization of silver nanoparticles (AgNPs) synthesized from fungal isolates, Toqa Al-Soub**
- **Correlation between Plant Growth Promoting traits with phenol biodegradation by Mutaz saraireh 2019-2020**
- **Biodegradation of phenol by Paenarthrobacter nitroguajacolicus by Suzan Saraireh 2019-2020**
- **Optimization condition for phenol biodegradation by Microbacterium murale Batool Asasfeh 2019-2020**
- **Biosformation and characterization of extracellular silver nanoparticles using fungal isolate Intisar Jamaein, 2019-2020**
- **Effect of Phytosomes of different phytoextracts (Allium sativum, Zingiber officinale and Crataegus monogyna) in combined with probiotics bacteria on the induced Diabetes in rats, By Ammar Jaber Mohammad, 2020.**
- **Antimicrobial activity produced by plant growth promoters bacteria, by Waqar Khleifat, 2020**
- **Effect of phytosomes of different phytoextracts of *Trigonella foenum-graecum* (Fenugreek seeds), Curcuma longa (Turmeric), and *Aloe vera* (Aloe) on the induced diabetic rats, by Wasil Al-Habashneh, 2020.**
- **Capability of using phenol as growth substrate by using growth promoter producing Serratia odorifera, by Kholoud Dakhlallah Alshiyyab, 2020**
- **Antimicrobial Activity of different extracts of Azadirachta indica (neem), by Mustafa Khaled Issa Flaifel, 2020**
- **Using fungal isolate as a mean for biosynthesis of silver nanoparticles and their antibacterial activity by Aram Soub 2020-**
- **Synergistic Antimicrobial Activity of air born fungal mediated Nanoparticles by Waqar Khleifat 2020- 8**
- **Effect of Peppermint and rosemary oil on the passive avoidance learning and spatial memory in amnesia symptom: Using a rat with Alzheimer's disease as a model. By Rawand Dmour 2020-**
- **Antibacterial Activity of Silver Nanoparticles against Some Bacterial Human Pathogen: A synergistic effect with known synthesized antibiotics by Rahaf Jameel Abdul-Hafez Al-Farukh 2020-**
- **Protective role of honey bee venom for short, long-term memory and spatial working memory in symptoms of amnesia: using mice with Alzheimer's disease as a model by Weaam Kasasbeh 2020-**

- **Antibacterial activity of biosynthesized silver nanoparticles using fungal isolate by Ahmad Mohammad Alabad Eyal Awwad 2020-**
- **Biosynthesis and characterization of silver nanoparticles by using air-born fungal isolate by Abdelalim Yacouop Younis Abusabha. 2020-**
- **Roposal Title: Antimicrobial, antioxidant and in-vivo immunomodulatory effect of Varthemia methanolic extract. By Anas Bashaireh 2020-**
- **Study the relationship between the women hormonal activity with the distribution of bacterial vaginosis. By Marwa mahfoudh Khalil 2020-**
- **Phylogenetic diversity of bacteria associated with the marine sponges from the Gulf of Aqaba, Red Sea. By Ola A. Al-Madadheh 2021-**
- **Evaluation of silver nanoparticles' antibacterial and antioxidant properties in combi nation with biochar-Aseel Mashaaeleh2022**
- **The association between anemia with iron deficiency and vitamin D status in Jordan. By Sameer Yahia sari AL-Edimat**
- **Correlation between red blood storage and oxidative stress among Jordanians By Raed Abd-Elrahman Alhyasat**
- **Evaluation the potential effect of methanolic extract of *Stylissa carteri* onPI3k/AKT/mTOR pathway in different cancer cell lines.** Lena Fares Almashaleh
- **Studying the Potential In Vitro Cytotoxic Effect of Agelas conifer methanolic extract against different cancer cell lines: By Raya Obaid Alrodan**
- **Evaluation of the potential antiproliferation and antimicrobal effect of silver nanoparticles and biochar using cancer cells By Safa Saad Abed Al-alwani**
- **Studying apoptosis induction by metabolic extract of Marine sponge Dysidea tuapokere isolated from Aqaba gulf sea by Riham Mohammed Khamis Fadelah**
- **HaematologicalImmunologicalandAllergicReactionsTestsofSheepShepherdsinthePro vinceofAl-Karak by Abdullah Alkfaween**
- ***In vitro* and *In vivo* Studies on the Antimicrobial, Antioxidant, Anti-inflammatory Activities and burn wound healing of *Linum mucronatum* methanolic extract in rat By Abrar Jameel Al-hawari**
- **The Impact of the Bacterial Cultivation Time on its Susceptibility to *Rhus coriaria* seed Methanolic Extract Treatment By Taima Ahmad Nawafleh**

- I was a member of MSc thesis defense committee for more than 200 MSc students. Some of the projects in microbiology that were supported by university grants Include:
  - ✓ Using Bacterial Hemoglobin Gene, *vgb* Biotechnology as a Positive Enhancer for the Biodegradation of Organic Compounds,
  - ✓ Effect of Waste Water Treatments on the Bacterial Composition of the Karak Hospital Waste Water (local study)
  - ✓ Isolation of Heavy Metal-Resistant Bacteria from Industrial Karak City and Determine if the gene responsible for heavy metal resistance is Chromosomal or on Plasmid
  - ✓ Correlation of bacterial hemoglobin and aeration and their effect on α-amylase activity in the transformed *Enterobacter aerogenes*
  - ✓ Biodegradation activity of organic compounds by bacteria isolated from wastewater and soil.
  - ✓ Isolation and Identification of Pesticides-degrading Bacteria from Jordan Valley.
  - ✓ Effect of chlorination of wastewater on the antibiotic-resistant profile (Petra province wastewater treatment plant, South of Jordan)

CONFERENCES

- 1999 American Society for Microbiology Conference, Chicago, USA
- 2000 2nd Euro conference for Biometals, Dresden, Germany
- 2001 2nd Conference of the Life Sciences, Yarmouk University, Irbid, Jordan
- 2002 International Conference for Biotechnology Safety, Damascus, Syria
- 2006 "Bioinformatics Workshop " that was held in the Dead Sea-Jordan (May 29- 30, 2006)
- 2006 Workshop on Bioinformatics (Cornel University, Ethica, NY, USA: using database for gene sequencing and possible application in the Dead Sea region).
- 2006 The Second International Water Reuse Conference, June 6-9 2005, Amman, Jordan.
- 2007 Kinetics of phenol biodegradation from aqueous solution using Ewingella Americana, 5th Int. Conference for Biological Sciences, Tanta University,
  Tanta, Egypt.
- 2009 Chemical composition and antibacterial activities of essential oil of Thymus Capitates from Jordan. Programme and abstract book: 23rd Malaysian Society of Pharmacology and Physiology Scientific Meeting. 12-13 May 2009. Kuala Lumpur. 92
- 2009 Scientific Week at Science Faculty, Mutah University, Karak, Jordan (Chairman of the Scientific Week)
- 2010 –May1st: Materials in Jordan: Progress, Princess Sumaya University For Technology, Amman- Jordan: Sponsored by Alexander vHumboldt (Stiftung / Foundation
- 2010 Chlorination Treatment Quality and Its Impact on Gram Negative Bacterial Composition of Recycled Wastewater" Khaled Khleifat et al. (2010). International Sustainable Water And Wastewater Management Symposium (USAYS), Konya, Turkey
- 2013 Visiting Professor, IIT, Chicago, USA, invited by Prof. Ben Stark (two weeks) to give lectures about bacterial hemoglobin (Oct 5th –Oct 17th)
- 29.3-2.4.2015 General Conference of the union of Arab Universities, Lebanon cycle, Beirut, Lebanon
- 11-12 June 2015 Enhancing Quality Assurance Management in Jordanian Universities,
  EQuAM-Training on internal Quality Assurance Management, Sapienza University, Rome, Italy
- 2016 10th Euro conference for Biometals, Dresden, Germany
- 2019 Workshop to discuss the research results: Development of sustainable food production tools in the Mediterranean region using microbes (SUPREME), Cyprus, Nicosia 10.6.2019
- 2019 PRC 2019 - Essential Oil OF Centaurea Damascena Aerial Parts, Antibacterial and Synergistic Effects. Universiti Sultan Zainal Abidin (UniSZA), Kuala Terengganu , Malaysia
- 2021 Enabling barley production in arid soils by only exploiting the indigenous microbial biodiversity. By : GLOBAL SYMPOSIUM ON SOIL BIODIVERSITY, FAO HQ | Rome, Italy By: Anna Rosa Sprocati , Patrizia

Paganin, Chiara Alisi , Priscilla Casale ,Giada Migliore , Flavia Tasso , Giuseppina Falasca, Tayel El- Hasan , Khaled Khleifat and Giovanni De Giudici.

LEARNED SOCIETIES

Membership of:

- Editorial Board of Online Journal of Biological Sciences, Pakistan, 2001-2004
- American Association for the Advancement of Science (AAAS) 2003-2005
- American Chemical Society (ACS) 2004-2005
- American Society for Microbiology (ASM) 2003-2005
- Editorial Board of Mutah Lil-Buhuth Waddirasaat, Mutah University, Jordan (2008-2010)
- Scientific Committee Materials in Jordan Workshop (2010), Princess Sumaya University For Technology, Amman-Jordan: Supported by Alexander von Humboldt (Stiftung/Foundation

ANONYMOUS REVIEWER for JOURNALs

- Enzyme and Microbial Technology, elsiever Publisher
- Journal of Hazordous Materials, elsiever Publisher
- Current Microbiology (Springer-Verlag, USA)
- Biochemical Engineering Journal, elsiever Publisher
- Online Journal of Biological Sciences (ANSInet)
- Mutah Lil-Buhuth Waddirasaat, Mutah University, Jordan
- Journal of Chemical Engineering
- Jordan Journal of Biological Sciences
- African J. Food Science
- Journal of Basic Microbiology (Wiley and sons)
- Foodborne Pathogens and Disease, USA
- Water Resource Technology , Elsevier Publisher
- Biochemical Journal
- Bioremediation

•A reviewer for several Ph.D. thesis's from outside Jordan (One of them India Institute of Technology

•A reviewer for more than 50 promotions to the rank of professor and associate professor of outside Jordan

COURSES TAUGHT

- ✓ Advanced Microbial Physiology
- ✓ Advanced Diagnostic Microbiology
- ✓ General Microbiology
- ✓ Diagnostic Microbiology
- ✓ General Biology (Section 1 and 2)
- ✓ Practical General Biology 1 & 2
- ✓ Biology for Nursing Students
- ✓ Genetics and Microbial Genetics
- ✓ Pharmaceutical Microbiology
- ✓ Advanced Pharmaceutical Microbiology
- ✓ Cell Biology
- ✓ Molecular Biology
- ✓ Practical Microbiology,
- ✓ Practical Medical
- ✓ Microbiology for Nursing Student

- ✓ Practical Molecular Biology
- ✓ Nutrition (Sohar University, Oman)
- ✓ Practical Biochemistry (IIT, Chicago, USA)
- ✓ Environmental Science and Medical Biology (At Robert Morris College, Chicago, USA)

Skills

- ICDL,
- Three languages (English, Turkish and Arabic)

AUTHOR PROFILE (SCOPUS)

Khleifat, Khaled M.
University of Mutah, Department of Biology, Karak, Jordan
Author ID: 6508378475
http://orcid.org/0000-0002-0216-3175

Documents 85

Citations:: 1214 total citations by 692 documents

h-index: 23

AUTHOR PROFILE (Google Schoolar)

Khleifat Khaled

Citations	2255	1350
h-index	31	25
i10-index	70	64

LIST OF PUBLICATIONS: Dr. Khaled M. Khleifat

1. Al-Qaisi, T., Al-Rawadeih, S., Alsarayreh, A., , Al Qaisi, Y., Al-limoun, M., , Alqaraleh, M.,Khleifat, K. (2024). The effects of Anchusa azurea methanolic extract on burn wound healing: histological, antioxidant, and anti-inflammatory evaluation. Burn (accepted)
2. Qaralleh, H., Saghir, S. A. M., Al-Limoun, M. O., Dmor, S. M., Khleifat, K., Al-Ahmad, B. E. M., ... & Alqahtani, A. M. (2024). Effect of Matricaria aurea Essential Oils on Biofilm Development, Virulence Factors and Quorum Sensing-Dependent Genes of Pseudomonas aeruginosa. *Pharmaceuticals*, *17*(3), 386.
3. Alqaraleha,M., Kasabrib, V., Muhanac, F., Al-Najjar, BO., Khleifat, KM (2024). Evaluation of the antiproliferative activity and molecular doc king of selected branched fatty acids. J. Med. Pharm. Chem. Res. 6, 1340-1353
4. Al Qaisi, Y., Alfarrayeh, I., Alsarayreh, A., Khleifat, K., & Abu-Nwas, N. (2024). Assessment of Antioxidant Potential, Cytotoxicity, and Anticancer Activity of Methanolic Extracts from Selected Wild Medicinal Plants. *Phytomedicine Plus*, 100534.
5. Abu Hajleh, M. N., Al-limoun, M., Al-Tarawneh, A., Hijazin, T. J., Alqaraleh, M., Khleifat, K., ... & Al-Dujaili, E. A. (2023). Synergistic Effects of AgNPs and Biochar: A

Potential Combination for Combating Lung Cancer and Pathogenic Bacteria. *Molecules*, *28*(12), 4757.

6. Al-Ekaid, N. M., Al-Samydai, A., Al-deeb, I., Nsairat, H., Khleifat, K., & Alshaer, W. (2023). Preparation, Characterization, and Anticancer Activity of PEGylated Nano Liposomal Loaded with Rutin against Human Carcinoma Cells (HT-29). *Chemistry & Biodiversity*, *20*(11), e202301167.
7. Khleifat, K. M., Al-Tawarah, N. M., Al-Kafaween, M. A., Al-Ksasbeh, W., Qaralleh, H., Alqaraleh, M., ... & Mohd Hilmi, A. B. (2023). Memory Enhancing and Neurogenesis Activity of Honey Bee Venom in the Symptoms of Amnesia: Using Rats with Amnesia-like Alzheimer's Disease as a Model. *Current Alzheimer Research*, *20*(3), 190-201.
8. Al-khlifeh, E., Saidat, N., Khleifat, K., & Al Qaisi, Y. (2023). Phytochemical profile and in vitro protoscolicidal effects of Juniperus phoenicea L., Calotropis procera (Aiton) Dryand, and Artemisia judaica L. against Echinococcus granulosus cysts. *Journal of Pharmacy & Pharmacognosy Research*, *11*(4), 635-650.
9. Mwafi, N. R., Al-Tarawneh, A. A., Tarawneh, I. N., Alqedrh, M. F., Alsbou, A. I., Al Mughrabi F, L. J. F., ... & Al-Limoun, M. O., Khleifat K. (2023). Renal Calculi Composition in Alkaptonuria: Insights on Etiology. *Jordan Journal of Biological Sciences*, *16*(4).
10. Al Qaisi, Y. T., Khleifat, K. M., Oran, S. A., Alfarrayeh, I. I., Alsarayreh, A. Z., Abu-lubad, M. A., & Al-Tarawneh, B. K.(2023) The in vivo preventive effect of some medicinal plant extracts on the development of hydatid cyst infection. Asia-Pacific Journal of Science and Technology: Volume: 28. Issue: 03. Article ID.: APST-28-03-08.
11. Al-Dmour, R. H., Al-Tawarah, N. M., Mwafi, N., Alkhataybeh, B. M., Khleifat, K. M., Tarawneh, A., ... & Albustanji, L. (2023). Enhancement of hippocampal-dependent spatial memory by Ashwagandha (Withania somnifera) characterized by activation of NMDA receptors against monosodium glutamate-induced neurotoxicity in rats. *International Journal of Neuroscience*, 1-9.
12. Alquraishi, R., Al-samydai, A., Al Azzam, K. M., Alqaraleh, M., Al-Halaseh, L., Sanabrah, A., ... & Khleifat, K. (2023). Preparation, characterization and wound-healing effect of PEGylated nanoliposomes loaded with oleuropein. *Biomedical Chromatography*, *37*(11), e5716.
13. Al Assi, G., Al-Bashaereh, A., Alsarayreh, A., Al Qaisi, Y., Al-Majali, I., Khleifat, K., ... & Al-Farrayeh, I. (2023). Evaluation of Antibacterial, Antioxidant and Anti-inflammatory Properties of Methanol Extract of Varthemia iphionoides. *Tropical Journal of Natural Product Research*, *7*(1).
14. Al-Tawarah, N. M., Al-Dmour, R. H., Abu Hajleh, M. N., **Khleifat, K. M.**, Alqaraleh, M., Al-Saraireh, Y. M., ... & Al-Dujaili, E. A. (2023). Rosmarinus officinalis and Mentha piperita Oils Supplementation Enhances Memory in a Rat Model of Scopolamine-Induced Alzheimer's Disease-like Condition. *Nutrients*, *15*(6), 1547.
15. Al-Tarawneh, A., Al-Limoun, M., Khlaifat, A. M., Tarawneh, I., Mwafi, N., **Khleifat, K**., ... & Mizher, H. (2023). Bacterial quality of urinary tract in patients with alkaptonuria. *The American Journal of the Medical Sciences*. Volume 365, Issue 4, April 2023, Pages 368-374
16. Husein, N. F., Al-Tarawneh, A. A., Al-Rawashdeh, S. R., **Khleifat, K**., Al-Limoun, M., Alfarrayeh, I., ... & Al-Qaisi, Y. T. (2023). Ruta graveolens methanol extract, fungal-mediated biosynthesized silver nanoparticles, and their combinations inhibit pathogenic bacteria. *Journal of Advanced Pharmacy Education & Research| Apr–Jun*, *13*(2).
17. Alqaraleh, M., **Khleifat, K. M**., Abu Hajleh, M. N., Farah, H. S., & Ahmed, K. A. A. (2023). Fungal-Mediated Silver Nanoparticle and Biochar Synergy against Colorectal Cancer Cells and Pathogenic Bacteria. *Antibiotics*, *12*(3), 597.

18. Altiti, A. J., Khleifat, K. M., Alqaraleh, M., Shraim, A. A. S., Qinna, N., Al-Tawarah, N. M., ... & Qaralleh, H. (2023). Protective Role of Combined Crataegus Aronia Ethanol Extract and Phytosomes Against Hyperglycemia and Hyperlipidemia in Streptozotocin-Induced Diabetic Rat. Biointerfase Research in Applied Chemistry. Volume 13, Issue 3, 2023, 207

19. Al-Sarayreh, A. Z., Khleifat, K. M., Al-Dalain, S. E. M., Al-Saraireh, Y. M., Al-Qaisi, Y. T., Al-Farrayeh, I. I., & Al-Qaraleh, S. Y. (2023). Globularia arabica methanolic leaf extract has higher efficacy on burn wound healing in diabetic rats compared to Malva slyvestries methanolic leaf extract. *Journal of Burn Care & Research: Official Publication of the American Burn Association*, irac089-irac089.

20. Khleifat, K. M., Khalil, M. M., Al-kafaween, M. A., Alqaraleh, M., Al-limoun, M. O., Al-Qaisi, T. S., ... & Al-Jamal, H. A. N. (2022). Studying the relationship between women hormonal activity and the distribution of bacterial vaginosis and bacteria's antibiotics susceptibility. *Journal of Applied Pharmaceutical Science*, *12*(12), 105-116.

21. Khleifat, K., Magharbeh, M., Alqaraleh, M., Al-Sarayrah, M., Alfarrayeh, I., Al Qaisi, Y., ... & Al-kafaween, M. A. (2022). Biodegradation modeling of phenol using Curtobacterium flaccumfaciens as plant-growth-promoting bacteria. *Heliyon*, *8*(9), e10490.

22. Khleifat, K., Alqaraleh, M., Al-limoun, M., Alfarrayeh, I., Khatib, R., Qaralleh, H., ... & Hajleh, M. A. (2022). The ability of rhizopus stolonifer MR11 to biosynthesize silver nanoparticles in response to various culture media components and optimization of process parameters required at each stage of biosynthesis. *J. Ecol. Eng*, *23*(8), 89-100.

23. Al-Tarawneh, A., Khleifat, K. M., Tarawneh, I. N., Shiyyab, K., El-Hasan, T., Sprocati, A. R., ... & Alqaraleh, M. (2022). Phenol biodegradation by plant growth promoting bacterium, S. odorifera: kinetic modeling and process optimization. *Archives of Microbiology*, *204*(1), 1-14.

24. Al Qaisi, Y. T., Khleifat, K. M., Alfarrayeh, I. I., & Alsarayreh, A. Z. (2022). In Vivo Therapeutic Effect of Some Medicinal Plants' Methanolic Extracts on the Growth and Development of Secondary Hydatid Cyst Infection. *Acta Parasitologica*, 1-14.

25. Al-Soub, A., Khleifat, K., Al-Tarawneh, A., Al-Limoun, M., Alfarrayeh, I., Al Sarayreh, A., ... & Albashaireh, A. (2022). Silver nanoparticles biosynthesis using an airborne fungal isolate, Aspergillus flavus: optimization, characterization and antibacterial activity. *Iranian Journal of Microbiology*, *14*(4).

26. Alsarayreh, A. Z., Oran, S. A., Shakhanbeh, J. M., Khleifat, K. M., Al Qaisi, Y. T., Alfarrayeh, I. I., & Alkaramseh, A. M. (2022). Efficacy of methanolic extracts of some medicinal plants on wound healing in diabetic rats. *Heliyon*, *8*(8), e10071.

27. Al-Sarayreh, A. Z., Khleifat, K. M., Al-Dalain, S. E. M., Al-Saraireh, Y. M., Al-Qaisi, Y. T., Al-Farrayeh, I. I., & Al-Qaraleh, S. Y. (2022). Globularia arabica methanolic leaf extract has higher efficacy on burn wound healing in diabetic rats compared to Malva slyvestries methanolic leaf extract. *Journal of Burn Care & Research: Official Publication of the American Burn Association*, irac089-irac089.

28. Hajleh, M. N. A., Khleifat, K. M., Alqaraleh, M., Al-Hraishat, E. A., Al-limoun, M. O., Qaralleh, H., & Al-Dujaili, E. A. (2022). Antioxidant and Antihyperglycemic Effects of Ephedra foeminea Aqueous Extract in Streptozotocin-Induced Diabetic Rats. *Nutrients*, *14*(11), 2338.

29. Al Qaisi, Y. T., Khleifat, K. M., Oran, S. A., Al Tarawneh, A. A., Qaralleh, H., Al-Qaisi, T. S., & Farah, H. S. (2022). Ruta graveolens, Peganum harmala, and Citrullus colocynthis methanolic extracts have in vitro protoscolocidal effects and act against bacteria isolated from echinococcal hydatid cyst fluid. *Archives of Microbiology*, *204*(4), 1-13.

30. Khleifat, K., Qaralleh, H., & Al-Limoun, M. (2022). Antibacterial Activity of Silver Nanoparticles Synthesized by Aspergillus flavusand its Synergistic Effect with Antibiotics. *J Pure Appl Microbiol*. 16 (3) 1722-1735

31. Dmour, S. M., Qaralleh, H., Al-Limoun, M., Khleifat, K. M., Alqaraleh, M., Alqudah, A. A., & Altarawneh, R. M. (2022). Combined Antibacterial activity of Eucalyptol, γ-terpinene, p-cymol and punicalagin with Cefotaxime against Methicillin (Oxacillin) Resistant Staphylococcus aureus Isolate. *Research Journal of Pharmacy and Technology*, *15*(9), 3905-3911.

32. Qaralleh, H., Khleifat, K., Al-Limoun, M., Al-Tarawneh, A., Khleifat, W., Almajali, I., ... & Alsowayeh, N. (2022). Antibacterial activity of airborne fungal mediated nanoparticles in combination with Foeniculum vulgare essential oil. *Journal of Herbmed Pharmacology*, *11*(3), 419-427.

33. Alqaraleh, M., Kasabri, V., Al-Majali, I., Aljaafreh, A., Al-Othman, N., **Khleifat**, K., ... & Qaralleh, H. Branched chain amino Acids as In vitro and in vivo Anti-Oxidation Compounds. Research J. Pharm. and Tech. 14(7): 3899-3904.

34. Al Qaisi, Y. T., **Khleifat**, K. M., & Oran, S. A. (2021). Inhibitory Effects of Some Jordanian Medicinal Plants on in Vitro Viability of Protoscolices of Hydatid Cysts. Tropical Journal of Natural Product Research. 5(4):707-714

35. **Khleifat**, K. M., Qaralleh, H., Al-limoun, M. O., Al-khlifeh, E. M., Aladaileh, S. A., Tawarah, N., & Almajali, I. S. (2021). Antibacterial and Antioxidant Activities of Local Honey from Jordan Trop J Nat Prod Res, March 2021; 5(3):470-477

36. Al Qaisi, Y. T., **Khleifat**, K. M., & Oran, S. A. (2021). In Vitro Quantitative Assessment of Viability of Echinococcus granulosus Protoscoleces after Treatment with Ruta graveolens L. Methanolic Extract. *International Journal of Pharmaceutical Research*, *13*(1).

37. AL-Khlifeh, E. M., **Khleifat**, K. M., Al-Tawarah, N. A. F. E., Al-Limoun, M. O., Abdel-ghani, A. H., Alsharafa, K., & Qaralleh, H. (2021). Genetic Diversity and Chemical Composition of Juniperus phoenicea L Reflect on Its Antimicrobial Activity. *International Journal of Pharmaceutical Research*, *13*(1).3410-3426

38. Al-Sammarraie, O. N., Alsharafa, K. Y., Al-Limoun, M. O., **Khleifat, K. M**., Al-Sarayreh, S. A., Al-Shuneigat, J. M., & Kalaji, H. M. (2020). Effect of various abiotic stressors on some biochemical indices of Lepidium sativum plants. *Scientific Reports*, *10*(1), 1-10.

39. Alghonmeen, O. O., Alsharafa, K. Y., Al-limoun, M. O., **Khleifat, K. M**., & Al-Ramamneh, E. A. D. M. (2020). Assessment of exogenous application of plant growth regulators on Cress seed germination and?-Galactosidase activity. *Plant Science Today*, *7*(2), 257-263.

40. Al-Tawarah, N. M., Qaralleh, H., Khlaifat, A. M., Nofal, M. N., Alqaraleh, M., **Khleifat, K. M**., ... & Al Shhab, M. A. (2020). Anticancer and Antibacterial Properties of Verthemia Iphionides Essential Oil/Silver Nanoparticles. *Biomed Pharmacol J*, *13*(3), 1175-1185

41. Qaralleh, H. A., Al-Limoun, M. O., Khlaifat, A., **Khleifat, K. M**., Al-Tawarah, N., Alsharafa, K. Y., & Abu-Harirah, H. A. (2021). Antibacterial and antibiofilm activities of a traditional herbal formula against respiratory infection causing bacteria. Tropical Journal of Natural Product Research 4 (9), 527-534

42. Al-Limoun, M., Qaralleh, H. N., **Khleifat, K. M**., Al-Anber, M., Al-Tarawneh, A., Al-sharafa, K., ... & Al-soub, T. (2020). Culture Media Composition and Reduction Potential Optimization of Mycelia-free Filtrate for the Biosynthesis of Silver Nanoparticles Using the Fungus Tritirachium oryzae W5H. *Current Nanoscience*, *16*(5), 757-769.

43. Jaafreh, M., **Khleifat, K. M**., Qaralleh, H., & Al-limoun, M. O. (2019). Antibacterial and Antioxidant Activities of Centeurea damascena Methanolic Extract. *arXiv preprint arXiv:1911.02243*.

44. Qaralleh, H., **Khleifat, K. M**., Al-Limoun, M. O., Alzedaneen, F. Y., & Al-Tawarah, N. (2019). Antibacterial and synergistic effect of biosynthesized silver nanoparticles using the fungi Tritirachium oryzae W5H with essential oil of Centaurea damascena to enhance conventional antibiotics activity. *Advances in Natural Sciences: Nanoscience and Nanotechnology*, *10*(2), 025016.

45. **Khleifat, K. M**., Matar, S. A., Jaafreh, M., Qaralleh, H., Al-limoun, M. O., & Alsharafa, K. Y. (2019). Essential Oil of Centaurea damascena Aerial Parts, Antibacterial and Synergistic Effect. *Journal of Essential Oil Bearing Plants*, *22*(2), 356-367.

46. Khlaifat, A. M., Al-limoun, M. O., **Khleifat, K. M**., Al Tarawneh, A. A., Qaralleh, H., Rayyan, E. A., & Alsharafa, K. Y. (2019). Antibacterial synergy of Tritirachium oryzae-produced silver nanoparticles with different antibiotics and essential oils derived from Cupressus sempervirens and Asteriscus graveolens (Forssk). *Tropical Journal Of Pharmaceutical Research*, *18*(12), 2605-2616.

47. Al Fraijat, B., Al-Tawarah, NM., Khlaifat, AM., Qaralleh, H., **Khleifat, KM**., Al-Zereini, W (2019). Urinary tract infection and non-ruptured acute appendicitis association: Uro-pathogens findings. *Tropical Biomedicine*, *36*(3), 620-629

48. Allimoun, M., **Khleifat, KM**. (2019). Purification and Characterization of a Mesophilic Organic Solvent Tolerant Lipase Produced by Acinetobacter sp. K5b4. Biocatalysis and Biotransformation.37 (2),139-151

49. ALrawashdeh, I. N., Qaralleh, H., Al-limoun, M. O., & Khleifat, K. M. (2019). Antibactrial Activity of Asteriscus graveolens Methanolic Extract: Synergistic Effect with Fungal Mediated Nanoparticles against Some Enteric Bacterial Human Pathogens. *arXiv preprint arXiv:1911.02245*.

50. **Khleifat, K. M**., Al-limoun, M. O., Alsharafa, K. Y., Qaralleh, H., & Al Tarawneh, A. A. (2019). Tendency of using different aromatic compounds as substrates by 2, 4-DNT dioxygenase expressed by pJS39 carrying the gene dntA from Burkholderia sp. strain DNT. *Bioremediation journal*, *23*(1), 22-31.

51. Tarawneh, A. A., Qaralleh, H., Al-limoun, M. O., & Khleifat, K. M. (2019). Effect of Copper Chemical Form on The Growth of Pseudomonas aeruginosa Isolated from Burned Patients and on Its Cu Uptake. *arXiv preprint arXiv:1911.10362*.

52. Al-Asoufi, A., Khlaifat, A., Al Tarawneh, A., Alsharafa, K., Al-Limoun, M., & **Khleifat**, **K**. (2017). Bacterial Quality of Urinary Tract Infections in Diabetic and Non Diabetics of the Population of Ma'an Province, Jordan. *PJBS*, *20*(4), 179-188.

53. Majali,I.S., Oran S.A., **Khleifat KM**., Qaralleh,H., Rayyan W., Althunibat ,OY. 2016. Assessment of the antibacterial effects of Moringa peregrina extracts African journal of microbiology research 9(51):2410-2414

54. Althunibat, o.y. Qaralleh,h., Al-Dalin, S.YA., Abboud M., Khleifat KM., Majali I. et. Al (2016). *Effect of thymol and carvacrol, the major components of Thymus capitatus on the growth of Pseudomonas aeruginosa*. J. Pure Appl. Microbiol. 10(1)367-374

55. Allimoun, M.,. Ananzeh, MR., **Khleifat, KM**. (2015). Screening selection and optimization of extracellular methanol and ethanol tolerant lipase from Acinetobacter sp. K5b4. Int. J.Biosci. 6, (10). 44-56.

56. **Khleifat** (2015). Biodegradation of 2-Chlorobenzoic Acid by *Enterobacter cloacae*: Growth Kinetics and Effect of Growth Conditions (Accepted): Bioremediation Journal 19, Issue 3, 207-217

57. **Khleifat KM**., Alomari J. Albadry, A. (2014). Prevalence and molecular diversity of *Legionella pneumophila* in domestic hot water systems of private apartments. British Microbiology Research Journal (BMRJ)2014, 4(3): 306-316 .

58. Matar, S; Oran, S; **Khleifat, K**M; Zeidan, Rana **(**2013). Antimicrobial and Antioxidant Activities of Leaf and Fruit Extracts of Jordanian Rubus sanguineus Friv. (Rosaceae). African Journal of Microbiology 7(44) 5114-5118

59. Tarawneh, K; Halasah, Z.A.; **Khleifat, K.M** et al (2011). Evaluation of cefaclor oral suspensions stability by using reversed phase high performance liquid chromatography and antimicrobial diffusion methods (Pak. J Pharm. Sci, In Press).

60. Qaralleh, H., Idid, S., Saad, S., Susanti, D., Taher, M., **Khleifat, K.** 2010. Antifungal and antibacterial activities of four Malaysian Sponge species (*Petrosiidae*). J. Med. Mycol. 20, 315—320

61. Aljundi,IH., **Khleifat, KM**., Khlaifat, AM., Ibrahim, AM., Tarawneh, KA., Tarawneh, SA. 2010. Biodegradation of 2-Chlorobenzoic Acid by Klebsiella oxytoca: Mathematical Modeling and Effect of Some Growth Conditions. *Industrial & Engineering Chemistry Research 49* (16), 7159-7167

62. Tarawneh K, Irshaid F Jaran AS, Ezealarab, M and **Khleifat, KM** (2010) Evaluation of Antibacterial and Antioxidant Activities of Methanolic Extracts of Some Medicinal Plants in Northern Part of Jordan. Journal of Biological Sciences 10(4): 325-332

63. **Khleifat, K. M**.. 2009.Characterization of 2,4-DNT Dioxygenase From Recombinant *E. coli* Strain PFJS39, Its Direct Interaction with *Vitreoscilla* Hemoglobin. *Bioremediation J.*, 14 (1)38 – 53

64. Althunibat, O.Y., Al-Mustafa, A. H., Tarawneh, K., **Khleifat, K.M**., Ridzwan, B.H., Qaralleh. H. N 2010. Protective role of Punica granatum L. peel extract against oxidative damage in experimental diabetic rats" .Process Biochemistry, 45 (4) 581-585

65. Aljundi, I., **Khleifat, K. M**. (2009). Biosorption of Lead by *E. coli* Strains Expressing Vitreoscilla hemoglobin: Isotherm modeling with two- and three-parameter models Eng. Life Sci. 2010, 10, No. 3, 225–232

66. **Khleifat KM**; Nawayseh, K, Adjeroud, NR; Tarawneh, KA, A, Adjeroud RM, Abdelgani, A. 2009. Effect of cadmium-resistance plasmid on Cd^{+2} biosorption, uptake and adsorption by *Klebsiella oxytoca***.** Bioremediation J. 13 (4) 159-170

67. **Khleifat, KM**; Khaled A Tarawneh†, Halasah, Rima A, Reyad Shawabkeh, Zina Halasah. 2009. Biodegradation of Linear Alkylbenzene Sulfonate by *Burkholderia sp*.: Effect of some growth conditions. Int. J. Agri. Biol. Sci. 12:17-25.

68. Abboud, MA., Aljundi, IH, **Khleifat KM**, Dmour, S. 2010. Biodegradation kinetics and modeling of whey lactose by bacterial hemoglobinVHb-expressing *E. coli* strain. Biochemical Eng.J. 48 (2) 166-172

69. Qaraleh, H.N., Abboud, M.M., Khleifat, K.M., Tarawneh, k.A. and Althunibat, O.M . (2009). Antibacterial activity in Vitro of Thymus capitatus from Jordan. Pak. J. Pharm. 22 (3), 247-251

70. Abboud, M., Al-Tarawneh Amjad, **Khleifat KM** Tarawneh Khaled and Homodi Saed. (2009) Copper uptake *in vivo* and *in vitro* by *Pseudomonas aeruginosa* isolated from burn-infected patients. Curr Microbiol (2009) 59:282–287

71. Tarawneh, K.A; Sharaf Omar, Osama Twissi, **Khleifat,KM**; Ahmad Al-Mustafa and Khaled Al-Sharafa (2008). Antifungal and antioxidant effects of extracts of some medicinal plant species growing in south Jordan. Bull. Fac. Agric., Cairo Uni**v**.,59 (2008): 242-249.

72. Khaled A Tarawneh Nafe M. Al-Tawarah, Adel Abdelghani, Ahmad M. Al-Majali AND **Khaled M Khleifat** (2008).Characterization of Verotoxigenic *Escherichia coli* (VTEC)

isolated from slaughtered small ruminants and slaughterhouses in Southern Jordan. J Basic Microbiol. 48 (1-8).

73. Tarawneh, K, **Khleifat, KM**; Ahmed Al-Mustafa, Nadia Alioui, Mohammad A. Wedyan and Stephen J. Free (2008). Temporal Expression of *Neurospora crassa* Tyrosinase Gene Under The Control of Glucose–Repressible Gene-1(Grg-1) Promoter. Aust. J. Basic Appl. Sci**.**. 2 (4) 805-814

74. Abbod M. M; **Khleifat KM;** Tarawneh KA; Al-Mustafa AH; ; Elshafei Badawi M (2008). Effects of Free Amino acids on Catechol Oxidase From Different Plant Sources. Advances in Food Sciences Journal, 30 (1).1-8

75. Tarawneh, KA., Wedyan, M., Al-zou'bi, MA **Khleifat, K.M**., Tarawneh, A. (2008). Isolation and characterization of halophilic bacteria from the Dead Sea Coast, Jordan. Adv. Environ. Biol. 2(2): 63-69, 2008

76. **Khleifat KM**. (2007). Biodegradation of Phenol by *Actinobacillus* sp: mathematical interpretation and effect of some growth conditions. Bioremediation Journal, 11 (3): 1-10

77. **Khleifat KM** and Ahmed H Al-Mustafa (2007). The Effect of Some Nitrosative Agents on the Growth of *vgb*-bearing *Enterobacter aerogenes* Strains . Curr. Microbiol. 55 (1):30-5. 2007

78. **Khleifat, K.M.** Khaled A Tarawneh, Amjad A Al-Tarawneh, Khalid AlSharafa; Mohammad A Wedyan (2008). Growth kinetics and toxicity of *Enterobacter cloacae* grown on linear alkylbenzene sulfonate as sole carbon source. Curr. Microbiol. 57 (4), 364-370.

79. **Khleifat, KM.** (2007). Effect of Substrate Adaptation, Carbon Starvation and Cell Density on the Biodegradation of Phenol by *Actinobacillus* sp. Fresenius Environmental Bulletin,16 (7)726-730

80. **Khleifat K. M**, Ibrahim Al-Majali; Reyad Shawabkeh and Khaled Tarawneh (2007). Effect of Carbon and Nitrogen Sources on the Biodegradation of Phenol by *Klebsiella oxytoca* and Growth Kinetic Characteristics. Fresenius Environmental Bulletin**,** 16 (5) 1-7.

81. Abboud, M. M., **Khleifat**, **Khaled M** Mufeed Batarseh, Khaled A. Tarawneh, Ahmed AlMustafa and Maali Al-Madadhah (2007). Different optimization conditions required for enhancing the biodegradation of linear alkylbenzosulfonate and sodium dodecyl sulfate surfactants by novel consortium of *Acinetobacter calcoaceticus* and *Pantoea agglomerans***.** Enz. Microbiolol. Technology, 41: 432-439.

82. Shawabkeh, Reyad; **Khaled M. Khleifat** ; Ibrahim Al-Majali [b]; Khaled Tarawneh (2007). Rate of Biodegradation of Phenol by *Klebsiella oxytoca* in Minimal Medium and Nutrient Broth Conditions. Bioremediation Journal, 11 (1) 13 - 19

83. **Khleifat, KM. (2006).** Biodegradation of sodium lauryl ether sulfate (SLES) by Two different Bacterial Consortia. Curr Microbiol**.** 53, 444-448

84. **Khleifat, K.M**., Al-Mustafa , A.H., Abboud , M.M (2006). Effect of *Vitreoscilla* Hemoglobin Gene (*vgb*) and Metabolic Inhibitors on Cadmium Uptake by the Heterologous Host *Enterobacter aerogenes.* Process Biochemistry**,**41 (4) 930-934

85. **Khaled M Khleifat (2006) .** Correlation between bacterial hemoglobin and carbon sources: Their Effect on the Cu Uptake by Transformed *E. coli* strain αDH5. Curr. Microbiol**.** 52 (1) 64 68.

86. **Khleifat K. M**., Sharaf S. Omar and Jafar H. Al-Kurishy (2006). Urinary Tract Infection in South Jordanian Population. Journal of Medical Sciences 6 (1): 5-11.

87. Khleifat K (2006). Biodegradation of Linear Alkylbenzene Sulfonate by a Two-Member Facultative Anaerobic Bacterial Consortium. Enz. Microbial Technol, 3 (5), 1030-1035
88. Khleifat K.M., Al-Mustafa , A.H., Abboud , M.M (2006) Effects of Carbon Source and *Vitreoscilla* Hemoglobin (VHb) on the Production of β-galactosidase in *Enterobacter aerogenes*. Curr. Microbiol. 53, 277-281
89. Khleifat K. (2006) Biodegradation of Phenol by *Ewingella americana*: Effect of Carbon Starvation and Some Growth Conditions. Process Biochemistry, 41: 2010-2016
90. Khaled Khleifat, Abboud, M., Al-Shamayleh, W., Jiries, A., Tarawneh, K. . (2006) Effect of Chlorination Treatment on Gram Negative Bacterial Composition of Recycled Wastewater **.**PJBS, 9 (9) 1660-1668.
91. Khleifat K, Laymun, L., Al-Sharafa, K., Abboud, M., Tarawneh, K (2006). Effect of variation in copper sources and growth conditions on the copper uptake by bacterial hemoglobin gene (*vgb*) bearing *E. coli.* PJBS, 9(11): 2022-2031
92. Khleifat, K. and Abboud, M.M. 2003 Correlation between bacterial hemoglobin gene (*vgb*) and aeration: their effect on the growth and amylase activity in transformed *Enterobacter aerogenes*. Journal of Applied Microbiology 94, 1052-1056
93. Khleifat, K. Homady M.H. and Tarawneh K.A 2002 Histopathological effects of *Ferula hormonis* extract on the colon of male mice. Mutah Lil-Buhuth wad-Dirasat**,** 17 (2) 47-58
94. Khleifat K., Shakhanbeh, J., and Tarawneh K. 2002 The chronic effects of *Teucrium polium* on some blood parameters and histopathology of liver and kidney in the rat. Turk J Biol. 26 65-71
95. Shakhanbeh, J. and **Khleifat, K**. 2003 Failure of regeneration of sensory nerve fibers following neonatal denervation and crush lesion in rats. Turk. J. Biol**.**, 27, (2003), 215-221.
96. Homady M., Hussein, H., Jiries A., Mahasneh, A., Al-Nasir, F. and **Khleifat, K**. 2002 Survey of some heavy metals in sediments from vehicular service stations in Jordan and their effects on social aggression in prepubertal male mice. Environmental Research 89, 43-49, ,USA
97. Homady, H. H., **Khleifat, K.M**., Tarawneh K. A and Al-Raheil, I. A. 2002 Reproductive toxicity and infertility effect of Ferula hormonis extracts in mice. Theriogenology (57) 2247-2256, USA
98. Lahony, S. R., **Khleifat, K**., Al-Tarawneh, K. A., Abboud, M.M, Al-Oran, R.M., Al-Tarawneh, A.A., and Homady, M.H., 2002 Variations in five species of Jordanian reptiles with new record on the land tortoises *Testuda floweri* (Testudinidae: Chelonia). Pakistan J. Zool., 34 (1) 43-49
99. Khleifat, K. Homady M.H, Tarawneh K.A and Shakhanbeh, J. 2001 Effect of *Ferula hormonis* extract on social aggression, fertility and some physiological parameters in prepubertal male mice. Endocrine Journal, 48 (4), 473-482
100. Khleifat, K.M 2001 Presence of the bacterial hemoglobin gene *(vgb*) enhances culturability of a recombinant *Escherichia coli* αDH5 strain The Sciences 1 (4), 239-243
101. Khleifat, K. and Homady, H.M. 2000. Bacterial hemoglobin gene (*vgb*) transformed into *Escherichia coli* enhances lead-uptake and minimizes it's adsorption. Pak. J. Biol. Sci.3 (9) 1480-1483

Teaching Philosophy

I adore instructing! As a biologist, I firmly feel that it is my ethical responsibility to not only support but also actively push my students in order to assist them realize the following objectives: First, to clear up some of the students' misconceptions about biology. Next, to teach

them the main concepts I believe in, which are, of course, those that are backed up by academic logic and reason. Finally, to instill in them a love for the subject at hand, which will motivate them to participate in all tasks, experiments, and skills related to the subject.

Through my academic career, I always turned to communication in education; in other words, I encouraged my pupils to be skeptical of any idea, notion, or piece of fresh information before embracing it. Instead, I have always urged that they debate, discuss, and raise objections to every notion and topic. In other words, I detest spoon-feeding and encourage my students to pursue academic specialties that emphasize research and academic success. I usually try to teach the course's ABCs as a crucial stage in the classroom procedure, regardless of the level. I really believe that imparting clear, fundamental guidelines to students at the beginning of each session will make for an outstanding experience they won't soon forget. I always like to Go Easy because of this! particularly for novices.

I think that students who understand and study the fundamentals in a solid way will improve their own learning styles through motivation and self-study. They will learn from this not to be apathetic recipients. Students are expected to leave my class with a foundational understanding of biology that will let them engage, construct, and develop ideas.

The use of brainstorming is a fantastic strategy. This will help us collect as many ideas, thoughts, and concepts as we can. This will also instill a sense of difficulty, especially when certain questions that may come up during discussions are offered to the students to discuss in groups and help them think of new biological topics and specialties. These subjects and queries will also be developed into concepts for in-depth group discussion. High achievers will serve as co-teachers who will facilitate good interpersonal relationships with other pupils. Low-achieving students should never be left alone and should always be watched. Giving them easy chores is crucial because they must be treated as little children who require special care and attention. They will always be motivated to do this. The most significant are exams. Exams should take into account his teaching qualities by allowing him to give presentations and experience being a teacher in order to evaluate more than just a student's performance. Finally, they can be the students' choice by oral testing them after they have indicated the areas they are interested in. This is because home exam portions allow students to research and study. Of course, there are occasions when we must be adaptable and occasionally change our teaching and learning strategies. There are other areas outside the classroom and the library where people can learn. There ought to be more places, like the garden and other educational institutions and businesses t hat provide cutting-edge labs and equipment.