

CURRICULUM VITAE

Khalid Ghazi Fandi, PhD.



PERSONAL & CONTACT INFORMATION

Name Khalid Ghazi Daifalla Fandi
Title Dr.
Designation Full Professor
Institution Al-Hussein Bin Talal University
Nationality Jordanian
Date of birth 12-03-1968
Address (office) Department of Biological Sciences,
Faculty of Sciences,
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Research Gate:

https://www.researchgate.net/profile/Khalid_Fandi

Google Scholar (h-index: 9)

<https://scholar.google.com/citations?user=RYR0Pv0AAAAJ>

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EDUCATION

- 2001 **PhD**, Molecular Biology / Biochemistry, University of Putra Malaysia (UPM), Malaysia.
Dissertation Title: "Purification, characterization and molecular studies of F6PPK from bifidobacteria"
- 1993 **MS**, Biochemistry, Aligarh Muslim University (AMU), India.
- 1990 **BS**, Biological Sciences, Yarmouk University, Jordan.

PROFESSIONAL EXPERIENCE HISTORY

- 2025- present **Professor**, Department of Biological Sciences, AHU, Jordan
- 2011- 2024 **Associate Professor**, Department of Biological Sciences, AHU, Jordan
- 2015- 2017 **Assoc. Prof.**, Dept. of Clinical Biochemistry, Faculty of Medicine, University of Tabuk, KSA
- 2013-2015 **Assoc. Prof.** Dept. of Pharmacology College of Pharmacy, Aljouf University, KSA
- 2005 -2011 **Assistant Professor**, Dept. of Biological Sciences, AHU, Jordan
- 2006 -2008 **Chairman**, Dept. of Biological Sciences, AHU, Jordan
- 2004-2005 **Head**, School of Life Sciences – Biotechnology, Technology Park Malaysia Academy (TPM Academy), Malaysia
- 2002-2003 **Adjunct Lecturer at College of Pharmacy**, Jordan University of Science and Technology, Philadelphia University and Al-Zaytuna University, Jordan
- 2000 **Lecturer** of American Degree program, Sepang Institute of Technology (SIT), Malaysia
- 1995-1996 **Research Assistant**, plant molecular genetics, National University of Malaysia (UKM),

ACADEMIC HONORS AND AWARDS

1. Highfield awarding body for compliance qualification (HABD) level 2 Award in the control of substances hazardous to health (QCF) 15/3/2016
2. CPD on 3rd world congress and expo, Applied Microbiology Dubai UAE 7-9 Nov 2016
3. Undergraduate fellowship for Bachelor studies from Ministry of Higher education, Jordan 1986-1990.
4. Graduate Research Assistant scholarship (GRA) for PhD student from University Putra Malaysia, Malaysia, 1996-2001
5. German research fellowship (DFG), Institute for Organic and Biomolecular Chemistry, University of Göttingen, Germany, 2009.

SCIENTIFIC RESEARCH VISIT

Jun-Sept 2009: Institute for Organic and Biomolecular Chemistry University of Göttingen, Germany, "Metabolites of Jordanian hot springs thermophilic bacterial species".

Jun-Aug 2007: Department of Biotechnology Engineering, Faculty of Engineering, International Islamic University (IIU), Malaysia, "Biodegradation and Bioremediation - waste water treatment".

Jun-Aug 2005: Biological and Agricultural Engineering, The University of Arkansas, Fayetteville, USA, "Nano engineered biological rotary motors as Ready-to-use Devices".

MEMBERSHIP OF EDITORIAL BOARDS OR REFEREESHIP FOR PERIODICAL PUBLICATIONS

Associate Editor:

- Eurasian Journal of Agricultural and Environmental Medicine

Reviewer for:

- Saudi Journal of Biological Sciences (SJBS)
- Journal of Environmental Biology (JEB)
- Jordan Journal of Biological Sciences (JJBS)
- American-Eurasian Journal of Sustainable Agriculture
- Advances in Natural and Applied Sciences
- International Conference on Biotechnology Engineering 2007, May 8-10, international Islamic University in Kuala Lumpur, Malaysia
- National Postgraduate Conference on Engineering, Science and Technology, NCP 2009, March 25-26, University of Technology PETRONAS, Malaysia

Organizing Committee

- International Summit on Microbiology and Parasitology during October 25-26, 2018, at Prague, Czech Republic

LANGUAGES & SKILLS

Languages: Arabic (mother language), English (very good), Bahasa Malaya and Hindi (fair)

Computer Skill: ICDL, MUCDL, software packages (Primer design, PRISM...).

EXAMINING COMMITTEE

MSc Thesis

- 1- The Relationship between Mitochondrial Gene Cytochrome C Oxidase Subunit III (COX3) Mutation and Male Infertility in Jordanian Population by Asmaa **Issa Al-Smadi**, 2022, Department of Biological Sciences, Yarmouk University- Jordan.
- 2- Utilization of Dry Olive Mill Residues (DOR) for the Production of Xylanase Enzyme by *Aspergillus terreus* in Solid State Fermentation by **Ammar Al-Sheikh**, 2012, Dept. of Biology and Biotechnology, Hashemite University, Zarqa – Jordan.
- 3- Submerged Culture Fermentation of Olive Mill Wastewater (OMW) for the Production of Extracellular Cellulase Enzyme by *Trichoderma viride* By **Maram Al Tharf**, 2011, Dept. of Biology and Biotechnology Hashemite University, Zarqa – Jordan.

TEACHING COURSES EXPERIENCE

General Biology, General Science, Molecular Biology, Clinical/Biochemistry, Biotechnology, Enzyme/Protein Technology, Cell Biology, Modern Techniques in Biotechnology, Microbiology, Microbial Genetics and Organic Chemistry.

AREAS OF EXPERTISE

- Protein/Enzyme Biochemistry/Biotechnology
- Molecular Biology
- Microbial Biotechnology
- Environmental Microbiology
- Natural products

RESEARCH

Principal investigator

1. Metabolites of Jordanian hot springs thermophilic bacterial species, 2009, Granted by DFG, Germany.
2. King Talal Dam water Biochemical Assessment, 2007-2008, Granted by NCB, Jordan.
3. Diversity, Vertical Distribution, and Metabolic Activities of Thermophiles and Halophiles in the hot springs and in the Dead Sea, Jordan, 2007-2010, Granted by AHU, Jordan.

Co-investigator

1. Proteomics and Molecular genetics of oil palm, 1994 –1997, Granted by IRPA, Malaysia
2. Detection, isolation, and purification of Enzymes from Probiotics, 1995 – 2000, Granted by IRPA, Malaysia
3. Nanoparticles as Drugs delivery system “A novel microfluidic rotary mixer actuated by biological Nano-Engineered flagellar motors”, 2009-2012, Granted by JUST, Jordan
4. Development of molecular markers for probiotics strains “Bifidobacteria”, 1998 –2001, UPM, Malaysia
5. Effect of organic dissolved nitrogen of phytoplankton in Gulf of Aqaba, 2006 –2007, AHU, Jordan
6. Gut content analysis and in situ grazing experiments of selected species of zooplankton in red sea” AHU, Jordan

7. Methanotrophic bacteria use in bioreactors - Production of Nutraceuticals, 2004-2007, Granted by TPM, Malaysia
8. The use of Computer Integrated Farming (CIF) system to optimize aquaculture products and by-products as animal feed and biofertilizer, 2002-2005, Granted by TPM, Malaysia
9. Wastewater treatment: Biodegradation and Bioremediation, 2006 – 2009, UII, Malaysia
10. Genetic studies of autosomal recessive dilated cardiomyopathy" 2016-2017, UT, Tabuk, KSA.

WORKSHOPS TAKEN & TRAINING

- Attended a training course on "Molecular Techniques in Plant Biotechnology". Held at National University of Malaysia (UKM), Bangi, and cooperation with Universiti de Geneve. *April 3-14, 1995*
- Involved in a short-term e-descriptor (Bioinformatic) project at the International Plant Genetic Resources Institute (IPGRI), Regional for Asia, the Pacific and Oceania, Serdang, Malaysia. *Nov 2003 -Jan 2004*
- Electrocardiogram, basics and advanced (4 CME hours), faculty of Medicine University of Tabuk and Saudi Commission for Health Specialties. *May 5, 2016*
- International conference on Primitive Dentistry, ICPD 2015, Aljouf University, KSA. *April 7-9, 2015*
- Writing and Revising Learning outcomes of Module-Based Medical courses, Faculty of Medicine, University of Tabuk KSA. *April 20, 2017.*
- Safety course with Saudi Aramco on *May 8, 2016.*
- Participation in the workshop "The Reality of Imported Food in the Local Market" at the University of Applied Sciences and the Agricultural Engineers Syndicate on *March 17, 2008.*
- Participation in the workshop "Environmental Protection is a Collective Responsibility" organized by the Environmental Directorate for Al-Karak Governorate in collaboration with JICA (Japan International Cooperation Agency) on *May 15, 2006.*
- Participation in the International Conference on "Genetically Modified Foods" in Amman on *August 21-22, 2006.*
- Participation in the 12th Jordanian Scientific Week on "Energy, Water, and Human Environment" in Amman on *November 27-28, 2006*
- Participation in a training course on the development of competencies for faculty members at Al-Hussein Bin Talal University, from February 4 to 8, 2018

PROFESSIONAL ACTIVITIES AND SOCIETY MEMBERSHIP

Membership of Scientific Societies

- American Society for Microbiology (ASM), 1998-present, USA
- American Society for Biochemistry and Molecular Biology (ASBMB), 2008-present, USA
- Malaysian Society for Molecular Biology and Biotechnology (MSMBB), 1995-2001, Malaysia
- Member of the National Center of Biotechnology (NCB)-Jordan www.ncb.gov.jo, 2006-present, Jordan

Membership of University Committees

- Member of the University of Al-Hussein bin Talal Council for the academic years 2018-2019 and 2020-2021.
- Member of the Curriculum Planning Committee upon the establishment of the Princess Aisha College of Nursing in 2008.
- Chairman of the Technical Study Committee for the Central Tender (29/2006) "Supply, Installation, and Operation of the Medical Analysis Laboratory for the University Clinic."

- Member of the initial committee for establishing the organizational structure and study plans for the College of Criminal Sciences intended to be established at Al-Hussein University in 2007.
- Member of the initial committee to study the feasibility of establishing a College for Studies of Desert Regions in the Southern Badia Region affiliated with Al-Hussein University.
- Member of the investigation committee into violations by female students in university housing for the academic year 2005/2006.
- Member of the University Proficiency Exam Committee at Al-Hussein University for the academic year 2005/2006.
- Chairman of the Curriculum Planning Committee in the Department of Biological Sciences, modified in 2006-2007, and updated in 2008 according to accreditation standards.
- Chairman of the Technical Study Committee for the Central Tender (29/2007) "Supply, Installation, and Operation of Research Laboratories for the Molecular Biology Laboratory."

Extra-Curricular Activities

- Grand Awards Judge at the Intel International Science and engineering Fair (Intel-ISEF) 2017, Los Angeles, CA, USA
- Grand Awards Judge at the Intel International Science and engineering Fair (Intel-ISEF) 2014, Los Angeles, CA, USA
- Technical committee of Malaysia's National Biotechnology policy at Ministry of Science, Technology, and Innovation Malaysia, 2004
- Technical committee of Biotechnology Intensification of Research in Priority Areas (IRPA) funding at Ministry of Science, Technology and Innovation Malaysia 2004-2005, Malaysia
- Member of the environmental committee of the National Center for Biotechnology (NCB), Jordan, 2006-2009, Jordan
- Scientific Judge committee of International Intel award for Science and Engineering (Intel-ISEF), inventors and explorers annually under the supervision of the Ministry of Education of Jordan from 2006 - present
- Chairman / member of many tenders' committees and academic committees, TPM, AHU.
- President for the Postgraduate Student Society of Faculty of Food Science and Biotechnology (UPM), 1997-2000. Malaysia
- Member of the Technical Committee for the Strategic Project of the University of Jouf Hospital in 2014.

Report Studies or Consultation Services

- Participation in the study of the environmental problem resulting from sewage in the Modawara region of Jordan in 2008.

Academic Program Coordinator

- Involved in conducting and running a twinning program of BSc Degree in Biotechnology with Technology Park Academy, Malaysia and California State Universities CSU's California, Pomona, 2004-2005

Public Seminars

- Lecture participation in the workshop at the Department of Biological Sciences on World AIDS Day in collaboration with the National AIDS Control Association on December 21, 2005.
- Lecture participation in the educational workshop at the Department of Biological Sciences on World Health Day in collaboration with the Health Office of Johns Hopkins University in Jordan on May 15, 2007.

PUBLICATIONS

Peer-reviewed Articles

1. **Khalid G Fandi**, Muhannad I. Massadeh and Abdel Rahman M. Al-Tawaha¹, (2024), Diversity of Bioactive Metabolites Produced by Thermophilic *Bacillus* Strains Isolated from Jordanian Hot Springs, *Jordan Journal of Biological Sciences*, 17(2), 335-345 ; <http://dx.doi.org/10.54319/jjbs/170214>
2. Muhannad I. Massadeh , **Khalid Fandi**, Hanan Al-Abeid, Othman Alsharafat and Khaled Abu-Elteen, (2022), Production of Citric Acid by *Aspergillus niger* Cultivated in Olive Mill Wastewater Using a Two-Stage Packed Column Bioreactor. *Fermentation*, 8(4), 153 ; <https://doi.org/10.3390/fermentation8040153>
3. Abu-Zaitoon YM, Abu-Zaiton A, Tawaha ARA, **Fandi KG**, Alnaimat SM, Pati S, Almomani FA. Evidence from Co-expression Analysis for the Involvement of Amidase and INS in the Tryptophan-Independent Pathway of IAA Synthesis in Arabidopsis. *Appl Biochem Biotechnol*. 2022 Oct;194(10):4673-4682. doi: 10.1007/s12010-022-04047-8. Epub 2022 Jul 8. PMID: 35802240.
4. Abdel Rahman M. Al-Tawaha¹, Nusrat Jahan, Nidal Odat, Ezz Al-Dein Al-Ramamneh, Abdel Razzaq Al-Tawaha, Yousef M. Abu-Zaitoon, **Khalid Fandi**, Mohammad Alhawatema, Amanullah, Abdur Rauf, Mohammad Wedyan, Mohammad Ali Shariati, Ali M. Qaisi, Imran, Khaled Tawaha, Munir Turk, Samia Khanum, (2020), Growth, Yield and Biochemical Responses in Barley to DAP and Chitosan Application Under Water Stress. *Ecological Engineering*, 21(6); 86-93. DOI: [10.12911/22998993/123251](https://doi.org/10.12911/22998993/123251)
5. **Khalid Ghazi Fandi**, Fouad Almomani, Muhannad Massadeh, Yousef M. Abu-zaitoon and Abdel Rahman Al Tawaha, (2020), Pectolytic, cellulolytic enzyme activity and RAPD polymorphism detection of *Macrophomina phaseolina* isolated from infected plants in Jordan. *Research on Crops*, 21(4): 804-812. DOI: [10.31830/2348-7542.2020.123](https://doi.org/10.31830/2348-7542.2020.123)
6. Muhammad Tariq, **Khalid Fandi**, Rashid Mir, Yassir Birema, FM abuduhier, (2019), Frequency of cardiac Troponin T (TNNT2) polymorphism, a Dilated cardiomyopathy gene in Tabuk population. *Indian Journal of Public Health research and Development*. 10 (1):594
DOI: [10.5958/0976-5506.2019.00117.7](https://doi.org/10.5958/0976-5506.2019.00117.7)
7. Muhannad I. Massadeh and **Khalid Fandi** (2014) Acetone-Butanol-Ethanol (ABE) Production by Anaerobic Microflora Growing on Olive Mill Wastewater. *J. Biobased Mater. Bioenergy*, 8, pp. 94-99. DOI: <https://doi.org/10.1166/jbmb.2014.1402>
8. **Fandi K. G**, F. H. Shah, H. M. Ghazali. (2011) Protein profiling during mesocarp development in oil palm fruit. *Pertanika Journal of Tropical Agricultural Science*, 34 (1), pp. 63 - 73.
9. Al-Fandi M., M. A. K. Jaradat, **K. G. Fandi**, J. P. Beech, J. O. Tegenfeldt and T. C. Yih. (2010) Nano-engineered Living bacterial Motors for Active Microfluidic Mixing, *IET Nanobiotechnology*, 4 (3), pp. 61-71.

10. Massadeh M. I., A. Fraij, **K. G. Fandi** (2010) Effect of Carbon Sources on the Extracellular Lignocellulolytic Enzymetic System of *Pleurotus Sajor-Caju*. *Jordan Journal of Biological Sciences*, 3 (2), pp. 51-54.
11. **Fandi K. G.**, I. Y. Qudsieh, S. A. Muyibi, M. I. Massadeh (2009) Water Pollution Status Assessment of King Talal Dam, Jordan. *Advances in Environmental Biology*, 3 (1), pp. 92-100.
12. Qudsieh I. Y. , A. Fakhru' l-Razi, N. A. Kabbashi, M. E. S. Mirghani, **K. G. Fandi**, M. Z. Alam, S. A. Muyibi, M. M. Nasef (2008) Preparation and characterization of a new coagulant based on the sago starch biopolymer and its application in water turbidity removal. *Journal of Applied Polymer Science*, 109 (5), pp. 3140-3147.
13. M.A. Wedyan and **K. Fandi** (2007) Soluble Organic Nitrogen in the Marine Aerosol over the Gulf of Aqaba (Jordan). *Journal of Applied Sciences Research*, 3(8): 787-790.
14. M.A. Wedyan, **K.G. Fandi** and S. Al-Rousan (2007) Bioavailability of Atmospheric Dissolved Organic Nitrogen in The Marine Aerosol over the Gulf of Aqaba. *Australian Journal of Basic and Applied Sciences*, 1(3): 208-212
15. Qudsieh I. Y., N. A. Kabbashi, M. F. Al-Khatib, M. Z. Alam, M. A. Atieh, **K. G. Fandi**, A. Mamun, M. Z. Rahman, S. A. Muyibi (2007) Enzymatic Biodegradability Behavior of Poly (Methyl Methacrylate) Grafted Sago Starch Biopolymer” *IJUM Engineering Journal*, 8 (2), pp 37-45.
16. **Fandi K. G.**, H. M. Ghazali, M. A Yazid, A. R. Raha. (2001) Purification and N-terminal amino acid sequence of fructose-6-phosphate phosphoketolase from *Bifidobacterium longum* BB536. *Letters in Appl. Microbiol.* 32 (4), pp. 235-239.
17. **Fandi K. G.**, H. M. Ghazali, M. A Yazid, A. R. Raha. (2000) Purification and characterization of fructose-6-phosphate phosphoketolase from *Bifidobacterium asteroides*. *Asia Pac. J. Mol. Biol. Biotechnol.* 8 (2), pp.137-146.

Books/ Chapters in a book

18. **Khalid Fandi**, Samia Khanum, Abdel Rahman Mohammad Al Tawaha, Abhijit Dey, Abdel Razzaq Al-Tawaha, Amanullah, Vishnu D. Rajput, Ekaterina Kozuharova, Tauseef A. Bhat, Abhishek Singh, Karen Ghazaryan, Mohd. Kamran Khan, Anuj Saraswat, Iftikhar Ali, Sami A. Awabdeh, Nabeel Bani Hani, Moh`D Al-Rifae, Doaa Abu-Darwish, Olha Tokarieva, Rehali Mariyem, Hanan Aref Hasan. 2024. Biochar: A Long-Term Solution for Improving Plant Growth and Soil Properties. In Book: Biochar: Transforming Soil for Sustainable Agriculture” Editors: Dr. Vishnu D. Rajput Prof. Abdel Rahman Dr. Abhishek Singh Dr. Karen Ghazaryan Prof. Tatiana M. Minkina. Taylor and Frances. AAP Press Canada
19. Abdel Rahman Mohammad Al-Tawaha, Sonia Sheoran, Pradeep Sharma, Garima Singroh, Yousef M Abu-Zaitoon, Laila Trioui, Mohammad Ali Shariati, Huma Naz, Abdel Razzaq Al-Tawaha, Ali M. Qaisi, Amanullah, Imran, Abdur Rauf, Shah Khalid, Mohd Abas Shah, Devarajan Thangadurai, Jeyabalan Sangeetha, Shah Fahad, **Khalid Fandi**, (2021). Biological Nitrogen Fixation in a Changing Climate, In: Shah Fahad, Osman Sonmez, Shah Saud, Depeng Wang, Chao Wu, Muhammad Adnan, Veysel Turan (eds.) *Sustainable Soil and Land Management and Climate Change*. 1st Edition CRC Press Tylor’s & Francis

Proceedings

20. **Khalid Fandi**, Nayef Al-Muaiikel (2015) Extraction and Purification of Biochemical Molecules from Thermophilic Bacteria. In the 5th International Conference on Biological and Medical Sciences (ICBMS'15), Abu Dhabi (UAE), March 16-17.

21. **Khalid Fandi**, Nayef Al-Muaikel, and Fouad Al-Momani (2014) Antimicrobial activities of some thermophiles isolated from Jordan hot springs. In the 2nd International conference on Biological and Chemical Processes (ICBCP'14), Kuala Lumpur, Malaysia, March 27-28.
22. **K. G. Fandi**, M. Bahi, M. A. Abdalla, M. Massadeh, H. Laatsch (2010) Screening Metabolites of Thermophiles from Thermal Springs Jordanian Bacteria by LC-MS/MS Profile. In the Proceedings of the 110th General meeting ASM, San Diego Conventional center, CA, California USA 23-27 May 2010.
23. Al- Fandi M., M. Al-Rousan, M. Jaradat and **K. G. Al-Zoubi (Fandi)** (2008) Nano Engineered Biological Rotary motors as Ready-to-use Devices: Integration Challenges, Simulations and Opportunities. Knowledge based industries & nanotechnology conference, Doha, Qatar 11-12 Feb. 2008.
24. **Fandi K. G.**, H. M. Ghazali, M. A. Yazid. (2000). Properties of fructose-6-phosphate phosphoketolase purified from *Bifidobacterium asteroides*. In the Proceedings of the 100th General meeting ASM, Los Angeles Conventional center, LA, California, USA. 21-25 May 2000.
25. **Fandi K. G.**, H. M. Ghazali, M. A. Yazid. (1997) Extraction and characterization of Fructos-6-phosphate-phosphoketolase (F6PPK) in *Bifidobacterium asteroides*. In Proceedings of the 9th National Biotechnology Seminar, Penang, Malaysia. 23-26 Nov. 1997

I hereby certify that the above information is true and correct.



Last modified on April. 18th, 2025.