



الأستاذ الدكتور يعقوب حسن يعقوب

السيرة الذاتية

Prof. Dr. Jacob H. Jacob

Curriculum Vitae



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<https://scholar.google.com/citations?user=4dhgqIsAAA>



<https://jo.linkedin.com/in/jacob-h-jacob-0583a621>



https://www.researchgate.net/profile/Jacob_Jacob2

PERSONAL DATA

Date & Place of Birth

September 4, 1976, Irbid, Jordan

Marital Status

Married, Three Sons

Academic Rank & Institution

Full Professor of Microbiology, Dept. of Biological Sciences, Faculty of Science, Al al-Bayt University (AABU), Jordan

Date of Employment at AABU

September, 2008

EDUCATION

2007: PhD in Microbiology

University of Bremen/Max Planck Institute (MPI), Bremen, Germany

2005: M.Sc. in Microbiology

University of Bremen/Max Planck Institute (MPI), Bremen, Germany

2002: M.Sc. in Biological Sciences

Yarmouk University (YU), Irbid, Jordan

1999: B.Sc. in Biological Sciences

Al al-Bayt University (AABU), Al-Mafraq, Jordan

DISSERTATION & THESES

Ph.D. Dissertation (Microbiology)

Regulation of Anaerobic Catabolism of Aromatic Compounds and Sulfate Reduction in *Desulfobacula toluolica* Tol2.

Supervisors

Prof. Ralf Rabus and Prof. Friedrich Widdel (Max-Planck Institute-University of Bremen, Germany).

Dissertation online: http://www.marmic.mpg.de/marmic/uploads_edit/Jacob_Jacob.pdf.

M.Sc. Thesis (Microbiology)

Regulation of Anaerobic Toluene and Benzoate Metabolism in Sulfate-Reducing *Desulfobacula toluolica* Tol2.

Supervisors

Prof. Ralf Rabus and Prof. Friedrich Widdel (Max-Planck Institute-University of Bremen, Germany)

M.Sc. Thesis (Biological Sciences)

Cytogenetic Activity of Cyclopentadienyldicarbonyl Iron Selenoterephthalic Acid and its Sulfur Analogue in Cultured Rat Bone Marrow Cells.

Supervisors

Prof. Ahmad Khalil and Prof. Ahmad Maslat (Yarmouk University, Jordan)

ADMINISTRATIVE & ACADEMIC EXPERIENCE

3

Position	Department, Faculty	Institution	Location	Duration
Department Chairman	Biological Sciences, Science	Al al- Bayt University	Mafraq, Jordan	2019- 2020
Full Professor of Microbiology	Biological Sciences, Science	Al al- Bayt University	Mafraq, Jordan	2019- Now
Department Chairman	Biological Sciences, Science	Al al- Bayt University	Mafraq, Jordan	2015- 2016
Associate Professor of Microbiology	Biological Sciences, Science	Al al- Bayt University	Mafraq, Jordan	2014- 2019
Associate Professor of Microbiology (Sabbatical Leave)	Medical Laboratories, Applied Medical Sciences	Qassim University	Qassim, KSA	2019
Assistant Professor of Microbiology	Biological Sciences, Science	Al al- Bayt University	Mafraq, Jordan	2010- 2014
Full-time Lecturer	Biological Sciences, Science	Al al- Bayt University	Mafraq, Jordan	2008- 2010
Research Assistant	Biological Sciences, Science	Yarmouk University	Irbid, Jordan	2002- 2002
Teaching Assistant	Biological Sciences, Science	Yarmouk University	Irbid, Jordan	2001- 2002

HONORS, AWARDS & SCHOLARSHIPS

2022

Certificate of appreciation for distinguished research contribution
Received from the President of Al al-Bayt University
Al al-Bayt University, Jordan

2015

Bilateral Exchange of Academics Program Award
German Academic Exchange (DAAD) Award
University of Heidelberg, Heidelberg, Germany

2005 - 2007

Holger Jannash PhD Scholarship
International Max Planck Research School, University of Bremen, Bremen, Germany

2003 - 2005

Marmic Scholarship for Graduate Studies
International Max Planck Research School in Bremen, University of Bremen, Bremen, Germany

2001 - 2002

Teaching Assistantship for M.Sc. Students
Yarmouk University, Irbid, Jordan

2002

Research Assistantship for M.Sc. Students
Yarmouk University, Irbid, Jordan

TEACHING EXPERINECS

Undergraduate Courses: I taught the following courses and for several times through the period from 2008 to present:

1. Microbiology 330	9. General Biology 102
2. Practical Microbiology 331	10. Practical General Biology 104
3. Microbiology for Nursing Students 230	11. General Biology for Nursing Students 107
4. Practical Microbiology for Nursing Students 231	12. Practical General Biology for Nursing Students 108
5. Microbial Ecology 440	13. Special Topics 492
6. Applied Microbiology 436	14. Graduation Project 499
7. General Biology 101	15. Immuno-parasitology
8. Practical General Biology 103	16. Seminar 491

Graduate Courses:

1. Advanced Microbiology 730	3. Industrial Microbiology 733
2. Microbial Physiology 734	4. Comprehensive exam

Coordinator for the following courses:

1. General Biology 101	3. Practical General Biology 103
2. General Biology 102	4. Practical Microbiology 331

Courses I taught during my graduate study in Jordan and Germany:

1. Proteomics-Gene Expression Course	4. Practical Advanced Cell Biology
2. Biology of Marine Prokaryotes	5. Practical Cytogenetics
3. Molecular Microbial Ecology	6. Lab rotation supervisor: Physiology of alkyl-benzene-degrading sulfate-reducing bacteria.

RESEARCH SUMMERY

Total Number of Published Articles in Peer-reviewd Journals: **38**

 Google Scholar

Citations: 607

h-index: 13

i10-index: 18



<https://orcid.org/0000-0003-2410-822X>

Citations: 339

h-index: 9



Citations: 495

Reads: 10303

PUBLICATIONS

1. Alhussaen, K., Hussein, E., **Jacob, J.**, Ghenaimi, S. A., Zoubi, M. A., Alani, F., & Saadoun, I. (2022). Characterization of culturable bacterial community associated with *Thunnus tonggol* (longtail tuna) and *Caranx sem* (blacktip trevally) marketed in the fish market of Muscat (Oman). *International Journal of Health Sciences*, 6(S2), 6168–6174.
2. Alexander S. Galushko¹ , Snezanna K. Ibryaeva¹ , Anna S. Zhuravleva¹ , Gayane G. Panova¹ , **Jacob H. Jacob**. 2021. Moderate thermophilic chemoorganoheterotrophic bacterium in surface layer of anthropogenic grounds of industrial estate area of Al-Mafraq, Jordan. *Ecological Genetics*, 19 (3): 209-217.
3. Emad I. Hussein, Wesam Al Khateeb, Mutaz A. Abd Al-Razaq, **Jacob H. Jacob**, Khalaf Alhussaen and Abdul-Salam F. Juhmani. 2021. Antimicrobial activity of methanolic and ethanolic crude extracts of carp, peel and seed of *Punica granatum* L. *Bulgarian Journal of Agricultural Science*, 27 (No 1): 227–233.
4. Hussein EI, **Jacob JH**, Shakhathreh MAK, Al-Razaq MAA, Juhmani ASF, Cornelison CT. 2018. Detection of antibiotic-producing Actinobacteria in the sediment and water of Ma'in thermal springs (Jordan). *GERMS*, 8(4):191-198.
5. **Jacob H. Jacob**, Abdullah T. Al-Fawwaz and Hussein H. Al-Shira'h. 2018. Evaluation and Optimization of Methane Production from Different Manure Types. *Jordan Journal of Biological Sciences*, 11(3): 323-327.
6. **Jacob H. Jacob**, Emad I. Hussein, Muhamad Ali K. Shakhathreh, Mutaz A. Abd Al-Razaq, Abdul-Salam F. Juhmani, Ala'a I. Matalaka and Christopher T. Cornelison. 2018. High-Throughput Sequencing-Based Review of *Bacillus* Diversity in Jordanian Hot Springs Water. *World Applied Sciences Journal*, 36(3): 470-475.
7. Fawzi I. Irshaid, **Jacob H. Jacob** and Saifaldeen I. Alhawamdeh. 2018. The Slaughtering and Dressing Procedures of Livestock Inside the Butcher Shops Generate High Levels of Bacterial Contamination. *Journal of Basic & Applied Sciences*, 14: 165-173.
8. Emad I Hussein, **Jacob H Jacob**, Muhamad Ali K Shakhathreh, Mutaz A Abd Al-Razaq, Abdul-salam F Juhmani, Christopher T Cornelison. 2017. Exploring the microbial diversity in Jordanian hot springs by comparative metagenomic analysis. *MicrobiologyOpen*, 6:e521.
9. **Jacob H Jacob**, Emad I Hussein, Muhamad Ali K Shakhathreh, Christopher T Cornelison. 2017. Microbial community analysis of the hypersaline water of the Dead Sea using high-throughput amplicon sequencing. *MicrobiologyOpen*, 6:e500.
10. Muhamad Ali K. Shakhathreh, **Jacob H. Jacob**, Emad I. Hussein, and Majed M. Masadeh. 2017. Microbiological Analysis, Antimicrobial Activity, and Heavy-Metals Content of Ma'in Hot-Springs Water. *Journal of Infection and Public Health*, 10: 789–793
11. **Jacob H. Jacob**, Fawzi I. Irshaid, Mohamed A. Alhalib. 2016. Estimation and Identification of Airborne Bacteria and Fungi in the Outdoor Atmosphere of Al-Mafraq area, Jordan. *Jordan Journal of Biological Sciences*, 9(1): 3-10.
12. **Jacob H. Jacob**, Joachim Wink, Michael Wink. 2016. Antimicrobial activity of Actinobacteria from a hypersaline area of the Dead Sea. Proceedings of the Fourth Kuwait Conference of Chemistry (KCC): Chemistry and life sciences. Kuwait: 20-22 March 2016. Editors: Hassan Al-Rabiah and Mohammad Afzal. Pp: 108-125.

13. Abdullah T. Al-fawwaz, **Jacob H. Jacob**, Turkia E. Al-Wahishe. **2016**. Bioremoval Capacity Of Phenol By Green Micro-Algal And Fungal Species Isolated From Dry Environment. *International journal of scientific & technology Research*, 5(2):155-160.
14. Fawzi I. Irshaid and **Jacob H. Jacob**. **2016**. Isolation and Molecular Identification of New Benzene Degrading Lysinibacillus Strains from Gasoline Contaminated Soil. *Research Journal of Environmental and Earth Sciences*, 8(4): 34-43.
15. Fawzi I. Irshaid, **Jacob H. Jacob**, Yaseen A. Al-Soud and Hamdoon A. Mohammed, **2016**. Nematocidal Effect of 1,2,4-triazole Derivatives Against Bursaphelenchus xylophilus. *Asian Journal of Biochemistry*, 11(3): 156-161.
16. Riyadh Muhaidat, Mahmoud A. Al-Qudah, Omar Samir, **Jacob H. Jacob**, Emad Hussein, Ibrahim N. Al-Tarawneh, Emad Bsoul, Sultan T. Abu Orabi. **2015**. Phytochemical investigation and *in vitro* antibacterial activity of essential oils from *Cleome droserifolia* (Forssk.) Delile and *C. trinervia* Fresen. (Cleomaceae). *South African Journal of Botany*, 99: 21–28.
17. Fawzi I. Irshaid and **Jacob H. Jacob**. **2015**. Screening and Characterization of Aerobic Xylene-Degrading Bacteria from Gasoline Contaminated Soil Sites around Gas Stations in Northern Jordan. *Journal of Biological Sciences*, 15(4):167-176.
18. **Jacob H. Jacob** and Fawzi I. Irshaid. **2015**. Toluene Biodegradation by Novel Bacteria Isolated from Polluted Soil Surrounding Car Body Repair and Spray Painting Workshops. *Journal of Environmental Protection*, 6:1417-1429.
19. Fawzi I. Irshaid, **Jacob H. Jacob**, Alia S. Khwaldh. **2014**. Contamination of the handles and bases of shopping carts by pathogenic and multi-drug resistant bacteria. *European Scientific Journal*, 10(27): 154-169.
20. Muhaidat RM, Al-Qudah MA, Al-Shayeb AS, **Jacob JH**, Al-Jaber HI, Hussein EI, Al-Tarawneh IN, Abu Orabi ST. **2013**. Chemical profile and antibacterial activity of crude fractions and essential oils of *Capparis ovata* Desf. and *Capparis spinosa* L. (Capparaceae). *International Journal of Integrative Biology*, 14(1): 39-47.
21. **Jacob, J.H.** and Irshaid, F.I. **2013**. A New Strain of *Shewanella Putrefaciens* Isolated From the Dead Sea of Jordan. *Malaysian Applied Biology Journal*, 42(2): 12 -19.
22. **Jacob H. Jacob**, Fawzi I. Irshaid, Yaseen A. Al-Soud, Abdullah M. Al-Balushi and Hamzeh R. Al-Arqan. **2013**. Synthesis, Characterization and Evaluation of Antibacterial Activity of Six Novel 1,2,4-Triazole Derivatives against Standard and Medical Bacteria. *Advanced Studies in Biology*, 5(6): 303 – 318.
23. **Jacob H. Jacob**, Fawzi I. Irshaid and Yaseen A. Al-Soud. **2013**. Antibacterial Activity of Some Selected 1,2,4-Triazole Derivatives Against Standard, Environmental, and Medical Bacterial Strains. *Advanced Studies in Biology*, 5(6): 291 – 301.
24. Fawzi I. Irshaid, Khalid A. Tarawneh, **Jacob H. Jacob** and Aisha M. Alshdefat. **2013**. Phenol Content, Antioxidant Capacity and Antibacterial Activity of Methanolic Extracts Derived from Four Jordanian Medicinal Plants. *Pakistan Journal of Biological Sciences*, DOI: 10.3923/pjbs.2013.
25. Emad I. Hussein, **Jacob H. Jacob**, Abdel-Salam F. Jahmani, Nigem Din Yousef. **2013**. Dissemination of Heavy Metals and Tolerant Bacteria along Zarqa River (Jordan). *Journal of Biological Sciences*, 13(3): 100-111.
26. Lars Wöhlbrand, **Jacob H. Jacob**, Michael Kube, Marc Mussmann, René Jarling, Alfred Beck, Rudolf Amann, Heinz Wilkes, Richard Reinhardt and Ralf Rabus. **2013**. Complete genome, catabolic sub-proteomes and key-metabolites of *Desulfobacula toluolica* Tol2, a marine, aromatic compound-degrading, sulfate-reducing bacterium. *Environmental Microbiology*, 15(5):1334-1355.

27. Emad I. Hussein, Ghassan J. M. Kanan, Khalid M. Al- Batayneh, Khalaf Alhussaen, Wesam Al Khateeb, Janti Qar, **Jacob H. Jacob**, Riyadh Muhaidat and Mohamed I. Hegazy. **2012**. Evaluation of Food Preservatives, Low Toxicity Chemicals, Liquid Fractions of Plant Extracts and their Combinations as Alternative Options for Controlling Citrus Post-harvest Green and Blue Moulds *in vitro*. *Research Journal of Medicinal Plant*, 6(8): 551-573.
28. **Jacob H. Jacob**. **2012**. Classification of Halophilic Heterotrophic Bacteria Thriving in the Jordanian Dead Sea Littoral Zone. *Journal of Biological Sciences*, 12(4): 246-252.
29. **Jacob H. Jacob** and Fawzi I. Irshaid. **2012**. Biochemical and Molecular Taxonomy of a Mild Halophilic Strain of *Citrobacter* Isolated from Hypersaline Environment. *Research Journal of Microbiology*, 7(4): 219-226.
30. Abdullah Al-Fawwaz and **Jacob H. Jacob**. **2011**. Removal of Meththylene Blue and Malachite Green from Aqueous Solutions by *Chlorella* and *Chlamydomonas* Species Isolated from a Thermal Spring Environment. *International Journal of Integrative Biology*, 12(1): 36-40.
31. Khalid M Al-Batayneh, **Jacob H. Jacob** and Emad I Hussein. **2011**. Isolation and Molecular Identification of New Thermophilic Bacterial Strains of *Geobacillus pallidus* and *Anoxybacillus flavithermus*. *International Journal of Integrative Biology*, 11(1): 39-43.
32. Khalaf Alhussaen, Emad I. Hussein, Khalid M. Al-Batayneh, Mahmoud Al-Khatib, Wesam Al Khateeb, **Jacob H. Jacob**, Mohamad A. shatnawi, Ashraf Khashroum, and Mohamed I. Hegazy. **2011**. Identification and Controlling *Pythium* sp. Infecting Tomato Seedlings Cultivated in Jordan Valley Using Garlic Extract. *Asian Journal of Plant Pathology*, 5: 84-92.
33. **Jacob H. Jacob** and Suhail Alsuhaili. **2010**. Isolation of two Fungal Strains Capable of Phenol Biodegradation. *Journal of Biological Sciences*, 10: 162-165.
34. Florin Musat, Alexander Galushko, **Jacob Jacob**, Friedrich Widdel, Michael Kube, Richard Reinhardt, Heinz Wilkes, Bernhard Schink and Ralf Rabus. **2009**. Anaerobic Degradation of Naphthalene and 2-methylnaphthalene by Strains of Marine Sulfate-reducing Bacteria. *Environmental Microbiology*, 11(1): 209-219.
35. **Jacob H. Jacob** and Ralf Rabus. Regulation of Dissimilatory Sulfate Reduction Pathway in *Desulfobacula toluolica* strain Tol2. **Abstract**. American Society for Microbiology 107th general meeting May 21-25, 2007, Toronto, ON, Canada.
36. **Jacob H. Jacob** and Ralf Rabus. Regulation of Aromatic Compounds Degradation in Sulfate Reducing *Desulfobacula toluolica* strain Tol2. **Abstract**. Association for General and Applied Microbiology (VAAM) annual meeting. April 1-4, 2007, Osnabrück-Germany.
37. **Jacob H. Jacob**, lars Wöhlbrand, Ralf Rabus. Differential Proteome Analysis of Anaerobic Catabolism of Aromatic Compounds in Sulfate-Reducing *Desulfobacula toluolica* strain Tol2. **Abstract**. Association for General and Applied Microbiology (VAAM) annual meeting March 19-22, 2006, Jena, Germany.
38. Niemann H, Lösekam T, Elvert M, **Jacob J**, Robador A, Nadalig T, Sauter E, Beer D, Boetius A. **2005**. Novel Methanotrophic Guilds on Mud Flows at Håkon Mosby Mud Volcano, Barents Sea: Evidence of Biomarker and DNA Analyses. **Abstract**. European Geosciences Union General Assembly. April 24 -29, 05, Vienna-Austria.
39. **Jacob H. Jacob**, Ahmad M. Khalil, and Ahmed O. Maslat. **2004**. *In vitro* Cytogenetic Testing of an Organoselenium Compound and its Sulfur Analogue in Cultured Rat Bone Marrow Cells. *Journal of Carcinogenesis*, 3:5.

RESEARCH GRANTS

1. Grant Number 2010/5745 from **Deanship of Academic Research at AL al-Bayt University**. Project title: Isolation, Molecular Characterization, and Physiological Analysis of Halophilic Prokaryotic Species Inhabiting the Jordanian Dead Sea. The work was funded by **Deanship of Academic research at Al al-Bayt University, Jordan (2010-2012)**.
2. Funding from **DAAD Bilateral Exchange of Academics Program**. Project title: A systematic approach for discovering novel anti-infective secondary metabolites from bacteria isolated from extreme habitat (2015).
3. An internal fund from the **Deanship of Academic Research, Al al-Bayt University, Mafraq, Jordan**, to fund one graduate project (2015).
4. An internal fund from the **Deanship of Academic Research, Al al-Bayt University, Mafraq, Jordan**, to fund three graduate projects (2014).
5. An internal fund from the **Deanship of Academic Research, Al al-Bayt University, Mafraq, Jordan**, to fund two graduate projects (2013).
6. An internal fund from the **Deanship of Academic Research, Al al-Bayt University, Mafraq, Jordan**, to fund four graduate projects (2012).

RESEARCH INTERESTS

My research projects were carried out in collaboration with colleagues from Al al-Bayt University and other researchers in Jordanian universities as well as researchers from United States, Germany, Russia, and Oman. My research interests are focused on – but not limited to - the following topics:

- Actinobacteria and their anti-infective agents
- Microorganisms from extreme environments (Thermophiles and Halophiles): Diversity and applications
- Dissemination of Microorganisms in nature
- Physiology of Aerobic and Anaerobic Bacteria (especially sulfate-reducing bacteria)
- Diversity of Marine Prokaryotes
- Biological Activity of Newly Synthesized Antimicrobials
- Metagenomic analysis to uncover microbial genetic diversity
- Proteomics approach to uncover microbial functions and pathways

METHODS

This is a brief list of some methods/approaches that I'm using in my research:

- Methods of cultivation, Isolation, and Identification of Actinobacteria
- Methods for evaluating biological activity of bacterial and plant extracts
- Anaerobic cultivation methods
- Methods for molecular and biochemical microbial taxonomy
- Microbial analysis of bioaerosols
- Prokaryotic phylogenetic analysis based on 16S rDNA
- Proteomics: Two-dimensional gel electrophoresis (2 DE), Two-dimensional difference gel electrophoresis (2D DIGE), SDS-PAGE and DeCyder Analysis.
- Metagenomic analysis of microbial communities in association with commercial facilities

CONFERENCES, SEMINARS & MEETINGS

1. **Amman, Jordan: Jordan-European Union Higher Education Cooperation Day** organized by the National Erasmus+ Office, 9th October 2017.
2. **Amman, Jordan: Jordanian Life Sciences Conference for Sustainable Development** organized by Al al-Bayt University in cooperation with **Alexander von Humboldt foundation** and **Jordanian Scientific Research Support Fund**. **Member of the organizing committee**. 27 – 29 April 2017.
3. **Amman, Jordan: Jordanian Life Sciences Conference for Sustainable Development** organized by Al al-Bayt University in cooperation with **Alexander von Humboldt foundation** and **Jordanian Scientific Research Support Fund**. Poster: Hussein Al-Shraa', Abdallah Al-Fawwz, Jacob H. Jacob. Biogas Production from Animal Wastes. 27 – 29 April 2017.
4. **Al al-Bayt University, Jordan: International Conference of Chemistry and Life Sciences. Member of organizing committee/Oral presentation:** Exteremophilic Microorganisms from Different Habitats in Jordan. 4-5.04.2017.
5. **Kuwait city, Kuwait: 4th Kuwait Conference of Chemistry (Chemistry and life sciences). Oral presentation:** Antimicrobial Activity of Actinobacteria from Hypersaline area of the Dead Sea. 20-22.03. 2016.
6. **Antalya, Turkey: International Conference on Agriculture, Environment and Biological Sciences.** Fawzi Irshaid and Jacob H. Jacob: Presence of pathogenic and multi-drug resistant bacteria on the surface of handles and bases of shopping carts. 4-5.6.2014.
7. **Al al-Bayt University, Jordan: International Conference on Science (ICS) at Al al-Bayt University, Session Chair/Oral presentation.** Presentation title: A New *Shewanella putrefaciens* strain isolated from the Dead Sea of Jordan. 20 - 22 November, 2012.
8. **Al al-Bayt University, Jordan: International Conference on Sciences (ICS).** Fawzi Irshaid, Khaled A. Tarawneh, Jacob H. Jacob, and Aisha Alshdefat: Phenol content, antioxidant capacity and antibacterial activity of methanolic extract derived from four Jordanian medicinal plants. 20-22.11.2012.
9. **Toronto, ON, Canada: The 107th General Meeting of the American Society for Microbiology (ASM):** Poster presentation. May 21-25, 2007.
10. **Osnabrück-Germany: The annual meeting of the German Association for General and Applied Microbiology (VAAM):** Poster presentation. April 1-4, 2007.
11. **Jena-Germany: The annual meeting of the German Association for General and Applied Microbiology (VAAM):** March 19-22, 2006, Poster presentation.
12. **Bremen- Germany: Leopoldina Symposium on Microbial life strategies:** 5-8.04.2006.
13. **Bremen- Germany: Internal Seminar at Max Planck Institute,** Anaerobic Alkylbenzene metabolism in sulfate-reducing bacteria, Max Planck Institute, Bremen: 20 May 2005.
14. **Bremen- Germany: Internal Seminar at Max Planck Institute,** Regulation of anaerobic catabolism of aromatic compounds and sulfate reduction in *Desulfobaculum toluolicum* Tol2, Max Planck Institute, Bremen: 5 September 2005.

15. **Vienna-Austria:** European Geosciences Union General Assembly. Niemann H, Lösekam T, Elvert M, Jacob J, Robador A, Nadalig T, Sauter E, Beer D, Boetius A. 2005. Novel Methanotrophic Guilds on Mud Flows at Håkon Mosby Mud Volcano, Barents Sea: Evidence of Biomarker and DNA Analyses. Abstract. April 24 -29, 2005.
16. **Irbid, Jordan:** Second Conference on Biological Sciences at Yarmouk University. 23-25.10.2001.

WORKSHOPS & EXCURSION

1. **Moodle: Learning Platform and course management system.** June, 2020. Al al-Bayt University, **Jordan**.
2. **Online Teaching Platforms.** March, 2020. Al al-Bayt University, **Jordan**.
3. **Preparation of Study Plans: Regulations, Forms, and Procedures.** 17.4.2019. (Qassim University, **KSA**)
4. **Methods for Scientific Communication and Journal databases.** 4.4.2018. (Al al-Bayt University, **Jordan**)
5. **Control of risks in work with biological agents.** 20.8.2015. Helmholtz center for infectious research. (Braunschewig, **Germany**).
6. **Faculty Training Modules: Methods of assessment and evaluation/Ethics of higher education teaching/modern methods in higher education teaching:** 20.04.2011 (Al al-Bayt University, **Jordan**).
7. **Faculty Training Modules: Preparation of exams and analysis of their results/Modern methods in higher education teaching:** 15.10.2008 (Al al-Bayt University, **Jordan**).
8. **Leadership skills:** 1-2.02.2007 (Max Planck Institute-Bremen, **Germany**).
9. **Self- and Time Management:** 15-17.02.2006 (Max Planck Institute-Bremen, **Germany**).
10. **Moderation and Presentation:** 6-8.12.2004 (Max Planck Institute-Bremen, **Germany**).
11. **Communication skills:** 29-31.01.2004 (Max Planck Institute-Bremen, **Germany**).
12. **Statistics:** 22-29.11, 1.012.2006 (Max Planck Institute-Bremen, **Germany**).
13. **ARB: a software environment for sequence data:** 11-14.10.2005 (Max Planck Institute-Bremen, **Germany**).
14. **Advanced English Conversation Course:** 13-14.12.2005 (Max Planck Institute-Bremen, **Germany**).
15. **North Sea (Sylt Island) Excursion, Sampling and in situ Analysis: November, 2003. Sylt Island: Germany.**
16. **Workshop on PCR-based technology:** 7-12.09.2002 (Yarmouk University, **Jordan**).

COMMITTEES INSIDE UNIVERSITY

1. **Head of Graduate studies committee, committee of scientific research, committee of study plans, and social committee in the department of biology (2019-now).**
2. **Head of Quality Assurance Committee: Field-Experience Program Specification and Report -Department of Medical Laboratories: Qassim University, KSA. (2019).**
3. **Head of Graduate studies committee, committee of scientific research, committee of study plans, and social committee in the department of biology (2015-2016).**
4. **Responsibility of revising study plan, lab infrastructure, budget, and quality control for establishing the new Program of Medical Laboratories, Faculty of Science at Al al-Bayt University (2015-2016).**
5. **Member of the organizing committee of the Jordanian Life Sciences Conference for Sustainable Development (27-29 April 2017).**
6. **Member of the organizing committee of the International Conference of Chemistry and Life Sciences (5-6 April 2017).**
7. **Biology Dept.-Elected Member for the Council of the Faculty of Science (2011-2012, 2015-2016, 2018).**
8. **Member of the Quality Assurance Committee in the Council of the Faculty of Science (2012-2013, 2017-2018).**
9. **Reporter of the Department Decisions (2009 – 2011).**
10. **Member of the Study Plan Committee (2009 – now).**
11. **Member of the Faculty Website Committee (2010 – 2012).**
12. **Member of the Faculty Seminars and Conferences Committee (2011 – 2012).**

ACADEMIC SOCIETIES & ASSOCIATIONS

1. **Member in the American Society for Microbiology (ASM).**
2. **Member in the German Association for General and Applied Microbiology (VAAM).**
3. **Member in the Asian Council of Science Editors.**
4. **Member in Max Planck Alumni Association (MPAA).**

REVIEWING ARTICLES & PROPOSALS

1. Reviewer for **Biomass Conversion and Biorefinery**- Springer-Verlag GmbH Germany, part of Springer Nature.
2. Reviewer for **Kuwait Journal of Science**- Academic Publication Council of Kuwait University: Kuwait.
3. Reviewer for proposals submitted to **the Research Council (TRC) in Oman**.
4. Reviewer for **Jordan Journal of Biological Sciences**- Hashemite University: Jordan.
5. Reviewer for **Bioremediation Journal**-Taylor & Francis.
6. Reviewer for **Arabian Journal for Science and Engineering**-Springer.
7. Reviewer for **Journal of Medical Sciences**.
8. Reviewer for **Journal of King Saud University-Science**.
9. Reviewer for **Journal of Biological Sciences**.
10. Reviewer of several **fund proposals** applied to local universities and institutions.

SUPERVISION of MASTER STUDENTS

1. **Optimization and Biogas Production from Different Types of Animal Wastes**. Student: Hussein Al-shraa (Graduated in 2015).
2. **Screening for Toluene–Degrading Bacteria from Different Polluted Sites in Northern Jordan**. Student: Heba Majdalawi (Graduated in 2014)
3. **Isolation, Identification, and Physiological Analysis of Xylene-Degrading Bacteria from Local Gas Stations**. Student: Mufida Farhat (Graduated in 2014)
4. **Microbiological Analysis of Bioaerosols Collected from Different Zones at Al-Mafraq City – Jordan**. Student: Mohammad Al-Halib (Graduated in 2014).
5. **Determining the Levels of Bacteria in Red Meat at Butcher Shops in Al-Mafraq City and Their Antibigrams**. Student: Saif Al-Hawamdeh (Graduated in 2013).
6. **Assessment of Antimicrobial Activity of Newly Synthesized Triazole Compounds**. Student: Hamzah Al-Arqan (Graduated in 2013).
7. **Evaluation of the antibacterial activity of new 4-oxo-thiazolidine compounds**. Student: Salameh Al-Msaeed (Graduated in 2012).

8. **Prevalence of Heterotrophic Bacteria and Coliforms among Shopping Carts.** Student: Alia Khawaldah (Graduated in 2012).
9. **The Epibacterial Flora of Vegetables Belonging to *Solanaceae*, *Cucurbitaceae* and *Brassicaceae* Families Produced and Consumed in Al-Mafraq Governate, Jordan.** Student: Wafa Salam (Graduated in 2012).

COMMITTEES of MASTER STUDENTS

1. **External Examiner** in the M.Sc. thesis committee at **Balqa Applied university/Al-Salt**. Thesis title: Epidemiological study of *Campylobacter jejuni* isolated from different sources using biochemical, serological, and molecular methods. Student: Rozan Al-khresieh. Date of defense: September, 2021.
2. **External Examiner** in the M.Sc. thesis committee at **Jordan University for Science and Technology**. Thesis title: Biofilm formation and antimicrobial resistance of *Pseudomonas aeruginosa* among chronic suppurative otitis media Jordanian patients. Student: Ansam Al-Sarayreh. Date of defense: August, 2021.
3. **External Examiner** in the M.Sc. thesis committee at **Jordan University for Science and Technology**. Thesis title: Carbapenem-resistant *Enterobacteriaceae*. Student: Hadeel Marzooq. Date of defense: August, 2020.
4. **External Examiner** in the M.Sc. thesis committee at **Balqa Applied university/Al-Salt**. Thesis title: Pyocyanin production by *Pseudomonas aeruginosa*. Student: Tamadur Oudeh. Date of defense: December, 2019.
5. **External Examiner** in the M.Sc. thesis committee at **Jordan University for Science and Technology**. Thesis title: *Enterococcus faecalis* in northern Jordan. Student: Hana Rabaiah. Date of defense: January, 2019.
6. **Internal Examiner** in the M.Sc. thesis committee at **Al al-Bayt University**. Thesis title: Lovastatin production by *Aspergillus* species. Student: Israa Abu-Elhajja. Date of defense: December, 2018.
7. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: UTIs caused by *Klebsiella pneumonia* in northern Jordan. Student: Amjad Nimrat. Date of defense: December, 2018.
8. **External Examiner** in the M.Sc. thesis committee at **Jordan University for Science and Technology**. Thesis title: Blood stream infections by *S. aureus*. Student: Nada Latayfeh. Date of defense: May, 2018.
9. **External Examiner** in the M.Sc. thesis committee at **Jordan University for Science and Technology**. Thesis title: Vaginal colonization of *Streptococcus agalactiae*. Student: Farah Atawneh. Date of defense: January, 2018.
10. **Internal Examiner** in the M.Sc. thesis committee at **Al al-Bayt University**. Thesis title: Assessment of liver enzymes in patients with kidney disease. Student: Saad Abboud (Graduated in 2017)
11. **Internal Examiner** in the M.Sc. thesis committee at **Al al-Bayt University**. Thesis title: Isolation and identification of fungi from northern part of Jordan. Student: Bayan Bani Hassan (Graduated in 2017)
12. **External Examiner** in the M.Sc. thesis committee at **Hashemite University**. Thesis title: Identification and Evaluation of Antimicrobial Activity of *Bacillus* Isolates. Student: Anhar. Date of defense: 1.3.2016.

13. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: *In vitro* antibacterial activity of *Styrax officinalis* L. Student: Abdelaqader Jawame. Date of defense: August, 2015.
14. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: Characterization of pathogens isolated from diabetic patients with urinary tract infections in Jordan. Student: Sura Sawalheh. Date of defense: February, 2014.
15. **External Examiner** in the M.Sc. thesis committee at **Hashemite University**. Thesis title: Single cell protein (SCP) production by airborne yeast isolate from the Hashemite University area. Student: Ismail Ayesh. Date of defense: 8.7.2013.
16. **Internal Examiner** in the M.Sc. thesis committee at **Al al-Bayt University**. Thesis title: Al-Balushi A. 2012. Synthesis and Characterization of New 1,2,4-Triazole-3-Carbohydrazide Derivatives As Anti-bacterial Agent. Date of defense: Summer, 2012.
17. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: Vitamin B12 deficiency and its relation to *H. pylori* infection. Student: Mohammed Atteli. Date of defense: 18.7.2012.
18. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: Identification and antimicrobial activity of extracts from two local plant species. Student: Omar Sameer. Date of defense: 16.7.2012.
19. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: Identification, characterization, and seasonality of bacterial communities associated with coral reefs at the gulf of Aqaba, Jordan. Student: Fadi Jaber. Date of defense: 12.7.2012.
20. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: In Vitro Antimicrobial Activity of Crude Extracts and Their Liquid Fractions Obtained from two Thymelaeacea Species in Jordan. Student: Heba Obeidat. Date of defense: 26.04.2012.
21. **External Examiner** in the M.Sc. thesis committee at **Yarmouk University**. Thesis title: Bioaccumulation of Organic Pollutants and Heavy Metals in Zarqa River Water and Bioremediation Possibilities. Student: Abdel-Salam Jahmani. Date of defense: 28.12.2010.

LANGUAGES

Arabic (First Language), **English** (Advanced), and **German** (basics)

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