

CURRICULUM VITAE

(Professor Hanan Issa Malkawi)



November 2022

(PhD. Microbiology & Molecular Biology)

Professor at Department of Biological Sciences-Yarmouk University-Jordan

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Prof. Hanan I. Malkawi, has earned her bachelor degree in Biological Sciences at Yarmouk University (YU)-Jordan, then she was offered a competitive scholarship from Yarmouk University (for scoring the highest GPA both at the Biology Dept. & at the whole University) toward completing her M.Sc. in Bacteriology & Public and then PhD degree in Microbiology & Molecular Biology both at Washington State University-USA, after which she returned to Jordan and appointed as assistant professor at Yarmouk University.

She has been heavily involved in research lines in Microbiology, biotechnology and nanotechnology and their applications in environment, health, agriculture, food security & industry. She also has been and still involved in several projects and initiatives in education, higher education & linking academia with private sector at both the national and international levels.

She has been awarded recently on the National celebration of the 76th Independence Day (25th May 2022),

The King Abdullah II Ibn Al-Hussein Medal for Excellence, second degree in recognition of her great role and contributions in the fields of biotechnology, nanotechnology and its applications in medicine, environment, agriculture, food and industry.

She registered several patents and has over 75 published papers in peer reviewed international scientific journals and outstanding teaching and supervision activities at both the undergraduate and graduate levels. Prof. Malkawi has & still been invited as speaker and member of Steering/organizing committees in numerous International Congresses, and Forums and gave talks in more than 130 conferences and workshops world-wide. She received several awards and fellowships. She also managed to get several funded grants from national & international agencies with More than 15 million USD.

She has contributed to the establishment of several centers, scientific programs, research initiatives and community services both at the national and international levels.

Prof. Hanan is known for her devoted efforts in helping and inspiring young scientists and entrepreneurs, to pursue their studies and research and build a career by assisting them with advice, mentorship and coaching and providing them with guidance and feedback and engaging them with society and introducing them to people and organizations.

She has been and still an active member in several national, regional, and international committees, associations & organizations: currently she is a member of the Board of trustees of the German-Jordanian University.

She served as chair of the Academic committee & member of the Board of Directors for the Scientific Research and Innovation Support Fund/Ministry of Higher Education & Scientific Research/Jordan, she served as member of the Board of trustees of Al Al-Bayt University-Jordan, and an EU Higher Education Reform Expert (HEREs).

Prof. Malkawi has held several administrative positions: Vice President for Research & International Relations at Yarmouk University, Dean of Scientific Research & Graduate Studies, Director of UNESCO Chair for Desert Studies, Director of Foreign Projects Management Unit, Director of Center of Excellence for Jordanian Public University Libraries,

Vice-Dean and Assistant Dean of Faculty of Sciences. She served also as Vice President for Science Engagement at Royal Scientific Society-Jordan. Dean for Research & Doctoral studies at "Hamdan Bin Mohammad Smart University", Dubai-UAE.

Personal Data:

Nationality: Jordanian, **Gender:** Female, **Marital Status:** Married (have one daughter and three sons)

Academic Rank: Professor

Languages: Arabic (mother tongue) & English (written & spoken fluently)

 **Education & Certificates:**

| University | Major | Degree | Yr of Graduation |
|---------------------------------|----------------------------------|---|------------------|
| Washington State University-USA | Microbiology & Molecular Biology | PhD-Doctor of Philosophy | 1987 |
| Washington State University-USA | Bacteriology & Public Health | Master of Science | 1984 |
| Yarmouk University-Jordan | Biological Sciences | Bachelor of Science/Biological Sciences | 1981 |

Titles of Theses & Dissertation:

| Degree | Title of Theses/Dissertation |
|--------|---|
| PhD | " <i>Spontaneous mutants of Agrobacterium tumefaciens altered in virulence and polysaccharide composition</i> " |
| MSc. | " <i>The limited host range tumor inducing plasmid of Agrobacterium tumefaciens: genetic analysis of the pTi Ag63 TB-DNA region</i> " |

Certificates:

- Earned an accredited certificate of **Instruction and E-Learning**-(CIEL)-Feb-May 2015, at Hamdan Bin Mohammed Smart University-HBMSU.
- Certificate of completion of Google Apps Skills Training-HBMSU
- Several certificates of participation in workshops, forums and conferences

 **Academic History, Administrative & Leadership positions:**

| Title of the Job | Employer | Period |
|---|---|------------------------------------|
| Member of the Board of Trustees of German-Jordanian University-Jordan | Ministry of Higher Education & Sci Research. Endorsed by Royal Decree | 25 th June 2022-Present |
| Member of the Board of Directors of Global Impact Initiative (Gii) | NGO, Austin-Texas. USA | Sep 2020-Present |
| Prof. at Dept. of Biological Sciences | Yarmouk University-Jordan | 2004-Present |
| Chairman of the Academic Committee of the Scientific Research and Innovation Support Fund | Ministry of Higher Education & Sci Research- Jordan | Sep 2020-9 th Oct 2022 |

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|---|--|--|
| Member of the Board of Directors of the Scientific Research and Innovation Support Fund | Ministry of Higher Education & Sci Research- Jordan | Sep 2020-9 th Oct 2022 |
| Member of the Board of Trustees of Al Al-Bayt University-Jordan | Ministry of Higher Education & Sci Research. Endorsed by Royal Decree | Feb 2020-June2022 |
| Vice President for Science Engagement | Royal Scientific Society-Jordan | 1Feb 2017-1Feb 2019 (<i>Secondment leave</i>) |
| Dean for Research and Doctoral Studies | Hamdan Bin Mohammad Smart University. Dubai- UAE | Aug 2014- Aug 2016 (<i>Sabbatical Leave</i>) |
| Ambassador for the MENA Region of the Expo Smart cities 2020 | Expo Cities2020 Organization, (joint venture- Expo Business and MtoM Consulting) at- São Paulo – Brazil | 2015-present |
| Councilor of the World certification Institute (WCI) | World certification Institute | 2014-present |
| MENA Associated Expert for the “SMART Knowledge Alliances-SKA” | SMART Knowledge Alliances, Barcelona-Spain | 2015-present |
| EU Higher Education Reform Expert (HEREs), for Jordan | European Commission | 2012-2018 |
| Vice President for Research, Graduate Studies & International Relations | Yarmouk University | 13Sep 2010– 13Sep 2013 |
| Professor | Dept of Appl Biological Sciences/ Jordan University of Science & Technology | 13Sep 2013-13Sep 2014 (<i>Sabbatical Leave</i>) |
| Director of Center of Excellence for Jordanian Public University Libraries | Yarmouk University | 13Sep 2010–13Sep 2013 |
| Director of Foreign Projects Management Unit | Yarmouk University | May 2008 –Sep 2013 |
| Director of the Princess Basma Center for Jordanian Women's Studies | Yarmouk University | Feb 2011 –June 2011 |
| Dean of Scientific Research & Graduate Studies | Yarmouk University | Oct 2009 –Sep 2010 |
| Director of the UNESCO Chair for Desert Studies & Desertification Control | UNESCO & Yarmouk University | Sep 2005 –Nov 2009 |
| Vice-Dean of Faculty of Sciences | Yarmouk University | Sep 2002 –Sep 2005 |
| Assistant Dean of Faculty of Sciences | Yarmouk University | Feb 2000 –Aug 2002 |
| Associate Professor | Dept of Biological Sciences/ Yarmouk University. | 1999-2004 |
| Assistant Professor | Dept. of Appl Biological Sciences/ Jordan Univ for Science & Technology-Jordan | 1998-1999 (<i>Sabbatical Leave</i>) |

| | | |
|------------------------------|---|-----------|
| Assistant Professor | Dept. of Biological Sciences/ Yarmouk University. | 1987-1998 |
| Post-doctoral Res. Associate | Plant Molecular Biology Lab, Crop and Soil Science Dept., USDA-ARS, Western Wheat Quality Laboratory, Washington State University, USA | 1991-1993 |

Responsibilities & obligations of the Administrative, leadership, and Academic Experiences (detailed):

Vice President for Science Engagement at Royal Scientific Society-RSS (2017-2019)

I was responsible for planning, organizing and running a road map and strategic plan for the newly established Science Engagement Sector (SES) at RSS, to enhance Jordan's competitiveness, promote sustainable economic growth, and engage science with society as a norm of practice. I was responsible to enhance and run all science engagement activities across the RSS organization with the *following major responsibilities*: Science Education: improve Science, Technology & Innovation (STI) literacy and entrepreneurship and implementation, Science Communication & Awareness and science for society, Science & Policy Interface: develop research policy and avenues for better interplay between science, policy and diplomatic communities, and Science Capacity Development.

Dean for Research and Doctoral Studies at HBMSU-UAE (2014-2016)

HBMSU, was the **first accredited e-learning academic institution by the UAE** Ministry of Higher Education and Scientific Research. As a Dean for Research & Doctoral Studies, I was responsible for:

Advising PhD students and mentoring courses delivered by faculties via virtual learning environment (VLE), Leading the University's research and publishing agenda to position the University as a pioneering research-driven institution both locally and internationally, Establishment & creation of new innovative platforms and mechanisms for knowledge creation, dissemination and for creating a hub for idea exchanges, research fertilization, and the engagement of scholars in the Middle East and beyond, Leading efforts for soliciting and managing internal and external funds for research, Improvement of the e-journals (the university hosts 8 journals) and other e-publications as an infrastructure for publishing and disseminating scientific knowledge, Initiation and development of collaboration with international research-oriented universities and organizations, Worked closely with the departments at the university to develop processes and procedures pertinent to research and publishing to enable the development of a research-based culture.

Vice President for Research, Graduate Students & International Relations (2010-2013)

I had been leading and managing many important files at the university including academic, research, and development, which included:

Development the long-term vision and implementation strategic plans for the university; Preparation & approval of agreements, service contracts & MOUs between YU and different institutions at the national & international levels; Curricula & programs development; Development of the quality assurance and accreditation policies at YU (Liaison between Higher Education Accreditation Commission & YU); Graduate student engagement and improvement; National and international relations & community engagement; Establishment and implementation of research policies and procedures, facilitation and stimulation of research productivity; Enhancing collaborative and interdisciplinary research programs; Securing research funding & fund raising; Preparation of annual reports; Oversee centers that report to the office of the Vice President for research.

Director of Foreign Projects Management Unit (2008-2013)

Responsible for the initiation and coordination, and preparation of national and international projects; Performance of services of qualification development for faculty members & researchers; Negotiation and acceptance of grants and contracts on behalf of the university; Financial and technical administration of funded projects from funding agencies; Dissemination of information and their benefits to academic community; Dissemination of information to foreign institutions about new international project & programs; Initiation of creation and implementation of new training

programs; Development and implementation of research policies, procedures, regulations and guidelines in cooperation with the university's research council/committees; Fostering innovation and forging inter- and multi-disciplinary collaborations and research partnerships.

Dean of Scientific Research & Graduate Studies (2009-2010)

Leading development of aspects of graduate education at the university including Master & PhD programs; Working with academic departments to develop the university's portfolio of graduate programs; Developing university policies and good practice for research supervision; Developing collaborative graduate programs in partnership with other universities and institutions; Oversees financial support given for scientific research projects submitted by faculty members at the university; Planning, management, promotion and support of research activities carried out by the academic departments through internal funding; Approval of financial expenditures from the funds allocated for research projects and follow up of each project until completion; Subsidizing the publication of books and research articles submitted by faculty members after having been refereed for the purpose of publication; Issues and hosting 6 international refereed research journals in collaboration with the Ministry of Higher Education and Scientific Research.

Director of the "UNESCO Chair for Desert Studies & Desertification Control" (2005-2009)

Promoting environmental awareness about dry land resources management utilization and planning; Organizing several workshops & conferences in desert studies & combating desertification and involving schools and local community; Hosting scientists from different regional & international countries to conduct research & teaching in Jordan in environmental aspects; Encouraging & involving faculty members & graduate students to do more environmental studies on desertification & combating desertification; Establishing & strengthening links in R &D between scientific institutions at local, regional & international levels.

Vice-Dean & Assistant Dean of Faculty of Sciences (2000-2005)

Coordinating projects, chairing different committees for faculty promotion, curricula; Dealing with scientific & social affairs of the Faculty of Science's students, specifically: dealing with educational & curricula issues for undergraduate & graduate students, participating in social affairs committees for helping & guiding students to cope with life on campus; Oversight of the appointments and promotions process with responsibility for academic excellence in the broad areas of teaching and research; Working in close collaboration with the chairs of the departments and resolve academic issues and concerns; Working with faculty in need of mentoring and career development.

Selected Administrative & leadership Accomplishments

- Establishment and coordinating an M.Sc. Program in Biotechnology (thesis track) at the Department of Biological Sciences at Yarmouk University, 2003/2004. through getting fund of the project entitled "Biotechnology & its applications in agriculture, health & environmental sciences" (2002-2005), funded by World Bank (625.000 USD);
- Establishment of "*Foreign Projects Management Unit*" at Yarmouk University, 2008;
- Development and improvement of the UNESCO Chair for Desert Studies & Desertification Control at Yarmouk University (2005-2009);
- Participated in establishment of both the Faculty of Medicine and the Faculty of Pharmacy at Yarmouk University
- Participated in the establishment of joint graduate programs with international universities and institutions.
- Participated in the establishment of "*Princess Basma Center for Jordanian Women's Studies*" at Yarmouk University.
- Establishment of "Centre for Sustainable Development studies" at Yarmouk University;
- Establishment of the "Global Impact Initiative-Gii". Austin, Texas-USA

Experience with evaluation of international projects:

- **Senior Expert/Evaluator for the EU-Egypt Innovation Fund**, Program Implementation Office (PIO) at the Egypt Ministry of HE and Scientific Research provided grants to cooperative projects that aim at enhancing the

innovative capabilities of industrial companies and notably the SMEs, through two Grant Schemes (EuropeAid/127006/M/ACT/EG and EuropeAid/127083/M/ACT/EG) covering the themes: food & agriculture, environment, space applications including communication and remote sensing, health related applications, biotechnology, energy, water, biotechnology, manufacturing industries, Information and communication Technology and materials.

- Assist in the Coordination of the project “Upgrading of Undergraduate Teaching in the Faculty of Sciences”, 2000 – 2004. Funded by World Bank. (budget USD 700,000) at Yarmouk Univ.
- Coordinating the project of establishing the M.Sc. Program in Biotechnology at the Department of Biological Sciences at Yarmouk University through the project entitled “Biotechnology & its applications in agriculture, health & environmental sciences” (2002-2005), funded by World Bank (625,000 USD);
- Trainer & evaluator for Engaging and training Iraqi’s scientists in writing research proposals and Iraqi science & technology community in developing their Country through the fund and execution by the “Arab Science & Technology Foundation-ASTF”.
- Selected by EU, (2013-2018) as a member of the Tempus Higher Education Reform Experts (HEREs) team.
- Jury member, since 2011, for the evaluation of research projects for the “L'Oreal-UNESCO Award for Women in Science Pan Arab Regional Fellowships.
- Jury member for the Arab League Educational, Cultural & Scientific Organization (ALESCO) for the Award for young Arab Scientists in Innovation & Entrepreneurship/ in Biotechnology area .
- Evaluator for the JCP Srl, Italy for International Cooperation and Development Communication Projects within framework contracts implemented in European Union, Southern and Eastern Neighborhood Regions and beyond with a special emphasis on EU Funded programmes.

Courses Taught:

Undergraduate Courses:

(General Biology 101), (Microbiology 333), (Virology 431), (Biotechnology 453), (Genetics 333), (Plant Molecular Biology 492) , (Biology & Society 401); Special Topic 499 (Gene Transfer to plants)

Graduate Courses:

- (Microbial Ecology),
- (Food Microbiology),
- (Adv. Microbiology Bio-631).
- Biotechnology & its Applications (Bio601)
- (Environmental Biotech),
- (Adv. Biotech 651)
- (Adv. Molecular Biology-Bio742),
- (Research Methodology Bio 797), Seminar (Bio795)

Scholarships, Honors and Awards

1. Ranked **First in Tawjihi** (General High school Certificate Examination) in the **Governance of Irbid-Jordan**, for the year 1977.
2. **Scholarship:** Ministry of Education competitive scholarship for B.Sc Degree (1977-1981) Biology at Yarmouk University-Jordan, for scoring the highest Tawjihi GPA in Irbid Governorate High Schools.
3. **Scholarship:** Yarmouk University competitive scholarship (for scoring the First Place in Biology Dept. & the First-Place at the level of the whole University) toward completing the M.Sc. and PhD degrees in Washington State University-USA. 1981-1987.
4. **Royal award** (from the late Majesty King Hussein, God bless his soul), for first-place B.Sc. graduate in Biological Sciences, Yarmouk University, 1981.

5. **Financial award** for first-place student in Biological Sciences, and for first-place student graduate at the university level, Yarmouk University, 1981.
6. **Honored** from his Royal Highness Prince El Hassan Bin Talal during the 11th Jordanian Scientific week (2005), for participating and giving a talk about "Ethics in Scientific Research".
7. **Awarded** for being the president of Yarmouk University for one day on "World Women's Day" March 8, 2006 by the president of YU.
8. **Honored** from her Royal Highness Princess Basma Bint Talal on "World Women's Day" and Mothers' Day on March 21, 2007 for Scientific and Academic Achievements.
9. **Asian Education Leadership Award, Taj-Palace-Dubai**, Given by Education Leadership Awards with CMO Asia & Asian Confederation of Businesses. September 24, 2014.
10. **Awarded**, Ford Company Conservation and Environment Award for the Year **2018** for the project entitled "Science Engagement, Mentoring and Empowerment of Young Scientist: Climate Change & Energy challenges"
11. Awarded and nominated as an "Honorary Resident" By the Mayor and Council members of the City of Austin-Texas (USA). 2022
12. **Awarded, The King Abdullah II Ibn Al-Hussein Medal for Excellence**, second degree, in recognition of her great role and contributions in the fields of biotechnology, nanotechnology and its applications in medicine, environment, agriculture, food and industry. On the National celebration of the 76th Independence Day (**25th May 2022**).

Funded Grants and Research Projects:

1. Coordinator and principal investigator (PI) of the project entitled "*Molecular Identification of Salmonella isolates from Poultry and Meat products in Irbid City*" conducted at Yarmouk University-Jordan, Funded by Shoman Foundation, Jordan, Budget - **USD 20,000**. Project duration: 2001-2004.
2. Coordinator and PI of the project entitled "*Genetic Diversity of Wild Barley (H. spontaneum) in Wadi-Dana Reserve*" conducted at Yarmouk University-Jordan, funded by UNESCO, Budget – **USD 3000**. (2000-2001).
3. Coordinator and PI of the project entitled "*DNA analysis of genetic resources of durum wheat in Jordan*" conducted at Yarmouk University-Jordan, Funded by Arab Fund for Economic and Social Development (Executed by ICARDA), Budget – **USD 20,000**. (1999-2001).
4. Coordinator and PI of the project entitled "*Genomic fingerprinting of bacterial isolates from Jordanian soil*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ, Budget – **USD 4,000**. (1998-1999).
5. Partner and Co-investigator (Co-I) of the project entitled "*Biodiversity of soil microorganisms*" conducted partially at Yarmouk Univ. Funded by Higher Council for Science and Technology, Jordan. Budget – **USD 46,000**. (1996-2000).
6. Partner and Co-I of the project entitled "*Collection and molecular characterization of Pistachio plants in Jordan*" conducted partially at Yarmouk Univ. Funded by IPGRI, WANA. Budget – **USD 6,000** (1996-1997).
7. Coordinator and PI of the project entitled "*Molecular techniques in characterization of clinical bacterial isolates*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ., Budget – **USD 6,500**. (1994-1996).

8. Partner and Co-I of the project entitled "*Monoclonal antibody production by genetic immunization: applications in the diagnosis of parasitic and microbial infections*" conducted by Yarmouk Univ. Funded by Higher Education Development Fund (World Bank). Budget – **USD 161,000**. (2004-2007).
9. Coordinator and PI of the project entitled "*Biotechnology and its Applications in Agriculture, Health, and Environmental Sciences*" conducted at Faculty of sciences-Yarmouk University-Jordan, Funded by World Bank. Budget – **USD 650,000**. (1994-1996).
10. Coordinator and PI of the project entitled "*Isolation and Characterization of Oil Degrading Bacteria from Oil-Contaminated Soils from Zarqa Refinery Station*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ. Budget – **USD 5000**. (2004-2005).
11. Coordinator and PI of the project entitled "*Polymerase chain reaction (PCR) techniques for the fast detection of human enteric pathogens (Viruses & bacteria) in water resources*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ. Budget – **USD 5000**. (2005-2006).
12. Coordinator and PI of the project entitled "*Nanotechnology in biological systems: The use of iron nanoparticles for Quick detection of microbial contamination in water resources and food products*" conducted at Yarmouk University-Jordan, Funded by Higher Council for Science & Technology (HCST)-Jordan. Budget – **USD 28,500**. (2006-2008).
13. Coordinator and PI of the project entitled "*Molecular and conventional study of the bacterial composition of dental plaque on dental restoration*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ. Budget – **USD 7000**. (2006-2008).
14. Coordinator and PI of the project entitled "*Culture-independent (PCR) and culture- dependent approaches to study the bacterial and Archaeal diversity from Jordanian hot springs*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ. Budget – **USD 7500**. (2006-2008).
15. Coordinator and PI of the project entitled "*Investigation of the ability of Jordanian oil-degrading bacterial isolates to degrade different petroleum hydrocarbons in situ and ex situ*" conducted at Yarmouk University-Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ. Budget – **USD 11,000**. (2007-2009).
16. Coordinator and PI of the project entitled "*Innovative approach of bioremediation of the oil spills contaminating Gulf of Aqaba and the surrounding region using naturally isolated oil-degrading bacterial consortiums*" conducted at Yarmouk University-Jordan, Funded by Scientific Research Fund, Ministry of Higher Education & Scientific Research-Jordan. Budget – **USD 286,572**. (2009-2011).
17. Partner and Jordanian team leader of the project entitled "*Unravelling and exploiting Mediterranean Sea microbial diversity and ecology for Xenobiotics' and pollutants' clean up (ULIXES)*". KBBE. 2010.3.5-03: Approaches towards bioremediation of the Mediterranean Sea by exploring its microbial diversity – SICA (Mediterranean Partner Countries). EU. FP7-KBBE-2010-4. Proposal # 266473. Budget- **2,993,869 Euro**. (2011-2014).
18. Partner and Jordanian team leader of the project entitled "*EU- Erasmus Mundus. Action 2. AVEMPACE 1*. To support the establishment of cooperation partnerships between EU & Third country higher education institutions through mobility & scholarship scheme. Coordinator, Technische Universität Berlin-Germany. (2011-2012). Budget- **2.1 Million Euro**.
19. Partner and Jordanian team leader of the project entitled "*EU- Erasmus Mundus. Action 2. JOSYLEEM*. To support the establishment of cooperation partnerships between EU & Third country higher education institutions through mobility & scholarship scheme. Coordinator, Lund University-Sweden , (2011-2012). Budget- **2.1 Million Euro**.

- 20.** Partner and Jordanian team leader of the project entitled “*ARCHIMEDES III BACDETECT II: Public health problem in food safety and emergency medicine: The importance and limits of current diagnostic techniques*”. Partnership with Technological Institute of Athens- Greece. (2012-2015). Budget- **83,000 Euro**.
- 21.** Partner and Jordanian team leader of the project entitled “*Erasmus Mundus II Action 2 Strand 1 Lot 2 AVEMPACE II: Partnerships with Third Country Higher Education Institutions and Scholarships for Mobility Jordan, Lebanon, Palestine and Syria*. Coordinator, Technische Universität Berlin-Germany. (2012-2013). Budget -**2.1 Million Euro**.
- 22.** Partner and Jordanian team leader of the project entitled “*Erasmus Mundus II Action 2 Strand 1 Lot 2: “EPIC (EU Partnerships and International Cooperation with Jordan, Lebanon, Syria and Palestine)”*”. Coordinator, Cardiff Metropolitan University, UK. (2012-2013). Budget -**2.1 Million Euro**.
- 23.** Partner and Jordanian team leader of the project entitled “*TEMPUS IV: Enhancing Quality Assurance Management in Jordanian Universities (EQuAM)*”. Coordinator, University of Barcelona-Spain (Universitat de Barcelona). (2012-2014). Budget - **841, 938.00 Euro**.
- 24.** Partner and Jordanian team leader of the project entitled “*Erasmus Mundus II Action 2 Strand 1 AVEMPACE III: Partnerships with Third Country Higher Education Institutions and Scholarships for Mobility Jordan, Lebanon, Palestine and Syria*. Coordinator, Technische Universität Berlin-Germany. (2013-2014). Budget -**2.2 Million Euro**.
- 25.** Partner and Jordanian team leader of the project entitled “*Tuning Middle East and North Africa, T-MEDA*” EU. Tempus IV - 543948-TEMPUS-1-2013-1-ES-TEMPUS-JPCR. Partnership with the coordinator (University of Deusto-Spain). (2013-2015). Budget- **1,207,333 Euro**.
- 26.** Partner and Jordanian team leader of the project entitled “*Modernisation of Institutional Management of Internationalization in South Neighboring Countries: towards an internationalization Management Model*” EU. Tempus IV - 544198-TEMPUS-1-2013-1-ES-TEMPUS-SMGR. Partnership with the coordinator (Universitat de Barcelona-Pain). (2013-2015). Budget - **991,657.65 Euro**.
- 27.** Partner and Jordanian team leader of the project entitled “*Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities*” EU. Tempus IV. 544491-TEMPUS-1-2013-1-ES-TEMPUS-SMGR. Partnership with the Coordinator (Fundació per a la Universitat Oberta de Catalunya- Catalunya). (2013-2015). Budget -**996, 007.16 Euro**.
- 28.** Partner & and Jordanian team leader (representing the Royal Scientific Society-Jordan) of the project entitled “*Refugees and hosting country economy: integration models and cooperation policy options*”. Coordinator: Prof. Marco ZupCeSPI-Italy, Project funded by the European Union through the FEMISE project on “Support to Economic Research studies and Dialogues of the Euro-Mediterranean partnership”. (2017). Budget: **10,500 Euro**.
- 29.** Coordinator and PI (representing the Royal Scientific Society-Jordan) of Project entitled “*Science Engagement, Mentoring and Empowerment of young scientist: Climate Change & Energy Challenges*”. (2018) Project funded by Friedrich-Ebert-Stiftung. Budget: **18,000 Euro**.
- 30. Current Funded Project:** Coordinator and Principal Investigator (PI) of the project entitled " *Behavior of Living Microbial cells in the outer space microgravity near zero gravity above earth* " to be conducted at Yarmouk University- Jordan, Funded by Deanship of Research and Graduate Studies, Yarmouk Univ. (**2021-2023**). Budget – **USD 21,000**.

 **Supervision of Graduate students (Theses & Dissertations):**

- Supervisor to M.Sc. student (Nisreen Al-Quraan. Graduated 2002) at Yarmouk University, Dept. of Biological Sciences. Title of the thesis *"Development and Molecular Characterization of Lentil Plants (Lens culinaris medik) Tolerant to Chlorosulfuron Herbicide"*.
- Supervisor to M.Sc. student (Mohannad Al-Saghair. Graduated 2002) at Yarmouk University, Dept. of Biological Sciences. Title of the thesis *"Analysis of Genetic Diversity of Wild Barley (Hordeum spontaneum C. koch) of North Jordan (Ajloun area) Using DNA-Based Marker (AFLP and RAPD)"*.
- Supervisor to a M.Sc. student (Taghleab Al-Deeb. Graduated 2005) at Yarmouk University, Dept. of Biological Sciences. Thesis title: *"Isolation and characterization of oil degrading bacteria from oil contaminated soils from Zarqa Refinery station/Jordan"*.
- Supervisor to M.Sc. student (Abeer Shaban. Graduated Dec.2006) at Yarmouk University, Dept. of Biological Sciences. Thesis title:*"The Fast Detection of Human Enteric Pathogens (Viruses and Bacteria) in Water Resources from Irbid Province Using Polymerase chain reaction (PCR)"*.
- Supervisor to M.Sc student (Manal Al-Omary. Graduated May 2007) at Yarmouk University, Dept. of Biological Sciences. Thesis title: *Culture-Dependent and Culture-Independent Approaches to Study the Bacterial and Archaeal Diversity from Jordanian Hot Springs "*
- Supervisor to M.Sc student (Rabeah Rawashdeh, Graduated May 2007) at Yarmouk University, Dept. of Biological Sciences. Thesis title: *"Molecular and Conventional Study of Bacterial Composition of Dental Plaque on Dental Restorations"*.
- Supervisor to M.Sc student (Linda Fatimi. Graduated in Nov 2007) at Yarmouk University, Dept. of Biological Sciences. Thesis title *"Mutational analysis of oil degrading genes in bacterial isolates from oil contaminated soil at Jordanian oil refinery in Zarqa"*.
- Supervisor to M.Sc student (Mohammad Jahmani. Graduated May 2008) at Yarmouk University, Dept. of Biological Sciences. Thesis title *"Investigation of the ability of Jordanian oil-degrading bacterial isolates to degrade different petroleum-hydrocarbons in Situ and ex Situ"*.
- Supervisor to M.Sc student (Quatadah Radiadeh. Graduated Nov 2008) at Yarmouk University, Dept. of Biological Sciences. Thesis title *"Characterization of thermophilic enzymes of industrial use from thermophilic bacteria isolated from Zerka Ma'in hot springs in Jordan"*.
- Co-advisor to M.Sc student (Mohammad M. Al-Adwan. Graduated June 2010) at Yarmouk University, Dept. of Biological Sciences. Thesis title *"Molecular detection & identification of oil degrading bacteria from oil-contaminated soil in the Northeast Part of Jordan"*.
- Member and external examiner for PhD student (Ziad A. Jarrah. Graduated. 2011) at Faculty of Education. Dept. Of Sciences Curriculum approaches. Dissertation Title: *"Basic Tenth Grade Students arguments about socio-genetic issues in biology related to gender and reasoning patterns"*.
- Member and external examiner for PhD student (Eyad A. Al-sharifain. Dec.2011) at Faculty of Education. Dept. Of Sciences Curriculum approaches. Dissertation Title: *The effect of teaching science by problem-solving strategy and CORT program & integrating them on the achievement and acquisition of sciences processes & decision-making among basic 8th graders in Northern Jordan"*.

- Supervisor for a PhD student (Abdallah Daradkah. Graduated May 2013) in the faculty of education. Dept. of Science Curricula education. Dissertation Title "*Integrating environmental sciences concepts in 10th grade school classes in Jordan*".
- Member and /or external examiner for more than 50 graduate (M.Sc. & Ph.D.) students from Yarmouk and other Universities.
- Chairing all committees for PhD students at Hamdan Bin Mohammed Smart University (UAE), for conducting their Qualifying Exams, defending their proposals and dissertations.
- Supervising PhD students at Hamdan Bin Mohamed Smart University-UAE (2014-2016)

National & International Committees Membership:

A- National Committees (served/or still);

1. Member of the National Committee of Authorship for Jordanian High School biology Curricula.
2. Member of the administrative council of the "National Center for Biotechnology" (NCB), Higher Council for Science and Technology, Jordan.
3. Member of the committee for Yarmouk University Catalogue for the year 2002.
4. Member of the Steering Committee for establishing the curriculum for graduate studies at the *Biotechnology Dept.* in the College of Agriculture in AL-Balqa Applied University, Jordan.
5. Member of the Scientific Committee of several international and national conferences held in Jordan.
6. Member of the Scientific Committee for establishing the curriculum of the *Biotechnology program at Philadelphia University, Jordan.*
7. Member of the Yarmouk University board for research for the period 2003-2006, and 2016-2019.
8. Member of the accreditation committees for basic sciences and biological sciences, Ministry of Higher Education & Scientific Research-Jordan.
9. Member of the Steering Committee for Women and Higher Education in Jordan for the National Agenda, 2005.
10. Member of the national committee of Accreditations of Water analysis and microbiology laboratories in Jordan- Accreditation Unit (AU) at the Jordan Standards & Metrology Organization (JSMO).
11. Member of the National Network for Advanced Materials and Nanotechnology (NNAMNT) of the Higher Council for Science and Technology.
12. Member of the technical and scientific committee for the accreditation of microbiology & water analysis labs in Jordan. & Ben Hayyan Laboratories in Aqaba.
13. Member of the Jordan National commission for UNESCO.
14. Member of the UNESCO National Man & Biosphere (MAB) steering committee.
15. Chairperson & organizer of a workshop: "The Potentials of Developing Sustainable Community- Based Tourism in Regions Prone to Droughts and Desertification: The Case of Northern Badia in Jordan" held at Yarmouk University, April 6-7, 2009.
16. Chairperson & organizer of a workshop "ASPnet, Desertification and Combating Desertification" held at Yarmouk University (May 26-27, 2009).
17. Member of the Advisory Committee of the "Developing Policy-relevant Capacities for the Implementation of Global Environmental Conventions in Jordan – CB2" project. Ministry of Environment. 2010.
18. Member of the steering committee of "Ethics in Scientific Research" for Jordan. Higher Council for Science & Technology. Jordan. 2010.
19. Member of the national steering committee for "Strategy of Science & Technology in Jordan for the years (Higher Council for Sci. & Technology) 2012-2017.
20. Chairperson of the "Marine Science Station" Council, Aqaba, Jordan (Sep. 2010-2013).
21. Member of the steering committee of the "Jordanian Scientists and Technologists Abroad, JoSTA".

22. Member of the Board of Trustees of “Gharnata Community College” (2013-2019). Irbid-Jordan
23. Member of Board of Trustees for the “Al-Hayat Center for Civil Society Development”, Jordan (2013-present).
24. Member of the scientific committee of the “1st International Conference in Modern advances in the Field of Biotechnology and Genetic Engineering - ICBG2013” 5th-8th Oct. 2013, Amman-Jordan.
25. Member of Yarmouk University Board Council & Deans’ Council (2010-2013).
26. Chair and/or Member of several committees and centers at Yarmouk Univ.
27. Member of the Recognition & Certificates Equivalence at Ministry of higher education & Scientific Research-Jordan.
28. Chair of the Accreditation committee to accredit the “Life Sciences Program” at University of Jordan/Aqaba Branch-2016.
29. Member of the Steering National committee for “Research Projects and International Collaboration” at the Ministry of Higher Education & Scientific Research” in Jordan.
30. Member of the editorial board of the “*Jordan Journal of Biological sciences*”
31. Member of the Jordanian Academic Association (2019- present)
32. Member of the Board of Trustees of Al Al-Bayt University-Jordan
33. Member of the Board of Administration Committee of the Scientific Research and Innovation Support Fund/ Ministry of Higher Education Scientific Research-Jordan (2020-2022)
34. Chairman of the Academic Committee of the Scientific Research and Innovation Support Fund/ Ministry of Higher Education Scientific Research-Jordan (2020-2022).
35. Member of the “Committee for the Scientific Culture & Innovation for the Celebration of Irbid City The Capital of Arab Culture”2021/2022. “عضو في لجنة الثقافة العلمية والابتكار لاحتفالية مدينة إربد عاصمة الثقافة العربية”
36. Member of the Board of Trustees of the German-Jordanian University-Jordan (June 2022-Present)
37. Member of the committee of the “Jordanian- USA Universities-UCN” established by the Jordan Ministry of HE & Scientific research.

B- International Committees:

1. International collaborator for Engaging Iraqi's Science & Technology (S & T) Community In Developing their Country.
2. Vice-Chairman of the "1st Egyptian Jordanian Conference on “Biotechnology and sustainable Development: Current and future scenarios”, NRC, Cairo, Egypt 11-14 Dec 2006. And Chairman of the 2nd Jordanian-Egyptian Conference of Biotechnology and Society: Prospects & Challenges. Yarmouk University-Jordan (11-13 Nov 2008).
3. Member of the Steering Committee of the Arab Biotechnology Network (ABN).
4. International expert evaluator for the "EU-Egypt Innovation Fund” for assessment of call for Proposals.
5. Full Individual Member of the Third World Organization for Women in Science (TWOWS). C/O The Academy of Sciences for the Developing World (TWAS).
6. Member of the Experts Board of the Environmental Biotechnology section of European Federation of Biotechnology (EFB).
7. Member of the Board of the Arab National Union Catalog, Saudi-Arabia.
8. International Jury committee member for the L’Oreal-UNESCO for Women in Science Pan Arab Regional Fellowships.
9. Member of the Board of Trustees of the “Arab Science and Technology Foundation” (ASTF). Sharjah, UAE. 2012-2022.
10. Member of the EU Tempus Higher Education Reform Experts (HEREs) team.
11. Member of the international Advisory Board and scientific committee of the 11th, 12th,13th, 14th, 15th, and 16th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad-Pakistan.
12. Councilor of the World certification Institute (WCI) for the term 2014-present.
13. Member of the steering committee of Arab Life Sciences Network.
14. Jury member for the Arab League Educational, Cultural & Scientific Organization (ALESCO) for the Award for young Arab Scientists in Innovation & Entrepreneurship/ in Biotechnology.

15. Member of the organizing committee of the 12th Euro Biotechnology Conference (*November 7-9, 2016 Alicante, Spain*)
16. Ambassador of the Expo cities 2020. *Expo Cities2020 Organization is a joint venture between Expo Business and MtoM Consulting* with registered office at Rua Beira Rio 57, 10^o, Vila Olímpia - São Paulo - CEP 04548-960, Brazil.
17. Member of the Middle East Molecular Biology (MEMBS) advisory and Organizing Committees 2016, 2017, & 2018
18. Organizing Committee Member for the "World Congress & Expo on Nanotechnology & Nano-engineering (March 27-29, 2017 Dubai, UAE).
19. Member of the National Task Force organizing committee of the "World Science Forum 2017", 7th -11th November, Dead Sea-Jordan.
20. Member of the scientific committee of the "Scientific Committee of the Arab Initiative for the Adaptation of Nanosciences and Technologies and Associated Technologies"-ARNANO. 2017
21. Member of the InterAcademy Partnership for Research (IAP-R) Board for 2017-2020, Representing the Royal Scientific Society-Jordan.
22. Member of the steering committee (representing RSS) of the initiative "The Charter of Ethics of Science and Technology in the Arab Region" 2018.
23. International Expert for ISESCO in Higher Education & scientific research (2017-present)
24. International Expert for ALECSO in Higher Education, scientific research and STI initiatives
25. Member of the Board of the "Global Impact Initiative". USA (Oct 2020-Present)
26. Member of the KSF Space Foundation (<https://ksf.space/members/>). USA (2021-Present)
27. Member of the scientific & Advisory committee of the "Arab Journal for Sciences"- *المجلة العربية للعلوم –Alecso/Tunis.* 2022
28. Member of the Advisory Board Experts of the "Arab International Investor Forum" 2022. And Coordinator of the "Network of the Arab Scientists and Researchers"
29. Member of the Steering committee of the US-Jordan Universities Cooperation Network/ Ministry of Higher Education & Scientific Research 2020-present.

Research Interests:

- *Environmental Biotechnology:* Studying the diversity of microbial communities (Extremophiles) in harsh environments and their potential applications in biotechnology, medicine, industry & energy. Such harsh environments include hot springs, desert dry areas, salty environment in the Dead Sea, Outer Space with near Zero Gravity environment, Contaminated areas.
- Bioremediation of waste products and toxic materials thus cleaning up the environment.
- *Water and Food quality:* Identifications of Human Enteric microbes in Water Resources & food products using metagenomic and Nanotechnology approaches.
- *Medical Biotechnology:* Molecular detection & identification of microbial pathogens in Clinical & food samples.
- *Plant Biotechnology:* Development of plants tolerant to herbicides (GMOs), salt and drought & studying their diversity & Microbial-plant interaction
- *Nanotechnology:* Applications of nanotechnology in biological systems, medicine, environment and cosmetics.
- Climate change and sustainable development.
- Space Science/Astrobiology
- Reform in Higher education.
- Internationalization and Mobility in Higher Education
- Bridging Academia with private sector
- Science Engagement, Science & Society, Science diplomacy

Experience as Trainee, Mentor & Development

- Advisor & consultant for - Group of Consulting and Training International Centers (*GCTIC Group*). Riyadh-Saudi Arabia. Abu Dhabi-UAE

- Trainee for the AL-Nafie Training Center, Riyadh-Saudi Arabia, for several training programs (such as: Planning of Research and projects activities, Intellectual property rights & patents, Establishment of Research centers and chairs, Establishment & Management of Research laboratories...).
- Mentor for the *Open Hands Initiative Women's Entrepreneurship Program*: Providing expert advice to the women entrepreneurs for their startups companies via, coaching, guidance and providing feedback about their business concept, service or product, Specific advice related to the founder's industry or target market, Guidance related to business development, including building financials, customer acquisition, growth hacking, marketing, branding and more, and introducing them to people or organizations that could be helpful to the company's growth (2015-2016).

List of Publications:

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| 1. | Hanan I. Malkawi , Almuthana K. Alkaraki, Hamzeh J. Al Ameer, Amneh Alrabee, Mohamed Kayyali, Mohammad R. Rayyan. 2022 . Adaptation of bacterial strains to survive in outer space microgravity environment: Growth and genomic analysis. Under preparation for submission for publication |
| 2. | Emad I. Hussein, Abdul-salam F. Juhmani, Jacob H. Jacob ⁴ , Mahmoud A. Telfah, Mutaz A. Abd Al-razaq, Fuad A. Al-Horani, Mazhar Salim Al Zoubi, and Hanan I. Malkawi . 2022 . Effect of various local anthropogenic impacts on the diversity of coral mucus-associated bacterial communities. <i>Journal of Marine Science & Engineering</i> . <i>Journal of Marine Science and Engineering</i> . 10(7): 683- https://doi.org/10.3390/jmse10070863 . |
| 3. | Laith N. AL-Eitan, Rami Q. Alkhatib, Bayen S. Mahawreh, Amneh H. Tarkhan, Hanan I. Malkawi , and Munir J. Rusan. 2021 . The effects of Olive Mill Wastewater on Soil Microbial Populations. <i>Jordan Journal of Biological Sciences</i> . 14(3): 545-549. |
| 4. | (حنان عيسى ملكاوي، يونيو 2020. تداعيات جائحة فيروس كورونا على الأمن الصحي العربي. العدد الثاني، المنظمة العربية للتربية والثقافة والعلوم (الكسو) نشرية متخصصة: جائحة كورونا كوفيد-19- وتداعياتها على أهداف التنمية المستدامة 2030 Hanan Issa Malkawi. The implications of Coronavirus Pandemic -COVID-19, on health security in the Arab World- 2 nd issue, June 2020/"Arab Organization for Education, Culture and Science/Alecso). |
| 5. | Rabeah Y. Rawashdeh, Reyad Sawafta, and Hanan I Malkawi . 2020 . Dental materials incorporated with nano metals and their effect on the bacterial growth of <i>Staphylococcus aureus</i> . <i>International Journal of Nanomedicine</i> . 15: 4325- 4331. |
| 6. | Hanan I. Malkawi. 2020 . How to manage research projects with quality and efficiency. <i>Management Today Journal</i> . Arab Administrative Development Organization/League of Arab States. حنان عيسى ملكاوي، 2020. كيفية إدارة المشاريع البحثية بجودة وكفاءة. مجلة الإدارة اليوم. المنظمة العربية للتنمية الإدارية- جامعة الدول العربية- |
| 7. | Reviewer for the Book (Charter of Ethics of Science & Technology in the Arab Region) In collaboration with UNESCO & Royal Scientific Society, 2019 . Published by the UNESCO.7, place de Fontenoy, 75352 Paris 07 SP, France and UNESCO Regional Bureau for Science in the Arab States. ISBN: 978-92-3-100358-5 شاركت كمراجع ومحقق استشاري لكتاب "شريعة أخلاقيات العلوم والتكنولوجيا في المنطقة العربية . |

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| 8. | Marco Zupi, Alberto Mazzali, Hanan Malkawi , Jihan Haddad, Njoud Al Bataineh, Omar Kharabsheh, Abeer Arafat, Elham Ereqat, Georgina Rizq, Amjad Al Khazaaleh. 2019 . Refugees and hosting country economy: integration models and cooperation policy options. This document has been produced with the financial assistance of the European Union within the context of the EU-FEMISE project "Support to economic research, studies and dialogue of the Euro-Mediterranean Partnership". FEMISE Research Paper. FEM 43-14: 1-93. |
| 9. | The Association of Academies and Societies of Sciences in Asia (AASSA, IAP Science Research Health, Australian Academy of Science. 2018 . "Profiles of Women Scientists in Asia: Their Inspirational Stories". Hanan Issa Malkawi was one of the profiles of scientists presented in this report/Book. (https://www.science.org.au/files/userfiles/support/documents/pwsa-booklet.pdf) |
| 10 | D. Houhoula, J. Papaparaskevas, K. Zatsou, N. Nikolaras, H. I. Malkawi , M-P Mingenot-Leclercq, S. Konteles, S. Koussisis, A. Tsakri, E. Charvalos. 2017 . Magnetic nanoparticle-enhanced PCR for the detection and identification of <i>Staphylococcus aureus</i> and <i>Salmonella enteritidis</i> . <i>New Microbiologica</i> . 40(3): 165-169. |
| 11 | Munir J. M. Rusan, Hanan I. Malkawi . 2016 . Dilution of olive mill wastewater eliminates its phytotoxicity and enhances plant growth and soil fertility. <i>Desalination and Water Treatment</i> . 57:1-9 |
| 12 | Munir J. M. Rusan, Ammar A. Albalasmeh, Hanan I. Malkawi . 2016 . Treated Olive Mill Wastewater Effects on Soil Properties and Plant Growth. <i>Water Air & Soil Pollution</i> . 227 (5):1-10 |
| 13 | J. Papaparaskevas, D. P. Houhoula, N. Nikolaras, K. Zatsou, H. Malkawi , K. N. Elshuraydeh, M. R. Hassuneh, S. Konteles, S. Koussisis, M. P. Mingeot-Leclercq, E. Charvalos. 2015. Detection of <i>S. Aureus</i> in Blood Cultures and Milk Using Antibody Conjugated Superparamagnetic Nanoparticles and Conventional PCR- <i>Proceeding: ICMBE 2015: 17th International Conference on Marine Biology & Ecology</i> . 30-31 Jan 2015 . |
| 14 | Rafael Bargiela, Francesca Mapelli, Jesús Tornés, Bessem Chouaia, David Rojo, Sara Borin ² , Michael Richter, Mercedes V Del Pozo, Simone Cappello, Christoph Gertler, María Genovese, Renata Denaro, Mónica Martínez-Martínez, Stilianos Fodelianakis, Ranya A. Amer, David Bigazzi, Xifang Han, Jianwei Chen, Tatyana N. Chernikova, Olga V. Golyshina, Mouna Mahjoubi, Atef Jaouani, Fatima Benzha, Mirko Magagnini, Emad Hussein, Fuad Al-Horani, Ameer Cherif, Mohamed Blaghen, Yasser R. Abdel-Fattah, Nicolas Kalogerakis, Coral Barbas, Hanan I. Malkawi , Peter N. Golyshin, Michail M. Yakimov, Daniele Daffonchio, Manuel Ferrer. 2015 . Bacterial population and biodegradation potential in chronically crude oil-contaminated marine sites are strongly linked to temperature and geochemical diversity. <i>Scientific Reports</i> , 5:11651 (Nature Publishing Group). |
| 15 | Christoph Gertler, Rafael Bargiela, Francesca Mapelli, Xifang Han, Jianwei Chen, Tran Hai, Ranya A. Amer, Mouna Mahjoubi, Hanan Malkawi , Mirko Magagnini, Ameer Cherif, Yasser R. Abdel-Fattah, Nicolas Kalogerakis, Daniele Daffonchio, Manuel Ferrer and Peter N. Golyshin. 2015 . Conversion of uric acid into ammonium in oil-degrading marine microbial communities: a possible role of halomonads. <i>Microbial Ecology</i> 69 (4). (Springer) |
| 16 | Fodelianakis S., Antoniou E., Mapelli F., Magagnini M., Nikolopoulou M., Marasco R., Barbato M., Tsiola A., Tsikopoulou I., Giaccaglia L., Mahjoubi M., Jaouani A. Amer R., Hussein E., Al-Horani F.A., Benzha F., Blaghen M., Malkawi H.I. , Abdel-Fattah Y., Cherif A., Daffonchio D., Kalogerakis N. 2015 . Allochthonous bioaugmentation in ex situ treatment of crude oil-polluted sediments in the presence of an effective degrading indigenous microbiome. <i>Journal of Hazardous Materials</i> . 287: 78-86. (Elsevier) |
| 17 | Daniele Daffonchio, Manuel Ferrer, Francesca Mapelli, Ameer Cherif, Hanan I. Malkawi , Michail M. Yakimov, Yasser R. Abdel-Fattah, Mohamed Blaghen, Peter N. Golyshin, Nicolas Kalogerakis, Nico Boon, Mirko Magagnini, Fabio Fava. 2013 . Bioremediation of southern Mediterranean oil polluted sites comes of age. <i>New Biotechnology</i> . 30(6): 743-748. |

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| 18 | Hanan I. Malkawi. 2012. Genetically Modified crops and human nutrition. <i>Arab Fertilizer</i> . Issue No. 64.pp 16-20, 2012. |
| 19 | Emad I. Hussein, Fuad A Al-Horani, Hanan I Malkawi. 2012. Bioremediation Capabilities of Oil-Degrading Bacterial Consortia Isolated From Oil-Contaminated Sites at The Gulf of Aqaba (Jordan), <i>Biotechnology</i> . 11(4): 189-198. |
| 20 | Daniele Daffonchio, Francesca Mapelli, Ameer Cherif, Hanan I. Malkawi , Michail M. Yakimov, Yasser R. Abdel-Fattah, Mohamed Blaghen, Peter N. Golyshin, Manuel Ferrer, Nicolas Kalogerakis, Nico Boon, Mirko Magagnini, Fabio Fava, & the ULIXES Scientific Team. 2012. ULIXES, Unravelling and exploiting Mediterranean Sea microbial diversity and ecology for xenobiotics and pollutants' clean up. <i>Reviews in Environmental Science and Bio/technology</i> . 11: 207-211 |
| 21 | Noga Qvit-Raz, Omri Finkel, Taghleb Al-Deeb, Hanan I. Malkawi , Muna Y. Hindiyeh, Edouard Jurkevitch, and Shimshon Belkin. 2012. Biogeographical diversity of leaf-associated microbial communities from salt-secreting Tamarix trees of the Dead Sea Region. <i>Research in Microbiology</i> . 163: 142-150. |
| 22 | Daniele Daffonchio, Ameer Cherif, Hanan I. Malkawi , Michail M. Yakimov, Yasser R. Abdel-Fattah, Mohamed Blaghen, Peter N. Golyshin, Manuel Ferrer, Nicolas Kalogerakis, Nico Boon, Mirko Magagnini, Fabio Fava, Atef Jaouani, Francesca Mapelli, Giuseppe Merlino, Sara Borin & the ULIXES Scientific Team ULIXES. 2011. A European FP7 collaborative research project aimed to unravel and exploit Mediterranean Sea microbial diversity and ecology for xenobiotics' and pollutants' clean-up. <i>In Proceedings of the 5th European Bioremediation Conference</i> , ID-231, 1-6. |
| 23 | Cherif A., Borin S., Malkawi H.I. , Yakimov M.M., Abdel-Fattah Y-R., Blaghen M., Golyshin P.N., Ferrer M., Kalogerakis N., Boon N., Magagnini M., Fava F., Jaouani A., Mapelli F., Raddadi N., Ouzari H.I., Merlino G., Daffonchio D. & the ULIXES Scientific Team. 2011. Unravelling and exploiting Mediterranean Sea microbial diversity and ecology for xenobiotic' and pollutants' clean-up, ULixes a European FP7 collaborative research project. <i>In Proceedings of the 1st International Conference on Microbial Diversity – Environmental Stress and Adaptation</i> , Eds. S. Casella, D. Daffonchio, M. Gobbetti, E. Parente, pp. 152-155. |
| 24 | Khaled N. Elshuraydeh, Hanan I. Malkawi , and Mona Hassuneh. 2011. Production of Bare Multiple-element Magnetic Nanoparticles and their use in Fast Detection and Removal of Pathogenic Bacteria from Water Resources. <i>Nanobiotechnology Book II</i> . 331-343. <u>David E. Reisner</u> (Editor). CRC Press |
| 25 | Hanan I. Malkawi , and Manal N. Al-Omari, 2010. Culture-Dependent and Culture-Independent Approaches to Study the Bacterial and <i>Archaeal</i> Diversity from Jordanian Hot Springs. <i>African Journal of Microbiology Research</i> . 4(10): 923-932. |
| 26 | Qutadah M. Radaideh, Hanan I. Malkawi , Manal Al-Omari and Taghleb M.A. Al-Deeb, 2010. Biochemical and Molecular Characterization of Thermophilic enzymes of Bacterial Strains Isolated from Jordanian Hot Springs. <i>World Applied Sciences Journal</i> . 8(6): 725-735. |
| 27 | Ionescu, D., Hyndieh, M., Malkawi, I. and Oren A. 2010. Biogeography of thermophilic Cyanobacteria: Insights from Zerka Ma' in hot springs (Jordan). <i>FEMS Microbiology Ecology</i> . 72: 103-113. |
| 28 | Hanan I. Malkawi , Mohammad Y. Jahmani, Emad H. Hussein, Fuad A. Al-Horani and Taghleb M. Al-Deeb. 2009. Investigation of the ability of soil bacterial isolates to degrade petroleum hydrocarbons. <i>International Journal of Integrative Biology</i> . 7 (2): 93-99 |
| 29 | Ionescu, D., Oren, A., Levitan, O., Hindiyeh, M., Malkawi H. , Berman-Frank, I. 2009. The cyanobacterial community of the Zerka Ma'in hot springs, Jordan: morphological and molecular diversity and nitrogen fixation. <i>Algological Studies</i> , 130: 129-144. |
| 30 | M. G. Al-Saghir, H. I. Malkawi , and A. El-Oqlah. 2009. Morphological diversity in <i>Hordeum spontaneum</i> C. Koch of Northern Jordan (Ajloun Area). <i>Middle East Journal of Scientific Research</i> . 4(1): 24-27 |

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| 31 | Hanan I. Malkawi , Linda M. Fatmi , and Taghleb M. AL-Deeb. 2009 . Mutational Analysis of Oil Degrading Genes in Bacterial Isolates from Oil Contaminated Soil at the Jordanian Oil Refinery. <i>World Applied Sciences Journal</i> . 6(2): 208-220 |
| 32 | Oren, A., Ionescu, D., Hindiyeh, M.Y., and Malkawi, H.I. 2009 . Morphological, phylogenetic and physiological diversity of cyanobacteria in the hot springs of Zerka Ma'in, Jordan. <i>BioRisk</i> . 3:69 <i>Biodiversity and Ecosystem Risk Assessment. Proceeding of The Middle Eastern Biodiversity Congress, Aqaba, Jordan, 20-23 October 2008</i> . Pensoft Publishers, Sofia-Moscow |
| 33 | Bodaker, I., Bèjà, O., Rosenberg, M., Oren, A., Hindiyeh, M.Y., and Malkawi, H. I. 2009 . Archaeal diversity in the Dead Sea: microbial survival under increasingly harsh conditions. pp. 137-143 In: Oren, A., Naftz, D.L., Palacios, P., and Wurtsbaugh, W.A. (eds.), Saline lakes around the world: unique systems with unique values. The S.J. and Jessie E. Quinney Natural Resources Research Library, College of Natural Resources, Utah State University. <i>Natural Resources and Environmental Issues</i> . 15:137 |
| 34 | Taghleb M. AL-Deeb and Hanan I. Malkawi. 2009 . Isolation, molecular and Biochemical characterization of oil Degrading Bacteria from Contaminated Soil at the Jordanian Oil Refinery. <i>Journal of Applied Science & Technology</i> . 14 (1, 2): 1-12 |
| 35 | Rawashdeh, R. Y. and Hanan I. Malkawi , Ahmad S. Al-Hiyassat and Mohammad M. Hammad. 2008 . The effect of crown restorations on the types and counts of cariogenic bacteria. <i>Jordan Journal of Biological Sciences</i> . 1(3):100-104 |
| 36 | Rabeah Y. Rawashdeh, Hanan I. Malkawi , Ahmad S. Al-Hiyasat, and Mohammad M. Hammad. 2008 . A fast and sensitive molecular detection of <i>Streptococcus mutans</i> and <i>Actinomyces viscosus</i> from dental plaques. <i>Jordan Journal of Biological Sciences</i> . 1(3): 135-139 |
| 37 | Ionescu, D., Oren, A., Hindiyeh, M., and Malkawi H. 2008 . Microalgae and cyanobacteria of the Dead Sea and its surrounding springs. <i>I. J. Plant Sciences</i> . 56: 1-13 |
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| 39 | Shaban, B. A. and Malkawi, H. I. 2007 . Rapid Detection of Human Enteric Pathogens (Viruses and Bacteria) in Water Resources from Jordan Using Polymerase chain reaction (PCR). <i>Journal of Applied Sciences Research</i> . 3(10): 1088-1093 |
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| 43 | Malkawi, H. I. and Mohammad, M. J. 2004 . The biodiversity of soil bacterial community in Jordan. <i>Dirasat, Pure Sciences</i> . 31 (2): 182-196 |
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| 46 | Malkawi, H. I. and Gharaibeh, R. 2004 . Rapid and simultaneous identification of two <i>Salmonella enterica</i> serotypes, Enteritidis and Typhimurium from chicken and meat products by multiplex PCR. <i>Biotechnology</i> . 3(1): 44-48 |

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| 50 | Malkawi, H. I. and Gharaibeh, R. 2003. Multiplex PCR for the direct detection of <i>Salmonella enterica</i> from chicken, lamb and beef food products. <i>Journal of Basic Microbiology</i> . 43 (4): 328-336 |
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| 58 | Al-Momani, F., Saadoun, I. and Malkawi, H. I. 1999. <i>Streptomyces</i> species from Jordan soils with in vitro inhibitory activity against <i>Agrobacterium tumefaciens</i> Ab 136 pti 854. <i>African Plant Protection</i> . 5(2): 129-130 |
| 59 | Malkawi, H. I. , Al-Momani, F., Meqdam, M. M., Saadoun, I. and Mohammad, M. J. 1999. Detection of genetic polymorphism by RAPD- PCR among isolates of <i>Bacillus thuringiensis</i> . <i>New Microbiologica</i> . 22(3): 241-247 |
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| 61 | Youssef, M. T., Malkawi, H. I. Shurman, A. A. and Andremont, A. O. 1999. Molecular characterization of multiresistant <i>Klebsiella pneumoniae</i> isolates by plasmid analysis and random amplified polymorphic DNA. <i>Journal of Tropical Pediatrics</i> . 45: 271-277 |
| 62 | Ajlouni, Moh'd and Malkawi, H. 1999. Jordan status and future prospects of biotechnology. In: Agriculture Biotechnology and the Poor, <i>Proceeding of an International Conference</i> , (21-22 October, 1999, Washington, D.C, USA), Persley, Gabrielle, J. and Lantin, M.M. eds., pp 90-96 |
| 63 | Malkawi, H. I. 1998. Jordan Country Study on Biological Diversity. UNDP, GCEP, UNEP and GEF. Project No. GF/6105-92-65, GF/6105-92-02 (2991). Deposit No. 684/5/1998. Contributor to chapter 5 & 7 of the book |

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| 65 | Saadoun, I., Mohammad, M. 1, Malkawi, H. I. , Al-Momani, F. and Meqdam, M. 1998 . Diversity of soil <i>Streptomyces</i> in northern Jordan. <i>Actinomyces</i> . 9 (3): 52-60 |
| 66 | Saadoun I., Al-Momani F., Malkawi H I. , and Mohammad M J. 1998. Isolation, identification and analysis of antibacterial activity of soil <i>Streptomyces</i> isolates from northern Jordan. <i>Microbios</i> . 100 (395): 41-65 |
| 67 | Malkawi, H. I. and Youssef, M. T. 1998 . Antibiotic susceptibility testing and plasmid profiles of <i>Escherichia coli</i> isolated from diarrhoeal patients. <i>Journal of Tropical Pediatrics</i> . 44(3): 128-132 |
| 68 | Malkawi, H. I. and Youssef, M. T. 1996 . Characterization of <i>Escherichia coli</i> isolated from patients with urinary tract infections in northern Jordan: antibiotic resistance and plasmid profiles. <i>Mu'tah Lil-Buhooth Wa al-Dirasat</i> . 11(5): 171-192 |
| 69 | Jaradat, A. A. and Malkawi, H. I. 1996 . Patterns of genetic variation among four esterase loci in barley landraces from the Fertile Crescent. In: Slinkard, A., Scoles, G. and Rosnagel, B. (ed). <i>Proceeding of VII International Barley Genetics Symposium</i> . Saskatoon, Canada. Pp.182-184 |
| 70 | Malkawi, H. I. 1994 . Non-traditional methods of plant breeding for crop improvement. <i>In the Proceeding of a National Seminar of plant genetic resources of Jordan</i> . Edited by Jaradat, A. A. pp. 217-228 . Amman, Jordan |
| 71 | Morris, C. F., Greenblatt, G. A., Bettege, A. D. and Malkawi, H. I. 1994 . Isolation and characterization of multiple forms of friabilin. <i>Journal of Cereal Science</i> . 21: 167-174 |
| 72 | Morris, C. F., Greenblatt, G. A. and Malkawi, H. I. 1992 . Enhanced electrophoretic detection and isolation of friabilin, a starch granule protein. <i>Cereal Chemistry</i> . 69: 467-468 |
| 73 | Carlson R.R., Buchholz W.G., Hurlbert R.E., Malkawi H.I. , Thomashow M.F. 1985 . Functional analysis of the auxin independence genes sequence analysis of the cytokinin independence gene of agrobacterium plasmid ptiag 63 and the relationship of these loci to host range. <i>Phytopathology</i> . 75(11): 1375-1376 |

Patents:

1. Title: "Method for the Production of Bare (Non-functionalized) Multiple element Magnetic Nanoparticles and their use in Fast Detection and Removal of Pathogenic Bacteria from Water Resources". INVENTORS: Khaled Najieb Elshuraydeh, **Hanan Issa Malkawi**, and Mona Hassuneh. Registered Patent # (2450), Ministry of Industry and Trade, Amman, Jordan. Approved Nov. 2008.

2. Title: " ORGANOSILICON COMPOUNDS, FATTY ACIDS AND OILS WITH HOMOGENOUS SILICON NANOPARTICLE DISPERSIONS". Inventors: NAYFEH, Munir, H.; **MALKAWI, Hanan, I.**; AL-OLAYAN, Ebtessam Mohammed, Salan; AIGHAMDI, Khalid, Mohammad. Pub. No.: WO/2010/059604. International Application **No.:** **PCT/US2009/064741**. **Publication Date:** **27.05.2010**. Agent: FALLON, Steven, P.; Greer, Burns & Crain, Ltd. 300 South Wacker Drive. Chicago, IL 60606, USA.

3. Title: "The Use of Multiple elements Magnetic Nanoparticles in Cancer Diagnosis and Therapy". Inventors: Khaled N. Elshuraydeh, Mona R. Hassuneh and **Hanan Issa Malkawi**. Registered and approved at Ministry of Industry and Trade, Registered Patent # 2847Amman, Jordan. 2014

Book Reviewd:

Several books in English & Arabic at the national & International levels

Membership, Refereeing of Societies and Editorship of Journals:

Member of editorial board of several national & international Journals at national and international levels:

- Jordan Journal of Biological Sciences
- Journal of Genetic Engineering & Biotechnology
- Global Journal of Biotechnology & Biotechnology
- International Journal of Pharmacology and Clinical Sciences
- Arab Journal for Sciences”- المجلة العربية للعلوم –Alecso/Tunis

Invited Speeches & Seminar Participation–Meetings, Conferences & Workshops:

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| 1. | Workshop: <i>“The production of monoclonal antibodies and their applications in parasitic infections”</i> . Yarmouk Univ. Irbid-Jordan, (May 27-June 8, 1989) |
| 2. | Workshop: <i>“Genetic engineering for plant cloning”</i> , KISR in cooperation with UNESCO held in Kuwait (Jan 6-10, 1990) |
| 3. | Meeting: The 16 th American of Cereal Chemists (AACC) Annual Meeting, Seattle, WA, U.S.A. (Oct 13-16, 1991) |
| 4. | Conference: The Millipore Life Sciences Series Conference. Seattle, WA- U.S.A. (Oct. 9, 1992) |
| 5. | Meeting: <i>“Incorporating the concepts of AIDS disease and how to avoid it, in the curriculum of high schools”</i> , Amman-Jordan. (Sep 14-16, 1993) |
| 6. | Conference. The Use of New Technology in Cereal Breeding, Algeria (May 28-30, 1994). Presented a paper entitled: <i>“Use of recombinant DNA technology in plant breeding of cereal crops”</i> |
| 7. | Conference: Plant Genetic Resources in Jordan. Jordan, NCART. (Aug 2-4, 1994). Presented a paper entitled: <i>“Non traditional methods of breeding for crop improvement ”</i> . |
| 8. | Conference: The Fourth Jordanian Scientific week (Aug 27-Sep 3, 1996). Amman-Jordan |
| 9. | Workshop: <i>“The New in Biotechnological Techniques”</i> , (Jan 7-9, 1997). University of Baghdad, College of Sciences- Baghdad-Iraq . Presented a paper entitled <i>“The Polymerase chain reaction and its applications”</i> |
| 10. | Conference: <i>“Biotechnology, The present and the future goals”</i> . (Apr 7-9, 1997). Al alBays University, Jordan. Presented a paper entitled <i>“Molecular marker techniques (RAPD and RFLP) in fingerprinting organisms”</i> |
| 11. | Conference: The Eighth Arab Conference of Clinical Biology and the First Jordanian Conference of Medical Laboratory Sciences. (April 28-May 1, 1997). Amman-Jordan. Presented a poster entitled: <i>“Molecular characterization of multiresistant Klebsiella pneumoniae isolates by plasmid analysis and random amplified polymorphic DNA, RAPD”</i> |
| 12. | Symposium: The Third International Triticeae Symposium. (May 4-8, 1997). Aleppo-Syria . Presented a paper entitled: <i>“Genetic analysis of Emmer wild and cultivated durum wheat by random amplified polymorphic DNA (RAPD-PCR)”</i> |
| 13. | Conference: The First Conference of Environmental Problems. (Apr 14-16, 1998), Mut'ah Univ., Jordan. Presented a paper entitled: <i>“PCR and DNA fingerprinting techniques in identifying and characterizing soil bacterial isolates”</i> |
| 14. | Meeting: The First Annual Scientific Day of the Faculty of Science. (May 18, 1998). Jordan Univ. of Science and Technology, Jordan |
| 15. | Workshop: <i>“ Methods and Applications of Plant DNA Fingerprinting”</i> . (Sep 8-10, 1998). Held in cooperation with the Arab organization for Agriculture and NACART, Jordan. I participated as a lecturer and trainee in PCR uses and different DNA-based fingerprinting techniques in plants |

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| 16. | Meeting: The 99 th General ASM meeting (May 30-June 3, 1999). Chicago- Illinois. USA. I presented a Poster entitled " <i>Detection of genetic polymorphism by RAPD-PCR among isolates of Bacillus thuringensis</i> " |
| 17. | Workshop: " <i>Participating in organizing a curriculum for a master degree in biotechnology</i> ", in Al-Balqa University. Jordan (July 1999) |
| 18. | Workshop: Participated in the short training course on " <i>DNA molecular markers techniques for crop improvement</i> " (Sep.12-23, 1999). Held in International Center for Agricultural Research in the Dry Areas (ICARDA). Aleppo- Syria |
| 19. | Seminar: " <i>PCR application in diagnosis of infectious diseases</i> ", May 24, 2000. Philadelphia University, Amman-Jordan |
| 20. | Scientific Visit: Invitation from Georgia State University, Atlanta, Georgia- USA , (the delegation consisted of the President of Yarmouk University, the Dean of Science, and myself) to visit the <i>Biotechnology core facilities and the Departments of the Faculty of Art & Science at GSU and discuss ways of collaboration in biotechnology</i> (Sep 2000) |
| 21. | Scientific Exchange Visit: Visited the biotechnology facility units in the National Research Center (NRC) and Agriculture Genetic Engineering Institute (AGERI) in Cairo-Egypt) during the first week of March 2001 |
| 22. | Workshop: " <i>IT Primer Workshop on Basic Web Technology Skills for Course Development</i> " American University of Beirut- Lebanon (June 5-9, 2001) |
| 23. | Workshop: " <i>Bioinformatics and structural modeling</i> " (Sep 3-7, 2001). Sabanci University, Istanbul-Turkey |
| 24. | Conference: " <i>The Second Arab Conference & Exhibition on Biotechnology and Genetic Engineering</i> " (Apr 15-17, 2002), Bahrain . I presented a paper entitled " <i>Identification of Salmonella isolates from poultry and meat products using PCR technology</i> " |
| 25. | Workshop: " <i>PCR-based Technology: Uses and Applications</i> " Yarmouk University, Dept. of Biological Sciences, Jordan (Sep 7-12, 2002). Participated as a lecturer, trainee and organizer |
| 26. | Workshop: " <i>Synchrotron Radiation Science: JSPS Asian Seminar</i> ". At Al-Balqa' Applied University, Jordan (Oct. 19-28, 2002) |
| 27. | Symposium: "Frontier of Science and Engineering" Koc University, Istanbul-Turkey (Sep 21-23, 2003). Invited speaker. Title of presentation: " <i>The biodiversity of bacteria and arbuscular mycorrhizal fungi in Jordanian soil as influenced by biotic and abiotic factors</i> " |
| 28. | Conference: Jordan Ninth Scientific Week "Role of Biotechnology in the Jordanian Economy", The Higher Council for Science & Technology (Oct 6- Oct. 8, 2003), Jordan. I presented a paper entitled " <i>Rapid Methods for Detection Of Foodborne Pathogens</i> " |
| 29. | Symposium: "On Frontiers of Chemical Sciences: Research and Education in the Middle East", (Dec. 6-11, 2003). Malta . Participated as invited scientist. |
| 30. | Workshop: "Public Awareness about GMOs" National Biosafety Framework For Jordan. (March 1, 2004). Yarmouk University, Jordan |
| 31. | Conference: Jordan Tenth Scientific Week "Role of Advanced Material Technology in the Jordanian Economy". The Higher Council for Science & Technology (Sep19-21, 2004). Amman-Jordan |
| 32. | Conference: Fourth Conference on Biological Sciences (Biological Sciences and Society: Services and Obstacles). (Oct. 12-14, 2004). Yarmouk University. Irbid-Jordan |
| 33. | Workshop: Accreditation of higher education for basic sciences. Feb 26.2005, Applied Science Private University |
| 34. | Workshop: 2 nd International forum to Engage Iraq's S & T Community in Developing their Country. May 15-18, 2005. Amman, Jordan. (my participation was as an International Collaborator). |
| 35. | Conference: Engaging Iraq's Science and Technology Community in Developing Its Country. 18 – 20 Sep 2005, Amman – Jordan. (my participation was as an International Collaborator) |

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| 36. | Conference: The 11 th Annual Jordanian Scientific Week " Revitalization of the National Innovation System: Towards Enhancing the Competitiveness of the Jordanian Economy.". The Higher Council for Science & Technology (Sept18-20, 2005). Amman-Jordan. (I gave a presentation " Ethics in Scientific Research") |
| 37. | Workshop: EMP/CEM Dry land's Hidden wealth. Amman Jordan (June 26-27, 2007). I was an organizer as the Director of the UNESCO Chair for Desert Studies |
| 38. | Workshop: "Nanotechnology and Horizon for its uses in industry: Towards Arab cooperation for the development and ownership of nanotechnologies". Sep 20-21, 2006. Rabat- Morocco . I gave presentation entitled "Applications of Nanotechnology in quick detection of microbial contamination from water resources and food products" |
| 39. | Workshop: I was member of the organizing committee and participant for "Bioinformatics" that was held in the Dead Sea-Jordan (May 29-30, 2006) |
| 40. | Workshop: I was member of the organizing committee and participant for "Bioinformatics" workshop held in Cornell University- USA (Nov 2-8, 2006). |
| 41. | Conference: I was the vice-Chairman and the Jordanian representative of the "1 st Egyptian-Jordanian Conference on Biotechnology and sustainable development: Current and future scenarios", NRC, Cairo-Egypt (Dec11-14, 2006) |
| 42. | Conference: Middle East Frontiers of Science & Engineering (FOSE07). Seville- Spain (March 19-21, 2007). I gave a speed session presentation about "Rapid detection of microbial pathogens (Bacteria & Viruses) in water resources using molecular biology" |
| 43. | Workshop: Integrated financing strategy for combating UNCCD/NAP implementation in Jordan. Amman-Jordan (Sep 26. 2007) |
| 44. | Conference: The 13 th Jordan Science Week: Theme, Science parks, and the knowledge based economy. Amman-Jordan (Oct 28-Nov1. 2007) |
| 45. | Conference: Frontiers of Chemical Science III: Research & Education in The Middle East. Istanbul-Turkey (Dec 8-13, 2007). I was the discussion leader of a session (Environment: water and air quality) and I gave a presentation about "Water Quality & Monitoring in Jordan: Improved and recent Molecular biology technology for rapid and sensitive detection of water-borne pathogens in water resources) |
| 46. | Meeting: National Academies Leadership Meeting. January 13-15, 2008. Dead Sea, Jordan. I was participating in the meeting as national expert, specifically at the session water resources and water quality |
| 47. | Workshop: Sustainable Management of Marginal Drylands (SUMAMAD). June 1-7, 2008. Amman. Jordan. Organized by Flemish Government of Belgium, UNESCO, Royal Society for the Conservation of Nature-Jordan, & United Nations University |
| 48. | Conference: Petra IV Conference for Nobel Laureates. June 17-19, 2008 Petra-Jordan |
| 49. | Conference: Chairman & Coordinator of the 2 nd Jordanian-Egyptian Conference of Biotechnology and Society: Prospects and Challenges. Held at Yarmouk University-Jordan for the period: Nov 11-13, 2008 |
| 50. | Workshop: I served as Chairperson & organizing of a workshop entitled " The Potentials of Developing Sustainable Community- Based Tourism in Regions Prone to Droughts and Desertification: The Case of Northern Badia in Jordan" that was held at Yarmouk University (Apr 6-7, 2009). I have presented a lecture entitled "Role of UNESCO Chair for Desert Studies in sustainable development". |
| 51. | Conference: "Research Connection 2009", Prague Congress Center. 7-8 May 2009. Prague- Czech Presidency of European Union |
| 52. | Workshop: I served as Chairperson & organizing of a workshop entitled: "ASPnet, Desertification and Combating Desertification" that was held at Yarmouk University (May 26-27, 2009) |

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| 53. | Conference: "1st Conference on Arab Women in Science & Technology: Empowerment for the development of the Arab World" 28-30 Sep. 2009. Dubai-United Arab Emirates . I was invited speaker in the Panel discussion: Arab Women in S & T Entrepreneurship |
| 54. | Workshop: How to write proposals for the Scientific Research Support Fund/Ministry of Higher Education & Scientific Research. Oct 21. 2009. HCST- Jordan. I was the trainer for trainers. (Theoretical & Practical sessions) |
| 55. | Workshop: Organized a workshop on "How to write a successful research proposal". 25Feb 2010. Yarmouk University, Irbid-Jordan |
| 56. | Conference: "International conference on strategies of scientific research in the universities of the Islamic world: reality & prospects, 6-8 July 2010. International Islamic University of Malaysia. Kuala Lumpur-Malaysia . I was invited speaker and presented a presentation entitled: Scientific research & its strategies at Yarmouk University-Jordan |
| 57. | Workshop: "The use of Nanotechnology in Agriculture" July 26 2010. NCARE. Amman-Jordan. I gave a presentation entitled" The use of Nanotechnology in water treatment" |
| 58. | Summit: World Innovation Summit for Education (WISE). Doha- Qatar , 7-9 December 2010 |
| 59. | Invited Speaker: Applied Science University, Bahrain . Title of Speech: "How to Improve & Support Scientific Research in Arab Universities, (Feb 9, 2011) |
| 60. | Meeting: EU-FP7 Project "Unravelling and exploiting Mediterranean Sea microbial diversity and ecology for xenobiotics' and pollutants' clean up". Kick-off meeting (2011). University of Milan, Italy . |
| 61. | Conference: 17 th Annual Conference SLA/AGC. Muscat-Oman (8 th -10 th March/2011). |
| 62. | Meeting: Scientific visit to IAEA, UV & TU to Vienna-Austria by Delegate from Yarmouk University represented by the president, vice-president (Prof. Hanan Malkawi) & Dean of Faculty of Sciences as an invitation from IAEA (Apr 13-15, 2011). |
| 63. | Conference: Title of presentation "Bioremediation of oil spills and hydrocarbons by naturally isolated bacteria from Jordan: a closer look". 5 th European Bioremediation Conference- Chania, Crete, Greece (July 4-7, 2011) |
| 64. | Award Ceremony: L'Oreal-Unesco For Women In Science Pan Arab Fellowship Programme Award. I was an International Jury member. Beirut-Lebanon . Oct 4. 2011 |
| 65. | Meeting: The 4 th meeting of the Board of the National Union Catalog. UAE-Al-Ein . (Oct 19-20. 2011) |
| 66. | Summit: World Innovation Summit for Education (WISE): Nov 1 – 3, 2011 in Doha, Qatar – explored the theme of "Changing Societies, Changing Education". An initiative of Qatar Foundation. |
| 67. | Meeting: Regional Seminar for Higher Education Reform Experts. "Towards equivalence of higher education degrees between the southern Mediterranean & the EU" November 22-23, 2011. Barcelona, Spain |
| 68. | Meeting: ULIXES – 1 st Year Meeting. Capo Granitola, Mazara del Vallo, Sicily- Italy January 22 nd 2012. I gave 2 presentations about scientific achievements of Yarmouk Univ. in Ulixes Project during the period (June 2011 to Jan. 2012). |
| 69. | Meeting: Erasmus Mundus Project: Action 2 Strand 1 (Lot 5 Jordan & Syria AVEMPACE) Avempace Selection Meeting. March 6-8 2012, TU Berlin, Germany . |
| 70. | Meeting: Participated in the "Arab Forum for Environment & Development-AFED). Ecological footprint and sustainability options in Arab Countries. Consultation meeting. Apr 30. 2012. Petra University, Amman-Jordan |
| 71. | Meeting: Academic MENA Library Advisory Board Meeting. May 21-23, 2012. Istanbul-Turkey . |
| 72. | Meeting: ULIXES–Mid-Term/2 nd Steering Committee Meeting Agenda Casablanca, Morocco . July 4 th 2012 |

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| 73. | Kick-off Meeting: Erasmus Mundus Project Action 2 (EU Partnerships and International Cooperation with Jordan, Lebanon, Syria and Palestine-EPIC). Beirut-Lebanon . 3-4 th Sep 2012. |
| 74. | Visit: Delegate visit to Lund University -Sweden upon invitation from Lund University. Signature of MOU (Oct. 17-19, 2012). |
| 75. | Seminar: I was Invited speaker in DIES-Seminar: Enhancing Internationalization and Managing Partnerships between Higher Education Institutions in Germany and Jordan. University of Jordan/Center for Strategic Studies, Amman, 12/13 November 2012 |
| 76. | Kick-off Meeting: Tempus funded project (EQUAM-Enhancing Quality Assurance Management in Jordanian Universities). 2 nd -3 rd Dec. 2012, PSUT, Amman-Jordan |
| 77. | Conference: I was invited speaker in The 10th International Bhurban Conference on Applied Sciences & Technology (IBCAST) held 15-19 January, 2013 at National Centre for Physics (NCP), Islamabad-Pakistan . Title of my talk” The use of multiple element magnetic nanoparticles in detection of microbial contamination in water resources & food products”. |
| 78. | Kick-off Meeting: Project BACDETECT II: Detection of bacterial pathogens in food and clinical samples using nanoparticles. 4 th -5 th March 2013, Athens-Greece |
| 79. | Summit: Arab Education Summit 6-8 May 2013, Amman-Jordan. I participated in Round table discussion with private sectors |
| 80. | Meeting & workshop: “Tempus Regional Seminar on Human Resources Management in Higher Education in the Southern Mediterranean countries” 18-21 June 2013- Nicosia-Cyprus . I have chaired three plenary sessions. |
| 81. | Meeting: ULIXES – 3rd Steering Committee Meeting. Bologna, Italy - Sep 3-4, 2013. Presented our achievements & management activities in the FP7-Ulixes Project. |
| 82. | Meeting: Participated (in my capacity as Higher Education Reform Experts (HEREs) in a Tempus event “Thematic Seminar “Diversification of Funding, Autonomy & Strategic Planning at Universities”. 23-24 Sep 2013 in Bishkek-Kyrgyzstan . |
| 83. | Award Ceremony: participated in my capacity as Jury member in the L’Oreal-Unesco For Women In Science Pan Arab Fellowship Programme Award. 5-7 Nov. 2013 Dubai-UAE |
| 84. | Seminar: In line with the German DIES Programme (Dialogue on Innovative Higher Education Strategies) and in continuation of the 2012 DIES seminar in Jordan the German Rectors’ Conference (HRK). I was invited as a keynote speaker and give a talk:“Internationalization at Jordanian Universities”. 2-6 Dec 2013 Bonn-Germany . |
| 85. | Conference: Keynote speaker in the “The first "Arab Forum for Scientific Research and Sustainable Development," hosted by the Arab League Educational, Cultural & Scientific Organization (ALECSO), in cooperation with ISC, promoted interdisciplinary networks and partnerships to support existing Arab development initiatives to integrate into the global market. Tunis 20-22 Dec. 2013 . My talk was about “Importance to establish Arab Research Support Fund. |
| 86. | Training Workshop: I prepared the materials and was the trainee in two workshops (1- Planning of Research Activities, 2-Intellectual Property Rights & Patents) for Faculty members & researches at “Princes Nourah Bint Abdulrahman University” Riyadh-Saudi-Arabia through Al-Nafie Training Center. (2-6 March 2014). |
| 87. | Workshop: Speaker in the training workshop entitled: Enhancing Quality Assurance Management in Jordanian Universities. Madrid-Spain (23-25 June 2014). |
| 88. | Seminar: Keynote speaker in DIES-Seminar (German Rector Conference): “Stakeholder Involvement in HE: Research, Innovation & Technology Transfer” 17-18 Nov. 2014. Amman-Jordan |
| 89. | Invited Jury: Jury member for the Best research proposal in Biotechnology. Organized by Arab Forum for Scientific Research And Sustainable Development (ALESCO). Tunis: 26-29. Nov 2014 . |

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| 90. | Invited as Chairing a session: entitled "New partnerships for marine Research and Innovation in the Mediterranean". Conference: UNION FOR THE MEDITERRANEAN STAKEHOLDER CONFERENCE "TOWARDS A ROADMAP FOR BLUE INVESTMENT AND JOBS IN THE MEDITERRANEAN" 27th May 2015. Athens-Greece |
| 91. | Symposium & Training workshops: " <i>Innovation & Entrepreneurship Education</i> " Habtoor Grand Beach Resort., 22-23 Nov 2015 Dubai-UAE. Workshop: Creative Thinking, given by Prof. Pamela Hinds & Prof. Perry Klebahn from Stanford University-USA. |
| 92. | 2nd Annual Forum on Higher Education Policy: " <i>The National Agenda for Scientific Research & Innovation</i> ". Hamdan Bin Mohammed Smart University. 24 th Novemeber-2015. Dubai-UAE. |
| 93. | Meeting: Participated as an Expert for ALECSO for the project; improvement of higher education in the Arab Work with regard to Teacher's Guide in Sciences and Math. 5-6 January-2016. Doha-Qatar. |
| 94. | Seminar: Chaired a session on International Seminar on Islamic Perspectives on Science's Big Questions. Session Title-Causality, Naturalism & Miracles. 5 May-2016. Amman-Jordan |
| 95. | Forum: Keynote speaker in "First Regional Forum on the teaching of science in the educational systems in the Arab World" 13-15 July 2016- Tunis |
| 96. | Conference: "HERE Annual Conference: HERE and their mission: Contributing to higher education reform" 12-13 Dec 2016, Barcelona-Spain. |
| 97. | Forum: "4th Arab Forum on Scientific Research and Sustainable Development" 16-18 Dec 2016 Cairo-Egypt. I was chairing the closing and recommendation session. |
| 98. | Conference: 4 th Arab-Euro Conference on Higher Education: Research for sustainable societies". 24-26 April-2017 Rabat-Morocco. I was a speaker in a Panel session entitled- <i>Accessibility of scientific research results-</i> |
| 99. | Meeting: The 5 th ESCWA Technology Center's Technical 5 th Committee Meeting: 23-24 May 2017 Beirut - Lebanon, I was panellist in a session entitled " <i>Which Emerging Technologies are Adequate for Sustainable Development in the Arab Countries</i> " |
| 100 | Round Table: Invitation from the European Commission to participate in the round Table of "Dialogue with South Med R&I Stakeholders" in Alexandria-Egypt. 25 th Sep-2017. The round table discussion focused on focused on three key areas: (i) the contribution of research and innovation in addressing the root causes of migration, (ii) PRIMA and (iii) the BLEUMED. |
| 101 | Round Table: Preparation of the zero draft of the "The Charter of Ethics of Science and Technology in the Arab Region". UNESCO Office, Cairo-Egypt. 1 st October-2017. |
| 102 | Forum: The Arab Forum for Nanotechnology Applications and Technologies. (3-4 Oct 2017), Amman-Jordan |
| 103 | Forum: World Science Forum 2017 (7-11 November 2017). I was in the National Task Force organizing committee, and I was panelist in the Session entitled "Science Engagement: Talking Science to Non Scientists" that was held on 9 th November-2017 |
| 104 | Conference: I was speaker in the FEMISE Annual Conference (7-9 Feb 2018) - Valetta, Malta. My talk's title: "Refugees and hosting country economy: integration models and cooperation policy options" |
| 105 | Conference & Meeting: Participated in the Annual meeting of the " <i>Association of Materials Science Research and Nanotechnology-MATNAT</i> ", which I am a member of it, and this association is affiliated with the "Federation of Arab Scientific Research Councils". The meeting was held during the (10 th International Conference on Nano-Technology), for the period 13 th -17 th April-2018 at Hurghada-Egypt |

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| 106 | Workshop: Participated and chairing a session in the workshop <i>“Integrating University and Private Sector Development; the role of STP’s”</i> representing RSS. The workshop was organized by European Investment Bank, <i>Center for Mediterranean Integration</i> , İzmir Katip Çelebi University Entrepreneurship House and Technology Transfer Office (IKC GETTO), the Aegean Region Chamber of Industry (EBSO), and <i>ISESCO (8-10 May 2018)</i> in Izmir-Turkey |
| 107 | Conference: Participated as Invited Keynote Speaker representing RSS and Jordan in the Conference entitled <i>“Arab International Conference on Health Security”</i> . The title of my talk was <i>“Biological Threats to Health Security”</i> . Held at Naif Arab University for Security Sciences, (25 th -27 th September 2018). Riyadh- Saudi Arabia |
| 108 | Award Ceremony: Participated, in my capacity as Jury member, in the Final Fellowship Awards Ceremony for the L’Oréal-UNESCO for Women in Science Levant Fellowship. (9 -11 October-2018). Beirut-Lebanon |
| 109 | Meeting: Participated as Invited Speaker representing RSS & Jordan in the <i>“Expert Meeting on the Implementation of the Performance Measurement Mechanism for the Universities of the Islamic World”</i> . The title of my talk was <i>“Higher Education System and Reforms in Jordan”</i> . I was also moderator to two sessions. The meeting The meeting was organized by z (ISESCO)/and the Federation of the Universities of the Islamic World (FUIW), and held during (23-24 October 2018) at ISESCO headquarters in Rabat-Morocco |
| 110 | Meeting: I have participated as an expert in the Consultative Meeting for Implementation of Islamic Observatory on Science, Technology & Innovation-STI. 18 th to 19 th February 2019, Amman-Jordan |
| 111 | Forum: Participated as Keynote speaker in the <i>“World Forum for Women in Science”</i> , my speech was about “Nanotechnology towards achieving sustainable development goals: effective applications in water, food, and medicine. Cairo-Egypt 12th -14th March 2019 |
| 112 | Workshop: Participated and Co-Chaired a session entitled <i>“Women in Space Science”</i> in the workshop “United Nations/Jordan Workshop: Global Partnership in Space Exploration and Innovation” that was held in Amman-Jordan (25-28 March 2019). |
| 113 | Forum: Chaired during the <i>“5th Scientific Forum of the Jordanian Alumni of North America: development of human & natural resources”</i> which was held at the Jordan Engineers Association- Amman/Jordan (3 rd Aug-2019). The session I chaired was entitled: (<i>Natural resources in Jordan-Water & Environment</i>) |
| 114 | Summit: Participated as panelist in the <i>“Phi’s Research & Innovation Summit 2019”</i> held in the Dead Sea- Jordan during 5-6 August 2019. The session Title that I have participated in was entitled <i>“The Journey of being a researcher and inventor: Ups & downs”</i> |
| 115 | Forum: Participated in the <i>“World Science Forum 2019”</i> under the title "Science, Ethics and Responsibility". Held in Budapest-Hungary 20 to 23 November 2019. |
| 116 | Forum: Participated as speaker in a session and Chaired a workshop during the <i>“7th Arab Forum for Scientific Research and Sustainable Development”</i> which was held in Amman- Jordan 17-10 Dec. 2019. The workshop I was chairing and moderating entitled “Activating the Sustainable Development Goals 2030 in the Arab World”. The title of my speech in the 3 rd session of the forum was” <i>Evolution and challenges of Biotechnology in the Digital Era”</i> |
| 117 | Forum: Participated as invited speaker during the <i>“ICESCO Future Forum”</i> which was held in Rabat-Morocco (17-18 Feb 2020). The title of my talk was <i>“The Importance of Digital Technologies for Advancing the Role of Women Scientists in the Islamic World”</i> |

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| 118 | Virtual Online Webinar. “ <i>Lockdown Learning: Supporting every Teacher, every Parent</i> ”. Organizers: Alhambra US Chamber. Texas, CL Educate India, and global education professionals-US, 18 April 2020. My talk was about: Challenges and success experiences of teaching/ during lockdown at home due to coronavirus crises, technology approach and online based learning for both teachers & students, and how to keep students interactive and engaged, and Concerns and anxiety issues related to evaluation assessments and exams and what are the choices. |
| 119 | Virtual Online Meeting: Participated as invited speaker expert in the Third meeting of the Standing Committee for Scientific Research and Innovation in the Arab Countries. Organized by “Arab Organization for Education, Culture and Science/Alecso” (18 May 2020) تم دعوتي كخبير من قبل "المنظمة العربية للتربية والثقافة والعلوم-الكسوا" للمشاركة في الاجتماع الثالث للجنة الدائمة للبحث العلمي والابتكار في الدول العربية ، عبر تقنية الاتصال عن بعد (زووم) بتاريخ 2020/5/18. وكانت محاضرتي ومداخاتي في محورين: 1- تحديد وإعادة ترتيب أولويات البحث العلمي العربي ودعم وتشجيع الأبحاث العلمية المتعلقة بالأمراض الوبائية المستجدة والمنبعثة وكيفية مواجهتها، 2- أهمية التشبيك والربط بين المؤسسات التعليمية والمراكز البحثية العربية مع مثيلاتها في دول العالم |
| 120 | Virtual online Summit: World Learning Summit 2020 Digital- (Beyond Corona: Digital learning: Policy, theory and practice for the future). My talk was in the session - Innovating learning for sustainable societies- The Corona pandemic: North South challenges and the roles of learning within such challenges. (21-22 Oct 2020). |
| 121 | I have participated as invited speaker in several virtual national and international events and webinars during COVID-19 Pandemic 30 th March 2020-present |
| 122 | Virtual Training Workshop: 18-19 January 2021. UNESCO Training workshop to member state for the “preparation of a report of a UNESCO member state’s implementation of the recommendation on science and scientific researchers for the period (2017-2020). Via Zoom. |
| 123 | Virtual Symposium: I was invited by the Palestine Minister of Education to deliver a speech in Arabic on 29 th May, 2021 under the umbrella of the “Science discovery Program”. The Title of my talk was: Epidemiological disease and Pandemics throughout history and how to combat them. "الأمراض الوبائية والجوائح عبر التاريخ وكيفية مواجهتها" |
| 124 | Virtual Meeting: 16 June, 2021, Participated (via Zoom), in both the preparatory virtual meeting (9-10 June) and the official 2 nd OIC Summit on Science & Technology “Science, Technology & Innovation: Opening New Horizons”. Abu Dhabi-UAE |
| 125 | Virtual Workshop (in Arabic): 15th July 2021. Ethics in Emerging Technologies الأخلاقيات في التكنولوجيات البازغة: التقانات الحيوية البازغة- الآمال والمخاوف". وذلك بتنظيم من اتحاد مجالس البحث العلمي العربية، وأكاديمية البحث العلمي والتكنولوجيا I was invited as keynote speaker “Emerging synthetic Biology: Promising prospects, challenges and concerns” البيولوجيا التركيبية/الصناعية البازغة: الآفاق الواعدة والتحديات والمخاوف |
| 126 | Virtual Conference: keynote speaker (4 th Sep 2021), The first annual conference of the Palestinian Academy of Biological Sciences. The title of my talk was " Adaptation and Diversity of Microorganisms to Thrive in Extreme/Harsh Environments ". |
| 127 | Virtual Conference: “UN International Women’s Day 2022-London” 8 th March 2022. I was a Keynote speaker , my talk entitled “ Women in Science & Technology in the 4th Industrial Revolution Era Within the Islamic World ” |
| 128 | Virtual Forum: In Arabic الفهرس العربي الموحد 4 th Oct. 2022- Saudi Arabia. Title of my talk: "إعداد وتهيئة المشاريع البحثية بقصد طلب التمويل" "Preparing and Writing a successful Research Proposal to be Funded" |