



Hamzah M. Alqadiri

**Present
position
(2006-present)**

Professor of food and water microbiology (2016-present)
Department Chair
Associate professor of food and water microbiology (2011-2016)
Assistant Professor of food and water microbiology (2006-2011)
Dean assistant for quality assurance (2011-2012).

The university of Jordan, School of Agriculture, Department of
Nutrition and Food Technology
Amman 11942 Jordan

**June-October
(2007, 2008,
2010).**

Research Scholar, School of Food Science, Washington State
University, Pullman, WA- USA (2007, 2008, 2010, 2014).

**February-
September
(2014)**

**September
2015 –January
2016**

Adjunct Faculty, School of Food Science, Washington State
University, Pullman, WA- USA (2015).

**February-June
2018**

Adjunct Faculty, School of Food Science, University of Idaho,
Moscow, ID- USA (2018).

**Sep. 2012-jan.
2014**

Associate professor of food microbiology (sabbatical
leave)
Department chair
American University of Madaba, School of Health Sciences
Madaba-Jordan

2013-present

DNVGL-certified lead auditor (food safety management system ISO
22000).

Professional Experience

April 2002 – December 2002

**World Health Organization (WHO)
Regional office for the Eastern Mediterranean
Regional Centre for Environmental Health Activities (CEHA)
Amman – Jordan
Job title: Short term regional consultant**

- Compile environmental health data related to eastern Mediterranean region and to develop a linkage and association between health and environment.
- Assist in the follow up and implementation of technical and administrative activities related to food safety and chemical safety.
- Preparation project work plans; national training activity forms and prospectus for implementing national training activities.
- Identify national or international consultants in consultation with CEHA coordinator and CEHA technical staff.
- Review reports of the national training activities coordinators and consultants and training materials developed in the framework of the above activities.
- Provide comments and advices and prepare progress and final reports.
- Prepare briefing on the status of activities implementation and work-plan.

June 2000 - December 2001

**The university of Jordan, Amman-Jordan
Water and Environment Research and Study Center
Amman – Jordan**

Job title: Research assistant

**Project title: Water skills enhancement and information to
decision makers in Jordan's water sector**

- Microbiological and chemical analysis of water (drinking and waste).
- Preparation of manuals and courses related to water-waste water biological analysis and water safety.
- Participation in training courses with reference to water and environment.
- Drinking water safety consultant.
- Evaluation of microbiological methods used for water analysis.

Microbiological Skills

- Experimental design and statistical analysis.
- Detection and identification of pathogenic microorganisms in food and water using novel techniques such as real-time PCR, FT-IR, and other conventional microbiological methods.
- Extensive research on food poisoning and spoilage microorganisms.
- Microbial culturing and physiology.
- Monitoring quality of food products (microbiological aspects).
- Quality control and assurance in the microbiology laboratories and accreditation procedures.
- Monitoring environmental microbial quality in hospitals, healthcare centers, and laboratories.

Education

Ph.D. Degree in Food Science (2005)

Major: Food Science (food microbiology).

Minor: Molecular Bioscience (microbiology)

Average: 3.87 out of 4.00, rating (excellent)

**Department of Food Science and Human Nutrition
College of Agriculture, Human, and Natural
Resource Sciences**

**Washington State University
Pullman, WA 99164**

**Ph.D. Dissertation: "Fourier transform infrared (FT-IR) spectroscopy,
a novel technique to study the biochemical
structure of bacterial cells".**

M.Sc. Degree in Food Technology (2000)

Average: 3.46 out of 4.00, rating (very good)

**Department of Human Nutrition and Food Technology
School Agriculture
The university of Jordan, Amman – Jordan**

M.Sc. Dissertation: “A study of the microbial and chemical quality of drinking water in selected areas in Amman”.

B.Sc. Degree in Nutrition and Food Technology (1997)

Average: 3.51 out of 4.00, rating (very good)

**Department of Human Nutrition and Food Technology
School Agriculture
The university of Jordan, Amman – Jordan**

**General Secondary Study Certificate (1993), Jordan
Science Stream
Average: 84.9 %**

**Research
Interests**

- Developing novel rapid procedures and methods for detection and identification of microorganisms in food and water.
- Studying the effect of several food sanitizers against foodborne and waterborne pathogens.
- Recovery, survival, and inactivation of *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella* spp., *Bacillus* spp., and *Campylobacter* spp. in food products.
- Developing procedures to detect and discriminate between intact, injured, and nonviable bacterial cells in food.
- Developing culture media for recovery of intact and injured foodborne microorganisms.
- Providing expert consulting services regarding food safety and extension of food shelf life of different food products.
- Application of heat and irradiation treatments to extend shelf life of perishable food products, and to minimize the occurrence of foodborne outbreaks.
- Detection and identification of opportunistic pathogens in hospitals and health care centers-nosocomial pathogens (*Legionella* spp., *Pseudomonas* spp., and *Acinetobacter* spp.).

Teaching and instruction

Teaching:

Department of Human Nutrition and Food Technology, School of Agriculture, University of Jordan (2006-present):

Graduate level:

- FoodMicrobiology
- Biotechnology of Living Organisms
- Biotechnology in Food and Nutrition
- Microbial Biotechnology
- Food Toxicology
- Applications of Molecular Biology in Foods
- Seminar in Food Science and Technology

Undergraduatelevel:

- GeneralMicrobiology
- FoodMicrobiology
- Food Processing AndPreservation
- FoodAdditives
- Food QualityControl
- FoodPreservation
- FoodHygiene
- Bioethics
- Seminar
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School of Health Sciences American University of Madaba (2012-2014)

- FoodMicrobiology
- General Microbiology (School of Pharmacy)
- Food Processing andPreservation

School of Food Science

Washington State University, Pullman-WA, USA (2018):

- Food Microbiology (online course)
- Thermal Processing of Foods- GraduateLevel, Pasteurization and Appertization Techniques in Food Preservation".
- Organic Foods-UndergraduateLevel".

Instruction and Training:

- Assessing and co-supervising the achievement of ISO 17025 requirements for laboratory accreditation by Jordan Food and Drug Administration-Ministry of Health (Microbiological Laboratories).
- VIII workshop on rapid methods and automation in food microbiology. (MRAMA), held in Bellaterra (Barcelona, Spain), Universitat Autònoma de Barcelona, Facultat de Veterinària. 24th to 27th November 2009.
- Food safety and hygiene training workshops, University of Jordan.
- Food microbiology training workshop, University of Jordan.
- Food safety and hygiene training workshop, Jordanian Environmental Society.
- Food safety and hygiene training workshop, The Higher Council of Scientific Research
- Advanced methods in food microbiology workshop, Gulf region.
- HACCP-food safety management system workshops, private and public hospitals in Jordan.
- Food legislation workshop, JFDA
- Food quality control, Jordan Standards and Metrology Organization
- Food safety – antibiotic residues, Royal Scientific Society
- Laboratory biosafety workshop, Royal Scientific Society

Referee in peer reviewed journals

I serve as an active reviewer for the following peer reviewed journals:

- LWT-Food Science and Technology
- Biosystems engineering
- Journal of dairy science
- Journal of agriculture and food chemistry
- Journal of food science
- Journal of food processing and preservation
- Food Microbiology
- International journal of food microbiology

Advising Graduate Students

- I served as principal advisor and co-advisor for several Ph.D. and M.Sc. students, research work is linked to food and water microbiology and safety.
- I served as external committee member for several graduate students dissertation exam.

Selected publications / peer reviewed journals

- 1- Majd M Al-Saleh, Rida A Shibli, Hamzah M Al-Qadiri, Reham W Tahtamouni, Maysaa M Darwish, Tamara S Al-Qudah. 2019. Investigating the Antimicrobial Potential of in-vitro Grown Microshoots and Callus Cultures of *Ammi visnaga* (L.) Lam. *Jordan Journal of Biological Sciences*. 12 (1-7)
- 2- Hamzah M Al-Qadiri, Stephanie Smith, Aleksandra Checinska Sielaff, Byju N Govindan, Mohamed Ziyaina, Nivin Al-Alami, Barbara Rasco. 2019. Bactericidal activity of neutral electrolyzed water against *Bacillus cereus* and *Clostridium perfringens* in cell suspensions and artificially inoculated onto the surface of selected fresh produce and polypropylene cutting boards. *Food Control*. 96 (212-218)
- 3- Faris Ghalib Bakri, Hamzah M AlQadiri, Marwan Hmoud Adwan. 2018. The Highest Cited Papers in Brucellosis: Identification Using Two Databases and Review of the Papers' Major Findings. *BioMed Research International*. 2018 (1-11).
- 4- A Amr, H Al-Qadiri, M Saleh, M Shahein. 2018. Physical and sensory quality of hommos preserved with combined gamma radiation and refrigeration. *Radiation Physics and Chemistry*. 144 (304-307)
- 5- A Amr, H Al-Qadiri, M Shahein. 2017. Chemical changes in hommos preserved with combined gamma radiation and refrigeration. *Radiation Physics and Chemistry*. 139 (97-99).
- 6- Al-Qadiri, H.M., Al-Holy, M.A., Shiroodi, S.G., Ovissipour, M., Govindan, B.N., Al-Alami, N., Sablani, S.S., And Rasco, B. (2016). Effect Of Acidic Electrolyzed Water Induced Bacterial Inhibition And Injury In Live Clam (*Venerupis Philippinarum*) And Mussel (*Mytilus Edulis*). *International Journal Of Food Microbiology*. 231 (48-53).
- 7- Al-Qadiri, H.M., Ovissipour, M., Al-Alami, N., Govindan, B., Setareh, G.S., And Rasco, B. (2016). Efficacy Of Neutral Electrolyzed Water, Quaternary Ammonium And Lactic Acid- Based Solutions In Controlling Microbial Contamination Of Food Cutting Boards Using A Manual Spraying Technique. *Journal of Food Science*. 81: M1177-M 1183.
- 8- Al-Qadiri, H., Sablani, S., Ovissipour, M., Al-Alami, N., Govindan, B., And Rasco, B. (2015). Effect Of Oxygen Stress On Growth And Survival Of *Clostridium Perfringens*, *Campylobacter Jejuni*, And *Listeria Monocytogenes* Under Different Storage Conditions. *Journal of Food Protection*. 78: 691–697.
- 9- Setareh, G.S., Nesaei, S., Ovissipour, M., Al-Qadiri, H.M., Rasco, B. And Sablani, S. (2016). Biodegradable Polymeric Films Incorporated With Nisin: Characterization And Efficiency Against *Listeria Monocytogenes*. *Food And Bioprocess Technology*. 9: 958-969.
- 10- Ovissipour, M., Al-Qadiri, H., Sablani, S., Govindan, B., Al-Alami, N., And Rasco, B. (2015). Efficacy Of Acidic And Alkaline Electrolyzed Water For Inactivating *Escherichia Coli* O104:H4, *Listeria Monocytogenes*, *Campylobacter Jejuni*, *Aeromonas Hydrophila*, And *Vibrio Parahaemolyticus* In Cell Suspensions. *Food Control*. 53: 117-123.

- 11- Ovissipour, M., Al-Qadiri, H., Lu, X., Hu, Y., Ross, C., Eenennaam, J., Doroshov, S., And Rasco, B. (2015). The Effect Of White Sturgeon (*Acipenser Transmontanus*) Ovarian Fat Deposition On Caviar Yield And Nutritional Quality: Introducing Image Processing Method For Sturgeon Ovary Fat Determination. *International Aquatic Research*. 7: 263–272.
- 12- Mehyar, G., Al-Qadiri, H. And Swanson, B. (2014). Edible Coatings And Retention Of Potassium Sorbate On Apples, Tomatoes And Cucumbers To Improve Antifungal Activity During Refrigerated Storage. *Journal Of Food Processing And Preservation*. 38: 175-182.
- 13- Song, X Li, H., Al-Qadiri, H., And Lin M. (2013). Detection Of Herbicides In Drinking Water By Surface-Enhanced Raman Spectroscopy Coupled With Gold Nanostructures. *Journal Of Food Measurement And Characterization*. 7:107–113.
- 14- Lu, X., Wang, J., Al-Qadiri, H.M., Ross, C.F., Powers, J.R., Tang, J., And Rasco, B.A. (2011). Determination Of Total Phenolic Content And Antioxidant Capacity Of Onion (*Allium Cepa*) And Shallot (*Allium Oschaninii*) Using Infrared Spectroscopy. *Food Chemistry*. 129: 637-644.
- 15- Lu, X., Al-Qadiri, H.M., Lin, M. And Rasco, B.A. (2011). Application Of Mid-Infrared And Raman Spectroscopy To The Study Of Bacteria. *Food And Bioprocess Technology*. 4: 919- 935.
- 16- Al-Qadiri, H.M., Lu, X., Al-Alami, N.I. And Rasco, B.A. (2011). Survival Of *Escherichia Coli* O157:H7 And *Campylobacter* Jejuni In Bottled Purified Drinking Water Under Different Storage Conditions. *Journal Of Food Protection*. 74: 254-260.
- 17- Mehyar, G.F., Al-Qadiri, H.M., Abu-Blan, H.A. And Swanson, B.G. (2011). Antifungal Effectiveness Of Potassium Sorbate Incorporated In Edible Coatings Against Spoilage Molds Of Apples, Cucumbers And Tomatoes During Refrigerated Storage. *Journal Of Food Science*. 76: M210-M217.
- 18- Lu, X., Liu, Q., Wu, D., Al-Qadiri, H.M., Al-Alami, N.I., Kang, D-H., Shin, J-H, Tang, J., Jabal, J., Aston, E. And Rasco, B.A. (2011). Using Of Infrared Spectroscopy To Study The Survival And Injury Of *Escherichia Coli* O157:H7, *Campylobacter* Jejuni And *Pseudomonas Aeruginosa* Under Cold Stress In Low Nutrient Media. *Food Microbiology*. 28: 537-546.
- 19- Eideh, A.M And Al-Qadiri, H.M. (2011). Effect Of Refrigerated And Frozen Storage On The Survival Of *Campylobacter* Jejuni In Cooked Chicken Meat Breast. *Journal Of Food Science*. 76: M17-M21.

- 20- Al-Holy, M.A, Castro, L.F. And Al-Qadiri, H.M. (2010). Inactivation Of Cronobacter Spp. (Enterobacter Sakazakii) In Infant Formula Using Lactic Acid, Copper Sulfate And Monolaurin. Letters In Applied Microbiology. 50: 246-251.
- 21- Al-Holy, M.A., Lin, M., Abu-Ghoush, M.M., Al-Qadiri, H.M. And Rasco, B.A. (2009). Thermal Resistance, Survival And Inactivation Of Enterobacter Sakazakii (Cronobacter Spp.) In Powdered And Reconstituted Infant Formula. Journal Of Food Safety. 29: 287–301.
- 22- Lin, M., Al-Holy, M., Al-Qadiri, H., Kong, F., Rasco, B.A. And Setiedy, D. (2009). Detection And Discrimination Of Enterobacter Sakazakii (Cronobacter Spp.) By Mid-Infrared Spectroscopy And Multivariate Statistical Analyses. Journal Of Food Safety. 29:531-545.
- 23- Al-Qadiri, H.M., Lin, M., Al-Holy, M.A., Cavinato, A.G. And Rasco, B.A. (2008). Monitoring Quality Loss Of Pasteurized Skim Milk Using Visible And Short Wavelength Near Infrared (Sw-Nir) Spectroscopy (600-1100 Nm) And Multivariate Analysis. Journal Of Dairy Science. 91: 950-958.
- 24- Al-Qadiri, H.M., Al-Alami, N.I, Al-Holy, M.A. And Rasco, B.A. (2008). Using Fourier Transform Infrared (Ft-Ir) Absorbance Spectroscopy And Multivariate Analysis To Study The Effect Of Chlorine-Induced Bacterial Injury In Water. Journal Of Agricultural And Food Chemistry. 56: 8992-8997.
- 25- Al-Qadiri, H.M., Lin, M., Al-Holy, M.A., Cavinato, A.G. And Rasco, B.A. (2008). Detection Of Sublethal Thermal Injury In Salmonella Enterica Serotype Typhimurium And Listeria Monocytogenes Using Fourier Transform Infrared (Ft-Ir) Spectroscopy (4000-600 Cm⁻¹). Journal Of Food Science. 73: M54-M61.
- 26- Al-Qadiri, H.M., Alami, N.I., Al-Holy, M.A., Lin, M., Cavinato, A.G. And Rasco, B.A. (2008). Studying of The Bacterial Growth Phases Using Fourier Transform Infrared (FT-IR) Spectroscopy And Multivariate Analysis. Journal Of Rapid Methods And Automation In Microbiology. 16: 73-89.
- 27- Al-Holy, M., Lin, M., Al-Qadiri, H. And Rasco, B.A. (2008). A Comparative Study Between Overlay Method And Selective-Differential Media For Recovery Of Stressed Enterobacter Sakazakii Cells From Infant Formula. Food Microbiology. 25: 22-28.
- 28- Lin, M., Al-Holy, M., Al-Qadiri, H., Chang, S.-S., Kang, D.-H., Rodgers, B.D. And Rasco, B.A. (2007). Phylogenetic And Spectroscopic Analysis Of Alicyclobacillus Isolates By 16s Rdna Sequencing And Mid-Infrared Spectroscopy. Sensing And Instrumentation For Food Quality And Safety. 1: 11-17.

- 29-Al-Holy, M., Lin, M., Al-Qadiri, H. And Rasco, B.A. (2006). Discrimination Of Foodborne Pathogens By Fourier Transform Infrared Spectroscopy And Principal Component Analysis. *Journal Of Rapid Methods And Automation In Microbiology*. 14: 189-200.
- 30-Al-Holy, M., Al-Qadiri, H., Lin, M. And Rasco, B.A. (2006). Inhibition Of *Listeria Innocua* In Hummus By A Combination Of Nisin And Citric Acid. *Journal Of Food Protection*. 69: 1322- 1327.
- 31-Al-Qadiri, H.M., Lin, M., Cavinato, A.G. And Rasco, B.A. (2006). Fourier Transform Infrared Spectroscopy, Detection And Identification Of *Escherichai Coli O157:H7* And *Alicyclobacillus* Strains In Apple Juice. *International Journal Of Food Microbiology*. 111: 73- 80.
- 32-Al-Qadiri, H.M., Al-Holy, M.A., Lin, M., Alami, N.I. And Rasco, B.A. (2006). Rapid Detection And Identification Of *Pseudomonas Aeruginosa*, And *Escherichia Coli* As Pure And Mixed Cultures In Bottled Drinking Water Using Fourier Transform Infrared Spectroscopy (Ft- Ir) And Multivariate Analysis. *Journal Of Agricultural And Food Chemistry*. 54: 5749-5754.
- 33-Lin, M., Al-Holy, M., Mousavi-Hesary, M., Al-Qadiri, H, Cavinato, A.G. And Rasco, B.A. (2004). Rapid And Quantitative Detection Of The Microbial Spoilage In Chicken Meat By Diffuse Reflectance Spectroscopy (066–0066 Nm). *Letters In Applied Microbiology*. 39, 148–155.
- 34- Development of A Preliminary Draft Document Entitled “Introduction on The Linkage Between Health And Environment”. 2002.WHO-CEHA

Research Activities

- Actively cooperating with research groups at Washington State University in the fields of food and environmental microbiology. I conduct and supervise many mutual microbiological research projects between the University of Jordan, USDA, Washington State University, and University of Idaho.
- Cooperation with faculty members at the Jordan University of Science and Technology and the Hashemite University in the fields of foodmicrobiology.

Funded projects

- Deanship of academic research at the University of Jordan.

Projecttitle:

“Detection and identification of *alicyclobacillus* spp. and the study of the relation of their growth with the production of taint chemicals in pasteurized fruit juices”.

- The higher council for science and technology

Projecttitle:

"Occurrence of antibiotic-resistant foodborne pathogens in effluents of wastewater treatment plants in Jordan"

- Deanship of academic research at the University of Jordan.

Projecttitle:

“isolation, identification and inactivation of *campylobacter jejuni* In green leafy vegetables”.

- Deanship of academic research at the University of Jordan.

Projecttitle:

“Studying the effect of refrigerated and frozen storage on the survival of *Campylobacter jejuni* in chicken breast”.

- Deanship of academic research at the University of Jordan.

Projecttitle:

“Isolation, identification and molecular subtyping of bacteria contaminating drinking water in broiler farms from selected Jordanian governorates”.

**Professional
committees**

I serve as a member of the following committees / University of
Jordan:

- Scientific academic researchcommittee
- Courses and study plancommittee
- Quality control and accreditationcommittee
- Laboratory biosafetycommittee
- Librarycommittee
- Instrumentationcommittee- RSS
- Food safety committee-JFDA
- Jordan institution for standards andmetrology.
- Graduate students comprehensive examcommittee