

**MOHAMMAD M. OBAIDAT, DVM, MS, PhD, Dipl. ACVPM**

**Associate Professor of Food Safety and Zoonotic Diseases**

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## **EDUCATION**

**Diplomate**.....American College of Veterinary Preventive Medicine..... Aug 2010

Core areas: **Zoonotic and Infectious Diseases, Food Safety, Epidemiology and  
Biostatistics, Toxicology, Public Health Administration**

**PhD**.....The University of Georgia (UGA).....Dec 2008

Major: **Food Microbiology** Advisor: **Professor Joseph F. Frank**

**MS**.....Kansas State University (KSU).....May 2005

Major: **Food Microbiology** Advisor: **Professor Daniel Y.C. Fung**

**BVM**.....Jordan University of Science & Technology (JUST).....June 2002

## **CERTIFICATES**

- Codex Alimentarius International Food Code, Michigan State University, 2007
- In-Plant Control of Microbial Contamination for Ready-to-Eat Foods, UGA, 2006
- Rapid Methods and Automation in Microbiology, KSU, 2003, 2004, and 2005
- Hazard Analysis Critical Control Point, KSU, 2003

## **WORK EXPERIENCE**

### **1. Assistant professor of Food Safety and Zoonotic Diseases, Jordan University of Science and Technology. February 2011- Current**

- Principle Investigator- Food Safety and Zoonotic Diseases Laboratory
- Researching the molecular characteristics and antimicrobial resistance of *Staphylococcus aureus*, *Listeria monocytogenes*, *Vibrio parahaemolyticus*, *Salmonella*, *E. coli* and *Shigella* in Imported food into Jordan
- Researching the seroprevalence and risk factors to toxoplasmosis in child bearing age women in Jordan
- Studying the effect of different parameters on enterotoxins production by enterotoxigenic *Staphylococcus aureus* in meat products
- Researching the thermal resistance of Non-O157:H7 shiga-toxin producing *E. coli* in ground Beef
- Researching inactivation methods of *Cronobacter sakazakii* and *Salmonella* in powdered infants formulas
- Teaching undergraduate courses: Zoonotic Diseases, Meat Hygiene, Dairy Hygiene
- Teaching Graduate Courses: Advanced Food Microbiology, Advanced Meat Hygiene and Advanced Dairy Hygiene courses
- Teaching a university-wide elective course: Animal Health

### **2. Research Assistant Professor, Georgetown University Medical Center, Washington, D.C. January 2009- January 2011**

- Organized an international colloquium “Law and Evidence in Mitigating the Food Safety Risks in the Global Food Supply: A Policy Forum” in Washington, DC on April 15-16/2010
- Provided consultation services for Pew’s Charitable Fund Food Safety Initiative
- Advised Georgetown’s University Produce Safety Project on science-related areas
- Collaborated with legal, policy and public health scholars at Georgetown’s University to discuss promising interdisciplinary food safety projects
- Served on Georgetown’s Animal Care and Use Committee (GUACUC)

## **INTERNATIONAL ACTIVITIES**

### **Trainer with U.S. Department of State, Washington, D.C.**

- Two weeks workshop- Trained Professor at Department of Biotechnology and Department of Biology at University of Baghdad, University of Al-Nahrain, Babylon University on application of Polymerase Chain Reaction. October 2012
- One Week workshop- Trained Professors from several Iraqi Universities on Best Practice of Laboratory Management. Held in Prague, Czech Republic. September 2015

## **INTERNATIONAL SCHOLARLY ACTIVITIES**

1. Editor- Journal of Advanced Veterinary and Animal Research
2. Editor- Journal of Veterinary Science and Animal Husbandry
3. Editor-Microbes and Health
4. Editor- Journal of Microbiology & Experimentation
5. Reviewer- Journal of Infection in Developing Countries
6. Reviewer- Food Control
7. Reviewer- Jordan Journal of Agricultural Sciences

## **INTERNATIONAL ORGANIZATION**

1. Member- American College of Veterinary Preventive Medicine
2. Member- American Association of Public Health Veterinarians
3. Member- International Association of Food Protection

## **UNIVERSITY SERVICE**

1. **Assistant Dean, Faculty of Graduate Studies Sep 2011-Dec 2012**

- Organizing the Graduate School agreements with the US-AMIDEAST for TOEFL
- Mediating the Scientific Support Fund for the excellent students with the Jordanian Ministry of Higher Education
- Supervising the application process for the Higher Specialty in Medicine and the University Master Programs
- Reviewing the prospectuses of Graduate Students for JUST Master programs
- Maintain Graduate School webpage
- Ensuring the implementation of the Graduate School rules and regulations

**2. Faculty of Veterinary Medicine Council, Sep 2013-Sep 2014**

- Representing the Department of Veterinary Pathology and Public Health at the Faculty council

**3. Department of Veterinary Pathology and Public Health, Sep 2011-Current**

- Rapporteur for the department meetings

## **NATIONAL GRANTS:**

1. Antimicrobial Resistance and Molecular characterization of Major Foodborne pathogens and Commensal Bacteria in Local and Imported in Jordan. Amount: USD 70,500. Scientific Research Support Fund, Ministry of Higher Education and Scientific Research, Jordan.

## **INTRAMURAL GRANTS**

### **Total Grants: 109382.8 USD**

1. Inactivation of *Cronobacter sakazakii* in infant formulas by vanillin and strawberry extract ( Project no. 239/2011; amount 9842.9 USD)
2. Evaluating the effect of different parameters on the growth and production of enterotoxins by enterotoxigenic methicillin-resistant *Staphylococcus aureus* in meat products ( Project no. 248/2011; amount 10241.4 USD)
3. Thermal reduction of Shiga-toxin producing *E. coli* as compared to *E. coli* O157:H7 in ground beef with and without allyl isothiocyanate formulation ( Project no. 2360/2011; amount 5971.4 USD)
4. Determination of selected heavy metals levels in different varieties of imported fish in Jordan market ( Project no. 91/2012; amount 7857.1 USD)
5. Prevalence and antimicrobial susceptibility of pathogenic *E. coli*, *Salmonella* and *Shigella* in fish imported to Jordan ( Project no. 115/2013; amount 10428.6 USD)
6. Prevalence, antimicrobial susceptibility and enterotoxigenity of *Listeria* and *Staphylococcus aureus* in fish imported to Jordan ( Project no. 169/2013; amount 8785.7 USD)

7. Seroprevalence, knowledge and preventive measures of toxoplasmosis in childbearing age and pregnant women in Jordan ( Project no. 204/2013; amount 6714.3 USD)
8. Antimicrobial use, resistance and serogrouping of Shiga toxin producing *E. coli* in milk and meat producing cattle ( Project no. 249/2014; amount 11811.4 USD)
9. Spatial and temporal distribution and risk factors of Rift Valley, West Nile and Q-fevers in Jordan population ( Project no. 65/2015; amount 12285.7 USD)
10. Seroprevalence and risk factors of four zoonotic diseases in healthy population and dogs in Jordan ( Project no. 100/2015; amount 13628.6 USD)
11. Occurrence and spread of *mecA* and *mecC* *Staphylococcus aureus* in dairy farms in Jordan ( Project no. 92/2015; amount 11815.7 USD)

#### **GRADUATE STUDENTS**

- Alaa E. Bani Salman (graduated 2012)
- Ahmad M. Al-Athamneh (graduated 2013)

#### **COMMUNITY SERVICE**

- Publishing science communication articles in “lay-person” language to improve the public awareness about food safety and zoonotic diseases in online magazines and newspapers. The following article were published
1. **Safety of imported food under the World Trade Organization.** May 4/ 2012  
(سلامة الأغذية المستوردة في ظل التجارة العالمية)

2. **The role of restaurants and food processing plants in enhancing food safety**  
(دور المطاعم والمنشآت الغذائية في ضمان سلامة الغذاء)
3. **The impact of World Trade Organization on Food safety in developing countries** April 14/2013  
(تأثير منظمة التجارة العالمية على الأمن الغذائي في البلدان النامية)
4. **Risk communication during public health crises** December 17/2012  
(التواصل الحكومي مع المواطنين خلال الأزمات)
5. **The scientific and legal principles for communicating the risk of contaminated food with the Public** August 11/2012  
(الأسس القانونية والعلمية لإبلاغ المواطنين عن الأغذية والأدوية الملوثة)
6. **Fallacies about zoonotic diseases: Toxoplasmosis as example** May 2/2013  
(أخطاء شائعة عن الأمراض المشتركة: جرثومة القطط)
7. **Animals pre-slaughter stunning from Islamic and scientific perspectives**  
March 17/2014  
(الصعق الكهربائي للحيوانات قبل الذبح من منظور إسلامي وعلمي)
8. **Food poisoning in pregnant women and newborns** October 19/2014  
(التسمم الغذائي عند المرأة الحامل والأطفال)

#### **PUBLICATIONS:**

1. **Obaidat MM, Alu'Datt MH, Bani Salman AE, Obaidat HM, Al-Zyoud AA, Al-Saleh OK, Abu Enaz B.** 2015. Inactivation of nondesiccated and desiccated *Cronobacter Sakazakii* and *Salmonella* spp. at low and high inocula levels in reconstituted infant milk formula by vanillin. *Food Control* 50 (2015): 850-857. <http://dx.doi.org/10.1016/j.foodcont.2014.10.035>
2. **Obaidat MM, Al-sheyab NA, Bani Salman AE, Lafi SQ.** 2015. Seroepidemiology and risk factors of *Toxoplasma gondii* in undergraduate female university students in Jordan. *Epidemiology and Infection*. 143:1898-903. doi:10.1017/S0950268814003604

3. **Obaidat MM**, Bani Salman AE, Lafi SQ, Al-Abboodi AR. 2015. Characterization of *Listeria monocytogenes* from three countries and antibiotic resistance differences among countries and *Listeria monocytogenes* serogroups. *Letters in Applied Microbiology* 60: 609–614. doi:10.1111/lam.12420
4. **Obaidat MM**, Massadeh AM., Al-Athamneh AM, Jaradat QM. 2015. Heavy metals in fish from the Red Sea, Arabian Sea, and Indian Ocean: effect of origin, fish species and size and correlation among the metals. *Environmental Monitoring and Assessment*. 187(4):218. doi: 10.1007/s10661-015-4463-0.
5. Al-sheyab NA, **Obaidat MM**, Bani Salman AE, Lafi SQ. 2015. Toxoplasmosis-related knowledge and preventive practices among undergraduate female students in Jordan. *Journal of Food Protection*, 78:1161–1166. doi:10.4315/0362-028X.JFP-14-579
6. **Obaidat MM**, Bani Salman AE, Lafi SQ. 2015. Prevalence of *Staphylococcus aureus* in imported fish and correlations between Antibiotic Resistance and Enterotoxigenity. *Journal of Food Protection*, 78 (11):1999-2005. doi:10.4315/0362-028X.JFP-15-104
7. Alu'Datt MH, Rababah T, **Obaidat MM**, Ereifej K, Alhamad MN, Mhaidat N, Andrade JE, Johargy A, Ayad W. 2015. Probiotics in milk as functional food: characterization and nutraceutical properties of extracted phenolics and peptides from fermented skimmed milk inoculated with royal jelly. *Journal of Food Safety*. 35 (4): 509-522. doi: 10.1111/jfs.12201.
8. Alu'Datt MH, Rababah T, Alhamad MN, **Obaidat MM**, Gammoh S, Ereifej K, Al-Ismail K, Althnaibat RM, Kubow S. 2015. Evaluation of different drying techniques on the nutritional and biofunctional properties of a traditional fermented sheep milk product. *Food Chemistry*. 190 (2016): 436–441. doi: 10.1016/j.foodchem.2015.05.118
9. Sharif L, **Obaidat MM**, Al-Dalalah M. 2013. Food hygiene knowledge, attitudes and practices of the food handlers in the military hospitals. *Food and Nutrition Sciences*, 4: 245-251. <http://dx.doi.org/10.4236/fns.2013.43033>
10. **Obaidat MM**, Frank JF. 2009. Inactivation of *Escherichia coli* O157:H7 on the intact and damaged portions of lettuce and spinach leaves using allyl

- isothiocyanate, carvacrol and cinnamaldehyde in vapor phase. *Journal of Food Protection*.72: 2046-2055.
11. **Obaidat MM**, Frank JF. 2009. Inactivation of *Salmonella* spp. and *E. coli* O157:H7 on sliced and whole tomatoes by allyl isothiocyanate, carvacrol and cinnamaldehyde in vapor-form. *Journal of Food protection*.72:315-324.
  12. Al-Qudah KM, Al-Majali AM, **Obaidat MM**. 2008. A study on pathological and microbiological conditions in goats in slaughter houses in Jordan. *Asian Journal of Animal and Veterinary Advances*. 3:269-274.
  13. **Obaidat MM**, Fung DYC. 2005. Comparative analysis of *Clostridium perfringens*, *Escherichia coli*, and Enterococci as indicators of fecal contamination of ground beef. *Journal of Rapid Methods and Automation in Microbiology*.13: 225-242.
  14. **Obaidat MM**, Fung DYC. 2005. Chalk and fluid inoculation methods in studying the percent recovery of *Clostridium perfringens*, *Escherichia coli* and *Enterococcus faecalis* from raw ground beef. *Journal of Rapid Methods and Automation in Microbiology*. 13: 307-317.

Submitted Manuscripts:

**Obaidat MM**, Al-Zyoud, AA, Bani Salman AE, Davis M. Antimicrobial use and resistance of *Salmonella* and *E. coli* in sheep and goats in Jordan. Submitted *Tropical Animal Health and Production*

**Publication Under preparation**

1. **Obaidat MM**, Bani Salman AE, Davis M. Antimicrobial use and resistance of commensals in dairy cattle in Jordan. *In Preparation*.