

# **Curriculum Vitae**



First name: Zahra
Last Name: Esfandiari
Date of Birth: 17/06/1976
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Languages: Persian (Farsi-native), English (Fluent)
Research of Interest: Food Science, Food Technology, Food Safety,

Food Education

# Academic Qualifications:

- B.Sc. in Food Science and Technology; Shahid Beheshti University of Medical Sciences, Tehran, Iran, 2000.

- M.Sc. in Food Science and Technology; Shahid Beheshti University of Medical Sciences, Tehran, Iran, 2006.

- Ph.D. in Food Science and Technology; Islamic Azad University, Science and Research Branch, Tehran, Iran, 2014.

#### **Employer:**

- Technical assistant in Shonadasht (Sauce manufacturing) food processing plant (1999-2002).

- Production manager in Kaleh (Dairy manufacturing) food processing plant (2002-2003).

- Quality control manager in Shoara-namaki (Biscuit manufacturing) food processing plant (2003-2005).

 Head of Department of Research and Development, Vice Chancellery of Food and Drug, Isfahan University of Medical Science, 2009-2020

- Editor of Journal of Health System Research, 2019-presetn

- Member of Food Security Research Center, School of Nutrition and

Food Science, Isfahan University of Medical Science, 2020-present

- Assistant Professor, Faculty Member of Department of Food Science and Technology, School of Nutrition and Food Science, Isfahan

University of Medical Science, 2020-present

### Honor:

- Scientific member of the national congress of "new technologies of food in processing, packaging and preservation". Iran. 2014.

- Scientific member of the national congress of "improving shelf life of food products with emphasis on decreasing the use of preservatives". Iran. 2011.

### **Book:**

- Mirlohi Maryam, **Esfandiari Zahra**. Modern Hygiene System in Catering Industry. 2016. ISBN: 9789645245762.

- Jalali Mohammad, Esfanidari Zahra. Missing Microbes. 2017. ISBN: 9789645246141.

Statistical indicator of Isfahan University of Medical Sciences.
 Publication of Isfahan University of Medical Sciences. ISBN:
 9789645246244

### **Thesis/ Dissertation:**

### Supervisor

- MSc thesis entitled "Investigation of mean of sodium benzoate in Doogh distributed in Isfahan by high performance liquied chromatography (HPLC)" approved in Islamic Azad University Shahreza Branch.

- PhD Dissertation entitled "Examination of contamination rate, resistome and genetic variation of Clostridium difficile strains in raw prepared meat products (chicken, meat, shrimp, fish, ostrich and quail nuggets) supplied in Isfahan" approved in School of Veterinary Medicine, Islamic Azad University Shahrekord Branch.

### Advisor

- PhD Dissertation entitled "Examination of some chemical (trans, saturated and unsaturated fatty acids) and microbial criteria (Enterotoxins of S. aureus) affected on health, in traditional sweets distributed in Isfahan" approved in School of Veterinary Medicine, Islamic Azad University Shahrekord Branch.

- PhD Dissertation entitled "Influence of Frying on Health Indices (Saturated, Unsaturated, Trans Fatty Acids and Heavy Metals) in Fast and Traditional Foods Distributed in Isfahan City and Their Risk Assessment on Health" approved in Islamic Azad University Najafabad Branch.

- PhD Dissertation entitled "Examination of contamination rate, resistome and genetic variation of Clostridium difficile strains in meat and feces of chickens in Iran" approved in School of Veterinary Medicine, Islamic Azad University Shahrekord Branch.

- MSc thesis entitled "The study of distribution of Clostridium difficile in ready to eat salads in Isfahan city" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences.

- MSc thesis entitled "Determination of classical enterotoxins of Staphylococcus aureus in meat products manufactured in meat processing plants with different qualitative grades by ELISA (Enzyme-linked Immune Sorbent Assay) method in Isfahan city approved in Islamic Azad University Shahreza Branch.

- MSc thesis entitled "Evaluation of food processing plants by implementation of pre-requisite programs to establish food safety management system in Esfahan (Case study: Meat products and can processing plants) approved in Sepahan Institute of higher education.

- MSc thesis entitled "Investigation of vegetable oil effects on physicochemical properties and the amount of trans fatty acids in wafer's cream" approved in Islamic Azad University Khorasgan Branch.

- MSc thesis entitled "Effect of sesame oil extraction process in traditional method and cold press on total aflatoxin" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences.

- MSc thesis entitled "Influence of education on knowledge, attitude and practice of employers of Isfahan University of Medical Sciences in relation to food additives; 2019" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences.

- MSc thesis entitled "Evaluation of fat quality in ready-to-eat foods in Isfahan restaurants and its relationship with health checklist rating of deli" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences. - MSc thesis entitled "The effect of education on the knowledge, attitude and practice of students about Genetically Modified Food of Isfahan University of Medical Sciences in 2018-2019" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences.

- MSc thesis entitled "Effect of Education on Knowledge, Attitudes and Practices of personal working in dairy and beverage processing plants toward food hygiene and food safety in Isfahan city" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences.

- MSc thesis entitled "Prevalence of foodborne strains of Escherichia coli in milk and dairy products distributed in retail stage of Isfahan city and determination of antibiotic resistance and biofilm formation" approved in School of Nutrition and Food Science, Isfahan University of Medical Sciences.

### **Research Project (Leader):**

1- Leader of research project entitled "The determination of Sodium benzoate, Potassium sorbate and Natamycin in pasteurized Yoghurt drink produced in Dairy Company of Isfahan Province" with number 290127 approved and funded in Isfahan University of Medical Sciences.

2- Leader of research project entitled "The determination of Sodium benzoate, Potassium sorbate and Natamycin in pasteurized Yoghurt drink distributed in retail stage of Isfahan" with number 291069 approved and funded in Isfahan University of Medical Sciences.

3- Leader of research project entitled "Examination of Clostridium difficile in red meat (goat, camel, cow and mutton) in Isfahan" with number 291241 approved and funded in Isfahan University of Medical Sciences.

4- **Leader** of research project entitled "Determination of benzoic acid in yoghurt by HPLC" with number 292227 approved and funded in Isfahan University of Medical Sciences.

5- Leader of research project entitled "Examination of epidemiology of infection by Clostridium difficile in Iran" with number 294158 approved and funded in Isfahan University of Medical Sciences.

6- Leader of research project entitled "Examination of pros and cons of preservatives in foodstuff and their influence on public health" with number 294159 approved and funded in Isfahan University of Medical Sciences.

7- Leader of research project entitled "Influence of Education on knowledge, attitude and performance of employees and students of Isfahan University of Medical Sciences on labeling of food and beverages" with number 295204 approved and funded in Isfahan University of Medical Sciences.

8- Leader of research project entitled "Influence of education about traffic light and food labeling on knowledge, attitude and performance of food product consumers in Isfahan city" with number 295098 approved and funded in Isfahan University of Medical Sciences.

9- Leader of research project entitled "Evaluation of acetaldehyde migration in polyethylene terephthalate packaging of drinking and mineral water" with number 292239 approved and funded in Isfahan University of Medical Sciences.

10- **Leader** of research project entitled "Review Study on Controlling and prevention of novel coronavirus through health and safety protocols in food" with number 299198 approved and funded in Isfahan University of Medical Sciences.

11- **Leader** of research project entitled "Evaluation of Iron in Flour and Bread (Barbari, Taftoon and Lavash) manufactured in Isfahan city" with

number 199464 approved and funded in Isfahan University of Medical Sciences.

12- **Leader** of research project entitled "Examination of Iron in Fortified Flour and manufactured bread by Inductive Couple Plasma-Optical Emission Spectroscopy (ICP-OES) in Isfahan" with number 299248 approved and funded in Isfahan University of Medical Sciences.

13- **Leader** of research project entitled "Designing, Manufacturing and Validation of Detection Kit of Escherichia coli in Milk" with number 140019 approved and funded in Isfahan University of Medical Sciences.

## **Research Project (Co-Researcher):**

1- **Co-Researcher** of research project entitled "Separation and measurement of melamin in dried milk with composite polymeric nano-filters and HPLC" with number 291197 approved and funded in Isfahan University of Medical Sciences.

2- **Co-Researcher** of research project entitled "Examination of Clostridium difficile in ready to eat salat in Isfahan" with number 392234 approved and funded in Isfahan University of Medical Sciences.

3- **Co-Researcher** of research project entitled "Evaluation of pesticides in cucumbers with QuEChERS and GC-MS" with number 292094 approved and funded in Isfahan University of Medical Sciences.

4- **Co-Researcher** of research project entitled "Evaluation of phthalate in polyethylene terephthalate packaging of bottled water" with number 192094 approved and funded in Isfahan University of Medical Sciences.

5- **Co-Researcher** of research project entitled "The effect of Portulaca oleracea hydroalcoholic extract on blood pressure in glucocorticoid-induced hypertension in rat" with number 295104 approved and funded in Isfahan University of Medical Sciences.

6- **Co-Researcher** of research project entitled "Evaluation of resistome and genetypic profile of Clostridium difficile isolated from clinical, meat

and sweage in Tehran" with number 20315 approved and funded in Tehran University of Medical Sciences.

7- **Co-Researcher** of research project entitled "Assessment of molecular epidemiology of Clostridium difficile isolates by application of multilocus sequence typing analysis on hands of healthcares and the environment of diarrhetic hospitalized patients in selected hospitals (Sayedalshohada, Ali-Asghar, Alzahra, and Imam Moosa Kazem) of Isfahan, Iran in 2015" with number 295020 approved and funded in Tehran University of Medical Sciences.

8- **Co-Researcher** of research project entitled "Evaluation of Knowledge, Attitudes and Practice of Workers in Catering of University of Medical Sciences Toward Safety and Health Indices" with number 197160 approved and funded in Tehran University of Medical Sciences.

### **Publications:**

### **Articles in Persian**

1- Naghizade Sh, Shahidi Yasaghi SA, **Esfandiari Z**, Ghorbani Hasansaraee A. The effect of stabilizers and fat content on physical and whipping properties of confectionary cream. Electronic Journal of Food Processing and Preservation. 2009; 1(1), 73-85.

2- Mirlohi M, **Esfandiari Z**. A review literature on the characteristics of food in organic food processing industry. Journal of Health System Research. 2012; 8 (3). 349-358.

3- **Esfandiari Z**, Badiey M, Maracy MR, Sarhangpour R, Yazdani E, Mahomodian P. Examination of natamycin content in Iranian yoghurt drink (Doogh) produced in dairy processing plants in Isfahan, Iran. Journal of Health System Research. 2013; 1585-1594.

4- Esfandiari Z, Jalali M, Ezzatpanah H, Weese JS, Chamani M. The frequency of Clostridium difficile in Processing steps of hamburger. Journal of Health System Research. 2013; 1460-1468.

5- Esfandiari Z, Jalali M, Ezzatpanah H, Weese J.S, Chamani M. Examination of Clostridium difficile Contamination in beef meat distributed in Isfahan using culture

and Multiplex-PCR method. Biological Journal of Microorganism. 2014; 3(11).109-116.

6- **Esfandiari Z**, Jalali M, Ezzatpanha H, Weese J.S, Chamani M, Shoaei P, Yaran M, Ataei B. Molecular epidemiological examination of Clostridium difficile isolated from beef in Isfahan. Journal of Veterinary Research. 2016; 71 (4). 423-429.

7- Esfandiari Z, Jalali M, Safaeian L, Weese J.S. A review on epidemiology of Clostridium difficile infection. Tehran University Medical Journal. 2016; 74 (5). 305-313.

8- Madani R, Saraji M, **Esfandiari Z**. Examination of sodium benzoate amount in Doogh distributed in Isfahan. Journal of Health System Research. 2016; 12(1).

9- Hadian Zarkesh M, Rahimi E, **Esfandiari Z**. Investigation of enterotoxins of Staphylococcus aureus in processed meat products (sausage and ham) in Isfahan province in summer of 2015. Scientific Journal of Kurdistan Unviersity of Medical Sciences. 2106; 85.

10- **Esfandiari Z**, Ghassami N, Hosseini H. Examination of antimicrobial preservatives "benzoic acid and sodium benzoate" in different food products in Iran: A review of the current evidence. Journal of Health System Research. 2017; 13 (1).

11- Ansari F, Jahanmard E, Feizi M, **Esfandiari Z**. Evaluation of pesticide residues in cucumbers used in salad production plants in Isfahan city, Iran. Journal of Health System Research. 2017;13 (2). 218-223.

12- Ghazavi N, Rahimi E, **Esfandiari Z**, Shakerian A. Analytical study of saturated fatty acids as an important indicator of cardiovascular disease in Iranian traditional sweets. Journal of Shahid Sadoughi University of Medical Sciences.2018; 26 (9). 770-783.

13- Ahmadi H, Iranpour S, Hadian M, Azimi A, Mahmoudian H, Esfandiari Z. Evaluation of Meat and Can Processing Plants based on Prerequisite programs to implement food safety management system in Isfahan. Journal of Health System Research. 2019. 14 (4).

14- **Esfandiari Z**, Marasi MR, Estaki F, Sanati V, Panahi E, Akbari N, Madani R, Mosberian Tanha J. Influence of Education on Knowledge, Attitude and Practices of Students of Isfahan University of Medical Science to Traffic Light Inserted on Food Labeling. Tehran University Medical Journal. 2019; 77(1). 54-62.

15- Akbar N, Sami M, Esfandiari Z, Tarrahi MJ. Detection of aflatoxin in cold-press sesame oil in Isfahan, Iran. Journal of Health System research. 2019; 15 (2). 144-149.

16-Bahreini Esfahani T, Fazel M, **Esfandiari Z**, Effect of replacement of hydrogenated oil with canola oil on the trans fatty acids amount in wafer cream. Journal of Health System research. 2019; 15 (3).

17- Ghazavi N, Rahimi E, **Esfandiari Z**, Shakerian A. Evaluation of trans fatty acid levels in traditional Iranian pastries distributed in Isfahan city. Health and Development Journal 2020. 9 (1). 106-123.

18. Madani RA, Kermani S, Sami M, **Esfandiari Z**, Karamian E. Study of saturated fatty acids in different traditional foods distributed in Isfahan. Journal of Health System research. 2020. 16(1)

19. Ghassami N, Honarmand H, Pourzamani R, Ebrahimpour K, Hamidi HR, Ebdali H, Mosharaf S, **Esfandiari Z**. Evaluation of Acetaldehyde in Water Stored in Polyethylene Terephthalate (PET) Bottles Distributed in Retail Stage of Isfahan, Iran. Journal of Health System Research. 2020. 16(2). 128-132.

20. Ebdali H, Sami M, Hassanzadeh A, Ahmadi B, **Esfandiari Z.** Evaluation of knowledge, attitudes and practices of staff in food catering towards safety and hygiene indices. Food Hygiene. 2020. 10 (3). 15-29.

21. Khanahmadi M, Mirlohi M, Esfandiari Z. Evaluation of oxidative fat quality in ready-to-eat foods in restaurants of Isfahan. Journal of Health System Research. 2020. 22. Ebdali H, Sami M, Bahreini Esfahani N, Esfandiari Z. Influence of education on knowledge, attitude and practices of food technical assistants of dairy and beverage processing companies in relation to "Hazard Analysis Critical Control Points" in Isfahan. Iran Occupational Health. 2020. 17 (39). 1-12.

**23. Esfandiari Z**, Amani F, Pourhossein M, Hosseini H. Controlling and prevention of novel coronavirus through health and safety protocols in food: review article. Tehran University Medical Journal, 2021. 78 (12). 796-805

24. Asadi P, Pourhossein M, Marasi MR, **Esfandiari Z**. Effect of Education on Knowledge, Attitude and Practices of Students of Isfahan University of Medical Sciences toward Genetically Modified Food (GMF). Journal of Health System Research. 2021. 17(1)

#### **Articles in English**

1- Mansouripour S, **Esfandiari Z**, Nateghi L. The effect of heat process on the survival and increased viability of probiotic by microencapsulation: A review. Annals of Biological Research. 2013; 4(4): 83-87 (Indexed in ISI).

2- Esfandiari Z, Badiey M, Mahmoudian P, Sarhangpour R, Yazdani E, Mirlohi M. Simultaneous Determination of sodium benzoate, potassium sorbate and natamycin content in Iranian yoghurt drink (Doogh) and the associated risk of their intake through Doogh consumption. Iranian Journal of Public Health. 2013; 8 (42) (Impact factor= 1.5).

3- Jahanmard E, Azarani F, Sharifi M, **Esfandiari Z**. Aflatoxin in pistachio nuts used as ingredients in Gaz sweets produced in Isfahan, Iran. Food Additives and Contaminants B. 2014; 7 (1) (Impact factor=0.9).

4- **Esfandiari Z**, Jalali M, Ezzatpanah H, Weese J.S, Chamani M. Prevalence and Characterization of Clostridium difficile in Beef and Mutton Meats of Isfahan Region, Iran. Jundishapur Journal of Microbiology. 2014 (Impact factor=0.78).

5- **Esfandiari Z,** Jalali M, Ezzatpanah H, Weese J.S, Chamani M. Occurrence of Clostridium difficile in seasoned hamburgers and seven processing plants in Iran. BMC Microbiology. 2014; 283 (Impact factor= 3.1).

6- Yamoudy M, Mirlohi M, Nasr Esfahani B, Jalali M , **Esfandiari Z**, Hosseini NS. Isolation of toxigenic Clostridium difficile from Ready- to- eat Salads by multiplex polymerase chain reaction in Isfahan, Iran. Advanced Biomedical Research. 2015; 4:87 (Indexed in Pubmed).

7- Esfandiari Z, Weese J, Ezzatpanah H, Chamani M, Shoaei Parisa, Yaran Majid, Ataei Behrooz, Maracy Mohammad Reza, Ansariyan Akbar, Ebrahimi Fatemeh, Jalali M. Isolation and Characterization of Clostridium difficile in Farm Animals from Slaughterhouse to Retail Stage in Isfahan, Iran. Foodborne Pathogen and Disease. 2015; 12 (10): 864-866 (Impact factor= 2.44).

8- Ebrahimi A, Moazeni M, **Esfandiari Z**, Estaki F, Samani Majd A.M, Mirlohi M, Abdi Moghadam Z, Falahati M, Pourzamani H.R. Qualitative Evaluation of bottled Water stored in Poly (ethylene terephtalate) based on organic chemical compounds. Anuario do Instituto de Geociencias. 2016; 39 (2): 29-35 (Indexed in Scopus).

9- **Esfandiari Z**, Saraji M, Madani R, Jahanmard E. Status of benzoic acid amount during processing from yoghurt to its by-product drink (DOOGH). Italian Journal of Food Science. 2016; 28: 536-541(Impact factor=0.28).

10. Jalali M, Warriner K, **Esfandiari Z**. Risk Assessment of the Growth of Clostridium botulinum and spores Germination Induce by High Hydrostatic Pressure in Seafood. International Journal of Environmental Health Engineering. 2016; 5:21(Indexed in Scopus).

11- Akbari-adergani B, Sadeghian GH, Alimohammadi A, **Esfandiari Z**. Integrated photo-grafted molecularly imprinted polymers with cellulose acetate membrane for the extraction of melamine from dry milk prior to high-performance liquid chromatography. Journal of Separation Science. 2017 (Impact factor=2.7).

12- Akbari-adergani B, Poorasad M, **Esfandiari Z**. Sunset yellow, tartrazine and sodium benzoate in orange juice distributed in Iranian market and subsequent exposure assessment. International Food Research Journal. 2018; 25 (3): 975-981 (Impact factor=0.6).

13- Safaeian L, Baniahmad B, **Esfandiari Z**, Alavi SA. Portulaca oleracea seeds extract does not prevent dexamethasone-induced hypertension in rats. Journal of Herbmed Pharmacognosy. 2018; 7(1): 8-12 (Indexed in Scopus).

14- Ghazavi N, Rahimi E, **Esfandiari Z**, Shakerian A. Enterotoxigenicity, distribution of enterotoxigenic genes and antibiotic resistance pattern of Staphylococcus aureus isolated from traditional sweet. 2018. Tropical Biomedicine. 2018; 35 (4). 880-892 (Impact factor=0.5).

15- Shoaei P, Shojaei H, Jalali M, Khorvash F, Hosseini SM, Ataei B, Vakili B, Ebrahimi F, Tavakoli H, **Esfandiari Z**, Weese JS. Prevalence of Clostridium difficile infection in outpatients with ulcerative colitis in Isfahan, Iran. BMC Infectious Diseases. 2019; 19: 361 (Impact factor=2.9).

16- Shoaei P, Shojaei H, KHorvash F, Hosseini A, Ataei B, **Esfandiari Z**, Vakili B, Rozti M, Safavi AA. Clostridium difficile infection in cancer patients with hospital acquired diarrhea at the teaching hospital in Ira: Multilocus sequence typing analysis (MLAST) and antimicrobial resistance pattern. Annali di Igiene. 2019; 31 (4): 365-373 (Indexed in Pubmed and Scopus).

17- Moravejolahkami AR, **Esfandiari Z**, Ebdali H, Ganjali Dashti M, Hassanzadeh A, Ziaei H, Bahreini Esfahani N. Emplyees' knowledge, attitude and practice of food additives; impact of an educational intervention. Nutrition and Food Science. 2020 (Indexed in ISI and Scopus).

18 – Ghazavi N, Rahimi E, **Esfandiari Z**, Shakerian S. Accuracy of trans fatty acids amount in Traffic Light food labelling of traditional sweets distributed in Isfahan, Iran. ARYA Arthrosclerosis. 2020 (Indexed in ISI, Pubmed and Scopus).

19- **Esfandiari Z**, Mirlohi M, Mosberian Tanha J, Hadian M, Mossavi SI, Ansariyan A, et al. Effect of Education on Knowledge, Attitudes and Practices toward Traffic Light Food Labelling in Isfahan Society, Iran. International Quarterly Journal of

Community Health Education. 2021b. 41(3): 275–284. (Indexed in ISI, Pubmed and Scopus).

20- Ebdali H, Sami M, Bahreini N, Esfandiari Z. Knowledge, attitudes and self-reported practices of food technical assistants toward hazard analysis critical control point in Isfahan, Iran: A survey in dairy processing plants. Nutrition and Food Science. 2020 (Indexed in ISI and Scopus).

21- Madani RA, Kermani S, Sami M, **Esfandiari Z**, Karamian E. Risk assessment of heavy metals (chromium, nickel, lead, copper, and iron) in fast foods consumed in Isfahan, Iran. Journal of Bioenergy and food Science. 7(4) 2020 (Indexed in ISI).

22- Bahreini Esfahani, N, Ziaei H, Esfandiari Z. Status of Knowledge, attitudes and Practices toward food additives in personnel of Isfahan University of Medical Sciences in Iran. Journal of Nutrition and Food Security. 2020. (Indexed ISC).

#### **Seminars and Presentation:**

More than 100 abstracts and full text presented in congresses and seminars as posters and oral presentation.

### **Teaching Area:**

Teaching of more than 100 credits about food science, food technology and food safety in the last 10 years.

#### **Executive Experience:**

- Collaboration in preparation of province document entitled "Health program and quality improvement of life in Isfahan province based on 5 year Iran development program (2015-2020).

- Collaboration in preparation of province document entitled "Non-communicable disease and risk factor in Isfahan province (2018-2023).