



**School of Nutrition Sciences and Food Technology**  
**Kermanshah University of Medical Sciences**

**First Name:** Milad

**Surname:** Rouhi

**Academic Rank:** Assistant professor

**Address** Department of Food Science and, Faculty of Nutritional Sciences and Food Technologies, Isar Sq., next to Farabi Hospital, P.O. Box 6719851351, Kermanshah, Iran

**Email:** [Milad.rouhi@kums.ac.ir](mailto:Milad.rouhi@kums.ac.ir)



## Personal Information

Place of birth: Langroud

Marital Status: Married

Telephone: +98-8337102011

## Tertiary Education

- **PhD**  
Food Science and Technology:  
Food Biotechnology  
2011-2016
- Tehran University
- **M.Sc.**  
Food Science and Technology:  
Quality Control  
2008-2011
- Shahid Beheshti University of Medical Sciences
- **B.Sc.**  
Food Science and Technology:  
Quality Control  
2004-2008
- Shahid Beheshti University of Medical Sciences

## Academic Responsibilities

- 2018 - Present
- 2017- Present
- 2013 -2016
- Mentor of Foodism scientific association
- Head of Department of Food Science and Technology
- Member of Food Science and Technology working group- Center of advance research and development of Elite Affairs, ETKA

## Key Areas of Research Expertise

- Novel Food Packaging and Coating
- Functional Foods
- Nanotechnology in Food Technology
- Food Safety
- Extraction of high value-added compounds from agricultural and food wastes
- Modeling and optimization of parameters in experimental researches

## Skills

- Language
- Technical
- Software
- Farsi- English
- Texture Analyzer, HPLC, Mass Spectrometry, XRD, FTIR, DSC, EDX, ICP, SEM, TEM, Photometry, Colorimetry, Real-time PCR
- SPSS, Design Expert, Endnote, Microsoft Office

## Articles

- ❖ Fallah M, Rouhi M, Soltani M, Mohammadifar MA, Bahrami R, Davachi SM, et al. Physico-mechanical, Antimicrobial, and Antioxidant Properties of Gelatin Edible Films Incorporated with Olibanum Essential Oil and Sodium Hexametaphosphate on the Rainbow Trout Fillet Under Refrigerated Conditions. *Journal of Polymers and the Environment*. 2021;29(7):2174-84.
- ❖ Heydari M, Rostami O, Mohammadi R, Banavi P, Farhoodi M, Sarlak Z, et al. Hydrodistillation ultrasound-assisted green extraction of essential oil from bitter orange peel wastes: Optimization for quantitative, phenolic, and antioxidant properties. *Journal of Food Processing and Preservation*. 2021:e15585.
- ❖ Khedri S, Sadeghi E, Rouhi M, Delshadian Z, Mortazavian AM, de Toledo Guimarães J, et al. Bioactive edible films: Development and characterization of gelatin edible films incorporated with casein phosphopeptides. *LWT*. 2021;138:110649.
- ❖ Moghadam MA, Mohammadi R, Sadeghi E, Mohammadifar MA, Nejatian M, Fallah M, et al. Preparation and characterization of poly (vinyl alcohol)/gum tragacanth/cellulose nanocomposite film. *Journal of Applied Polymer Science*. 2021;138(28):50672.
- ❖ Paimard G, Mohammadi R, Bahrami R, Khosravi- Darani K, Sarlak Z, Rouhi M. Detoxification of patulin from juice simulator and apple juice via cross-linked Se-chitosan/L-cysteine nanoparticles. *LWT*. 2021;143:111146.
- ❖ Razmjoo F, Sadeghi E, Rouhi M, Mohammadi R, Noroozi R, Safajoo S. Polyvinyl alcohol-Zedo gum edible film: Physical, mechanical and thermal properties. *Journal of Applied Polymer Science*. 2021;138(8):49875.
- ❖ Sarlak Z, Khosravi-Darani K, Rouhi M, Garavand F, Mohammadi R, Sobhiyeh MR. Bioremediation of organophosphorus pesticides in contaminated foodstuffs using probiotics. *Food Control*. 2021:108006.
- ❖ Zibaei R, Hasanvand S, Hashami Z, Roshandel Z, Rouhi M, de Toledo Guimarães J, et al. Applications of emerging botanical hydrocolloids for edible films: A review. *Carbohydrate polymers*. 2021;256:117554.

- ❖ Bahrami R, Zibaei R, Hashami Z, Hasanvand S, Garavand F, Rouhi M, et al. Modification and improvement of biodegradable packaging films by cold plasma; a critical review. *Critical Reviews in Food Science and Nutrition*. 2020;1-15.
- ❖ Banavi P, Sadeghi E, Garavand F, Heydari M, Rouhi M. Release behavior of metals from tin-lined copper cookware into food simulants during cooking and cold storage. *Environmental Science and Pollution Research*. 2020;27(31):38591-601.
- ❖ Fallah M, Rouhi M, Sadeghi E, Sarlak Z, Mohammadi R. Effects of Olibanum Essential Oil on Physicochemical, Structural, Antioxidant and Microbial Characteristics of Gelatin Edible Films. *Iranian Journal of Nutrition Sciences & Food Technology*. 2020;15(4):93-102.
- ❖ Noroozi R, Sadeghi E, Rouhi M, Safajoo S, Razmjoo F, Paimard G, et al. Fates of aflatoxin B1 from wheat flour to Iranian traditional cookies: Managing procedures to aflatoxin B1 reduction during traditional processing. *Food Science & Nutrition*. 2020;8(11):6014-22.
- ❖ Taghizadeh M, Aryan S, Rouhi M, Sobhiyeh MR, Askari F, Gholipourmalekabadi M, et al. Photo- crosslinked gelatin–polyvinyl alcohol composite films: UV–riboflavin treatment for improving functional properties. *Journal of Food Processing and Preservation*. 2020;44(7):e14550.
- ❖ Ahmadi E, Mohammadi R, Hasanvand S, Rouhi M, Mortazavian AM, Sarlak Z. Effects of Fermentative Factors on Biochemical, Microbiological and Sensory Characteristics of Probiotic Iranian Fermented Milk (Doogh). *Current Nutrition & Food Science*. 2019;15(1):40-7.
- ❖ Askari F, Sadeghi E, Mohammadi R, Rouhi M, Taghizadeh M, Hosein Shirgardoun M, et al. The physicochemical and structural properties of psyllium gum/modified starch composite edible film. *Journal of Food Processing and Preservation*. 2018;42(10):e13715.
- ❖ Kariminejad M, Sadeghi E, Rouhi M, Mohammadi R, Askari F, Taghizadeh M, et al. The effect of nano- SiO<sub>2</sub> on the physicochemical and structural properties of gelatin- polyvinyl alcohol composite films. *Journal of Food Process Engineering*. 2018;41(6):e12817.
- ❖ Taghizadeh M, Mohammadifar MA, Sadeghi E, Rouhi M, Mohammadi R, Askari F, et al. Photosensitizer-induced cross-linking: A novel approach for improvement of physicochemical and structural properties of gelatin edible films. *Food Research International*. 2018;112:90-7.
- ❖ Sarlak Z, Garavand F, Mohammadi R, Hosseini M, Rouhi M. Development of an Optimal Formulation for Flavored Doogh-Based Soft Drink Using Response Surface Methodology and Evaluate the Resulting Powder. *Journal of Food Technology and Nutrition*. 2018;15(2):5-18.
- ❖ Delshadian Z, Mortazavian AM, Tabar zad M, Hosseini SM, Mohammadi R, Rouhi M, et al. Optimisation of experimental conditions for binding of divalent iron to bioactive casein phosphopeptides. *International Journal of Food Science & Technology*. 2018;53(3):784-93.
- ❖ Mohammadi R, Mohammadifar MA, Rouhi M, Kariminejad M, Mortazavian AM, Sadeghi E, et al. Physico-mechanical and structural properties of eggshell membrane gelatin-chitosan blend edible films. *International journal of biological macromolecules*. 2018;107:406-12.
- ❖ Ebrahimi B, Mohammadi R, Rouhi M, Mortazavian AM, Shojaee-Aliabadi S, Koushki MR. Survival of probiotic bacteria in carboxymethyl cellulose-based edible film and assessment of quality parameters. *LWT*. 2018;87:54-60.
- ❖ Garavand F, Rouhi M, Razavi SH, Cacciotti I, Mohammadi R. Improving the integrity of natural biopolymer films used in food packaging by crosslinking approach: A review. *International Journal of Biological Macromolecules*. 2017;104:687-707.
- ❖ Rouhi M, Razavi SH, Mousavi SM. Optimization of crosslinked poly (vinyl alcohol) nanocomposite films for mechanical properties. *Materials Science and Engineering: C*. 2017;71:1052-63.
- ❖ Sarlak Z, Rouhi M, Mohammadi R, Khaksar R, Mortazavian AM, Sohrabvandi S, et al. Probiotic biological strategies to decontaminate aflatoxin M1 in a traditional Iranian fermented milk drink (Doogh). *Food control*. 2017;71:152-9.
- ❖ Mohammadi R, Mohammadifar MA, Mortazavian AM, Rouhi M, Ghasemi JB, Delshadian Z. Extraction optimization of pepsin-soluble collagen from eggshell membrane by response surface methodology (RSM). *Food chemistry*. 2016;190:186-93.

- ❖ Rouhi M, Taslimi A, Sarlak Z, Mohammad R, Shadnoosh M, Mortazavian AM, et al. Sucrose and D-tagatose fermentation profile by different probiotic strains and its effect on physical properties of chocolate milk. *Koomesh*. 2015;239-49.
- ❖ Rouhi M, Mohammadi R, Mortazavian A, Sarlak Z. Combined effects of replacement of sucrose with d-tagatose and addition of different probiotic strains on quality characteristics of chocolate milk. *Dairy science & technology*. 2015;95(2):115-33.
- ❖ KARAM AM, EBRAHIMI S, MOHAMMADI R, MORTAZAVIAN AM, SADEGHI E, ROUHI M, et al. The role of probiotics in colon cancer prevention. 2015.
- ❖ Rouhi M, Mohammadi R, Sarlak Z, Taslimi A, Zabihzadeh M, Mortazavian A. Study on the biochemical, microbiological and sensory characteristics of synbiotic chocolate milk. *Iranian Journal of Nutrition Sciences & Food Technology*. 2015;10(2):47-58.
- ❖ Ahmadi E, Rouhi M, Mortazavian A, Khosravi-Darani K, Shandnush M. Viability of two Iranian isolated species of bifidobacteria in Doogh. *Iranian Journal of Nutrition Sciences & Food Technology*. 2013;7(5):1-10.
- ❖ Delshadian Z, Mohammadi R, Rouhi M, Homayouni Rad A, Mortazavian A. Effect of using stevia sweetener on peroxide value of chocolate milk. *Iranian Journal of Nutrition Sciences & Food Technology*. 2013;7(5):107-13.
- ❖ Ebrahimi S, Karam A, Rouhi M, Mohammadi R, Delshadian Z, Mortazavian A, et al. The role of probiotics in the treatment and prevention of infections diarrhea in children. *Iranian Journal of Nutrition Sciences & Food Technology*. 2013;7(4):11-24.
- ❖ Ferdousi R, Rouhi M, Mohammadi R, Mortazavian AM, Khosravi-Darani K, Rad AH. Evaluation of probiotic survivability in yogurt exposed to cold chain interruption. *Iranian journal of pharmaceutical research: IJPR*. 2013;12(Suppl):139.
- ❖ Mohammadi R, Rouhi M, Mortazavian A, Soleimani M, Sabouri S. Effects of cow's milk to soy milk proportion and the type of commercial culture composition on biochemical, microbiological and sensory characteristics of probiotic soy-Doogh. *Iranian Journal of Nutrition Sciences & Food Technology*. 2013;7(5).
- ❖ Rouhi M, Sohrabvandi S, Mortazavian AM. Probiotic fermented sausage: viability of probiotic microorganisms and sensory characteristics. *Critical reviews in food science and nutrition*. 2013;53(4):331-48.
- ❖ Mohammadi R, Rouhi M, Mortazavian A. Effects of music waves on fermentation characteristics and viability of starter cultures in probiotic yogurt. *Milchwissenschaft-Milk Science International*. 2011;66(2):194.

## Research Projects

- 2021
  - Investigation of metals migration from zinc pots to food simulators during thermal process and refrigerated storage
  - Reduction of organophosphorus chlorpyrifos, diazinon and malathion toxins during production and storage of non-alcoholic beer
- 2020
  - Internal evaluation of food Science & technology department of Kermanshah University of medical sciences in 2020
  - Investigation of migration of chemical pollutants from recycled and Non-recycled plastic containers to different food products under simulated storage conditions of each product
  - Risk assessment and determination of compounds in raw, cooked and grilled maize in Kermanshah in 2020 and 2021
  - Effect of lactic acid bacteria on the organophosphorus pesticides in reconstituted skim milk
  - Evaluation of Navid electronic learning (E-learning) system at Kermanshah University of Medical sciences in 1399
  - Effect of selenium nanoparticles and vitamin E on the physicochemical, structural and microbiological properties of Poly(lactic Acid) films
  - Authentication of red meat hamburger brands in Iran for chicken meat fraud using Real-time PCR based on TaqMan assay

- Optimization of patulin removal by seleno-chitosan-phytic acid complex in juice simulation aqueous
  - Investigation of production of intelligent food packaging based on edible film of polyvinyl alcohol containing curcumin
  - Study of colored food film based on polyvinyl alcohol containing betanine in smart food packaging
  - Study of effect of chlorophyllin on detoxification of aflatoxin B1
  - Investigation of heavy metals, aflatoxin B1, synthetic dyes, microplastics, trans fatty acids and microorganisms in rice bread produced in Kermanshah province in the year 2020-2021
- 2019
    - Effect of hydroalcoholic extract of *Quercus branti* on the physicochemical, structural and microbiological properties of gelatin edible film and influence film on refrigerate storage Beef meat
    - Effect of selenium-enriched yeast on detoxification of patulin in simulated juice condition
    - Investigation of the complex of cythosan-selenite cystine on the detoxification of patulin in a solution with the same pH as juice
    - Study on detoxification level of aflatoxin M1 by aqueous extract of *Ferulago angulate* and *Origanum vulgare* in stirred Youghurt
    - Investigation of aflatoxinB1 of detoxification using UV and Zinc oxide photocatalyst
    - Optimization of biosynthesis of stabilized silver nanoparticles using bitter orange peel by-products
    - Effects of adding phytic acid in the presence of UV light on the structural, physico-chemical and antioxidant properties of edible gelatin film
    - Investigation of physiochemical and antimicrobial properties of gelatin nanocomposite edible film with essential oil of *Cyperus rotundus* root and its application in packaging of beef meat
- 2018
    - Effects of *Pistacia Atlantica* Essential oil on quality properties of gelatin-based films with Nano-chitosan and its potential application for Ostrich meat
    - The fate of aflatoxin B1 during processing in traditional Khuzestan date cookie
    - Investigation of ochratoxin A detoxification by cellulose film with immobilized nano-chitin
    - Effect of pH and heat processing on migration of some heavy metals from copper pot to the food simulants
    - The study of qualitative properties of essential oil extracted from bitter orange peel wastes
    - Investigation of aflatoxins M1and B1 changes in different stages of preparation of Tarkhineh
    - Investigation of the physico-chemical and structural properties of edible gelatin film extracted from fish skin and chitosan
- 2017
    - Effect of physicochemical and structural properties of polyvinyl alcohol-farsi gum blend film
    - Study of physicochemical and structural characteristics of the Polyvinyl alcohol - Gum Tragacanth composite film reinforced with Cellulose nanofibers
    - Modelling of the effects of glycerol, nanocrystalline cellulose and boric acid concentration on crosslinking and applicable properties of edible film based on poly(vinyl alcohol)

- Study of colored edible biofilm production based on poly(vinyl alcohol) and canthaxanthin using response surface methodology
- Development of an Optimal Formulation for Flavored Doogh-Based Soft Drink Using Response Surface Methodology and Evaluate the Resulting Powder

## Books

- 2021
  - Rouhi M, Nateghi L, Aghamirzaei M, Yousefi S, Garavand F, Feyzi S, Nooshkam M, Jafari SM. Safety, standards and regulations of nanotechnology in food, in: Encapsulation in food processing and fermentation, CRC Press
  - Garavand F, Nooshkam M, Aghamirzaei M, Feyzi S, Nateghi L, Yousefi S, Rouhi M, Jafari SM. Industrial Scale Encapsulation Processes and Products, in: Encapsulation in food processing and fermentation, CRC Press

## Inventions & Innovations

- 2011
  - Production of synbiotic cocoa milk using D-tagatose diet sugar

## Presentations & Published Abstracts

- 2018
  - Effect of live or heat-killed *L. acidophilus* on free aflatoxin M1 in Doogh / Iran's 19th International Congress of Microbiology / Tehran / Zahra Sarlak, Milad Rouhi
- 2017
  - Effect of *Satureja edmondi* essential oil on the growth of *Staphylococcus aureus* in a food model / 18th International & Iranian Congress of Microbiology / Tehran / Shirin Moradi, Ehsan Sadeghi, Reza Mohammadi, Mohsen Ghasemi, Milad Rouhi, Sara Hasanvand
  - Probiotics roles in colon cancer prevention / 18th International & Iranian Congress of Microbiology / Tehran / Sara Hasanvand, Reza Mohammadi, Shirin Moradi, Ehsan Sadeghi, Milad Rouhi
- 2012
  - Effect of cold chain interruption on microbiological and biochemical characteristics of probiotic yoghurt during storage / IDF-World Dairy Summit 2012 / Cape Town / Milad Rouhi, Reza Mohammadi, Sara Sohrabvandi, Amir Mohammad Mortazavian and Zahra Sarlak
  - Probiotic fermented milk produced with different skim milk powder contents, fermentation temperatures and final pH / IDF-World Dairy Summit 2012 / Cape Town / Seyedeh Gelareh Shafiei, Sara Sohrabvandi, Amir Mohammad Mortazavian, Milad Rouhi and Reza Mohammadi
  - Production of Doogh (an Iranian yoghurt drink) inoculated with Iranian probiotic lactobacillus species / IDF-World Dairy Summit 2012 / Cape Town / Reza Mohammadi, Milad Rouhi, Amir Mohammad Mortazavian, Zahra Sarlak and Seyedeh Gelareh Shafiei
  - Production of synbiotic chocolate milk with D-tagatose as a low-calorie sugar replacer / IDF-World Dairy Summit 2012 / Cape Town / Milad Rouhi, Amir Mohammad Mortazavian, Aghdas Taslimi, Reza Mohammadi and Zahra Sarlak
  - Viability of Iranian and imported bifidobacterium species in probiotic Doogh (an Iranian yoghurt drink) / IDF-World Dairy Summit 2012 / Cape Town / Reza Mohammadi, Milad Rouhi, Amir Mohammad Mortazavian, Sara Sohrabvandi and Zahra Sarlak
  - Effects of the type of commercial starter culture composition and partial or total replacement of cow's milk with soy milk on biochemical and microbiological characteristics of probiotic fruity soy yogurt / 13th Iranian and the second international congress of microbiology / Ardabil / Reza Mohammadi, Abolfazl Roozitalab, Milad Rouhi\*, Amir Mohammad Mortazavian, Zahra Sarlak
  - Effects of partial or total replacement of cow's milk with soy milk and the type of commercial starter culture composition on biochemical and microbiological characteristics

of probiotic soy-Doogh / 13th Iranian and the second international congress of microbiology / Ardabil / Reza Mohammadi, Milad Rouhi, Zahra Sarlak, Amir Mohammad Mortazavian

- A comparative study of viability of Iranian and imported bifidobacterium species during refrigerated storage in probiotic Doogh / 13th Iranian and the second international congress of microbiology / Ardabil / Reza Mohammadi, Milad Rouhi, Zahra Sarlak, Seyedeh Gelareh Shafiei, Elahe Ahmadi
- Effects of incubation temperatures on biochemical and microbiological characteristics in Doogh inoculated with Iranian probiotic lactobacillus species during fermentation and refrigerated storage / 13th Iranian and the second international congress of microbiology / Ardabil / Milad Rouhi, Reza Mohammadi, Zahra Sarlak, Seyedeh Gelareh Shafiei, Elahe Ahmadi
- Biochemical and microbiological studies of different probiotic yogurts stored at different temperatures / 13th Iranian and the second international congress of microbiology / Ardabil / Milad Rouhi, Reza Mohammadi, Seyedeh Gelareh Shafiei, Amir Mohammad Mortazavian, Kheyrollah Khosravi Katuli
- 2011
  - The sheep and goat dairy sectors in Iran / IDF International Symposium on Sheep, Goat and other non-Cow Milk 2011 / Athens / M. Rouhi, A.M. Mortazavian, M. Amjadi Golpayegani and H.R. Sayehvand

## Editorial Board and Reviewing Activities

- |          |  |
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| Reviewer | <ul style="list-style-type: none"><li>• Journal of Food Processing and Preservation</li><li>• Food Hydrocolloids</li><li>• Progress in Organic Coatings</li><li>• Nutrition and Food Sciences Research</li><li>• International Journal of Health and Life Sciences</li><li>• Applied Surface Science</li><li>• Environmental Research</li><li>• Food Bioscience</li><li>• Food Chemistry</li><li>• Health Scope</li><li>• IJCCE</li><li>• Iranian Journal of Fisheries Sciences</li><li>• Iranian Journal of Pediatrics</li><li>• Journal of Applied Polymer Science</li><li>• LWT</li></ul> |
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## Professional Memberships

- USA Institute of Food Professionals
- Asia Pacific Institute of Food Professionals

## Awards & Grants

- |        |   |
|--------|---|
| • 2020 | • Distinguished Teacher of Kermanshah University of Medical Sciences              |
| • 2016 | • National Distinguished Student<br>Distinguished Student of University of Tehran |
| • 2015 | • Distinguished Student of University of Tehran                                   |

