



Probiotic Researcher. I am interested in working with probiotics and hope to find a way to realize: 'Let thy food be thy medicine and medicine be thy food' (often ascribed to Hippocrates (400 BC)).

Surname: Rohani, **Forename:** Mahdi, **Birthdate:** 13th Jun. 1979,

Maternal statue: Married

Contact info:

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Career History:

- 2022- Present: Associated Professor, Bacteriology Department of Pasteur Institute of Iran
- 2016-2022: Assistant Professor, Bacteriology Department of Pasteur Institute of Iran
- 2009-2016: Research assistant and Ph.D. student, Bacteriology Department of Pasteur Institute of Iran
- 2004- 2009: Lecturer, Microbiology and Immunology Department of Kashan University of Medical Sciences

Teaching Experiences:

2005- 2009	Bacteriology Lab	Kashan University of Medical Sciences
2005-2009	Systematic of Bacteriology	Kashan University of Medical Sciences
2009-2011	Bacteriology Lab	Pasteur Institute of Iran
2016- Present	Bacterial Classification	Pasteur Institute of Iran
2016- Present	Antibiotic mechanisms	Pasteur Institute of Iran
2016- Present	Dental microbiology	Pasteur Institute of Iran
2016- Present	Anaerobic bacteria Lab	Pasteur Institute of Iran

Executive positions:

- Head of Bacteriology Department of Pasteur Institute of Iran. 2020-
- Head of directorate for Health Specialized Services of Pasteur Institute of Iran, 2022-
- Head of Rapid Response Team for Infectious diseases of Pasteur Institute of Iran 2022-
- Member of Rapid Response Team of Pasteur Institute of Iran 2019-
- Head of External Quality Assessment for COVID-19 Laboratories (EQAP) in Iran. 2020-
- Head of directorate of Education, Cultural and Student affairs of Pasteur Institute of Iran. 2021- 2022

Education:

- 1997- 2002: Bachelor of Science in Microbiology from Tehran University
- 2002-2005: Master of Sciences in Medical Bacteriology from Mashhad University of Medical Sciences
- 2009- 2016: PhD. in Medical Bacteriology, Pasteur Institute of Iran

Research Areas:

- Probiotic, Postbiotic and Parabiotics
 - IBD and Other inflammatory diseases
 - Antioxidant activity
 - Detoxification ability
 - Colorectal Cancer
 - Improvement of Micronutrition's absorption
- Public Health and Antimicrobial Resistance:
 - Diagnosis of pathogenic bacteria in Environment
 - Antimicrobial resistance in nosocomial environment
 - Leptospirosis
 - *Francisella*
 - Rickettsiosis

Professional experience:

- Technical Manager of national reference laboratory for Plague, Tularemia and Q Fever, Pasteur Institute of Iran, Akanlu, Kabudar Ahang, Hamadan, Iran. 2017-2020
- Technical Manager of national reference laboratory for Pertussis, Pasteur Institute of Iran, 2021-

Awards:

- 2009: First rank in the Ph.D. entrance exam. Ministry of Health and Medical Education,
- 2022: Selected assistant professor, Pasteur Institute of Iran

Skills and expertise:

- Molecular biology techniques (PCR, RT-PCR, Real-time PCR, Cloning, electrophoresis),
- Mammalian cell techniques (culture)
- Animal studies (mouse),
- Immunologic tests (Immunization, ELISA),
- Mass production of probiotic bacteria by fermenter in laboratory scale.
- Design and performance of Molecular diagnostic lab.

Patents:

- 1- Mahdi Rohani, Shekoufeh Beglari, Niloofar Rezaei, Mahnaz Torfeh. "A cocktail of probiotic *Lactobacillus* and *Bifidobacterium* strains with nickel detoxification feature". IR Registration No. 140150140003004456, Tehran, Iran, Date of Submission: 7th September 2022.

JOURNAL PUBLICATIONS:

Publications in COVID-19 field:

M. Salehi-Vaziri, A. Arashkia, E. Mostafavi, T. Jalali, M. H. Pouriayevali, M. Fazlalipour, Z. Shoja, **M. Rohani**, et al (2021). How Iran responded to expanding need for laboratory services for COVID-19?. *Health Policy and Technology*. 10 (2): 100506

Publications in Probiotic field:

1. S. Aghamohammad, **M. Rohani*** (2022). Antibiotic resistance and the alternatives to conventional antibiotics: the role of probiotics and microbiota in combating antimicrobial resistance. *Microbiological research*. 267: 127275. (Review article)

- 2.A. Salimi, A. Sepehr, N. Hejazifar, M. Talebi, **M. Rohani***, M. R. Pourshafie (2022). Dynamic Population of Gut Microbiota as an Indicator of Inflammatory Bowel Disease. *Iranian Biomedical Journal*. 26; (5): 350-356
- 3.S. Najafi, F. Sotoodehnejadnematlahi, M. M. Amiri, M. R. Pourshafie, **M. Rohani*** (2022). Decreased mucosal adhesion of *Lactobacillus* species in patients with inflammatory bowel disease. *Caspian Journal of Internal Medicine*. 13: (4): 0-9
4. A. Salimi, **M. Rohani***, M. R. Pourshafie. Investigating the Relation between the Gut Microbiota and Inflammatory Bowel Disease in a Mouse Model (2022). *Journal of Medical Microbiology and Infectious Diseases*. 10; (3): 122-128
5. S. Aghamohammad, A. Sepehr, S. T. Miri, S. Najafi, M. R. Pourshafie, **M. Rohani*** (2022). The Role of Combining Probiotics in Preventing and Controlling Inflammation: A Focus on the Anti-Inflammatory and Immunomodulatory Effects of Probiotics in an In Vitro Model of IBD. *Canadian Journal of Gastroenterology and Hepatology*. doi.org/10.1155/2022/2045572
6. S. Aghamohammad, A. Sepehr, S. T. Miri, S. Najafi, M. R. Pourshafie, **M. Rohani*** (2022). The potential role of *Bifidobacterium spp.* as a preventive and therapeutic agent in controlling inflammation via affecting inflammatory signaling pathways. *Letters in Applied Microbiology*. doi.org/10.1111/lam.13793
7. S. Beglari, F. Khodagholi, H. Gholami Pourbadie, A. Iranbakhsh, **M. Rohani*** (2022). Biosorption and bioaccumulation of nickel by probiotic lactic acid bacteria isolated from human feces. *Bioremediation Journal*. 1- 12 (doi.org/10.1080/10889868.2022.2086529).
8. S. T. Miri, F. Sotoodehnejadnematlahi, M. M. Amiri, M. R. Pourshafe, **M. Rohani*** (2022). The impact of *Lactobacillus* and *Bifidobacterium* probiotic cocktail on modulation of gene expression of gap junctions dysregulated by intestinal pathogens. *Archives of Microbiology*. 204 (7): 1-7.
- 9.S. T. Miri, F. Sotoodehnejadnematlahi, M. M. Amiri, M. R. Pourshafie, **M. Rohani*** (2022). Comparison of the prevalence of bacteriocin encoding genes in *Lactobacillus spp.* isolated from fecal samples of healthy volunteers, IBD-patient and IBD-recovered. *Iranian Journal of Microbiology*. 14: 2: 219-226
10. S. Aghamohammad, A. Sepehr, S. T. Miri, S. Najafi, **M. Rohani***, and M. R. Pourshafiea (2022). Anti-inflammatory and immunomodulatory effects of *Lactobacillus spp.* as a preservative and therapeutic agent for IBD control. *Immunity, Inflammation and Disease*. e365.

11. S. Aghamohammad, A. Sepehr, S. T. Miri, S. Najafi, **M. Rohani*** and M. R. Pourshafiea (2022). The effects of the probiotic cocktail on modulation of the NF-kB and JAK/STAT signaling pathways involved in the inflammatory response in bowel disease model. *BMC immunology*. 23 (1): 1-10.
12. M. Abdi, V. Lohrasbi, A. Asadi, M. Esghaei, F. Masjedian Jazi, **M. Rohani**, M. Talebi (2021). Interesting probiotic traits of mother's milk *Lactobacillus* isolates; from bacteriocin to inflammatory bowel disease improvement. *Microbial Pathogenesis*. 104998.
13. N. Noohi, M. Papizadeh, **M. Rohani**, M. Talebi, M. R. Pourshafie (2021). Screening for probiotic characters in lactobacilli isolated from chickens revealed the intra-species diversity of *Lactobacillus brevis*. *Animal Nutrition*. 7 (1): 119-126.
14. V. Lohrasbi, M. Abdi, A. Asadi, **M. Rohani**, M. Esghaei, M. Talebi, and N. Amir mozafari (2020). The effect of improved formulation of chitosan-alginate microcapsules of Bifidobacteria on serum lipid profiles in mice. *Microbial Pathogenesis*. 104585.
15. R. Ghanavati, P. Asadollahi, M. Bahrololomi Shapourabadi, S. Razavi, M. Talebi, **M. Rohani*** (2020). Inhibitory effects of Lactobacilli cocktail on HT-29 colon carcinoma cells growth and modulation of the Notch and Wnt/ β -catenin signaling pathways. *Microbial pathogenesis*. 139: 103829
16. R. Ghanavati, F. Mohammadi, A. Javadi, M. Talebi, **M. Rohani*** (2020). The Effects of a Mixture of *Lactobacillus* species on Colorectal Tumor Cells Activity through Modulation of Hes1 pathway. *Pharma Nutrition*. (13) 100207.
17. M. Hasannejad-Bibalan, A. Mojtahedi, M. Eshaghi, **M. Rohani**, M. R. Pourshafie, M. Talebi (2020). The effect of selected *Lactobacillus* strains on dextran sulfate sodium-induced mouse colitis model. *Acta Microbiologica et Immunologica Hungarica*. 67 (2): 138-142
18. R. Ghanavati, A. Akbari, F. Mohammadi, P. Asadollahi, A. Javadi, M. Talebi, **M. Rohani*** (2020). *Lactobacillus* species inhibitory effect on colorectal cancer progression through modulating the Wnt/ β -catenin signaling pathway. *Molecular and Cellular Biochemistry*. 470 (1): 1-13
19. P. Asadollahi, R. Ghanavati, **M. Rohani**, S Razavi, M. Eftekhari, M. Talebi (2020). Anti-cancer effects of *Bifidobacterium* species in colon cancer cells and a mouse model of carcinogenesis. *PLoS ONE*. 15 (5): e0232930.
20. M. Papizadeh, **M. Rohani**, H. Nahrevanian, S. N. Hosseini, S. A. Shojaosadati, M. R. Pourshafie (2020). Using Various Approaches of Design of Experiments for High Cell

Density Production of the Functionally Probiotic *Lactobacillus plantarum* Strain RPR42 in a Cane Molasses-based Medium. *Current Microbiology*. 77 (8): 1756-1766

21. M. Papizadeh, **M. Rohani**, S.N. Hosseini, S.A. Shojaosadati, H. Nahrevanian, M. Talebi, M.R. Pourshafie (2020). Screening for efficient nitrogen sources for overproduction of the biomass of the functionally probiotic *L. plantarum* strain RPR42 in a cane molasses-based medium. *AMB Expr*. 10: 53.
22. F. Maghsood, B. Johari, **M. Rohani**, H. Madanchi, Z. Saltanatpour, M. Kadivar (2020). Anti-proliferative and Anti-metastatic Potential of High Molecular Weight Secretory Molecules from Probiotic *Lactobacillus reuteri* Cell-Free Supernatant Against Human Colon Cancer Stem-Like Cells (HT29-ShE). *International Journal of Peptide Research and Therapeutics*. 26 (4): 2619–2631.
23. **M. Rohani**, M. Papizadeh, M. R. Pourshafie (2018). Correlation of Biofilm Formation and Caco-2 Cell Attachment Properties in Colonization Ability of Acid-Bile Resistant Fecal *Lactobacillus plantarum* Isolates. *Journal of Medical Microbiology and Infectious Diseases*. 6 (1) :13-19
24. M. Hasannejad Bibalan, M. Eshaghi, **M. Rohani**, M. Esghaei, D. Darban-Sarokhalil, M. R. Pourshafie, M. Talebi (2017). Isolates of *Lactobacillus plantarum* and *L. reuteri* display greater antiproliferative and antipathogenic activity than other *Lactobacillus* isolates. *Journal of Medical Microbiology*. 66 (10): 1416-1420.
25. M. Talebi, M. Eshaghi, M. Hasannejad Bibalan, **M. Rohani**, M. R. Pourshafie (2017). Determination and Comparison of Antibacterial Activity of Native *Bifidobacterium* Strains with Similar RAPD Profile Isolated from Paired Infants Stool and Mothers Milk. *Journal of Probiotics & Health*. 5: 175. doi: 10.4172/2329-8901.1000175.
26. M. Eshaghi, M. Hasannejad Bibalan, **M. Rohani**, M. Esghaei, M. Douraghi, M. Talebi, M. R. Pourshafie (2017). *Bifidobacterium* obtained from mother's milk and their infant stool; A comparative genotyping and antibacterial analysis. *Microbial Pathogenesis*. 111; 94-98.
27. M. Papizadeh, **M. Rohani**, H. Nahrevanian, A. Javadi, M. R. Pourshafie (2017). Probiotic characters of *Bifidobacterium* and *Lactobacillus* are a result of the ongoing gene acquisition and genome minimization evolutionary trends. *Microbial Pathogenesis*. 111: 118-131.
28. M. Hasannejad Bibalan, M. Eshaghi, **M. Rohani**, M. R. Pourshafie, M. Talebi (2017). Determination of Bacteriocin Genes and Antibacterial Activity of *Lactobacillus* Strains

Isolated from Fecal Healthy Individuals. *International journal of molecular and cellular medicine*. 6 (1): 50.

29. M. Papizadeh, H. Nahrevanian, **M. Rohani**, S. N. Hosseini, S. A. Shojaosadati (2016). *Lactobacillus rhamnosus Gorbach-Goldin* (GG): A Top Well-Researched Probiotic Strain. *Journal of Medical Bacteriology*. 5 (5-6): 32-49.
30. N. Noohi, G. Ebrahimipour, **M. Rohani**, M. Talebi, M. R. Pourshafie (2016). Evaluation of potential probiotic characteristics and antibacterial effects of strains of *Pediococcus* species isolated from broiler chickens. *British Poultry Science*. 57 (3): 317-323.
31. **M. Rohani**, N. Noohi, M. Talebi, M. Katouli, M. R. Pourshafie (2015). Highly Heterogeneous Probiotic *Lactobacillus* Species in Healthy Iranians with Low Functional Activities. *PLoS ONE*. 10 (12): e0144467.
32. N. Noohi, G. Ebrahimipour, **M. Rohani**, M. Talebi, M. R. Pourshafie (2014). Phenotypic Characteristics and Probiotic Potentials of *Lactobacillus spp.* Isolated from Poultry. *Jundishapur Journal of Microbiology*. 7 (9): e17824.

Publications in Public Health and Antimicrobial resistance fields:

1. S. Aghamohammad, M. Rastin, E. Mostafavi, A. Hajijafari Anaraki, M. Rahravani, R. Atashin Sadaf, M. Moravedji, **M. Rohani*** (2022). Determination of seroprevalence of brucellosis in livestock and high-risk population in Kurdistan, Western Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 31: 101942.
2. N. Rezaie, S. Aghamohammad, **M. Rohani***, A. Javadi, F. Badmasti, A. Soltani Shirazi (2022). Isolation of MDR *Providencia stuartii* from tracheal aspirates of two hospitalized patients. *Health Biotechnology and Biopharma (HBB)*. 6; (3): 73-79.
3. M. Hassani, A. Tahghighi, **M. Rohani**, M. Hekmati, M. Ahmadian, H. Ahmadvand (2022). Robust antibacterial activity of functionalized carbon nanotube-levofloxacin conjugate based on in vitro and in vivo studies. *Scientific reports*. 12 (1): 1-19
4. F. Abdoli, E. Mostafavi, S. Esmaili, **M. Rohani*** (2022). Molecular detection and identification of *Rickettsia spp.* in collected ticks from domestic animals in Southeastern of Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 85: 101798.
5. M. Nabizadeh, M.R. Naimi-Jamal, **M. Rohani**, P. Azerang, A. Tahghighi (2022). Hydrazone analogues with promising antibacterial profiles: Synthesis, morphology, in

vitro and in silico approaches. *Letters in Applied Microbiology*. doi.org/10.1111/lam.13692

6. S. Aghamohammad, A. Hajjafari Anaraki, M. Rahravani, M. Rastin, R. Atashin Sadaf, M. Moravedji, and **M. Rohani*** (2022). Seroepidemiology of leptospirosis in livestock and workers of high-risk occupation in Kurdistan, Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 82: 101758.
7. S. Aghamohammad, H. Ahangari Cohan, A. Ghasemi, E. Mostafavi, and **M. Rohani*** (2022). The monitoring of *Francisella tularensis* in surface water of East Azerbaijan province, Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 101744.
8. N. Bolourchi, O. Azizi, **M. Rohani**, S. Seyyedi Abhari, A. Soltani Shirazi, and F. Badmasti (2021). Identification of Carbapenemase within Class 1 Integron Structure in Intrinsically Colistin-resistant Enterobacteriaceae. *Journal of Medical Microbiology and Infectious Diseases*. 9 (4): 203-209.
9. S. Esmaeili, **M. Rohani**, A. Ghasemi, M. M. Gouya, S. Khayatzaadeh, A. Mahmoudi, H. Ahangari Cohan, A. Johansson, M. Maurin, E. Mostafavi (2021). *Francisella tularensis* human infections in a village of northwest Iran. *BMC Infectious Diseases*. 21(1): 1-8.
10. H. Ahangari Cohan, M. Jamshidian, **M. Rohani**, M. Moravedji, E. Mostafavi (2021). *Francisella tularensis* survey among ranchers and livestock in western Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 74; 101598
11. S. R. Naddaf, A. Mahmoudi, A. Ghasemi, **M. Rohani**, A. Mohammadi, S. P. Ziapour, A. H. Nemati, E. Mostafavi (2020). Infection of hard ticks in the Caspian Sea littoral of Iran with Lyme borreliosis and relapsing fever borreliae. *Ticks and Tick-borne Diseases*. 101500
12. P. Talaie, M. M. Sedaghat, E. Mostafavi, Z. Telmadarraiy, **M. Rohani**, M. Salehi-Vaziri (2020). A Survey of Crimean-Congo Hemorrhagic Fever Virus in Ticks of Shahr-e Ray, Iran, 2016-2017. *Journal of Medical Microbiology and Infectious Diseases*. 8 (2): 56-59
13. Z. Ghorbani, M. Heidari, M. Jafarinia, **M. Rohani**, A. Akbari (2020). The Effect of Hyperthermia on the Gene Expression of MDR1 and MRP4 Drug Efflux in Colorectal Cancer Cells. *Journal of Babol University of Medical Sciences*. 22 (1): 388-395
14. M. Farrokhnia, Z. Yousefi Ghalejoogh, **M. Rohani**, A. Ghasemi, S. Esmaeili, E. Mostafavi (2020). Cases of Mediterranean spotted fever in southeast of Iran. *Iranian Journal of Microbiology*. 12 (3): 256-260

15. H. Ahangari Cohan, M. Jamshidian, **M. Rohani**, M. Moravedji, E. Mostafavi (2020). Surveillance of *Francisella tularensis* in surface water of Kurdistan province, west of Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 69: 101419.
16. M. Hemmati, M. Khalili, **M. Rohani**, B. Sadeghi, S. Esmaeili, A. Ghasemi, A. Mahmoudi, M. Gyuranecz, E. Mostafavi (2020). A serological study on *Francisella tularensis* in rodents in Hamadan province, western Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 68: 101379.
17. P. Moradnejad, S. Esmaeili, M. Maleki, A. Sadeghpour, M. Kamali, **M. Rohani**, A. Ghasemi, F. Bagheri Amiri, H.R. Pasha, S. Boudagh, H. Bakhshandeh, N. Naderi, B. Ghadrdoost, S. Lotfian, S.A. Dehghan Manshadi, E. Mostafavi. (2019). Q fever endocarditis in Iran. *Scientific Report*. 9 (1): 1-7
18. S. Esmaeili, F. Bagheri Amiri, H. Mokhayeri, M. H. Kayedi, M. Maurin, **M. Rohani**, E. Mostafavi (2019). Seroepidemiological study of Q fever, brucellosis and tularemia in butchers and slaughterhouses workers in Lorestan, western of Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. 66: 101322
19. **M. Rohani**, A. Hashemi Shahraki, A. Ghasemi, S. Esmaeili, A. Karadenizli, E. Mostafavi (2019). The prevalence of *Francisella spp.* in different natural surface water samples collected from northwest of Iran. *Iranian Journal of Microbiology*; 11 (1): 19-24
20. E. Mostafavi, L. Molaeipoor, S. Esmaeili, A. Ghasemi, M. Kamalizad, M. Yousefi Behzadi, R. Naserifar, **M. Rohani**, A. Hashemi Shahraki. (2019). Seroprevalence of Q fever among high-risk occupations in the Ilam province, the west of Iran. *PLoS ONE*. 14 (2): e0211781.
21. **M. Rohani**, B. Mohsenpour, A. Ghasemi, S. Esmaeili, M. Karimi, H. Neubauer, H. Tomaso, E. Mostafavi (2018). A case report of human tularemia from Iran. *Iranian Journal of Microbiology*. 10 (4): 250-3.
22. E. Mostafavi, A. Ghasemi, **M. Rohani**, L. Molaeipoor, S. Esmaeili, Z. Mohammadi, A. Mahmoudi, M. Aliabadian, A. Johansson (2018). Molecular Survey of Tularemia and Plague in Small Mammals from Iran. *Frontiers in cellular and infection microbiology*. 8:215 (doi: 10.3389/fcimb.2018.00215).
23. M. Assmar, M. Keypour, **M. Rohani**, E. Mostafavi, D. Daneshvar Farhud (2018). The Resistance to Plague Infection among *Meriones persicus* from Endemic and Non-endemic Regions in Iran: The Role of Gut Microbiota. *Iranian Journal of Public Health*. 47 (1): 86-94.

24. A. Ghasemi, S. Esmaeili, A. Hashemi Shahraki, H. Hanifi, Z. Mohammadi, A. Mahmoudi, **M. Rohani**, E. Mostafavi (2017). Upsurge of Rodents' Population in a Rural Area of Northeastern Iran Raised Concerns about Rodent-borne Diseases. *Journal of Medical Microbiology and Infectious Diseases*. 5 (1-2): 21-25.
25. A. Piran, F. Shahcheraghi, H. Solgi, **M. Rohani**, F. Badmasti (2017). A reliable combination method to identification and typing of epidemic and endemic clones among clinical isolates of *Acinetobacter baumannii*. *Infection, Genetics, and Evolution*. 54: 501–507.
26. M. Eshaghi, M. Hasannejad Bibalan, **M. Rohani**, M. Sadat Ghaffari, M. Talebi (2017). Genotype Diversity and Evaluation of Biofilm Formation in sasX Positive Methicillin-Resistant *Staphylococcus aureus*. *Avicenna Journal of Clinical Microbiology and Infection*. e46049 (doi: 10.5812/ajcmi.46049).
27. F. Bagheri Amiri, M. Saifi, M.M. Gouya, **M. Rohani**, E. Mostafavi (2015). Comparison of an interferon-gamma release assay and the tuberculin skin test for diagnosis of latent tuberculosis in homeless people in Iran: a cross-sectional study. *Infectious Diseases*. 47 (8): 536-541.
28. F. Bagheri Amiri, M. M. Gouya, M. Saifi, **M. Rohani**, P. Tabarsi, A. Sedaghat, N. Fahimfar, A. Memarnejadian, M. R. Aghasadeghi, A. A. Haghdoost, F. Jahanbakhsh, M. Nasehi, E. Mostafavi (2014). Vulnerability of Homeless People in Tehran, Iran, to HIV, Tuberculosis and Viral Hepatitis. *PLoS ONE*. 9 (6): e98742.
29. A. Khorshidi, **M. Rohani**, M. Akbari, M. Motallebi (2013). Molecular detection of bla TEM and bla SHV genes among clinical isolates of *Escherichia coli* from Kashan, Iran. *African Journal of Microbiology Research*. 7 (9):751-754.
30. Z. Tavajjohi, R. Moniri, A. Khorshidi, **M. Rohani** (2012). Detection of the bla Genes (TEM-1, SHV-1, SHV-5, CTX-M-1, CTX-M-2, CTX-M-3, CTX-M-9, OXA-1, GES-1 and GES-2) in *Pseudomonas aeruginosa* Strains Isolated from Clinical and Environmental Samples of Shahid Beheshti Hospital in Kashan. *Zanjan University of Medical Sciences Journal*. 20 (82): 42-51.
31. A. Khorshidi, **M. Rohani**, R. Moniri (2012). The prevalence and molecular characterization of extended-spectrum β -lactamases-producing *Klebsiella pneumoniae* isolates recovered from Kashan hospital university, Iran. *Jundishapur Journal of Microbiology*. 4 (4): 289-294.
32. M. Motallebi, A. Piroozmand, **M. Rohani**, H. Akbari, A. Khorshidi (2011). Prevalence and multi-drug resistance of enteropathogenic *Escherichia coli* (EPEC)

- isolated from children less than 5 years of age with diarrhea in Kashan Shahid Beheshti Hospital during 2009-10. *Feyz, Journal of Kashan University of Medical Sciences*. 15(1): 61-68.
33. M. Motallebi, A. Piroozmand, **M. Rohani**, H. Akbari, A. Khorshidi (2011). Multiple drug resistance of enteropathogenic *Escherichia coli* isolated from children with diarrhea in Kashan, Iran. *African Journal of Microbiology Research*. 5 (20): 3305-3309.
34. A. Khorshidi, M. Motallebi, **M. Rohani**, A. Piroozmand (2011). Characterization of virulence genes in typical and atypical enteropathogenic *Escherichia coli*. *Scientific Research and Essays*. 6 (31): 6600-6605.
35. **M. Rohani***, P. Farnia, M. Naderi Nasab, R. Moniri, M. Torfeh, M. M. Amiri (2009). Beijing genotype and other predominant *Mycobacterium tuberculosis* spoligotypes observed in Mashhad city, Iran. *Indian Journal of Medical Microbiology*. 27 (4): 306-10.
36. A. Khorshidi, **M. Rohani**, R. Moniri, M. Torfeh (2009). Comparison of culture and microscopic methods by PCR for detection of *Mycobacterium tuberculosis* in sputum. *Iranian Journal of Clinical Infectious Diseases*. 4 (4): 228-232.
37. **M. Rohani***, A. Khorshidi, R. Moniri, M. Torfeh, F. Abddoshah, M. Saffari, Gh. R. Shajari, Gh. A. Moosavi (2009). Rapid detection of *Mycobacterium tuberculosis* complex: PCR method using insertion sequence 6110. *Tehran University Medical Journal*; 67 (3): 173-177.
38. A. Khorshidi, Z. Moazen, **M. Rohani**, R. Moniri (2009). Prevalence of TEM1 & SHV1 genes in *Klebsiella pneumoniae* with ESBL. *Journal Military Medicine*. 11(3), 149-153.
39. **M. Rohani***, P. Farnia, M. Naderinasab, A. Sadeghian, M. Khajekaramoddin, R. Moniri (2007). Evaluation of frequency of Beijing genotype of *Mycobacterium tuberculosis* isolated from tuberculosis patient in Mashhad city, Iran. *Journal of Mazandaran University of Medical Sciences*. 17 (60): 79-86.

Selected Conference Papers:

- Faezeh Maghsood, **Mahdi Rohani**, Mehdi Kadivar. Effect of Different Molecular Weight Fractions Derived From Probiotic Cell-Free Supernatant on Colon Cancer Stem-Like Cell Invasion and Apoptosis. The 3rd National Festival and International Congress on Stem Cell and Regenerative Medicine 28 Nov –1 Dec 2018 Tehran, Iran

- Mohammad Reza Pourshafie, **Mahdi Rohani**, Nasrin Noohi and Malihe Talebi. Anti-inflammatory effect of probiotic *Lactobacillus* in mouse colitis model. 8th Molecular Immunology & Immunogenetics Congress. March 20-21, 2017 Rome, Italy.
- **Mahdi Rohani**, Mohammad Reza Pourshafie, Malihe Talebi. Genetic background of penicillin and erythromycin resistance in different types of *Streptococcus pneumoniae*. Combating resistance: microbes and vectors. 2018 Institute Pasteur International Network Symposium, Paris, November 15-16.

Some current and previous projects and Grants:

- Investigation of effects of Probiotic cocktail containing *Lactobacillus* and *Bifidobacterium* on expression alteration of Tight Junction, TLR 4 and TLR 5 and inhibition of inflammation's induction in the presence of components of intestinal pathogenic bacteria (January 2019- 2021).
 - **Granted By Pasteur Institute of Iran**
- Evaluation of domestic probiotic *Lactobacillus spp.* on expression of Wnt signaling pathway in mouse model of colorectal cancer. 2017- 2019
 - **Granted By Iran University of Medical Sciences**
- Evaluation of domestic probiotic *Lactobacillus spp.* on ERK and Wnt signaling pathway in hyperthermia- treated colorectal cancer cell line. 2018- 2019
 - **Granted By Iran University of Medical Sciences**
- Evaluation of frequency of Culture Negative Endocarditis agents in exchanged heart valves in Shahid Rajaei's cardiology hospital during the 2012- 2016. 2018- 2020
 - **Granted By Pasteur Institute of Iran**
- Isolation and molecular identification of *Francisella spp* in western Iran. 2017- 2019
 - **Granted By National Institute of Health Researches of Iran**
- Monitoring of emerging and reemerging infectious diseases. 2015- count
 - **Granted by ministry of health (a national project)**
- Evaluation of gut microbiota in patients with inflammatory bowel disease and comparison with the normal population. 2016- 2018
 - **Granted By Pasteur Institute of Iran**
- Evaluation of the accuracy of Multiplex PCR in MRSA detection. Kashan University of Medical Sciences. 2006-2010
 - **Granted By Kashan University of Medical Sciences**

- Evaluation of the accuracy of Multiplex PCR in Detection of Mycobacterium tuberculosis in Sputum sample. Kashan University of Medical Sciences. 2006-2010.
 - **Granted By Kashan University of Medical Sciences**
- Evaluation of genotype of ESBL producing Gram-Negative Bacilli from Hospitalized Patients. Kashan University of Medical Sciences. 2008-2010.
 - **Granted By Kashan University of Medical Sciences**

Ph.D. and MSc projects Advisor and Supervisor:

1. **Mitra Motallebi (MSc student (Advisor)):** Prevalence and multi-drug resistance of enteropathogenic Escherichia coli (EPEC) isolated from children under 5 years of age with diarrhea in Kashan Shahid Beheshti Hospital. 2009-2010
2. **Arezoo Piran (MSc student (Advisor)):** Analysis of molecular epidemiology and clonal relatedness among multi-drug resistant Acinetobacter baumannii isolated from inpatients. 2016-2017
3. **Pedram Talaei (MSc student (Advisor)):** Study of Q fever & CCHF infection in ticks collected from domestic animals in farms and slaughterhouse in Shahr-e Rey. 2016-2017
4. **Roya Ghanavati (PhD student (Supervisor)):** Investigation of the effect of native probiotic Lactobacillus spp. on Notch and related signaling pathways in colon cancer cells. 2016- 2019
5. **Parisa Asadollahi (PhD student (Advisor)):** Investigating the effect of *Lactobacillus* and *Bifidobacterium* strains with probiotic properties on EGFR, HER-2 and COX-2 genes and proteins in colon cancer cells. 2016- 2019
6. **Zakiyeh Ghorbani (PhD student (Advisor)):** Evaluation of hyperthermia effect on beta-catenin protein expression and the expression pattern of stem-ness-related genes properties Nanog and Oct and chemotherapy resistance-related genes MDR and MRP in colorectal cancer cell lines. 2018- 2019
7. **Hossein Ahangari Kohan (PhD student (Advisor)):** Tularemia survey in sheep, cattle herds and water sources of Kurdistan province. 2017-2019
8. **Vahid Lohrasbi (PhD student (Advisor)):** Investigation of the probiotic properties of *Bifidobacterium* species microcapsulated with acid and bile resistant membrane in inhibiting and improving the symptoms of IBD in mice. 2017- 2018
9. **Moslem Papizadeh (PhD student (Advisor)):** Developing a Semi-Industrial Bioprocess Plant for Biomass Production of Probiotic Strains of Lactobacillus Isolated from Iranian Population and Analysis of Their Biological Products and their Activities in Fermentation Conditions. 2017- 2020
10. **Saeideh Najafi (PhD student (Supervisor)):** To investigate effect of cocktails containing Lactobacillus and Bifidobacterium Probiotic on alteration of expression of TLR 4 and TLR 5 and inhibition of induction of inflammation in the presence of intestinal pathogenic bacteria. 2019- contd

11. **Seyedeh Tina Miri (PhD student (Supervisor))**: The effect of native lactobacillus and Bifidobacterium cocktail on altering tight junction genes expression and inhibit intestine penetration caused by intestine pathogenic bacteria. 2019- 2022
12. **Faranak Abdoli (MSc student (Supervisor))**: Molecular detection and identification of Rickettsia spp. infected the ticks collected in Kerman province. 2018- 2020
13. **Amin Sepehr (PhD student (Advisor))**: Evaluation of the effect of probiotic candidate Lactobacilli on expression of Bone morphogenetic protein / transforming growth factor beta (BMP / TGF- β) signaling pathway in in vivo and in vitro colorectal cancer models. 2019- Count
14. **Afsaneh Salimi (PhD student (Advisor))**: Investigation of Gut microbiota composition and functional changes in patients with inflammatory bowel disease and comparison with normal population. 2019- Count
15. **Shekoofeh Beglari (PhD student (Supervisor))**: Genotypic and phenotypic characterization of probiotic lactobacilli with the ability of detoxification of heavy metals including nickel. 2019- Count
16. **Mahnaz Milani (PhD student (Supervisor))**: Identification of Borreliaceae species in hard ticks of Northern Provinces of Iran and molecular characterization and typing of detected species based on sequencing and MLST technique. 2019- Count
17. **Elmira Karimzadeh (MSc student (Supervisor))**: Evaluation of anti-bacterial and anti-biofilm activity of extraction from novel *Lactobacillus plantarum*, *Lactobacillus rhamnosus* and *Lactobacillus brevis*. 2021- 2022
18. **Sara Abdollahi (PhD student (Supervisor))**: Investigating the effect of the cocktail containing native probiotics *Lactobacillus* and *Bifidobacterium* on the expression changes of genes related to MAPK and MyD88 independent pathways. 2021- Count
19. **Niloofar Rezaei, (PhD student (Supervisor))**: Evaluation of the antioxidant effect of probiotic cocktail and postbiotic produced in supernatant on changes in signaling pathways related to oxidative stress in vitro and in vivo. 2021- Count