



*Jiroft University of Medical Sciences*



## **Curriculum Vitae**

### **NAME**

**Mohsen Karbalaei Zadeh Babaki**

### **Degree**

**Assistant Professor of Department of Microbiology and Virology, School of Medicine, Jiroft University of Medical Sciences, Jiroft, Iran**

### *Personal Information*

**Name: Mohsen Karbalaei Zadeh Babaki**

**Address: Jiroft University of Medical Sciences**

**Office: School of Medicine**

**Mobile: 09131933612**

**Email: mohsen.karbalaei@jmu.ac.ir**

**Orcid ID: 0000-0001-9899-2885**

### *Educational Degree*

**PhD** in Medical Bacteriology, Mashhad University of Medical sciences, Mashhad, 2019.

Thesis title: Production of Ag85B-HspX protein from Mycobacterium tuberculosis as a recombinant molecule with human Fcγ1 in *Pichia pastoris* and evaluation of its immunogenicity in mouse

**MSc** in Medical microbiology, Isfahan University of Medical Sciences, Isfahan, 2011.

Thesis title: The Comparison of the Results of PCR and Oxacillin Agar Dilution Methods in Determining Resistance to Methicillin in Isolated Staphylococcus aureus at Alzahra Hospital, Isfahan, Iran

**BSc** in Veterinary laboratory sciences, Zabol University, Zabol, 2004.



*Jiroft University of Medical Sciences*

### ***Administrational Experiences***

1. 2011 till now: Reviewer of national and international journals
2. 2012-2013: Advisor of laboratory sciences field
3. 2011-2013: Chief Manager of internship of laboratory sciences field
4. 2008-2010: Technician of laboratory section in Khanevadeh Hospital in Isfahan
5. 2005-2006: Technician of laboratory section in Kerman Army Hospital

### ***Teaching Experiences***

1. 2019 till now: Lecturer in bacteriology and virology, Jiroft University of Medical Sciences
2. 2015-2017: Lecturer in laboratory bacteriology, Mashhad University of Medical Sciences
3. 2012-2013: Lecturer in bacteriology and virology, Bandar Lengeh University of Medical Sciences
4. 2011- 2013: Lecturer in bacteriology and virology, Bandar Abbas University of Medical Sciences

### ***Reviewer of the following Journals***

1. Journal of Cellular Physiology
2. Gene Reports
3. Koomesh Journal of Semnan University of Medical Sciences
4. Journal of preventive medicine

### ***Research Interest Keywords***

1. Medical Bacteriology
2. Medical Immunology
3. Biotechnology



*Jiroft University of Medical Sciences*

## ***Publication***

### ***Full Paper Published in Peer-reviewed Journals***

#### ***In English (from the most recent)***

1. Karbalaei M, Keikha M, Yousefi B, Ali-Hassanzadeh M, Eslami M. Contribution of aging oral microbiota in getting neurodegenerative diseases. *Reviews in Medical Microbiology*. 2021.
2. Keikha M, Karbalaei M. Convalescent plasma therapy as a conventional trick for treating COVID-19: a systematic review and meta-analysis study. 2020.
3. Karbalaei M, Mosavat A, Soleimanpour S, Farsiani H, Ghazvini K, Amini AA, et al. Production and Evaluation of Ag85B: HspX: hFcy1 Immunogenicity as a Recombinant Fc Fusion Multi-Stage Vaccine Candidate Against Mycobacterium Tuberculosis. 2020.
4. Karbalaei M, Keikha M. Potential association between the hopQ alleles of Helicobacter pylori and gastrointestinal diseases: A systematic review and meta-analysis. *Meta Gene*. 2020:100816.
5. Keikha M, Karbalaei M. What is the Relationship Between Helicobacter Pylori CagA Genotypes and Gastrointestinal Diseases in the Iranian Population? A Systematic Review and Meta-Analysis. 2020.
6. Keikha M, Ali-Hassanzadeh M, Bagheri R, Karbalaei M. Which One of the Human Immune Genes are more Involved in Against HTLV-1 Infection? 2020.
7. Keikha M, Karbalaei M. Potential Association Between Bacterial Infections and Ischemic Stroke Based on Fifty Case-Control Studies: A Systematic Review and Meta-Analysis. 2020.



*Jiroft University of Medical Sciences*

8. Karbalaei M, Keikha M. Correlation between the geographical origin of *Helicobacter pylori* homB-positive strains and their clinical outcomes: a systematic review and meta-analysis. 2021.
9. Ghazvini K, Karbalaei M, Keikha M. What are the clinical benefits of tocilizumab for COVID-19 patients? Evidence from available case-control studies. *Le Pharmacien Hospitalier & Clinicien*. 2020.
10. Ghazvini K, Keikha M. IL-33/ST2 Axis as a Well-Known Endogenous Defense Against Tuberculosis. *Reviews in Clinical Medicine*. 2020;7(3):127-33.
11. B. Yousefi, S. Valizadeh, H. Ghaffari, A. Vahedi, M. Karbalaei and M. Eslami, 'A global treatments for coronaviruses including COVID-19', *Journal of Cellular Physiology*, (2020).
12. M. Keikha, S. Soleimanpour, M. Eslami, B. Yousefi and M. Karbalaei, 'The mystery of tuberculosis pathogenesis from the perspective of T regulatory cells', *Meta Gene*, 23 (2020): 100632.
13. M. Karbalaei, S. A. Rezaee and H. Farsiani, 'Pichia pastoris: A highly successful expression system for optimal synthesis of heterologous proteins', *Journal of Cellular Physiology*, (2020).
14. A. Najafi, N. Mahdian, B. Yousefi, M. Karbalaei, B. Ezatpour and M. Eslami, 'New vaccine candidates as a scientific solution against the dream of tuberculosis vaccine', *Reviews in Medical Microbiology*, 31 (2020): 126-134.
15. M. Keikha, M. Eslami, B. Yousefi and M. Karbalaei, 'Overview of multistage subunit tuberculosis vaccines: advantages and challenges', *Reviews in Medical Microbiology*, 31 (2020): 144-149.
16. M. Karbalaei, M. Khorshidi, B. Sisakht-pour, K. Ghazvini, H. Farsiani, M. Youssefi and M. Keikha, 'What are the effects of IL-1 $\beta$  (rs1143634), IL-17A promoter (rs2275913) and TLR4 (rs4986790) gene



*Jiroft University of Medical Sciences*

polymorphism on the outcomes of infection with *H. pylori* within as Iranian population; A systematic review and meta-analysis', *Gene Reports*, (2020): 100735.

**17.** M. Keikha, M. Eslami, B. Yousefi, M. Ali-Hassanzadeh, A. Kamali, M. Yousefi and M. Karbalaei, 'HCV genotypes and their determinative role in hepatitis C treatment', *VirusDisease*, (2020): 1-6.

**18.** N. Izadi, M. Keikha, K. Ghazvini and M. Karbalaei, 'Oral antimicrobial peptides and new therapeutic strategies for plaque-mediated diseases', *Gene Reports*, (2020): 100811.

**19.** M. Eslami, A. Bahar, M. Keikha, M. Karbalaei, N. Kobylak and B. Yousefi, 'Probiotics function and modulation of the immune system in allergic diseases', *Allergologia et Immunopathologia*, (2020).

**20.** M. Karbalaei, K. Ghazvini and M. Keikha, 'Clinical efficacy of vitamin D supplementation on pulmonary TB patients: The evidence of clinical trials', *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases*, 20 (2020).

**21.** M. Keikha, M. Ali-Hassanzadeh and M. Karbalaei, 'Association of *Helicobacter pylori* vacA genotypes and peptic ulcer in Iranian population: a systematic review and meta-analysis', (2020).

**22.** M. Keikha and M. Karbalaei, 'A Systematic Review and Meta-Analysis on the Relation Between *Helicobacter Pylori* Infection and Atherosclerosis in the Iranian Population', (2020).

**23.** M. Keikha, M. Karbalaei and K. Ghazvini, 'In Silico Design of Multi-Epitope ESAT-6: Ag85b: Fcγ2a Fusion Protein as a Novel Candidate for Tuberculosis Vaccine', *Archives of Clinical Infectious Diseases*, 15 (2020).



*Jiroft University of Medical Sciences*

- 24.** M. Keikha, K. Ghazvini, M. Eslami, B. Yousefi, J. Casseb, M. Yousefi and M. Karbalaeei, 'Molecular targeting of PD-1 signaling pathway as a novel therapeutic approach in HTLV-1 infection', *Microbial Pathogenesis*, (2020): 104198.
- 25.** M. Karbalaeei, S. Soleimanpour, M. Eslami, B. Yousefi and M. Keikha, 'B cell-mediated Immunity against Tuberculosis Infection: A Mini Review Study', *Reviews in Clinical Medicine*, 6 (2020): 140-145.
- 26.** M. Youssefi, M. Eslami, M. Karbalaeei, M. Keikha and K. Ghazvini, 'Autophagy as one of the most important strategies for the treatment of tuberculosis; Mini-review', *Reviews in Clinical Medicine*, 6 (2019): 135-139.
- 27.** M. Karbalaeei and M. Keikha, 'Curcumin as an Herbal Inhibitor Candidate Against HTLV-1 Protease', *Jentashapir Journal of Health Research*, 10 (2019).
- 28.** M. Eslami, S. Sadrifar, M. Karbalaeei, M. Keikha, N. M. Kobylak and B. Yousefi, 'Importance of the Microbiota Inhibitory Mechanism on the Warburg Effect in Colorectal Cancer Cells', *Journal of Gastrointestinal Cancer*, (2019): 1-10.
- 29.** C. Brites and M. Karbalaeei, 'The Indinavir Derivate as a Novel Pharmacophore for Treatment of HTLV-1 Viral Infections', *Iranian Journal of Virology*, 13 (2019): 16-23.
- 30.** M. Keikha and M. Karbalaeei, 'The Design of Novel Kni-10729 Based Compound for Inhibition of HTLV-1 Protease as Novel Insight for Development of Anti-HTLV Drugs', *International Journal of Health and Life Sciences*, 5 (2019).
- 31.** M. Karbalaeei and M. Keikha, 'The Unique Molecular Structure of Human T-Cell Leukemia Virus Type 1 Protease', *JSMC Biochem Mol Res*, 3 (2019).



*Jiroft University of Medical Sciences*

- 32.** M. Keikha, L. A. Marcondes Fonseca and J. Casseb, 'The relevance of HTLV-1-associated myelopathy/tropical spastic paraparesis in Iran: a review study', *Reviews in Clinical Medicine*, 6 (2019): 60-65.
- 33.** Yousefi B, Mohammadlou M, Abdollahi M, Salek Farrokhi A, Karbalaei M, Keikha M, et al. Epigenetic changes in gastric cancer induction by *Helicobacter pylori*. *Journal of cellular physiology*. 2019 Dec;234(12):21770-84. PubMed PMID: 31169314. Epub 2019/06/07. eng.
- 34.** Keikha M, Eslami M, Yousefi B, Ghasemian A, Karbalaei M. Potential antigen candidates for subunit vaccine development against *Helicobacter pylori* infection. *Journal of cellular physiology*. 2019 Dec;234(12):21460-70. PubMed PMID: 31188484. Epub 2019/06/13. eng.
- 35.** Ghazvini K, Karbalaei M, Kianifar H, Keikha M. The first report of *Streptococcus pluranimalium* infection from Iran: A case report and literature review. *Clinical Case Reports*. 2019.
- 36.** Karbalaei M, Keikha M. What Is Adult T-Cell Leukemia Pathogenesis? System Virology as a Solution of This Puzzle. *Jundishapur Journal of Chronic Disease Care*. 2019 (In Press).
- 37.** Keikha M, Karbalaei M. Can Multi-Stage Recombinant Fusion Proteins be Considered as Reliable Vaccines Against Tuberculosis? A Letter to the Editor. 2019.
- 38.** Karbalaei M, Keikha M. The PI3K-Akt/mTOR Signaling Pathway Roles in Tuberculosis Pathogenesis-The First System Biology Insight. *JSM Clin Cytol Pathol*. 2019; 3: 3.
- 39.** Keikha M, Karbalaei M. Antithetical Effects of MicroRNA Molecules in Tuberculosis Pathogenesis. *Advanced biomedical research*. 2019;8.
- 40.** Karbalaei M, Keikha M. The Curcumin Effects on Immune-Response and Its Potential Properties against Tuberculosis. *JSM Clin Cytol Pathol*. 2019; 4: 4.



*Jiroft University of Medical Sciences*

- 41.** Babaki MKZ, Taghiabadi M, Soleimanpour S, Moghadam MS, Mosavat A, Amini AA, et al. Mycobacterium tuberculosis Ag85b: hfcy1 recombinant fusion protein as a selective receptor-dependent delivery system for antigen presentation. *Microbial pathogenesis*. 2019;129:68-73.
- 42.** Keikha M, Karbalaei M. The miR-29 family as novel therapeutic option for retroviral infection; Letter to the editor. *Iranian Journal of Virology*. 2018;12(2):0-. eng.
- 43.** Karbalaei Zadeh Babaki M, Ghavidel M, Farsiani H, Ghazvini K. Cutaneous anthrax in the northeast of Iran: A case report and review of the literature. *Reviews in Clinical Medicine*. 2018;5(1):26-8.
- 44.** Keikha M, Shabani M, Navid S, Sadegh Ehdaei B, Karbalaei Zadeh Babaki M. What is the role of "T reg Cells" in tuberculosis pathogenesis? *The Indian journal of tuberculosis*. 2018 Oct;65(4):360-2. PubMed PMID: 30522626. Epub 2018/12/14. eng.
- 45.** Saghafi N, Pourali L, Ghazvini K, Maleki A, Ghavidel M, Babaki MK. Cervical bacterial colonization in women with preterm premature rupture of membrane and pregnancy outcomes: A cohort study. *International Journal of Reproductive Biomedicine*. 2018;16(5):341.
- 46.** Babaki MKZ, Soleimanpour S, Rezaee SA. Antigen 85 complex as a powerful Mycobacterium tuberculosis immunogene: biology, immune-pathogenicity, applications in diagnosis, and vaccine design. *Microbial pathogenesis*. 2017;112:20-9.
- 47.** Havaei SA, Halaji M, Vidovic S, Dillon J-AR, Karbalaei M, Ghanbari F, et al. Prevalence and genotyping of methicillin-resistant and-susceptible Staphylococcus aureus strains isolated from patients in a university hospital, Isfahan, Iran. *Jundishapur Journal of Microbiology*. 2017;10(5).
- 48.** Havaei SA, Vidovic S, Tahmineh N, Mohammad K, Mohsen K, Starnino S, et al. Epidemic methicillin-susceptible Staphylococcus aureus lineages are the main cause of infections at an Iranian university hospital. *Journal of clinical microbiology*. 2011;49(11):3990-3.





*Jiroft University of Medical Sciences*

***In Persian (from the most recent)***

1. Comparison of the Results of Polymerase Chain Reaction and Oxacillin Agar Dilution Methods in Determining Resistance to Methicillin in Isolated Staphylococcus Aureus at Alzahra. Karbalaei, Mohsen; Havaei, Sayed Asghar; Pishva, Ebtehaj Hospital, Isfahan, Iran; Journal of Isfahan Medical School. 2011; Vol. 29 Issue 151, p1-8. 8p.

***Books***

1. Oral microbiology at a glance (Translated to persian)

***Papers Presented in the National & International Congresses (Oral/Poster)***

1. 2015: Survey of knowledge and attitudes among health care providers about hand hygiene in the North East of Iran
2. 2012: Comparison between the Results of PCR and Oxacillin Agar Dilution in Detection of Methicillin Resistant Staphylococcus Aureus Strains Isolated from Alzahra Hospital, Isfahan, Iran
3. 2011: Molecular Analysis of Coagulase Gene of Staphylococcus aureus isolated from Alzahra Hospital in Isfahan by Restriction Fragment Length Polymorphism

***National and International Congresses Attended***

1. 2019: 20th International congress of microbiology in Kerman
2. 2011: 13th International congress of microbiology in Shiraz



*Jiroft University of Medical Sciences*

### ***Workshop Participated***

1. Real Time PCR technique
2. EndNote software
3. Scopus research
4. Science Direct research
5. Statistics in SPSS software
6. Evaluating of students by MCQ
7. Training of Pub Med site research
8. Research training in the Student Research Committee

### ***Awards and Honors***

1. Top researcher in Jiroft University of Medical Sciences, 2021
2. Top researcher in Jiroft University of Medical Sciences, 2020
3. Top researcher in Bandar Abbas University of Medical Sciences, 2012
4. Top soldier in Kerman Army Hospital, 2006