

Shima Hadifar, PhD

Pasteur Institute of Iran, Tehran, Iran

E-mail: shima_hadifar@yahoo.com

Education

PhD in Medical Bacteriology | Pasteur Institute of Iran, Tehran, Iran (2014–2019)

Thesis: Comparative study of signaling pathways in response to dominant genotypes of *Mycobacterium tuberculosis* in infected alveolar epithelial cells.

MSc in Medical Microbiology | Isfahan University of Medical Sciences, Isfahan, Iran (2011–2014)

Thesis: Molecular typing and subtyping of *Mycobacterium* strains by PCR-RFLP analysis of *rpoB* gene.

Research and Academic Experience

Postdoctoral Research Fellow | Pasteur Institute of Iran, Tehran, Iran (2021–2024)

Project: Comprehensive analysis of long non-coding RNAs in lesions of cutaneous leishmaniasis patients infected with *Leishmania tropica*.

Research Collaborations:

- Transcriptomic profiling of infected epithelial and macrophage cells with dominant M. tuberculosis genotypes (Iranian TB patients).
- Molecular typing of Iranian NTM isolates using PCR-RFLP of *rpoB* gene.
- Short-term Fellowship: Department of Microbiology & Immunology, University of Gothenburg, Sweden.

Skill

Molecular Biological Techniques, Cell Culture, Genotyping, Real-Time PCR, Host-Pathogen interaction, ELISA, Cell Signaling Pathways, Microbiology, Sequencing, Immunology Protocols, Bioinformatics

Languages: English, Persian.

Awards & Honors

2020 – Top Postgraduate Award, National Elites Foundation of Iran.

2019 – Top Researcher Award, Pasteur Institute of Iran.

2016 – Top Student Award, National Elites Foundation of Iran.

Editorial & Peer Review Activities

Reviewer for: Infection, Microbial Pathogenesis, Tuberculosis, Scientific Reports, BMC Microbiology/Medical Genomics, Infectious Diseases, Pulmonary Medicine, Current Genetic Medicine Reports, Frontiers in Surgery/Medicine/Microbiology, International Immunopharmacology, PLOS ONE.

Publications (selected)

Full list available at <https://orcid.org/0000-0003-4702-634X>.

-Hadifar S, Masoudzadeh N, Andersson B, et al. Integrated analysis of lncRNAs and mRNAs expression profiles in cutaneous leishmaniasis lesions caused by *Leishmania tropica*. Front Cell Infect Microbiol. 2024.

-Hadifar S, Masoudzadeh N, Heydari H, et al. Intralesional gene expression profile of JAK-STAT signaling pathway and associated cytokines in *Leishmania tropica*-infected patients. Front Immunol. 2024.

-Hadifar S, Kamakoli MK, Eybpoosh S, et al. The shortcut of mycobacterial interspersed repetitive unit-variable number tandem repeat typing for *Mycobacterium tuberculosis* differentiation. Front Microbiol. 2022.

-Hadifar S, Mostafaei S, Fateh A, et al. Strain-specific behavior of *Mycobacterium tuberculosis* in A549 lung cancer cell line. BMC Bioinformatics. 2021.

-Hadifar S, Vaziri F, Siadat SD, et al. Variation in *Mycobacterium tuberculosis* population structure in Iran: A systemic review and meta-analysis. BMC Infect Dis. 2021.

-Hadifar S, Kargarpour Kamakoli M, Fateh, et al. Enhancing the differentiation of specific genotypes in *Mycobacterium tuberculosis* population. Sci Rep. 2019.

-Hadifar S, Fateh A, Yousefi MH, et al. Exosomes in tuberculosis: Still terra incognita? J Cell Physiol. 2019.

-Hadifar S, Behrouzi A, Fateh A, et al. Comparative study of interruption of signaling pathways in lung epithelial cell by two different *Mycobacterium tuberculosis* lineages. J Cell Physiol. 2019.

Conference Presentations (Selected)

-Dilemma of Direct MIRU-VNTR Genotyping of Clinical Samples of Tuberculosis. Poster. 19th International Congress of Microbiology. Tehran, Iran.

-Intralesional cytokine expression and JAK-STAT signaling in *L. tropica* patients. Oral presentation, Institut Pasteur, Paris.

Research Interests

Mycobacteriology & Tuberculosis Pathogenesis

Host–Pathogen Interactions

Long Non-Coding RNAs & Biomarker Discovery

Bioinformatics in Infectious Diseases