

Curriculum Vitae

Fatemeh Mahdavi

Assistant Professor of Medical Parasitology, Parasitology & Mycology Department, Urmia University of Medical Sciences, Urmia, Iran.

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Education:

2019-2024: Ph.D., Medical parasitology, Department of Medical Parasitology and Mycology, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Thesis: Designing of Multiplex Microfluidic LAMP PCR for simultaneous detection of gastrointestinal protozoa including *Giardia lamblia*, *Cryptosporidium* spp., and *Enterocytozoon bieneusi*.

2016-2018: M.Sc., Medical parasitology, Parasitology and Entomology Dept., Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran.

Thesis: Anti-amoebic activity of a cecropin-melittin hybrid peptide (CM11) against trophozoites of *Entamoeba histolytica*.

2010-2014: B.Sc., Medical laboratory sciences, Faculty of Paramedicine, Zanzan University of Medical Sciences, Zanzan, Iran.

Work experiences:

2014-2016: Laboratory Technician, Emdadi hospital, Abhar, Zanzan, Iran.

September 2024-July 2025: Senior Researcher, Foodborne and Waterborne Diseases Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Honors, Prizes, and Awards

- The Top Student with 1st rank in M.Sc.
- The Top Student with 1st rank in Ph.D. Degree

Skills & Training:

- Cell-based methods:
 - Cell culture
 - Cell cytotoxicity assay
 - Splenocyte isolation
- Molecular methods:
 - RNA extraction
 - cDNA synthesis
 - DNA extraction
 - Primer design for Conventional PCR, Real-time PCR and LAMP-PCR
 - Conventional PCR
 - Real-time PCR
 - LAMP assay
 - Gel electrophoresis
- ELISA assay
- Western blot
- SDS-PAGE
- Flowcytometry
- Microfluidics:
 - Design and simulation of a microfluidic device
 - Fabrication of device
- Laboratory animals
- Teaching assistant for Pharmacy and Medicine students of Shahid Beheshti University of Medical Sciences.
- **March 2022-2023:** Trainee in Micro-Nano Mechanics lab, Sharif University of Technology (Design and simulation of microfluidic device, Fabrication of microfluidic device using photolithography).
- **February 2022-June 2022:** Participate in the Thermic course of Applied Micro-Nanotechnology in Sharif University of Technology under the supervision of Prof. Amir Shamloo.

Software Skills:

- AutoCAD
- COMSOL
- GeneRunner
- BioEdit
- GraphPad prism
- SPSS
- Mendeley
- Endnote
- Excel

Patents:

- **Ir-Patent:**

Simultaneous diagnostic kit of *Giardia lamblia*, *Cryptosporidium* spp. and *Enterocytozoon bieneusi* based on Microfluidic LAMP PCR.

Publications:

- **Fatemeh Mahdavi Abhari**, Majid Pirestani, and Abdolhosein Dalimi, Anti-amoebic activity of a cecropin-melittin hybrid peptide (CM11) against trophozoites of *Entamoeba histolytica*. Wiener klinische Wochenschrift.
- **Fatemeh Mahdavi Abhari**, Maryam Niyyati, Hamid Assadzadeh Aghdaeib, Hamed Mirjalali, Loop-mediated isothermal amplification for detection of foodborne parasites: A journey from lab to lab-on-a-chip. Food Control.
- **Fatemeh Mahdavi**, Hamed Mirjalali, Maryam Niyyati, Seyed Javad Seyed Tabaei, Amir Shamloo, Hamid Assadzadeh Aghdaeib, Design and evaluation of loop-mediated isothermal amplification for rapid detection of *Enterocytozoon bieneusi*. Food and waterborne parasitology.

- **Fatemeh Mahdavi**, Marziye Fatemi, Hanieh Mohammad Rahimi, Abbas Yadegar, Hamed Mirjalali, Identification of *Candia albicans* and non-MRSA *Staphylococcus aureus* in free-living amoeba isolated from hospital wards; an alarm for distribution of nosocomial infections due to FLA. International Journal of Environmental Health Research.
- Hooman Rahmati-Holasoo, Maryam Niyyati, Marziye Fatemi, **Fatemeh Mahdavi Abhari**, Sara Shokrpoor, Alireza Nassiri, Amin Marandi, Molecular identification, phylogenetic analysis and histopathological study of pathogenic free-living amoebae isolated from discus fish (*Symphysodon aequifasciatus*) in Iran: 2020-2022. BMC Veterinary Research.
- Hanieh Mohammad Rahimi, **Fatemeh Mahdavi**, Nasim Eslami, Sara Nemati, Hamed Mirjalali, The Effects of Extracellular Vesicles Derived from Hydatid Cyst Fluid on the Expression of microRNAs Involved in Liver Fibrosis. Acta Parasitologica.
- **Fatemeh Mahdavi**, Maryam Niyyati, Amir Shamloo, Rasool Dezhkam, Seyed Mohammadali Hoseinian, Seyyed Javad Seyyedtabaei, Hamed Mirjalali, Design and fabrication of multiplex microfluidic LAMP PCR for simultaneous detection of opportunistic protozoa. Sensing and Bio-Sensing Research.

Conferences participation & Workshop

- 5th International and 12th National Congress of Parasitology & Parasitic Disease of Iran (NICOPA12), 21th-23th May 2024, Alborz University of Medical Sciences, Karaj, Alborz, Iran. Oral presentation: Designing of Multiplex Microfluidic LAMP PCR for simultaneous detection of gastrointestinal protozoa including *Giardia lamblia*, *Cryptosporidium* spp., and *Enterocytozoon bieneusi*.
- Selected as **the best Oral presentation** at 5th International and 12th National Congress of Parasitology & Parasitic Disease of Iran (NICOPA12), 21th-23th May 2024, Alborz University of Medical Sciences, Karaj, Alborz, Iran. Oral presentation: Designing of Multiplex Microfluidic LAMP PCR for simultaneous detection of gastrointestinal protozoa including *Giardia lamblia*, *Cryptosporidium* spp., and *Enterocytozoon bieneusi*.
- Selected as **the best Mini-Oral presentation** at 15th International Congress of Laboratory and Clinic, 25th-28th January 2024, Children's Medical Center,

Tehran, Iran: Designing and evaluation of Loop-mediated isothermal amplification for rapid detection of *Enterocytozoon bieneusi*.

- 15th International Congress of Laboratory and Clinic, 25th-28th January 2024, Children's Medical Center, Tehran, Iran. Oral presentation: Identification of *Candida albicans* and non-MRSA *Staphylococcus aureus* in free-living amoeba isolated from hospital wards; an alarm for distribution of nosocomial infections due to FLA.
- 15th International Congress of Laboratory and Clinic, 25th-28th January 2024, Children's Medical Center, Tehran, Iran. Mini-Oral presentation: Designing and evaluation of Loop-mediated isothermal amplification for rapid detection of *Enterocytozoon bieneusi*.
- 11th International Congress of Laboratory and Clinic, 16th-18th January 2019, Tehran University of Medical Sciences, Tehran, Iran. Oral presentation: Anti-amoebic activity of a cecropin-melittin hybrid peptide (CM11) against trophozoites of *Entamoeba histolytica*.
- Workshop on “Western blot: Technique and Trouble Shooting”, Shahid Beheshti University of Medical Sciences, Tehran, Iran. February 2022.
- Workshop on “Biosensors”, Tabriz University of Medical Sciences, Tabriz, Iran. July 2022.