



CURRICULUM VITAE

Personal information:

Name: Sima Habibzadeh

Date of birth: 08.12. 1989

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Address: Immunotherapy and Leishmania Vaccine Research Department, Pasteur Institute of Iran, Tehran, Iran 13164

Education:

- BSc. On Medical Science, Islamic Azad University, Tehran Medical Branch (2008-2013)
- MSc. On Microbial Biotechnology, Islamic Azad University Pharmaceutical Sciences Branch (2016-201)

Thesis: Comparison of the growth rate and proliferation of recombinant *L. tarentolae*-PpSP15-EGFP in the serum free or serum containing media and expression evaluation of secretory PpSP15-EGFP protein

Positions:

- Medical laboratory scientist (2012-2013)
- Research assistance in Immunotherapy and Leishmania vaccine research department of pasture institute of Iran (2013-2022)

Skills:

- **English language:** Reading: good Listening: good Writing: good Speaking: good
- **Proficiency in Office software**
- **Proficiency in Prism statistical and analysis software**
- **Molecular biology skills:** PCR, Real Time PCR ,Western blot ,ELISA , Cytokine assay ,MTT assay
- **Cell biology skills:**
Cell culture (suspend and adherent cells, parasite)
Parasite burden measurement
Nitric Oxide measurement
Working with Balb/C mouse
Familiarization with Fermentation & Large-scale process
- **Other skills:** microbial culture and analysis, solution preparation, blood sampling

Courses and certificates:

- HLA Typing workshop, Shahid Beheshti University (2013)
- International Workshop on Leishmania and Leishmaniasis, Instituto Pasteur of Iran (2016)
- Real Time PCR practical and theory workshop (2017)
- Manufacturer and importer technical officer course (2019)
- Participation in LeiSHield-MATI international project to identify clinical, molecular and social factors affecting cutaneous leishmaniasis under grant agreement N°778298 signed and agreed with the European commission under the H2020-MSCA-RISE-2017 program The European commission R&D with the Pasteur Institute of Tunisia (host) and the Pasteur Institute of Iran (home) as members of LeiSHield-MATI project (06-01-2020 to 06-30-2020)

Projects: (project Co-worker)

- Comparison of arginase gene expression and its activity in two pathogenic species of *Leishmania major* and non-pathogenic species *Leishmania tarentolae* (2013)
- Evaluation of the effect of concomitant use of rapamycin (mTOR Inhibitor) and live *Leishmania tarantoli* vaccine expressing immunodominant antigens (A2-CPA-CPB-CTE) on short and long term immune response against visceral leishmaniasis (2014)
- Evaluation of the effect of protein arginase activity inhibition on *Leishmania tropica* infectivity in BALB / C mice using EGFP-LUC reporter genes (2014)
- Evaluation of the efficacy of Brevinin 2R and Jellein alone and with CPG motif on *Leishmania major* in vitro and in vivo in BALB / C mice (2016)
- Optimization and confirmation of production of *Leishmania tarantoli* parasite salivary of sand fly secreted SP15 in bioreactor as a vaccine candidate (2017)
- Evaluation of the protective effect of adult dendritic cells supplying T-CD8 + cell stimulating peptides against infection with *Leishmania major* parasite by DC prime-DNA boost heterologous method in susceptible BALB / c mice (2017)
- Comparison and agreement of the non-invasive sampling method using acrylic discs with conventional invasive sampling methods on skin lesion samples of patients visiting the health-treatment center of Water and Electricity District No. 1 in Mashhad city for the purpose of laboratory diagnosis of cutaneous leishmaniasis. and determination of *Leishmania* parasite species (approved by Pasteur Institute of Iran, 2018)

- Stable transfection of *Leishmania tarantoli* parasite by PpSP15 and PsSP9 genes from salivary proteins of two different species of phlebotomus mosquitoes and its partial protection in BALB/C mouse model infected with *Leishmania major* and *Leishmania tropica* (approved by Pasteur Institute of Iran, 2018)
- Protection evaluation of pcDNA and NTC structures encoding 3 antigens PpSP15, LmSTI1, LeIF against *Leishmania major* parasitic infection in BALB/c mouse model (2020)

Participation in congresses:

- **Habibzadeh S**, Rafati S. The influence of fetal calf serum and hemin in growth and infectivity of *Leishmania major* in BALB/c mice. 14th International Congress of Immunology and Allergy (ICIA 2018)

PUBLICATIONS:

- Shokouhy M, Sarvnaz H, Taslimi Y, Lajevardi MS, **Habibzadeh S**, Mizbani A, Shekari F, Behbahani M, Torrecilhas AC, Rafati S. Isolation, characterization, and functional study of extracellular vesicles derived from *Leishmania tarentolae*. *Frontiers in cellular and infection microbiology*. **2022**:1091.
- Lajevardi MS, Gholami E, Taheri T, Sarvnaz H, **Habibzadeh S**, Seyed N, Mortazavi Y, Rafati S. *Leishmania tarentolae* as Potential Live Vaccine Co-Expressing Distinct Salivary Gland Proteins Against Experimental Cutaneous Leishmaniasis in BALB/c Mice Model. *Frontiers in Immunology*. **2022**;13.
- **Habibzadeh S**, Doroud D, Taheri T, Seyed N, Rafati S. *Leishmania* Parasite: the Impact of New Serum-Free Medium as an Alternative for Fetal Bovine Serum. *Iranian Biomedical Journal*. **2021** Sep;25(5):349.
- Shermeh AS, Zahedifard F, **Habibzadeh S**, Taheri T, Rafati S, Seyed N. Evaluation of protection induced by in vitro matured BMDCs presenting CD8+ T cell stimulating peptides after a heterologous vaccination regimen in

BALB/c model against *Leishmania major*. *Experimental Parasitology*. **2021** Feb 11:108082.

- Kiani R, Alilou S, Rafatnia S, Taslimi Y, **Habibzadeh S**, Gharibzadeh S, Firouzi A, Rahim S, Zahedmehr A, Mehrvarz F, Ahari MM. Role of polymorphisms of the endothelial nitric oxide synthase gene in predicting slow-flow phenomenon after primary percutaneous coronary intervention. *Turk Kardiyol Dern Ars*. **2020** Jul 1;48(5):472-83.
- Nahidi S, Gholami E, Taslimi Y, **Habibzadeh S**, Seyed N, Daverpanah E, Ghanadan A, Rafati S, Taheri T. The outcome of arginase activity inhibition in BALB/c mice hosting *Leishmania tropica*. *Parasite Immunology*. **2019** Dec 7:e12691.
- Khadir F, Taheri T, **Habibzadeh S**, Zahedifard F, Gholami E, Heidari-Kharaji M, Oryan A, Rafati S. Antileishmanial effect of rapamycin as an alternative approach to control *Leishmania tropica* infection. *Veterinary parasitology*. **2019** Dec 1;276:108976.
- Eskandar M, Gholami E, Seyed N, Taslimi Y, **Habibzadeh S**, Rafati S, Taheri T. Visualization of *Leishmania tropica* Infection in BALB/c Mice by Bioluminescence Imaging. *Iranian Biomedical Journal (IBJ)*. **2019** Dec 1:0-.
- Gholami E, Oliveira F, Taheri T, Seyed N, Gharibzadeh S, Gholami N, Mizbani A, Zali F, **Habibzadeh S**, Bakhadj DO, Meneses C. DNA plasmid coding for *Phlebotomus sergenti* salivary protein PsSP9, a member of the SP15 family of proteins, protects against *Leishmania tropica*. *PLoS neglected tropical diseases*. **2019** Jan 11;13(1):e0007067.
- Abdossamadi Z, Taheri T, Seyed N, Montakhab-Yeganeh H, Zahedifard F, Taslimi Y, **Habibzadeh S**, Gholami E, Gharibzadeh S, Rafati S. Live *Leishmania tarentolae* secreting HNP1 as an immunotherapeutic tool against *Leishmania* infection in BALB/c mice. *Immunotherapy*. **2017** Oct;9(13):1089-102.
- Taslimi Y, Sadeghipour P, **Habibzadeh S**, Mashayekhi V, Mortazavi H, Müller I, Lane ME, Kropf P, Rafati S. A novel non-invasive diagnostic sampling technique for cutaneous leishmaniasis. *PLoS neglected tropical diseases*. **2017** Jul 13;11(7):e0005750.

- Heidari-Kharaji M, Taheri T, Doroud D, **Habibzadeh S**, Badirzadeh A, Rafati S. Enhanced paromomycin efficacy by solid lipid nanoparticle formulation against *Leishmania* in mice model. *Parasite immunology*. **2016** Oct;38(10):599-608.
- Mortazavi H, Sadeghipour P, Taslimi Y, **Habibzadeh S**, Zali F, Zahedifard F, Rahmati J, Kamyab K, Ghandi N, Zamanian A, Reza Tohidinik H. Comparing acute and chronic human cutaneous leishmaniasis caused by *Leishmania major* and *Leishmania tropica* focusing on arginase activity. *Journal of the European Academy of Dermatology and Venereology*. **2016** Dec;30(12):2118-21.
- Taslimi Y, Zahedifard F, **Habibzadeh S**, Taheri T, Abbaspour H, Sadeghipour A, Mohit E, Rafati S. Antitumor effect of IP-10 by using two different approaches: live delivery system and gene therapy. *Journal of breast cancer*. **2016** Mar 1;19(1):34-44.
- Heidari-Kharaji M, Taheri T, Doroud D, **Habibzadeh S**, Rafati S. Solid lipid nanoparticle loaded with paromomycin: in vivo efficacy against *Leishmania tropica* infection in BALB/c mice model. *Applied microbiology and biotechnology*. **2016** Aug 1;100(16):7051-60.
- Seif S, Kazemi F, Gholami E, Seyed N, Taslimi Y, **Habibzadeh S**, Azarian B, Jamshidi S, Hashemi M, Rafati S, Taheri T. EGFP reporter protein: its immunogenicity in *Leishmania*-infected BALB/c mice. *Applied microbiology and biotechnology*. **2016** May 1;100(9):3923-34.
- Katebi A, Gholami E, Taheri T, Zahedifard F, **Habibzadeh S**, Taslimi Y, Shokri F, Papadopoulou B, Kamhawi S, Valenzuela JG, Rafati S. *Leishmania tarentolae* secreting the sand fly salivary antigen PpSP15 confers protection against *Leishmania major* infection in a susceptible BALB/c mice model. *Molecular immunology*. **2015** Oct 1;67(2):501-11.

