

CURRICULUM VITAE

Elham Gholami

Born in April 14th 1979 Tehran, Iran
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Academic Background:

1998-2002	University of Azad, Karaj, Iran	BSc.	Microbiology
2003-2006	University of Khatam, Tehran, Iran	MSc.	Molecular cell biology
2013-2019	Tehran University of Medical Sciences, Iran	Ph.D.	Medical Biotechnology

Title of MSc. thesis: "Immunologic and protective effects of prime-boost vaccination of *L. major* HSP70 in BALB/c and C57BL/6 mice models" under Supervision of Dr. Sima Rafati
17.69/20

Title of Ph.D. thesis: "Identification of immunogenic proteins of *Ph. sergenti* salivary gland and evaluation of their protective role against *Leishmania tropica* infection in BALB/c mice model" under supervision of Dr. Mazlomi and Dr. Rafati.
19.32/20

Work experience:

1998-2003	Sina Medical Diagnostic Laboratory in Karaj
2006 up to now	Working as Researcher Assistant in Immunotherapy and <i>Leishmania</i> Vaccine Research Department Pasteur Institute of Iran

Laboratory skills:

- **Bioinformatics:** Working knowledge on: Linux, R & Rstudio, Python, AlleleID, Prism, Gene runner, Vector NTI, CLC, cloning in silico by SnapGene, ...
- **Molecular Biology skills:** RNA, DNA and Protein Purification, Recombinant Protein Expression and purification, FPLC, Western Blot, Real time PCR, Gene Cloning, PCR, RFLP, Transformation, Transfection (electroporation, chemical), Gene manipulation (*Leishmania* model),
- **Immunological evaluation skills:** ELISA, Lymphocyte Proliferation Test, Cytokine Assay, ELISPOT
- **Cellular Biology skills:** Cell and Parasite Culture, Nitric Oxide assay, Parasite Burden, Working with laboratory animals like BALB/c and C57BL/6 mice, hamster.

Professional Research Experience:

Evaluation of new candidate protein, DNA and Live vaccines against cutaneous Leishmaniasis in mouse model by applying numerous techniques and methods

Scientific interests:

Bioinformatics, Immunology and Microbiology.

Teaching Experience:

- Teaching assistant of **advanced cell signaling course** for cellular biology PhD Student in School of Advanced Technologies in Medicine, Tehran University of Medical science (8 hours, first semester of 2018-2019)
- Teaching assistant of **Cell signaling principle course** for tissue engineering PhD Student of in School of Advanced Technologies in Medicine, Tehran University of Medical science (6 hours, first semester of 2019-2020)
- Teaching assistant of **cellular and molecular assessment methods course** for tissue engineering PhD Student in School of Advanced Technologies in Medicine, Tehran University of Medical science (8 hours, second semester of 2018-2019)

- Teaching assistant of **Immunobiochemistry course** for PhD Student in School of Advanced Technologies in Medicine, Tehran University of Medical science (8 hours, second semester of 2018-2019)
- Teaching assistant of **Gene engineer course** for Msc. Student in School of Advanced Technologies in Medicine, Tehran University of Medical science (2 hours, second semester of 2018-2019)
- Teaching assistant of **Bioinformatics course** for Msc. Student in School of Advanced Technologies in Medicine, Tehran University of Medical science (8 hours, first semester of 2014-2015)
- Teaching assistant of **vaccine course** for PhD students at Pasteur Institute of Iran (first semester of 2005-2006 and 2006-2007)

Supervisor

1. Preparation of recombinant protein PsSP26 (*Phlebotomus sergenti* salivary protein 26) in *Leishmania tarentolae* and evaluation of IgG-specific antibodies in individual living in endemic area (Zahra Eghbali, Tehran university of medical science, 2022-**on going**)
2. Construction of an expression vector encoding microRNA 107 (MiR-107) with potential anti Alzheimer effects (Fateme Kyae, Faculty of pharmacy, Guilan University of Medical Science, **2021**)

Advisor of PhD & Msc. students at Pasteur Institute of Iran:

1. Evaluation of protective effect of DNA encoding Apyrase against *Leishmania tropica* infection in BALB/c mice model (Samira Hosseinpour Jahednia, PhD student, BouAliSina university, 2021-on going)
2. Stable transfection of *L. tarentolae* by PpSP15 and PsSP9 genes of the salivary proteins of two different species of *Phlebotomus* sand flies as a *Leishmania* vector and assessment of the immunogenicity and protection effects in BALB/c mice model infected with *L. major* and *L. tropica* (Mahya Lajevardi, PhD student, Zanjan University of Medical Science, **2018-on going**)
3. Episomal cloning and expression of CPA and CPB in *Leishmania tarentolae*. (Faeze Saatchi, Master student, Tehran University, **2011**)
4. Evaluation of DNA/DNA and prime-boost vaccination using LPG3 against *L. major* infection in susceptible BALB/c mice. (Narges Abdian, Master student, Khatam University, **2008**)

International workshop holding assistance:

1. International workshop on *Leishmania* and leishmaniasis, Pasteur Institute of IRAN, 9-13th November 2016
2. International workshop on Targeting and Expression of Gene on cells, 12th International Congress of Immunology and Allergy of Iran, Tehran, in Pasteur Institute of Iran, Immunotherapy and *Leishmania* Vaccine Research Department, April 26, 7 h, 2014
3. International workshop on Gene targeting in *Leishmania* via Transfection, 11th International Congress of Immunology and Allergy of Iran, Tehran, in Pasteur Institute of Iran, Immunotherapy and *Leishmania* Vaccine Research Department, 26th April, 2012
4. International workshop on *Leishmania* and leishmaniasis, Pasteur Institute of Iran, 1-6 March 2008

ARTICLES: (Citations: 594, H index: 13)

- 1- Seyed N, Zahedifard F, Habibzadeh S, Yousefi R, Lajevardi M, Gholami E, Rafati S. Antibiotic-Free Nanoplasmids as Promising Alternatives for Conventional DNA Vectors. Vaccines 2022, 10, 1710
IF: 3.641
- 2- Lajevardi M, Taheri T, Gholami E, Seyed N and Rafati S. Structural analysis of PpSP15 and PsSP9 sand fy salivary proteins designed with a self-cleavable linker as a live vaccine candidate against cutaneous leishmaniasis. Parasites & Vectors 2022 15:377
IF: 3.876
- 3- Lajevardi MS, Gholami E, Taheri T, Sarvnaz H, Habibzadeh S, Seyed N, Mortazavi Y and Rafati S. *Leishmania tarentolae* as Potential Live Vaccine Co-Expressing Distinct Salivary Gland Proteins Against Experimental Cutaneous Leishmaniasis in BALB/c Mice Model. Front. Immunol. 2022 June 13:895234.
IF: 7.97
- 4- Rezaei F , Keshvari H , Shokrgozar MA , Doroud D , **Gholami E** , Khabiri A , Farokhi M .Nano-adjuvant based on silk fibroin for the delivery of recombinant hepatitis B surface antigen. Biomater Sci. 2021 Apr 7;9(7):2679-2695.
IF: 6.183
- 5- 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. Iran Biomed J. 2020 May;24(3):164-72.
IF: 1.828

- 6- 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 Immunol.* 2019 Dec 7:e12691.
IF: 2.755
- 7- 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](#). *Vet Parasitol.* 2019 Nov 10;276:108976.
IF: 2.009
- 8- **Gholami E**, Oliveira F, Taheri T, Seyed N, Gharibzadeh S, Gholami N, Mizbani A, Zali F, Habibzadeh S, Bakhadj DO, Meneses C, Kamyab-Hesari K, Sadeghipour A, Taslimi Y, Khadir F, Kamhawi S, Mazlomi MA, Valenzuela JG, Rafati S. [DNA plasmid coding for *Phlebotomus sergenti* salivary protein PsSP9, a member of the SP15 family of proteins, protects against *Leishmania tropica*](#). *PLoS Negl Trop Dis.* 2019 Jan 11;13(1).
IF: 4.487
- 9- 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):1089-1102.
IF: 3.455
- 10- Badirzadeh A, Taheri T, Taslimi Y, Abdossamadi Z, Heidari-Kharaji M, **Gholami E**, Sedaghat B, Niyati M, Rafati S. [Arginase activity in pathogenic and non-pathogenic species of *Leishmania* parasites](#). *PLoS Negl Trop Dis.* 2017 Jul 14;11(7)
IF: 4.487
- 11- **Gholami E**, Zahedifard F, Rafati S. [Delivery systems for *Leishmania* vaccine development](#). *Expert Rev Vaccines.* 2016 Mar 28;1-17. (Review article)
IF: 4.531
- 12- Katebi A*, **Gholami E***, Taheri T, Zahedifard F, Habibzadeh S, Taslimi Y, Shokri F, Papadopoulou B, Kamhawi S, Valenzuela J.G. and Rafati S. [Leishmania tarentolae secreting sand fly protein PpSP15 confers protection against *Leishmania major* infection in susceptible BALB/c mice model](#). *Mol Immunol.* 67 (2015) 501–511. (*:Co-first author)
IF: 3.064
- 13- 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](#). *Appl Microbiol Biotechnol.* 2015 Dec 19.
IF: 3.670
- 14- Golshani M, Rafati S, Dashti A, **Gholami E**, Siadat SD, Oloomi M, Jafari A, Bouzari S. [Vaccination with recombinant L7/L12-truncated Omp31 protein induces protection against *Brucella* infection in BALB/c mice](#). *Mol Immunol.* 2015 Jun; 65(2):287-92.
IF: 3.064
- 15- Zahedifard F*, **Gholami E***, Taheri T, Taslimi Y, Doustdari F, Seyed N, Torkashvand F, Meneses C, Papadopoulou B, Kamhawi S, Valenzuela JG, Rafati S. [Enhanced protective efficacy of nonpathogenic recombinant *leishmania tarentolae* expressing cysteine proteinases combined with a sand fly salivary antigen](#). *PLoS Negl Trop Dis.* 2014 Mar 27; 8(3):e2751. (*:Co-first author)
IF: 4.487
- 16- Taheri T, **Gholami E**, Saatchi F, Seyed N, Taslimi Y, Rafati S. [Expressional comparison between episomal and stable transfection of selected tri-fused protein in *Leishmania tarentolae*](#). *Vaccine Research.* 2014, 1 (1):9.
IF: none
- 17- Dabirian S, Taslimi Y, Zahedifard F, **Gholami E**, Doustdari F, Motamedirad M, Khatami S, Azadmanesh K, Nylen S, Rafati S. [Human neutrophil peptide-1 \(HNP-1\): a new anti-leishmanial drug candidate](#). *PLoS Negl Trop Dis.* 2013 Oct 17; 7(10):e2491.
IF: 4.487

- 18- Seyed N, Zahedifard F, Safaiyan S, **Gholami E**, Doustdari F, Azadmanesh K, Mirzaei M, Saeedi Eslami N, Khadem Sadeq A, Eslami Far A, Sharifi I, Rafati S. [In silico analysis of six known *Leishmania major* antigens and in vitro evaluation of specific epitopes eliciting HLA-A2 restricted CD8 T cell response.](#) PLoS Negl Trop Dis. 2011 Sep; 5(9):e1295.
IF: 4.487
- 19- Doroud D, Vatanara A, Zahedifard F, **Gholami E**, Vahabpour R, Najafabadi AR, Rafati S. [Cationic solid lipid nanoparticles loaded by Cystein Proteinase Genes as a Novel anti-leishmaniasis DNA vaccine delivery system: characterization and in vitro evaluations.](#) J Control Release. 2010 Nov 20; 148(1):e105-6.
IF: 7.901
- 20- Bolhassani A*, **Gholami E***, Zahedifard F, Moradin N, Parsi P, Doustdari F, Seyed N, Papadopoulou B, Rafati S. [Leishmania major: Protective capacity of DNA vaccine using amastin fused to HSV-1 VP22 and EGFP in BALB/c mice model.](#) Exp Parasitol. 2011 May; 128(1):9-17. (*:Co-first author)
IF: 1.719
- 21- Abdian N, **Gholami E**, Zahedifard F, Safaei N, Rafati S. [Evaluation of DNA/DNA and prime-boost vaccination using LPG3 against *Leishmania major* infection in susceptible BALB/c mice and its antigenic properties in human leishmaniasis.](#) Exp Parasitol. 2011 Mar; 127(3):627-36.
IF: 1.719
- 22- Doroud D, Vatanara A, Zahedifard F, **Gholami E**, Vahabpour R, Rouholamini Najafabadi A, Rafati S. [Cationic solid lipid nanoparticles loaded by cysteine proteinase genes as a novel anti-leishmaniasis DNA vaccine delivery system: characterization and in vitro evaluations.](#) J Pharm Pharm Sci. 2010; 13(3):320-35.
IF: 1.922
- 23- Taheri T, Salmanian AH, **Gholami E**, Doustdari F, Zahedifard F, Rafati S. [Leishmania major: disruption of signal peptidase type I and its consequences on survival, growth and infectivity.](#) Exp Parasitol. 2010 Oct; 126(2):135-45.
IF: 1.719
- 24- Rafati S, **Gholami E**, Hassani N, Ghaemimanesh F, Taslimi Y, Taheri T, Soong L. [Leishmania major heat shock protein 70 \(HSP70\) is not protective in murine models of cutaneous leishmaniasis and stimulates strong humoral responses in cutaneous and visceral leishmaniasis patients.](#) Vaccine. 2007 May 22; 25(21):4159-69.
IF: 3.269

National and International Congresses:

Oral presentations:

1. The 14th International congress of Immunology and Allergy, **Tehran, Iran. April 26-28, 2018.**
 - Characterization and evaluation of DNA plasmids coding for immunogenic salivary proteins of *Phlebotomus sergenti* as vaccine candidates against *Leishmania tropica* in a BALB/c mice model. **Gholami E**, Taheri T, seyed N, Habibzadeh S, Taslimi Y, Mazloomi M A, Kamhawi S, Valenzuela J G, Oliveira F, Rafati S
 - Generation recombinant *Lactococcus Lactis* expressing SP15 of *phlebotomus papatasi* as a live nonpathogenic vaccine. Davarpanah E, Nahidi S, **Gholami E**, Taslimi Y, Seyed N, Habibzadeh S, Vaziri B, Rafati S, Taheri T
2. The 13th International Congress of Immunology and Allergy, **Tabriz, Iran. 26-29 April 2016.**
 - a) A live non-pathogenic vaccine containing sand fly salivary antigen PpSP15 and CpG motifs induces the generation of TH17 and Th1 cells against leishmania major infection in BALB/c mice. Katebi A, **Gholami E**, Taheri T, Zahedifard F, Habibzadeh S, Taslimi Y, shokri F, Papadopoulou B, Kamhawi S, Valenzuela JG, Rafati S.
 - b) Comparison of optical reporter genes to track of *Leishmania tropica* in different tissue of infected BALB/c mice. Taheri T, Eskandar M, Seyed N, **Gholami E**, Taslimi Y, Habibzadeh S, Azarian B, Rafati S
3. The 2nd national conference of new cellular molecular biotechnology. **Parand, Iran. 10-11 Nov 2015.** Follow-up of *Leishmania tropica* in ear and footpad of BALB/c mice using EGFP and LUC signals. Eskandar M, Taheri T, **Gholami E**, Seyed N, Taslimi Y, Habibzadeh S, Azarian B, Entezeri M, Rafati S
4. The 9th International congress of Clinical Microbiology, **Shiraz, Iran. 13-15 October 2015.**

- a) Enhanced protective efficacy of nonpathogenic recombinant *Leishmania tarentolae* expressing cysteine proteinases combined with a sand fly salivary antigen. **Gholami E**, Zahedifard F, Taheri T, Taslimi Y, Doustdari F, Seyed N, Torkashvand F, Meneses C, Papadopoulou B, Kamhawi S, Valenzuela J, Rafati S
 - b) Generation and tracking of stable recombinant EGFP-LUC expressing *L. tropica* BALB/c mice model. Taheri T, Eskandar M, **Gholami E**, Seyed N, Taslimi Y, Habibzadeh S, Rafati S
5. International Center for Genetic Engineering and Biotechnology (ICGEB), Theoretical and practical course of Molecular Biology of *Leishmania*. **Trieste, Italy, 22-24 October 2014**. Enhanced protective efficacy of nonpathogenic recombinant *leishmania tarentolae* expressing cysteine proteinases combined with a sand fly salivary antigen. **Gholami E**, Zahedifard F, , Taheri T, Taslimi Y, Doustdari F, Seyed N, Torkashvand F, Meneses C, Papadopoulou B, Kamhawi S, Valenzuela JG, Rafati S
6. The 12th International congress of Immunology and Allergy, **Tehran, Iran. April 29- May 2, 2014**.
 - a) Enhanced protective efficacy of nonpathogenic recombinant *Leishmania tarentolae* expressing cysteine proteinases combined with a sand fly salivary antigen. **Gholami E**, Zahedifard F, Taheri T, Taslimi Y, Doustdari F, Seyed N, Torkashvand F, Meneses C, Papadopoulou B, Kamhawi S, Valenzuela J, Rafati S (1996O).
 - b) Evaluation of immunogenicity and protective efficacy of a divalent DNA vaccine encoding Omp31 and L7/L12 *Brucella* antigens. Golshani M, Rafati S, Jahanian-Najafabadi A, **Gholami E**, Dashti A, Habibi-Roudkenar MH, Bouzari S.
 - c) Evaluation of recombinant *L. tarentolae* harboring immunogenic protein of sandfly as an experimental vaccine in BALB/C mice against *L. major* infection. Katebi A, **Gholami E**, Taheri T, Zahedifard F, Habibzadeh S, Shokri F, Rafati S. (2003O)
 7. The 13th International Congress of Parasitology, **ICOPA XIII, Mexico, August 10th-15th, 2014**. Recombinant *L. tarentolae* expressing sand fly immunogenic proteins as an experimental vaccine against *L. major* infection in BALB/c mice. Rafati S, Katebi A, **Gholami E**, Taheri T, Zahedifard F, Habibzadeh S, Papadopoulou B, Kamhawi S, Valenzuela, JG.
 8. The 5th world congress on Leishmaniasis (WorldLeish5), **Brazil, 13th-17th may 2013**. An overview of *leishmania* vaccine development: a live recombinant non-pathogenic leishmania as an effective vaccine strategy against leishmaniasis. Rafati S, Saljoughian N, Taheri T, Zahedifard F, **Gholami E**, Taslimi Y, Doustdary F, Kamhawi S, Valenzuela J, Papadopoulou B.
 9. The 10th International congress of Immunology & allergy. **Tehran, Iran. 18-20 May 2010**.
 - a. Formulation of selected *leishmania* DNA vaccine candidate in solid lipid nanoparticles: characterization and in vitro evaluations. Doroud D, Vatanara AR, Zahedifard F, **Gholami E**, Vahabpour R, Rouholamini Najafabadi AH, Rafati S.
 - b. Reduced infectivity of *Leishmania major* heterozygote mutants of Signal Peptidase type I in macrophages. Taheri T, Salmanian AH, **Gholami E**, Doustdari F, Rafati S.
 - c. In silico prediction and in vitro evaluation of *leishmania major* specific peptides eliciting HLA class I restricted CD8⁺ T cell responses. Seyed N, Zahedifard F, **Gholami E**, Doustdari F, Mirzaei M, Azadmanesh K, Eslamifard A, Rafati S.
 - d. Production of different transgenic *Leishmania* strains expression GFP through homologous recombination method. Bolhassani A, Taheri T, Zamanilui S, Taslimi Y, Zahedifard F, **Gholami E**, Seyed N, Rafati S.
 10. The 10th International congress of Immunology & allergy. **Tehran, Iran. 18-20 May 2010**.
 - Fusion of the *leishmania major* Amastin antigen to HSV-1VP22 and EGFP enhances DNA vaccine potency in a BALB/c mice model. **Gholami E**, Bolhassani A, Zahedifard F, Moradin N, Parsi P, Doustdari F, Papadopoulou B, Rafati S.
 11. The 5th Iranian Congress of Virology & 1st Congress of vaccine. **Karaj, Iran. 1-3 May 2009**. Efficacy comparison between protein and DNA vaccination using *L. major* LPG3 in murine model of cutaneous leishmaniasis. **Gholami E**, Abdian N, Saffaee N, Moradin N, Rafati S.

Poster presentations:

1. The 14th International Congress of Immunology and Allergy, **Tehran, Iran. 26-28 April 2018**
 - Evaluation of NOHA, an Arginase Inhibitor, on *Leishmania tropica* on BALB/c Mice Using Reporter Genes. Nahidi S, **Gholami E**, Taslimi Y, Seyed N, Habibzadeh S, Davarpanah E, Vaziri B, Rafati S, Taheri T.
2. The 6th world congress on Leishmaniasis (WorldLeish6), **Spain, 16-20 May 2017**

- Immunotherapy by alpha defensin (HNP1) using three different methods of gene therapy, peptide therapy and transgenic *L. tarentolae* in BALB/c mice infected with *L. major*. Abdossamadi Z, Taheri T, Seyed N, Montakhab-Yeganeh H, Zahedifard F, Taslimi Y, Habibzadeh S, Zali F, Montakhab Yeganeh H, Golkar M, **Gholami E**, Heidari Kharaji M, Rafati S
3. The 13th International Congress of Immunology and Allergy, **Tabriz, Iran. 26-29 April 2016** Anti-tumor effect of IP-10 using different strategies: comparison between DNA and live therapy in mice model. Taslimi Y, Mohit E, Zahedifard F, Habibzadeh S, Taheri T, **Gholami E**. Abbaspour H, Sadeghipour A, Rafati S.
 4. International Center for Genetic Engineering and Biotechnology (ICGEB), Molecular Biology of *Leishmania* course, **Trieste, Italy. 24-26 October 2016**, Non-pathogenic *Leishmania tarentolae* encoding IP-10: as a weapon against mice 4T1 breast cancer. Taslimi Y, Zahedifard F, Habibzadeh S, Taheri T, Abbaspour H, **Gholami E**, Mohit E, Rafati S
 5. The 12th International Congress of Immunology and Allergy. **Tehran, Iran, April 29th to May 2nd 2014**.
 - Comparison of infectivity rate in three lines of *Leishmania major* wild type and transfected with reporter genes (EGFP and EGFP-LUC) in susceptible BALB/c mice. Seif S, Taheri T, **Gholami E**, Taslimi Y, Seyed N, Doustdari F, Jamshidi Sh, Rafati S. (2305P).
 6. The 1st international and 8th national congress of Parasitology, **Kerman, Iran. 16-18 Oct 2012**
 - Immunogenicity Evaluation in A2/DR1 Transgenic Mice of a DNA Construct Encompassing HLA-A*0201 Restricted Epitopes Immunoinformatically Screened out from 6 Known *Leishmania major* related proteins. Seyed N, Taheri T, Zahedifard F, Safaiyan S, **Gholami E**, Doustdari F, Mirzaei I, Sharifi M, Rafati S.
 7. The 11th International congress of Immunology and Allergy, **Tehran, Iran. April 26-29, 2012**.
 - e. Comparison between episomal and stable transfection of *Leishmania tarentolae* using vaccine candidate antigens. **Gholami E**, Taheri T, Saatchi F, Seyed N, Taslimi Y, Rafati S.
 - f. Formulation of selected *leishmania* DNA vaccine candidate in solid lipid nanoparticles: characterization and in vitro evaluations. Doroud D, Vatanara AR, Zahedifard F, **Gholami E**, Vahabpour R, Rouholamini Najafabadi AH, Rafati S.
 8. Scientific International Meeting, Institute Pasteur, **Paris, France. 2011**,
 - a) *In silico* prediction and in vitro evaluation of *Leishmania major* specific peptides eliciting HLA class I restricted CD8+ T cell responses. Seyed N, Zahedifard F, **Gholami E**, Doustdari F, Khadem A, Mirzaei M, Azadmanesh K, Eslamifar A, Rafati S.
 - b) Signal peptidase type I and its essentiality role in *Leishmania major*. Taheri T, salmanian AH, **Gholami E**, vaziri B, torkashvand F, Rafati S.
 9. The 14th International Congress of Immunology. **Kobe, Japan. 22-27 August 2010**,
 - g. Enhancement of DNA vaccine potency by fusion of HSV-1 VP22 and EGFP to *Leishmania major* amastin antigen in BALB/c mice model. Zahedifard F, Bolhassani A, **Gholami E**, Moradin N, Parsi P, Doustdari F, Papadoulou B, Rafati S.
 - h. Infectivity comparison of heterozygote mutant of signal peptidase type I with wild type of *Leishmania major*. Taheri T, Salmanian AH, **Gholami E**, Doustdari F, Zahedifard F, Rafati S.
 - i. Enhanced transfection efficiency/toxicity ratio of a novel *Leishmania* DNA cocktail vaccine formulated with positively charged biocompatible solid lipid nanoparticles. Doroud D, Zahedifard F, Vatanara A, **Gholami E**, Vahabpour R, Rouholamini Najafabadi A, Rafati S.
 - j. *In silico* prediction and *in vitro* evaluation of *leishmania major* specific peptides eliciting HLA class I restricted CD8+ T cell responses. Seyed N, Zahedifard F, **Gholami E**, Doustdari F, Khadem A, Mirzaei M, Azadmanesh K, Eslami far A, sharifi I, Rafati S.
 10. The 11th European symposium of control release, **Netherlands, 7-9 April 2010**.
 - Enhanced transfection efficiency toxicity ratio of a novel *Leishmania* DNA cocktail vaccine formulated with positively charged biocompatible solid lipid nanoparticles. Drou d, Vatanara A, Zahedifard F, **Gholami E**, Vahabpour R, Rouholamini Najafabadi A, Rafati S.
 11. Holand, 2010, Cationic Solid Lipid Nanoparticles Loaded by Cystein Proteinase Gene as a Novel anti-leishmaniasis DNA Vaccine Delivery system: Characterization and in vitro Evaluations. Doroud D, Vatanara A, Zahedifard F, **Gholami E**, Vahabpour R, Rouholamini Najafabadi A, Rafati S.
 12. The 3rd Iranian congress of clinical microbiology. **Tehran, Iran. 6-8 Oct. 2009**.

- Characterization of role of signal peptidase type I in *Leishmania major* by Gene targeting. Taheri T, **Gholami E**, Doustdari F, Salmanian A-H, Rafati S.
13. Journal of the Iranian Chemical Society, Vol. 6, Suppl., **November 2009**, pp. S151-S202, Tehran, Iran.
 - Disruption of signal peptidase type I gene of *Leishmania major* by homologous recombination. Taheri T, **Gholami E**, Doustdari F, Salmanian A-H, Rafati S.
 14. The 4th world congress on Leishmaniasis (WorldLeish4), **Lucknow, India. 3-7 February 2009**,
 - k. Analysis of survival and growth rate of *Leishmania major* heterozygote mutant of signal peptidase type I. Taheri T, **Gholami E**, Doustdari F, Salmanian A-H, Rafati S.
 - l. Evaluation of DNA/DNA prime-boost vaccination using LPG3 against *L major* infection in BALB/c mice. Abdian N, **Gholami E**, Zahedifard F, Rafati S.
 - m. *Leishmania major* homologue of GRP94 (LPG3) mediates both Th1 and Th2 responses in BALB/c mice against cutaneous leishmaniasis. Abdian N, Safaei N, Gholami E, Zahedifard F, Rafati S.
 15. The 9th Iranian congress of immunology and allergy, **Tehran, Iran. 13-15 Jun 2008**.
 - n. Evaluation of DNA/DNA and prime-boost Vaccination using LPG3 against *L. major* infection in susceptible BALB/c mice. Abdian N, **Gholami E**, Zahedifard F, Rafati S.
 - o. Evaluation of prime-boost vaccination using Cystein proteinase type III (CPC) of *L infantum* in BALB/c mice. Khoshgoo N, Zahedifard F, **Gholami E**, Rafati S.
 - p. Enhancement of DNA Vaccine Potency by Co-administration of HPV16E7 and Glycoprotein 96 in C57BL/6 Mice Model. Bolhassani A, Zahedifard F, Moradin N, **Gholami E**, Taslimi Y, Doostdari F., Taghikhani M, Rafati S.
 16. The 1st International Congress on Health Genomics and Biotechnology. **Tehran, Iran. 24-26 Nov 2007**.
 - *Leishmania major* heat shock protein 70 (HSP70) stimulates strong humoral responses in cutaneous and visceral leishmaniasis patients but not protective in mice model of experimental cutaneous leishmaniasis. **Gholami E**, Hassani N, Ghaemimanesh F, Taslimi Y, Taheri T and Rafati S.
 17. The 9th Iranian congress of biochemistry and The 2nd International congress of biochemistry and biology, **Shiraz, Iran. 28-31 Oct 2007**.
 - *Leishmania major* Heat Shock Protein 70 (HSP70) stimulates strong humoral responses in cutaneous and visceral leishmaniasis patients but not protective in murine models of cutaneous leishmaniasis. **Gholami E**, Hassani N, Ghaemimanesh F, Rafati S.
 18. The 13th International Congress of Immunology, **Brazil. 21-25 August 2007**.
 - *Leishmania major* Heat Shock Protein 70 (HSP70) is highly immunogenic in patients but not protective in murine models of cutaneous Leishmaniasis. Rafati S, **Gholami E**, Hasani N, Ghaemimanesh F, Taslimi Y, Soong L, Taheri T.
 19. The 4th Iranian Congress of Virology. 1-3 **May 2007**.
 20. The 8th Iranian congress of immunology and allergy, **Tehran, Iran. 14-16 May 2006**.
 - q. *Leishmania major* Heat Shock Protein 70 (*LmHSP70*) and sera reactivity of cutaneous and visceral leishmaniasis individuals. Hassani N, **Gholami E**, Ghaemimanesh F, Taslimi Y, Rafati S.
 - r. Cloning, expression of *L. major* Heat Shock Protein 70 (*LmHSP70*) and evaluation of its potential protection in the murine models. **Gholami E**, Hassani N, Ghaemimanesh F, Rafati S.
 21. The 1st student congress of Biology and Microbiology. **Zanjan, Iran. 18-20 sep. 2002**.

International Grant Support as Cooperation:

1. Identification of a protective sand fly salivary vaccine. (Supported by International Center for Genetic Engineering and Biotechnology (**ICGEB**), Italy, PI: Prof. Sima Rafati, **for my PhD thesis**) 2015-2017.
2. Potential effect of ravuconazol (E1224) as an oral therapy against *Leishmania* infection in BALB/c mice model, (Supported by Drugs for Neglected Diseases initiative (**DNDi**), PI: Prof. Sima Rafati) 2012-2013.
3. Live non Pathogenic *Leishmania* expressing selected parasite Antigens as novel vaccine strategy to control visceral leishmaniasis in dogs. (Supported by **Laval University**, Canada, PI: Prof. Sima Rafati) 2011-2014.
4. A novel Strategy Combining Live Non-pathogenic *Leishmania* Expressing Selected Parasites Antigens with Sand Fly Salivary Gland Components as a Candidate Vaccine for Cutaneous Leishmaniasis. (Supported by **NIH**, PI: Prof. Sima Rafati) 2010-2013.
5. Immunotherapy study using the combination of dSLIM and Sodium stibogluconate (Sb) against *Leishmania major* infection in susceptible BALB/c mice (supported by **MOLOGEN AG**, PI: Prof. Sima Rafati)

National Grant Support as Cooperation:

1. Inducible expression of PsSP26 recombinant protein in *Leishmania tarentolae* and evaluation of specific IgG antibody response in infected *Leishmania tropica* patients (PI: **Elham Gholami, IPI, ID # 1221**, 2021)
2. Evaluation of cross-reactivity between *Ph. papatasi* SP15 and *Ph. sergenti* for induction of protective response against *L. tropica* plus *Ph. sergenti* SGH in BALB/c mice model (PI: Prof. Sima Rafati, **IPI, ID # 922**, 2017)
3. Identification of immunogenic protein of *Ph. sergenti* salivary gland and evaluation of their role against *L. tropica* infection in BALB/c mice model (PI: Prof. Sima Rafati, **IPI, ID # 752**, 2016)
4. Evaluation of recombinant *L. tarentolae* harboring immunogenic protein of sandfly as an experimental vaccine in BALB/C mice against *L. major* infection (PI: Prof. Sima Rafati, **IPI, ID # 719**).
5. Cloning and expression of sand fly saliva PpSP15 in *L. tarentolae*. (PI: Prof. Sima Rafati, **IPI, ID # 645**, 2012)
6. Evaluation of immunogenicity and protective role of live *L. Tarentolae* harboring CPA/CPB against *L. major* infection. (PI: Prof. Sima Rafati, **IPI, ID # 686**)
7. Evaluation of solid lipid nanoparticle loaded paramomycin (lipopar) on pilot scale production and *Leishmania* growth *in vitro* and *in vivo* conditions. (PI: Prof. Sima Rafati, **IPI, ID # 637**, 2012).
8. Designing a *Leishmania major* protective polytope vaccine based on human HLA class I epitopes using bioinformatics and *In silico* prediction models and evaluation in HLA transgenic mice. (PI: Prof. Sima Rafati, **Iran National Science Foundation grants, ID # 87020176**) May 2009
9. Isolation, cloning and extraction of GRP94 from *L. major* and its evaluation in human and mice. (PI: Prof. Sima Rafati, **IPI, ID # 267**)
10. Gene disruption of Type I signal peptidase and evaluation of its role in growth, survival, infectivity and protection in *Leishmania major*. (PI: Prof. Sima Rafati, **IPI, ID # 271**)
11. Evaluation of VP22 of HSV-1 and its efficiency in DNA vaccination by fusing to Amastin of *L. major*. (PI: Prof. Sima Rafati, **IPI, ID # 349**)

Training courses:

- Workshop on **High-throughput Technologies in Translational Immunology**, Department of Immunology, Department of Immunotherapy and Leishmania Vaccine Research Department, Pasteur Institute of Iran, Iran, Tehran 8-9 March , 2022
- Workshop on **qPCR: Assay design and application in immunological research**, Department of Immunology, Pasteur Institute of Iran, Iran, Tehran 23-24 January , 2022
- Workshop on **Genome editing in Leishmania Parasite based on CRISPR/Cas9 system**, Department of Immunotherapy and Leishmania Vaccine Research Department, Pasteur Institute of Iran, Iran, Tehran 21-22 September , 2021
- PHINDaccess courses on **NGS-RNA seq, RNA sequencing and data analysis**, **Pasteur Institute of Tunis, Tunisia, 10-13 February, 2020**
- PHINDaccess courses on **Introduction to R and Rstudio**, **Pasteur Institute of Tunis, Tunisia, January 30- February 01, 2020**
- PHINDaccess courses on **NGS-DNA seq for WGS, Wes and de novo genome sequencing**, **Pasteur Institute of Tunis, Tunisia, 27-29 January, 2020**
- PHINDaccess courses on **Introduction to Python**, **Pasteur Institute of Tunis, Tunisia, 13-17 January, 2020**
- PHINDaccess courses on **Introduction to Linux**, **Pasteur Institute of Tunis, Tunisia, 2-4 January, 2020**
- International Workshop on **Leishmania and Leishmaniasis, immunology, vaccine and drug discovery-therapy**, **Pasteur Institute of Iran, Tehran, 9-13 Nov 2016**
- Workshop on **Real Time PCR**, Department of Clinical Biochemistry, **Shahid Beheshti Medical University 30 Nov 2015**
- Workshop on **Search for resources**, **Tehran University of Medical Science, 3days, 2015**
- Workshop on **Knowledge, Technology, Commercialization**, **Tehran University of Medical Science, 24 Dec 2015**
- Workshop on **Primer & probe design**, the 6th summer school, **Pasteur Institute of Iran, Tehran, 2015**
- International Workshop on **Targeting and Expression of Gene in Cells**, 12th International Congress of Immunology, **Pasteur Institute of Iran, Tehran, 2014**
- Workshop on **Political insight**, **Pasteur Institute of Iran, Tehran, 2014**
- International **theoretical and practical course of Molecular Biology of Leishmania**. International Center for Genetic Engineering and Biotechnology (ICGEB), **Trieste, Italy, 22-24 October 2014**.
- Workshop on **Quality Assurance Management**, **Pasteur Institute of Iran, Tehran, 16h, 2012**
- International Workshop on **Gene targeting in Leishmania via transfection**, 11th International Congress of Immunology, **Pasteur Institute of Iran, Tehran, 2012**
- Workshop on **Modify consumption patterns**, **Pasteur Institute of Iran, Tehran, 2012**
- International workshop on **Leishmania and leishmaniasis**, **Pasteur Institute of Iran, Tehran, 1-6 March 2008**.
- Workshop on **Cell Culture**, Cellular Bank of Iran, **Pasteur Institute of Iran, Tehran, 2006**.
- Workshop on **Modify consumption patterns**, **Pasteur Institute of Iran, Tehran, 2012**
- Workshop on **Life skills courses (Problem solving, courage, Self Knowledge, stress management, Communicate effectively)**, **Pasteur Institute of Iran, Tehran, 2010**
- Workshop on **Biosafety**, **Pasteur Institute of Iran, Tehran, 2010**

- Course of **Justification period for work, Ministry of Interior, 60h, 2009**
- Workshop on **Reference Manager using Reference Manager software, Pasteur Institute of Iran, Tehran, 2007**
- Workshop on **ICDL XP courses, Pasteur Institute of Iran, Tehran, 2006-2007**
- Workshop on **Tow Dimensional Electrophoresis & Proteomics, Pasteur Institute of Iran, Tehran, 27-29 Nov. 2007.**
- Retraining in Department of Biotechnology, **Razi Institute of Iran, Karaj, 2001.**
- Retraining in Department of Microbiology, **Razi Institute of Iran, Karaj, 1999.**