



CURRICULUM VITAE Sima Rafati

Born in November 27th 1958 Mashhad, Iran

Address:

Molecular Immunology and Vaccine Research Laboratory, Dept. of Immunology, Pasteur Institute of Iran, Tehran, Iran 13164

Tel: 0098 21 6695 3311-20 Ext. 2112/2115

Fax: 0098 21 8874 2314

E-mail: sima-rafatisy@pasteur.ac.ir, s_rafati@yahoo.com

Education:

- BSc. On Microbiology and Immunology, School of Medicine, University of Washington, Seattle, USA/Tehran University.
- MSc. On Immunology, Department of Immunology, School of Medical sciences, University of Tehran (1989-1991) Thesis: TNF- α and SIL-2R in serum and synovial fluid of rheumatoid arthritis under supervision of Dr. Rafiee
- Ph.D on Biotechnology, Pasteur Institute of Iran. Thesis: Biochemical and immunogenicity analysis of amastigote form of *Leishmania major* under supervision of Dr. J.A. Louis, University of Lausanne, Institute of Biochemistry, Switzerland (1991-1996).
- Post Doc: different periods during 1996-1999 in University of Lausanne, Institute of Biochemistry, Switzerland.

Position:

- Researcher, Fred Hutchinson Cancer Research Center, Seattle, Washington, USA. 1978-1979
- Researcher, Faculty of Science, Tehran University, Science Dept., Tehran, Iran. 1982-1983.
- Member of scientific board of Pasteur Institute of Iran; 1996-present
- Assistant Professor in Dept. of Immunology, Pasteur Institute of Iran; 1996-2001
- Associate Professor; Pasteur Institute of Iran; 2001-present
- Head of Molecular Immunology and Vaccine Research Laboratory 1997-present
- Head of Dept. of Immunology, Pasteur Institute of Iran, 2001-2003
- Director of Education, Pasteur Institute of Iran 2004-2006
- Professor; Pasteur Institute of Iran; 2008-present

Awards:

Pasteur-UNESCO Medal in October 2001, Paris

Iran Academy of Medical Sciences- 2009, Tehran

Patent:

Vaccine development against experimental canine visceral leishmaniasis using a combination of DNA and protein immunization with cysteine proteinases type I and II of *L. infantum*.
Number 31547, Iran.

International Grant Support:

- Identification and characterization of the gene coding for a 24 kDa amastigote specific protein of *Leishmania major*- a putative vaccine subunit candidate (Supported by UNDP/World Bank/WHO , ID# 970556, \$98,000)
- Cocktail recombinant protein and DNA vaccination of cpa, cpb and gp63 against *L. major* (Supported by UNDP/World Bank/WHO, ID # 981134, \$41,000)
- Evaluation of immune responses against *L. infantum* cysteine proteinases in Kala-azar individuals and DNA vaccinated dogs. (Supported by UNDP/World Bank/WHO, ID # A10115. \$125,000)
- Preparation of diagnostic kit using *L. infantum* C-terminal extension of tpe I cysteine proteinases for early detection of human visceral leishmaniasis (EMRO WHO, \$12,000)
- Immunotherapy study using the combination of dSLIM and Sodium stibogluconate (Sb) against *Leishmania major* infection in susceptible BALB/c mice (supported by MOLOGEN AG, 20,000Euros)
- Contribution of human neutrophils in the development of protective immune responses during in vitro *Leishmania major* infection (supported by Karolinska Institute, Pasteur Institute of Iran and Iran ministry of Health, 110,000 Euros)
- 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, \$30,000).

Teaching:

- Advance Immunology for Ph.D students, 1998-present
- Vaccine development for Ph.D students, 2004-present
- Medical Biotechnology for MSc students, 2003-present

Evaluation/ Expertise

Member of Research Strengthening Group in WHO/TDR, 2004-present

Scientific Councils

- Board of Biotechnology, Ministry of Health, Tehran, Iran, 2001-2007
- Board of Research, Pasteur Institute of Iran, 1999-present
- Board of Education, Pasteur Institute of Iran, 2000-present

Workshop

Organizer of national microarray workshop- 2005
Organizer of national micro RNA workshop-2005
Organizer of International workshop on *Leishmania*-March 2008

PUBLICATIONS:

- 1- Narges Abdian , Elham Gholami, Farnaz Zahedifard, Nozhat Safaei, Sima Rafati. Evaluation of DNA/DNA and prime-boost vaccination using LPG3 against *L. major* infection in susceptible BALB/c Mice and its antigenic properties in human *Leishmania*.(Experimental Parasitology, Submitted 2010)

- 2- Azam Bolhassani, Elham Gholami, Farnaz Zahedidard, Neda moradin, Parto Parsi, Fatemeh Doustdari, Barbara Papadoulou, Sima Rafati. Enhancement of DNA vaccine potency by fusion of HSV-1VP22 and EGFP to *Leishmania major* amastin antigenin BALB/c mice model. (Experimental Parasitology, Submitted 2010)

- 3- Azam Bolhassani, Tahereh Taheri, Yasaman Taslimi, Soheila Zamanlui, Farnaz Zahedifard, Negar Seyed, Fatemeh Torkashvand, Behrouz Vaziri, Sima Rafati. Fluorescent *Leishmania* species: Development of stable GFP xpression and its application for in vitro and in vivo studies. (Experimental Parasitology, Submitted 2010)

- 4- Delaram Doroud, Alireza Vatanara, Farnaz Zahedifard, Elham GHolami, Rouhollah Vahabpour, Abdolhossein Rouholamini Najafabadi, Sima Rafati. Cationic solid lipid nanoparticles loaded by cystein proteinase Genes as a Novel anti-*Leishmaniasis* DNA vaccine Delivery system: characterization and in vitro evaluation. (Journal of pharmacy and pharmaceutical science, Submitted 2010)

- 5- Taheri T., Salmanian A., Gholami E., Doustdari F., Zahedifard F.,and Sima Rafati. Disruption of *Leishmania major* signal peptidase type I and its consequences in survival,growth and infectivity rate of parasite. Experimental Parasitology. 2010, in press.

- 6- Mizbani A., Taheri T., Zahedifard F., Taslimi Y., Azizi H., Azadmanesh K., Papadoulou B., Rafati S.Recambinant *Leishmania tarentolae* expressing the A2 Virulence gene as a novel candidate Vaccine against Visceral *Leishmaniasis*. Vaccine 28 (2010) 53-62.

- 7- Bolhassani A, Zahedifard F, Taslimi Y, Taghikhani M, Nahavandian B, Rafati S. Antibody detection against HPV16 E7 & GP96 fragments as biomarkers in cervical cancer patients. Indian J Med Res. 2009 Nov;130(5):533-41

- 8- Arashkia A, Roohvand F, Memarnejadian A, Aghasadeghi MR, Rafati S. Construction of HCV-polytope vaccine candidates harbouring immune-enhancer sequences and primary evaluation of their immunogenicity in BALB/c mice. *Virus Genes*. 2010 40(1):44-52.
- 9- Amani J, Mousavi SL, Rafati S, Salmanian AH., In silico analysis of chimeric espA, eae and tir fragments of *Escherichia coli* O157:H7 for oral immunogenic applications. *Theor Biol Med Model*. 2009 Dec 8;6:28.
- 10- Bolhassani, A, Mohit E., and Rafati S. Different spectra of therapeutic vaccine development against HPV infections. *Human Vaccines* 5:10, 1-18; October 2009.
- 11- Bolhassani A., Rafati S. DNA Immunization as an Efficient Strategy for Vaccination. *Avicenna Journal of Medical Biotechnology*. vol.1, No2, July 2009.
- 12- Azizi H, Hassani K, Taslimi Y, Shateri Najafabadi H, Papadopoulou B and Rafati S. Searching for virulence factors in the non-pathogenic parasite to humans *Leishmania tarentolae*. *Parasitology*, 2009; 136: 723-735.
- 13- Bolhassani A., Ghasemi N., Servis C., Taghikhani M. and Rafati S. The Efficiency of a Novel Delivery System (PEI600-Tat) in Development of Potent DNA Vaccine Using HPV16 E7 as a Model Antigen. *Drug Delivery* 2009; 16(4):196-204.
- 14- Adnene Salhi, Virmondes Rodrigues, Jr., Ferruccio Santoro, Helia Dessen, Audrey Romano, Lucio Roberto Castellano, Mathieu Sertorio, Sima Rafati, Christophe Chevillard, Aluisio Prata, Alexandre Alcaï's, Laurent Argiro, and Alain Dessen. Immunological and Genetic Evidence for a Crucial Role of IL-10 in Cutaneous Lesions in Humans Infected with *Leishmania braziliensis*. *J. Immunology*, 2008; 180(9):6139-48.
- 15- Bolhassani A., Taghikhani M., Ghasemi N., Soleimanjahi H. and Rafati S. Comparison of Two Delivery Systems Efficiency by Using Polyethylenimine (PEI) for Plasmid HPV16E7 DNA Transfection into COS-7 Cells. *Modarres Journal of Medical Sciences*. Vol.11, No 1&2, 2008
- 16- Memarnejadian A., Roohvand F., Arashkia A., Rafati S., Shokrgozar MA., Polytope DNA vaccine development against hepatitis C virus: A stream-lined approach from In silico design to in vitro and primary in vivo analyses in BALB/c mice. *Protein & peptide letters*, 2009;16, in press
- 17- Bolhassani A, Rafati S. Heat-shock proteins as powerful weapons in vaccine development. *Expert Rev Vaccines*. 2008; 7(8):1185-99. Review

- 18-** Abtahi H, Salmanian AH, Rafati S, Nejad GB, Saffari M, Ghazavi A, Mosayebi G., The profile of cytokines and IgG subclasses in BALB/c mice after immunization with Brucella ribosomal gene. Pak J Biol Sci. 2008;11(21): 2472-7.
- 19-** Bolhassani A., Zahedifard F., Taghikhani M and Rafati S., Enhanced immunogenicity of HPV16E7 accompanied by Gp96 as an adjuvant in two vaccination strategies. Vaccine 2008; 26(46):5822-9.
- 20-** Rafati S, Zahedifard F, Kakeh Azari M , Taslimi Y, Taheri T. C-terminal Extension of cysteine proteinase type I is responsible for TH2 elicitation in experimental murine *L. infantum* infection. Experimental Parasitology, 2008;118: 393-401.
- 21-** Golkar M, Rafati S, Abdel-Latif MS, Brenier-Pinchart MP, Fricker-Hidalgo H, Sima BK, Babaie J, Pelloux H, Cesbron-Delauw MF, Mercier C. The dense granule protein GRA2, a new marker for the serodiagnosis of acute Toxoplasma infection: comparison of sera collected in both France and Iran from pregnant women. Diagn Microbiol Infect Dis. 2007;58(4):419-26.
- 22-** Golkar M, Shokrgozar MA, Rafati S, Musset K, Assmar M, Sadaie R, Cesbron-Delauw MF, Mercier C. Evaluation of protective effect of recombinant dense granule antigens GRA2 and GRA6 formulated in monophosphoryl lipid A (MPL) adjuvant against Toxoplasma chronic infection in mice. Vaccine. 2007;25 (21):4301-11.
- 23-** Balenga NA, Rafati S. Innate immune system: Specific or non-specific? Med Hypotheses. 2007;69(2):460-1.
- 24-** Rafati S, Gholami E, Hassani N, Ghaemimanesht 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;25(21) :4159-69.
- 25-** Rafati S, Hassani N, Taslimi Y, Movassagh H, Rochette A, Papadopoulou B. Amastin peptide-binding antibodies as biomarkers of active human visceral leishmaniasis. Clin Vaccine Immunol. 2006;13(10):1104-10.
- 26-** Khamesipour A, Rafati S, Davoudi N, Maboudi F, Modabber F. Leishmaniasis vaccine candidates for development: a global overview. Indian J Med Res. 2006;123(3):423-38. Review.
- 27-** Rafati S, Zahedifard F., Nazgouee, F. Prime-boost vaccination using Cysteine proteinases type I & II of *L. infantum* confers protective immunity in murine visceral leishmaniasis. Vaccine. 2006;24(12): 2169-75.

- 28-** Balenga NA, Zahedifard F, Weiss R, Sarbolouki MN, Thalhamer J, Rafati S. Protective efficiency of dendrosomes as novel nano-sized adjuvants for DNA vaccination against birch pollen allergy. *J Biotechnol.* 2006;124(3):602-14.
- 29-** Rafati S, Ghaemimanesh F, Zahedifard F. Comparison of potential protection induced by three vaccination strategies (DNA/DNA, Protein/Protein and DNA/Protein) against *Leishmania major* infection using Signal Peptidase type I in BALB/c mice. *Vaccine.* 2006;24(16):3290-7.
- 30-** Rafati S, Zahedifard F, Nazgouee F. Prime-boost vaccination using cysteine proteinases type I and II of *Leishmania infantum* confers protective immunity in murine visceral leishmaniasis. *Vaccine.* 2006;24(12):2169-75.
- 31-** Rafati S, Nakhaee A, Taheri T, Taslimi Y, Darabi H, Eravani D, Sanos S, Kaye P, Taghikhani M, Jamshidi S, Rad MA. Protective vaccination against experimental canine visceral leishmaniasis using a combination of DNA and protein immunization with cysteine proteinases type I and II of *L. infantum*. *Vaccine.* 2005;23(28):3716-25.
- 32-** Nakhaee A, Rafati S, Salmanian AH, Taghikhani M, Mohebbali M., Taheri T. Immunological responses of naturally infected dogs to Type I and Type II recombinant cysteine proteinases of *Leishmania infantum*. *Moddars J. of Medical Sciences.* 2005;8(1):55-66.
- 33-** Golkar M., Shokrgozar M.A., Rafati S., Sadaie M.R., and Assmar M. Construction, expression and preliminary immunological evaluation of a DNA plasmid encoding the GRA2 protein of *Toxoplasma gondii*. *Iranian Biomedical Journal.* 2005;9(1):1-8.
- 34-** Rafati S, Salmanian AH, Taheri T, Masina S, Schaff C, Taslimi Y, Fasel N. Type I signal peptidase from *Leishmania* is a target of the immune response in human cutaneous and visceral leishmaniasis. *Mol Biochem Parasitol.* 2004; 135(1):13-20.
- 35-** Zadeh-Vakili A, Taheri T, Taslimi Y, Doustdari F, Salmanian AH, Rafati S. Immunization with the hybrid protein vaccine, consisting of *Leishmania major* cysteine proteinases Type I (CPB) and Type II (CPA), partially protects against leishmaniasis. *Vaccine.* 2004;22(15-16):1930-40.
- 36-** Zadeh-Vakili A., Taheri T., Taslimi Y., Doustdari F., Salmanian AH., and Rafati S., Bivalent DNA vaccination with genes encoding *Leishmania major* cysteine proteinases type I and type II protects mice against infectious challenge. *Iranian Journal of Biotechnology* 2004;2(1):10-15.
- 37-** Nakhaee A, Taheri T, Taghikhani M, Mohebbali M, Salmanian AH, Fasel N, Rafati S. Humoral and cellular immune responses against Type I cysteine proteinase of *Leishmania infantum* are higher in asymptomatic than symptomatic

dogs selected from a naturally infected population. *Vet Parasitol.* 2004;119(2-3):107-23.

- 38- Abtahi H., Salmanian AH., Rafati S., Behzadian Nejad G., Hassan ZM., High level expression of recombinant ribosomal protein (L7/L12) from *Brucella abortus* and its reaction with infected human sera. *Iranian Biochemical Journal* 2004;8(1): 13-18.
- 39- Golkar M., Rafati S., Taslimi Y, Taheri T., Doustdary F. and Assmar M. High-level expression and evaluation the M. High-level expression and evaluation the antigenicity of a recombinant *Toxoplasma gondii* GRA2 protein. *Iranian Journal of Biotechnology*, 2004;2(3).
- 40- Rafati S., Fasel N., Masina S., *Leishmania* cysteine proteinases: from gene to putative subunit vaccine. *Review, Current Genomic.* 2003; 4:109-121.
- 41- Mahmoodi M, Khamesipour A, Dowlati Y, Rafati S, Momeni AZ, Emamjomeh M, Hejazi H, Modabber F. Immune response measured in human volunteers vaccinated with autoclaved *Leishmania major* vaccine mixed with low dose of BCG. *Clin Exp Immunol.* 2003;134(2):303-8.
- 42- Rafati S, Nakhaee A, Taheri T, Ghashghaii A, Salmanian AH, Jimenez M, Mohebbali M, Masina S, Fasel N. Expression of cysteine proteinase type I and II of *Leishmania infantum* and their recognition by sera during canine and human visceral leishmaniasis. *Exp Parasitol.* 2003;103(3-4):143-51.
- 43- Pascalis H, Lavergne A, Bourreau E, Prévot-Linguet G, Kariminia A, Pradinaud R, Rafati S, Launois P. Th1 cell development induced by cysteine proteinases A and B in localized cutaneous leishmaniasis due to *Leishmania guyanensis*. *Infect Immun.* 2003;71(5):2924-6.
- 44- Farzaneh P, Ebtekar M, Hassan ZM, Rafati S. Murine cytokine patterns following rubella vaccination. *Iran J Allergy Asthma Immunol.* 2003;2(2):89-93.
- 45- Rafati S, Kariminia A, Seyde-Eslami S, Narimani M, Taheri T, Lebbatard M. Recombinant cysteine proteinases-based vaccines against *Leishmania major* in BALB/c mice: the partial protection relies on interferon gamma producing CD8(+) T lymphocyte activation. *Vaccine.* 2002;20(19-20):2439-47.
- 46- Rafati S, Salmanian AH, Taheri T, Vafa M, Fasel N. A protective cocktail vaccine against murine cutaneous leishmaniasis with DNA encoding cysteine proteinases of *Leishmania major*. *Vaccine.* 2001;19(25-26):3369-75.
- 47- Rafati S, Salmanian AH, Hashemi K, Schaff C, Belli S, Fasel N. Identification of *Leishmania major* cysteine proteinases as targets of the immune response in humans. *Mol Biochem Parasitol.* 2001;113(1):35-43.

- 48- Rafati S, Baba AA, Bakhshayesh M, Vafa M. Vaccination of BALB/c mice with *Leishmania major* amastigote-specific cysteine proteinase. Clin Exp Immunol. 2000;120(1):134-8.
- 49- Solioz N, Blum-Tirouvanziam U, Jacquet R, Rafati S, Corradin G, Mauël J, Fasel N. The protective capacities of histone H1 against experimental murine cutaneous leishmaniasis. Vaccine. 1999;18(9-10):850-9.
- 50- Rafati S, Couty-Jouve S, Alimohammadian MH, Louis JA. Biochemical analysis and immunogenicity of *Leishmania major* amastigote fractions in cutaneous leishmaniasis. Clin Exp Immunol. 1997;110(2):203-11.
- 51- Rafati, S., Couty-Jouv S., Dowlati Y., Alimohammadian, MH., Evaluation of cellular immune responses of recovered human cutaneous leishmaniasis to amastigote soluble *L. major* antigen. Medical Journal of the Islamic Republic of Iran. 1997;11(1):33-38

International Congress

Oral Presentation

1. **Rafati, S.,** Rafiei S., (1992) The effect of non-steroidal anti inflammatory drug (NSAID) in production of TNF- α and joint destruction, 8th international congress of immunology, Budapest, Hungary.
2. **Rafati, S.,** Alimohammadian, MH., (1994) Cytokine control of *Leishmania major* infection in the BALB/c mouse by local administration of IL-7 and IL-2, 12th European immunology meeting, Barcelon, Spain.
3. **Rafati, S.,** Alimohammadian MH., (1995) Immune response to different soluble *Leishmania major* amastigote and promastigote in C57BL/6 mice, 9th international congress of immunology , San Francisco, USA.
4. **Rafati, S.,** Abraham Baba, A., Dowlati Y., Alimohammadian MH., (1996) Comparison of the cellular immune responses to crude extract of amastigote and two recombinant proteins (LACK and gp63) of *Leishmania major* in recovered and non-healed cases of cutaneous leishmaniasis, XIVth international congress for tropical medicine and malaria , Nagasaki, Japon.
5. **Rafati, S.,** Abraham Baba, A., Alimohammadian M.H. (1997) Immunogenicity of *Leishmania major* amastigote fractions in human cutaneous leishmaniasis, First World Congress on Leishmaniasis (Istanbul) Vol 21, Suppl 1, 32

6. **Rafati, S.**, Abraham Baba, Bakhshayesh M, Vafa M., Vaccination of BALB/c mice with 24 kDa antigen of amastigote form of *Leishmania major*, 10th international congress of Immunology , New Delhi 1998.
7. **Rafati, S.**, Salmanian AH, Taheri T., Vafa M., Fasel N., A protective cocktail vaccine against murine cutaneous leishmaniasis with DNA encoding cysteine proteinases of *L. major*, XVth international congress for tropical medicine and Malaria, Cartagena, Colombia, 2000.
8. **Rafati, S.**, Salmanian AH., Hashemi K., Schaff, C., Belli S., Fasel N., Identification of *Leishmania major* cysteine proteinases as targets of the immune responses in humans, World Leish 2, Crete, Greece, 2001.
9. **Rafati, S.**, Ghashghaii A, Ghalamkar M, Nakheii A., Jimenez M., Salmanian A., Cysteine proteinases type I and II of *L. infantum* are recognized by sera during canine and human visceral leishmaniasis. 10th international Congress of Parasitology, Vancouver, Canada, 2002
10. **Rafati, S.**, Zadeh Vakili A. Taheri H., , Taslimi Y., Doustari F., Salmanian AH., Bivalent DNA vaccination with genes encoding *Leishmania major* cysteine proteinases CPA and CPb protects Mice against infectious challenge. 12th International congress of Immunology, Montreal, Canada, 2004
11. **Rafati S.**, Nakhaee AR., Taghikhani M., Taheri T., Mohebbali M., Immunological evaluation of naturally infected dogs to recombinant type I and type II cysteine proteinases of *Leishmania infantum*. 12th International congress of Immunology, Montreal, Canada, 2004.
12. **Rafati S.**, Nakhaee AR., Taheri T., Taslimi Y., Darabi H., Combination of DNA and protein immunization with cysteine proteinases type I and II of *L. infantum* protects dogs against experimental visceral leishmaniasis. 12th International congress of Immunology, Montreal, Canada, 2004.
13. **Rafati S.**, Zahedifard F., Nazgouee F., Taslimi Y., Doustary F., Eravani D., Protective capacity of cysteine proteinases type I and II against Experimental *L. infantum* infection in BALB/b mice. 12th International congress of Immunology, Montreal, Canada, 2004.
14. **Rafati S.**, Zadeh Vakili A. Taheri H., , Taslimi Y., Doustari F., Salmanian AH., Immunization with the hybrid protein vaccine consisting of *Leishmania major* cysteine proteinases type I and II partially protect BALB/c mice against leishmaniasis. 12th International congress of Immunology, Montreal, Canada, 2004.
15. Farzaneh P., Ebtekar M, Hassan Z., **Rafati S.**, Murine cytokine patterns following Rubella vaccination. 12th International congress of Immunology, Montreal, Canada, 2004.
16. Protective vaccination against experiment canine visceral Leishmaniasis using a combination of DNA and protein immunization with cysteine proteinases type I and II of *L. infantum*. **S. Rafati**, A Nakhaee, H. Davis, Y. Taslimi, T. Taheri, H. Darabi, D. Eravani,

S.Sanos, P.Kaye, M, Taghikhani, Sh. Jamshidi, M.A. Rad. Third World ongress on Leishmaniosis, 10-15 April 2005, Palermo-Terrasini, Sicily, Italy.

17. Prime-boost vaccination using cysteine proteinases type I & II of *L.infantum* confers protective immunity in murine visceral leishmaniasis. **S. Rafati**, F. Zahedifard, F. Nazgouee. Third World ongress on Leishmaniosis, 10-15 April 2005, Palermo-Terrasini, Sicily, Italy.

18. Type I signal peptidase from Leishmania is a target of the immune response in both human and mice model. **S. Rafati**, AH. Salmanian, F. Ghaemi Manesh, T. Taheri, Y.Taslimi, S. Masina, C. Schaff, N. Fasel. Third World ongress on Leishmaniosis, 10-15 April 2005, Palermo-Terrasini, Sicily, Italy.

19. Comparison of potential protection induced by three vaccination strategies (DNA/DNA, protein/protein and DNA/protein) against *Leishmania major* infection using signal peptidase type I in BALB/c mice. **S. Rafati** et al. The Second International Conference on Modern Vaccines adjuvants and delivery systems. 12-14 Sept 2006 London, UK.

20. Protective efficiency of dendrosomes as novel sized adjuvants for DNA vaccination against birch pollen allergy. **S. Rafati** et al. The Second International Conference on Modern Vaccines adjuvants and delivery systems. 12-14 Sept 2006 London, UK.

21. Prime-boost vaccination using cysteine proteinases type I & II of *L.infantum* confers protective immunity in murine visceral leishmaniasis. **S. Rafati** et al. The Second International Conference on Modern Vaccines adjuvants and delivery systems. 12-14 Sept 2006 London, UK.

22. Amastin peptide-binding antibodies as biomarkers of active human visceral leishmaniasis, **S. Rafati** et al. 16th European congress of Immunology. 6-9 Sept 2006, Paris, France.

23. Bolhassani A., Zahedifard F., Moradin N., Gholami E., Taslimi Y., Doostdari F., Taghikhani M. and **Rafati S.** Enhancement of DNA Vaccine Potency by Co-administration of HPV16E7 and Glycoprotein 96 in C57BL/6 Mice Model. 9th Iranian Congress of Immunology and Allergy, Iran Medical Science University, Jun 17-19, 2008.

24. Ghasemi N., Bolhassani A., Taghikhani M. and **Rafati S.** DNA vaccine efficiency against HPV16E7 by using Tat-PEI600 delivery system. 9th Iranian Congress of Immunology and Allergy, Iran Medical Science University, Jun 17-19, 2008.

25. Bolhassani A., Zahedifard F., Taslimi Y., Taghikhani M. and **Rafati S.** Immune Response Assessment against HPV16E7 and GP96 in Mice and Human Models. 1st International Congress on Health Genomics and Biotechnology and the 4th Iranian Congress of Genetic Disorders and Disabilities, Pasteur Institute of Iran, Tehran, Iran, 2007.

26. Bolhassani A., Zahedifard F., Taslimi Y., Nahavandian B., Taghikhani M. and **Rafati S.** Serum Antibodies to HPV16E7 and GP96 Fragments as Biomarkers in Iranian Women with Invasive Cervical Carcinoma. 9th Iranian Congress of Biochemistry and 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Oct. 29-Nov.1, 2007.
27. Bolhasani A., Zahedifard F., Taslimi Y., Moradin N., Taghikhani M., **Rafati S.** and Soleimanjahi H. Prime-Boost Vaccination Using Combination of HPV16E7 and GP96 in C57BL/6 Mice Model. 13th International Congress of Immunology, Brazil, August 21-25, 2007.
23. Analysis of survival and growth rate of *Leishmania major* heterozygote mutant of signal peptidase type I. Tahereh Taheri, Elham Gholami, Fatemeh Doustdari, Ali-Hatef Salmanian, **S. Rafati.** , WorldLeish4, 3-7 February 2009, Luchnow, India.
24. The effect of A2 gene on infectivity of the non-pathogenic parasite *L.tarentolae*. Amir mizbani, Tahereh Taheri, Hiva Azizi and **S. Rafati.** WorldLeish4, 3-7 February 2009, Luchnow, India.