

Zohreh Babaloo, PhD, M.T.D

Assistant Professor

Immunology Dept, Faculty of Medicine

Head of Immunology Unit, Drug Applied Research Center,
Tabriz University of Medical Sciences

Degrees:

PhD degree in Immunology

Doctorate degree in Medical Laboratory Sciences (Medical Technology)

Associate degree in Medical Laboratory Sciences

Fellowship:

Fellowship in infectious Immunology from London University,
London School of Hygiene and Tropical Medicine, Dept. of Infectious
Diseases, Immunology Unit

Academic Skills Course. Oct 2009-Feb2010.

Grants:

TDR-WHO grant for a nine month training fellowship on Lab. techniques
and research in the Immunology Unit of London School of Hygiene and
Tropical Medicine (1999)

Research Projects:

As principal investigator

1. IL-17A and IL-17F polymorphisms and serum levels in patients with Brucellosis.
2. IL-17 polymorphisms and serum level in Multiple Sclerosis (principal investigator)

3. Correlation of TLR-9 with INF-alpha and ANA antibodies in Patients with SLE.
4. Anti- cytotoxic effects of Ornithogalum Cuspidatum Herb Medicine in inducing Programmed Cell Death (Apoptosis) in WEHI-164 cancer cell line, model of fibrosarcoma. **Zohreh Babaloo** (principal investigator), Abas Delazar, Behzad Baradaran , Mehrnoosh Samavati, Aliakbar Movasagpour .
5. Quantitive analysis of serum levels and gene expression of interleukin-17 (A&F) in patients with Multiple Sclerosis. **Babaloo Z**, Babaie F, Farhoodi M, Aliparasti MR, Baradaran B, Almasi S, Hoseini A.
6. CTLA-4 polymorphism and its relation to serum cytokines in patients with visceral leishmaniasis in North-West Iran. **Zohreh Babaloo** (principal investigator), Paul M.Kaye ,Sima Rafati, Anne –Marie Shaw
[Joint project with London School of Hygiene and Tropical Medicine and Leeds University, UK]
7. Genetic polymorphisms associated with immune responsiveness during visceral leishmamaniasis. **Zohreh Babaloo** (principal investigator), Paul Kaye, Sima Rafati, Anne -Marie Shaw.
[Joint project with London School of Hygiene and Tropical Medicine and Leeds University,UK]
8. Th1 and Th2 activation pattern in Iranian patients with visceral leishmamaniasis. **Zohreh Babaloo** (principal investigator), Mohamad B. Eslami, Mehdi Mohebali, Paul Kaye (Joint project with Iran Ministry of Health and Medical Education, London School of Hygiene and Tropical Medicine, UK, partially supported by TDR/WHO)
9. Phenotyping of peripheral blood lymphocytes in patients with visceral leishmamaniasis. **Zohreh Babaloo** (principal investigator), Mohamad B. Eslami, Mehdi Mohebali, Paul Kaye, Hadi Maljaee (Joint project with Iran Ministry of Health and Medical Education, London School of Hygiene and Tropical Medicine, UK)
10. Evaluation of total IgG and IgG subclasses in patients with visceral leishmamaniasis in North West Iran. **Zohreh Babaloo** (principal investigator), Mehdi Mohebali, Mohamad Reza Boniadi, Majid Sharifi.

(Joint project with Parasitology Dept., Faculty of Health, Tehran University of Medical Sciences)

11. Evaluation of total IgG and IgG subclasses in *Leishmania infantum* infected dogs in North West Iran. **Zohreh Babaloo** (principal investigator), Mehdi Mohebali*, Mohamad Reza Boniadi, Majid Sharifi. (Joint project with Parasitology Dept., Faculty of Health, Tehran University of Medical Sciences)
12. Comparison of different laboratory methods for evaluation of fetal lung and kidney maturity. **Zohreh Babaloo**, Mehdi S. Akhavan

As Advisor

13. Comparing the effect of one stage full-mouth disinfection versus quadrant-wise scaling and root planning on serum IL-17 and IL-1 beta levels and clinical parameters following treatment of moderate to severe chronic Periodontitis. Shirmohammadi A, **Babaloo Z**, Babaloo AR. (Thesis of Periodontics post MD)
14. Comparing the effect of one stage full-mouth disinfection versus quadrant-wise scaling and debridement on salivary IL-1 beta and MMP-8 levels and clinical biometers in moderate to severe chronic Periodontitis. Shirmohammadi A, **Babaloo Z**, Khashabi E (Thesis of Periodontics post MD)
15. Comparing the effect of one stage full-mouth disinfection versus quadrant-wise scaling and root planning on serum IL-23 levels and clinical parameters following treatment of moderate to severe chronic Periodontitis. Shirmohammadi A, **Babaloo Z**, Shirzadi. (Thesis of Dentistry student)
16. IL-17 serum levels in patients with oral *Lichen Planus*. Pouralibaba F, **Babaloo Z**, Mehdipour M, Pakdel F. (Thesis of Oral Medicine post MD)
17. TNF-*alpha* and TGF-*beta* serum levels in patients with oral *Lichen Planus*. Tagavi , Pouralibaba F, **Babaloo Z**, Mehdipour M. Jamali Z. (Thesis of Oral Medicine post MD)

18. Evaluation of anti-defensin antibodies in saliva. Vosooghoseini S, Babaloo Z, Agbaly, Harasi. (Thesis of Oral and Maxillofacial post MD)
19. IL-17 serum levels in patients with *Pamphigus Vulgaris*. Pouralibaba F, **Babaloo Z**, Mehdipour M, Alimohammadian. (Thesis of Oral Medicine post MD)
20. Analysis and manipulation of T cell function in acute visceral leishmaniasis. Sima Rafati, Paul Kaye, **Zohreh Babaloo**, Rashidi, Samad Mazloomi [Joint project with London School of Hygiene and Tropical Medicine, UK and Cellular Immunology Lab. of Pasteur Institute]
21. IL-10 Polymorphism in patients with visceral leishmaniasis and their relatives. Saeed Hejazi, **Zohreh Babaloo**, Sima Rafati*, Amir Shafagh
22. Evaluation of immune response against *L. infantum* Cysteine proteinases in Kala-azar individuals and DNA vaccinated dogs. Sima Rafati* (principal investigator), **Zohreh Babaloo**, Samad Mazloomi, Ahmad Kousha, Mehdi Mohebbi (Joint project with Cellular Immunology Lab. of Pasteur Institute* and Pathobiology Dept., Faculty of Health, Tehran University of Medical Sciences*, supported by TDR, WHO)
23. Amastin signature and CTE of Type I cysteine proteinases as new tools for diagnosis of visceral leishmaniasis. Sima Rafati* (principal investigator), **Zohreh Babaloo** (Joint project with Cellular Immunology Lab. of Pasteur Institute*, will be supported by WHO, TDR)
24. Evaluation the relationship between gastric helicobacter pylori infection and virulent strains cag A in gastroesophageal reflux disease. Ebrahim Fatahi, **Zohreh Babaloo**, Mohamad Reza Boniadi, Pezeshki, Mohsen Karimi.
25. Determination of antisperm antibody before and after varicocelelectomy. Madaen Seyyed Kazem, Mohamad Reza Boniadi, Javid Samadi, **Zohreh Babaloo**, Yadollah Ahmadi.

Published Genes and Sequences in the World Data GeneBank NCBI

Publications and Presentations:

1. **Babaloo Z**, Babaie F, Farhoodi M, Aliparasti MR, Baradaran B, Almasi S, Hoseini A. **Interleukin-17A and interleukin-17F mRNA expression in peripheral blood mononuclear cells of patients with multiple sclerosis.** Iran J Immunol. 2010 Dec;7(4):202-9
2. **Babaloo Z**, Kaye PM, Eslami MB. Interleukin-13 in Iranian patients with visceral leishmaniasis: relationship to other Th1 and Th2 cytokines. Trans R Soc Trop Med Hyg. 2001 Jan-Feb;95(1-4):85-8.
3. Samavati M, **Babaloo Z** , Delazar A, Baradaran B, Naziffee E, Movasagpour A. Anti- cytotoxic effects of Ornithogalum Cuspidatum Herb Medicine in inducing Programmed Cell Death (Apoptosis) in WEHI-164 cancer cell line, model of fibrosarcoma. *Pharmaceutical Sciences*, 2010, Vol. 16, No. 3, 149-156
4. Somi MH, Fattahi E, Fouladi RF, Karimi M, Bonyadi R, **Babalou Z**. An inverse relation between CagA+ strains of Helicobacter pylori infection and risk of erosive GERD. Saudi Med J. 2008 Mar; 29(3):393-6
5. Athari S, Nikbin B, **Babaloo Z**,
6. **Boniadi** under publish

Articles in Congress Book

1. The role of TH1 and TH2 related cytokines in treatment follow up and prognosis of patients with visceral leishmaniasis. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, Nasrin Mirsamadi, Paul M Kaye. Colloque Scientifique du Réseau International des Instituts Pasteur (2004) November, 36-37.
2. Immunodeficiency in patients with Relapsing visceral leishmaniasis in North West Iran. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, Hadi Maljaee, Paul Kaye. First International congress on immunodeficiency disorders. Iranian Journal of Allergy, Asthma and Immunology (2005) 4, 53.
3. Nutrition and Immunity. **Zohreh Babaloo**, B. Rahnoma, 9th Nutrition Congress, Tabriz December 2006
4. **M. Samavati, Z. Babaloo, A. Delazar, B. Baradaran and A. Movasagpor. Anticancer effect and inducing Apoptosis by *ornithogalum Caspidatum* herb medicine extract on WEHI-164 cancer cell line and comparing with Taxol. Delazar, B. Baradaran and A. Movasagpor. Pharmacology Magazine, April-june 2010. vol 6, issue 22**
- 5.

Abstracts in congress and Seminars

6. IL-13 in Iranian patients with VL: relationship to other Th1 and Th2 Cytokines. **Zohreh Babaloo**, Paul M Kaye, Mohammad B Eslami. **Woods Hole Immuno-Parasitology Conference, USA, April, 16-19, 2000.**
7. Anticancer effect and inducing Apoptosis by *ornithogalum Caspidatum* herb medicine extract on WEHI-164 cancer cell line and

comparing with Taxol . *M. Samavati, Z.Babaloo, A. Delazar, B.Baradaran and A. Movasagpor.* 6th CMAPSEEC (6th Conference on Aromatic and Medicinal Plants of Southeast European Countries). 18-22 April, 2010, Antalya- Turkey

8. Cytokine Pattern in Children with Relapsing Visceral Leishmaniasis. **Zohreh Babaloo**, Mehrangiz Rajaei, Paul Kaye. 3th Laboratory and Medicine Congress, Pediatrics. 1-3 Dec 2010, Tehran, Iran
9. The Role of Cytokines and Inflammatory Cells in Allergic Asthma. **Zohreh Babaloo**. 3th Iranian Asthma Meeting and 7th Biennial Seminar ISAA, Tehran, 2009
10. Quantitative Analysis of IL-23 Gene Expression in Patients with Multiple Sclerosis. **Babaloo Z**, Babaie F, Farhoodi M, Aliparasti MR, Baradaran B, Almasi S, Hoseini A. 10th Iranian Congress of Allergy and Immunology. May 2009, Tehran, Iran
11. IL-17A and IL-17F mRNA expression in Patients with Multiple Sclerosis. **Babaloo Z**, Babaie F, Farhoodi M, Aliparasti MR, Baradaran B, Almasi S, Hoseini A. 10th Iranian Congress of Allergy and Immunology. May 2009, Tehran, Iran
12. Quantitative Analysis of IL-27 Gene Expression in Patients with Multiple Sclerosis. **Babaloo Z**, Babaie F, Farhoodi M, Aliparasti MR, Baradaran B, Almasi S, Hoseini A. 10th Iranian Congress of Allergy and Immunology. May 2009, Tehran, Iran
13. Quantitative Analysis of TGF-*beta* Gene Expression in Patients with Multiple Sclerosis. Aliparasti MR, **Babaloo Z**, Babaie F, Farhoodi M, Baradaran B, Almasi S, Hoseini A. 10th Iranian Congress of Allergy and Immunology. May 2009, Tehran, Iran
14. Quantitative Analysis of IL-8 Gene Expression in Patients with Multiple Sclerosis. Aliparasti MR, **Babaloo Z**, Babaie F, Farhoodi M, Baradaran B, Almasi S, Hoseini A. 10th Iranian Congress of Allergy and Immunology. May 2009, Tehran, Iran
15. Rezaeemanesh AR, Majidi J, Baradaran B, Babaie F, **Babaloo Z**. 10th Iranian Congress of Allergy and Immunology. May 2009, Tehran, Iran

16. Evaluation of Total IgG and IgG subclasse in Patients with Visceral Leishmaniasis in North-West Iran. **Zohreh Babaloo**, MR Boniadi, M Sharifi, M Mohebal, Z Zaree, Seifzadeh. 8th Iranian congress of Immunology and Allergy, Tehran, 16-18 May 2006.
17. Total IgG and IgG subclasses in Canine Visceral Leishmaniasis in endemic areas of North- West Iran. **Babaloo Z**, Sharifi M, Boniadi MR , Mohebal M, Zaree Z. 8th Iranian congress of Immunology and Allergy, Tehran, 16-18 May 2006.
18. Experimental study of oral *lactobacillus casei* on cell-mediated immunity function in rat listeriosis. Akbarzadeh MH, **Babaloo Z**, Mirzaee. 8th Iranian congress of Immunology and Allergy, Tehran 16-18 May 2006.
19. The Role of NK cells in Recurrent Spontaneous Abortions (RSA). **Zohreh Babaloo**. Congress of Fertility , infertility and laparoscopy ,2008 September. Tabriz –Iran.
20. Immunogens of human sperm proteins recognized by high – resolution two – dimensional gel electrophoresis .AbdolalizadehJ , MajidiJ, Mostafaie A, **Zohreh Babaloo**, Congress of Fertility , infertility and laparoscopy ,2008 September. Tabriz –Iran.
21. New aspects of Cytokines. **Zohreh Babaloo**. NOV. 2008, Asthma Seminar. Tabriz, Iran
22. The role of IL-10 in patients with relapsing Visceral Leishmaniasis. Mirsamadi N, **Babaloo Z**, MS Hejazi, Shafagh A, Najari M, Norozi A. Iranian Congress of infectious disease and tropical medicine, Tehran, Dec 2008.
23. The effects of oral administration of L. Casei on spreading of L.monocytogenes in rat listeriosis . Akbarzadeh MH, **Babaloo Z** , mirzaie H.9th Iranian congress of microbiology. 4-6 March 2008 Kerman- Iran.
24. The effects of oral administration of L. Casei on Serum TNF- α and IFN – γ in rat listeriosis . Akbarzadeh MH, **Babaloo Z** , mirzaie H.9th Iranian congress of microbiology. 4-6 March 2008 . Kerman- Iran.
25. IFN- γ and IFN- γ receptor genes polymorphisms association with susceptibility to pulmonary ; **Babaloo Z**; Akbarzadeh MH. 9th Iranian congress of microbiology. 4-6 March 2008 Kerman- Iran.

26. The role of Th1- and Th2 related cytokines in determining Tuberculosis outcome ; **Babaloo Z**; Akbarzadeh MH. 9th Iranian congress of microbiology. 4-6 March 2008 Kerman- Iran.
27. Phenotyping of peripheral blood lymphocytes during visceral leishmaniasis. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, Hadi Maljaee, Paul Kaye. 7th Iranian congress of Immunology and Allergy Mashhad, 4-7 May 2004.
28. Evaluation of humoral and cellular immune response in human active and recovered leishmaniasis against cysteine proteinase Type I. Tahereh Taheri, Yasaman Taslimi, Fatemeh Doustdari, Davood Irani, **Zohreh Babaloo**, Sima Rafati. 7th Iranian congress of Immunology and Allergy, Mashhad 4-7 May 2004.
29. Novel single nucleotide polymorphism in IL-10 gene promoter of patients with relapsing visceral leishmaniasis. **Zohreh Babaloo**, Mohammad Saeed Hejazi, Sima Rafati, Amir Shafagh. 8th Iranian congress of Immunology and Allergy, Tehran 16-18 May 2006.
30. CD45RO expression of T lymphocytes during of visceral Leishmaniasis. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, Hassan Maljaee, Paul Kaye. 8th Iranian congress of Immunology and Allergy, Tehran 16-18 May 2006.
31. The role of cellular immunity in visceral leishmaniasis. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, Nasrin Mirsamadi, Paul Kaye, Mohammad H Akbarzadeh. The First Iranian Academic Congress on Zoonotic Diseases, Karaj 14-15 Jun 2005.
32. The role of cytokines in prognosis of visceral leishmaniasis. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, Nasrin Mirsamadi, Paul Kaye. 4th National Iranian Congress of Parasitology & Parasitic Diseases. Mashhad October 13-16 2003.
33. Evaluation of Macrophage Migration inhibitory factor (MIF) in visceral leishmaniasis (VL). **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebali, D Meyer. 6th Iranian congress of Immunology and Allergy, Tehran 7-9 May 2002.

34. Prenatal diagnosis of outcome and severity of Erythroblastosis fetalis. **Zohreh Babaloo**, M, Seyed Akhavan. 4th Iranian congress of Immunology and Allergy, Isfahan 13-15 May 1988.
35. Evaluation of cellular immunity in children with visceral leishmaniasis in North- West Iran. **Zohreh Babaloo**, Mohamad Bagher Eslami, Mehdi Mohebbi, Paul Kaye. 14th International congress of pediatrics, Tehran 12-17 October 2002.
36. Th1 and Th2 related cytokine responses in woman with recurrent Pregnancy losses. **Zohreh Babaloo**, Congress of Immunological aspects of fertility & infertility. Isfahan 14-15 Jan 2004.
37. Quality control in cytokine assay methods. **Zohreh Babaloo**. The 3th Congress of quality control in laboratory methods. Tehran 1-3 Jan 2005.
38. Single nucleotide polymorphism in IL-10 gene promoter of patients with relapsing visceral leishmaniasis. Mohammad Saeed Hejazi, **Zohreh Babaloo**, Sima Rafati, Amir Shafagh. The 3th Iranian congress on infectious disease and tropical medicine, Tehran, 11-15 Dec 2004.
39. Interaction of IFN-gamma and IL-10 in prognosis of visceral leishmaniasis. **Zohreh Babaloo**, Mohammad B Eslami, Mehdi Mohebbi, Paul Kaye. Infectious Diseases Immunology Seminar, Sari, March 2005
40. Effect of copper deficiency on lamb humoral immunity. Mohammad Hassan Akbarzadeh, **Zohreh Babaloo**, Syamak Rezaee . 9th Nutrition Congress ,Tabriz December 2006
41. Effects of Probiotics in cytokine responses of Listeria infected rats. Hassan Akbarzadeh, **Zohreh Babaloo**, Mirzaee. 9th Nutrition Congress ,Tabriz December 2006
42. Nutrition and Immunity. **Zohreh Babaloo**, B. Rahnoma, 9th Nutrition Congress ,Tabriz December 2006

Theses:

As Supervisor

1. IL-17A and IL-17F polymorphisms and serum levels in patients with Brucellosis. (PhD of Microbiology thesis)
2. IL-17 gene polymorphisms and serum levels in patients with Multiple Sclerosis.(MSc of Immunology thesis)
3. Correlation of TLR-9 with INF-alpha and ANA antibodies in Patients with SLE. (MSc of Immunology thesis)
4. Quantitative analysis of serum levels and mRNA expression of interleukin-17A and IL-17F in patients with Multiple Sclerosis (MSc of Immunology thesis)
5. Anti- cytotoxic effects of Ornithogalum Cuspidatum Herb Medicine in inducing Programmed Cell Death (Apoptosis) in WEHI-164 cancer cell line, model of fibrosarcoma.(MSc of Immunology thesis)
6. Evaluation of total IgG and IgG subclasses in patients with visceral leishmaniasis and L. infantum infected dogs in North West Iran. **Zohreh Babaloo***, Mehdi Mohebali, Mohamad Reza Boniadi, Majid Sharifi (thesis for Veterinary Doctorate degree)
7. IL-10 Polymorphism in patients with visceral leishmaniasis and their relatives. **Zohreh Babaloo**, Saeed Hejazi, Sima Rafati, Amir Shafagh (Pharm.D thesis)

As Advisor

8. Comparing the effect of one stage full-mouth disinfection versus quadrant-wise scaling and root planning on serum IL-17 and IL-1 beta levels and clinical parameters following treatment of moderate to severe chronic Periodontitis. Shirmohammadi A, **Babaloo Z**, Babaloo AR.

(Thesis of Periodontics post MD)

9. Comparing the effect of one stage full-mouth disinfection versus quadrant-wise scaling and debridement on salivary IL-1 beta and MMP-8 levels and clinical biometers in moderate to severe chronic Periodontitis. Shirmohammadi A, **Babaloo Z**, Khashabi E
(Thesis of Periodontics post MD)
- 10.** Comparing the effect of one stage full-mouth disinfection versus quadrant-wise scaling and root planning on serum IL-23 levels and clinical parameters following treatment of moderate to severe chronic Periodontitis. Shirmohammadi A, **Babaloo Z**, Shirzadi.
(Thesis of Dentistry student)
11. IL-17 serum levels in patients with oral *Lichen Planus*. Pouralibaba F, **Babaloo Z**, Mehdipour M, Pakdel F. (Thesis of Oral Medicine post MD)
12. TNF-*alpha* and TGF-*beta* serum levels in patients with oral *Lichen Planus*. Tagavi , Pouralibaba F, **Babaloo Z**, Mehdipour M, Jamali Z.
(Thesis of Oral Medicine post MD)
13. Evaluation of anti-defensin antibodies in saliva. Vosooghoseini S, Babaloo Z, Agbaly, Harasi. (Thesis of Oral and Maxillofacial post MD)
14. IL-17 serum levels in patients with *Pamphigus Vulgaris*. Pouralibaba F, **Babaloo Z**, Mehdipour M, Alimohammadian. (Thesis of Oral Medicine post MD)
15. Evaluation the relationship gastric helicobacter pylori infection and virulent strains cag A in gastroesophageal reflux disease. Ebrahim Fatahi*, **Zohreh Babaloo**, Mohamad Reza Boniaadi, Pezeshki, Mohsen Karimi.
16. Determination of antisperm antibody before and after varicocelelectomy. Madaen Seyyed Kazem, Mohamad Reza Boniadi, Javid Samadi, **Zohreh Babaloo**, Yadollah Ahmadi.
17. Comparison of electrophoretic pattern of serum proteins in lambs with copper deficiency (congenital or acquired types). Mohammad Noori, **Zohreh Babaloo**, Syamak Rezaee, MH Akbarzadeh.

18. Comparison and evaluation of serodiagnosis methods for diagnosis of Visceral leishmaniasis in human and animal reservoir (dog). Samad Mazloomi*, **Zohreh Babaloo**, Esmael Fallah, Shahram Khadem Vatan.

19. Dastmalchi (thesis for Veterinary Doctorate degree)

20. Akbarzadeh (thesis for Veterinary Doctorate degree)