

# CURRICULUM VITAE



## 1. Personal data and contact details

**Name:** Ebrahim Mirzadegan  
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**Place of Birth:** Tehran/Iran  
**Marital Status:** Married and one daughter

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## 2. Education:

### Colleges/Universities/Institutes attended

Dates	Name of institution/city/country	Degree/Subjects/Score
09/2012 till now	Reproductive Immunology Research Center/ Avicenna Research Institute/Tehran/Iran	<b>PhD Student</b>
08/2007 – 09/2012	Reproductive Immunology Research Center/ Avicenna Research Institute/Tehran/Iran	<b>Research Assistant</b>
08/2004 – 08/2007	Immunology Department/ Pasteur Institute of Iran/Tehran/Iran	<b>Research Assistant</b>
09/2000 – 12/2003	Shaheed Beheshti University of Medical Sciences/Tehran/ Iran	<b>Master of Science; Immunology</b> (score: 16.94 from 20)
09/1997 – 09/1999	Kashan Medical University, Kashan/ Iran	<b>Bachelor of Science; Medical Laboratory Technology</b> (score: 17.18 from 20)
01/1995 – 08/1997	Shaheed Beheshti University of Medical Sciences/Tehran/ Iran	<b>Associate Degree; Medical Laboratory Technology</b> (score: 16.38 from 20)

### 3. Experiences:

#### a) MSc. Thesis sponsored by Avicenna Research Institute (04/2002 – 12/2003)

Title of Projects	Summary
<b>Characterization of HS80 antigen on the human spermatozoa membrane and its role in capacitation and acrosome reaction</b>	<p>HS80 antigen localized at Sub-equatorial and collar regions human spermatozoa homogenously with molecular weight <math>80\pm 4</math>kD. HS80 monoclonal antibody did not show any cross reactivity in the studied species. Flow cytometry analysis could not find any difference between bound and unbound antigen for the two vital process capacitation and acrosome reaction in the sperm.</p> <p>The presence of the antigen with 80 kD on sub-equatorial region may increase the possibility of its role in vital processes of sperm such as sperm/oocyte membrane fusion and fertilization. *</p>

#### b) Working as Research Assistant in Pasteur Institute of Iran (08/2004 – 08/2007)

Title of Projects	Summary of methods that I handled
<b>Production of monoclonal antibody against P4, a surface protein of Leishmania major (amastigote phenotype)</b>	<p>Performing cell membrane extraction, protein determination, immunization, specific polyclonal antibody assay in mice serum with ELISA, cell culture, hybridoma technique, cryopreservation of the cells.</p>
<b>Profound down-regulation of IL-10 and IL-5 along with increment of IL-12 and Treg cells in personnel exposed to scattered X-rays</b>	<p>Performing of mononuclear cell purification with ficoll gradient, supernatant cytokine assay with ELISA method, determination of surface markers (CD3/CD4/CD25) by flow cytometry examination and analysis. *</p>
<b>Kinetic study of cytokines production by human peripheral blood mononuclear cells in response to Brucella DNA</b>	<p>Performing of mononuclear cell purification with ficoll gradient, supernatant cytokine assay with ELISA method, DNA extraction and determine of concentration.*</p>
<b>Study of Th1/Th2 cytokine profiles in patients with sepsis and severe sepsis</b>	<p>Performing of mononuclear cell purification with ficoll gradient, supernatant cytokine assay with ELISA method.*</p>
<b>Differential identification of intra and inter species polymorphisms of Leishmania species</b>	<p>Performing of Random Amplification of Polymorphic DNA-PCR (RAPD-PCR).*</p>

\*: The related article published.

c) Working as Research Assistant in Avicenna Research Institute (08/2007 till present)

Title of Projects	Summary of methods that I handled
<b>The study on cytotoxic effects of new Platinum complexes</b> (ongoing project)	Performing proliferation assay by XTT methods
<b>Profiling of Vitamin D Receptor (VDR) Expression in Testicular Tissue of Non-Obstructive Azospermic Patients</b> (Preparing for submission)	Performing of Immunohistochemistry and analysis of VDR expression level by ImageJ software
<b>Distribution of vitamin D receptor and 1<math>\alpha</math>-hydroxylase in male mouse reproductive tract.</b>	Performing of Immunohistochemistry and analysis of VDR expression level by ImageJ software
<b>Chimerization of murine anti-Ror1 antibody and analysis of its cytotoxic efficacy in murine tumor model</b>	Apoptosis assay and CD markers evaluation by flow cytometry
<b>Evaluation of immunotherapeutic effects of dendritic cells co-pulsed with a tumor antigen and a third-party antigen in tumor-bearing mice</b>	Performing DC isolation by MACS and CD markers evaluation by flow cytometry
<b>Immunophenotyping of menstrual and peripheral blood leukocytes in fertile and infertile women and women with unexplained recurrent spontaneous abortion</b>	Performing flow cytometry of CD markers
<b>Generation of CD4+CD25++ regulatory T Cells by estrogen from human peripheral blood CD4+CD25- T Cell</b>	MACS, CD markers evaluation by flow cytometry, and XTT
<b>Functional evaluation of menstrual blood stromal stem cells from endometriosis patients in inducing regulatory T cells and the effect of Dioxin as an environmental toxin on this phenomenon</b>	Proliferation assay (with CFSE) and CD markers evaluation by flow cytometry
<b>The study of phenotypic and genotypic characteristics, proliferation and differentiation potential of human menstrual blood derived stem cells in two and three dimensional culture system</b>	Immunocytochemistry, and CD markers evaluation by flow cytometry
<b>Evaluation of thyroid peroxidase gene expression in endometrium of Balb/c female mice during estrous cycle</b>	Immunohistochemistry

#### 4. Technical Skills:

- a) Operation of flow cytometry instrument (hardware and software operation, troubleshooting).
- b) Operation of Sophisticated Microscopic (inverted and upright epi-fluorescence).
- c) Immunohistochemistry and Immunocytochemistry techniques.
- d) Cell culture, Isolation of subpopulation of cells by MACS, Cell proliferation assay (MLR, LTT, MTT and XTT), Hybridoma technique and production of monoclonal antibody.
- e) 2D Protein Electrophoresis and Western blot.
- f) ELISA
- g) PCR, RT-PCR and RAPD-PCR.

#### 5. Computer Skills:

- a) FlowJo
- b) Semi quantitative analysis of the microscopic images with ImageJ software.
- c) EndNote
- d) GraphPad Prism
- e) Adobe Photoshop

#### 6. Publications: (Please note that my family name has been changed from Torkabadi to Mirzadegan since 9/6/2010)

1. Tabatabaei-Panah AS, Jeddi-Tehrani M, Ghods R, Akhondi MM, Mojtabavi N, Mahmoudi AR, **Mirzadegan E**, Shojaeian S, Zarnani AH.  
**Accurate Sensitivity of Quantum Dots for Detection of HER2 Expression in Breast Cancer Cells and Tissues.** J Fluoresc. 2013 Mar;23(2):293-302. Epub 2012 Dec 5.
2. Mahmoudi AR., Zarnani A.H., Jeddi-Tehrani M., Katuzian L., Tavakoli M., Soltanghoraei H., **Mirzadegan E**.  
**Distribution of vitamin D receptor and 1 $\alpha$ -hydroxylase in male mouse reproductive tract.** Reprod Sci. 2013 Mar;20(4):426-36. Epub 2012 Nov 27.
3. Mahmoudzadeh-Niknam H., Ajdary S., Riazi-rad F., **Mirzadegan E.**, Rezaeian A., Khaze V., Dinparast Djadid N., Alimohammadian M.H.  
**Molecular epidemiology of cutaneous leishmaniasis and heterogeneity of Leishmania major strains in Iran.** Trop Med Int Health. 2012 Sep 4. [Epub ahead of print]
4. Darzi S., Zarnani A.H., Jeddi-Tehrani M., Entezami K., **Mirzadegan E.**, Akhondi M.M., Talebi S., Khanmohammadi M., Kazemnejad S.  
**Osteogenic differentiation of menstrual blood- versus bone marrow- derived stem cells in the presence of human platelet releasate.** Tissue Eng Part A. 2012 Aug;18(15-16):1720-8. Epub 2012 Jun 25.

5. Khanmohammadi M., Khanjani S., Sani Bakhtyari M., Zarnani A.H., Edalatkhah H., Akhondi M.M., **Mirzadegan E.**, Kamali K., Alimoghadam K., Kazemnejad S.  
**Proliferation and chondrogenic differentiation potential of menstrual blood- and bone marrow-derived stem cells in two-dimensional culture.** Int J Hematol. 2012 May;95(5):484-93. Epub 2012 Apr 15.
6. Tajik P., Barin A., Movahedin M., Zarnani A.H., Hadavi R., Moghaddam G., Shoja J., Jeddi-Tehrani M., Ashrafi-Helan J., Heidari-Vala H., **Torkabadi E.**, Qasemi-Panahi B.  
**Nestin, a neuroectodermal stem cell marker, is expressed by bovine sertoli cells.** Journal of Comparative Clinical Pathology. 2010 Oct. DOI: 10.1007/s00580-010-1105-3
7. Alimohammadian MH, Darabi H, Ajdary S, Khaze V, **Torkabadi E.**  
**Genotypically distinct strains of Leishmania major display diverse clinical and immunological patterns in BALB/c mice.** Infect Genet Evol. 2010 Oct;10(7):969-75. Epub 2010 Jun 22.
8. Zarnani A.H., Shahbazi M., Salek-Moghaddam A., Zareie M., Tavakoli M, Ghasemi J., Rezanian S., Moravej A., **Torkabadi E.**, Rabbani H., Jeddi-Tehrani M.  
**Vitamin D3 receptor is expressed in endometrium of cycling mice throughout the estrous cycle.** Fertil Steril. 2009 Nov 5.
9. Shojaeian S., Zarnani A.H., Jeddi-Tehrani M., Fereidooni F., **Torkabadi E.**, Chamankhah M., Tabatabaee Panah A.S., Allameh A.  
**Primeboost immunization, a way Out of the Problem of Monoclonal Antibody Production against Highly Glycosylated Proteins: CA125 as an Example.** Iran J Immunol. 2009 Dec;6(4):174-85.
10. Hemmati S., Jeddi-Tehrani M., **Torkabadi E.**, Ghassemi J., Kazemi sefat G.E., Danesh P., Barzegar-Yarmohammadi L., Akhondi M.M., Zarnani A.H.  
**Indoleamine 2,3-dioxygenase (IDO) is expressed at feto-placental unit throughout the mouse gestation: An immunohistochemical study.** Journal of Reproduction and Infertility. J Reprod Infertil. 2009;10(3)-177-83
11. Lashkarbolouki T., Ardestani S.K., Kariminia A., Ziaee A.A., **Torkabadi E.**, Ebrahimi M.  
**Kinetic study of cytokines production by human peripheral blood mononuclear cells in response to Brucella DNA.** Journal of Microbiology Research. 2008;163(4):466-72.
12. **Torkabadi E.**, Kariminia A.; Zakeri, F.  
**Alteration of peripheral blood T-reg cells and cytokines production in angiography personnel exposed to scattered x-rays.** Iran Journal of Allergy Asthma and Immunology. 2007 Dec;6(4):181-7.
13. Ahmadinejad Z., Mobaen A.R., Kariminia A., Afhami SH., Hatmi Z.N., **Torkabadi E.**, Yalda A.  
**Detection of intracytoplasmic Th1/Th2 cytokine profiles in patients with sepsis and severe sepsis.** Tehran University Medical Journal. 2007 May; 2(65): 12-17. (in Persian)

14. **Torkabadi E.**, Akhoondi M.M., Pakzad P. , Mahmoodi S.A.R., Bayat A., Sadeghi M.R., Jeddi Tehrani M.  
**Characterization of HS80 monoclonal antibody for detection of its antigen on the surface of human sperm.** Hakim Scientific Research Journal. Winter 2006; 9(4): 65-75. (in Persian)
15. Akhondi M.M., **Torkabadi E.**, Bayat A.A., Heidari M., Ghods R., Sadeghi M.R., Dizji A., Shokri F., Jeddi Tehrani M.  
**Monoclonal Antibody Production against Human Surface Spermatozoa Antigens.** Journal of Shaheed Sadoughi University of Medical Sciences and Health Services. 2005 OCT; 13(4): 36-50. (in Persian)
16. Mahmoudi S.A.R, Ghods R, Zarnani A.H., Heidari M, Bayat A.A., **Torkabadi E.**, Akhondi M.M., Parivar K., Jeddi-Tehrani M., Sadeghi M.R.  
**Characterization of a human spermatozoa surface antigens recognized by HS56 monoclonal antibody.** Journal of Reproduction and infertility. Fall 2004; 5(4):290-298. (in Persian)

## 7. Presentations:

1. Sadeghi M.R., Torabi F., Safarpour E., Lakpour N., Akhondi M. A., Zarnani A.H., **Mirzadegan E.**, Ghadimi M., Heidari-Vala H.  
**Fibronectin on the surface of human spermatozoa: A new marker of sperm quality.** The 1st Biomarker Meeting in Reproductive Medicine: Emergence of A New Field, will be held in March 30-31 2012 in Valencia, Spain.
2. Fatemi. R., Vahedian. Z., **Mirzadegan. E.**, Jeddi-Tehrani. M., Idali. F.  
**The potential role of Polyclonal activation with or without TGF- $\alpha$  in the generation of CD4 CD25 FOXP3 regulatory T cells: a therapeutic approach** The 8th Biennial Congress of Iranian Society of Asthma and Allergy ,2011November2-4 ,Iran, Shiraz
3. **Mirzadegan E.**, Hadavi R., Vahedian Z., Bayat A.A., Mahmoudi A.R., Tavangar B., Vojgani Y., Zarei S., Zarnani A.H., Jeddi-Tehrani M.  
**Analysis of Leptin Expression in Human Placental Choriocarcinoma Cell Line.** The 9th international congress of obstetrics and gynecology,8-11 November 2011,Tehran, Iran.
4. Torabi F, Safarpour E, Akhondi M. A., Lakpour N., Zarnani A.H., **Mirzadegan E.**, Ghadimi M., Sadeghi M.R.  
**Changes of Fibronectin distribution on the surface of human spermatozoa following capacitation.** The 9th international congress of obstetrics and gynecology, 8-11 November 2011, Tehran, Iran.
5. **Torkabadi E.**, Jeddi-Tehrani M., Zarnani A.H., Kazemi sefat G.E., Ghassemi J., Akhondi M.  
**Indoleamine 2,3-dioxygenase (IDO) is expressed at feto-placental unit throughout mouse gestation: An immunohistochemical study.** The 14th International Congress of Immunology in Kobe, Japan.
6. Torabi M., Zarnani A.H., Rabbani H., **Torkabadi E.**, Mojtavavi N., Hadavi R., Darzi S.

**Establishment of a novel murine cell line expressing human Her2/neu: An appropriate model for human breast cancer.** The 14th International Congress of Immunology in Kobe, Japan.

7. Shojaeian S, Zarnani AH, Jeddi-Tehrani M, Allameh AA, **Torkabadi E.** **Quantum Dot Nanoparticles: Promising Results for Early detection of Ovarian Cancer.** The 14<sup>th</sup> International Congress of Immunology in Kobe, Japan
8. Torabi M., Zarnani A.H., Rabbani H., **Torkabadi E.**, Mojtabavi N., Hadavi R. **Establishment of murine model of human breast cancer expressing human Her2/neu.** 10<sup>th</sup> International Congress of Immunology and Allergy, Shaheed Beheshti Medical University.
9. Alimohammadian M.H., Ajdari S., Riazi-rad F., **Torkabadi E.**, Rezaeian A. **Genetic variability of Leishmania major species in different endemic areas of cutaneous Leishmaniasis in Iran.** ICOPA-XI: 11th international congress of parasitology, 6th-11th august 2006, SECC, GLASGOW, SCOTLAND
10. **Torkabadi E.**, Kariminia A. and Zakeri F. **Peripheral blood expansion of CD4+CD25 bright and augmentation of Th1 cytokines in angiocardiology laboratories personnel due to low doses of X-ray.** The 8<sup>th</sup> Iranian Congress of Immunology & Allergy, Tehran University of Medical Sciences and Health Services, 14-16 May 2006, Tehran, Iran.
11. **Torkabadi E.**, Ajdari S., Riazi-rad F., Alimohammadian M.H. **Differential identification of intra and inter species RAPD-PCR.** The 5<sup>th</sup> National Iranian Congress of Parasitology Shahid Beheshti Medical University, 15-17 October 2005, Tehran, Iran.
12. Kariminia A., **Torkabadi E.**, Zakeri F. **Peripheral blood expansion of CD4+CD25<sup>high</sup> in personnel working in angiocardiology laboratories.** The Low Radiation International Centre Conference (LOWARD), McMaster University, 25 June 2005, Hamilton, Ontario, Canada.
13. **Torkabadi E.**, Jeddi-Tehrani M., Sadeghi M.R., Pakzad P., Akhondi M.M. **Characterization of HS80 Monoclonal Antibody for Detection of Its Antigen on the Surface of Human Sperm.** 12<sup>th</sup> International Congress of Immunology and 4<sup>th</sup> Annual Conference of FOCIS, July 18-28, 2004, Montréal, Canada.
14. **Torkabadi E.**, Jeddi-Tehrani M., Sadeghi M.R., Akhondi M.M. **Acrosome Reaction Assay by Flow cytometry and Comparison with Triple staining and Quinacrine Epifluorescence.** 12<sup>th</sup> International Congress of Immunology and 4<sup>th</sup> Annual Conference of FOCIS, July 18-28, 2004, Montréal, Canada.

## 8. Reviewing Manuscript for journals:

1. Journal/Publisher: Reproductive Sciences, Date: 2012, Print ISSN: 1933-7191, Online ISSN: 1933-7205, URL: <http://intl-rsx.sagepub.com>

## 9. Workshops:

1. **Immunoinformatics and computational immunology workshop**, Avicenna Research Institute (2010).
2. **How to write a paper in scientific journal**, Avicenna Research Institute (11/2008).
3. **How to review an article**, Avicenna Research Institute (11/2008).
4. **Application of meta-analysis in medical research**, Avicenna Research Institute (12/2007).
5. **Educational workshop on dendritic cells and immune response** in Tarbiat Modarres University, Tehran, Iran (2/2004).

## 10. Educational Experiences:

1. Cooperation in **immunohistochemistry and immunocytochemistry workshops** are being held in Avicenna Research Institute each year.
2. Constructive cooperation in **training course of practical immunology** for internship pathology residents and students of immunology (MSc), microbiology(MSc), biotechnology(MSc) and pharmaceutical biotechnology (PhD) for two years.

## 11. References:

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<b>Name</b>	Dr. Amir Hassan Zarnani	Dr. Mahmood Jeddi Tehrani
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