



**CURRICULUM VITAE**  
**Dr. MARYAMI Fereshteh (MD)**

Business Address:  
Pasteur Institute of Iran  
Pasteur Sq. Tehran, Iran  
PC: 13169 – 43551  
PB:13185-1667  
Phone: (98-21) 66480780  
Fax: (98-21) 66480780  
e-mail: fmaryami@yahoo.com

**Educations:**

- 1- Faculty of medicine, Lille II University, France (1995-1997). MSBM (Mâîtrise in medical biology) obtaining 3 certificate:
  - a. Genetics and molecular biology
  - b. Histology, embryology and molecular cytogenetic
  - c. Basics in human nutrition
- 2- Faculty of medicine, Hamedan University of medical science (1987-1994). Diploma in medicine. Thesis Topic: "prevalence of toxoplasmosis in abortion.

**Languages:**

- 1- Persian, as vernacular
- 2- English, I can speak fluently and write.
- 3- French, I can speak fluently and write.

**Personal Interests:**

- 1- Paintig especially oil painting

**Employment:**

- 1- Since 2009: “Genetic counselor” in reference center for prenatal diagnosis of genetic diseases.
- 2- Since November 2000: “Research Staff Member”, Department of molecular medicine, Pasteur institute of Iran.
- 3- June -November 1999: Practical medicine as a GP, Tehran, Iran.

**Project handling:**

- 1- Detection of existence of  $\alpha$ 1,  $\alpha$ 2 or beta globin gene deletions in alpha and beta thalassemia carriers using real-time PCR. Started from fev. 2009 at pasteur institute of Iran and successfully finished at september 2010.
- 2- Rapid diagnosis of rare beta globin gene mutations. Started from 2012 at pasteur institute of Iran.

**Projects collaboration:**

- 1- Correction of beta-globin gene mutations in hematopoietic stem cells by homologous recombination.
- 2- Semi quantitative diagnosis of alpha and beta thalassaemia using RT-PCR and real-time PCR method.
- 3- Carrier detection in Duchenne and Becker Muscular Dystrophy by real-time PCR.
- 4- DNA banking.
- 5- Production of transgenic mice with human calcitonin gene.

**Publications:**

- 1-
- 2- Comparisons between RT-PCR, Real-time PCR and in vitro globin chain synthesis by  $\alpha/\beta$  ratio calculation for diagnosis of  $\alpha$ - from  $\beta$ -thalassemia carriers. Arch Iran Med. 2013 Apr;16(4):217-20.
- 3- Molecular study of alpha thalassemia mutations in Iranian potential carriers. Iranian journal of Blood. 7:(2), 70-77, 2010.
- 4- Validation and comparison of two quantitative real-time PCR assays for direct detection of DMD/BMD carriers. Clin Biochem. 2009 Aug;42(12):1291-9.
- 5- Detection of unknown deletions in beta-globin gene cluster using relative quantitative PCR methods. Eur J Haematol. 2009 Sep;83(3):261-9.
- 6- Detection of unknown  $\alpha$ -globin gene deletions in  $\alpha$ -thalassemia carriers by real-time PCR. Iranian journal of Modarres medical science. 2009.
- 7- Accurate detection of unknown deletions in beta-globin gene cluster in beta thalassemia carriers using real-time PCR and MLPA. Iranian journal of Blood. 5:(4), 225-235, 2009.
- 8- Carrier detection of Duchenne muscular dystrophy by real-time PCR, Iranian jurnal of Yakhteh, 9:(1)45-50, 2007.
- 9- A novel single step double positive double negative selection strategy for  $\beta$ -globin gene replacement, Iranian jurnal of Yakhteh, 8:(2), 98-105, 2006.
- 10- A novel single step double positive double negative selection strategy for  $\beta$ -globin gene replacement, Biochemical and Biophysical Research Communications, Volume 345, 1:23, 14-20 June 2006.
- 11- Designing and constructing pBGGT plasmid: a carrier plasmid for beta thalassemia gene targeting, Iranian journal of pediatric diseases, 16:1, 33-40, April 2006.

## **Presentations and congresses:**

- 1- Coexistence of alpha triplication and beta thalassemia in a referee to PND center of Pasteur institute of Iran, 7<sup>th</sup> national biotechnology congress of I.R. Iran. Aug. 2011, Tehran, Iran.
- 2- The frequency of nondeletional mutations in alpha thalassemia carriers, 12<sup>th</sup> Iranian congress of biochemistry and 4<sup>th</sup> international congress of biochemistry and molecular biology, Sep. 2011, Mashhad, Iran.
- 3- Detection of the rare mutation of  $\beta$ -thalassemia in north of Iran. 12<sup>th</sup> Iranian congress of biochemistry and 4<sup>th</sup> international congress of biochemistry and molecular biology, Sep. 2011, Mashhad, Iran.
- 4- A novel mutation in the alpha1 globin gene in an Iranian  $\alpha$ -thalassemia carrier, 12<sup>th</sup> Iranian congress of biochemistry and 4<sup>th</sup> international congress of biochemistry and molecular biology, Sep. 2011, Mashhad, Iran.
- 5- Semi-quantitative diagnosis of  $\alpha$ - and  $\beta$ -Thalassemia using RT-PCR, Real-Time PCR and in vitro globin chain synthesis to choose the best technique to differentiate  $\alpha$ - from  $\beta$ -thalassemia carriers. 3rd concongress of laboratory and clinic of pediatrics. Dec. 2010, Iran, Tehran.
- 6- Germ line mosaicism in carriers and sporadic occurrence of Duchenne muscular dystrophy in Iranian patients. 3rd concongress of Neuromuscular disorders. Oct. 2010, Tehran, Iran.
- 7- Application of quantitative real-time PCR for detection of unknown  $\alpha$ -globin gene deletions and triplications in  $\alpha$ -thalassemia carriers. 11<sup>th</sup> international conference on thalassemia and haemoglobinopathies and 13<sup>th</sup> international TIF conference for thalassemia patients and parents. Oct. 2008, **Singapore**.
- 8- Detection of triplicated  $\alpha$ -globin gene in  $\alpha$ -thalassemia carriers using quantitative real-time PCR. 15<sup>th</sup> national and third international conference of biology. Aug 2008, Tehran, Iran.
- 9- Development and validation of two quantitative real-time PCR assay for detection of carriers of DMD/BMD. 15<sup>th</sup> national and third international conference of biology. Aug 2008, Tehran, Iran.
- 10- Transduction of mammalian cell lines by recombinant lentiviral particles carrying mini-LCR and  $\beta$ -globin gene due to gene therapy of  $\beta$ -thalassemia. 10<sup>th</sup> Iranian genetic congress. May 2008. Tehran, Iran.
- 11- Application of quantitative real-time PCR for detection of  $\alpha$ -globin gene deletion in  $\alpha$ -thalassemia carriers with unknown deletions. 10<sup>th</sup> Iranian genetic congress. May 2008. Tehran, Iran.
- 12- Diagnosis of Duchenne muscular dystrophy by Real-time PCR, 1<sup>st</sup> international and 6<sup>th</sup> national congress on quality improvement in clinical laboratories, 13-16 Feb. 2008, Tehran, Iran.
- 13- Carrier detection of DMD using real-time PCR. 1<sup>st</sup> international and 6<sup>th</sup> national congress on quality improvement in clinical laboratories. Feb. 2008, Tehran, Iran.
- 14- Measuring alpha/beta ratios using Real-time RT-PCR in quantitative diagnosis of alpha and beta thalassemia carriers in ambiguous patients, The 1<sup>st</sup> international congress on health genomics and biotechnology, 24-26 Nov. 2007, Tehran, Iran.
- 15- Quantitative diagnosis of  $\alpha$ -globin gene deletions in  $\alpha$ -thalassemia carriers using real-time PCR. The 1<sup>st</sup> international congress on health genomics and biotechnology. Nov. 2007. Tehran, Iran.

- 16- Carrier detection of Duchenne muscular dystrophy using TaqMan probe-based real-time PCR. The 1<sup>st</sup> international congress on health genomics and biotechnology. Nov. 2007. Tehran, Iran.
- 17- Measuring  $\alpha$ - and  $\beta$ -ratio by using real-time RT-PCR in quantitative diagnosis of  $\alpha$ - and  $\beta$ -thalassemia carriers in ambiguous patients. The 1<sup>st</sup> international congress on health genomics and biotechnology. Nov. 2007. Tehran, Iran.
- 18- Production of lentivirus containing beta globin gene and mini-LCR to 293-T cell line and virus titration aiming for gene therapy of beta thalassemia. The 1<sup>st</sup> international congress on health genomics and biotechnology. Nov. 2007. Tehran, Iran.
- 19- Beta globin gene targeting of cord blood derivative human hematopoietic stem cells. The 1<sup>st</sup> international congress on health genomics and biotechnology. Nov. 2007. Tehran, Iran.
- 20- Quantitative diagnosis of  $\alpha$ - and  $\beta$ -thalassemia carriers by measuring  $\alpha/\beta$  ratios using real-time RT-PCR. 9<sup>th</sup> Iranian congress of biochemistry and 2<sup>nd</sup> international congress of biochemistry and molecular biology, Oct. 2007, Shiraz university of medical science, Shiraz, Iran.
- 21- Diagnosis of Duchenne muscular dystrophy by real-time PCR. The first international and the sixth national congress on quality improvement in clinical laboratories. Aug. 2007. Tehran, Iran.
- 22- Semi-quantitative RT-PCR as a rapid technique to distinguish alpha carriers from beta carriers. 14<sup>th</sup> national and 2<sup>th</sup> international conference of biology. Aug 2006, Tarbiat modarres university, Tehran, Iran.
- 23- Designing and constructing the construct containing EGFP reporter gene in order to  $\beta$ -globin gene targeting by homologous recombination. 9<sup>th</sup> Iranian genetic congress. May 2006. Tehran, Iran.
- 24- Differential detection of  $\alpha$ - or  $\beta$ -globin gene deletion by semi-quantitative triplex PCR. 10<sup>th</sup> congress of thalassemia and hemoglobinopathies, Jan 2006, Tif, Dubai, United Arab Emirates.
- 25- Differential detection of alpha or beta globin gene deletion by semi-quantitative triplex PCR. 10<sup>th</sup> congress of thalassemia and hemoglobinopathies, Jan 2006, Tif, Dubai, United Arab Emirates.**
- 26- Semi-quantitative RT- PCR application as a rapid technique to differentiate alpha carriers from beta carriers. 10<sup>th</sup> congress of thalassemia and hemoglobinopathies, Jan 2006, **Tif, Dubai, United Arab Emirates.**
- 27- Genotyping ambiguous alpha thalassemia carriers referring to Pasteur Institute of Iran. The 4<sup>th</sup> national biotechnology congress, 13-15 Aug. 2005, Kerman, Iran.
- 28- Differential detection of alpha or beta globin gene deletion by rapid triplex PCR. 8<sup>th</sup> Iranian congress of biochemistry and the first international congress of biochemistry and molecular biology, sep. 2005, Tehran, Iran.
- 29- Detection of thalassemia mutations among Iranian carriers of the non-deletional alpha thalassemia. 8<sup>th</sup> Iranian congress of biochemistry and the first international congress of biochemistry and molecular biology, sep. 2005, Tehran, Iran.
- 30- Purpose of gene targeting with homologous recombination in the beta globin gene. 8<sup>th</sup> Iranian congress of biochemistry and the first international congress of biochemistry and molecular biology, sep. 2005, Tehran, Iran.
- 31- Design and constructing a vector containing EGFP reporter gene for the purpose of gene targeting by means of homologous recombination in beta globin locus. 4<sup>th</sup> national congress of biotechnology, August 2005, Kerman, Iran.

- 32- Non deletional alpha thalassemia mutation detection among Iranian carriers referred to Pasteur Institute of Iran. 4<sup>th</sup> national congress of biotechnology, August 2005, Kerman, Iran.
- 33- Differential detection of alpha or beta globin gene deletions by semi-quantitative triplex PCR. 4<sup>th</sup> national congress of biotechnology, Aug. 2005, Kerman, Iran.
- 34- Semi-quantitative diagnosis of alpha and beta thalassemia by RT-PCR. 4<sup>th</sup> national congress of biotechnology, August 2005, Kerman, Iran.
- 35- Designing and constructing a vector containing a reporter gene EGFP and  $\beta$ -globin gene elements for homologous recombination purpose. 3<sup>rd</sup> Iranian congress of genetic disorders and disabilities, Nov. 2004, Tehran, Iran
- 36- Molecular diagnosis of Y chromosome microdeletions. 9<sup>th</sup> Iranian congress of fertility and infertility, October 2001, Yazd, Iran.

### **Workshop participation:**

- 1-
- 2- “Workshop of SPSS software”, Department of epidemiology, Pasteur Institute of Iran, 6<sup>th</sup>-7<sup>st</sup> and 13<sup>th</sup>-14<sup>st</sup> Nov. 2012.
- 3- “Workshop of Progeny”, Molecular medicine network, Pasteur Institute of Iran, 2<sup>th</sup>-3<sup>st</sup> Oct. 2012.
- 4- “Workshop of Flowcytometry”, Molecular medicine network, Pasteur Institute of Iran, 15<sup>th</sup>-16<sup>st</sup> July. 2012.
- 5- “Workshop of DNA Methylation”, Molecular medicine network, Pasteur Institute of Iran, 10<sup>th</sup>-12<sup>st</sup> July. 2012
- 6- “Workshop of Real-Time PCR”, Molecular medicine network, Pasteur Institute of Iran, 20<sup>th</sup>-21<sup>st</sup> Dec. 2011.
- 7- “Workshop of DNA Methylation Analysis in Cancer”, Molecular medicine network, Pasteur Institute of Iran, 13<sup>th</sup>-15<sup>th</sup> Dec. 2011.
- 8- “Workshop of Optimisation and Purification of Recombinant Proteins”, Molecular medicine network, Pasteur Institute of Iran, 28<sup>th</sup> Feb-2<sup>nd</sup> Mar. 2011.
- 9- “Workshop of Expression and Optimization of Recombinant Proteins in Prokaryotic System”, Molecular medicine network, Pasteur Institute of Iran, Feb. 2011.
- 10- “Workshop of Progeny”, Molecular medicine network, Pasteur Institute of Iran, Oct. 2010.
- 11- “Workshop of “DNA SIS MAX”, Molecular medicine network, Pasteur Institute of Iran, Feb. 2010.
- 12- “Workshop of Bioinformatics”, Molecular medicine network, Pasteur Institute of Iran, Jan. 2010.
- 13- “Workshop of EndNote-X2”, Molecular medicine network, Pasteur Institute of Iran, Mar. 2009.
- 14- “Workshop of Gene Transfer into Stem Cells”, Tarbiat Modarres university, Oct. 2008.
- 15- “Workshop of Immunohistochemistry”, Monoclonal antibody research center, Feb. 2008.
- 16- “Workshop of Reference Management Using”, Molecular medicine network, Pasteur Institute of Iran, June 2007.
- 17- “Workshop of Cell Banking”, Cinnagen, Apr. 2008.

- 18- “Workshop of Quantum Nanoparticles”, and Bio-nano-technology research center, March 2008.
- 19- “Hybrid course in medical genetics of european school of genetic medicine”, ESGM's Remote Training Center of Iran, Feb. 2008.
- 20- “Workshop on Cell-based Products and Biotechnology”, Ministry of health and medical education, 2007.
- 21- “Workshop on Monoclonal Antibody”. Monoclonal antibody research center, 2007.
- 22- “Workshop on biosafety in molecular biology”. Biotechnology research center, Pasteur institute of Iran, 2007.
- 23- “Cours of Advansed Molcular Genetics”, Molecular medecine network, Pasteur Institute of Iran, may 2006.
- 24- “Workshop of Tour in NCBI”, 9th National Genetic congress, Teheran, Iran, may 2006.
- 25- “Workshop of Identification of Disease Genes”,Iranian molecular medecine network, Pasteur Institute of Iran, may 2006.
- 26- “Hybrid course in cancer genetics of european school of genetic medicine”, ESGM's Remote Training Center of Iran, Oct 2005.
- 27- “Workshop of Use of Progeny in Genetic Counseling”, Molecular medecine network, Pasteur Institute of Iran, Aug 2005.
- 28- “Workshop of Microarray”, Pasteur Institute of Iran, Aug 2005.
- 29- “Workshop of RNAi”, Pasteur Institute of Iran, Aug 2005.
- 30- “Educational Course on Genetic Softwares”,Genetic Research Center of rehabilitation university, July 2005.
- 31- “Workshop of Real-Time PCR, basic training course, operation and data analysis”, Pasteur institute of Iran, June 2005.
- 32- “Hybrid course in medical genetics of european school of genetic medicine”, ESGM's Remote Training Center of Iran,May 2005.
- 33- “Workshop of Gene Delivery Systems”, Avecina research center,Tehran, Iran, Mars 2005.
- 34- “Electronic workshop of aminoacids analysis in proteins and peptides”, Pasteur Institute, Tehran, Iran, February 2001.
- 35- “Workshop of Bioinformatics”, Pasteur Institute, Tehran, Iran, March 2002.
- 36- “Electronic workshop of protein purification” , Pasteur Institute , Tehran, Iran, December 2002.
- 37- “Workshop of molecular medecine methods”, rehabilitation university, Tehran, Iran, March 2002.
- 38- “Workshop of Strategic Planning”, Pasteur Institute, Tehran, Iran, January 2001.
- 39- “Practical Stage on Cytogenetics”, Medical genetic laboratory of Jean de Flandre Hospital, Lille, France, March 1998.

### **Course participations:**

- 1- “A teoretical and practical course on genetic counselling”, Held by “State walfare organization of Iran” Since Apr., 2012.
- 2- “A virtual course on genetic counselling”, Held by ministry of health, Since Oct., 2012.

- 3- “ English language course”. Held by Kish Institute of science and technology in Pasteur Institute of Iran. 2011-2013. Obtained Certificate of completion for I3, I4, I5, UI1 and UI2 levels.
- 4- “ICDL Diploma”, Danesh parsian institute, Tehran, Iran.
- 5- “ French language course”. Pasteur institute of Iran. 2001-2002.

### **Tutorial activities:**

- 1- Handelling a 16 hours university course on “Genetic counseling” at Tarbiat Modarres university of Tehran. Sep. - Jan. 2014.
- 2- “Workshop of DNA methylation analysis in cancer”, as a trainer, Molecular medecine network, Pasteur Institute of Iran, 10<sup>th</sup>-12<sup>st</sup> July. 2012.
- 3- Working as director of training in biotechnology research center.
- 4- Handelling a 18 hours university course on “Familly planning” at Tourism university of Tehran. Dec. 2007- May. 2008.
- 5- “Workshop of Introduction to Basic Methods in Biotechnology”, as a director of training, Dec. 2005, Jan. 2006, Mai. 2006, Aug. 2006, Sep. 2006, Aug 2007 Biotechnology research center, Pasteur Institute of Iran.

### **Responsibilities:**

- 1- “PhD by research Committee executive manager” Since Apr. 2013.
- 2- Member of “Anual evaluation comitee for uppergraguated employees”.
- 3- “Director of training” of department of molecular medicine, since 2005.
- 4- “Biosafety officer” of department of molecular medicine, since 2009.
- 5- “Genetic counseller” of Referral Center for Prenatal Diagnosis, Pasteur Institute of Iran since 2009.