

In the Name of God

Curriculum Vitae

Insert Your Name



Personal Information

Name: Mahdi Paryan
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Education

2003-2005 • **B.Sc.:** Shahid Beheshti University, Tehran, Iran, Student of Medical Laboratory Sciences
2006-2008 • **M.Sc.:** Tarbiat Modares University, Tehran, Iran, Student of Medical Biotechnology
2008-20013 • **Ph.D.:** Pasteur Institute of Iran, Tehran, Iran, Student of Medical Biotechnology

2013-present **Assistant professor at Pasteur Institute of Iran**

Teaching Experiences

2006 Molecular and Cell Biology in Payam Noor University of Shiraz (MSc Student)
2006 Bioinformatics in Tehran University of medical sciences (PhD Student)
2006 Bioinformatics in Tarbiat Modares University (PhD Student)
2007 Bioinformatics in Tehran University of medical sciences (PhD Student)
2009 Bioinformatics in Pasteur Institute of Iran (PhD Student)
2011 Novel Molecular Diagnosis Techniques in Referral Laboratory of Ministry of Health
2012 Genetic Engineering in Shahid Beheshti University (MSc Student)
2013 Novel Topics in Biotechnology in Payam Noor University of Tehran (MSc student)
2013 Environmental Biotechnology in Payam Noor University of Tehran (MSc student)
2013 Cell culture and Tissue Engineering in Azad Islamic University
2014 Novel Topics in Biotechnology in Payam Noor University of Tehran (MSc student)
2014 Bioinformatics in Pasteur Institute of Iran (PhD Student)

- 2015 Bioinformatics in Birjand University of Medical Sciences (PhD Student)
2015 Novel Topics in Biotechnology in Payam Noor University of Tehran (MSc student)

Research Projects

- 2007-2008 Development of **Multiplex NASBA Real-Time** for Quantification of HIV-1 and HCV Viruses
2008-2009 Development of **Real-Time PCR** for Quantification of HTLV-1 Virus
2008-2009 Development of **Real-Time PCR** for Quantification of HBV Virus
2009 Designing and development of **Iso-thermal methods** for amplification of RNA

Executive Responsibilities

- Ministry of Health's Inspector of Molecular diagnosis Laboratories
- Technical Supervisor of Equipments and diagnostics kits at Production & Research Complex of Pasteur Institute
- CEO at Practical Genomics Research and development laboratory of Production & Research Complex of Pasteur Institute
- Supervisor of Research, development and education committee of Production & Research Complex of Pasteur Institute

Laboratory setups

- Cellular and Molecular Lab at Production & Research Complex of Pasteur Institute
- Collaboration in Molecular diagnosis laboratory set up at Shariati Hospital
- Molecular diagnosis laboratory of Pasteur Institute, North Branch, Amol
- Collaboration in Passive defense laboratory in Pasteur Institute of Iran

Ongoing and Finished Research Projects

- 2006** Development a Multiplex Real Time NASBA using Molecular Beacon Probes for simultaneous detection of HIV and HCV in Plasma samples (Tarbiat Modares University)
- 2008** Production of safe human induced pluripotent stem cell form dermatocytes using Piggy Bac transposon system (Bon Yakhteh research center)
- 2009** Development of an In-house Real Time PCR for quantification of HTLV-I (Qaem hospital and Bu-ali research center of Mashhad)
- 2009** Development of an In-house Real Time PCR for quantification of HBV (Qaem hospital and Bu-ali research center of Mashhad)
- 2009** Development of a Real Time PCR using SYBR Green I and TaqMan probes for Mycobacterium Tuberculosis detection (Mashad University of Medical Sciences)
- 2010** Development of an HCV molecular diagnosis kit for the detection of viral load in plasma samples (Bon Yakhteh research center)
- 2010** Investigation of miRNA role in functional characteristics of stem cells (Bon Yakhteh

research center)

2010 Development of bacterial meningitis diagnostic kit (Bon Yakhteh research center)

2011 Evaluation of two miRNA biomarkers of NOTCH1 signaling pathway in acute lymphoblastic Leukemia with diagnostic and therapeutical perspective (Bon Yakhteh research center)

2011 Production of human stem cells induced by non-integrating episomal vectors (Bon Yakhteh research center)

2011 Expression of c-MYC and ZNF703 in breast cancer cells using cellular miRNAs (Bon Yakhteh research center)

2014 Design and development of real time PCR kit for detection and quantification of Host cell residual DNA in HBV vaccine, Streptokinase and erythropoitin (Pasteur Institute of Iran)

2014 Assessment of the expression of NOTCH1-inhibiting miR-9 on metastasis and invasion of breast cancer cells (Shahid Beheshti University of Medical sciences)

2014 Evaluation of c-myc expression and its inhibiting miRNA in cell lines and clinical samples of breast cancer patients (Shahid Beheshti University of Medical sciences)

2014 Analysis of mTOR gene and its targeting miRNA in clinical samples of breast cancer patients (Shahid Beheshti University of Medical sciences)

2014 Evaluation of the correlation between RhoA and miR-31 expression in breast cancer patients (Shahid Beheshti University of Medical sciences)

2014 Design and development of a real time PCR kit for the detection of residual host DNA in biological products and recombinant pharmaceuticals

2014 Investigating the role of miR-144 in CTNNB1 gene repression in metastatic breast cancer (Shahid Beheshti University of Medical sciences)

2015 Design and development of a rapid diagnosis kit for tuberculosis

Supervision of MSc and PhD theses

1. Assessment of miRNA role on CD1 expression level in metastatic breast cancer cell line MDA-MB-231 (Azad Islamic University)
2. Assessment of miRNA role on beta-catenin expression level in metastatic breast cancer cell line MDA-MB-231 (Azad Islamic University)
3. Design and development of a real time pCR-based method for the detection of Host residual DNA in HBV vaccine (Azad Islamic University)
4. Assessment of the role of miRNAs on expression level of CD1 and beta-catenin in HepG2 cells (tabriz University of Medical Sciences)
5. Assessment of the role of miRNAs on expression level of Wnt and c-myc in HepG2 cells (tabriz University of Medical Sciences)
6. Targeting of PI3K gene in invasive MDA-MB-231 cells (Semnan University of Medical

Sciences)

7. Evaluation of mTOR gene expression in invasive MDA-MB-231 cells and construction of an miRNA targeting mTOR mRNA (Tehran University of Medical Sciences)
8. Development of a quantitative real-time PCR for the detection of E.coli residual DNA in recombinant streptokinase (Azad Islamic University)
9. Development of a multiplex PCR diagnostic kit for simultaneous detection of three common bacterial meningitis agnets (Arak University of Medical Sciences)
10. Development of a multiplex PCR diagnostic kit for simultaneous detection of S.aureus, Acenitobacter baumani and P.aeroginosa in ventilator-dependent pneumonia (Arak University of Medical Sciences)
11. Identification of blood stream miRNAs as a potential biomarker in AML (Zanjan University of Medical Sciences)
12. Analysis of AXL signaling pathway and its controlling miRNAs in blood and tissue samples of Medullary thyroid carcinoma (shahid beheshti university of medical sciences)
13. Development of a TaqMan real-time PCRfor the detection of host cell DNA contamination in recombinant EPO. (Gilan University)

Patents

- Design and development of a Multiplex Reai Time NASBA kit using Molecular Beacon probes for simultaneous detection of HIV and HCV in Plasma samples (Iranian Patent Office number: 007868)
- Design and development of a Multiplex Reai Time RT-PCR kit for simultaneous detection of HIV and HCV using SYBR Green I and Melting Curve Analysis (Iranian Patent Office number: 005498)
- Design and Development a rapid and cost-effective Stem loop real time PCR for the analysis of miRNA expression (Iranian Patent Office number: 84667)

Professional Membership

- Iranian association of biotechnology
- Reviewer of Arak Journal of medical sciences
- Member of the technology committee of Pasteur Insttute of Iran

Awards, Honors & Recognitions

- Graduated *cum laude* form Tarbiat Modares University
- Graduated *summa cum laude* form Tarbiat Modares University

Scientific Skills

- Fluent in Excel, Word, Powerpoint, Access (2007 Microsoft Office)
- Fluent in Biology Softwer applications
- Real-time PCR probe and primer design
- Proficeint in Real-time PCR operation and analysis
- PCR-ELISA
- Proficeint in Isothermal amplification methods
- Molecular cloning, western blotting and RFLP
- Animal cell cuture
- Profeceint in cellular transfection and transduction nad viral packaging
- Proficeint in handling lentiviral vectors
- Proficeint in design, cloning and profile analysis of miRNAs

Courses & Workshops

1. Teacher of the first workshop of practical bioinformatics in microbiology, Pasteur Institute of Iran
2. Teacher of a one-week bioinformatics workshop, Tehran University of Medical Sciences
3. Teacher of the first bioinformatics workshop – primer and probe design, Influenza department, Pasteur Institute of Iran
4. Teacher of the first Real-time PCR workshop, Influenza department, Pasteur Institute of Iran
5. Teacher of the second bioinformatics workshop – primer and probe design, Influenza department, Pasteur Institute of Iran
6. Teacher of the second Real-time PCR workshop, Influenza department, Pasteur Institute of Iran
7. Teacher of the third bioinformatics workshop – primer and probe design, Influenza department, Pasteur Institute of Iran
8. Teacher of the third bioinformatics workshop – primer and probe design for Real-time PCR, Influenza department, Pasteur Institute of Iran
9. Teacher of the third workshop on sequencing, Pasteur Institute of Iran
10. Teacher of the third bioinformatics workshop – primer design for PCR, Influenza department, Pasteur Institute of Iran
11. Main instructor of workshops of bioinformatics and Real-time PCR in Green Company (first to eighth)
12. Executive and teacher in the workshop of Real-time PCR at Bon Yakhteh research center
13. Executive and teacher in the workshop of bioinformatics and primer design for Molecular Medicine Network, Pasteur Institute of Iran.
14. Executive and teacher in the workshop of Real-time PCR, Shariati Hospital
15. Executive and teacher in the workshop of Real-time PCR, international congress of Immunology
16. Executive and teacher of the workshop on quality control and validation of molecular methods, international congress of Laboratory and clinic
17. Teacher of the national workshop on laboratory diagnosis of HIV, referral health laboratory, ministry of health
18. Teacher of the workshop on bioinformatics and primer design, cellular and molecular research center, Shahid Beheshti University
19. Teacher of the workshop on Real-time PCR, Tehran University of Medical Sciences
20. Executive manager of a one-day seminar on the application of molecular methods in infectious disease, Shahrood University of Medical Sciences

Courses & Workshops Participated

- Participated in the workshop “ Application of PCR-ELISA for molecular diagnosis of microorg

Interests

- Molecular Research
- Reverse Vaccinology
- Bioinformatic Research

Publications

- Books**
- Applied Bioinformatics (Persian) RoodGoon Publications, 2014

Articles

1. Shahrabi M, Forouzandeh M, Sabahi F, **Paryan M**. Development of NASBA-ELISA technique for detection of HIV-1 RNA. *Sci J Iran Blood Transfus Org* 2011; 8(1): 42-51
2. **Paryan M**, Mondanizadeh M, Mohammadi-Yeganeh S, Khansarinejad B. Development and application of a sensitive multiplex real-time RT-PCR for simultaneously detection of HIV-1 and HCV in plasma samples. *Arak Medical University Journal (AMUJ)*, 2011; 14(58): 1-10
3. **Paryan M**, Fourouzandeh moghadam M, Mohammadi-Yeganeh S. Application of a NASBA Real-time assay using molecular beacon for detection of HCV virus. *Sci J Iran Blood Transfus Org* 2012; 9(1):19-26
4. **Paryan M**, Mohammadi-Yeganeh S, Mondanizadeh M, Khansarinejad B. Multiplex RT-PCR assay for detection of Co-infection HIV-1 and HCV viruses in plasma samples. *Journal of Gorgan University of Medical Sciences*, 2012 / vol 14 / no 1
5. **Paryan Mahdi**, Samira Mohammadi-Yeganeh, Behzad Khansarinejad, Mahdieh Mondanizadeh. Simultaneous Diagnosis of HIV-1 and HCV Infections by Nucleic Acid Sequence-Based Amplification. *Journal of Isfahan Medical School*, Vol 29, No 172, 4th week, March 2012
6. Mahmood Naderi- **Mahdi Paryan**- Kayhan Azadmanesh- Houshang Rafatpanah- Hourri Rezavan- Siamak Mirab Samiee. Design and development of a quantitative real time PCR assay for monitoring of HTLV-1 provirus in whole blood. *Jur. Clinical Virology*. 2012
7. Samiee SM, Mohammadi-Yeganeh S, **Paryan M**, Rezavan H, Mostafavi E, Pasalar P. Polymorphism detection of VKORC1 and CYP2C9 genes for the Warfarin dose adjustment by real-time PCR. *Thrita Journal of medical Sciences* .March 2014, DOI:10.5812
8. Vahid Kia; Mahdi Forouzandeh Moghadam; **Mahdi Paryan**; Abbasali Raz; Siamak Mirab Samiee. Simultaneous detection and identification of HBV and HTLV-1 viruses by Melting curve analysis of multiplex Real-time PCR. *Molecular and Biochemical Diagnosis*. 2013 September 22
9. P. Mokarram, M. Rismanchi, M. Alizadeh Naeeni, S. Mirab Samiee, **M. Paryan**, A. Alipour, Z. Honardar, S. Kavousipour, F. Naghibalhossaini, Z. Mostafavi-Pour, A. Monabati, S. V. Hosseni, S. A. Shamsdin. Microsatellite instability typing in serum and tissue of patients with colorectal cancer: comparing real time PCR with hybridization probe and high-performance liquid chromatography. *Mol Biol Rep*. 11 January 2014
10. Behzad Khansarinejad-Hooreih Soleimanjahi- Siamak Mirab Samiee-Amirali Hamidieh- **Mahdi Paryan**- Yadollah Sanahmadi. Monitoring human cytomegalovirus infection in pediatric hematopoietic stem cell transplant recipients: using an affordable in-house qPCR assay for management of HCMV infection under limited resources. *Transplant International*. 2015 Feb 20. doi:

10.1111/tri.12545.

11. M. Rismanchi, P. Mokarram, M. Alizadeh Naeeni, **M. Paryan**, Z. Honardar, S. Kavousipour, A. Alipour. *Microsatellite instability detection using BAT-25 and BAT-26 by Real Time PCR and HPLC in colorectal cancer. Tehran University Medical Journal, March 2014; Vol. 71, No. 12: 753-762*
12. Mohammadi-Yeganeh S, Mansouri A, **Paryan M**. *Targeting Of miR9/NOTCH1 Interaction Reduces Metastatic Behavior in Triple-negative Breast Cancer. Chem Biol Drug Des. 2015 May 11. doi: 10.1111/cbdd.12584.*
13. Abedi N, Mohammadi-Yeganeh S, Koochaki A, Karami F, **Paryan M**. *miR-141 as potential suppressor of β -catenin in breast cancer. Tumour Biol. 2015 Jul 13. [Epub ahead of print]*
14. **Mahdi Paryan**, Samira Mohammadi-Yeganeh, Hourii Rezvan, Vahid Kia, Ardalan Mansouri, Siamak Mirab Samiee. *Simultaneous detection and genotype determination of HSV 1 and 2 by Real-time PCR using melting curve analysis using a unique pair of primers. Applied Immunohistochemistry & Molecular Morphology.2015(Impress)*
15. Fariba Karami, Samira Mohammadi-Yeganeh, Nairi Abedi, Ameneh Koochaki, Vahid Kia, **Mahdi Paryan**. *Bioinformatics prediction and in vitro analysis revealed that miR-17 targets Cyclin D1 mRNA in Triple Negative Breast Cancer cells. Chemical Biology & Drug Design. 2015(Impress)*

Abstracts

1. Presenting a lecture in the 5th National Biotechnology Congress entitled: Development of Multiplex Real-time RT-PCR technique for simultaneous detection of HCV and HIV-1 in plasma sample
2. Presenting a lecture in the Ninth Iranian Congress of Biochemistry and the 2nd International congress of Biochemistry & Molecular Biology entitled: Design and development of multiplex NASBA technique for simultaneous detection of HIV-1 and HCV
3. Presenting a lecture in the First Iranian Congress of Lab Science entitled: Design and development of multiplex PCR Real-time technique for simultaneous detection of HIV-1 and HCV and HTLV-1

Oral Presentations and Posters

1. **Oral presentation in 5th national congress of biotechnology** (development of multiplex real-time RT-PCR for simultaneous detection of HCV and HIV-1 in plasma samples)
2. **Poster presentation in 9th international biochemistry and 2nd international molecular biology congress** (design and development of multiplex NASBA for simultaneous detection of HIV-1 and HCV)
3. **Oral presentation in the 1st international and 6th national congress of Quality improvement of laboratory** (development of multiplex real-time PCR for simultaneous detection of HBV, HIV-1 and HTLV-1 using SYBR Green I)
4. **Poster presentation in 4th congress of breast cancer** (analysis of breast cancer model of metastasis and identification of genes regulated by miRNA)

5. **Accepted as the best oral presenter in 5th breast cancer congress** (use of miRNAs as therapeutic candidates)
6. **Accepted as the best poster presenter in 15th international congress of Royan** (investigation of the role of miRNAs in spermatogenesis and male infertility)
7. **Oral presentation in the congress of disease diagnosis and its effect on health** (novel methods for viral infection detection)
8. **Oral presentation in quality improvement of laboratory** (quality assurance in clinical diagnosis laboratories)
9. **Poster presentation in 15th iranian microbiology congress** (Roles of miRNAs in the Hepatitis B infection)
10. **Poster presentation in 15th international congress of Royan** (miRNAs in breast cancer stem cells and their potential for breast cancer therapy)
11. **Poster presentation in 5th international congress of research achievements in medical sciences** (new approach to the breast cancer treatment using miRNA)
12. **Poster presentation in 5th international congress of research achievements in medical sciences** (miRNAs as novel biomarkers for breast cancer treatment)
13. **Poster presentation in the 7th congress of breast cancer – Jihad Daneshgahi** (Bioinformatical prediction of miRNAs targeting β -catenin in breast cancer)
14. **Poster presentation in the 7th congress of breast cancer – Jihad Daneshgahi** (Recruitment of bioinformatics prediction for investigation the role of miRNAs in inhibition of Cyclin D1 gene in Breast Cancer)
15. **oral presentation in the 7th congress of breast cancer – Jihad Daneshgahi** (investigation of the effect of miRNA expression on inhibition of beta-catenin and breast cancer metastasis)
16. **poster presentation in 4th international congress of molecular technology-biotechnology and drug design** (investigation of the feasibility of c-myc inhibition by miRNA as a new pharmacological approach)
17. **poster presentation in the 1st international and 9th national congress of biotechnology** (bioinformatic prediction of miRNA targeting WNT and c-MYC genes)
18. **poster presentation in the 1st international and 9th national congress of biotechnology** (using SYBR Green I real-time PCR method for quantification of residual host cell DNA in HBV vaccine)
19. **poster presentation in 6th international hepatitis congress** (detection of residual host cell DNA by polymerase chain reaction in recombinant hepatitis B vaccine)
20. **poster presentation in the 16th international congress of Royan** (development of a real-time PCR for the quantification of residual host cell DNA (E.coli) in streptokinase recombinant product)

Recommenders

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Language skills

Persian

English