

## Curriculum Vitae



### Maryam Abedi

#### Personal Data

Birth Date: November 20, 1989

Nationality: Iranian

Marital Status: Single

#### Contact Information

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#### Education

2016-Present	PhD student of Medical Genetics, Isfahan University of Medical Sciences
2012-2015	MSc. student of Human Genetics, Isfahan University of Medical Sciences
2008-2012	BSc. Student of Genetics, Shahid Chamran University of Ahvaz

#### Honors

- Member of bright talent department of Shahid Chamran University of Ahvaz
- Summa cum laude graduate from Shahid Chamran University of Ahvaz for the BSc degree

#### Skills and Capabilities

- Molecular biology techniques (real time PCR, RNA extraction, cDNA synthesis, ...)
- Bioinformatics (miRNA databases, pathway databases, high-throughput databases such as Gene Expression Omnibus (GEO), protein-protein interaction databases, ...)
- Microarray data analysis
- Systems biology (network construction and analysis, Cytoscape software, ...)

## Teaching Experience

- Educational course of the sixth science Olympiad of university of medical sciences
- Bioinformatics courses for MSc and PhD Students, Isfahan University of Medical Sciences
- Systems biology course for PhD Students, Isfahan University of Medical Sciences
- Systems biology workshop, Regenerative Medicine Lab, Kidney Diseases Research Center, Isfahan University of Medical Sciences

## Research Projects

2016-now	Multi-layer network in Diabetic nephropathy
2016-now	The prediction of drug targets using machine learning methods.
2012-2015	The assessment of microRNA profile and the microRNA-protein interaction network in diabetic nephropathy with a combination of experimental and computational approaches (MSc. Thesis)
2014-2015	Assessing the significance of topographic parameters of nodes in protein-protein interaction networks for pathway enrichment analysis
2014-now	MicroRNA target identification improves pathway enrichment analysis with transcriptomics data
2014-2016	Computational analysis to identify microRNAs involved in the differentiation of renal stem cell to myofibroblast cell
2013-2015	Assessment of the behavior of regenerating cells in chronic kidney disease (supported by Iranian council of stem cell technology)
2013-2014	Commercialization of stem cell science and regenerative medicine (supported by SABZ Biomedicals company)

## Congress Presentation

- **Maryam Abedi**, Computational Analysis of Stromal-Epithelial Interaction Network in Human Breast Cancer, 1st International & 8th Annual Tehran Breast Cancer Congress (Oral Presentation).
- Farnoush Kianpour, **Maryam Abedi**. Gene expression analysis of pancreatic beta-cells from type 2 diabetes provides insight toward the pathogenesis of T2DM. The Third National Congress on Molecular Medicine (Poster).
- Farnoush Kianpour, Yousof Gheisari, **Maryam Abedi**. Microarray Reanalysis of Diabetic Nephropathy Data Provides Insights into the Pathogenesis of the

Disease. The Second National Festival and International Congress on Stem Cell and Regenerative Medicine (Poster)

## **Publications**

- Razieh Fatehi, Sharifeh Khosravi, **Maryam Abedi**, Rasoul Salehi, Yousof Gheisari. Heterozygosity analysis of polycystic kidney disease 1 gene microsatellite markers for linkage analysis of autosomal dominant polycystic kidney disease type 1 in the Iranian population. Sep 2017 Journal of Research in Medical Sciences)
- Louise V. Wain, Ahmad Vaez, Rick Jansen, ..., **Maryam Abedi**, ... . Novel Blood Pressure Locus and Gene Discovery Using Genome-Wide Association Study and Expression Data Sets From Blood and the Kidney. Jul 2017 Hypertension.
- Shiva Moein, Shaghayegh Haghjooy Javanmard, **Maryam Abedi**, Mohammad Hosein Izadpanahi, Yousof Gheisari. Identification of appropriate housekeeping genes for gene expression analysis in long-term hypoxia-treated kidney cells. Feb 2017 Advanced Biomedical Research.
- Reyhaneh Rabieian, **Maryam Abedi**, Yousof Gheisari. Central Nodes in Protein Interaction Networks Drive Critical Functions in TGF- $\beta$  Stimulated Kidney Cells, Jan 2017 Cell Journal (Yakhteh).
- Sayyed-Morteza Hosseini, Fariba Moulavi, Nima Tanhaie-Vash, Vajihe Asgari, Hamid-Reza Ghanaei, **Maryam Abedi-Dorche**, Naser Jafarzadeh, Hossein Gourabi, Abdol-Hossein Shahverdi, Ahmad Vosough Dizaj, Abolfazl Shirazi , Mohammad-Hossein Nasr-Esfahani. The Principal Forces of Oocyte Polarity Are Evolutionary Conserved but May Not Affect the Contribution of the First Two Blastomeres to the Blastocyst Development in Mammals. Mar 2016 PLOS One.
- **Maryam Abedi** and Yousof Gheisari. Nodes with high centrality in protein interaction networks are responsible for driving signaling pathways in diabetic nephropathy. Oct 2015 PeerJ.
- **Maryam Abedi**, Kobra Moradzadeh, Razieh Fatehi and Yousof Gheisari. MicroRNA target identification improves pathway enrichment analysis with gene expression data (in progress).
- Participation in translation of "Genetics in Practice, A clinical approach for healthcare practitioners, 2007, Author: Haydon J" (under review and editing)
- Participation in translation of "Practical genetic counseling, 2010, Author: Harper PS" (under review and editing)

### **Publication of The International Consortium of Blood Pressure (ICBP) 1000G Analyses**

- Helen R warren, Evangelos Evangelou, Claudia P Cabrera, ..., The International consortium of Blood Pressure (ICBP) 1000g Analyses (Louise V Wain, Ahmad Vaez, ....., **Maryam Abedi**, ...) . Genome-wide association analysis identifies novel blood pressure loci and offers biological insights into cardiovascular risk. Jan 2017 Nature Genetics.

### **Participation in Workshops**

- Systems Biology workshop, Pasteur Institute of Iran, 2014.
- Summer School of Critical Thinking, National Elites Foundation of Isfahan, 2014.
- Primer Design workshop, Department of Genetics, Shahid Chamran University of Ahvaz, 2012.
- Molecular Biology Techniques workshop, Biotechnology and Biology Research Center of Shahid Chamran University of Ahvaz, 2011.

### **Referees**

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