***Kolsoum Inanloo Rahatloo***

**Ph.D., Assistant Professor** Contact Information

Department of Cell and Molecular Biology (Genetic) Enghelab Avenue , Tehran 14155-6955, Iran

School of Biology **Email** inanloo@ut.ac.ir

Colleage of Science

**University of Tehran**

**Education**

**Ph.D.** **University of Tehran, Iran** 2008- 2013

**Genome Analysis, Fritz Lipmann Institute, Germany**

Cell and Molecular Biology Program

Advisor: Elahe Elahi, Ph.D.

Thesis: Genome Wide Linkage Analysis of Coronary Artery Disease.

**M.Sc.** **University of Tehran, Iran** 2005- 2007

Cell and Molecular Biology Program

Advisor: Ali Farazmand, Ph.D.

Thesis: Expression studies of DMRT genes in two species of Uremia Lake Artemia.

**B.A.** **University of Tehran, Iran** 2001- 2005

Zoology Program

Advisor: Ali Farazmand, Ph.D.

Thesis: Comparison of protein profile between bisexual and parthenogenetic species of Artemia

**Funding**

Genetic research center-10000$ (2016)

National institute for medical research development (NIMAD) -36000$ (2017)

**Research and Work experience**

[**University of Social Welfare and Rehabilitation Sciences**](https://www.researchgate.net/institution/University_of_Social_Welfare_and_Rehabilitation_Sciences)**, Tehran, Iran. 2016-2018**

Genetic Research Center- Postdoctoral fellow

* Identification of proteins and pathways involved in Intellectual disability using RNA sequencing
* Integrating exome and transcriptome sequencing to detect the causative mutations in ID families

**Stanford University, CA, USA. 2013-2015**

School of Medicine- Postdoctoral Fellow

* Developing targeted Next-Generation sequencing assay for inherited heart diseases using illumina MiSeq technology
* Study the role of TGFβ signaling in left ventricular non-compaction cardiomyopathy
* Study the Sex- and Age-based differences in myocardial gene expression
* Compare the expression profile of iPSC and ESC lines using RNA-Seq and Chip-Seq

**Fritz Lipmann Institute for Age Research, Jena, Germany 2011-2013**

Visiting Student

**Project scope:**

* Splice donor polymorphisms of cystathionine beta-synthase gene and association with susceptibility and outcome of sepsis.

**Pasteur Institute, Tehran, Iran. 2008-2010**

Visiting Researcher

**Project scope:**

* Produce monoclonal antibodies

**Teaching Experience**

Genetic engineering, M.Sc program

Molecular Genetics, Ph.D program

Cancer Genetics, M.Sc program

Immunogenetics, PhD program

**Papers in Journals**

**InanlooRahatloo K**, Liang G, Vo D, Ebert A, Nguyen I, et al. (2017) Sex-based differences in myocardial gene expression in recently deceased organ donors with no prior cardiovascular disease. PLOS ONE 12(8): e0183874. <https://doi.org/10.1371/journal.pone.0183874>

Kodo, K., Ong, S., Jahanbani, F., Termglinchan, V., **InanlooRahatloo, K**., Ebert, A., Shukla, P., Abilez, O., Churko, J., Karakikes, I., Jung, G., Ichida, F., Wu, S., Snyder, M., Bernstein, D., Wu, J. iPSC-derived cardiomyocytes reveal abnormal TGF-βsignalling in left ventricular non-compaction cardiomyopathy. Nature Cell Biology. Accepted.

Wilson, K.D., Shen, P., Fung, E., Karakikes, I., Zhang, A., **InanlooRahatloo, K**., Odegaard, J., Sallam, K., Davis, R.W., Lui, G.K., Ashley, E.A., Scharfe, C., Wu, J.C. A Rapid, High-Quality, Cost-Effective, Comprehensive and Expandable Targeted Next-Generation Sequencing Assay for Inherited Heart Diseases. Circ Res. 2015 Sep 11;117(7):603-11. doi: 10.1161/CIRCRESAHA.115.306723.

Sponholz, C., Kramer, M., Schöneweck, F., Menzel, U., **InanlooRahatloo, K**., Giamarellos-Bourboulis E., Papavassileiou, V., Lymberopoulou, K., Pavlaki, M., Koutelidakis, I., Perdios, I., Bauer, M., Platzer. M., Huse, K. Splice donor polymorphisms of cystathionine beta-synthase gene are associated with susceptibility and outcome of sepsis. European Journal of Human Genetics. 2015 Oct 28. doi: 10.1038/ejhg.2015.231.

**InanlooRahatloo K.**, Zand-parsa A. F., Huse K., Rasooli P., Davaran S., Platzer M., Kramer M., Fun J.B., Amini S., Steemers F. & Elahi H.2014.Mutation in *ST6GALNAC5* identified in family with coronary artery disease**.** Scientific Reports 4: 3595 doi:10.1038/srep03595.

**InanlooRahatloo K.**, Zand-parsa A. F., Huse K., Rasooli P., Davaran S., Platzer M. Fun J.B., Amini S., Steemers F. & Elahi H. 2013. Mutation in *CYP27A1* identified in family with coronary artery disease**.** Eur J Med Genet. 28;56(12):655-60.

**Inanloo Rahatloo K**, S.Davaran & Elahi E. 2013. Lack of association between the MEF2A Gene and Coronary Artery Disease in Iranian families. Iran J Basic Med Sci.16: 950-954.

Farazmand, A., **K. Inanloo** & N. Motamed. 2009. Comparison of protein profile between bisexual and parthenogenetic species of Artemia (BRANCHIOPODA, ANOSTRACA). Crustaceana, 82 (10): 1237-1248.

Farazmand, A., **K. Inanloo** & N.Agh. 2010. Expression of DMRT family genes during gonadal differentiation in two species of Artemia (BRANCHIOPODA, ANOSTRACA) from Urmia lake (IRAN). Crustaceana, 83 (10): 1153-1165.

**Selected Postersand Presentation**

Peymani, F., **InanlooRahatloo K**., Kahrizi K., Najmabadi H. Identification of molecular pathways involved in Intellectual disability in family with mutation in CDK9 gene using RNA-seq. 3rd international and 15th Iranian Genetics congress. May15-18, 2018. Tehran.Iran. Poster

**InanlooRahatloo, K**, Liang G, Vo D, Nguyen I, Elbert A.D, Wu J.C, Nguyen P. Sexually dimorphic gene expression in human left ventricle tissue. OSSD Ninth Annual Meeting. April 21-23, 2015.Stanford, CA. Poster

Kodo K., Ong S.G., Jahanbani F., Termglinchan V., **Inanloorahatloo K**., Elbert A., Shukla P., Wu JC. Abnormal Activation of TGFβ Signaling as a Pathogenesis of Left Ventricular Non-compaction Cardiomyopathy. Circulation. 2015; 132; A12501-A12501.

Kodo K., Ong S.G., Jahanbani F., Termglinchan V., **InanlooRahatloo K.**, Ebert A., Shukla P., Abilez O., Churko J., Karakikes I., Jung G., Snyder M.P., Bernstein D., Wu J.C. Aberrant TGFβ Signaling as an Etiology of Left Ventricular Non-compaction Cardiomyopathy. Circulation Research. 117; A248.

**InanlooRahatloo, K**.,Zand-parsa A.F.,E. Elahi, S. Davaran. 2014. Mutation in ST6GALNAC5 identified in family with coronary artery disease. 19th WORLD CONGRESS ON HEART DISEASE. BOSTON, MA, USA, JULY 25-28, 2014. Oral.

**InanlooRahatloo, K**.,E. Elahi, S. Davaran, J. Bing-Fan. 2012**.** Whole exome sequencing combined with linkage analysis identifies novel variations in a large Coronary Artery Disease family. European Conference of Human Genetics, Nurenberg, Germany, June 23-26 Poster presentation.

**Inanloo, K**., E.Elahi., S. Davaran., A.F. Zand.Parsa, & J. Bing-Fan. 2011. A Genome wide linkage analysis on large Coronary Artery Disease family suggests linkage to chromosome 19. European Conference of Human Genetics, Amsterdam, Netherland, May 28 – 31– poster presentation.

**Inanloo, K**., E.Elahi & E. Jaberi. 2011. Mutation Screening of MEF2A Gene in Iranian afflicted with Coronary Artery Disease.The First International Student Congress on Cell and Molecular Medicine, Shiraz-Iran. February 17th-19th, 2011– poster presentation.

**Inanloo, K**., A. Farazmand, & N. Agh.2007. Expression of DMRT family gene homologue among Iranian Artemia, .The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology Shiraz-Iran, October.29-Novamber 1– poster presentation.

**Inanloo, K**., A. Farazmand, & N. Agh. 2007. Dmrt family homologue gene expression among Iranian Artemia, .6th INTERNATIONAL LARGE BRANCHIOPOD SYMPOSIUM, Nagarjuna Nagar university, India , 16 – 20 September – Oral.

**Inanloo, K**., A. Farazmand, & N. Motamed. 2006. Protein profile comparison of reproductive system between bisexual(Artemia urmiana) and parthenogenetic (Artemia parthenogenetica) species of Iranian Artemia, 39th annual meeting of the soviety for the study of reproduction (SSR), United States, Omaha,Nebraska, July29- 1 August -poster presentation.

**Inanloo, K**., & A. Farazmand,. 2006. Comparison of protein profile in gonads of Artemia Urmiana and Artemia Parthenogenetica. 9th Iranian Genetic congress, Milad Hospital, 20-22 may – poster Presentation.

**Books**

1-Ekhtiary H, **InanlooRahatloo K** [Genetic. Tehran:Mehromah Pub. 1386] In Persian

2- Ekhtiary H,Hesam M, **InanlooRahatloo K** [Biology. Tehran:Mehromah Pub. 1384] In Persian

**Participation in the organization of Conferences**

1. The First Iranian Proteomics Congress, February 2007, University of Tehran, Tehran, Iran – Organized by the Iranian Proteomics Society and the Iranian Medical Proteomics Society

2. The 15th Iranian & 3rd International Conference of Biology, August 2008, University of Tehran, Tehran, Iran – Organized by the University of Tehran

**Research Interests**

* Genetic and Epigenetic studies
* Cell and Molecular Biology
* Characterization and analysis of genomic variants
* Stem cell Research
* Next-Generation Sequencing (NGS) and analysis
* Process and manage large amount of data
* Genome scale data visualization
* Sex Difference research