

**Leila Najd Hassan Bonab**

**MSc, Cellular and Molecular, 2017; Royan Institute (Science and Culture)**

**PhD candidate of Molecular Genetics**

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## **Background**

I was interested in experimental science from elementary school. I started my university education in biology. Then I started teaching biology in high school. I got MSc degree in cellular and molecular by focusing in designing molecular kit for genotyping Apolipoprotein E polymorphisms. Furthermore, I passed some advanced courses of Computer science and Biology such as bioinformatics, genetic (GWAS, NGS).

## **Technical skills and Genetics Laboratory**

Kariminejad - Najmabadi Pathology & Genetics Center

Research Institute for Endocrine Sciences Shahid Beheshti University of Medical Sciences

Tehran, Iran

- Expert technician in genetic lab with full experience on DNA extraction and banking, PCR based test and Electrophoresis of nucleic acids
- Designing of primers for different PCR based methods such as tetra-ARMS PCR primers
- Performing qualitative Polymerase Chain Reaction (PCR) techniques
- Providing PCR troubleshooting protocols
- Teaching the laboratory techniques and principles of working with laboratory equipment to new researchers
- Troubleshooting researchers' technical issues
- Analyzing the research outputs
- Familiar with data extraction of ONLINE DATABASES and SITES:

- experience on annotation and analyzing of Whole Exome Sequencing, Whole Exom Sequencing and genomic Chip data by: SAM tools, BAM tools, VCF tools, Plink, IGV

**Thesis Title:**

**Designing a molecular kit for genotyping Apolipoprotein E polymorphisms by Tetra-ARMS PCR**

**Publications**

1. **Najd Hassan Bonab, Leila**, Maryam Moazzam-Jazi, Reyhaneh-Sadat Miri Moosavi, Mohammad-Sadegh Fallah, Hossein Lanjanian, Sajedeh Masjouidi, and Maryam S. Daneshpour. "Low HDL concentration in rs2048327-G carriers can predispose men to develop coronary heart disease: Tehran Cardiometabolic genetic study (TCGS)." *Gene* 778 (2021): 145485.
2. Javanrouh Givi, N., **Najd Hassan Bonab, L.**, Barzin, M. et al. The joint effect of PPARG upstream genetic variation in association with long-term persistent obesity: Tehran cardio-metabolic genetic study (TCGS). *Eat Weight Disord* (2021). <https://doi.org/10.1007/s40519-020-01063-7>
3. Moazzam-Jazi, M., **Najd Hassan Bonab, L.**, Zahedi, A.S. et al. High genetic burden of type 2 diabetes can promote the high prevalence of disease: a longitudinal cohort study in Iran. *Sci Rep* 10, 14006 (2020). <https://doi.org/10.1038/s41598-020-70725-4>
4. Yari M, **Najd Hassan Bonab L**, Ahmadi R. Study of the effects of orchietomy and testosterone and estradiol administration on lipids profile in male rats. *J Shahid Sadoughi Uni Med Sci* 2019; 27(4): 1415-25
5. Kernel machine SNP set analysis finds the association of BUD13, ZPR1, and APOA5 variants with metabolic syndrome in Tehran Cardio-metabolic Genetics Study

**Presentation and Conference Proceeding**

**Oral**

**"Testosterone, K<sub>ATP</sub> Channels Openers or Blocker and Insulin Sensitivity"**

(Istanbul, Turkey, 27-28 Sep 2019)

## **National Patent:**

Designing a molecular kit for genotyping Apolipoprotein E polymorphisms by Tetra-ARMS PCR

## **Books:**

- Cultivating Cell & Tissue
- Cell Culture Basics

## **Honors:**

- Best paper of the International Conference of chemical, Environmental and Biomedical Sciences (ICCEBS20)-Turkey
- Selected as the top graduated student (M.Sc.), University of Science and Culture
- Second rank in Startup Biology Competition (Al-Zahra University)

## **Conferences:**

- 17th C-HPP Symposium, Royan Research Institute
- 3rd International Congress of Iranian Personal Medicine
- Systematic Review / Meta-Analysis Articles

## **Education Courses:**

- Genetic counseling
- Application of Next generation Sequencing in clinical Diagnosis
- Concept of genome wide association studies and their importance
- Introduction to DNA and Protein Databases (summer school)
- Bioinformatics, Linux and shell script
- clinical genomics and NGS • ESHG
- Preliminary and Advanced Research Methodology
- Article Writing
- Programming with R
- Peer review for scientific articles

## Computer skills

### **Statistical Software**

- Competent with most of Microsoft Office programmers; good knowledge about HTML, Windows, Linux.
- Programming: AWK and Bash (Advance)
- Some software for NGS study like as Samtools, Bam tools...
- R / RStudio
- SPSS
- Hierarchical clustering

### **Genetic Software**

- PLINK
- PROGENY
- GeneRunner
- Haploview
- SNPAnalyzer
- R genetic packages

### Other

- Endnote
- Mendeley reference manager
- Office ( word, excel, PowerPoint, access, Visio)

### Language

- English ( fluent)
- Turkish (fluent)

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