Maryam Moazzam Jazi

Academic Education

2011 – 2017: Ph.D, Molecular Genetics, National Institute of Genetic Engineering and Biotechnology (NIGEB), Tehran, Iran. Thesis title: Transcriptome study and identification of salt stress-responsive genes in pistachio (Pistacia vera L.) using RNA-seq

2006 – 2009: M.Sc., Plant Physiology, University of Tehran, Tehran, Iran. Thesis title: Study of COP1 protein role in response to drought, salinity and cold stresses in Arabidopsis thaliana.

2001 – 2005: B.Sc., Biology, University of Tabriz, Tabriz, Iran.

Workshop Attendance

1. Workshop on DNA isolation and gel electrophoresis, University of Esfahan, Esfahan, Iran, 2005.

2. Workshop on PCR applications in genetic engineering, University of Esfahan, Esfahan, Iran, 2005

3. Good Laboratory Practice (GLP) Course, NIGEB Institute, Tehran, Iran, 2007.

4. Workshop on RNA-seq data analysis, University of Shahrekord, Shahrekord, Iran, 2013.

5. Workshop on Genomic and Post-Genomic data analysis in Bioinformatics area, NIGEB Institute, Tehran, Iran, 2013.

6. Workshop on scientific paper writing in English, NIGEB Institute, Tehran, Iran, 2013.

7. Workshop on statistical analysis using R, Statistical research and training center, Tehran, Iran, 2014.
8. Workshop on RNA-seq and exome sequencing data analysis, NIGEB Institute, Tehran, Iran, 2015.

9. Data mining and Bioinformatic in molecular biology, University of Esfahan, Esfahan, Iran, 2015.

10. Workshop on Real-time PCR, NIGEB Institute in collaboration with Amplicon Company, Tehran, Iran, 2016.

11. Workshop on RNA-seq and Chip-seq data analysis, Pasteur Institute in collaboration with Sapienza University of Italy, 2017.

12. Workshop on whole exome sequencing data analysis, Pasteur Institute in collaboration with Sapienza University of Italy, 2017.

Invited Lecturer and Teaching

1. Workshop lecturer on Molecular Cloning and Bacterial Transformation", faculty of new Technologies, Shahid Beheshti University, Tehran, Iran, 2011.

2. Workshop lecturer on "RNA Extraction & Reverse Transcription PCR Reaction", faculty of new Technologies, Shahid Beheshti University, Tehran, Iran, 2012

3. Teaching of Plant physiology, Payame Noor University, Karaj, Iran, 2011-2012.

4. Workshop lecturer on Next generation sequencing data analysis: RNA-seq and de novo assembly, NIGEB Institute, Tehran, Iran, 2016.

5. Workshop lecturer on basic bioinformatics, Payame Noor University, Karaj, Iran, 2017.

6. Workshop lecturer on advanced bioinformatics, Payame Noor University, Karaj, Iran, 2017.

7. Workshop lecturer on RNA-seq data analysis, Alborz University of medical sciences, Karaj, Iran, 2018.

8. Workshop lecturer on RNA-seq data analysis, Genome Fan company, Tehran, Iran, 2020.

Awards and Honors

1. Selected as the top graduated student (B.Sc.), University of Tabriz, Iran Ministry of Science, Research and Technology, 2004.

2. Ranked 3th in M.Sc. National University Entrance Exam, Iran Ministry of Science, Research and Technology, 2006.

3. Selected as the top graduated student (M.Sc.), University of Tehran, Iran Ministry of Science, Research and Technology, 2009.

4. Ranked 6th in Ph.D. National Entrance Exam, Iran Ministry of Science, Research and Technology, 2011.

6. National Patent

An efficient and low-cost kit for extraction of high-quality RNA from different woody plants, registration number: 83046, 2014.

Congress papers

1. Moazzam Jazi M, Seyedi S.M, Niknam V, 2008, COP1 protein has role in drought stress responses in Arabidopsis thaliana, The 15th National & third International Biology conference, Tehran, Iran. 2. Ghasemi S, Moazzam Jazi M, Seyedi S.M., Niknam V, 2008, LIP1 protein has role in drought stress response in Pisum sativum, The 15th National & third International Biology conference, Tehran, Iran.

3. Jahanbakhshian Z, Lotfi A, Moazzam Jazi M, Seyedi S.M, 2012, The effects of salt and drought on Pistachio orchard, The 17th National and 5th international Biology Conference, Kerman, Iran.

4. Lotfi A, Jahanbakhshian Z, Ghadirzadeh E, Moazzam Jazi M, Seyedi, S.M, 2015, Na+ distribution alternation: the key mechanism of salt tolerance in Pistachio (Pistacia vera), The 4th Iranian Conference of Plant Physiology, Tehran, Iran.

Peer reviewed journal Publications

1. Moazzam Jazi M. Rajaei S. Seyedi S.M. Isolation of high quality RNA from Pistachio tree (Pistacia vera L.) and other woody plants high in secondary metabolites. Physiology and Molecular Biology of Plants, 2015, 21(4), 597–603, doi: 10.1007/s12298-015-0319-x

2. Rajaei S. Seyedi S.M. Raeisi F. Shiran B. Moazzam Jazi M. Effects of soil petroleum contamination on some physiological and molecular properties of plant. Journal of cellular and biological reaserach, 2015, 29(2), 181-197.

3. Moazzam Jazi, M., Khorzoghi, E.G., Botanga, C., and Seyedi, S.M. Identification of reference genes for quantitative gene expression studies in a non-model tree Pistachio (Pistacia vera L.). PLoS one, 2016, 11(6): e0157467. doi: 10.1371/journal.pone.0157467

4. Moazzam Jazi, M., Seyedi, S.M., Ebrahimie, E., Mansour Ebrahimi, M., Botanga, C. 2017. A genome-wide transcriptome map of pistachio (Pistacia vera L.) provides novel insights into functional genes and marker discovery. BMC Genomics, 2017, 18:627, doi: https://doi.org/10.1186/s12864-017-3989-7

5. Rajaei S. Sabagh Farshi R. Moazzam Jazi M. Seyedi S.M. 2017. Efficient strategies for elimination of phenolic compounds during extraction of DNA from roots of Pistacia vera L. Agrivita, Journal of Agricultural Science, 2017, 39 (3), 279-287. doi: http://doi.org/10.17503/agrivita.v39i3.734

6. Moazzam Jazi M, Ghasemi S, Seyedi SM and Niknam V. COP1 plays a prominent role in drought stress tolerance in Arabidopsis and Pea. Plant Physiology and Biochemistry, 2018, 130:678-691.

7. Jannesar M, Seyedi SM, Moazzam-Jazi M, Niknam V, Ebrahimzadeh, H, Botanga C. A genomewide identification, characterization and functional analysis of salt-related long non-coding RNAs in non-model plant Pistacia vera L. using transcriptome high throughput sequencing. Scientific reports 2020; 10: 5585

8. Khayam Nekoui M, Moazzam Jazi M, Mardi M, Kadkhodaei S. Development of SSR markers associated with biosynthesis pathway of steviol glycosides in Stevia through de novo transcriptome assembly. Modares Journal of Biotechnology, 2020, 185-191

9. 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. Scientific reports 10, 14006 (2020). https://doi.org/10.1038/s41598-020-70725-4

10. Jafarinejad-Farsangi S, Moazzam-Jazi M, Rostamzadeh F, Hadizadeh M. High affinity of host human microRNAs to SARS-CoV-2 genome: An in silico analysis. Non-coding RNA Research. 2020;5(4):222-31.

11. Lanjanian H*, Moazzam-Jazi M*, Hedayati M, Akbarzadeh M, Guity K, Sedaghati-Khayat B, Azizi F, Daneshpour MS. SARS-CoV-2 infection susceptibility influenced by ACE2 genetic polymorphisms: insights from Tehran Cardio-Metabolic Genetic Study. Scientific reports. 2021;11(1):1-3.

12. Bonab LN, Moazzam-Jazi M, Moosavi RS, Fallah MS, Lanjanian H, Masjoudi S, Daneshpour MS. Low HDL concentration in rs2048327-G carriers can predispose men to develop coronary heart disease: Tehran Cardiometabolic genetic study (TCGS). Gene. 2021;778:145485.

Books

1. Translation of Solomon's Biology book chapter, 8th Edition from English to Persian, published by Biology Home, Tehran, Iran, 2013.

2. Translation of Lodish's Molecular Cell Biology book chapter, 7th Edition from English to Persian, published by Biology Home, Tehran, Iran, 2013.

3. Writing of Introduction with Bioinformatics and its applications book, published by Danesh bonyan fanavar, Tehran, Iran, 2018.

Editorial Activities

Reviewer for PLOS ONE and Journal of New Developments in Molecular Biology.

Computer and Bioinformatics Skills

 Operating systems: Linux, Windows

 Familiarity with Bash, Python, and R

 Familiarity with cloud computing

 Primer design

 Data analysis of high-throughput sequencing data including DNA-seq, RNA-seq, and miRNA-seq

 Gene network analysis

 Knowledge and the ability to use various bioinformatics databases, APIs, repositories, and tools

Laboratory Skills

 Plant tissue culture PCR and Real-time PCR DNA and RNA extraction and assessing quality Agarose gel electrophoresis of DNA and RNA Protein extraction and poly acrylamide gel electrophoresis Enzyme assay Spectrophotometry Southern and Western blot Bacterial culture Competent cell preparation Bacterial transformation Plasmid purification

Foreign Language

English: fluent