

CURRICULUM VITAE

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My links | [Google Scholar](#) | [ResearchGate](#) | [LinkedIn](#)



ACADEMIC DEGREES

- **M.Sc.** | Genetics-Biology | [Kharazmi University](#), Tehran, Iran **2013-2016**
 - Thesis Title: “*Bioinformatics evaluation of gene expression profile in testis tissue and TSSK6 expression measurement in the testis of azoospermic men.*”
- **B.Sc.** | Biology | [Payame Noor University](#), Qom, Iran **2006-2012**

WORK EXPERIENCES

- **Research Assistant, [Systems Biology of Next Generation Company](#), Qom, Iran** **2016-Present**
 - Identified potential genes and key pathways in brain and lung metastases of breast cancer using RNA-sequencing data.
 - Explored the complexity of cell fate conversion and evaluated roles of transcriptional activators and signaling pathways in cardiac reprogramming.
 - Analyzed gene expression profiles of colorectal cancer patients to understand molecular mechanisms.
- **Research Assistant, Aja University of Medical Science, Tehran, Iran** **2018-2020**
 - Compared expression profile similarities between differentiated stem cells and normal adult cells in various tissues.
- **Research Assistant, [Royan Institute](#), Tehran, Iran** **2014-2016**
 - Conducted bioinformatics analysis on microarray data of male infertility.
 - Performed Real-time PCR assays to measure gene expression in infertile men's testis.
 - Acquired skills in experimental and computational techniques including Real-time PCR, RNA-seq, DNA-seq, and microarray analysis.
- **Intern, [Agricultural Biotechnology Research Institute of Iran](#), Karaj, Iran** **2012-2014**
 - Engaged in bioinformatics approaches in plant genomic research.
- **Intern, [Green Research Center](#), Qom, Iran** **2011-2012**
 - Conducted experiments involving microarray and pathway analysis.
- **Instructor, [Payame Noor University](#), Qom, Iran** **2011-2011**
 - Conducted workshops on tissue slices preparation and staining using microtome.

RESEARCH INTERESTS

- Evolutionary genomics and transcriptomics
- Multi-Omics data integration
- Transcriptomics and network analysis of cancer and stem cells

PUBLICATIONS

- Hozhabri H, Ghasemi Dehkohne RS, **Razavi SM***, Razavi M, Salarian F, Rasouli A, Azami J, Ghasemi Shiran M, Kardan Z, Farrokhzad N, Mikaeili Namini A, Salari Ali*. Comparative analysis of protein-protein interaction networks in metastatic breast cancer. *PloS one*. **2022** Jan 19;17(1):e0260584.
DOI: <https://doi.org/10.1371/journal.pone.0260584>
- Hozhabri H*, Lashkari A, Moghaddasi M, Ghezlou, M, Moghaddamneshat N, **Razavi SM**, Mohammadian A*. Comprehensive transcriptome data analysis reveals TTK, CCNA2, BUB1, and RRM2 as key genes associated with gastric cancer. (*Submitted to the Pathology - Research and Practice journal.*)
- **Razavi SM**, Salari A, Jamalpoor Z*. Comparative evaluation of pathways and gene expression profile similarity in differentiated stem cells versus normal adult cells in seven human tissues. *Gene Reports*. **2021** Jun 8;10:1242. DOI: <https://doi.org/10.1016/j.genrep.2021.101242>
- Hozhabri H*, Lashkari A, **Razavi SM**, Mohammadian A*. Integration of gene expression data identifies key genes and pathways in colorectal cancer. *Medical Oncology*. **2021** Jan;38(1):1-4.
DOI: <https://doi.org/10.1007/s12032-020-01448-9>
- **Razavi SM**, Sabbaghian M*, Jalili M, Divsalar A, Wolkenhauer O, Salehzadeh-Yazdi A*. Comprehensive functional enrichment analysis of male infertility. *Scientific reports*. **2017** Nov 17;7(1):1-4.
DOI: <https://doi.org/10.1038/s41598-017-16005-0>
- Talkhabi M*, **Razavi SM**, Salari A*. Global transcriptomic analysis of induced cardiomyocytes predicts novel regulators for direct cardiac reprogramming. *Journal of cell communication and signaling*. **2017** Jun;11(2):193-204.
DOI: <https://doi.org/10.1007/s12079-017-0387-5>
- Pourabed E, Golmohamadi FG, Monfared PS, **Razavi SM**, Shobbar ZS*. Basic leucine zipper family in barley: genome-wide characterization of members and expression analysis. *Molecular biotechnology*. **2015** Jan 1;57(1):12-26.
DOI: <https://doi.org/10.1007/s12033-014-9797-2>
- In silico characterization and expression analysis of SnRK2 family in barley
Panahi Y, Shobbar Z S*, Pourabed E, Ghane F, **Razavi SM**, *Iranian Journal of Crop Biotechnology*, **2015**
(http://cropbiotech.journals.pnu.ac.ir/?_action=articleInfo&article=2702)
- Designing prediction models to determine the structure of Stearoyl-acyl carrier protein desaturase 1
Salari A, **Razavi SM**, Ebrahimi M*, *Qom Univ Med Sci J*, **2015**
http://journal.muq.ac.ir/browse.php?a_id=231&sid=1&slc_lang=en
- Book: “Omega Clan and applications in the human body”, Yazdian M R, Salari A, Mousavi H, Mousavi AH, **Razavi SM**. (2012)

TECHNICAL SKILLS

- **Programming Languages:** R (limma, affy, oligo, ggplot2, sva, DESeq2, plyr, pheatmap, VennDiagram, gridExtra, GGally, pheatmap, gplots, Biobase, ...), Python (Numpy, SciPy, Matplotlib, Pandas)
- **Real time-PCR:** RNA Extraction, cDNA Synthesis, PCR, Electrophoresis
- **RNA-Seq and DNA-Seq Analysis:** hisat2, STAR, HTSeq-count, fastqc, Trimmomatic, IGV, BWA, Bowtie, SAMtools, limma, CLC Genomics, UseGalaxy.
- **Bioinformatics Databases:** DAVID, Kegg, NCBI, Broad, Ensembl, Gene Ontology, Pfam, PlantTFDB, Genomatix, ArrayExpress, GeneCards, Panther Pathway, OMIM, Biodbnet
- **Bioinformatics Tools:** GSEA, GenePattern, Connectivity Map, ChemBank, CLC Bio, MEGA4, PlantTFDB, Digital Differential Display (DDD), GENEVESTIGATOR
- **Pathway Analysis Tools:** Cytoscape, Pathway Studio, String-db, GeneMania, BioTapestry
- **MicroRNA Analysis Software:** TargetScan, miRBase, psRNATarget
- **Primer Design:** Perl Primer, Gene Runner, Primer3, Primer Blast, OligoAnalyzer, DNASTAR
- **Other:** Microsoft Excel, Linux

RELEVANT COURSEWORK

- Computer Applications in Bioinformatics
- New genetic technologies
- Genetics Engineering I, II
- Methods of Biochemistry and Biophysics
- Immunogenetics
- Chromatin Biochemistry
- Human Genetics
- Molecular Genetics
- Cytogenetics
- Population genetics
- Cancer Genetics
- Cell and Tissue Culture

REFERENCES

- **Ali Salehzadeh-Yazdi**

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- **Dr. Zahra-Sadat Shobbar**

Assistant Professor of Plant Molecular Genetics at Agricultural Biotechnology Research Institute of Iran (ABRII)

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- **Dr. Marjan Sabbaghian**

Principal Investigator, Department of Andrology, Reproductive Biomedicine Research Center, Royan Institute for Reproductive Biomedicine, ACECR, Tehran, Iran

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