

Razieh Goudarzi

Curriculum Vitae



Tehran, Iran



[R. Goudarzi](#)



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Research Interests

**Plant Science, Plant Genetics, Genetic and Genomics, Plant Metabolites
Enzyme Activity & Protein Engineering, Bioinformatics, Biochemistry**

Education

M.Sc. in Plant Science- Biotechnology, GPA:17.04/20.0 (3.7/4) (Ranked among the top 1%), Faculty of Life Sciences and Biotechnology, **Shahid Beheshti University**, Tehran, Iran

- **M.Sc. Thesis:** "Effect of salicylic acid, polyethylene glycol, on yellow pigment production (pigments purified and identified by HPLC & LC/MS) *Carthamus tinctorius* using root culture", Enzyme assay activity, H₂O₂ content, (Grade: 19/20), under supervision of **Prof. Francoise Bernard**

B.Sc. in Cell and Molecular Biology- Genetics, University of Isfahan, Isfahan, Iran

- B.Sc. Thesis : "Fundamental of NCBI, BLAST searches and enhancing bioinformatics skills in molecular biology.,"

Publication

Journal Articles:

- "Identification of hydroxy-safflower yellow A, safflower yellow B, and precarthaminin safflower using LC/ESI-MSMS", F. Mirzajani, F. Bernard, S. M. Zeinali, R. Goodarzi. 2015. Journal of Food Measurement and Characterization. (Q2, IF: 3.006 [Link](#))
- "Enhancing the ethanol production by exploiting a novel metagenomic-derived bifunctional xylanase/ β -glucosidase enzyme with improved β -glucosidase activity by a nano cellulose carrier", E. Motamedi, K. Kavousi, R. Ghasemitabesh, R. Goudarzi, S. Ariaeenejad, G. H. Salekdeh. 2022. Frontiers in Microbiology. (Q1, IF: 6.064 [Link](#))
- "Laccase cross-linking of some plant special products improves protein functional properties for supplementation of a special meal", T. Roozban, R. Goudarzi, E. Motamedi, M. Ghollasi, S. Ariaeenejad. 2023.(Under Review)
- "Discovery the genetics background and authenticity of a strategic taxa in order to variation investigation and indentifying the role of epigenetics in phenotypic variability", R. Goudarzi, M. Zeinolabedini, V. Sharifi, M.R. Ghafari (Under Review)

Conference Presentations:

- "Organic and edible Aloe vera coating on fruit to enhance shelf life and improve quality.", R. Goodarzi, N. Darvish. International Conference on Sustainable Development 16-17 September 2015. [Link](#)
- "Investigating the effect of mung bean priming by treating safflower extract on germination and the browning effect of epicotyl undercutting stress", S. Akbari, F. Bernard, R. Goodarzi. Second National Conference on Sustainable Agriculture & Natural Resources 13 October 2014. [Link](#)
- "Effects of gasoil treatment on safflower root", S. M. Zeinali, R. Goodarzi, F. Bernard, F. Mirzajani. First National Specialized Bioremediation Conference, 3 December 2013. [Link](#)

- “Effects of polyethylene glycol on in vitro root culture system of safflower”, R. Goodarzi, S. M. Zeinali, F. Bernard. National Congress of Biological Sciences, 25 September 2013. [Link](#)
- “Effects of salicylic acid on in vitro root culture of safflower”, R. Goodarzi, S. M. Zeinali, F. Bernard, F. Mirzajani. National Congress of Biological Sciences, 25 September 2013. [Link](#)
- “Effect of gasoil treatment timing on yellow pigment production of safflower”, S. M. Zeinali, R. Goodarzi, F. Bernard. National Congress of Biological Sciences, 25 September 2013. [Link](#)

Academic Experiences

2017–Present **Agricultural Biotechnology Research Institute (ABRII), Karaj, Iran**
Research Assistant

2016–2017 **Noorsanat Company, Karaj, Iran**
Research Assistant

- **Project Title: Facilitated instrument use and potential ideas for plant tissue culture projects**
 Provided guidance in brainstorming research ideas and utilizing laboratory instruments for biological and plant tissue culture research projects. Supervisor: Noorsanat Company.

2011–2016 **Shahid Beheshti University (SBU), Tehran**
Research Assistant

- **Project Title: enhancing seed quality and increasing crop yields by seed coating**
 Investigated seed coating methods to improve germination rates and enhance resistance mechanisms in plant growth. Explored seed coating techniques to enhance germination and resistance. promote healthy plant growth. Supervisor: [Prof. Francoise Bernard](#).
- **Project Title: fruit coating for post-harvest preservation**
 Quality enhancement of fruit by applying edible organic coating to reduce fruit waste and improve product quality. Supervisor: [Prof. Francoise Bernard](#).
- **Project Title: Impact of Safflower Extract on Browning in Plant Seedling Samples**
 The study aimed to understand the impact of safflower extract treatment on the browning phenomenon in small cut samples of three different plant seedlings. Supervisor: [Prof. Francoise Bernard](#) (2nd conference paper).

Teaching Assistant

- **Assisted in teaching courses “Fundamentals of Plant Physiology”**. Supervisor: [Prof. Ghalamboran](#)
- **Assisted in teaching courses “Plant Growth and Development”**. Supervisor: [Prof. Francoise Bernard](#)

Laboratory Assistant

- **Coordinating laboratory affairs at Plant Physiology and Biotechnology.** Supervisor: [Prof. Francoise Bernard](#)

Master Thesis Project

- **Project Title: Thesis Title: Effect of salicylic acid, polyethylene glycol, on yellow pigment production (pigments purified and identified by HPLC & LC/MS) Carthamus tinctorius using root culture.**
the effect of salicylic acid, polyethylene glycol, and gasoil on yellow pigment production by safflower (*Carthamus tinctorius* L) using root culture. Isolated and identified metabolites through HPLC and LC/ESI-MSMS. Investigated phenotypic changes, growth patterns, and enzymatic activities to understand how plants respond to various stressors. Supervisor: [Prof. Francoise Bernard](#).

Additional Courses

Bioinformatics Specialization, by *UCSanDiego*, Coursera

Genomic Data science Specialization, by *Johns Hopkins University*, Coursera

Bioinformatic and metagenome data analysis by bioinformatics, by *Faradars*

Protein features analysis by bioinformatics, by *Faradars*

Introducing Bio-Linux for bioinformatics analysis, by *Faradars*

Applications of Nanobiosensors in Agriculture, by *Agricultural Biotechnology Research Institute (ABRII)*

Application of Industrial Enzymes in Biotechnology, by *Gene Transfer Pioneers Research Group and Biology Society of Shahid Beheshti University*

PCR Applications, by *Department of Biology, Isfahan University*

Skills

Computer Skills:

- **Proficient in MS Office Suite**
- **Tools and Database:** NCBI, BLAST
- **Programming Languages:** R and Python
- **Data Analysis Tools:** SPSS
- **Genomic Analysis:** GBS (Genotyping By Sequencing)
- **Molecular Biology Techniques:** PCR, RT-PCR, Real-Time PCR, DNA & RNA extraction, Cloning, Tissue Culture
- **Analytical Instruments:** ELISA, Spectrophotometer, SDS-PAGE, Electrophoresis
- **Biochemical Analysis:** HPLC, LC/MS, TLC, Protein Evaluation
- **Tissue Culture Expertise**
- **Pigment and Phenol Extraction and Quantification**
- **Assay of Enzyme Activity**

Languages

- **English**
IELTS Academic (Overall: 6.5)
- TOEFL-IBT (Overall: 81)
- **Persian as a Native Language**

Honors and Awards

- Ranked Among the **Top 5%** in Graduated Student, Shahid Beheshti University, Winter 2014
- Ranked Among the **Top 5%** in National Graduate Degree Entrance Exam in Iran (Among More Than 10,000 Participants), Fall 2011
- Ranked **Top 1%** in National Undergraduate Degree Entrance Exam in Iran (Among More Than 50,000 Participants), Fall 2006

References

- Available Upon Request.