

Curriculum Vitae

Personal Information

Name: Hossein Javdani

Nationality: Iranian

Date of birth: 08 December 1986

Languages: Persian, English



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Education

- **2014-2020 Ph.D. Molecular Medicine, Birjand University of Medical Sciences**
Ph.D. thesis: Synthesis and characterization of mesoporous silica nanoparticles (MSN) and evaluation of its protective role on oxidative stress induced by acute poisoning of iron.
- **2006-2012 Doctor of Veterinary Medicine (DVM), Shahid Bahonar University of Kerman**
DVM Thesis title: Detection of nervous tissues in cooked sausage by Immunohistochemistry

Publications (Google Scholar link: [Click here](#))

- Zahra Ameri , Arman Shahabi , Alireza Farsinejad , MahlaSattarzadeh Bardsiri , **Hossein J avdani** , Zohreh Bagher , Amir Saraee , Peiman Brouki Milan, " A cellulose-based skin adhesive hydrogel incorporating N-acetyl-seryl-aspartyl-lysyl-proline peptide for enhanced wound healing and scar prevention in rabbit scar ear model in vivo." *International Journal of Biological Macromolecules*" (2025) (IF = 8.5)
- Faezeh Kazemi, Fatemeh Sadeghian, Ali Pirsadeghi, Fatemeh Asadi, **Hossein Javdani**, Aliakbar Yousefi-Ahmadipour, "Adipose mesenchymal stem cell conditioned medium and extract: A promising therapeutic option for regenerative breast cancer therapy." *Sage Open Medicine*" (2024) (IF = 2.3)
- **Hossein Javdani**, Homa Mollaei, Farzaneh Karimi, Shiva Mahmoudi, Ali Farahi, Mohamad Javad Mirzaei-Parsa, Arman Shahabi, "Review article epithelial to mesenchymal transition- associated microRNAs in breast cancer. "Molecular Biology Reports" (2022) (IF = 2.6)
- Mohsen Foadoddini; **Hossein Javdani**; Ali Faeahi; Mehran Hosseini. "Therapeutic potential of Ferula foetida (Bunge) Regel in a rat gastric-ulcer model". *Environ Sci Pollut Res* **29**, 12147–12156 (2022) (IF = 4.22)
- Mahtab Mohammadifard, **Hossein Javdani**, Ghazaleh Khalili-Tanha, Ali Farahi, Mohsen Foadoddini, Mehran Hosseini. "Evaluation of Therapeutic Efficacy of Stigma and Petal Extracts of Crocus sativus L. on Acetic Acid-Induced Gastric Ulcer in Rats". *Traditional and Integrative Medicine* (2021)
- Ali Farahi, Mohammad Reza Abedini, **Hossein Javdani**, Laleh Arzi, Elham Chamani, Ramin Farhoudi, Nazanin Talebloo, Reyhane Hoshyar "Crocic and Metformin suppress metastatic breast cancer progression via VEGF and MMP9 downregulations: in vitro and in vivo studies". *Molecular and Cellular Biochemistry* (2021) (IF = 3.39)
- **Hossein Javdani**, Rasoul Khosravi, Leila Etemad, Mohammad Moshiri, Asghar Zarban, and Mohammad Yahya Hanafi-Bojd. "Tannic acid-templated mesoporous silica nanoparticles as an effective treatment in acute ferrous sulfate poisoning." *Microporous and Mesoporous Materials*" (2020): 110486. (IF = 4.55)
- **Hossein Javdani**, Leila Etemad, Mohammad Moshiri, Mohammad Yahya Hanafi-Bojd and Asghar Zarban. "Effect of Tannic acid-templated mesoporous silica nanoparticles on iron induced oxidative stress and liver toxicity in rats. *Toxicology Reports*. (2021) (IF = 6.00) (5%)
- Parsamanesh, Negin, Maryam Moossavi, Tahmineh Tavakkoli, **Hossein Javdani**, Tahereh Fakharian, Seyedeh Zahra Moossavi, and Mohsen Naseri. "Positive correlation between vitamin D receptor gene TaqI variant and gastric cancer predisposition in a sample of Iranian population." *Journal of Cellular Physiology* **234**, no. 9 (2019): 15044-15047. (IF = 5.546)
- **Hossein Javdani**, and Negin Parsamanesh. "MicroRNA based Novel Strategies for Cancer Treatment." *Research in Molecular Medicine (RMM)* (2018): 5-15.

- Moossavi, Maryam, Reyhane Hoshyar, Mina Hemmati, Ali Farahi, and **Hossein Javdani**. "An invivo study on the hepato-protective effects of Crocus sativus, Ziziphus jujuba and Berberis vulgaris against acute acetaminophen and rifampicin-induced hepatotoxicity." *Clinical Phytoscience* 2, no. 1 (2017): 16.
- Rezaei, Mohammad, Hajar Akbari Dastjerdi, Hassan Jafari, Ali Farahi, Arman Shahabi, **Hossein Javdani**, Hossein Teimoori, Mohammad Yahyaei, and Ali Akbar Malekired. "Assessment of dairy products consumed on the Arakmarket as determined by heavy metal residues." *Health* 2014 (2014). (IF = 0.82)
- Rezaei, Mohammad, Fereshteh Karimi, Mohammad Yahyaei, **Hossein Javdani**, Arman Shahabi, and Ali Farahi. "A survey of microbial total count and prevalence of Escherichia coli in raw milk in Markazi Province, Iran." *Research Opinions in Animal and Veterinary Sciences* 3, no. 12 (2013): 474-477.

Congress and Seminars

- 2014 6th International Congress on laboratory and Clinic. Tehran. IRAN. (Poster presentation)
- Mohaghegh, Zabihollah, Reyhane Hoshyar, Mina Hemmati, Ali Farahi, Hossein Javdani, Maryam Valavi, Aliyeh Abolghasemi, and Masoud Najjarzadeh. "4th National Congress on Medicinal Plants 12, 13 May 2015 Tehran-Iran."

Approved Projects and Grants

- Investigation of the Anticancer Effects of Clove Extract on the Behavior of Breast Cancer Cell Lines MCF-7 and MDA-MB-231 (Grant No: 403214. Status: Ongoing).
- Investigating the effect of pine tree extract (pynogenol) on the expression of microRNAs involved in oxidative stress pathways in two cancer cell lines MCF-7 and MDA-MB-231 and a non-cancerous cell line MCF-10 of breast tissue (Grant No: 402248. Status: Finished)
- Synthesis and evaluation of fibrin gel containing alginate nanobeads carrying poppy seed extract on bone repair in rats (Grant No: 402051. Status: Ongoing).
- Synthesis of Anti-Scar Nanofibrous Polycaprolacton (PCL)-Gelatin Dressing Containing Red Ginseng Plant Extract for Healing Full-Thickness Wounds in Rats (Grant No: 401269. Status: Ongoing).
- Fabrication and evaluation of silica mesoporous nanoparticles containing Doxorubicin and Apigenin on induction of apoptosis and inhibition of invasion in MDA-MB-231 breast cancer cells (Grant No: 400212. Status: Ongoing).
- Evaluation of the mRNA expression of Oct-4, Sox-2 and Nanog stemness genes and OCN , DSPP , AMBN , IBSP , SPARC differentiation genes in mesenchymal stem cells derived from permanent and deciduous molar teeth pulp (Grant No: 402184. Status: Finished).

- Evaluation of osteogenic effect of alginate-based hybrid scaffold containing hydroxyapatite, bioactioglass 58S and hardistone in rat animal model (Grant No: 402142. Status: Ongoing).
- Evaluation of Final Electronic Exam Multiple Choice Questions of Nursing-Midwifery and Paramedical Faculty of Rafsanjan University of Medical Sciences in the First Semester of Academic Year 2023-2024 (Grant No: 402009. Status: Finished).
- Expression of genes involved in the cell cycle pathway in arrested embryos in comparison to normal embryos in mice (Grant No: 401049. Status: Ongoing).
- Study of therapeutic and protective effects of combination of mesenchymal stem cell and nabilone on animal model of inflammatory bowel disease (IBD) (Grant No: 98114. Status: Finished).

Thesis:

Investigation of the Anticancer Effects of Clove Extract on the Behavior of Breast Cancer Cell Lines MCF-7 and MDA-MB-231).

Skills and Work Experiences

1) Research laboratory techniques (2010-now)

- **Cell cultures and animals:** Cell culture (Primary, Cell lines, Mesenchymal stem cell), Apoptosis assays; PBMC separation; Handling and anatomy of laboratory animals such as mice, rabbit, and rat; Breast cancer mice model; Lymphocyte isolation from mice spleen, lymph nodes, BAL and NAL; Cell isolation from mice bone marrow; Animal anesthesia; Types of injections in laboratory animals (e.g., IP, IV); Blood sampling from mice and rat; Laboratory animal care.
- **Molecular:** PCR; Real-time PCR.
- **Bioinformatics:** Bulk RNA sequencing analysis; Microarray data analysis; Primer design and oligo analysis; Multiple sequence alignment; Protein structure analysis.
- **Protein expression:** Protein cloning and expression in bacteria; Protein purification; SDS-PAGE and Western blot analysis.
- **Nanotechnology:** Nanoparticles synthesis, Characterization of nanoparticles such as Nano-Gold, PLGA, Silver and Silica nanoparticle synthesis, and etc.
- **Other techniques:** ELISA; Flow cytometry; Immunofluorescence assays; MTT assay. HPLC

2) Teaching experiences

2022-now Rafsanjan University of Medical Sciences, Iran

- **Course 1:** Bioinformatics, Molecular and Genetic courses for master of immunology students.

- **Course 2:** Advance Molecular Biology and Methods courses for medical laboratory of medical science.

3) Clinical laboratory work experiences (2010-2020)

- Clinical Laboratory Specialist.
- Expert in sampling: blood sampling, drug Injection, collection of fungal and bacterial samples from patients.
- Expert in clinical section and performing tests: Immunology and Serology, Hematology, Biochemistry, Microbiology, Parasitology, Blood bank, Genetics.
- Work as a veterinary expert in the veterinary Rafsanjan organization
- Collaborating with Comprehensive Research Laboratory in Birjand University of Medical Sciences

4) Computer skills

- **Software:** Office Package, Statistical Software (SPSS, Graph-Pad Prism), Flow cytometry analysis (FlowJo, FloMax), EndNote, Medical Laboratory software, Internet and scientific search.
- **Bioinformatic tools:** Multiple sequence alignment software (MEGA-X, BioEdit, R programming language), Primer design and oligo analyzer software (Beacon Designer, GeneRunner, Oligo 7, Oligo Analyzer), Protein structure software (Swiss-PDB Viewer), and density analyzer software (ImageJ).
- **Biology database:** NCBI, UniProt, Expasy, and Ensembl.

Honors, Membership of Scientific Societies

- Wins First Prize at PhD Comprehensive Examination.
- First ranked PhD student of molecular medicine in Birjand University of Medical Sciences
- Top student in PhD. Course
- Member of Iranian Society of Molecular Medicine
- Member of veterinary council of I.R. IRAN (V.C. No.: 2047713)
- Head of Industry Relations Office at Rafsanjan University of Medical Science
- Member of Technology Council at Rafsanjan University of Medical Science
- Member of Technology Development Center at Rafsanjan University of Medical Science

- Head of student research committee at Medical School, Rafsanjan University of Medical Science

Research Background and Interests

- Molecular Biology and Gene Expression in Tumors and TME
- Tissue Engineering and Scaffold Design
- Mesenchymal Stem Cells Therapies
- Nanomedicine and Drug Delivery
- Cancer Immunotherapies
- Scar and Ulcer Healing
- Personalized Medicine
- Animal Modeling

References

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