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Education

Ph.D. (Medical biotechnology)	Mashhad University of Medical Sciences, Mashhad, Iran
M.S. (Agricultural Biotechnology)	Ahvaz, Iran
B.S. (Agriculture Engineering)	University of Tehran, Iran

Ph.D. thesis title: *Evaluation of DNA Methyltransferases Gene Expression Variation and its Effect on Tamoxifen Resistance in Breast Cancer Patients.* **Thesis score:** 19.97 out of 20.

M.S. thesis title: *Detection of putative novel cry genes in Iranian native Bacillus thuringiensis isolates.* **Thesis score:** 19.6 out of 20.

B.Sc. thesis title: *"Review of natural products to overcome drug resistance in cancer".* **Project score:** 19.5 out of 20.

Research Interests

- Detection interplay between DNA methylation and transcription
- Epigenetic mechanisms underlying cancer progression
- Drug resistance and disease recurrence in cancer
- Detection of new oncogenes and tumor suppressor genes in cancer
- Developing new drugs in order to better cancer treatment
- Gene cloning and detection of putative novel genes
- Natural products and their effects in cancer treatment

Languages

- Persian (Native)
- English (Fluent)

Publications

- 2023 Boustan Arad, **Jahangiri Rosa**, Dahmardeh Ghalehno Asefeh, Khorsandi Mahdieh, Mosaffa Fatemeh., & Jamialahmadi Khadijeh. (2023). Expression analysis elucidates the roles of Nicastrin, Notch4, and Hes1 in prognosis and endocrine-therapy resistance in ER-positive breast cancer patients. *Research In Pharmaceutical Sciences*, 18(1), 78-88.
- 2022 **Jahangiri Rosa**, Mosaffa Fatemeh, Emami Razavi Amirnader, Teimoori-Toolabi Ladan, Jamialahmadi Khadijeh (2021). [PAX2 promoter methylation and AIB1 overexpression promote tamoxifen resistance in breast carcinoma patients.](https://doi.org/10.1177/1078155221989404) *Journal of Oncology Pharmacy Practice*, Volume 28, Issue 2, 2022, <https://doi.org/10.1177/1078155221989404>. "Impact Factor: 1.809"

- 2021 Mohammadzadeh Nooshin, Mosaffa Fatemeh, Khadivi Ehsan, **Jahangiri Rosa**, Jamialahmadi Khadijeh. [Increased Expression of DNA Methyltransferase 1 and 3B Correlates with Tumor Grade in Laryngeal Squamous Cell Carcinoma. *Pharmaceutical Sciences*. 2021. Volume 27, Issue 3, Pages: 393-398. doi:10.34172/PS.2020.86 "Impact Factor: 1.663"](#)
- 2021 Boustan Arad, Mosaffa Fatemeh, **Jahangiri Rosa**, Heidarian-Miri Hamid, Dahmardeh-Ghalehno Asefeh, and Jamialahmadi Khadijeh. [Role of SALL4 and Nodal in the prognosis and tamoxifen resistance of estrogen receptor-positive breast cancer. *Molecular Biology Research Communications*. September 2021; Volume 10, Issue 3, Pages: 109–119. doi: 10.22099/mbr.2021.39878.1597.](#)
- 2020 **Jahangiri Rosa**, Jamialahmadi Khadijeh, Gharib Masoumeh, Emami Razavi Amirnader, Mosaffa Fatemeh. [Increased expression of Gankyrin and stemness factor Oct-4 are associated with unfavorable clinical outcomes and poor benefit of tamoxifen in breast carcinoma patients. *Pathology & Oncology Research*. July 2020. Volume 26, Pages: 1921–1934. <https://doi.org/10.1007/s12253-019-00766-2> "Impact Factor: 2.43"](#)
- 2019 **Jahangiri Rosa**, Jamialahmadi Khadijeh, Gharib Masoumeh, Emami Razavi Amirnader, Mosaffa Fatemeh, [Expression and clinicopathological significance of DNA methyltransferase 1, 3A and 3B in tamoxifen-treated breast cancer patients. *Gene*, February 2019, Volume 685, Pages: 24-31. <https://doi.org/10.1016/j.gene.2018.10.060> "Impact Factor: 2.5"](#)
- 2019 **Jahangiri Rosa**, Jamialahmadi Khadijeh, Fathi Najafi Mohsen, Behravan Javad; [Purification and partial characterization of chitinase from a novel strain *Aeromonas* sp. PTCC 1691, *Journal of Materials and Environmental Science*. July 2019, Volume 10, Issue 7, Pages: 590-597.](#)
- 2018 **Jahangiri Rosa**, Mosaffa Fatemeh, Emami Razavi Amirnader, Teimoori-Toolabi Ladan, Jamialahmadi Khadijeh, [Altered DNA methyltransferases promoter methylation and mRNA expression are associated with tamoxifen response in breast tumors, *Journal of Cellular Physiology*, February 2018, Volume 233, Issue 9 Pages: 1–15. <https://doi.org/10.1002/jcp.26562>. "Impact Factor: 4.08"](#)
- 2018 **Jahangiri Rosa**, Mosaffa Fatemeh, Gharib Masoumeh, Emami Razavi Amirnader, Jamialahmadi Khadijeh, [PAX2 expression is correlated with better survival in tamoxifen-treated breast carcinoma patients, *Tissue and cell*, June 2018, Volume 52, Pages: 135-142. <https://doi.org/10.1016/j.tice.2018.05.005> "Impact Factor: 1.3"](#)
- 2009 Nazarian Amin, **Jahangiri Rosa**, Salehi Jouzani Gholamreza, Seifinejad Ali, Soheilvand Saeed, Bagheri Omolbanin, Keshavarzi Mansoureh, Alamisaeid Khalil, [Coleopteran-specific and putative novel cry genes in Iranian native *Bacillus thuringiensis* collection, *Journal of Invertebrate Pathology*, Volume 102, Issue 2, October 2009, Pages: 101-109. <https://doi.org/10.1016/j.jip.2009.07.009> "Impact Factor: 2.379"](#)
- 2008 Salehi Jouzani Gholamreza, Seifinejad Ali, Saeedizadeh Abbas, Nazarian Amin, Yousefloo Majid, Soheilvand Saeed, Mousivand Maryam, **Jahangiri Rosa**, Yazdani Mehdi, Maali amiri Reza, Akbarivala Sepideh. [Molecular detection of nematicidal crystalliferous *Bacillus thuringiensis* strains of Iran and evaluation of their toxicity on free-living and plant-parasitic nematodes. *Canadian Journal of Microbiology*, Volume 54, Issue 10, October 2008, Pages: 812-822. <https://doi.org/10.1139/W08-074> "Impact Factor: 1.4"](#)

Seminars and Conferences

- 2016 Jamialahmadi Khadijeh, **Jahangiri Rosa**, Mosaffa Fatemeh; Gankyrin: a novel gene that promotes tamoxifen resistance in breast cancer patients, 14th World Cancer Convention, July 2016. Dubai, UAE. (Oral)
- 2016 Jamialahmadi Khadijeh, **Jahangiri Rosa**. Chemosensitization of breast carcinoma cells by antisense therapy, The 7th Annual Congress of the Iranian Women's Cancer Society, May 2016. Tehran, Iran. (Poster)

- 2015 Jamialahmadi Khadijeh, **Jahangiri Rosa**; Overcoming Multidrug Resistance in Cancer Chemotherapy by Natural Products, 1st International Nastaran Cancer Symposium, Oct 2015. Mashhad, Iran. (Poster)
- 2015 **Jahangiri Rosa**, Jamialahmadi Khadijeh, Mosaffa Fatemeh; natural DNMT inhibitors in epigenetic cancer therapy, International Congress of Complementary and Alternative Medicine. Oct 2015. Tehran, Iran (Poster)
- 2014 **Jahangiri Rosa**; Natural DNMTs Inhibitors in Epigenetic Cancer Therapy. The First International Congress of Complementary and Alternative Medicine, Oct 2014. Tehran, Iran. (Poster)
- 2014 **Jahangiri Rosa**; Tamoxifen Resistance in Breast Cancer Patients, 7th Annual Tehran Breast Congress, Oct 2014. Tehran, Iran. (Oral)
- 2014 **Jahangiri Rosa**, Jamialahmadi Khadijeh, Mosaffa Fatemeh; Epigenetic and Breast Cancer, 7th Annual Tehran Breast Congress, Oct 2014. Tehran, Iran. (Oral)
- 2013 Jamialahmadi Khadijeh, Fathi Najafi Mohsen, **Jahangiri Rosa**, Behravan Javad; Optimization of Production, Purification and Characterization of Chitinase from *Aeromonas PTCC 1691*. 13th Iranian Congress of Biochemistry, Apr 2013, 16-19, Yazd, Iran. (Poster)
- 2008 **Jahangiri Rosa**, Salehi jouzani Gholamreza, Alamisaheed khalil, Mosadegh Mohammad saeed, Nazarian Amin. Detection of putative novel *cry* genes in Iranian native *Bacillus thuringiensis* isolates, 10th congress Iranian genetics Society May 2008, Tehran, Iran. (Oral)
- 2008 **Jahangiri Rosa**, Detection of a novel *vip-Type* gene in Iranian native *Bacillus thuringiensis* isolates, 2th International Student Conferences of Biotechnology university of Tehran, Nov 2008, Tehran, Iran. (Poster)
- 2008 Nazarian Amin, Salehi jouzani Gholamreza, **Jahangiri Rosa**, Keshavarzi Mansoureh, Kheiri samaneh, Mahdavi Maryam, Reza panah Mohammad. Morphological and molecular characterization of Iranian coleopteran active *Bacillus thuringiensis* isolates. 10th congress Iranian genetics Society, May 2008, Tehran, Iran. (Oral)
- 2007 Seifinejad Ali, Salehi jouzani Gholamreza, Nazarian Amin, Saeedizade Ayat, Youseflu Vahid, **Jahangiri Rosa**. Characterization of Cry toxins affecting on nematodes in Iranian native *Bacillus thuringiensis* strains, The 5th National Biotechnology Congress of Iran, Nov 2007, Tehran, Iran.(Poster)

Professional services

Editorial Board of following journals

- [The Clinical Ophthalmologist Journal](#) (ISSN: 2692-7985)
[Annals of Integrative Oncology](#) (ISSN: 2766-144X)
[Cell & Cellular Life Sciences Journal](#) (ISSN: 2578-4811)
[Asia-Pacific Journal of Oncology \(AJO\)](#) (print ISSN: 2708-7980, online ISSN: 2708-7999)

Workshops

- 2019 **Camtasia content production software training**, Iran University of Medical Sciences, Tehran, Iran.
- 2019 **Two-day workshop on advanced search in clinical databases and retrieval of clinical information sources**, Iran University of Medical Sciences, Tehran, Iran.
- 2016 **Lecturer in Workshop on primer design for Real Time PCR experiments**
- 2015 **Real Time PCR**, Mashhad University of Medical Sciences, school of Medicine, Mashhad, Iran.

- 2014 **HRM (High Resolution Melt Curve Analysis) principles in genetic and epigenetic studies**, Pasture Institute, Tehran, Iran (2014).
- 2014 **Production of Monoclonal Antibody from murine source**, Mashhad University of Medical Sciences, school of Medicine, Mashhad, Iran.
- 2014 **Meta-Analysis workshop**, Mashhad University of Medical Sciences, school of Medicine, Mashhad, Iran.
- 2012 **Safety priorities in new biotechnology**, Mashhad University of Medical Sciences, school of medicine, Mashhad, Iran.
- 2012 **SPSS**, Mashhad University of Medical Sciences, school of medicine, Mashhad, Iran.
- 2007 **Biotechnology of Microbial Agents**, ABRII (Agricultural Biotechnology research Institute of Iran, Karaj, Iran).
- 2007 **Mathematical Modeling of Biological Processes and Biological Systems**, ABRII (Agricultural Biotechnology research Institute of Iran, Karaj, Iran).

Main finished projects

- Assessment of mRNA & protein expression of DNA methyltransferases (DNMT1, DNMT3A, DNMT3B) in tamoxifen treated breast tumor tissues and normal breast tissue specimens
- Assessment of mRNA & protein expression of PAX2 & AIB1 in tamoxifen treated breast tumor tissues and normal breast tissue specimens
- Assessment of DNA methyltransferases (DNMT1, DNMT3A, DNMT3B) promoter methylation in tamoxifen treated breast tumor tissues and normal breast tissue specimens
- Assessment of PAX2 & AIB1 promoter methylation in tamoxifen treated breast tumor tissues and normal breast tissue specimens
- Assessment of Gankyrin mRNA expression in tamoxifen treated breast tumor tissues
- Assessment of nanog, oct-4 and sox2 expression in tamoxifen treated breast tumor tissues
- Detection of putative novel cry genes in Iranian native *Bacillus thuringiensis* collection
- Coleopteran-specific cry genes in Iranian native *Bacillus thuringiensis* collection
- Molecular detection of nematocidal crystalliferous *Bacillus thuringiensis* strains of Iran and evaluation of their toxicity on free-living and plant-parasitic nematodes
- Detection of a novel *vip*-Type genes in Iranian native *Bacillus thuringiensis* isolates

Skills

Lab Skills

DNA and RNA Extraction and Manipulation, PCR (Polymerase Chain Reaction), Real-Time PCR, cDNA Synthesis, MS-HRM (Methylation-Specific High Resolution Melt Curve analysis), Microbial Culture, DNA extraction from bacteria, TA Cloning Methods and Digestion, Transformation Methods on *E. coli*, Electrophoresis Methods and DNA Extraction from Agarose Gel, Plasmid extraction, Media and solution preparation

Bioinformatic

Skills

Gene Runner, MethPrimer, Primer Express 3.0, Beacon Designer, AlleleID, clone, NTI, Clustal x, Primer3, BLAST etc

Computer Skills

Microsoft Office, SPSS