

Personal Information

Full Name: Neda Shajari

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Current Position: Assistant Professor of Immunology, Department of Microbiology and Immunology, School of Medicine, Ardabil University of Medical Sciences, Ardabil, Iran



Education

Ph.D. in Medical Immunology, Shiraz University of Medical Sciences, Shiraz, Iran (2018–2024)

Dissertation Title: Identification of potential pancreatic cancer-associated biomarkers and recombinant protein production with the aim of generating monoclonal antibodies using hybridoma technology

Supervisors: Prof. Abbas Ghaderi, and Dr. Amin Ramezan

M.Sc. in Medical Immunology, Tabriz University of Medical Sciences, Tabriz, Iran (2013–2016)

Thesis Title: Silencing of *BACH1* gene expression using specific siRNA in prostate cancer cell lines

Supervisor: Dr. Behzad Baradaran

B.Sc. in Laboratory Sciences, Ardabil University of Medical Sciences, Ardabil, Iran (2008–2012)

Publications

1. **Shajari N**, Ramezani A, Tahmasebi A, Anbardar MH, Roshanizadeh Z, Ghaderi A. Feature Selection Algorithms Combined with Experimental Validation Reveal COL10A1 and TMPRSS4 Genes as Potential Diagnostic Biomarkers in Pancreatic Ductal Adenocarcinoma. *Middle East Journal of Cancer*. 2024.
2. **Shajari N**, Baradaran B, Tohidkia MR, Nasiri H, Sepehri M, Setayesh S, Aghebati-Maleki L. Advancements in Melanoma Therapies: From Surgery to Immunotherapy. *Current Treatment Options in Oncology*. 2024 Aug;25(8):1073-88.

3. Alipour S, Mardi A, **Shajari N**, Kazemi T, Sadeghi MR, Ahmadian Heris J, et al. Unmasking the NLRP3 inflammasome in dendritic cells as a potential therapeutic target for autoimmunity, cancer, and infectious conditions. *Life Sciences*. 2024 Jul 1;348:122686.
4. Roshanizadeh Z, Haghshenas MR, Ramezani A, **Shajari N**, Tahmasebi S, Akrami M, Ghaderi A. Importance of Nectin2, NUF2, and Nectin4 Gene Expression in the Pathogenesis of Different Subtypes of Breast Cancer. *Middle East Journal of Cancer*. 2024.
5. Shahverdi M, Masoumi J, Ghorbaninezhad F, **Shajari N**, Hajizadeh F, Hassanian H, et al. The modulatory role of dendritic cell-T cell cross-talk in breast cancer: Challenges and prospects. *Advances in Medical Sciences*. 2022 Sep;67(2):353-63.
6. Shirjang S, Mansoori B, Mohammadi A, **Shajari N**, P HGD, Najafi S, et al. miR-330 Regulates Colorectal Cancer Oncogenesis by Targeting BACH1. *Advanced Pharmaceutical Bulletin*. 2020 Jul;10(3):444-51.
7. Mansoori B, Mohammadi A, Asadzadeh Z, Shirjang S, Minouei M, Abedi Gaballu F, **Shajari N**, et al. HMGA2 and Bach-1 cooperate to promote breast cancer cell malignancy. *Journal of Cellular Physiology*. 2019 Aug;234(10):17714-26.
8. Noorolyai S, **Shajari N**, Baghbani E, Sadreddini S, Baradaran B. The relation between PI3K/AKT signalling pathway and cancer. *Gene*. 2019 May 25;698:120-8.
9. **Shajari N**, Davudian S, Kazemi T, Mansoori B, Salehi S, Khaze Shahgoli V, et al. Silencing of BACH1 inhibits invasion and migration of prostate cancer cells by altering metastasis related gene expression. *Artificial Cells, Nanomedicine, and Biotechnology*. 2018 Nov;46(7):1495-504.
10. Salehi S, Mansoori B, Mohammadi A, Davoudian S, Musavi Shenan SMH, **Shajari N**, et al. An analysis of suppressing migratory effect on human urinary bladder cancer cell line by silencing of snail-1. *Biomedicine & Pharmacotherapy*. 2017 Dec;96:545-50.
11. Mansoori B, Mohammadi A, **Shajari N**, Davudian S, Salehi S, Baradaran B. Nano liposome-based target toxicity machine: an alternative/complementary approach in atopic diseases. *Artificial Cells, Nanomedicine, and Biotechnology*. 2017 Nov;45(7):1292-7.
12. **Shajari N**, Mansoori B, Davudian S, Mohammadi A, Baradaran B. Overcoming the Challenges of siRNA Delivery: Nanoparticle Strategies. *Current Drug Delivery*. 2017;14(1):36-46.
13. Davudian S, **Shajari N**, Kazemi T, Mansoori B, Salehi S, Mohammadi A, et al. BACH1 silencing by siRNA inhibits migration of HT-29 colon cancer cells through reduction of metastasis-related genes. *Biomedicine & Pharmacotherapy*. 2016 Dec;84:191-8.

14. Davudian S, Mansoori B, **Shajari N**, Mohammadi A, Baradaran B. BACH1, the master regulator gene: A novel candidate target for cancer therapy. *Gene*. 2016 Aug 15;588(1):30-7.
 15. Mohammadi A, Mansoori B, Aghapour M, Baradaran PC, **Shajari N**, Davudian S, et al. The herbal medicine *Utrica dioica* inhibits proliferation of colorectal cancer cell line by inducing apoptosis and arrest at the G2/M phase. *Journal of Gastrointestinal Cancer*. 2016;47:187-95.
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Presentations

- **Poster Presentation**, 16th International Congress of Immunology and Allergy of Iran (2023)
COL10A1 and TMPRSS4 as Potential Diagnostic Biomarkers in Pancreatic Ductal Adenocarcinoma
 - **Poster Presentation**, 14th International Congress of Immunology and Allergy of Iran (2018)
BACH1 as an Inducer Marker for Prostate Cancer Cell Metastasis
 - **Oral Presentation**, 13th International Congress of Immunology and Allergy of Iran (2016)
Suppression of Cell Migration by Targeting BACH1 with Specific siRNA in Prostate Cancer
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Books

- Contributor, *A Review of Monoclonal Antibody Production Methods*
Khalili Publications, 2016
 - Contributor to Persian Translation of *Janeway's Immunobiology*, 8th Edition
Heydari Publications, 2015
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Research Projects

- Role of microRNA-155 in pancreatic cancer progression, metastasis, and drug resistance (Ongoing)
- Novel therapeutic approaches for kidney cancer (Ongoing)
- Effects of exosomes derived from docetaxel- and curcumin-treated breast cancer cell lines (MCF-7, MDA-MB-231) on tumorigenic properties (Ongoing)

- Effects of curcumin on neuroinflammation and behavioral factors in a scopolamine-induced Alzheimer's-like rat model (Ongoing)
 - Evaluation of CXCL2, CCL28, and hsa-miR-1238-3p levels in serum and PBMCs of patients with inflammatory bowel disease (Ongoing)
 - Evaluation of CD226 expression in PBMCs of patients with inflammatory bowel disease (Ongoing)
 - Investigation of the role of poliovirus receptor (PVR/CD155) in invasion and aggressiveness of gastric cancer AGS cells via the FAK signaling pathway (Ongoing)
 - miRNA-34 and miRNA-196 expression following *BACH1* silencing using siRNA-loaded liposomes in prostate cancer cell lines (Completed)
 - Effects of doxorubicin on miR-34, miR-122, and miR-196 expression in prostate cancer cell lines (Completed)
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Teaching Experience

- Medical Immunology (Ardabil University of Medical Sciences)
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Workshops Conducted

- Cell Culture, Western Blotting, and PCR
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Workshops Attended

- Real-Time PCR
 - Advanced Bioinformatics
 - Surface Plasmon Resonance
 - 2D Gel Electrophoresis and Western Blotting
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Peer Review Activities

- Reviewer, *Biomedicine & Pharmacotherapy* (Elsevier)
- Reviewer, *Gene Reports* (Elsevier)

- Reviewer, *Middle East Journal of Cancer*
 - Reviewer (4 rounds), *Iranian Journal of Immunology*
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Honors and Awards

- Top Ph.D. Student in Medical Immunology, Shiraz University of Medical Sciences (2018 cohort)
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Technical Skills

- DNA/RNA extraction, cDNA synthesis
 - qRT-PCR, RT-PCR
 - Gene cloning and primer design
 - Cell culture and transfection (siRNA, microRNA)
 - ELISA, MTT, TUNEL
 - SDS-PAGE and Western blotting
 - Immunohistochemistry
 - Animal handling and immunization (mouse, rabbit)
 - Monoclonal and polyclonal antibody production
 - Recombinant protein expression, chromatography, and purification
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Software Skills

GraphPad Prism, EndNote, ImageJ, Microsoft Office (Word, Excel, PowerPoint)

Languages

- English (Fluent)
- Turkish (Fluent)

Professional Memberships

Active member of Iranian Society for Immunology and Allergy