

# Amir Hosein Maharati

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https://github.com/amirmaharati

## PERSONAL STATEMENT

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A Medical Doctor and young researcher working in an Oncology Clinic where I assist in patient care and chemotherapy planning. My research focuses on non-coding RNAs as biomarkers in human tumors, and I'm deeply interested in bioinformatics, sequencing, and cancer biology. Beyond medicine, I enjoy theater and the arts, and I aspire to make a lasting difference in the lives of cancer patients

## RESEARCH INTERESTS

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Cancer biology

Cancer biomarkers

Mult omics

non-coding RNAs

Bioinformatics

Data analysis

## EDUCATIONAL HISTORY

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### ■ Doctor of medicine

2018- 2025

*Mashhad University of Medical Sciences*

- Cumulative GPA: 3.84/4 (18.12/20)

## Experience

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### **Oncologist Assistant**

June 2025-now

*Shafa Oncology and chemotherapy center (Dr. Allahyari)*

1. Oncology Patient Management
2. Treatment Planning & Prescription
3. Evidence-Based Practice
4. Collaboration

### **Undergraduate Research Assistant**

Jan 2020-2025

*Medical Genetics Research Center (MGRC)*

*Supervisor: Dr. Mohammadreza Abbaszadedgan & Dr. Meysam Moghbeli*

5. Developing a biobank for colorectal cancer
6. Management of the colorectal projects at the research center
7. Developing collaborations with department heads for the purpose of data collection

**Medical Intern**

Oct 2023-2025

*Imam Reza and Ghaem hospital, Mashhad, Iran*

1. *Practicing medicine*

**Post-doctoral research fellow**

April 2025-now

*Endoscopic and minimally invasive research center, Ghaem Hospital, Mashhad, Iran*

## RESEARCH EXPERIENCE

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### ◆ Major Publications

#### ◆ Original Articles

- ☞ Zohreh Rezaei, Kazem Dastjerdi, Abolghasem Allahyari, Soodabeh ShahidSales, Sahar Talebian, **Amirhosein Maharati**, Alireza Zangooie, Amir Sadra Zangouei, Farzad Sadri, Saman Sargazi. Plasma microRNA-195, –34c, and –1246 as novel biomarkers for the diagnosis of trastuzumab-resistant HER2-positive breast cancer patients. Toxicology and Applied Pharmacology. [IF: 4.4]
- ☞ **Amirhosein Maharati**, Negin Taghehchian, Fatemeh Taghavinia, Alireza Golshan, Azadeh Aarabi, Mohammad Reza Abbaszadegan, Meysam Moghbeli. LINC01322 may serve as a potential diagnostic marker for advanced stage tumors in renal cell carcinoma patients eligible for total nephrectomy. Biochemistry and Biophysics Reports. [IF: 2.2]
- ☞ **Amirhosein Maharati**, Mohammad javad Malekifar, Abbas Abdollahi, Negin Taghehchian, Samaneh Sharif, Azadeh AArabi, Malihe Lotfi, Mohammad Etezdapour, Mohammadreza AbbaszadeganCKAP2, miR-941, miR-548 and LINC02577 as biomarkers for early diagnosis in colorectal cancer. Scientific Reports. [IF:3.9]
- ☞ **Amirhosein Maharati**, Fatemeh Taghavinia, Alireza Golshan, Tina Azimi Kordiani, Meysam Moghbeli. LINC01913 and LINC01389 as the novel diagnostic tumor markers for the early-stage renal cell carcinoma. Cancer Treatment and Research Communications. [IF:2.9]
- ☞ Negin Taghehchian, **Amirhosein Maharati**, Fatemeh Taghavinia, Alireza Golshan, Sepehr Salarzadeh, Meysam Moghbeli. LINC00332 as a potential diagnostic marker for the low-grade tumors in renal cell carcinoma patients. BMC urology. [IF: 1.6]
- ☞ Mohammad Hossein Khajavirad, **Amirhosein Maharati**, Negin Taghehchian, Fatemeh Taghavinia, Meysam Moghbeli. Role of VOPP1 in regulation of Paclitaxel response and EMT process during ovarian tumor progression. Molecular Biology Research Communications. [IF: 1.75]

## ◆ Review Articles

- ☞ **Maharati A**, Zanguei AS, Khalili-Tanha G, Moghbeli M. MicroRNAs as the critical regulators of tyrosine kinase inhibitors resistance in lung tumor cells. *Cell Commun Signal*. [IF: 8.41]
  
- ☞ **Maharati A**, Moghbeli M. Long non-coding RNAs as the critical regulators of PI3K/AKT, TGF- $\beta$ , and MAPK signaling pathways during breast tumor progression. *J Transl Med*. [IF: 8.48]
  
- ☞ **Maharati A**, Moghbeli M. PI3K/AKT signaling pathway as a critical regulator of epithelial-mesenchymal transition in colorectal tumor cells. *Cell Commun Signal*. [IF: 8.41]
  
- ☞ **Maharati A**, Samsami Y, Latifi H, Tolue Ghasaban F, Moghbeli M. Role of the long non-coding RNAs in regulation of Gemcitabine response in tumor cells. *Cancer Cell Int*. [IF: 6.4]
  
- ☞ **Maharati A**, Moghbeli M. Forkhead box proteins as the critical regulators of cisplatin response in tumor cells. *Eur J Pharmacol*. [IF: 5.1]
  
- ☞ Pooria Salehi-Sangani, **Amir Hosein Maharati**, Bahareh Payami, Mohsen Aliakbarian, Mohammad Reza Abbaszadegan, HypoxamiRs in pancreatic cancer: Master regulators of the hypoxic tumor microenvironment. *Cell Biology and Toxicology*. [IF:5.9]
  
- ☞ Iman Akhlaghipour, Arya Nasimi Shad, Vahid Reza Askari, **Amirhosein Maharati**, Vafa Baradaran Rahimi. How caffeic acid and its derivatives combat diabetes and its complications: A systematic review. *Journal of Functional Foods*. [IF: 5.2]
  
- ☞ **Maharati A**, Akhlaghipour I, Taghehchian N, Farshchian Yazdi Z, Moghbeli M. Role of microRNA-494 in tumor progression. *Am J Transl Res*. [IF: 3.9]
  
- ☞ **Amirhosein Maharati**, Yasamin Rajabloo, Meysam Moghbeli. Molecular mechanisms of mTOR-mediated cisplatin response in tumor cells. *Heliyon*. [IF: 3.6]
  
- ☞ **Maharati A**, Moghbeli M. Role of microRNAs in regulation of doxorubicin and paclitaxel responses in lung tumor cells. *Cell Div*. [IF: 2.8]

- ☞ **Maharati A**, Tolue Ghasaban F, Akhlaghipour I, Taghehchian N, Zangouei AS, Moghbeli M. MicroRNA-495: a therapeutic and diagnostic tumor marker. *J Mol Histol*. [IF: 3.1]
- ☞ **Amirhosein Maharati**, Meysam Moghbeli. Role of microRNA-505 during tumor progression and metastasis. *Pathology-Research and Practice*. [IF: 3.2]
- ☞ Alsadat Mahmoudian R, **Amirhosein M**, Mahmoudian P, et al. The therapeutic potential value of Cancer-testis antigens in immunotherapy of gastric cancer. *Gene*. [IF: 3.9] [co-first author]
- ☞ Tolue Ghasaban F, **Maharati A**, Akhlaghipour I, Moghbeli M. MicroRNAs as the critical regulators of autophagy-mediated cisplatin response in tumor cells. *Cancer Cell Int*. [IF: 6.4]
- ☞ Taghehchian N, **Maharati A**, Akhlaghipour I, Zangouei AS, Moghbeli M. PRC2 mediated KLF2 down regulation: a therapeutic and diagnostic axis during tumor progression. *Cancer Cell Int*. [IF: 6.4]
- ☞ Tolue Ghasaban F, **Maharati A**, Zangouei AS, Zangooie A, Moghbeli M. MicroRNAs as the pivotal regulators of cisplatin resistance in head and neck cancers. *Cancer Cell Int*. [IF: 6.4]
- ☞ Fanoodi A, **Maharati A**, Akhlaghipour I, Rahimi HR, Moghbeli M. MicroRNAs as the critical regulators of tumor angiogenesis in liver cancer. *Pathol Res Pract*. [IF: 3.3]
- ☞ Moghbeli M, Taghehchian N, Akhlaghipour I, Samsami Y, **Maharati A**. Role of forkhead box proteins in regulation of doxorubicin and paclitaxel responses in tumor cells: A comprehensive review. *Int J Biol Macromol*. [IF: 8.0]
- ☞ Arya Nasimi Shad, Ali Fanoodi, **Amirhosein Maharati**, Iman Akhlaghipour, Amir Reza Bina, Ehsan Saburi, Fatemeh Forouzanfar, Meysam Moghbeli. Role of microRNAs in tumor progression by regulation of kinesin motor proteins. *International journal of biological macromolecules*. [IF: 8.5]
- ☞ Taghehchian N, Samsami Y, **Maharati A**, Zangouei AS, Boroumand-Noughabi S, Moghbeli M. Molecular biology of microRNA-342 during tumor progression and invasion. *Pathol Res Pract*. [IF: 3.3]
- ☞ Iman Akhlaghipour, Negin Taghehchian, Amir Sadra Zangouei, Amirhosein **Maharati**, Reihaneh Alsadat Mahmoudian, Ehsan Saburi, Meysam Moghbeli. MicroRNA-377: A therapeutic and diagnostic tumor marker. *Int J Biol Macromol*. [IF: 8.0]
- ☞ Nasimi Shad A, Fanoodi A, **Maharati A**, Akhlaghipour I, Moghbeli M. Molecular mechanisms of microRNA-301a during tumor progression and metastasis. *Pathol Res Pract*. [IF: 3.3]

☞ Malihe Lotfi, **Amirhosein Maharati**, Amir Abbas Hamidi, Negin Taghehchian, Meysam Moghbeli. MicroRNA-532 as a probable diagnostic and therapeutic marker in cancer patients. Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis. [IF: 1.9]

☞ Faezeh Tolue Ghasaban, Iman Akhlaghipour, Negin Taghehchian, **Amirhosein Maharati**, Bahram Memar, Meysam Moghbeli. MicroRNA-185: A non-invasive diagnostic and prognostic tumor marker. Process Biochemistry. [IF: 4.8]

#### ◆ Case report Articles

☞ Allahyari A, **Maharati A**, Jafari-Nozad AM, Zangooie A. Prostate cancer, chronic myelogenous leukemia and multiple myeloma in a single patient: a case report and review of the literature. *J Med Case Rep*. [co-respond author]

☞ Alireza Zangooie, Zahra Moradi, Reza Asgari, **Amirhosein Maharati**, Zahra Salehi, Abolghasem Allahyari. Essential thrombocythemia as an initial presentation of polyneuropathy, organomegaly, endocrinopathy, M-protein, skin changes syndrome with complete response to the bortezomib, cyclophosphamide, dexamethasone regimen: **a case report**. [IF: 0.9]

#### ◆ Under review research projects

☞ **GFPT2 as a critical regulator of CAFs-Tumor interaction in the TME of colorectal cancer (single cell)**

☞ **Critical regulators of CAFs-Tumor interaction through PI3K/ AKT in the TME of RCC (single cell)**

#### OTHER EXPERIENCES

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- **Theater Director** Jan 2019-Mar 2022  
*Mashhad University of Medical Sciences theater center, Mashhad, Iran*
  - ☞ performing 3 theaters as the director and 1 theater as an actor
  - ☞ training management, team work and communication skills
- **Workout and fitness trainer** Oct 2022-now  
*Iran bodybuilding and fitness federation, Tehran, Iran*
  - ☞ Level 3 Certificate in Coaching

#### SOFTWARE DEVELOPMENT

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- **HAVij: R package**

## **AWARDS & ACHIEVEMENTS**

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- **Annual Top Researcher of University Award** Dec 2023  
*Mashhad University of Medical Sciences*

## **SKILLS & QUALIFICATIONS**

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- **Laboratory Skills**
  - ☞ DNA Extraction and PCR Techniques
  - ☞ RNA Extraction
  - ☞ Cell Culture
  - ☞ MTT assay
  - ☞ Western Blot Technique
  - ☞ Gram Staining
  - ☞ Working with Laboratories Devices
  - ☞ Microtome, Tissue Processing Device
- **Computer Skills**
  - ☞ Microsoft Office: Advanced
  - ☞ SPSS: Advanced
  - ☞ R Programming Language: Advanced
  - ☞ RNA-seq/ Single-cell Analysis: Advanced
  - ☞ Linux: Advanced
- **Language Skills**
  - ☞ Farsi: Fluent
  - ☞ Turkish: Fluent
  - ☞ English: Proficient

## **REFERENCES**

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- **Mohammadreza Abbaszadegan (Ph.D.)**  
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