

Khatere Mokhtari, PhD

Department of Cell and Molecular Biology and Microbiology

Faculty of Biological Science and Technology

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Education

- ***Ph.D. in Cellular and Molecular Biology – Neuroscience***
Research Focus: Parkinson's disease, essential tremor, stroke, and neuroscience-related issues
- ***M.Sc. in Cellular and Molecular Biology***
Research Focus: Colorectal cancer
- ***B.Sc. in Genetics***

Research Interests

- *Neurodegenerative diseases (Parkinson's disease, essential tremor, stroke)*
- *Cancer biology and immunotherapy*
- *Mechanistic pathways in surgery and inflammation*
- *Drug delivery and therapeutic antibodies*
- *microRNAs, stem cell therapy, and systems biology*

Professional Experience

- ***Current Collaboration:*** *Working with Professor Parvizi on inflammatory pathways in osteoarthritis and surgical infections.*
- ***Collaborations with multiple teaching and treatment hospitals, including:***
 - *Taleghani Hospital*
 - *Shafa Yahyaian Hospital*
 - *Rasul Akram Hospital*
 - *Alzahra Hospital*
 - *Moheb-e-Mehr Hospital*
 - *Isabn-e-Maryam Hospital*
 - *Haft-e-Tir Hospital*
- ***Affiliated with renowned universities:***
 - *Iran University of Medical Sciences*
 - *Isfahan University of Medical Sciences*
 - *Shahid Beheshti University of Medical Sciences*

- **Clinical Collaborations** with physicians and surgeons in:
 - *Orthopedics*
 - *Gynecology*
 - *Internal Medicine*
 - *Oncology*
 - *Ophthalmology*
 - *Neurology and Neuroscience*
 - *Aesthetic Medicine*
 - *Veterinary Medicine*
 - *Dentistry*

Academic Accomplishments

- **Ranked 2nd in the National PhD Entrance Exam for Cellular and Molecular Biology**
- **Top 4 finalist in the Annual Competitions of the Elite Society**
- **Member of the National Elite Foundation**

Published Papers (Selected)

1. *Involvement of unsaturated fatty acid biosynthesis in CRC progression based on in vitro and in silico studies*
2. *Colon cancer transcriptome*
3. *Effects of intermittent fasting combined with physical exercise on cardiometabolic outcomes: systematic review and meta-analysis of clinical studies*
4. *Identification of a novel interplaying loop of PPAR γ and respective lncRNAs are involved in colorectal cancer progress*
5. *Unraveling the molecular and immunological landscape: exploring signaling pathways in osteoporosis*
6. *Role of non-coding RNAs in osteoporosis*
7. *Discovery of PELATON links to the INHBA gene in the TGF- β pathway in colorectal cancer using a combination of bioinformatics and experimental investigations*
8. *Role of lncRNAs in brain tumors*

9. *The effects of probiotic supplementation and exercise training on liver enzymes and cardiometabolic markers in patients with non-alcoholic fatty liver disease: A systematic review and meta-analysis*

10. *Pathological roles of miRNAs and pseudogene-derived lncRNAs in human cancers, and their comparison as prognosis/diagnosis biomarkers*

11. *Determining expression changes of ANO7 and SLC38A4 membrane transporters in colorectal cancer*

12. *Unraveling the Molecular Landscape of Osteoarthritis: A Comprehensive Review Focused on the Role of Non-Coding RNAs*

13. *Glioblastoma multiforme: insights into pathogenesis, key signaling pathways, and therapeutic strategies*

14. *Discovery of LINC01614 associated with the SPP1 gene in colorectal cancer*

15. *Serum levels of oxidative stress, IL-8, and pepsinogen I/II ratio in Helicobacter pylori and gastric cancer patients: potential diagnostic biomarkers*

16. *Extracellular vesicles: unlocking therapeutic potential in regenerative medicine*

17. *Extracellular vesicles in reproductive medicines*

18. *Multifaceted role of TRIM28 in health and disease*

19. *The Impact of Exosomes on Bone Health: A Focus on Osteoporosis*

20. *Exploring the Role of Wnt Signaling Pathway in Orthopedic Health and Disease: Mini-Review*

21. *Insights into Gene Therapy Innovations for Orthopedic Disorders: A Mini-Review*

22. *Comprehensive Analysis of Pediatric Elbow Injuries: A Cross-sectional Descriptive Study Investigating Frequency, Fracture Types, and Treatment Methods*

23. *The Role of CA-125 Levels as a Prognostic Indicator for Response to Medical Treatment in Fallopian Ectopic Pregnancy*

24. *Cross-cultural adaptation, validity and reliability of the Persian version of the Kerlan-Jobe Orthopedic Clinic shoulder and elbow score*

25. *Investigating the Outcomes of Adolescent Treatment for Humerus Fractures Using Elastic Titanium Nails*

Under Review Projects

1. *Impact of Obesity on Bone Health: Metabolic Interactions and Associated Pathologies*
2. *Identification of lncRNA Associated with the SERPINE1 Gene in Colorectal Cancer Through TGF- β Pathway*
3. *Biomarker Detection Methods in Eye Diseases*
4. *A Comprehensive Review of Molecular Interactions and Signaling Pathways in Cancers and Neurodegenerative Diseases*
5. *The Role of lncRNAs and miRNAs in OSCC Progression and Metastasis*
6. *Comprehensive Analysis of Gene Expression and Regulatory Marker Profiles, Including Slc16A2, TMEM169, EBF3, and Associated CircRNAs and miRNAs in Oral Squamous Cell Carcinoma*
7. *Unraveling Cellular and Molecular Insights: Exploring the Potential Efficacy and Limitations in Healing with Platelet-Rich Plasma*
8. *Suppression of Circ_PTPRM Increases Drug Resistance to 5-Fu in Colorectal Cancer Through miR-432-5p Sponging*
9. *Breast Cancer Transcriptome*
10. *Innovative Insights into Osteosarcoma: Unraveling the Role of miRNAs, lncRNAs, and circRNAs in Tumorigenesis and Therapeutic Resistance*
11. *Exosomes in Osteoarthritis: Emerging Roles in Pathogenesis, Diagnosis, and Therapeutic Potential*

Published Books

1. *Comprehensive Techniques in Cellular and Molecular Sciences (Dr. Khatere Mokhtari) - Author*
2. *Management of Inflammatory Bowel Disease in Hospitalized Patients (Khatere Mokhtari, Dr. Amir Arya) - Translation*

3. *A Review of the Most Common Autoimmune Diseases* (Dr. Khatere Mokhtari, Dr. Amir Arya) - Translation
4. *Fundamentals of Molecular Biology* (Dr. Khatere Mokhtari, Dr. Abolghasem Esmaeili) - Translation
5. *Cancer Biomarkers in Body Fluids* (Dr. Khatere Mokhtari, Dr. Mohammad Hossein Nasr Esfahani, Dr. Farzad Seyed Forootan) - Translation
6. *Challenges in Upper Limb Orthopedic Surgery* (Dr. Khatere Mokhtari, Dr. Mojtaba Bani Asadi) - Translation
7. *Ocular Adnexal Lymphoma* (Dr. Khatere Mokhtari, Dr. Amir Masoud Moieni) - Translation

Teaching Experience

- *Cell Culture*
- *Molecular Biology Techniques*
- *Genetic Engineering Techniques*
- *Bioinformatics*

Technical Skills

Computational Biology

- *Advanced Microarray Data Analysis in R*
- *Advanced RNA-Seq Data Analysis in R*
- *Pathway and Network Analysis*

Laboratory Skills

- *Expert in cell and microbial culture*
- *Molecular Biology Techniques: Protein, RNA, and DNA extraction, cDNA synthesis, RT-PCR, Western Blot, ELISA, Immunocytochemistry, SDS-PAGE, Agarose Gel Electrophoresis*
- *Genetic Engineering: Prokaryotic and eukaryotic cell transfection, gene cloning*
- *Flow Cytometry and Advanced Microscopy Techniques*

Languages

- ***English:*** Fluent (Academic Writing)
- ***Persian:*** Native

Awards & Honors

- *Invited speaker at international conferences on oncology and neurobiology*
- *Reviewer for prestigious ISI journals*
- *Keynote speaker at international conferences on basic and clinical science convergence*
- *Executive team member for the International Conference on Basic and Clinical Science Convergence*
- *Experience as a faculty member at the University of Isfahan, teaching graduate-level students*
- *Developer and coordinator of clinical training proposals for residents in specialties such as orthopedics, including publication and dissemination strategies*
- *Invited to submit articles to prestigious ISC journals*
- *Successful publication in high-impact journals with impact factors above 10, contributing to interdisciplinary research and advancing clinical and basic science.*
- *Contributor to orthopedic patent articles .*
