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**In the name of god**

**Curriculum Vitae**

**Personal Information**

**Name:** Roghayeh

**Surname:** Ghorbani

**Position:** Assistant professor of Applied Cell Sciences

**Field:** Medical Biotechnology

**University email:** [Roghayeh.ghorbani@zums.ac.ir](mailto:Roghayeh.ghorbani@zums.ac.ir)

**Yahoo e-mail:** [Roghayeh.ghorbani@yahoo.com](mailto:Roghayeh.ghorbani@yahoo.com)

**Education**

PhD., Medical Biotechnology, Zanjan university of medical sciences,

Zanjan, Iran

Thesis Title: “Investigation of synergistic effects of Myc decoy oligodeoxynucleotides loaded in selenium nanostructures and chemoradiotherapy in prostate cancer cells”

Supervisors: Professor Yousef Mortazavi, Dr Behrooz Johari

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| **Research Interests** | |
| * Research and study about different types of cancers * Study of signaling pathways and molecular therapeutic targets in cancers * Cancer Gene therapy * Molecular signaling pathways and therapeutic targets * Using nanotechnology for different types of diseases, especially cancers * Therapeuticoligonucleotides for different types of diseases * Cell therapy for different types of disease * Study and research on stem cell exosomes |

**Participation in research projects**

1.Biosynthesis of Zn nanoparticles and in situ their hybrid with BSA nanoparticles as a Nanocarrier for Baicalein and investigation of its anti-cancer effects on U87 cell line.

2. Bio-synthesis of copper nanoparticles and their hybrid with BSA nanoparticles as a nanocarrier for chrysin delivery and investigation of its anticancer effects on MDA-MB-231 breast cancer cell line.

3. Evaluation of anticancer effect of polycationic nanoparticles containing oligodeoxynucleotide decoy against c-Myc on NTERA-2 cancer stem-like cells.

4. Characterization and cytotoxic effects investigation of coencapsulated niosome with metformin and silver nanopprojects on lung cancer cells (A549).

5.Evaluation of anticancer effects of NL2-targeted polycationic nanoparticles containing decoy oligodeoxynucleotide against Nanog in breast cancer cell lines.

6. Evaluation of combined treatment effect of trastuzumab and decoy oligodeoxy nucleotides for STAT3 transcription factor on inhibition of HER2-positive breast cancer cell line growth (SK-BR-3).

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| **PUBLICATIONS** |
| 1. **GHORBANI R**, GHARBAVI M, SHARAFI A, RISMANI E, REZAEEJAM H, MORTAZAVI Y, et al. Targeted anti-tumor synergistic effects of Myc decoy oligodeoxynucleotides-loaded selenium nanostructure combined with chemoradiotherapy on LNCaP prostate cancer cells. Oncology Research. 2024;32(1). 2. Gharbavi M, Johari B, **Ghorbani R**, Madanchi H, Sharafi A. Green synthesis of Zn nanoparticles and in situ hybridized with BSA nanoparticles for Baicalein targeted delivery mediated with glutamate receptors to U87‐MG cancer cell lines. Applied Organometallic Chemistry. 2023;37(1):e6926. 3. Behrooz Johari (Ph.D)1, **Roghayeh Ghorbani (M.Sc)\*1**, Sara Heidari (M.Sc)1, Somayyeh Rashidi (M.Sc)1, Hamid Madanchi (Ph.D)\*2. Anti-cancer effects of the combined treatment of trastuzumab and decoy oligodeoxynucleotides to target STAT3 transcription factor on SK-BR-3 breast cancer cell line., Koomesh -Volume 25, Issue 1 (January and February 2023), 71-82. 4. **Roghayeh Ghorbani1,2**†**,** Mahmoud Gharbavi3,4, Benyamin Keshavarz2, Hamid Madanchi5,6,7\*, Behrooz Johari8†\*.Targeting c-Myc with Decoy Oligodeoxynucleotide-Loaded polycationic Nanoparticles Inhibits cell growth and induces apoptosis in cancer stem-like cells (NTERA-2). 5. Abdollahi M, Andablib S, **Ghorbani R**, Afshar D, Gholinejad M, Abdollahi H, et al. Polydopamine contained hydrogel nanocomposites with combined antimicrobial and antioxidant properties for accelerated wound healing. International Journal of Biological Macromolecules. 2024:131700. |

**Congresses**

1. Investigation of synergistic effects of Myc decoy oligodeoxynucleotide on chemoradiotherapy in prostate cancer cell. *2021, 5th International cancer congress. Shahid Beheshti University of Medical Sciences, Tehran, Iran.*
2. Synthesis of silver nanoparticles and hybridization with Bovine serum albumin nanoparticles as a nanocarrier for quercetin and investigation of its anticancer effects on 4T1 cell line. *2021, 5th International cancer congress. Shahid Beheshti University of Medical Sciences, Tehran, Iran.*
3. Green synthesis of copper nanoparticles and hybridized with albumin nanoparticles as a nano-carrier system for efficient Chrysin delivery to suppress proliferation of MDA-MB-231 breast cancer cell line. *2021, 5th International cancer congress. Shahid Beheshti University of Medical Sciences, Tehran, Iran.*
4. Green synthesis of Zn nanoparticles and in situ their hybrid with BSA nanoparticles as a Nanocarrier for Baicalein and investigation of its anti-cancer effects on U87 cell line. *2021, 5th International cancer congress. Shahid Beheshti University of Medical Sciences, Tehran, Iran.*
5. Anticancer study of targeted nano hybrid loaded with curcumin on HepG2 cancer cell line. *2021, 5th International cancer congress. Shahid Beheshti University of Medical Sciences, Tehran, Iran.*
6. c-Myc decoy oligodeoxynucleotides-loaded polycationic nanoparticles inhibit cell growth and induce apoptosis in NTERA-2 cells. *2023, the 7th International Congress on BioMedicine (ICB 2023), Iran.*
7. Evaluation of anticancer effects of NL2-targeted polycationic nanoparticles containing decoy oligodeoxynucleotide against Nanog in breast cancer cell line (SKBR3). *2023, the 7th International Congress on BioMedicine (ICB 2023), Iran.*

BOOKS:

**Mussel-Inspired Bioadhesives (Fundamentals and Medical Applications)"**, authored by Dr. Saeed Kaboli, Aref Dozandeh Jouybari, Roghayeh Ghorbani, and Zahra Esmaeili Abdar. Published by Jahad-e-Daneshgahi (Academic Center for Education, Culture, and Research), Zanjan Province Branch, 2021.

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| **Executive Activities**   1. Accreditation Secretary, Department of Applied Cellular Sciences, Urmia University of Medical Sciences (2025–present). 2. Member, Student Working Group of the EDO, Faculty of Medicine, Urmia University of Medical Sciences (2025–present). 3. Exam Operations Manager, Faculty of Medicine, Urmia University of Medical Sciences (2025–present). | | |
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| **Skills**  Quantitative Real-Time PCR  DNA extraction  RNA extraction  PCR (polymerase chain reaction)  Cell culture  MTT assay  Cell cycle assay  Apoptosis assay  ELISA test  Electrophoresis test  Synthesis of various metal nanoparticles  DLS, FTIR, UV-vis assays  Hemolysis assay  Graph Pad Prism  FlowJo  Image J  General Computer Skills: Microsoft Office  **Language Proficiency**  Azerbaijani: Native  Turkish  Persian  English | |
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