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<https://scholar.google.com/citations?user=HRFqK78AAAAJ>

<https://www.scopus.com/authid/detail.uri?authorId=54580884900>

<https://www.linkedin.com/feed/>

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#### **POSITIONS**

- .Biology Teacher, High School affair of Education Department, Abyek, Gazvin, Iran. **1999- 210**
- Assistant Professor of Clinical Biochemistry, Biochemistry and Nutrition Department, Zanzan University of Medical Sciences, Zanzan, Iran. **2013-2017**
- Associate Professor of Clinical Biochemistry, Biochemistry and Nutrition Department, Zanzan University of Medical Sciences, Zanzan, Iran. **2017-2021**
- Associate Professor of Clinical Biochemistry, Biochemistry and Genetics Department, Qazvin University of Medical Sciences, Qazvin, Iran. **2021-2022**
- Fellowship of Medical Laboratory Sciences, Biochemistry and Genetics Department, Qazvin University of Medical Sciences, Qazvin, Iran. **2021-2022**

- Founder and Director of non-profit Medical Diagnostic Center, Dr. Fathi Medical Diagnostic Center, Qazvin, Mohammadih, Iran. **2021-present**

#### ADMINISTRATIVE EXPERIENCE

- **The Head** of Biochemistry and Nutrition Department, Zanjan University of Medical Sciences, Zanjan, Iran: **2014 - 2021**
- **Director** of Diagnostic Laboratory, Motahhari PolyClinic: **2014 -2020**
- **Director** of Diagnostic Laboratory, Dr. Fathi Medical Laboratory: **2021 - Present**
- **Founder** of Cancer Gene Therapy Research Center, Zanjan University of Medical Sciences, Zanjan, Iran: **2015 -2021**
- **Scientific Committee Member** of Cancer Gene Therapy Research Center, Zanjan University of Medical Sciences, Zanjan, Iran: **2015 -2021**
- **Founder** of Molecular and Cellular Research Center, Qazvin University of Medical Sciences, Zanjan, Iran: **2022 – Present**
- **Scientific Committee** Member of Molecular and Cellular Research Center, Qazvin University of Medical Sciences, Zanjan, Iran: **2022 – Present**
- **Advisor** of Medical Students, Zanjan University of Medical Sciences, Zanjan, Iran: **2014 - 2021**
- **Advisor** of Medical Students, Qazvin University of Medical Sciences, Qazvin, Iran: **2022-present**
- **Scientific Committee** Member of Entrepreneurial University of the third generation Committee, Zanjan University of Medical Sciences, Zanjan, Iran. **2016 -2020**
- **Scientific Committee** Member of Post-graduate Students Committee, Zanjan University of Medical Sciences, Zanjan, Iran: **2015-2021**
- **Scientific Committee** Member of Research Committee, Qazvin University of Medical Sciences, Qazvin, Iran. **2022- Present**
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- **Scientific Committee** Member of Olampiad, Zanjan University of Medical Sciences, Zanjan, Iran: **2014-2017**
- **The Head** of Biochemistry and Genetic Department, Gazvin University of Medical Sciences, Qazvin, Iran: **Is in progress** (Biochemistry and Genetic election has been done).

### **MEMBERSHIPS**

- **Membership** of Iranian Association of Clinical Pathologists (IACP): **2020-2022**
- **Membership** of Iranian Association of Clinical Biochemistry: **2007-2022**

### **EDUCATIONAL BACKGROUND**

- Fellowship of Laboratory Sciences, Shiraz University of Medical Sciences, Shiraz, Iran. **2019 September -2021 September**  
**Project:** Medicine Pathophysiology Study and internship in Hospital
- Ph. D of Clinical Biochemistry, Tarbiat Modaress University, Tehran, Iran.  
**2007 September- 2012 August**  
**Thesis:** Production and Quality Control of Lutetium-177 Labeled siRNA against IGF-1R and Evaluation of its Effects on proliferation, Apoptosis, and Uptake Kinetic in SW480 human Cancer Cell Line
- MSc of Biochemistry, Tarbiat Modaress University, Tehran, Iran.  
**2004 September- 2007 July.**  
**Thesis:** Evaluation of the effects of Anti hCG monoclonal antibodies on human cancer cells
- Bachelor's degree of Biology, Kharazmi University, Tehran, Iran.  
**1994 September-1998 July. Project: Teaching Methods**

### **H index**

In Scopus: **9**

In Google Scholar: **11**

### **Awards**

- The top Manager of Clinical Biochemistry Department, Zanjan University of Medical Sciences, Zanjan, Iran: **2015**
- The top Advisor for Medicine Students, Zanjan University of Medical Sciences, Zanjan, Iran: **2016**
- The top Professor, Zanjan University of Medical Sciences, Zanjan, Iran: **2017**
- 10 Selected Ideas in Inovative Ideas Festival: mPEG-PCL/DDAB Hybrid Nanoparticle for siRNA delivery into Cancer Cells: **2015**

### **The major research fields**

- The Study of Gene Silencing using siRNA in Cancer
- Production of siRNA Radioconjugate
- Production of Hybrid Nanoparticles for siRNA Delivery in Cancer
- The study of Chemotherapy resistance Mechanisms in Cancer
- Combination Therapy of Cancer using siRNA and Chemotherapeutic Agents
- Clinical Biochemistry Research on Cancer Samples like Biomarkers Development

### **The major technology Fields**

- Anti-hCG Monoclonal Antibody Production to Treat Cancer Cells

- Bioinformatic Skills for in Silico Study
- Complete Knowledge of Flow Cytometry Application in Research and Clinic
- Technology of Hybrid Nanoparticle Production
- Complete Knowledge of Equipment/Instrumentation, Application of Clinical Instruments, Quality Control of Diagnostic Laboratory Center

## **PUBLICATIONS**

- **JOURNAL PAPERS**

- 1) **The efficacy and neuroprotective effects of edaravone-loaded mPEG-b-PLGA polymeric nanoparticles on human neuroblastoma SH-SY5Y cell line as in vitro model of ischemia**

<https://doi.org/10.1016/j.jddst.2022.103378>

**Journal: 2022**, Journal of Drug Delivery Science and Technology, 73, 103378

- 2) **Effects of betanin on AMPK, Sirtuin1, and Sirtuin6 gene expression and inflammatory cytokines levels in peripheral blood mononuclear cells of patients with coronary artery disease**

<https://doi.org/10.1108/NFS-09-2021-0272>

**Journal: 2022**, Nutrition and Food Science, 52(5), pp. 843-857

- 3) **Co-delivery of siRNA and lycopene encapsulated hybrid lipid nanoparticles for dual silencing of insulin-like growth factor 1 receptor in MCF-7 breast cancer cell line**

[DOI: 10.1016/j.ijbiomac.2021.12.197](https://doi.org/10.1016/j.ijbiomac.2021.12.197)

**Journal: 2022**, International Journal of Biological Macromolecules, 200, pp. 335-349

- 4) **Betanin alleviates oxidative stress through the Nrf2 signaling pathway in the liver of STZ-induced diabetic rats**

<https://doi.org/10.1007/s11033-022-07781-8>

**Journal: 2022**, Molecular Biology Reports, 49(10), pp. 9345-9354

- 5) **Study rationale and design of a study of EMPAgliflozin's effects in patients with type 2 diabetes mellitus and Coronary ARtery disease: the EMPA-CARD randomized controlled trial**

DOI: [10.1186/s12872-021-02131-1](https://doi.org/10.1186/s12872-021-02131-1)

**Journal:** 2021, BMC Cardiovascular Disorders, 21(1), 318

- 6) **Determination of carcinoembryonic antigen as a tumor marker using a novel graphene-based label-free electrochemical immunosensor**

DOI: [10.1016/j.ab.2020.114017](https://doi.org/10.1016/j.ab.2020.114017)

**Journal:** 2021, Analytical Biochemistry, 613,114017

- 7) **DDAB cationic lipid-mPEG, PCL copolymer hybrid nano-carrier synthesis and application for delivery of siRNA targeting IGF-1R into breast cancer cells**

DOI: [10.1007/s12094-020-02507-3](https://doi.org/10.1007/s12094-020-02507-3)

**Journal:** 2021, Clinical and Translational Oncology, 23(6), pp. 1167-1178

- 8) **Synthesis of methoxy poly(ethylene glycol)-poly( $\epsilon$ -caprolactone) diblock copolymers hybridized with DDAB cationic lipid as the efficient nanocarriers for in vitro delivery of lycopene into MCF-7 breast cancer cells**

DOI: [10.1016/j.jddst.2021.102806](https://doi.org/10.1016/j.jddst.2021.102806)

**Journal:** 2021, Journal of Drug Delivery Science and Technology, 66,102806

- 9) **Application of decoy oligodeoxynucleotides strategy for inhibition of cell growth and reduction of metastatic properties in nonresistant and erlotinib-resistant SW480 cell line**

DOI: [10.1002/cbin.11543](https://doi.org/10.1002/cbin.11543)

**Journal:** 2021, Cell Biology International, 45(5), pp. 1001-1014

- 10) **Clinicopathological, immunohistochemical, and PMS2 gene expression profiling of patients with sporadic colorectal cancer**

DOI: [10.34172/aim.2021.13](https://doi.org/10.34172/aim.2021.13)

**Journal:** 2021, Archives of Iranian Medicine, 24(2), pp. 86-93

- 11) **Crosstalk between Epidermal Growth Factor Receptors (EGFR) and integrins in resistance to EGFR tyrosine kinase inhibitors (TKIs) in solid tumors**

DOI: [10.1016/j.ejcb.2020.151083](https://doi.org/10.1016/j.ejcb.2020.151083)

**Journal:** 2020, European Journal of Cell Biology, 99(4), 151083

- 12) The effect of resveratrol supplementation on C-reactive protein (CRP) in type 2 diabetic patients: Results from a systematic review and meta-analysis of randomized controlled trials**

**DOI:** [10.1016/j.ctim.2019.102251](https://doi.org/10.1016/j.ctim.2019.102251)

**Journal:** 2020, Complementary Therapies in Medicine, 49,102251

- 13) Circulating Irisin Levels and Redox Status Markers in Patients with Gastric Cancer: A Case-Control Study**

**DOI:** [10.31557/APJCP.2020.21.10.2847](https://doi.org/10.31557/APJCP.2020.21.10.2847)

**Journal:** 2020, Asian Pacific Journal of Cancer Prevention, 21(10), pp. 2847-2851

- 14) Oxidative toxic stress and p53 level in healthy subjects occupationally exposed to outdoor air pollution - a cross-sectional study in Iran.**

**DOI:** [10.26444/aaem/126313](https://doi.org/10.26444/aaem/126313)

**Journal:** 2020, Annals of Agricultural and Environmental Medicine, 27(4), pp. 585-590

- 15) Association between circulating visfatin and pre-eclampsia: a systematic review and meta-analysis**

**DOI:** [10.1080/14767058.2020.1789581](https://doi.org/10.1080/14767058.2020.1789581)

**Journal:** 2020, Journal of Maternal-Fetal and Neonatal Medicine, pp. 1-13

- 16) Curcumin mediated down-regulation of  $\alpha$ V  $\beta$ 3 integrin and up-regulation of pyruvate dehydrogenase kinase 4 (PDK4) in Erlotinib resistant SW480 colon cancer cells**

**DOI:** [10.1002/ptr.5984](https://doi.org/10.1002/ptr.5984)

**Journal:** 2018, Phytotherapy Research, 32(2), pp. 355-364

- 17) The assessment of metabolite alteration induced by -OH functionalized multi-walled carbon nanotubes in mice using NMRbased metabonomics**

**DOI:** [10.15171/bi.2018.13](https://doi.org/10.15171/bi.2018.13)

**Journal:** 2018, BioImpacts, 8(2), pp. 107-116

**18) Novel lipid-polymer hybrid nanoparticles for siRNA delivery and IGF-1R gene silencing in breast cancer cells**

<https://doi.org/10.1016/j.jddst.2018.08.025>

**Journal:** 2018, Journal of Drug Delivery Science and Technology, 48, pp. 96-105

**19) ALOX12 gene polymorphisms and serum selenium status in elderly osteoporotic patients**

**DOI:** 10.17219/acem/75689

**Journal:** 2018, Advances in Clinical and Experimental Medicine, 27(12), pp. 1717-1722

**20) Preliminary study showing no association between G238A (rs361525) tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) gene polymorphism and its serum level, hormonal and biochemical aspects of polycystic ovary syndrome**

**DOI:** 10.1186/s12881-018-0662-1

**Journal:** 2018, BMC Medical Genetics, 19(1), 149

**20) Preparation and characterization of curcumin loaded gold/graphene oxide nanocomposite for potential breast cancer therapy**

**DOI:** 10.1007/s11164-018-3593-8

**Journal:** 2018, Research on Chemical Intermediates, 44(12), pp. 7891-7904

**21) Correlation between certain Klotho gene polymorphisms and IGF-1 levels of colorectal cancer patients in Northern Iran**

[DOI.org/10.30476/mejc.2018.42117](https://doi.org/10.30476/mejc.2018.42117)

**Journal:** 2018, Middle East Journal of Cancer, 9(2), pp. 151-157

**22) Evaluation of the Level of Zinc and Malondialdehyde in Basal Cell Carcinoma**

**PMID:** 2889471      **PMCID:** PMC5575390

**Journal:** 2017, Iranian Journal of Public Health, 46(8), pp. 1104-1109

**23) Histopathological evaluation of Zebrafish (Danio rerio) larvae following embryonic exposure to MgO nanoparticles**

**URL:** <http://jifro.ir/article-1-2866-fa.html>

**Journal:** 2017, Iranian Journal of Fisheries Sciences, 16(3), pp. 959-969

**24) The Effect of Air Pollution on  $\gamma$ -Glutamyltransferase Enzyme Activity**

URL: <http://jams.arakmu.ac.ir/article-1-4654-en.html>

**Journal:** 2017, Arak Medical University Journal (AMUJ), 19(115), pp. 17-24

**25) Evaluation of hypoxia inducible factor-1 alpha gene expression in colorectal cancer stages of Iranian patients**

DOI: 10.4103/0973-1482.199542

**Journal:**2016, Journal of Cancer Research and Therapeutics, 12(4), pp. 1313-1317

**26) Toxic effects of magnesium oxide nanoparticles on early developmental and larval stages of zebrafish (*Danio rerio*).**

DOI: 10.1016/j.ecoenv.2015.08.009

**Journal:** 2015, Ecotoxicology and Environmental Safety, 122, pp. 260-267

**27) Synthesis of stabilized  $^{177}\text{Lu}$ -siRNA complex and evaluation of its stability and RNAi activity**

DOI: 10.1097/MNM.0000000000000292

**Journal:** 2015, Nuclear Medicine Communications, 36(6), pp. 636-645

**28) Association of IGF2R3'UTR(C>A) polymorphism in M6P/IGF2 receptor gene with insulin resistance indices in diabetic type 2 patients and non diabetic population**

<http://zums.ac.ir/journal/article-1-3044-en.html>

**Journal:** 2015, Journal of Zanzan University of Medical Sciences and Health Services, 23(96), pp. 1-11

**29) Demonstration of dose dependent cytotoxic activity in SW480 colon cancer cells by  $^{177}\text{Lu}$ -labeled siRNA targeting IGF-1R**

DOI: 10.1016/j.nucmedbio.2012.05.001

**Journal:** 2013, Nuclear Medicine and Biology, 40(4), pp. 529-536

**30) Adenosine induces cell cycle arrest and apoptosis via cyclinD1/Cdk4 and Bcl-2/Bax pathways in human ovarian cancer cell line OVCAR-3**

DOI: 10.1007/s13277-013-0650-1

**Journal:** 2013, Tumor Biology, 34(2), pp. 1085-1095

**31) Lutetium labeled-siRNA Delivery into Colon Cancer Cells Using Liposomes: A Comparative Study**

NEW CELLULAR & MOLECULAR BIOTECHNOLOGY JOURNAL Year:1391 |  
Volume:2 | Issue:6 Page(s): 17-25

**Journal:** 2012, NEW CELLULAR & MOLECULAR BIOTECHNOLOGY JOURNAL, 2(6), pp.17-25

**32) Evaluation the effect of monoclonal antibodies targeting hCG on human cancer cell lines**

URL: <http://tumj.tums.ac.ir/article-1-190-en.html>

**Journal:** 2011, Tehran University Medical Journal, 69(9), pp. 523-528

**33) Synthesis and biodistribution studies of <sup>67</sup>Ga-DOTA-trastuzumab as a diagnostic radioimmunoconjugate for oncology imaging by SPECT**

DOI: [10.1016/j.clinbiochem.2011.08.1022](https://doi.org/10.1016/j.clinbiochem.2011.08.1022)

**Journal:** 2011, Clinical Biochemistry, 13(44), pp. S29-S30

**34) Production and characterization of stable <sup>177</sup>Lu-siRNA complex and kinetic studies in colon cancer cell lines**

DOI:[10.1016/j.clinbiochem.2011.08.156](https://doi.org/10.1016/j.clinbiochem.2011.08.156)

**Journal:** 2011, Clinical Biochemistry, 13 (44), pp. S72

• **BOOKS**

- Clinical Biochemistry, Publisher: Zanzan University of Medical Sciences
- Advanced Tissue Biochemistry, Publisher: Zanzan University of Medical Sciences
- Nuclear Medicine Principles, Publisher: Research Institute of Nuclear Sciences and Technologies
- Biological Science and Health Exam Book, Publisher: Mobtakeran

**B) CONFERENCES**

I have participated many international conferences that some of them were as follow:

- 1) HNMR based metabolome profiling in COVID-19 patients: **17<sup>th</sup> National Congress of Biochemistry & 8<sup>th</sup> International Congress of Biochemistry and Molecular Biology, 2022, Tehran, Iran**
- 2) Synthesis and hemocompatibility assay of tri-block poly (Lactide) –Poly (Ethylene Glycol) lipid hybrid nanoparticles: **8<sup>th</sup> International Laboratory and Clinical Congress, 2016, Tehran, Iran**
- 3) MgO nanoparticles disrupt eye development in ZebraFish embryos: **International conference On latest Trends in Food Biological, Ecological science, 2015, Dubi, United Arab Emirate**
- 4) Synthesis of Polymer-Lipid Hybrid Nanoparticles as a drug or gene carrier and its quality controls: **8<sup>th</sup> International Laboratory and Clinical Congress, 2016, Tehran, Iran**
- 5) Synthesis and hemocompatibility assay of tri-block poly (Lactide) –Poly (Ethylene Glycol) lipid hybrid nanoparticles: **8<sup>th</sup> International Laboratory and Clinical Congress, 2016, Tehran, Iran**
- 6) Serum selenium status in elderly osteoporosis patients: **Iranian Congress of Trace Elements, 2015, Hamadan, Iran**
- 7) Radiolabeled siRNA targeting IGF-1R for targeted: **7<sup>th</sup> International Laboratory and Clinical Congress, 2014, Tehran, Iran**

## **DISCOVERIES AND INVENTIONS**

### **Teaching experience**

**2013 September – Present (Zanjan University of Medical Sciences and Qazvin University of Medical Sciences)**

*Clinical Biochemistry & Laboratory Sciences Education in:*

- School of Medicine for Medicine Students, MSc & Ph.D Students
- School of Pharmacy for Pharmacy Students, MSc, Ph.D Students
- Faculty of Paramedicine for Laboratory Sciences, Midwifery, Surgery Room, and etc. Students

### **PROFESSIONAL EXPERIENCES**

- Standard molecular biology techniques including DNA and RNA extraction, PCR, Real Time PCR, gene silencing by siRNA.
- Biochemistry Techniques: such as MTT, PAGE, Western Blotting, ELISA, Production of Monoclonal Antibody, purification techniques including : affinity chromatography, Ion exchange, Gel filtration
- Immunofluorescence and Flow cytometry.
- Immunohistochemistry
- Microbiology techniques including: culture of bacteria
- Animal cell culture technology including Isolation and culture of primary cells, cell line culture, Passage, Transformation, Transfection,...
- Diagnostic Laboratory Techniques Such as Biochemistry Autoanalyzer, Cell Counter, Automated ELISA
- Quality Control of Diagnostic Laboratory
- Instrumentation and Launching of Diagnostic Laboratory

### **THESIS SUPERVISION**

I have been in **more than 30 dissertations** as superviosour in Ph.D and Master's degree. Their Approved & Granted Projects are as follows:

- 1) albumin binding assay and human Serum stability study of siRNA carrying methoxy and thiol
- 2) Evaluation of the association between ALOX12 polymorphism(rs9897850,rs2292350) and serum level of Selenium with bone mineral density in elderly osteoporotic patients
- 3) Evaluation of correlation between HIF-1 $\alpha$  gene expression and different stages of colorectal cancer

- 4) siRNA delivery into MCF7 Breast cancer cell line using hybrid copolymer nanoparticles cationic lipid- PLA-PEG-PLA
- 5) Effect of curcumin nanoparticle on  $\alpha$ V $\beta$ 3 integrin and pyruvate dehydrogenase kinase 4 (pdk4) expression in erlotinib resistant sw480 colon cancer cell line
- 6) IGF-IR gene silencing using siRNA-cationic lipid-mPEG-PCL copolymer hybrid nanoparticles complex in breast cancer cell line MCF7
- 7) Toxicometabolomics study of carbon nanotubes in mice using HNMR spectroscopy
- 8) Evaluation of Tumor Necrosis Factor- $\alpha$  polymorphism(rs361525) and its serum level with polycystic ovary syndrome
- 9) Effect of aminoguanidine on the Sphingosine-1-phosphate receptor 1 (S1P1) gene expression in heart tissue of streptozotocin-induced diabetic rats
- 10) The Effect of Acetyl Shikonin on the Induction or Inhibition of Proliferation in the T47-D Breast Cancer Cells, ACHN Renal Adenocarcinoma Cells and U-87MG Glioblastoma Cells
- 11) Quantitative measurement of  $\alpha$  V $\beta$ 3 Integrin in the erlotinib-resistant cancerous cells treated with different dose of curcumin nano-particles
- 12) Evaluation of mPEG-PCL nanoparticles of Curcumin on gene expression and enzymatic activity of fatty acid synthase (FAS) in breast cancer cell line SKBR-3
- 13) Fabrication of an Electrochemical Biosensor Based on the Nanocomposites of Graphene-Metal Nanoparticle for the Detection of Beta Human Chorionic Gonadotropin and Carcinoembryonic Antigen
- 14) Evaluation of Correlation Between PROX1 Gene Expression and Different Stages of Colorectal Cancer in mRNA and Protein Level
- 15) Evaluation of Correlation Between  $\beta$ 1 Integrin Gene Expression and Different Stages of Colorectal Cancer at mRNA and Protein Level
- 16) Assessment of relation between Serum Antioxidant capacity and different stages of colorectal cancer.

- 17) Evaluation of Correlation Between c-MET Gene Expression and Different Stages of Colorectal Cancer at Protein Level
- 18) Evaluation of Correlation Between The amount of DBC1 and Different Stages of Colorectal Cancer
- 19) The combined effects of Fulvestrant and Quercetin on the expression of acetyl CoA carboxylase gene in the MCF-7 breast cancer cell line
- 20) The effect of aminoguanidine on the expression level of shynghosine kinase 1 gene on diabetic rat heart.
- 21)  $\alpha 5\beta 1$  integrin silencing by siRNA in Regorafenib-resistant SW48 colon cancer cell line using DDAB-mPEG-PCL hybrid nanoparticle
- 22) Anti-cancer effects study of decoy oligodeoxynucleotides for inhibition of transcription factor STAT3 in erlotinib resistant colon cancer cell line SW480
- 23) Relationship between serum level of Chemerin and Rs17173608 gene polymorphism and para-clinical, clinical in patients with acute myocardial infarction in comparison with control group
- 24)  $\alpha \nu \beta 3$  integrin silencing by siRNA in regorafenib-resistant SW48 colon cancer cell line using DDAB-mPEG-PCL hybrid nanoparticle
- 25) Evaluation of apoptosis rate in the Regorafenib-resistant SW48 colon cancer cell line treated with siRNA
- 26) Quantitative measurement of  $\alpha \nu \beta 3$  integrin protein in the Regorafenib-resistant SW48 colon cancer cell line treated with siRNA
- 27) siRNA mediated IGF1-R silencing in regorfenib resistant SW48 colon cancer cell line using DDAB-mPEG-PCL hybrid nanoparticles
- 28)  $\alpha 5\beta 1$  integrin silencing by siRNA and Quercetin in Regorafenib-resistant LS-180 colon cancer cell line using DDAB-mPEG-PCL hybrid nanoparticle.
- 29) Production, Quality Control, biological evaluation and Stability comparison of the Radioimmunoconjugates ( $^{177}\text{Lu}$ -SCN-Bn-DOTA-Rituximab and  $^{177}\text{Lu}$ -CHXA-DTPA-Rituximab) for treatment of non-Hodgkin's lymphoma
- 30) The feasibility of preparing mAb based kit formulation for the fast preparation of  $^{188}\text{Re}$ -Rituximab as a potential Radiopharmaceutical for NHL treatment and performing quality control, stability study and preclinical evaluation

- 31) Association between Chemerin serum level and Rs17173608 gene polymorphism in patients with acute myocardial infarction in comparison with control group

### **Reviewer of Scientific Projects**

- 1) Evaluation of the relationship between methylation of tPA and TFPI genes and the frequency of rs4646972 polymorphisms of tPA gene and rs6434222 TFPI gene in patients with myocardial infarction (MI)
- 2) Differentiation of Placenta - derived mesenchymal stem cells into neuronal cells on nanofibrous scaffold
- 3) Assessment of serum levels of irisin in individuals with and without stomach cancer
- 4) Molecular dynamics simulation of interaction between gold nanoparticle and FGF2 protein as a model to investigate the role of protein stability in prevention of structural changes due to contact with nanoparticles
- 5) Molecular dynamics simulation of interaction between gold nanoparticle and FGF2 protein as a model to investigate the role of protein stability in prevention of structural changes due to contact with nanoparticles
- 6) CRISPR/Cas9 Phosphoribosylaminoimidazole carboxylase protein gene (ADE2) knockout in *Saccharomyces cerevisiae* and evaluating knockout effect on mutated cell
- 7) Evaluation of the role of flavonoid quercetin with adiponectin in the bisphenol A induced oxidative stress in muscle cell line using evaluation of keap1/nrf2 gene expression
- 8) Determination of diagnostic value of TG/HDL ratio in the identification of individuals with acute coronary syndrome
- 9) Study of the osteoporosis / osteopenia status and effect of black seed intake on cellular, molecular, and clinical related outcomes in postmenopausal women with breast cancer aged 50 to 65 years
- 10) Molecular dynamics simulation of interaction between gold nanoparticle and FGF2 protein as a model to investigate the role of protein stability in prevention of structural changes due to contact with nanoparticles
- 11) Evaluation of the anti-metastatic Effect of Inducible Caspase 9 Suicide Gene in 3D Breast Cancer Model co-cultured with Bone Marrow Mesenchymal Cells
- 12) Design and evaluation of targeted nanohybrid loaded with curcumin on HepG2 cancer cell line
- 13) Differentiation of Placenta - derived mesenchymal stem cells into neuronal cells on nanofibrous scaffold
- 14) Editing CD81 in breast cancer MDA-MB-231 cell line using CRISPR knock out system.

- 15) Encapsulation of miR-7 Transduced Trabecular Mesenchymal Stem Cells Using Microfluidic System with the Aim of Repairing Rat Spinal Cord Injury Contusion Model
- 16) Co-delivery of methotrexate and curcumin with mPEG-PCL polymeric nanoparticles and evaluation of toxicity effect on breast cancer cell MCF7
- 17) Evaluation of cytotoxicity effects of Trastuzumab (Herceptin) on various breast cancer cell lines (MAD-MB-453 and MAD-MB-468)
- 18) Preparation and characterization of Conjugated Liposome with Anti-VEGFR2 Nanoboby for Targeting and Delivery of Doxorubicin to Vascular endothelial cells and Evaluation of In-Vitro anti-angiogenic effect
- 19) Assessment of serum levels of irisin in individuals with and without stomach cancer
- 20) Detection of ferritin binding proteins in Streptococcus pneumoniae proteome
- 21) In vitro study of clofibrate effect on metabolome profiling in HepG2 and HEK293 cells
- 22) In vitro Study of Clofibrate Effect on UDP- glucuronosyltransferase gene expression in HepG2, Huh7 and HEK293 cell lines
- 23) Detection of hemophilia A carriers using Hind III and BclI polymorphic markers in pedigrees of hemophilic patients in Zanjan province between 2014 and 2016 years
- 24) Assessment of DNA methylation status and prevalence of -367 G/A and -257 T/G polymorphisms of ATP- Binding Cassette Transporter G1 gene in patients with coronary artery disease (CAD)
- 25) In vitro Study of Clofibrate Effect on UDP- glucuronosyltransferase gene expression in HepG2, Huh7 and HEK293 cell lines
  
- 26) The relationship between serum level of zinc and vitamin A with varying degrees of retinopathy in-patient with type II diabetes.
- 27) Expression Profiling of Human Coronary Artery Endothelial Cells under Shear stress in a model of Atherosclerosis Plaque
- 28) MiRNA Sequencing of Urine and Plasma Samples in Prostate Cancer Patients
- 29) Design and Fabrication of an Electrochemical Biosensor for Detection of adiponectin
- 30) Expression of Human TRAIL Gene and its Effects on Human Colon Adenocarcinoma SW480 Cells
- 31) Human TRAIL Gene and its Effects on Colon Adenocarcinoma HCT116 Cell line
- 32) Cancer Cells Nano dosimetry using Monte Carlo simulation Method for Investigate The effects of Nanoparticles on DNA damage caused by Radiation Beams
- 33) RNAseq analysis of major players in glycosaminoglycan biosynthesis in tumoral tissues of the patients with breast carcinoma
- 34) The expression level of long non-coding RNAs STCAT23, STCAT11, CAT1487 and LINC00675.2 in plasma samples of patients with gastric adenocarcinoma

- 35) Evaluation of metformin conjugated with gold nanoparticles penetration into breast cancer cells cultivated as three-dimensional condition
- 36) Assessment of DNA methylation status of tumor suppressor genes DACT2 and WIF-1 and its association with C677T genetic variant of MTHFR gene in patients with colorectal cancer
- 37) RNAseq analysis of major players in glycosaminoglycan biosynthesis in tumoral tissues of the patients with breast carcinoma
- 38) Proteome profiling of liver and rat kidneys exposed to semiconductor cadmium telluride nano crystals
- 39) Proteome profiling of liver and rat kidneys exposed to semiconductor cadmium telluride nano crystals
  
- 40) Assessment of methylation status and frequency of  $-477C/T$  (rs2422493) polymorphism of ABCA1 gene in patients with coronary artery disease
- 41) The assessment of TNF- $\alpha$  as a salivary pro-inflammatory cytokine and its relationship with caries in various ages in childhood and adolescence
- 42) Prevalence of T-786C polymorphism of nitric oxide synthase 3(NOS3) gene and measurement of nitric oxide in subjects with coronary artery disease
  
- 43) Separation and purification of immunoglobins of human blood plasma by chromatography methods
- 44) Design and Construction of The Exosome Nanoparticles Containing luteinizing hormone-releasing hormone( LHRH) Peptide for Cancer Therapy
- 45) Design and Fabrication of a Electrochemical Biosensor Based on Graphene Nanostructures for Cardiac Troponin I Detection
- 46) Comparison of L-Selectin Blood level and gene polymorphism intuberculosis patients with healthy individuals
- 47) Construction of recombinant BCG expressing functional domain of human TRAIL peptide for using in bladder cancer therapy
- 48) Evaluation the effect of C282Y and H63D mutations of HFE gene on iron overload in thalassemia major patients

### **Scientific Papers Review in international Journals**

I have been in Several International Journal as Reviewer and I reviewed several papers for them. Some of them are as follows:

- 1) Chonnam Medical Journal
- 2) Clinical and translational oncology
- 3) Experimental and Therapeutic Medicine
- 4) Heighten Science Publications Corporation, USA
- 5) Journal of Experimental Pharmacology
- 6) Molecular Medicine Reports
- 7) Stoten Publication
- 8) Journal of Kerman University of Medical Sciences (JKMU)
- 9) Jundishapur Journal of Natural Pharmaceutical Products
- 10) Spondidos Publication

### **Research Projects**

**1. Subject: Research Grant**

Sponsor: **Zanjan University of Medical Sciences and Qazvin University of Medical Sciences**

Year: **2013-2021**

Grant amount: 300 Million Toman

Achievements: 25 Articles have been published

### **International Collaborations**

1. **Subject:** proposals **on human in vitro translational and in vivo models that faithfully recapitulate aspects of the immune suppressive TME of metastatic CRC (defined in vivo models, cell line 2 or 3D, explant, etc.) to help identify new potential therapeutic targets (such as genes, proteins, or pathways).**

- Collaboration with: Innospin Group
- Achievements: Come into Discussion
- Details: I have repeated invitation from Innospin Group

2. **Subject:** Invitation to several international Congress as Speaker. Some of them:

I) Global Summit of Cancer Frontier-2022 holding **May 8-10, 2023 in Tokyo, Japan**

II) The 11th World Gene Convention (WGC) holding **May 15-17, 2023 in Osaka, Japan**

III) 4th International Conference on Cancer & Oncotherapy holding **July 10-12 ,2023**  
**in Hilton Rome Airport Rome Italy**

IV) The 12th Annual World Congress of Nano Science & Technology holding  
**February 08-10, 2023 in Sapporo, Japan**

V) The 4th Int'l Conference on Biomedical Materials (ICBM 2023) holding **August 11-13, 2023in Fortune Hotel Xiamen, Chinese**

## References

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