Post-Doctoral Program and projects

- 1. Dr Leila Eini (2018) Development of therapeutic vaccine based on colorectal cancer stem cell specific Ag in mice model for targeted therapy
- 2. Dr Mahdyeh Razmi (2020) Production of novel mAb against cancer-stem-cell biomarker, DCLK1-S and its evaluation in gastric cancer
- 3. Dr Fatemeh Tajik (2022) Clinical significance of novel cancer stem cell marker, DDIT4 in pancreatic cancer
- 4. Dr Saeid Rahman (2023) Artificial Intelligent (AI) for evaluating immunohistochemical staining of gastric tumour tissues: a novel approach in scoring of pathology slides
- 5. Dr Amir Hesam Babajani (2023), AI projects, Applying AI in scoring of pancreatic tumours, Artificial intelligence-based clinical histopathological scoring and evaluation for pancreatic cancer: identification of SALL-4A biomarker and analysis of clinical features using tissue microarray samples stained by immunohistochemistry.
- 6. Mehrab Moradzadeh, Dr Elaheh, Noroozi, Creating Immunohistochemical Images from Hematoxylin-eosin Images in Pathology using Deep Learning

phD Students and projects

- Mrs Glaviz Adib (Current). Cold Atmospheric Plasma (CAP) as a novel therapeutic option with current commen medicine for the treatment of colorectal cancer by targeting colorectal cancer stem cells
- 2. Mrs Fatemeh Alizaman (current). Detection of isoform A of the SALL4 biomarker in the serum of patients with colorectal cancer using a nanobiosensor based on gold nanoparticles
- 3. Mr Vahid yavarpour (current). Design and fabrication of immunosensor using platinum nanozyme to detect A-isoform of SALL4 in serum of patients with testicular cancer
- 4. Miss Sadeghi (current, advisor) *In vitro* RNA therapy of miR-10b in U87MG glioblastoma cell line using umbilical cord stem cell-derived exosomes.
- 5. Miss Jila Rostami (current, advisor). T Cell engineering with synthetic self-replicating RNA molecule and CRISPR system for ALL CAR T cell therapy.
- 6. Mr. Mostafa Mostafavi Zadeh (current). Production of Neutralizing monoclonal antibody against spike protein of covid-19.

- 7. Miss Samaneh Heidari (current). The effect of human acellular amniotic membrane on reprogramming of breast cancer stem cells
- 8. Mrs Yasaman Vojgani (current, advisor). Construction of graphene-based gold sensor –MoS₂ gold to detect CA15.3 protein biomarker
- Mr Masud Karimi (current, advisor). A cohort study on the expression levels of appoptosis related
 molecules in the respirtatory cells and the lung cancer biomarkers in the serum of CIVID-19
 patients
- 10. Miss. Farideh Hashemi (current). The effect of cancer stem cell-based therapeutic vaccine on tumorigenesis in colorectal cancer mice model
- 11. Mrs. Masoumeh Dehghan (current). The effect of Prophylactic and Therapeutic lysate based vaccination of cancer stem cells on tumorigenesis in a mouse model of breast cancer.
- 12. Mrs. Shima Dorafshan (current). Constructing the metastatic and pre-metastatic microenvironment for Assessment of its impact on decreasing the metastatic burden of circulating tumor cells (CTCs) in murine models
- 13. Mr. Sadegh Safaei (current). Study of the effect of matrix stiffness in three-dimensional culture conditions on the tumorigenic and metastatic potential in a mouse model of breast cancer
- 14. Mrs Behjat Kheiri (current, advisor). Evaluation of the synergistic cell growth-inhibition effects of drug and Anti-mir delivery by dendrimer nanoparticles on the breast cancer cells in microfluidic based three-dimensional cell culture systems.
- 15. Ms Fereshteh Gholizadeh (current, advisor). The Correlation Between EMT-TF Zeb-1 and Snail/Twist in Parenchymal Cells of Metastatic PDAC
- 16. Mr Edris Choopani (2023, advisor). Evaluation of the role of lnc MALAT1 in the expression of Mir-141 and its target genes in CDK4 / 6 signaling pathway in the inhibition of Breast Cancer Stem Cell
 - 17. Mr. Masoud Hasan Zadeh Makouei (2023, advisor) Production of monoclonal antibodies against tumor markers P53 and Ki67 and estrogen and progesterone receptors and their use for classification of tumor cells in breast cancer patients
- 18. Mr. Niknam Lakpour (current). Producing antibody against SALL4 as a novel stem cell marker and detection of this protein in serum and semen for testicular carcinomas (joint project with Avicenna Institute)

- 19. Mrs. Elham Kalantari (2022) Evaluation of specificity and function of antibody against DCLK1 short isoform (DCLK1-S) in colorectal cancer tissues and cell lines.
- 20. Mrs. Mina Sharbatoghli (2022). Investigation of genomic variations in circulating tumor DNA of ovarian cancer patients before and after chemotherapy. (joint project with Royan Institute)
- 21. Ms Azin Aghamajidi (2022, advisor). Evaluation of expression and clinical significance of Genes and proteins of MAGE11 and MAGE6 and miR125b and miR34a in bladder cancer patients.
- 22. Miss Roya Sajed (2022, advisor), The effect of human term placenta extracellular matrix on breast cancer cell line (MDA-MB-231) phenotype
- 23. Miss Ayna Yazdanpanah (2022, advisor). E effects of 3 dimensional polycaprolactone scaffold conditioned with ECM of breast cancer metastatic cell line (4T1) for recruitment of circulating tumor cells from blood flow
- 24. Mr Mohammad Reza Mahmoodi (2021, advisor). Specificity and functional features of anti-RTL1 antibodies in liver and breast cancer cell lines
- 25. Mr Sina Sarsarshahi (2021). Effect of Bortezomib on radiation-induced urinary bladder dysfunction
- 26. Miss Faezeh Vakhshiteh (2020, advisor). Investigation of dental pulp mesenchymal stem cellderived exosomes and exoliposomes loaded with miR-34a to suppress breast cancer cells
- 27. Miss.Elmira Gheitanchi Mashini (2021). The Effect of exosomes secreted from CSCs of invasive colorectal cancer cell line (HT-29) on drug resistance and invasion of Caco-2 cell line.
- 28. Mrs Maryam Sahlolbei (2021, advisor). Evidence for the involvement of B Cells and antibody in the pathogenesis of multiple sclerosis in immunized mouse with Recombinant Myelin Basic Protein peptide
- 29. Mrs.Fahimeh Fattahi (2021). The investigation of systemic effects of regulatory factors (LncRNA,miRNA) on colorectal cancer-related gene and protein expression levels in CRC patients and cancer stem cell.
- 30. Mrs. Somayeh Vafaei (2021). Investigation and comparison of gene expression profiles of circulating tumor (CTCs) and circulating exosomes in patients with metastatic colorectal cancer (joint project with Royan Institute)

- 31. Mrs. Marzieh Naseri (2020). Evaluation of the ability of colorectal cancer stem cells (CSCs) lysate-and CSC-derived exosomes (CSC-EXOs)-pulsed dendritic cells (DCs) in induction of CSC-specific CTLs as compared to parental cells lysate-and exosomes-pulsed DCs.
- 32. Miss. Arezoo Jamali (2021). Evaluation of migration and Anti-tumor Activity of NK CAR-19 cells Overexpressing CXCR4 in B-cell Lymphoma (joint project with Paul-Ehrlich- Institute, Germany)
- 33. Mrs Zahra Bolandghamat (2020, advisor). Evaluation of miR-154 and miR-381binding on 3'- UTR of (NAMPT) and the effect of these microRNAs on NAMPT gene expression, protein levels and activity of BC cell lines.
- 34. Mrs. Maryam Mansouri (2019). The study of circulating cancer stem cells in breast cancer patients, before and after therapy, for monitoring of patients.
- 35. Miss. Leili Saeednejad Zanjani (2018). Evaluation of biological characteristics and telomerase activity in cancer stem cell (CSCs) compared with low tumorigenic cells in renal cancer (joint project with Oslo University, Norway).
- 36. Mrs Arezoo Rasti (2018). Evaluation of SMAD4 silencing effect on stemness characteristics of isolated cancer stem cells from renal carcinoma in comparsion with low tumorogenic cells in renal cancer.
- 37. Mr. Alireza Mirzaei (2017). Evaluation of local and circulation colorectal cancer markers DCLK1 and Lgr5, using immune-PCR based assay in order to apply in disease monitoring.
- 38. Mr Alireza Kororian (2016). In vitro study of the role of microRNA-31 (miR-31) in mediating 5-FU chemo- resistance and metastasis of gastric cancer cell line (AGS)
- 39. Mr. Mehdi Banitalebi Dehkordi (2015). Differentiation of umbilical cord stem cells in to germ cells.
- 40. Mr. Abbas Karimi (2015). Analysis of the induction of L1 retrotransposon and toxicity by heavy metals on HepG2 (Hepatocellular carcinoma)
- 41. Mrs. Tahereh Komeili Movahhed. (2014, advisor) Molecular studies of the siRNA effect on the expression and function and function of BCRP and role of PI3K inhibition in drug resistance to Mitoxantrone in cancer stem cells and MCF7 and HT29 cell lines.

- 42. Miss. Monirch Mohsenzadegan (2015) Targeting extracellular domain of NGEP using polyclonal antibody in prostate cancer
- 43. Miss. Raheleh Roudi (2014). Comparison of gene expression and protein detection of cancer stem cells with non-tumorigenic lung cancer cells. (joint project with Royan Institute)
- 44. Dr. Mehrdad Nasrollah Zadeh Sabet (2014) Gene expression and protein detection of cancer stem cells of Melanoma, skin squamous cell and basal cell carcinoma compared to non-tumorogenic cells using cDNA microarrays and tissue microarrays (joint project with Royan Institute).
- 45. Miss. Jaleh Taeb (2014) Preparation and application of polyclonal anti PSCA antibody, its conjugation with magnetic nano- particle and assessment of PSCA expression in prostate tissue.
- 46. Mrs. Zohreh Saltanatpouri (2016, advisor) Enrichment of cancer stem-like cells (CD133+,CD44+) from HT29 cell line using lentivitral vector expressing E-cadherin sh RNA.
- 47.Mr Sakhaei (2017, advisor). Coenzyme Q10 Ameliorates Trimethyltin Chloride Neurotoxicity in Experimental Model of Injury in Dentate Gyrus of Hippocampus: A Histopathological and Behavioral Study.
 - 48.Mr. Mohammad Javad Eslami Zadeh (2016, advisor) Investigating the neuroprotective effects of melatonin on beta-amyloid 1-42 induced neurotoxicity and the interaction between melatonin and NF-κB in rats.
 - 49. Miss. Samira Danyali (2013, advisor) Evaluating the effect of chronic Ritalin intake on adult rat Medical Frontal Cortex.
 - 50. Mr. Mehdi Khaksari (2012, advisor) Evaluation the effects of Apelin-13 on brain injury, brain edema and apoptosis in experimental model of transient focal cerebral ischemia in male rat.

Pathology Residents supervised

- 1. Dr Samira Ahmadi (2023). Expression of Talin1 in pancreas carcinomas and its association with clinicopathologic and prognosis.
- 2. Dr Leila Moradi (2022). Expression and clinical significance of CD166 as cancer stem cell marker in gastric carcinomas.
- 3. Dr Mrzeieh Shahin (2020). Immunohistochemical study of hTERT (human telomerase reverse transcriptase) in different type of testicular carcinomas.

- 4. Dr Somayeh Shafiee Foroutagheh (2018) Expression of stem cell marker DCLK1 and its relationship with cliniopathological features of bladder cancer patients.
- 5. Dr. Shirin Sedaghat (2015) Expression of Cancer Stem Cell Markers OCT4 and its relationship with clinicopathological features of bladder cancer patients.
- 6. Dr. Hossein Kimousi (2013) The Immunohistochemical evaluation of ALDH1 A1expression and its relation with pathological and clinical characteristics in bladder cancer.
- 7. Dr. Kambiz Sotoudeh (2012) Expression of C-MET in Gastric Adenoma carcinomas in patients referring to Tehran hospitals.
- 8. Dr . Adel Karimi (2012). Expression of BRCA1 Protein in Invasive and In Situ Carcinomas and its Relation with Marker of Breast Cancer Stem Cells and Tumor prognostic factors
- 9. Dr Babak Ramezani (2009) Immunohistochemical investigation of ALDH1 enzyme activity as a functional marker of breast cancer stem cells and progenitor cells and its relationship with tumor pathological characteristics
- 10. Dr Soheila Nader mohammadi (2017) Associated between P21 and HRAS overexpression and grading, heterogeneity, prognosis, and relapse rate in urothelial cell carcinoma of the bladder.
- 11. Dr Faezeh Firouzi (2017). The association between overexpression of P53, CK20 and FGFR3 biomarkers and grading ,heterogeneity, and likelihood of prognosis and relapse in urothelial cell carcinoma of the bladder.
- 12. Dr. Sepideh Razi (2021). Medical students. Exoression of stem cell marker SALL4 and its relationship with cliniopathological features and survival of bladder cancer in patients admitted to Hasheminejad hospital.
- 13. Dr. Naghmeh Salarieh (2015). Medical student. Investigating the level of cancer stem cell marker (CD44) in prostate tumors and their relationship with tumor pathological characteristics ;Tissue Microarray study
- 14. Dr. Faezeh Hasani Sadi (2015) Medical student. Immunohistochemical investigation of functional markers of cancer stem cells (ALDH1) in prostate cancer patients and their relationship with tumor pathological features using microarray tissue.

15. Dr Moujan NikPanah (2015). Medical student. Expression level of CD133 marker of stem cells in prostate tumors and their relationship with tumor pathological characteristics; using tissue microarray.