



Tabriz University of Medical Sciences (TUOMS)
School of Medicine

Curriculum Vitae

Personal Data:

First name: Kobra

Last name: Velaei

Nationality: Iranian

Date of birth: June 24, 1981

Place of birth: Marand

Specialty: Medical Anatomical Science

Academic rank: Assistant Professor

Department/Research Center: Department of Anatomical Sciences

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Scopus ID: 57188684082

Researcher ID: W-5001-2017



Fields of interest

Breast Cancer, chemoresistance, Tumor microenvironment, Cancer Cell Biology

Skills: (language, software...)

Languages: English, Persian, Turkish

Persian (native)

English (fluent)

Turkish (mother tongue)

Skills:

Cell culture (vary of cell from cancer to stem cells and primary culture)

MTT assay

Establishment chemoresistant cell lines

Flowcytometry (apoptosis, cell cycle analysis, stem cell markers)

RNA-DNA extraction

Electrophoresis

Traditional RT-PCR

Real time qRT-PCR (absolute and relative quantification of data)

Primer designing

SiRNA transfection by reagent

Ficoll and Magnetic-Activated Cell Sorting (MACS) cell sorting

Mamosphere assay

Scratch assay

Cell morphology analysis

Preparing conditioned media

Cell signaling

Immunoassay including western blot and immunofluorescent

Tissue processing for histological assessment

Statistical analysis

Study designing ability

Trouble solving ability

Manuscript writing ability (Original and review)

Softwares:

Graphpad prism software, SPS (statistic software)

Corel draw software, biorender (illustrating softwares)

Primer designing software (oligo 7,...)

EndNote and Mendely (reference manager softwares)

Image J (image analysis software)

macOS and windows operating systems

Flow JO

Camatasia

Moodle (learning management system)

Excel, Word and power point (Microsoft office software)

Interpersonal skills:

Communication skills, Critical thinking, Presentation and teaching skills, Self-organized and goal-oriented, leadership and teamwork spirits.

Educational Background:

Date	Degree	Institution	Country
January, 2011 - January, 2017	PhD	Medical Sciences , Tabriz University, Tabriz	Iran
September, 2007 - January, 2011	MS.c in Medical Anatomical Science	Faculty of Medicine, Medical	Iran

		Sciences University of Beheshti, Tehran	
<i>September, 2000 – July, 2004</i>	<i>BS.C in midwifery</i>	Faculty of nursing Medical University of Urumieh, Urumieh	Iran

Sabbaticals:

Start and End Date (month/year)	Details

Thesis

Degree	Title
MSC	The effects of pentoxifylline on healing of pressure sore in animal model
Ph.D	Inhibition of NFkB-P65 on doxorubicin resistance MCF-7 breast cancer cells

Educational experience

Teaching

Date (month/year)	Course Name, Venue (Institution, Address)
2017 – to - present	- Designed original student learning plans centered on the curriculum with corresponding lectures and lab activities which aligned with the Next Generation Science Standards Graduate teaching - Surface anatomy, PhD students of Anatomical Sciences, Fall 2020 to present - Anatomy of thorax, MSC of physiology, Fall 2019 to 2021 - Cell culture, MSC and PhD students of Anatomical Sciences, Fall 2021 - Real-time RT-PCR, MSC and PhD students of Anatomical Sciences, Spring 2019 to 2021 - Laboratory animal handling, MSC of Anatomical Sciences, Spring 2019 to 2021 Medical student teaching - Anatomy, histology and embryology of endocrine system, Spring 2020 to present - Anatomy of ear and eye, Spring 2020 to present - Basic of anatomical sciences (general anatomy, histology and embryology), Spring 2023 to present - Anatomy of respiratory system, Spring 2023 to present - Anatomy of cardiovascular system, Spring 2023 to present - Anatomy of head and neck, Spring 2020 - Anatomy of digestive system, Spring 2022 - Anatomy of urogenital system, Fall 2024 to present - Including 30+ international students (teaching in English) and students with specialized educational needs like extra learning classes outside of regular hours. Undergraduate teaching - Neuroanatomy, speech therapy, occupational therapy, audiology - Anatomy of upper and lower limbs, physiotherapy, occupational therapy - Anatomy of head and neck, speech therapy, occupational therapy, physiotherapy - Anatomy of thorax, Occupational therapy, Physiotherapy

	• <i>Anatomy of abdomen, Occupational therapy, Physiotherapy</i> • <i>Anatomy of pelvis, Midwifery,</i> • <i>General histology, Speech therapy, Physiotherapy,</i> • <i>General anatomy, Nursing, Audiology, Speech therapy, Health IT, Nutrition Science ,</i>

Workshop(s)

Date (month/year)	Course Name, Venue (Institution, Address)

Lecture(s)

Date (month/year)	Details

Research Activities:

Research areas, Interests

Cancer Cell Biology, Tumor Microenvironment, Breast Cancer

Books:

N	Title	authors	Publisher	Authorship/ Translation/

Selected articles:

N	Title	authors	Journal	Year	Indexed in
1	<i>Evaluating the effects of pentoxifylline administration on experimental pressure sores in rats by biomechanical examinations.</i>	Velaei K , Bayat M, Torkman G, Rezaie F, Amini A, Noruzian M, Tavassol A, Bayat M.	<i>Laboratory animal research.</i>	2012 Sep 1;28(3):209-15.	ISI
2	<i>The Effects of Pentoxifylline on the Wound Healing Process in a Rat Experimental Pressure Sore Model.</i>	Amini A, Velaei K, Bayat M, Dadpay M, Nourozian M.	<i>Anatomical Sciences</i>	2013 Feb	
3	<i>Ultrasensitive caspase-3 activity detection using an electrochemical</i>	Khalilzadeh B, Charoudeh HN, Shadjou N, Mohammad-Rezaei R,	2016 Aug 1;231:561-75	<i>Sensors and Actuators B: Chemical</i>	

	<i>biosensor engineered by gold nanoparticle functionalized MCM-41: Its application during stem cell differentiation.</i>	<i>Omidi Y, Velaei K, Aliyari Z, Rashidi MR.</i>			
4	<i>Tumor microenvironment-mediated chemoresistance in breast cancer.</i>	Velaei K , Samadi N, Barazvan B, Rad JS	22016 Dec 1;30:92-100.	<i>The Breast.</i>	
5	<i>Metformin enhances doxorubicin sensitivity via inhibition of doxorubicin efflux in P-gp-overexpressing MCF-7 cells.</i>	Shafiei- Irannejad V, Samadi N, Yousefi B, Salehi R, Velaei K , Zarghami N.	<i>Chemical biology & drug design</i>	2018 Jan;91(1):269-76.	
6	<i>Hepatocyte differentiation of human induced pluripotent stem cells is modulated by stearyl-CoA desaturase 1 activity.</i>	Rahimi Y, Mehdizadeh A, Nozad Charoudeh H, Nouri M, Valaei K , Fayezi S, Darabi M.	<i>Development, growth & differentiation.</i>	2015 Dec;57(9):667-74.	
7	<i>NFκBP65 transcription factor modulates resistance to doxorubicin through ABC transporters in breast cancer.</i>	Velaei K , Samadi N, Soltani S, Barazvan B, Rad JS.	<i>Breast Cancer</i>	. 2017 Jul 1;24(4):552-61.	

8	<i>Common chemotherapeutic agents modulate fatty acid distribution in human hepatocellular carcinoma and colorectal cancer cells</i>	Mehdizadeh A, Bonyadi M, Darabi M, Rahbarghazi R, Montazersaheb S, Velaie K , Shaaker M, Somi MH.	<i>BioImpacts: BI</i>	2017;7(1):31.	
9	<i>Telomerase activity and telomere on stem progeny senescence.</i>	Brazvan B, Ebrahimi-Kalan A, Velaie K , Mehdipour A, Ebrahimi A, Ghorbani M, Cheraghi O, Charoudeh HN.	<i>Biomedicine & Pharmacotherapy.</i>	2018 Jun 30;102:9-17.	
10	<i>The role of Her2-Nrf2 axis in induction of oxaliplatin resistance in colon cancer cells.</i>	Tazehkand AP, Akbarzadeh M, Velaie K , Sadeghi MR, Samadi N.	<i>Biomedicine & Pharmacotherapy.</i>	2018 Jul 1;103:755-	
11	<i>NK cells: An attractive candidate for cancer therapy. Journal of cellular physiology.</i>	Valipour B, Velaie K , Abedelahi A, Karimipour M, Darabi M, Charoudeh HN.		2019 Apr 16.	
12	<i>Raziyeh Kheirjou, Non-Symmetric Bilateral Three Headed-Biceps Brachii</i>	Kobra Velaie , Maryam Ezzati.	<i>Acta Medica Iranica.</i>	2019	
13	<i>The Absence of Superficial Palmar Arch with Persistence Median Artery: A Case Report</i>	Behnaz Valipour, Hamid TayefiNasrabadi, Kobra Velaie , Ahad FerdowsiKh, Khadijeh DizajiAsl.	<i>. Journal of Advances in Medical and Biomedical Research.</i>	2019	
14	<i>The potential impact of trigonelline</i>	Roya Salehi Kobra Velaie Nasser Samadi Abbas	<i>Molecular Biology Reports.</i>	2020/7/8	

	<i>loaded micelles on Nrf2 suppression to overcome oxaliplatin resistance in colon cancer cells.</i>	<i>Pirpour Tazehkand.</i>			
15	<i>Cord blood stem cell derived CD16+ NK cells eradicated acute lymphoblastic leukemia cells using with anti-CD47 antibody.</i>	<i>BehnazValipour Ali Abedelahi, Elahe Naderali, KobraVelaei, Aliakbar Movassaghpour, Mehdi Talebi, , Soheila Montazersaheb Mohammad Karimipour Masoud Darabif Hadi Chavoshi Hojjatollah Nozad Charoudeha.</i>	<i>life science</i>	<i>2019</i>	
16	<i>A review on anti-cancer properties of Quercetin in breast cancer.</i>	<i>Maryam Ezzati, Bahman Yousefi, Kobra Velaei, Amin Safa</i>	<i>Life Sciences.</i>	<i>2020.2.22</i>	
17	<i>. Understanding breast cancer heterogeneity through non-genetic heterogeneity.</i>	<i>Barough NB, Sajjadian F, Jalilzadeh N, Shafaei H, Velaei K</i>	<i>Breast Cancer.</i>	<i>2021 Mar 15:1-5.</i>	
18	<i>Melatonin and its mechanism of action in the female reproductive system and related malignancies.</i>	<i>Ezzati M, Velaei K, Kheirjou R.</i>	<i>Molecular and Cellular Biochemistry.</i>	<i>2021 Apr 17:1-4.</i>	
19	<i>Platelet-Rich and Platelet-Poor Plasma Might Play Supportive Roles in Cancer Cell Culture: A Replacement for</i>	<i>Talebi M, Vatanmakanian M, Mirzaei A, Barfar Y, Hemmatzadeh M, Nahayati MA, Velaei K, Hosseinzadeh A,</i>	<i>Anti-Cancer Agents in Medicinal Chemistry</i>	<i>021 Nov 1;21(16):2236-42.</i>	

	<i>Fetal Bovine Serum?</i>	Yazdanpanah B, Yahyavi Y, Azimi A.			
20	<i>The role of KIR positive NK cells in diseases and its importance in clinical intervention.</i>	Asl KD, Velaei K , Rafat A, Nasrabadi HT, Movassaghpour AA, Mahdavi M, Charoudeh HN.	<i>International Immunopharmacology.</i>	2021 Mar 1;92:107361.	
22	<i>Anoikis in cancer: The role of lipid signaling.</i>	M Raeisi, M Zehtabi, K Velaei , P Fayyazpour, N Aghaei, A Mehdizadeh.	<i>Cell Biology International</i>	46 (11), 1717-1728	
23	<i>Understanding and targeting anoikis in metastasis for cancer therapies.</i>	FS Fard, N Jalilzadeh, A Mehdizadeh, F Sajjadian, K Velaei .	<i>Cell Biology International.</i>	2022.12.1	
24	<i>Porcn as a novel therapeutic target in cancer therapy: A review.</i>	M Raeisi, M Saberivand, K Velaei , N Aghaei, N Rahimi-Farsi.	<i>Cell Biology International</i>	46 (12), 1979-1991.2023	
25	<i>RNA interference: Promising approach for breast cancer diagnosis and treatment. 4</i>	E Allahyari, K Velaei , Z Sanaat, N Jalilzadeh, A Mehdizadeh, M Rahmati.	<i>Cell Biology International</i>	2023	
26	<i>Studying luminal A and B subtypes of breast cancer under paracrine secretion of fibro-blasts.:</i>	N Jalilzadeh, NB Barough, M Karami, A Baghbanzadeh, K Velaei .	<i>BioImpacts</i>	2024	
27	<i>The Evaluation of the Relationship Between Spiritual Well-Being and Anxiety in Paramedical Students of Tabriz University.</i>	K Velaei , RG Shayan, D Khezerloo, MF Ghaziani, F Sajjadian	<i>Qeios</i>	2024	

Research projects:

N	Title	Details
1	<i>1. The effect of nanophytosome containing quercetin on anxiety-like behaviors and endoplasmic reticulum stress following chronic stress induction in male mice, MSC thesis</i>	
2	<i>2. Investigating the effect of Myricetin on inflammatory and cognitive behaviors in an animal model of Alzheimer's disease. Medical student's thesis</i>	
3	<i>3. Investigating the regenerative effects of adipose mesenchymal stem cells and exosomes derived from them on cartilage lesions induced by interleukin-1 beta in rat</i>	
4	<i>4. Study of the synergistic effect of doxorubicin and omega-3 fatty acid supplement on tumoral properties of breast cancer cell line MDA-MB231, phd thesis</i>	
5	<i>5. Acetyl CoA carboxylase: Role in NAFLD, NASH, and HCC</i>	
6	<i>6. Comparison of the anti-inflammatory effects of mesenchymal stem cells and their exosomes on interleukin 1 induced .MSC THESIS</i>	
7	<i>7. Study of the stearoyl CoA desaturase 1 expression and activity index level in breast cancer subtypes.</i>	
8	<i>Study of the stearoyl CoA desaturase 1 specific inhibitor and omega-3 fatty acids supplements on tumoral properties of breast cancer cell line MCF-7</i> گرنٹ 30% محققین فعال دانشگاه	
9	<i>Evaluation of NK cells activity following hematopoietic stem cell transplantation and appearance of GVHD in leukemia patients. PhD thesis</i>	
10	<i>The evaluation of relationship between spiritual health and anxiety in paramedical students of Tabriz University of Medical Sciences in 2020</i>	
11	<i>Impact of conditioned medium fibroblast cells on conversion molecular and morphological properties of</i>	

	<i>luminal A and B subtypes in breast cancer</i>	
12	<i>Comparison of the paracrine effect of fibroblast cells on molecular changes and phenotypes of cancer stem cells in luminal and basal subgroups of breast cancer</i>	
13	<i>chemotherapy- affected fibroblast impact on gaining cancer stem cell surface markers in triple negative subtype of breast cancer</i>	
14	<i>The impact of tumor microenvironment on heterogeneity parameters and cancer stem cell phenotype in co-cultured MCF-7 cells with fibroblast stromal cells</i>	
15	<i>Production and evaluation of Acellular scaffold loaded with mineral pitch before and after adipose-derived mesenchymal stem cell culture</i>	
16	<i>Effect of NFkB pathway inhibition on MCF-7 resistance cell to doxorubicin</i>	
17		
18		

Positions held: (past- current)

Start and End Date	Job Title, <u>Responsibilities and achievements</u>
2023 to present	Research dean of department

Association Memberships (past and current)

Start and End Date	Job Title, <u>Responsibilities and achievements</u>

Awards and Recognitions

Start and End Date	Details