

CURRICULUM VITAE



Personal Information:

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Associate Professor
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Memberships:

- Founder of Reproductive Sciences and Technology Research center, Iran University of Medical Sciences, Tehran, Iran.
- Member of Iranian Society of Anatomical Sciences (ISAS)
- Iranian Society of Embryology & Reproductive Biology (ISERB)

Prizes/Awards:

- Prize for the Best Basic Science Researcher in PhD Degree in Iran University of Medical Sciences (2015).
- Best teacher award of school of Medicine, Iran University of Medical Sciences – 2023
- The best professor award in the first internationalization festival of Iran University of Medical Sciences -2023

Research Interests:

- **Stem cells**
- **Cancer**
- **Drug delivery**
- **Microfluidic**
- **Nanotechnology**
- **Reproductive biology**
- **Neurodegenerative disease**

Publications:

- Upregulation of apoptotic genes and downregulation of target genes of Sonic Hedgehog signaling pathway in DAOY medulloblastoma cell line treated with arsenic trioxide, Mehrdad Ghorbanlou, Fatemeh Moradi, Ronak Shabani, Mehdi Mehdizadeh. Journal of Chemotherapy.2024
- Evaluation of Matrigel as a 3D microenvironment for neural differentiation of human breastmilk stem cells, Nasim Goudarzi, Ronak Shabani, Fatemeh Moradi, Marzieh Ebrahimi, Majid Katebi, Amir Jafari, Shayesteh Mehdinejadani, Gelareh Vahabzade, Mansoureh Soleimani. Brain Research.2024
- Exploring the potential of predicted miRNAs on the genes involved in the expansion of hematopoietic stem cells, Mohammad Elahimanesh, Nafiseh Shokri, Ronak Shabani, Maryam Rahimi, Mohammad Najafi, Scientific Reports.2024.
- Exploring the Potential of In vitro Maturation (IVM) of Oocytes: Indications, Applications, and Treatment Protocols, Hossein Torkashvand, Ronak Shabani, Iraj Amiri, Roya Darakhshan, Behnam Maleki, Mohammad Reza Doostabadi, Mehdi Mehdizadeh, Avicenna Journal of Medical Biotechnology.2024
- Separation of sperm based on rheotaxis mechanism using microfluidic device, Hossein Torkashvand, Ronak Shabani, Shamim Pilehvari, Mahdi Moghimi, Leila Torkashvand, Rana Mehdizadeh, Roya Derakhshan, Mehdi Mehdizadeh.2024
- Intranasal delivery of human Wharton's jelly-derived mesenchymal stem cells alleviates A β -induced Alzheimer's symptoms in rat models by regulating neurotrophic and apoptotic ... , Ebrahim Eslami, Farshid Ghiyamihoor, Marjan Sadr, Marziyeh Ajdary, Sahar Hakimpour, Rana Mehdizadeh, Ronak Shabani, Mehdi Mehdizadeh, Neuroscience and Behavioral Physiology.2024.
- Therapeutic potential of exosomes in spermatogenesis regulation and male infertility, Amirhossein Mohammadi, Ronak Shabani, Zahra Bashiri, Sara Rafiei, Hamidreza Asgari, Morteza Koruji. Biology of the Cell.2024

- Testicular niche repair after gonadotoxic treatments: Current knowledge and future directions, Amirhossein Mohammadi, Zahra Bashiri, Sara Rafiei, Hamidreza Asgari, Ronak Shabani, SeyedJamal Hosseini, Morteza Koruji. *Biology of the Cell*.2024
- The Effect of Chitosan/Alginate/Graphene Oxide Nanocomposites on Proliferation of Mouse Spermatogonial Stem Cells, Alaa Moeinzadeh, Behnaz Ashtari, Heriberto Garcia, Morteza Koruji, Carlo Alberto Velazquez, Zohreh Bagher, Mahmood Barati, Ronak Shabani, Seyed Mohammad Davachi. *Journal of Functional Biomaterials*.2023
- The Effect of Vitamin D3 Supplemented with PhytoSolve on Genes Involved in Implantation in an NMRI Mice Model of Polycystic Ovary Syndrome: An Experimental Study. Sahar Hakimpour, Azam Govahi, Sahar Eghbali, Ronak Shabani, Rana Mehdizadeh, Marziyeh Ajdary, Mehdi Mehdizadeh. *JBRA Assisted Reproduction*.2023
- Does Gold-Silver Core-Shell Nanostructure with Alginate Coating Induce Apoptosis in Human Lymphoblastic Tumoral (Jurkat) Cell Line? Jamileh Sadat Mirsanei, Mahsa Nazari, Ronak Shabani, Azam Govahi, Sahar Eghbali, Marziyeh Ajdary, Rana Mehdizadeh, Atieh Sadat Mousavi, Mehdi Mehdizadeh. *Reports of Biochemistry & Molecular Biology*.2023
- Nanostructures and biomaterials based on silk polymer for medical diagnostic and therapeutic applications. Elham Afjeh-Dana, Seyed Arash Javadmoosavi, Mostafa Rahvar, Ronak Shabani, Ali Shahbazi, Masoumeh Zahmatkeshan, Behnaz Ashtari. *Polymer Bulletin*.2023
- Polycaprolactone/Testicular Extracellular Matrix/Graphene Oxide-based Electrospun Tubular Scaffolds for Reproductive Medicine: Biomimetic Architecture of Seminiferous Tubules. Amirhossein Mohammadi, Morteza Koruji, Mahmoud Azami, Ronak Shabani, Sanam Mohandesnezhad, Zahra Bashiri, Hamidreza Asgari. *Macromolecular Bioscience*.2023
- Effects of Au@ Ag core-shell nanostructure with alginate coating on male reproductive system in mice. Mahsa Nazari, Ronak Shabani, Marziyeh Ajdary, Mohsen Ashjari, Reza Shirazi, Azam Govahi, Fatemeh Kermanian, Mehdi Mehdizadeh. *Toxicology Reports*.2023
- Autophagic Molecular Alterations in the Mouse Cerebellum Experimental Autoimmune Encephalomyelitis Model Following Treatment with Cannabidiol and Fluoxetine. Maryam Akhavan Tavakoli Maryam Soleimani, Hassan Marzban, Ronak Shabani, Fatemeh Moradi, Marziyeh Ajdary, Mehdi Mehdizadeh. *Molecular neurobiology*.2023
- Smart chlorotoxin-functionalized liposomes for sunitinib targeted delivery into glioblastoma cells. Enam Alhagh Charkhat Gorgich, Hamidreza Kasbiyan, Ronak Shabani, Mehdi Mehdizadeh, Fahimeh Hajiahmadi, Marziyeh Ajdary, Mahmood Barati, Fatemeh Moradi, Davoud Ahmadvand. *Journal of Drug Delivery Science and Technology*.2022
- Intra-Accumbal D1-But not D2-Like Dopamine Receptor Antagonism Reverses the Inhibitory Effects of Cannabidiol on Extinction and Reinstatement of Methamphetamine

SeekingMahboobeh Mirmohammadi, Kiarash Eskandari, Morteza Koruji, Ronak Shabani, Reza Ahadi, Abbas Haghparast. Cannabis and Cannabinoid Research.2022

- Study of vitamin D3 formulation prepared by phytosolve technique and its effect on CTRP6 gene expression in PCOS model. Sahar Hakimpour, Gholamali Jelodar, Ronak Shabani, Bagher Pourheydar, Marziyeh Ajdary, Mehdi Mehdizadeh. Journal of Drug Delivery Science and Technology.2022
- Cannabidiol impairs the rewarding effects of methamphetamine: Involvement of dopaminergic receptors in the nucleus accumbens. Asrin Sharifi, Saeideh Karimi-Haghighi, Ronak Shabani, Hamid Reza Asgari, Reza Ahadi, Abbas Haghparast. Progress in Neuro-Psychopharmacology and Biological Psychiatry.2022
- The effect of *Lactobacillus casei* and *Bacillus coagulans* probiotics on liver damage induced by silver nanoparticles and expression of Bax, Bcl2 and Caspase 3. Reyhaneh Oliaei, Zahra Keshtmand, Ronak Shabani. European Journal of Translational Myology.2022
- *In vitro* elimination of EL4 cancer cells from spermatogonia stem cells by miRNA-143- and 206-loaded folic acid-conjugated PLGA nanoparticles. Azar Shams, Ronak Shabani, Hamidreza Asgari, Mahdi Karimi, Mohammad Najafi, Mohammad Asghari-Jafarabadi, Seyed Mohsen Razavi, Seyed Rouhollah Miri, Mehdi Abbasi, Amirhossein Mohammadi, Morteza Koruji. Nanomedicine. 2022
- Therapeutic Effects of Cannabidiol on Methamphetamine Abuse: A Review of Preclinical Study. Yasaman Razavi, Fariborz Keyhanfar, Ronak Shabani, Abbas Haghparast, Mehdi Mehdizadeh. Iranian Journal of Pharmaceutical Research: IJPR.2021
- COVID-19 and its effect on anatomical sciences education: viewpoint of anatomical sciences professors of Iran university of medical sciences. Mehrdad Ghorbanlou, Fatemeh Moradi, Ronak Shabani, Mehdi Mehdizadeh. Iranian Journal of Medical Education.2021
- Therapeutic Effects of Cannabidiol on Methamphetamine Abuse: A Review of Preclinical Study. Yasaman Razavi, Fariborz Keyhanfar, Ronak Shabani, Abbas Haghparast, Mehdi Mehdizadeh. Iranian Journal of Pharmaceutical Research: IJPR.2021
- Potential toxicity of nanoparticles on the reproductive system animal models: A Review. Marziyeh Ajdary, Fariborz Keyhanfar, Mohammad Amin Moosavi, Ronak Shabani, Mehdi Mehdizadeh, Rajender S Varma. Journal of Reproductive Immunology.2021

- Labelling of human Wharton's jelly-derived mesenchymal stem cells with gold nanorods by biomimicry method. F Ghiyami Hoor , R Shabani, B Ashtrai, A Moinzadeh, M Mehdizadeh. Cell Biochemistry and Function.2021
- Health concerns regarding the effect of the COVID-19 pandemic on male fertility
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- Evaluation of the effect of angiotensin converting enzyme2 in corona pandemic affect female infertility: A review article.HR Mosleh, M Mehdizadeh, F Moradi, A Moeinzadeh, R Shaban*i. Feyz, Journal of Kashan University of Medical Sciences 25 (1), 807-812. 2021
- Cannabidiol promotes neurogenesis in the dentate gyrus during an abstinence period in rats following chronic exposure to methamphetamine.Y Razavi, F Keyhanfar, A Haghparast, R Shabani, M Mehdizadeh. Metabolic Brain Disease, 1-10.2021
- Separating mouse malignant cell line (EL4) from neonate spermatogonial stem cells utilizing microfluidic device in vitro. Behnaz Ashtari, Azar Shams, Narges Esmaeilzadeh, Sara Tanbakooei, Morteza Koruji, Mojtaba Johari Moghadam, Javad Mohajer Ansari, Adel Johari Moghadam, Ronak Shabani*. Stem Cell Research & Therapy 2020.
- Interfering effects of in vitro fertilization and vitrification on expression of gtl2 and dlk1 in mouse blastocysts. Elham Movahed, Ronak Shaban*i, Sara Hosseini, Solmaz Shahidi, Mohammad Salehi*International Journal of Fertility & Sterility 2020.
- In vitro nanoparticle-mediated delivery of MicroRNA 143 and MicroRNA 206 on spermatogonia and cancer cell apoptosis. A Shams, R Shabani, M Asghari, M Karimi ,M Koruji,.cell journal 2020.
- Magnetic Labeling of Human Wharton's Jelly-derived Mesenchymal Stem Cells with Superparamagnetic Iron Oxide Nanoparticles by a New Bio-Mimicry Method.Farshid Ghiyami Hoor^{1,2}, Ali Shakeri Zadeh³, Mehrdad Bakhtiyari^{1,2}, Ronak Shabani^{1,2*}, Mehdi Mehdizadeh^{1,2*} .journal of controlled released (2020)
- Behavioral Changes in Combination Therapy of Ethanol and Modafinil on Rats Focal Cerebral Ischemia. Yusef Abbasi, Kazem Mousavizadeh, Ronak Shabani, Majid Katebi, Mehdi Mehdizadeh. Basic and Clinical Neuroscience.2020.
- Comparative phenotypic characterization of human colostrum and breast milk-derived stem cells. Nasim Goudarzi, Ronak Shabani, Marzieh Ebrahimi, Amir Baghestani, Ehsan

Dehdashtian, Gelareh Vahabzadeh, Mansoureh Soleimani, Fatemeh Moradi, Majid Katebi. Human cell.2020

- Neuroprotective effect of chronic administration of cannabidiol during the abstinence period on methamphetamine-induced impairment of recognition memory in the rats. Yasaman Razavi, Ronak Shabani, Mehdi Mehdizadeh, Abbas Haghparast. Behavioural Pharmacology.2020
- Control of cellular adhesiveness in hyaluronic acid-based hydrogel through varying degrees of phenol moiety cross-linking. Sara Bagheri, Zohreh Bagher, Sajad Hassanzadeh, Sara Simorgh, Seyed Kamran Kamrava, Vajihe Taghdiri Nooshabadi, Ronak Shabani, Maryam Jalessi, Mehdi Khanmohammadi. Journal of Biomedical Materials Research Part A.2020.
- Possible effect of high origin and retrocaval course of testicular artery on the target organ: A case report and functional implication hypothesis. Javad Mohajer Ansari, Parisa Ramhormozi, Amir Johari Moghadam, Kamran Hamzei, Ronak Shabani. Medical Science.2020.
- Removal of Tumor Cells from Spermatogonial Cells by Application of Smart Nanoparticles. Ronak Shabani*. Gene, Cell and Tissue.2019
- Neuroprotective effect of ethanol and Modafinil on focal cerebral ischemia in rats. Yusef Abbasi, Ronak Shabani, Kazem Mousavizadeh, Mansoureh Soleimani, Mehdi Mehdizadeh. Metabolic brain disease. 2019.
- Gold nanorods reinforced silk fibroin nanocomposite for peripheral nerve tissue engineering applications. Elham Afjeh-Dana, Parvaneh Naserzadeh, Hojjatollah Nazari, Fatemeh Mottaghitalab, Ronak Shabani, Naser Aminii, Bitra Mehravi, Fatemeh Tajik Rostami, Mohammad Taghi Joghataei, Kazem Mousavizadeh, Khadijeh Ashtari. International journal of biological macromolecules. 2019
- In Vitro Cytotoxicity of Folate-Silica-Gold Nanorods on Mouse Acute Lymphoblastic Leukemia and Spermatogonial Cells. Neda Eslahi, Ali Shakeri-Zadeh, Khadijeh Ashtari, Vahid Pirhajati-Mahabadi, Tahereh Tohidi Moghadam, Ronak Shabani, Kamran Kamrava, Zahra Madjd, Chad Maki, Hamid Reza Asgari, Morteza Koruji. Cell Journal (Yakhteh).2019
- The Synergetic Differentiating Effects of Poly Lactic Acid/Multiwall Carbon Nanotubes Composites and Naringenin on Spermatogonial Stem Cells. H Eyni Seen, S Ghorbani, M

Pourdonya, Z Kazemi, S Sarkhanloo, R Shabani, M Mehdizadeh, F Amjadi. **Polymers for Advanced Technologies** 2019

- Curcumin loading potentiates the neuroprotective efficacy of Fe₃O₄ magnetic nanoparticles in cerebellum cells of schizophrenic rats. Parvaneh Naserzadeh, Asghar Ashrafi Hafez, Marjan Abdorahim, Mohammad Amin Abdollahifar, Ronak Shabani, Habiballah Peirovi, Abdolreza Simchi, Khadijeh Ashtari. **Biomedicine & Pharmacotherapy**.2018
- Elimination of mouse tumor cell line from spermatogonial cells suspensions using cisplatin entrapped folic acid conjugated PLGA nanoparticles *in vitro*. Shabani R, Ashjari M, Ashtari K, Izadyar F, Behnam B, Khoei S and Koruji M. **International journal of Nanomedicine**.2018;13, 2943-2954.
- Opioid Receptors Gene Polymorphism and Heroin Dependence in Iran. Sara Soleimani Asl, Amir Roointan, Hugo Bergen, Shayan Amiri, Parastoo Mardani, Niloufar Ashtari, Ronak Shabani, Mehdi Mehdizadeh. **Basic and Clinical Neuroscience** .2018
- The Mediating Role of A_{2A} Adenosine Receptors in the Mitochondrial Pathway of Apoptotic Hippocampal Cell Death, Following the Administration of MDMA in Rat. Masoomeh Bakhshayesh, Fereshteh Golab, Fatemeh Kermanian, Mehdi Mehdizadeh, Amir Reza Katebi, Mansooreh Soleimani, Farzaneh Mohammadzadeh, Ronak Shabani, Elham Movahed, Majid Katebi. **Basic and Clinical Neuroscience** .2017
- Protective Effects of *Cyperus Rotundus* Extract on Amyloid β -Peptide (1-40)-Induced Memory Impairment in Male Rats: A Behavioral Study. Mehdi Mehdizadeh, Fataneh Hashem Dabaghian, Asie Shojaee, Nima Molavi, Zahra Taslimi, Ronak Shabani, Sara Soleimani Asl. **Basic and Clinical Neuroscience** .2017
- Efficient functionalization of gold nanoparticles using cysteine conjugated protoporphyrin IX for singlet oxygen production *in vitro*. Mohsen Ashjari, Soheila Dehfuly, Daryoush Fatehi, Ronak Shabani, Morteza Koruji. **RSC Advances**.(2015)
- *In vitro* toxicity assay of cisplatin on mouse acute lymphoblastic leukaemia and spermatogonial stem cells. R Shabani, K Ashtari, B Behnam, F Izadyar, H Asgari, M Asghari Jafarabadi, M Ashjari, E Asadi, M Koruji. **Andrologia**.(2015)

- Female Rat Hippocampal Cell Density after Conditioned Place Preference. M. Jahanshahi, R. Shaabani, E. G. Nikmahzar, F. Babakordi. *Folia Biologica (Praha)* 60, 47-51 (2014)
- Hippocampal Neuronal Apoptosis in Rat Offspring Due to Gestational Diabetes. Soraya Ghafari, Ebrahim Asadi, Ronak Shabani, Mohammad Jafar Golalipour, S GHAFARI, E ASADI, R SHABANI, MJ GOLALIPOUR. *Int. J. Morphol*(2016).
- Preventing Effect of Vitamin E on Oocytes Apoptosis in Morphine-treated Mice .Ebrahim Asadi ; Ronak Shabani ; Soraya Ghafari & Mohammad Jafar Golalipour. *Int. J. Morphol.*,31(2):533-538, (2013).
- Effect of Morphine based CPP on the Hippocampal Astrocytes of male wistar Rats. R.shaabani, M,Jahanshahi, M.Nowrouzian, Y.Sadeghi and N.S.Azami, *Asian Journal of Cell Biology* (2011).
- The evaluation of morphine based CPP on the astrocytes of male Rat's dentate gyrus .Shabani R , Jahanshahi M , Noroozian M , Sadeghi Y , Azami NS ,*Journal of Gorgan University of Medical Sciences / 22 Summer*(2011).

Books :

- Essential upper and lower extremities Anatomy, Emamizadeh publisher,2012
- An Atlas of Histology by Electron Microscopy, Teimorzadeh Nouvin Publisher,2011
- Longman,s Medical Embryology.2015
- Digestive system Textbook. 2016
- Cardiovascular system Textbook.2018
- Head and neck Anatomy Gray,s for student.2019
- Upper and Lower limb Anatomy Gray,s for student.2019
- Longman,s Medical Embryology.2019
- Digestive system Textbook. 2018
- Summery book Gray,s for student.2020
- Anatomy and Physiology (Ruth hall) 2021
- Application of stem cells 2021