

Curriculum Vita

Prof. Abbas Piryaei (Ph.D.)

Department of Biology and Anatomical Sciences, School of Medicine, Shahid Beheshti University of Medical Sciences

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Scopus H-index: 23 (Nov. 2022)



WOS Researcher Profile: [Piryaei, Abbas - Web of Science Core Collection](#)

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Educational Background

- 2020-2021 Fellowship in *Assessment and Evaluation in Medical Sciences*, Smart University of Medical Sciences, Tehran, IRAN.
- 2005-2010 Ph.D. in *Anatomical Sciences*, School of Medical Sciences, Tarbiat Modares University, Tehran, IRAN.
Title of thesis: Differentiation capability of mouse bone marrow-derived mesenchymal stem cells into hepatocyte-like cells on artificial basement membrane containing ultraweb nanofibers and their transplantation into carbon tetrachloride injured liver model.
- 1998-2000 M.Sc. in *Anatomical Sciences*, School of Medical Sciences, Tarbiat Modares University, Tehran, IRAN.
Title of thesis: An electron microscopic study of the effect of Morris water maze spatial learning on plasticity in the dentate gyrus and CA1 area of rat hippocampal formation.
- 1993-1997 B.Sc. in *Biology*, Islamic Azad University, Borujerd, IRAN.

Employment

- 2000-2004 Guest lecturer of “*Islamic Azad University*”, Borujerd, IRAN.
- Since 2001 Academic staff at the “*Department of Biology and Anatomical Sciences, School of Medicine, Shahid Beheshti University of Medical Sciences*”, Tehran, IRAN.
- 2004-2006 Guest lecturer of “*Pasteur Institute of Iran*”, Tehran, IRAN.
- Since 2004 Principle investigator of “*Liver and Gastrointestinal Research Group*”. Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- Since 2014 Second affiliated academic staff at the “*Department of Tissue Engineering and Applied Cell Sciences, School of Advances Technologies in Medicine, Shahid Beheshti University of Medical Sciences*”, Tehran, IRAN.

Honors and Awards

- 2005 The first rank in the “*Entrance Exam for the Ph.D. Candidates in Anatomical Sciences*”. Tarbiat Modares University, Tehran, IRAN.
- 2009 The top rank in the “*16th Iranian Student Year Book Award*”. The Academic Center for Education, Culture and Research, Tehran, IRAN.

- 2009 The “*Best Assistant Professor of the University*”. Educational Festival of Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2010 The national winner of the “*11th Royan International Award*”. Royan International Hybrid Twine Congress, Royan Institute for Stem Cell Biology and Technology, Tehran, IRAN.
- 2011 The “*Best Associate Professor of the University*”. Educational Festival of Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2016 The “*Best Professor of the University*”. Educational Festival of Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2019 The first rank of the “*Basic Science Research in the 32nd Khwarizmi International Festival*”. Iranian Research Organization for Science and Technology, Tehran, IRAN.

Funding

- Research Grant Tissue engineering approach for diabetic wound healing. A series of grants was provided by “*Shahid Beheshti University of Medical Sciences*” and “*Iran National Science Foundation*”, Tehran, IRAN.
- Research Grant Hepatocyte-like cells differentiation from mesenchymal stem cells. A series of grants was provided by “*Royan Institute for Stem Cells Biology and Technology*”, and the “*Council for Development of Stem Cell Sciences and Technologies*”, Tehran, IRAN.
- Research Grant Regenerative medicine approach for treatment of end-stage liver diseases in animal models. A series of grants was provided by “*Royan Institute for Stem Cells Biology and Technology*”, and the “*Council for Development of Stem Cell Sciences and Technologies*”, Tehran, IRAN.
- Research Grant Liver organoid and liver-on-a-chip for pharmacological and medical applications. A series of grants was provided by “*Royan Institute for Stem Cells Biology and Technology*”, and “*National Institute for Medical Research Development*”, Tehran, IRAN.

Research Interests

- Regenerative medicine approach in diabetic wound healing
- Liver regeneration and liver tissue engineering
- Liver organoid and liver microtissue
- Liver organoid on-a-chip

Professional Training and Qualifications

- Aug. 2002 A workshop on “*Cloning, Labeling, and DNA Hybridization*”, National Biotechnology Network, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Jul. 2011 A workshop on “*How to present the anatomical sciences lectures for medical students in integrated disciplines education system*”, Iranian Anatomical Sciences Association, Iran University of Medical Sciences, Tehran, IRAN.
- Sep. 2011 A workshop on “*Semen analysis*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- Sept. 2011 A workshop on “*Enucleating and nuclear transfer of mouse oocytes by piezo*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.

- Sept. 2011 A workshop on “*Sperm functional tests in the diagnosis and treatment of infertility*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- Jun. 2012 A workshop on “*How to design MCQ questions for the comprehensive examination of basic medical sciences*”, The Secretariat of Education Council of Basic Sciences, Health, and Medical Specialties, Tehran, IRAN.
- Aug. 2014 A workshop on “*Experimental research design*”, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Nov. 2014 A workshop on “*Getting the knowledge of the technology foresight*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- Jul. 2016 A workshop on “*How to present problem-based learning (PBL) for general practitioner students*”, Education Development Office, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.

Professional Skills and Experiences

- Histology and Histotechniques
- Embryology and Developmental Biology
- Stem Cell Biology and Technology
- Regenerative Medicine
- Transmission Electron Microscopy
- Scanning Electron Microscopy
- Immunohistochemistry
- Animal Cells and Stem Cells Culture
- Stem Cell Isolation, Characterization, and Differentiation
- Tissue Engineering
- Organoid Technology
- Organoid-on-a-Chip

Design and Setting up Laboratories

- 2004 “*Light microscopic and transmission electron microscopic laboratories*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- 2010 “*Histotechniques laboratory*”, Department of Biology and Anatomical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2011 “*Cells and stem cells culture laboratory*”, Department of Biology and Anatomical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2017 “*Animal house*”, Department of Biology and Anatomical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.

Professional Affiliations, Memberships, and Distinctions

- Since 2002 Member of the “*Iranian Anatomical Sciences Association*”.
- Since 2002 Member of the “*Cellular and Molecular Research Center*”, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2002-2006 Deputy of the “*Electron Microscopy Center*”, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2004 Director of the “*Histology Core Facility*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- 2007-2020 Manager of the editorial board for “*Publication and annual revision of the respiratory system textbook*” for general practitioner students in

- integrated disciplines education system. School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2009 Member of the review board of the “*Journal of Iranian Anatomical Sciences*”. Iranian Association of Anatomical Sciences, Tehran, IRAN.
- 2009 Member of the scientific board of the “*First Scientific Olympiad for Students*”. Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2010 Member of the examination board of the “*Comprehensive Exam of Basic Medical Sciences for Dentistry Students*”. The Secretariat of Education Council of Basic Sciences, Health, and Medical Specialties, Tehran, IRAN.
- Since 2010 Member of the examination board of the “*Comprehensive Exam of Basic Medical Sciences for General Practitioner Students*”. The Secretariat of Education Council of Basic Sciences, Health, and Medical Specialties, Tehran, IRAN.
- Since 2010 Member of the review board of the “*Cell Journal*”. Royan Institute, Tehran, IRAN.
- Since 2011 Member of the review board of the “*Journal of Research in Medical Sciences*”. Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2011 Member of the scientific and review board of the “*Congress on Stem Cell Biology and Technology*”. Royan International Hybrid Twine Congress, Royan Institute, Tehran, IRAN.
- 2011-2018 Member of the scientific and review board of the “*Council for Development of Stem Cell Sciences and Technologies*”. Tehran, IRAN.
- 2012-2016 Research deputy of the “*Department of Biology and Anatomical Sciences*”, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2012-2018 Director of the “*Academic progress planning for post-graduate students*”, Department of Biology and Anatomical Sciences, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2013 Member of the scientific and review board of the “*Deputy of Research*”. School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2013-2018 Member of the scientific board for “*Revision of Anatomical Sciences Syllabus for General Practitioner Curriculum*”. The Secretariat of Education Council of Basic Sciences, Health, and Medical Specialties, Tehran, IRAN.
- Since 2013 Member of the founder and scientific board of the “*Urogenital Stem Cells Research Center*”. Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2015 Member of the scientific and review board of the “*Deputy of Research*”. School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2015 Member of the strategic council for the “*Regenerative Medicine and Stem Cell Research Network*”. Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2015 Member of the founder board of the “*Royan Scientific Network*”. Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.

- Since 2015 Member of the strategic council for the “*Central Core Facility of School of Medicine*”. Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2016 Member of the review and supervision board of the “*Iran National Science Foundation*”. Tehran, IRAN.
- Since 2016 Member of the review and supervision board of the “*National Institute for Medical Research Development*”. Tehran, IRAN.
- 2016-2018 Chief deputy of the “*Department of Biology and Anatomical Sciences*”, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Since 2016 Director of the educational committee of the “*Regenerative Medicine and Stem Cell Research Network*”. Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- 2018-2020 Member of the scientific committee for “*Standardization and Assessments of Anatomical Sciences Courses for General Practitioner Curriculum*”. The Secretariat of Education Council of Basic Sciences, Health, and Medical Specialties, Tehran, IRAN.
- Since 2018 Member of the editorial board of the “*Modern Medical Laboratory Journal*”. Farname Incorporation, ON, CANADA.
- Since 2019 Member of the scientific board for “*Examinations, Assessments and Strategic Planning of Anatomical Sciences Educational Courses*”. The Secretariat of Education Council of Basic Sciences, Health, and Medical Specialties, Tehran, IRAN.
- Since 2020 Member of the editorial board of the “*School of Medicine Students' Journal*”, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.

Academic Teaching Experience

Undergraduate Courses (Since 2000)

Basic and Medical Histology
 Animal and Medical Embryology
 Medical Anatomy
 An Introduction to Stem Cells and Regenerative Medicine

Postgraduate Courses (Since 2009)

Advanced Medical Histology
 Advanced Medical Embryology and Developmental Biology
 Oral Histology and Embryology
 Advanced Neurohistology and Neuroembryology
 Stem Cells and Regenerative Medicine
 Advanced Tissue Engineering
 Advanced Techniques in Microanatomy
 Animal Cell and Stem Cell Culture Techniques
 Transmission and Scanning Electron Microscopy
 Techniques
 Advanced Histotechniques

Presentation and Teaching in Academic Workshops and Symposiums

- Dec. 2003 A workshop on “*Theory and practice on transmission and scanning electron microscopy techniques*”, Cell and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.

- Jan. 2004 A workshop on “*Theory and practice on advanced techniques for transmission electron microscope*”, Cell and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Feb. 2004 A workshop on “*Theory and practice on advanced techniques for scanning electron microscope*”, Cell and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Jul. 2012 A workshop on “*Theory and practice on histological and immunostaining techniques*”, International Summer School, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- Sep. 2016 The first academic summer school on “*Stem cells and regenerative medicine*”, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- Feb. 2017 A workshop on “*Theory and practice on histology, immunohistochemistry and Immunofluorescence techniques*”, Royan Institute for Stem Cells Biology and Technology, Tehran, IRAN.
- Jun. 2017 The first symposium on “*Stem cells and regenerative medicine*”, Shahrood University of Medical Sciences, Shahrood, IRAN.
- Aug. 2017 The second academic summer school on “*Stem cells and regenerative medicine*”, Shahid Beheshti University of Medical Sciences, Tehran, IRAN.
- May. 2019 The first national symposium on “*Organoids*”, Ferdowsi University of Mashhad, Mashhad, IRAN.

Paper Presented in Conferences

- 1- **Piryaei A**, Fathollahi Y, AL-Tiraihi T, Naghdi N. *An ultrastructural study of the impact of Morris water maze spatial learning on synaptic plasticity of rat hippocampal CA1 area*. Poster Presented, Seminar of Anatomical and Clinical Aspects of Cerebral Cortex, Iran UMSHS, Feb 2003.
- 2- Heidari MH, **Piryaei A**, Hekmat H, Ghasemi M, Almasiyeh MA, Kianersi F. *An ultrastructural study of laser pointer beam on rabbit's retina by TEM*. Oral Presented, 13th Iranian Congress of Ophthalmology, Tehran, Iran, Dec 2003.
- 3- Almasi S. Rouzbehi A, Sadeghi Y, **Piryaei A**. *Ultrastructural effects of cadmium on mice embryo's retina*. Oral Presented, 6th Iranian Congress of Anatomical Sciences, Shiraz, Iran, May 2004.
- 4- Baharvand H, Rohani R, **Piryaei A**, Taei A. *Developmental ultrastructure of mouse embryonic stem cell-derived cardiomyocytes in vitro*. Poster Presented, 14th Congress of Iranian Heart Association in Collaboration with British Cardiac Society, Tehran, Iran, Nov 2004.
- 5- Almasiyeh MA, Heidari MH, **Piryaei A**, Hosseini A, Rakhshan M, Zohrabi A. *Study of human gastric epithelium infected by helicobacter pylori with scanning and transmission electron microscopes*. Oral Presented, Congress of Iranian Society of Pathology, Tehran, Dec 2004.
- 6- **Piryaei A**, Fathollahi Y, Tiraihi TA, Naghdi N. *Impact of spatial learning on synaptic plasticity in dentate gyrus of rat hippocampal formation*. Poster Presented, 4th Asian-Pacific International Congress of Anatomists, Kusadasi, Turkey, Sep 2005.

- 7- Soleimani M, **Piryaei A**, Shahjahani M, Kaviani S, Atashi A, Hosseini A, Heidari MH. *Ultrastructural study of differentiation process of bone marrow mesenchymal stem cells into cardiomyocyte in vitro*. Poster Presented, 4th ISSCR Annual Meeting, Toronto, Ontario, Canada, Jun-Jul 2006.
- 8- Ebrahimi M, Baharvand H, Javadi MA, Massumi M, **Piryaei A**. *Characteristics of human limbal epithelial stem cells during the expansion on denuded amniotic membrane*. Poster Presented, 4th ISSCR Annual Meeting, Toronto, Ontario, Canada, June-Jul 2006.
- 9- **Piryaei A**, Soleimani M, Hesseini A, Heidari MH, Kaviani S, Almasiyeh MA, Rohani R. *Ultrastructural study of differentiating cardiomyocyte from bone marrow mesenchymal stem cells in vitro*. 2nd Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Sep 2006.
- 10- Taghiyar L, Baghaban Eslaminejad MR, **Piryaei A**. *Mature chondrocyte promotes cartilage differentiation of mMSCs in co-culture system*. Poster Presented, 3th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Sept, 2007.
- 11- **Piryaei A**, Heidari MH, Almasiyeh MA, Kianersi F, Ghasemi BM. *Retinal and chroidal damages from long-term exposure to laser pointer beam*. Poster Presented, 105th DOG-Congress, Berlin, Germany, Sep 2007.
- 12- Mirzaei M, Bayat M, Mosafa N, Mohsenifar Z, **Piryaei A**, Farokhi B, Rezaei F, Sadeghi Y, Rakhshan M. *Effect of LLLT on skin fibroblasts of streptozotocin-diabetic rats*. Oral Presented, 12th International Congress of European Medical Laser Association in Conjugation with WALT, ELA and CSULM-CLS, Prague, Czech Republic, Sep 2007.
- 13- Jazayeri M, Alameh A, Soleiman M, **Piryaei A**, Kaviani S. *The study of gene expression and ultrastructural characteristics in the differentiated endothelial cells from human bone marrow mesenchymal stem cells*. Oral Presented, The 9th Iranian Congress of Biochemistry, Shiraz, Iran, Oct-Nov 2007.
- 14- Rabani V, Shahsavani M, Gharavi M, Ajdari Z, **Piryaei A**, Baharvand H. *Therapeutic potential of bone marrow-derived mesenchymal stem cells on CCl₄-induced mouse hepatic injury possibly through matrix metalloproteases and differentiation into hepatocyte-like cells*. Poster Presented, 5th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Sep 2009.
- 15- **Piryaei A**, Rezazadeh Valojerdi M, Baharvand H. *Differentiation capability of mouse bone marrow-derived mesenchymal stem cells into hepatocyte-like cells on artificial basement membrane containing ultraweb nanofibers and their transplantation into carbon tetrachloride injured liver model*. Oral Presented, 6th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Sep 2010. (Selected Presentation as National Winner of the Royan International Award)
- 16- Haghpanah T, **Piryaei A**, Ghaffari-novin M, Afarinesh-khaki M. *Stem cell trafficking between mother and fetus*. Oral Presented, 3rd International and 18th National Congress of Iranian Society for Reproductive Medicine, Yazd, Iran, Apr 2012.

- 17- Pouriran R, Bayat M, **Piryaei A**. *The effect of combined pulsed wave low-level Laser therapy and human bone marrow mesenchymal stem cell-conditioned medium on open skin wound healing in diabetic rats*. Poster Presented, Sigma Xi Annual Meeting & Student Research Conference, Kansas City, Missouri, USA, Oct 2015.
- 18- Daei-Farshbaf N, **Piryaei A**, Ardeshiryajimi A, Norouzian M. *Reconstruction of calvarial defects in hypothyroid rat models using Bio-Oss®-Collagen gel scaffold*. Poster Presented, 12th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Aug-Sep 2016.
- 19- Pouriran R, **Piryaei A**, Bayat M. *The synergic effect of low-level laser therapy and human bone marrow mesenchymal stem cell-conditioned medium on the contraction of healed open skin wound in diabetic rats*. Poster Presented, 12th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Aug-Sep 2016.
- 20- Mirabzadeh E, Saberi S, Karimi T, **Piryaei A**, Esmaeili M, Najjar Asl M, Sodeifi N, Baharvand H, Mohammadi M. *Expression of stem cell markers (LGR5, TROY) in agastric cancer-mouse model*. Poster Presented, 30th International Workshop on Helicobacter & Microbiota in Inflammation & Cancer, Bordeaux, France, Sep 2017.
- 21- Saberi S, **Piryaei A**, Esmaeili M, Najjar Asl M, Abdirad A, Mohagheghi M, Baharvand H, Mohammadi M. *Troy and LGR5 as diagnostic and/or prognostic markers of gastric cancer*. Poster Presented, 30th International Workshop on Helicobacter & Microbiota in Inflammation & Cancer, Bordeaux, France, Sep 2017.
- 22- **Piryaei A**, Baharvand H. *Stem cells and their future clinical applications*. Oral Presented, 13th Congress of Iranian Pain Society (IASP Chapter), Tehran, Iran, Nov 2017.
- 23- Baghalishahi M, Eftekhari-vaghefi S, **Piryaei A**, Nematolahimahani SN, Mollaei MR, Sadeghi S. *Cardiac extracellular matrix hydrogel together with or without inducer cocktail improves human adipose tissue-derived stem cells differentiation into cardiomyocyte like cells*. Poster Presented, 13th Iranian Anatomical Sciences Congress, Hamadan, Oct 2018.
- 24- Saheli M, Sepantafar M, Pournasr B, Farzaneh Z, Vosough M, **Piryaei A**, Baharvand H. *Induction of hepatic functions in hepatic cell line by liver extracellular matrix hydrogel*. Poster Presented, 13th Iranian Anatomical Sciences Congress, Hamadan, Oct 2018.
- 25- Kouhkheil R, Fridoni M, **Piryaei A**, Taheri S, Chirani AS, Anarkooli IJ, Nejatbakhsh R, Shafikhani S, Schuger LA, Reddy VB, Ghoreishi SK, Jalalifirouzkouhi R, Chien S, Bayat M. *The effect of combined pulsed wave low-level laser therapy and mesenchymal stem cell-conditioned medium on the healing of an infected wound with methicillin-resistant staphylococcal aureus in diabetic rats*. Poster Presented, 13th Iranian Anatomical Sciences Congress, Hamadan, Iran, Oct 2018.
- 26- Miri Lavasani Z, Zahmatkesh E, Farzaneh Z, Haeri A, **Piryaei A**, Vosough M. *Evaluation of invasion and migration ability of hcc model (Huh-7, SK-Hep-1, Hep-3B) after treatment with a natural ligand of HNF4a*. Poster Presented, 15th Royan

International Congress on Stem Cells Biology and Technology, Tehran, Iran, Aug 2019.

- 27- Baghalishahi M, Eftekhari-Vaghef SH, **Piryaei A**, Nematollahi-Mahani SN, Mollaei HR, Sadeghi Y. *Cardiac ECM hydrogel coating with a compound cocktail induce hADSCs to cardiomyocyte like cells*. Poster Presented, 15th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Aug 2019.
- 28- Saheli M, Sepantafar MM, Pournasr B, Farzaneh Z, Vosough M, **Piryaei A**, Baharvand H. *Self-organization of liver organoids in 3d liver extracellular matrix-derived hydrogel*. Poster Presented, 15th Royan International Congress on Stem Cells Biology and Technology, Tehran, Iran, Aug 2019.

Published Articles

For updated published articles please refer to one of the following links:

Online CV: https://isid.research.ac.ir/Abbas_Piryaei

ORCID: orcid.org/0000-0002-3182-6214

1. Heidari MH, **Piryaei A**, Almasiyeh MA, Kianersi F, Ghasemi Broumand M, Rohani R. *Retinal and choroidal damage from long-term exposure to a laser pointer beam*. *Yakhteh Med J*, 2004;5(20):146-52.
2. Bayat M, Chelcheraghi F, **Piryaei A**, Rakhshan M, Mohseni Z, Rezaie F, Bayat M, Shemshadi H, Sadeghi Y. *The effect of 30-days pretreatment with pentoxifylline on the survival of a random skin flap in the rat: An ultrastructural and biomechanical evaluation*. *Med Sci Mon*, 2006;12(6):Br201-7.
3. Baharvand H, **Piryaei A**, Rohani R, Taei A, Heidari MH, Hosseini A. *Ultrastructural comparison of developing mouse embryonic stem cell- and in vivo-derived cardiomyocytes*. *Cell Biol Int*, 2006;30:800-7.
4. Baghaban Eslaminejad M, Nikmahzar A, Eftekhari Yazdi P, **Piryaei A**. *The structure of human mesenchymal stem cells differentiated into cartilage in micromass culture system*. *Yakhteh Med J*, 2006;8(3):162-71.
5. Roozbehi A, Almasi-Tork S, **Piryaei A**, Sadeghi Y. *Effects of cadmium on photoreceptors and ganglionic cells of retinal layer in mice embryo – an ultrastructure study*. *Indian J Exp Biol*, 2007;45:469-74.
6. Mirzaei M, Bayat M, Mosafa N, Mohsenifar Z, **Piryaei A**, Farokhi B, Rezaei F, Sadeghi Y, Rakhshan M. *Effect of low-level laser therapy on skin fibroblasts of streptozotocin-diabetic rats*. *Photomed Laser Surg*, 2007, 25(6):519-25.
7. Bahram Kazemi, Mohammad Hassan Heidari, Mehdi Naderi, **Abbas Piryaei**, Mohammad Reza Nazari Pouya. *Study on ultrastructure of Leishmania major and Lizard leishmania*. *J Cell Anim Biol*, 2008, 2 (6): 129-133.
8. Maryam Jazayeri, Abdolamir Allameh, Masoud Soleimani, Seyed Hamid Jazayeri, **Abbas Piryaei**, Somaieh Kazemnejad. *Molecular and ultrastructural*

characterization of endothelial cells differentiated from human bone marrow mesenchymal stem cells. Cell Biol Int, 2008, 32: 1183-1192.

9. Rabani V, Shahsavani M, Gharavi M, **Piryaei A**, Azhdari Z, Baharvand H. *Mesenchymal stem cell infusion therapy in carbon tetrachloride-induced liver fibrosis model affects matrix metalloproteinase expression.* Cell Biol Int, 2010, 34 (6): 601-605.
10. **Piryaei A**, Valojerdi MR, Shahsavani M, Baharvand H. *Differentiation of Bone Marrow-derived Mesenchymal Stem Cells into Hepatocyte-like Cells on Nanofibers and Their Transplantation into a Carbon Tetrachloride-Induced Liver Fibrosis Model.* Stem Cell Rev, 2011, 7: 103-118. DOI: 10.1007/s12015-010-9126-5
11. Hosseini SM, Asgari V, Ostadhosseini S, Hajian M, **Piryaei A**, Najarasl M, Nasr-Esfahani MH. *Potential applications of sheep oocytes as affected by vitrification and in vitro aging.* Theriogenology, 2012, 77(9): 1741-1753.
12. Koruji M, Shahverdi A, Janan A, **Piryaei A**, Lakpour MR, Gilani Sedighi MA. *Proliferation of small number of human spermatogonial stem cells obtained from azoospermic patients.* J Assist Reprod Genet, 2012, 29: 957–967.
13. Jangravi Z, Alikhani M, Arefnezhad B, Sharifi Tabar M, Taleahmad S, Karamzadeh R, Jadalihha M, Mousavi SA, Ahmadi Rastegar D, Parsamatin P, Vakilian H, Mirshahvaladi S, Sabbaghian M, Mohseni Meybodi A, Mirzaei M, Shahhoseini M, Ebrahimi M, **Piryaei A**, Moosavi-Movahedi AA, Haynes PA, Goodchild AK, Nasr-Esfahani MH, Jabbari E, Baharvand H, Sedighi Gilani MA, Gourabi H, Salekdeh GH. *A Fresh Look at the Male-specific Region of the Human Y Chromosome.* J Proteome Res, 2013, 12: 6–22.
14. Shahedi A, Hosseini A, Khalili MA, Norouzian M, Salehi M, **Piriaci A**, Nottola SA. *The effect of vitrification on ultrastructure of human in vitro matured germinal vesicle oocytes.* Eur J Obstet Gynecol Reprod Biol, 2013, 167: 69-75.
15. Miryounesi M, **Piryaei A**, Pournasr B, Aghdami N, Baharvand H. *Repeated versus single transplantation of mesenchymal stem cells in carbon tetrachloride-induced liver injury in mice.* Cell Biol Int, 2013, 37:340–347.
16. Zaminy A, Shokrgozar MA, Sadeghi Y, Noroozian M, Heidari MH, **Piryaei A**. *Mesenchymal stem cells as an alternative for schwann cells in rat spinal cord injury.* Iran Biomed J, 2013, 17(3):113-122.
17. Heidari MH, **Piryaei A**, Ali H, Khoshideh M, Ali S, Heidari R, Bahrami Z. *Antiatherosclerotic effect of licorice extract on hypercholestrolemic male rabbit by electron microscopy.* J Basi Appl Sci Res, 2013, 3(7):807-812.
18. Zaminy a, Shokrgozar MA, Sadeghi Y, Noroozian M, Heidari MH. **Piryaei A**. *Transplantation of Schwann Cells Differentiated from Adipose Stem Cells Improves Functional Recovery in Rat Spinal Cord Injury.* Arch Iran Med, 2013; 16(9): 533-541.

19. Tehrani FR, Noroozzadeh M, Zahediasl S, Ghasemi A, **Piryaei A**, Azizi F. *Prenatal testosterone exposure worsen the reproductive performance of male rat at adulthood*. PLOS ONE, 2013, 8(8), e71705. doi: 10.1371/journal.pone.0071705.
20. Rohani R, **Piryaei A**, Jahanshahi A, Sadeghi Y, Mirnajafi-Zadeh J. *Effect of low-frequency stimulation on kindling induced changes in rat dentate gyrus: an ultrastructural study*. Acta Neurol Belg. 2014, 114(1):47-53.
21. Daei-Farshbaf N, Ardeshirylajimi A, Seyedjafari E, **Piryaei A**, Fadaei Fathabady F, Hedayati M, Salehi M, Soleimani M, Nazarian H, Moradi SL, Norouzian M. *Bioceramic-collagen scaffolds loaded with human adipose-tissue derived stem cells for bone tissue engineering*. Mol Biol Rep. 2014, 41(2):741-749. PMID:24363224
22. Ramezani Tehrani F, Noroozzadeh M, Zahediasl S, **Piryaei A**, Azizi F. *Introducing a rat model of prenatally androgen-induced polycystic ovary syndrome in adulthood*. Exp Physiol. 2014, 99(5): 792-801.
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