

## CURRICULUM-VITAE



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#### **Personal details:**

Date of Birth : **21-03-1978**  
Nationality : **IRANIAN**  
Marital Status : **MARRIED**

#### **Positions:**

- Researcher of nerve group at the Royan Institute ( Stem Cell Biology and Thechnology, Department of Regenerative medicine and Royan cell Therapy center), Tehran, Iran ( 2003-2006).
- The supervisor and co-worker of Cellular and Molecular Lab of Urology and Nephrology Research Centre (UNRC) Shahid Beheshti University of Medical Sciences, Tehran, Iran (2006-2009).
- Researcher and leader of orthopedic group at the Royan Institute ( Stem Cell Biology and Thechnology, Department of Regenerative medicine and Royan cell Therapy center), Tehran, Iran (2009-2011).

#### **Current Position:**

- Assistant professor of stem cells & cell developmental biology, leader of kidney group in Royan Institute (Stem Cell Biology & Technology, Department of Regenerative Medicine & Cell Therapy), Tehran, Iran, since 2012 until now.
- Ph.D in Cell Developmental Biology (2013).

#### **Academics:**

- **Ph.D in Cell Developmental Biology (2009-2013)** - Department of Biology, Kharazmi University, Tehran, Iran.
- **M.Sc. in Developmental Biology (2003-2006)** - Department of Biology, Tehran University, Tehran, Iran.
- **B.Sc. in General Biology (1996-2000)** - Department of Biology, Teacher Training University, Tehran, Iran.

#### **Research Experience:**

**M. Sc. Thesis Title:** Differentiation of Mouse Embryonic Stem Cells into Neural Cells by Glial Cells. Department of Biology, Tehran University, Tehran, Iran and Department of Stem Cell, Royan Institute, Tehran, Iran, 2006.

**M. Sc. Summer Training Title:** Department of Stem Cells, Royan Institute, Tehran, Iran, worked on Stem Cell Biology and Developmental Biology (Certificate enclosed). [www.royaninstitute.org](http://www.royaninstitute.org).

**Ph.D. Thesis Title:** Autograft bone marrow mesenchymal stem cells (BM-MSCs) for treatment of cisplatin induced acute renal failure in monkey model. Department of Biology, Kharazmi University, Tehran, Iran and Department of Stem Cell, Royan Institute, Tehran, Iran, 2013.

**Technical Experience:**

**Cell Culture studies:** Differentiation of mouse embryonic stem cells into neural and cardiac cells. Mouse embryonic stem cell, astrocytes and urothelial cell culture maintenance. Culture of mouse urothelial cells on amniotic, omentum, peritoneal membrane and collagen. Culture of human smooth muscle cells (SMCs) on collagen and amniotic membrane. Culture of human muscle derived cells (MDCs). Isolation, culture and characterise of human, monkey and mouse mesenchymal stem cells (MSCs). Culture of cancer cell lines such as P19 (cancer stem cell line), U87 (human primary glioblastoma cell line) and ASPC-1 (Human pancreas adenocarcinoma cell line).

**Cellular Technical:** MTT assay, MLR (MLC) assay, CSFC assay, F-CFU assay (Colony assay) and Superparamagnetic Iron Oxide (SPIO).

**Microbiological:** Checking Microbial Purification of Water and Nutrition Materials in Qualification Control Lab.

**Molecular biological:** Polymerase Chain Reaction (PCR), Reverse Transcription- Polymerase Chain Reaction (RT-PCR), Gel Documentation system, DNA sequencing, All methods of Electrophoresis, Polyacrylamide Gel Electrophoresis, BLAST search and homology study.

**Immunology:** Immunocytochemistry, Immunohistochemistry and Flowcytometry.

**Animals handled:** Rat, Mice, Dog, Rabbit, Horse and Monkey.

**Microscopic Technical:** Working with Transmission Electron Microscope (TEM), Scanning Electron Microscope (SEM), Phase Contrast Microscope, Fluorescence Microscope, Stereo Microscope, Light Microscope and Magnetic Resonance Imaging (MRI).

**Histological Technical:** Preparing of sample for study light and Electron Microscope. Staining with H&E, with periodic acid Schiff (PAS), Masson's Trichrome (MT), Toluidine Blue (TB), Alizarin Red, Oil Red and Prussian blue.

**Polymer Technical:** Culture of cells on polymers.

**Bioreactors:** Hollow fiber Bioreactor, Stirrer Bioreactors, Suspension bioreactor

**General packages:** MS Office XP, Adobe Photoshop 7, Endnote 12, Internet, Graphpad Prism, ImageJ.

**Publications:**

1. **Moghadasali, R.**, B.Zeynali, M. Soleimani, M. Hatami, H. Baharvand. Effect of astrocyte-conditioned medium, retinoic acid and basic fibroblast growth factor on neural differentiation of mouse embryonic stem cells. *Yakhteh Medical Journal*, Vol 9, No 3, Autumn 2007.
2. Sharifiaghdas, F., N. Hamzehiesfahani, **R. Moghadasali**, F. Ghaemimanesh, H. Baharvand. Human Amniotic Membrane as a Suitable Matrix for Growth of Mouse Urothelial Cells in Comparison With Human Peritoneal and Omentum Membranes. *Urology Journal*, 2007, Vol. 4, No 2, 71-8.
3. **Moghadasali, R.**, B. Zeynali, M. Soleimani, H. Baharvand. The effect of Fibroblast Growth Factor-2 (FGF-2) and retinoic acid on differentiation of mouse embryonic stem cells into neural cells. *Physiology and Pharmacology Journal*, 2006, Vol. 10, No 2.
4. **Moghadasali, R.**, B. Zeynali, M. Soleimani, H. Baharvand. The Effect of Astrocyte-Conditioned Medium (ACM) and Retinoic Acid on Neural Differentiation of Mouse Embryonic Stem Cells. *Iranian Anatomical Science Journal*. 2005, Vol. 3, No 3.
5. Sharifiaghdas, F, **Moghadasali, R.**, Baharvand, H, Hosseini-Moghaddam, S.M.M, Mahmoudnejad, N. Special Characteristics of Culturing Mature Human Bladder Smooth Muscle Cells on Human Amniotic Membrane as a Suitable Matrix. *Urology Journal*, 2009, Vol. 6, No 4, 283-288.

6. Sharifiaghdas, F, Taheri M., **Moghadasali R.** Isolation of Human Adult Stem Cells from Muscle Biopsy for Future Treatment of Urinary Incontinence. *Urology Journal*, 2011, Vol. 8, No 1, 54-59.
7. Shakhssalim N, Dehghan MM, **Moghadasali R**, Soltani MH, Shabani I, Soleimani M. Bladder tissue engineering using biocompatible nanofibrous electrospun constructs: feasibility and safety investigation. *Urol J.* 2012 Winter;9(1):410-9.
8. Emadedin M, Aghdami N, Taghiyar L, Fazeli R, **Moghadasali R**, Jahangir S, et al. Intra-articular injection of autologous mesenchymal stem cells in six patients with knee osteoarthritis. *Arch Iran Med.* 2012 Jul;15(7):422-8.
9. **Reza Moghadasali**, Henricus A.M. Mutsaers, Mahnaz Azarnia, Nasser Aghdami, Hossein Baharvand, Ruurd Torensma, Martijn J.G. Wilmer, Rosalinde Masereeuw. Mesenchymal stem cell-conditioned medium accelerates regeneration of human renal proximal tubule epithelial cells after gentamicin toxicity. *Exp Toxicol Pathol.* 2013 Jul;65(5):595-600.
10. Nasser Shakhssalim, Javad Rasouli, **Reza Moghadasali**, Farzaneh Sharifi Aghdas, Mohammad Naji, Masoud Soleimani. Bladder smooth muscle cells interaction and proliferation on PCL/PLLA electrospun nanofibrous scaffold. *Int J Artif Organs* 2013 Feb; 36(2):113-20.
11. Zamiri B, Shahidi S, Eslaminejad MB, Khoshzaban A, Gholami M, Bahramnejad E, **Moghadasali R**, Mardpour S, Aghdami N. Reconstruction of Human Mandibular Continuity Defects With Allogenic Scaffold and Autologous Marrow Mesenchymal Stem Cells. *J Craniofac Surg.* 2013 Jul;24(4):1292-1297.
12. **Moghadasali R**, Azarnia M, Hajinasrola M, Arghani H, Nassiri S.M, Molazem M, Vosough A, Mohitmafi S, Najarasl M, Ajdari Z, Salman Yazdi R, Bagheri M, Ghanaati H, Rafiei B, Gheisari Y, Baharvand H, Aghdami N. Intra-renal Arterial Injection of Autologous Bone Marrow Mesenchymal Stem Cells Ameliorates Cisplatin-induced Acute Kidney Injury in a Rhesus Macaque *mulatta* Monkey Model. *Cytotherapy Journal.* 2014; 16: 734-749.
13. Emadedin M, Ghorbani Liastani M, Fazeli R, Mohseni F, **Moghadasali R**, Mardpour S, Hosseini SE, Niknejadi, Moeininia F, Aghahosseini Fanni A, Baghban Eslaminejad R, Vosough Dizaji A, Labibzadeh N, Mirazimi Bafghi A, Baharvand H, Aghdami N. Long-Term Follow-up of Intra-articular Injection of Autologous Mesenchymal Stem Cells in Patients with Knee, Ankle, or Hip Osteoarthritis. *Archives of Iranian Medicine.* 2015.
14. **Moghadasali R**, Hajinasrollah M, Argani H, Nassiri S.M, Najarasl M, Sodeifi N, Baharvand H, Aghdami N. Autologous transplantation of mesenchymal stromal cells prevents progress of interstitial fibrosis in a Rhesus Macaque *mulatta* monkey model of chronic kidney disease. *Cytotherapy Journal.* 2015.
15. Sharifiaghdas F, Tajalli F, Taheri M, Naji M, **Moghadasali R**, Aghdami N, Baharvand H, Azimian V, Jaroughi N. Effect of autologous muscle-derived cells in the treatment of urinary incontinence in female patients with intrinsic sphincter deficiency and epispadias: A prospective study. *International Journal of Urology.* 2016 Apr 8.
16. Labibzadeh N, Emadedin M, Fazeli R, Mohseni F, Esmat Hosseini S.E, **Moghadasali R**, Mardpour S, Azimian V, Ghorbani Liastani M, Mirazimi Bafghi A, Baghban Eslaminejad M, Aghdami N. Mesenchymal Stromal Cells Implantation in Combination with Platelet Lysate Product Is Safe for Reconstruction of Human Long Bone Nonunion. *Cell journal (Yakhteh).* 2016.
17. Emadedin M, Labibzadeh N, Fazeli R, Mohseni F, Hosseini SE, **Moghadasali R**, Mardpour S, Azimian V, Goodarzi A, Ghorbani Liastani M, Mirazimi Bafghi A, Baghban Eslaminejad M, Aghdami N. Percutaneous Autologous Bone Marrow-Derived Mesenchymal Stromal Cell Implantation Is Safe for Reconstruction of Human Lower Limb Long Bone Atrophic Nonunion. *Cell journal (Yakhteh).* 2017.
18. Makhloogh A, Shekarchian S, Moghadasali R, Einollahi B, Hosseini SE, Jaroughi N, Bolurieh T, Baharvand H, Aghdami N. Safety and tolerability of autologous bone marrow mesenchymal stromal cells in ADPKD patients. *Stem Cell Research & Therapy.* 2017.

19. Ranjzad F, Tara A, Basiri A, Aghdami N, Moghadasali R. Mutational Screening of PKD1 and PKD2 Genes in Iranian Population Diagnosed with Autosomal Dominant Polycystic Kidney Disease. Clin. Lab. 2017.

#### Book Publication:

1. “Developmental Biology”, Author: Scott F. Gilbert , Eighth Edition. (2006, Translated) (2volume). Under supervision of: Hossein Baharvand. Publisher: House of Biology press, 2008. **R. Moghadasali** et al., (2008).
2. “The Role of Glial Cells in Nervous System”, Author: **R. Moghadasali** (2009).

#### Oral & Poster Presentations:

1. **Moghadasali, R.**, B. Zeynali, M. Soleimani, H. Baharvand. Differentiation of Mouse Embryonic Stem Cells into Neural Cells by Glial Cells (Oral). 14<sup>th</sup> National & 2<sup>nd</sup> International Conference of Biology. Tehran. Iran. 2006.
2. Sharifiaghdas, F., N. Hamzehiesfahani, **R. Moghadasali**, F. Ghaemimanesh, H. Baharvand. Human Amniotic Membrane as a Suitable Matrix for Growth of Mouse urothelial Cells in comparison with Human Peritoneal and Omentum Membranes (Poster). 8<sup>th</sup> Royan International Twin Congress Reproductive Biomedicine & 3<sup>th</sup> Stem Cell. Tehran, Iran. 2007.
3. **Reza Moghadasali**, Henricus A.M. Mutsaers, Mahnaz Azarnia, Nasser Aghdami, Hossein Baharvand, Ruurd Torensma, Martijn J.G. Wilmer, Rosalinde Masereeuw. Mesenchymal stem cell-conditioned medium accelerates regeneration of human renal proximal tubule epithelial cells after gentamicin toxicity. (Poster). 13<sup>th</sup> Royan International Twin Congress Reproductive Biomedicine & 8<sup>th</sup> Stem Cell. Tehran, Iran. 2012.
4. Study the side effects of injection of autologous mesenchymal stem cells in patient with hip osteoarthritis (Poster). Mardpour S, Aghdami N, Emadedin M, Eslaminejad M, **Moghadasali R**, Fazeli R, Azimiyan V, Mohseni F. ISSCR 10th Annual Meeting, June 13-16, 2012 at the Yokohama, Japan.
5. Intra-renal Arterial Injection of Autologous Bone Marrow Mesenchymal Stem Cells Ameliorates Cisplatin-induced Acute Kidney Injury in a Rhesus *Macaque mulatta* Monkey Model (Oral). **Reza Moghadasali**, Mahnaz Azarnia, Mostafa Hajinasrola, Hassan Arghani, Seyed Mahdi Nassiri, Mohammad Molazem, Ahmad Vosough, Soroush Mohitmafi, Mostafa Najarasl, Zahra Ajdari, Reza Salman Yazdi, Mohsen Bagheri, Hossein Ghanaati, Behrooz Rafiei, Yousof Gheisari, Hossein Baharvand, Nasser Aghdami. 14<sup>th</sup> Royan International Twin Congress Reproductive Biomedicine & 9<sup>th</sup> Stem Cell. Tehran, Iran. 2013.
6. Intra-renal arterial injection of autologous bone marrow mesenchymal stem cells ameliorates cisplatin-induced acute renal failure in a rhesus *macaque mulatta* monkey animal model (Poster). **Reza Moghadasali**, Mahnaz Azarnia, Hossein Baharvand, Mostafa Hajinasrola, Hassan Arghani, Seyed Mahdi Nassiri, Mohammad Molazem, Ahmad Vosough Dizaj, Soroush Mohitmafi, Mostafa Najarasl, Zahra Ajdari, Reza Salman Yazdi, Mohsen Bagheri, Najmeh Sadat Masoudi, Ehsan Janzamin, Fazel Sahraneshin Samani, Hossein Ghanaati, Behrooz Rafiei, Naser Aghdami. ISSCR 11th Annual Meeting, June 12-15, 2013 at the Boston Convention and Exhibition Center (BCEC), Boston, USA.
7. Intra-Renal Arterial Injection of Autologous Bone Marrow Mesenchymal Stem Cells Ameliorates Cisplatin-Induced Acute Kidney Injury in a Rhesus *Macaque mulatta* Monkey Animal Model (Poster). **Reza Moghadasali**, Mahnaz Azarnia, Mostafa Hajinasrola, Hassan Arghani, Seyed Mahdi Nassiri, Mohammad Molazem, Mostafa Najarasl, Hossein Baharvand, Nasser Aghdami. ISN Forefronts Symposium on Stem Cells and Kidney Regeneration. 12–15 September 2013 in Florence, Italy.
8. Bone marrow mesenchymal stromal cells reduced cystogenic potential of CD133+ progenitor cells of human polycystic kidney (Oral). Sara Hajibabaei, **Reza Moghadasali**, Mahmood Dehghani Ashkezari, Farid Dadkhah, Nasser Simfroosh, Mohammad Reza Ghadirzadeh, Ali Reza Kadkhodaei, Ali Ziaie, Nasser Aghdami. 52nd Congress of the ERA-EDTA, May 28-31st 2015 in London, England.

9. A novel perfusion approach for whole organ decellularization of rhesus Macaque Mulatta monkey kidney as a natural three-dimensional scaffold (Poster). **Reza Moghadasali**, Elham Yousefian, Mostafa Hajinasrollah, Nasser Aghdami. World Conference on Regenerative Medicine. 21-23 October 2015 in Leipzig, Germany.
10. Decellularized kidney scaffold-mediated renal bioengineering in a rhesus Macaque mulatta monkey model (Oral). **Reza Moghadasali**, Elham Yousefian, Mostafa Hajinasrollah, Nasser Aghdami. Nature Conference-Regeneration 2017Milano, November 16-18, 2017.

#### **Workshops:**

1. Stem Cell Culture, Royan Institute of Iran (2005).
2. Medical Biocompatibility Polymers, Polymers and Petrochemistry Institute of Iran (2006).
3. Molecular Genetic Methods, Genetic Ward of Special Medical Centre, Tehran, Iran (2006).
4. Study and Recovery Cell Behaviour on Tissue Engineering Scaffolds. Polymers, Polymers and Petrochemistry Institute of Iran (2009).
5. The Basic cellular and molecular Techniques (Cell culture and PCR). Urology & Nephrology Research Centre (UNRC) (2009).
6. Principal of flowcytometry. Royan Institute (2011).
7. Design of clinical trials. Royan Institute (2012).
8. Scientific writing & communication skills and scientific integrity courses. Royan Institute (2012).
9. Nanotechnology (four-week course). Ark Zakaria Company (2012).
10. Stem cells and development biology for regenerative medicine, Tehran, Iran. 10-15 August (2013).
11. 1<sup>st</sup> Cell therapy in nephrology and urology diseases (2014)
12. 6<sup>th</sup> Royan International Summer School on Interdisciplinary Sciences for Tomorrow's Medicine (2015)
13. 1<sup>st</sup> Cell therapy in kidney disease symposium (2016)
14. 1<sup>st</sup> PKD symposium (2016)
15. 2<sup>nd</sup> Cell therapy in chronic kidney diseases (CKD) symposium (2017)

#### **Fellowship Course:**

I carried out part of my ongoing Ph.D research work at Radboud University Nijmegen Medical Center in Netherland as a visiting research scholar for a period of six months.

#### **Advisory Board of journal:**

Advisory Board of Cell Journal (Yakhteh) from 2014 until now.

#### **Patent registration:**

- 1- Isolation, culture and characterization of human chondrocyte cells (2012).
- 2- Isolation, culture and characterization of human osteoblast cells (2012).
- 3- Isolation, culture and characterization of human muscle cells (2013).

#### **Academic Awards:**

**1- The winner of 16<sup>th</sup> university student's year book award in part of translation.** "Developmental Biology", Author: Scott F. Gilbert , Eighth Edition. (2006, Translated) (2volume). Under supervision of: Hossein Baharvand. Publisher: House of Biology press, 2008. R. Moghadasali et al., (2009).

**2- The top winner of 2<sup>th</sup> annual seminar, Student ideas on the issue stem cells.** Staff development and application of stem cell research. R. Moghadasali (2012).

**3- The top winner of 1<sup>st</sup> Royantech ideas.** R. Moghadasali (2017).

#### **Teaching experiences (Advisor):**

- Effect of condition media of human mesenchymal stem cells (CM-hMSCs) on acute renal failure induced by **cisplatin** in wistar rat animal model
- Effect of condition media of human mesenchymal stem cells (CM-hMSCs) on acute renal failure induced by **gentamicin** in wistar rat animal model
- Effect of condition media of human mesenchymal stem cells (CM-hMSCs) on acute renal failure induced by **glycerol** in wistar rat animal model
- Course of regeneration medicine in University of Science & Culture and Royan Institute at MSc and Ph.D. of developmental biology and tissue engineering level (2013-2017).
- Course of stem cell biology in University of Science & Culture and Royan Institute at MSc of developmental biology level (2014-2017).
- Course of histology in University of Science & Culture and Royan Institute at MSc of developmental biology level (2016-2017).
- Course of developmental biology in University of Science & Culture and Royan Institute at MSc of developmental biology level (2016-2017).

**Interests:**

- 1) Cellular and molecular aspects of differentiation of stem cells
- 2) Transplantation and cell therapy of stem cells
- 3) Tissue engineering and regenerative medicine

**References:**

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Tehran University, Tehran, Iran.  
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