

Curriculum Vitae

Parvaneh Mohammadi

Personal information:

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Research Group/Core Facility: Skin and Hair group

Education:

Degree	Major	university	Date	GPA
Ph.D	Cellular and Developmental Biology	Science and Culture Uni. (Tehran, Iran)	2010-2016	18.36/20
M.Sc	Cellular and Developmental Biology	Science and Culture Uni. (Tehran, Iran)	2006-2009	18.26/20
B.Sc	Animal Biology	Shahid Chamran Uni. (Ahvaz, Iran)	2002-2006	17.25/20

Patent:

✚ Fibrin glue production from cord blood. National patent

Awards:

- ✚ Second winner of scientific presentation. Royan Institute. January 2016
- ✚ Second winner of national microscopic image contest. Royan Institute. January 2016
- ✚ Disease Models & Mechanisms Travelling Fellowship by Biologists Company. January 2013

Employment:

- ✦ Research Assistant of Department of regenerative medicine, Royan Institute for Stem Cell Biology and Technology, 2009-2016
- ✦ Research and Development consultant, Cell Tech Pharmed Company, 2014-2015
- ✦ Academic Staff of Department of regenerative medicine, Royan Institute for Stem Cell Biology and Technology, Since 2016
- ✦ Quality control manager, Department of regenerative medicine, Royan Institute for Stem Cell Biology and Technology, Since 2017
- ✦ Research and Development consultant, Skin stem cell department of Tehran University, Since 2017

Research Expertise and Skills:

- ✦ Human eye's Limbal stem cells isolation and culture
- ✦ Human skin's melanocyte isolation for cure vitiligo
- ✦ Human skin and eye's fibroblast cells isolation and culture
- ✦ Human skin's keratinocyte cells isolation and culture
- ✦ Human hair follicle stem cell culture
- ✦ Human dermal papilla cell culture
- ✦ Human hair stem and progenitor cell sorting
- ✦ Mouse epithelial hair and skin sorting
- ✦ Preparation of Fibrin glue component for clinical application
- ✦ DNA, RNA extraction, Real-time PCR, RT-PCR, Gel electrophoresis
- ✦ Magnetic Activated Cell Sorting (MACS)
- ✦ Immunofluorescence, Immunocytochemistry, and immunohistochemistry
- ✦ Flowcytometry technique
- ✦ Fluorescence Activated Cell Sorting (FACS)

Publication:

a)Books:

- ✦ **limbal stem cells**, ***Parvaneh Mohammadi***, Ehsan TaghiAbadi, Naghmeh Ahmadiankia, Hossein Baharvand. (In press, House of Biology Publisher)
- ✦ **Skin stem cells**, ***Parvaneh Mohammadi***, Sahar Sajadian, Raheleh Aghdami, Hossein Baharvand. (In press, House of Biology Publisher)
- ✦ **Hair stem cells**, ***Parvaneh Mohammadi***, Hossein Baharvand. (In press, House of Biology Publisher)
- ✦ **Hair stem cells and regeneration**, ***Parvaneh Mohammadi***, Hossein Baharvand. (In press, House of Biology Publisher)

b)Articles:

1. **Mohammadi P**, Ebrahimi M, Baharvand H. Corneal differentiation following HSC70 and HSP72 expression in air-exposed limbal stem cells cultured on denuded amniotic membrane. Cell J .2010-12(10) -(173-182)
2. Ebrahimi M, **Mohammadi P**, Daryadel A, Baharvand H. Assessment of heat shock protein (HSP60, HSP72, HSP90, and HSC70) expression in cultured limbal stem cells following air lifting. Molecular Vision 2010; 16:1680-1688.
3. Taghiabadi E, **Mohammadi P**, Aghdami N, Falah N, Orouji Z, Nazari A, Shafieyan S. Treatment of Hypertrophic Scar in Human with Autologous Transplantation of Cultured Keratinocytes and Fibroblasts along with Fibrin Glue. Cell J. 2015 Spring;17(1):49-58. Epub 2015 Apr 8.
4. Jalili-Firoozinezhad S, Rajabi-Zeleti S, **Mohammadi P**, Gaudiello E, Bonakdar S, Solati-Hashjin M, Marsano A, Aghdami N, Scherberich A, Baharvand H, Martin I. Facile fabrication of egg white macroporous sponges for tissue regeneration. Adv Healthc Mater. 2015 Oct 28;4(15):2281-90
5. Nilforoushzadeh M.A, Rahimi Jameh E, Jaffary F, Abolhasani E, Keshtmand G, Zarkob H, **Mohammadi P (co-correspond author)**, Aghdami N. Hair Follicle Generation by Injecting Adult Human Follicular Epithelial and Dermal Papilla Cells in C57BL/6 nude mice. Cell J. 2017 Summer;19(2): Serial Number: 74
6. **Mohammadi P**, Kass Youssef K, Aghdami N. Human Hair Reconstruction: clos but yet so far. Stem Cells and Development. Stem Cells Dev. 2016 Dec 1;25(23):1767-1779. Epub 2016 Nov 8
7. Shayan Asl N, Nejat F, **Mohammadi P**, Nekoukar A, Hesam S, Ebrahimi M, Jadidi K. Amniotic Membrane Extract Eye Drop (AMEED) promotes human limbal stem cell proliferation and induces Corneal Epithelium healing in Rabbit model (submitted).
8. Orouji Z¹, Bajouri A¹, Ghasemi M¹(first authors), **Mohammadi P (second author)**, Fallah N, Shahbazi A, Rezvani M, Vaezi F, Khalajasadi Z, Alizadeh A, Taghiabadi E, Dashtbozorgi S, Aghdani R, Hosseini E, Baharvand H, Shafieyan S*, Aghdami N*. A Single-arm Open-Label Clinical Trial of Autologous Epidermal Cell Transplantation for Stable Vitiligo: A 30-month Follow-Up. Journal of dermatological science (in press).
9. Bajouri A¹, Orouji Z¹, Taghiabadi E¹ (first authors), Nazari A, Shahbazi A, Fallah N, **Mohammadi P**, Rezvani M, Jouyandeh Z, Ghasemi M, Fanni A, Alizadeh A, Baharvand H, Shafieyan S, Aghdami N. Autologous Fibroblast Transplantation Ameliorates Facial Contour Deformities: Results of a Two-year, Single-Arm, Open-label Clinical Trial (submitted).
10. Shahbazi A¹, **Mohammadi P**, Bajouri A, Shafieyan S, Aghdami N. Tumorigenicity assessment of human cultured melanocytes in-vitro and in-vivo (submitted).

Conferences and meeting:

a) Oral presentation:

- ✚ **Therapeutic potential of copper nanoparticle in full thickness wound healing (invited speaker).** The 2nd international congress & 4th national congress of wound and tissue repair. Tehran, Iran, 25-27th Oct, 2017.
- ✚ **Cell based approach to treat hair loss.** National symposium of skin, regeneration, stem cell and regenerative medicine. Tehran, Iran, 6 Oct, 2016.
- ✚ **microRNA profiling of human epithelial hair cells.** Royan Scientific contest. Tehran, Iran, 14 January 2016.
- ✚ **Stem cells role in burn.** International Congress of Burns. Tehran, Iran, 4 June 2012.
- ✚ **Autologous transplantation of cultured keratinocytes and fibroblasts with fibrin glue biological transporter for hypertrophic scar and full thickness burn patient.** International Congress of Burns. Tehran, Iran, 26 May 2011.
- ✚ **Evaluation of heat shock protein expression during limbal stem cell differentiation.** Iranian Research Association for vision & ophthalmology (IRAVO). Tehran, Iran, 7 Oct, 2010.

b) Poster presentation:

- ✚ **Human hair cell transplantation in nude mice.** Royan Scientific contest. Tehran, Iran, 1 Jan 2015.
- ✚ **Scientific micrograph.** First international microscopic image contest. Amirkabir University of Technology, Tehran, Iran. May 2015.
- ✚ **Hair induction by transplantation of human follicular stem cells (bulge cells), dermal papilla cells or their combination in Nude mice.** The 10th ISSCR Annual meeting, Yokohama, Japan, 13-16 Jun 2012.
- ✚ **Evaluation of heat shock protein 90 and heat shock constitutive protein70 expression in cultured limbal stem cells on AM membrane during air exposure.** The 10th Congress on Reproductive Biomedicine & 5rd Congress on Stem Cell Biology & Technology, Tehran – Iran, 23-25 Sep 2009.
- ✚ **Evaluation of heat shock protein 72(hsp72), hsp90 and heat shock constitutive 70 expression in limbal stem cells derived corneal epithelial like cells during air lifting.** The first Iranian Ophthalmic & Vision Research Annual Meeting, Tehran, Iran, 30 Sep 2010.

Interests:

- ✚ Skin stem cells and related diseases
- ✚ Cancer
- ✚ Cellular and molecular mechanisms of hair and skin diseases
- ✚ Tissue homeostasis and tissue repair
- ✚ Stem cells and transplantation (Clinical Trials and Animal Models)

Research Experiences:

Title	Director/Colleague	Date
✚ MicroRNA profiling of inflammation, proliferation and remodelling phases of wound healing within hypertrophic scar formation resulted in severe burn injuries	Director	2017-now
✚ The effect of adipose derived mesenchymal stem cell spray on scar quality of meshed skin graft	Director	2017-now
✚ Comparison of skin transcriptome in responder and non-responder patients of cell transplantation with focal and generalized vitiligo	Colleague	2016-now
✚ In vitro constitution of bioengineered follicle germ and transplantation in patients with androgenetic alopecia phase I clinical trial	Director	2016-now
✚ Improvement of trichogenic ability of cultured human dermal papilla cells using exosomes	Colleague	2016-now
✚ In Vivo Evaluation of Complex Biogenic Silver Nanoparticle and Enoxaparin in Wound Healing	Colleague	2015-2017
✚ Effects of copper nanoparticle on skin wound healing in C57BL/6 mice	Colleague	2015-now
✚ Study of safety and efficacy of ADSC's transplantation for skin lesions in patients with psoriasis	Colleague	2014-now
✚ Evaluation of the attachment and proliferation of fibroblasts fibrin based scaffolds for skin tissue engineering applications	Colleague	2011-2013
✚ Investigation of effect of ADSC-CM on synthesis and degradation of HA in HDF	Colleague	2011-2013
✚ Hair induction by Injecting Human Follicular Epithelial and Dermal Papilla Cells on Hair Growth of nude mice	Colleague	2011-2013
✚ Differential miRNAome expression analysis of balding and non-balding human follicular stem cells in male pattern baldness patients	PhD Thesis	2011-2016

✚ Autologous transplantation of cultured keratinocytes and fibroblasts with fibrin glue biological transporter for hypertrophic scar and full thickness burn patient	Colleague	2011-2013
✚ Preparation of Fibrin glue component for clinical application	Colleague	2011-2013
✚ Melanocyte transplantation in Vitiligo: phase II&III clinical trial	Colleague	2009-2013
✚ Autologous transplantation of cultured fibroblast for facial contour deformities	Colleague	2009-2013
✚ Tumorigenicity assessment of human cultured melanocytes in-vitro and in-vivo	Colleague	2009-2016
✚ Evaluation of heat shock protein expression in cultured limbal stem cells pre-and post air exposure	MSc Thesis	2007-2009

Teaching Experiences:

Course	Location	Level	Date	No. Presentation
Skin and hair stem cells	Royan institute	P.hD of Developmental Biology	2017	(4 hours)
Human embryology	University of Science and Culture	MSc of Decelopmental Biology	2017	32 hours a term
Scientific documentation	Royan institute	MSc of Cellular and Molecular Biology	2016	(2 hours)
Cellular and Molecular Biology	Royan institute	MSc of Decelopmental Biology	2016	(32 hours a term)
Skin and hair stem cells	Royan institute	MSc of Cellular and Molecular Biology	2014	(18 hours a term)
Cellular and Molecular Biology	University of Science and Culture	MSc of Cellular and Molecular Biology	2013	(16 hours a term)

Trainings:

Title	Date
✚ Microbiological monitoring of clean rooms according to PIC/S regulation	22 Jan 2018
✚ GLP in preclinical development of gene and cell therapy	8 Jan 2018
✚ Gene editing by using CRISPER/cas9 technology	10-July 2017
✚ Common Technical Document (Theoretical and practical workshop). Royan institute.	21 Jan 2015
✚ Bioinformatics and NGS data analysis. (Theoretical workshop). Royan Institute	8 Oct 2015
✚ The practical roles of R&D in pharmaceutical based GMP aspects (Theoretical and practical workshop). WHO guidelines for GMP in biological facilities.	10-11 Mar 2014
✚ Scientific writing (Theoretical and practical workshop).	20-21 June 2014
✚ Editing of Persian literature (40 hours theoretical and practical workshop).	19Apr-21 July 2014
✚ Good Clinical Practice (Theoretical and practical workshop). Cell Tech Pharmed Company and Neometrix Consulting Inc.	31 Aug-2 Sep 2014
✚ Interenship: WELBIO, Université Libre de Bruxelles (ULB). Interdisciplinary Research Institute (IRIBHM), Brussels, Belgium, Cedric Blanpain lab	4 Jul-10 Dec 2013
✚ Scientific Writing (68 hours theoretical and practical workshop)	23 Sep-20 Jan 2010

Referees:

✚ **Hossein Baharvand, Ph.D**

Professor of Stem Cell and Developmental Biology,
Director of Royan Institute for Stem Cell Biology and Technology,
Email: Baharvand@Royaninstitute.org

✚ **Nasser Aghdami, MD-Ph.D**

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Royan Institute for Stem Cell Biology and Technology,
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