Curriculum Vitae

❖ Personal Profile

Surname: Hajizadeh-Saffar

First name: Ensiyeh

Nationality: Iranian

Status of marriage: Married

Date of Birth: 22.06.1983

Current positions:

- Assistant professor, Department of Regenerative medicine at Royan Institute
- Director of Royan ATMP (Advanced therapy medicinal product) technology development center
- Head of "Applied Cell Science" PhD program
- Director of Human Islet Processing Facility (HIPF) at Royan Institute

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❖ Education

Degree	Major	University	Date
Guest student	Diabetes cell therapy	UCSF (University of California Sanfransisco), USA	2015
Ph.D. candidate	Medical Biotechnology	Pasteur Institute of Iran	2009-2015
Guest student	Research training	Vrije University of Brusseles, Belgium	2011-2012
M.D.	Medical Doctor	Mashhad University of Medical Science	2000-2008

❖ Membership

- IPITA (*International Pancreas and Islet Transplant Association*), USA
- Scientific advisory board of Royan Stem Cell Technology company (RSCT)
- Talent students of Ministry of Health and medical education
- Iranian biotechnology society
- Medical Council of Islamic Republic of Iran
- Bright student's association of Mashhad university of medical science
- Beta-cell research group of Royan Institute

❖ Projects

No.	Title	Start date	Responsibility	Location
1	Evaluation of Therapeutic Effects Of Primary BM MSC Clonal BM MSC and WJ MSC Transplantation in Rheumatoid Arthritis Animal Model	2018	Advisor	Royan Institute
2	Banking of allogeneic bone marrow derived clonal mesenchymal stromal cells	2018	Advisor	Royan Institute
3	Evaluation of Extracellular Vesicles derived from pre treated Clonal BM MSCs on β cell regeneration and immunomodulation in Type 1 Diabetes Murine model	2018	PI	Royan Institute
4	Evaluation of Therapeutic Effects Of Primary BM MSC Clonal BM MSC and WJ MSC Transplantation in Disc Degeneration	2018	PI	Royan Institute

5	Manipulation of Alginate chemical Structure for Modulating of Foreign body reaction	2017	PI	Royan Institute
6	Transplantation of islet containing microcapsules modified sulfated alginate in diabetic mice to mitigate the fibrosis for long term glycemic control	2017	PI	Royan Institute
7	Bcell regeneration and immunomodulation through injection of human Bone marrow mesenchymal stem cell derived Extracellular Vesicles in type I Diabetes non human primate	2017	PI	Royan Institute
8	To study cis tauosis Contribution in diabetic neurodegeneration employing mice models	2017	Advisor	Royan Institute
9	Glucose Responsive Mesosilica Coated Microneedle for Controlled Insulin Release	2016	Advisor	Royan Institute
10	Ex vivo generation and expansion of T regulatory cells through induction and or signaling modification for cell based immunotherapy	2016	PI	Royan Institute
11	Optimization of pancreatic islet cell reaggregation and culture system to evaluate potential beta cell proliferation triggers	2016	Advisor	Royan Institute
12	In-vitro Expansion of Human Islet-derived Beta Cells through Targeting Cell Cycle Regulators	2016	Advisor	Royan Institute
13	Phase I/II Clinical Trial to Examine the Safety of Transplantation of mesenchymal Stem Cells in New-onset Type 1 Diabetes Patients	2015	PI	Royan Institute
14	Transplantation of allogeneic adipose tissue derived Mesenchymal Stem Cells combined with GLP1 Agonist in diabetic non-human primate	2015	Advisor	Royan Institute
15	Production of Insulin Producing Cells from Human Pluripotent Stem Cells in Static Suspension Culture Condition	2015	Advisor	Royan Institute
16	Screening of herbal extracts in beta cell regeneration using transgene insGFP.NTR zebrafish model	2014	Advisor	Royan Institute
17	Evaluation of Therapeutic Potential of Exosomes Secreted by Hypoxia Preconditioned Human Cardiosphere-Derived Cells (CDCs(	2014	Advisor	Royan Institute
18	Design of Royan Institute GMP facility for clinical cell and gene therapy	2014	Main colleague	Royan Institute
19	Human Pancreatic Islet Transplantation; A Phase I Clinical Trial	2012	Main colleague	Royan Institute

20	Set up of pancreatic islet isolation from laboratory animals	2012-2013	Main colleague	Royan Institute
21	Co-transplantation of Pancreatic Islets and VEGF-expressing Mesenchymal Stem Cells through Hydrogel in Diabetic Nude Mice	2011-2014	PhD thesis	Royan Institute
22	Folliculogenesis and Angiogenesis in autotransplanted vitrified-warmmed rat ovarian tissue encapsulated with fibrin-based scaffold and endothelial like cell of Adipose-Derived Stem Cells	2014	colleague	Tarbiat-Modarres university
23	Generation of pancreatic islet-like structure from human pluripotent stem cell-derived pancreatic progenitors	2013	colleague	Royan Institute
24	Pancreatic islet micro-encapsulation through sulphated alginate for transplantation to diabetic mice	2013	colleague	Royan Institute
25	Production of human chimeric CD20 antibody and ex-vivo assay	2010-2013	colleague	Pasteur Institute
26	A survey of annual effective and genetically significant dose from conventional X-ray examinations in 10 counties in Khorasan province-Iran	2008-2009	MD thesis	Mashhad University of Medical Science

❖ Awards and honors

- Awarded as “Young investigator” in IPITA/JDRF/HSCI meeting, Boston, USA, 2016
- Awarded as “Best researcher” in research festival of Pasteur Institute of Iran, 2015
- Awarded as “Best Idea” in 3rd seminar of development of stem cell research and application, 2013

- Acceptance as “Brilliant talent students” of Ministry of Health and medical education, 2010
- Ranking of second in the PhD entrance exam, 2009
- Awarded as “Student of Example” in Mashhad University of Medical Sciences, 2008
- Awarded in 13th youth festival of Kharazmi, 1999

❖ Publications

- Seyed-Mohammad Reza Hashemian, Rasoul Aliannejad, Morteza Zarrabi, Masoud Soleimani,Massoud Vosough, Seyedeh-Esmat Hosseini6, Hamed Hossieni, Saeid Heidari Keshel, Zeinab Naderpour,**Ensiyeh Hajizadeh-Saffar**, Elham Shajareh, Hamidreza Jamaati, Mina Soufi-Zomorrod, Naghmeh Khavandgar, Hediyeh Alemi, Aliasghar Karimi, Neda Pak, Negin Hossieni Rouzbahani,Masoumeh Nouri, Majid Sorouri, Ladan Kashani, Hoda Madani, Nasser Aghdami, Mohammad Vasei.Hossein Baharvand. Mesenchymal stem cells derived from perinatal tissues for treatment of critically ill COVID-19-induced ARDS patients: a case series. Stem Cell Research & Therapy, https://doi.org/10.1186/s13287-021-02165-4.2021
- Roghayeh Navabi , Babak Negahdari , **Ensiyeh Hajizadeh-Saffar** , Mostafa Hajinasrollah , Yaser Jenab , Shahram Rabbani , Mohamad Pakzad , Seyedeh-Nafiseh Hassani , Maryam Hezavehei , Mohammad Jafari-Atrabi , Yaser Tahamtani , Hossein Baharvand, Combined therapy of mesenchymal stem cells with a GLP-1 receptor agonist, liraglutide, on an inflammatory-mediated diabetic non-human primate model. Life Sciences 276 (2021) 119374

- **Hajizadeh-Saffar E**., Tahamtani Y., Aghdami N., Azadmanesh K., Habibi-Anbouhi M., Heremans Y., De Leu N., Heimberg H., Ravassard P., Shokrgozar M.A., Baharvand H., Inducible VEGF Expression by Human Embryonic Stem Cell-Derived Mesenchymal Stromal Cells Reduces the Minimal Islet Mass Required to Reverse Diabetes. Scientific Reports, (2015) 5, 9322; (Nature Publishing Group)

- Mohsen Khosravi-Maharlooei, **Ensiyeh Hajizadeh-Saffar (co-first author),** Yaser Tahamtani, Mohsen Basiri, Leila Montazeri, Keynoosh Khalooghi, Mohammad Kazemi Ashtiani, Ali Farrokhi, Nasser Aghdami, Mohammad-Bagher Larijani, Nico De Leu, Harry Heimberg, Xunrong Luo, Hossein Baharvand, Islet Transplantation for Type 1 Diabetes: So Close and Yet So Far away, published by "European Journal of Endocrinology ", (2015) 173 , 165–183, (This paper has been selected to feature in the journal's educational resource Journal Based Learning (JBL)

- Roya Ramezankhani, Shukoofeh Torabi, Neda Minaei, Hoda Madani,Siamak Rezaeiani, Seyedeh Nafiseh Hassani, Adrian P. Gee, Massimo Dominici, Daniela Nascimento Silva, Hossein Baharvand and **Ensiyeh Hajizadeh-Saffar (Correspondence)**, Two Decades of Global Progress in Authorized Advanced Therapy Medicinal Products: An Emerging revoloution in therapeutic strategies, Front. Cell Dev. Biol. Nov 2020. doi: 10.3389/fcell.2020.547653

- M.H. Haddadi, B. Negahdari, **E. Hajizadeh-Saffar (Co-correspondence),** M. Khosravi-Maharlooei, M. Basiri, H. Dabiri, H. Baharvand, Directed differentiation of regulatory T cells from naive T cells and prevention of their inflammation-mediated instability using small molecules, Clinical & Experimental Immunology, 2020.

- Fattah Sotoodehnejadnematalahi, Reza Moghadasali,Mostafa Hajinasrollah, Ehsan Ehsani, **Ensiyeh HajizadehSaffar**, Niloofar Sodeifi, Reza F. Saidi, Morteza Zarrabi,MohammadFarzanehkhah, Bahareh Sadeghi, HosseinBaharvand,Nasser Aghdami, Immunomodulatory activity of human mesenchymal stem cells prolongs skin graft survival in nonhuman primates, Cell Journal, 2021, DOI: 10.22074/cellj.2021.6895

- Saghar Pahlavanneshan, Mehrdad Behmanesh, Yaser Tahamtani, **Ensiyeh Hajizadeh-Saffar,** Mohsen Basiri,Hossein Baharvand, Induction of ß Cell Replication by Small Molecule Mediated Menin Inhibition and Combined PKC activation and TGF ß

Inhibition as Revealed by a Refined Primary Culture Screening, Cell journal, 2022, DOI: 10.22074/cellj.2022.7437

- Leila Afshar, Hamid-Reza Aghayan, Jila Sadighi, Babak Arjmand, Seyed-Mahmoud Hashemi, Mohsen Basiri, Reza Omani Samani, Mohammad Kazemi Ashtiani, Seyed-Ali Azin, **Ensiyeh Hajizadeh-Saffar**, Ehsan Shamsi Gooshki, Amir-Ali Hamidieh, Mohammad-Reza Rezania Moallem, Seyed-Mohammad Azin,Sadegh Shariatinasab, Mehdi Soleymani-Goloujeh and Hossein Baharvand, Ethics of research on stem cells and regenerative medicine: ethical guidelines in the Islamic Republic of Iran, Stem Cell Research & Therapy 396 (2020)

- Samira Gholami, Ibrahim Zarkesh, Mohammad-Hossein Ghanian, **Ensiyeh Hajizadeh-Saffar**, Fateme Hassan-Aghaei, Mohammad-Masoud Mohebi, Hossein Baharvand, Dynamically Capped Hierarchically Porous Microneedles Enable Post-Fabrication Loading and Self-Regulated Transdermal Delivery of Insulin, Chemical Engineering Journal, 2020

- Faezeh Shekari, Abdoreza Nazari, Sara Assar Kashani, **Ensiyeh Hajizadeh-Saffar,** Rebecca Lim, Hossein Baharvand, Preclinical investigation of mesenchymal stromal cell-derived extracellular vesicles: A systematic review, Cytotherapy, 2020

- Masumeh Kardoost, Ensiyeh Hajizadeh-Saffar **(Co-correspondence)**, Mohammad Taghi Ghorbanian, Zahra Ghezelayagh, Kamran Pooshang Bagheri, Mahdi Behdani, Mahdi Habibi-Anbouhi, Genotoxicity assessment of antiepileptic drugs (AEDs) in human embryonic stem cells, Epilepsy Research, 2019 Oct. doi: 106232

- Zhila Izadi, **Ensiyeh Hajizadeh-Saffar (Co-correspondence)**, Jamshid Hadjati, Mahdi Habibi-Anbouhi, Mohammad Hossein Ghanian, Hamid Sadeghi-Abandansari, Mohammad Kazemi Ashtiani, Zakieh Samsonchi, Mohammad Raoufi, Maedeh Moazenchi, Mahmoud Izadi, Anava sadat Sadr Hashemi Nejad, Haideh Namdari, Yaser

Tahamtani, Seyed Nasser Ostad, Hamid Akbari-Javar, Hossein Baharvand, Biomaterials. 2018 Nov;182:191-201. doi: 10.1016

- Samira Gholami, Mohammad-MasoudMohebi, **EnsiyehHajizadeh-Saffar**, Mohammad-HosseinGhanian, IbrahimZarkesh, HosseinBaharvand, Fabrication of microporous inorganic microneedles by centrifugal casting method for transdermal extraction and delivery, IJP (2019), 299-310

- Mohammad-Hossein Haddadi, Ensiyeh Hajizadeh-Saffar**(Co-correspondence)**, Mohsen Khosravi-Maharlooei, Mohsen Basiri, Babak Negahdari, Hossein Baharvand, Autoimmunity as a target for chimeric immune receptor therapy: A new vision to therapeutic potential, Blood Reviews, (2019)

- Mohammad Azimi Alamouti, Niloufar Shayan, Maryam Momeni, Masoumeh Nouri, Azam Koohkan, **Ensiyeh Hajizadeh-Saffar**, Fatemeh Soltanolizadeh, Maliheh Mahmoudi, Mahin Jamshidi Makiani, Marzieh Ebrahimi, Ivestigation on the safety of amniotic membrane extracts in improving diabetic foot ulcers (phase 1 clinical trial study), Iranian journal of diabetes and methabolism, (2019) 18(3): 126-134

- Helia Namazi, Parisa Ghiasi, Iman Namazi, Hassan Ansari, Sarah Rajabi, **Ensiyeh Hajizadeh-Saffar**, Nasser Aghdami, Elham Mohit, Exosomes Secreted by Normoxic and Hypoxic Cardiosphere-derived Cells Have Anti-apoptotic Effect, IJPR (2018), 17 (1): 377-385.

- Helia Namazi, Elham Mohit, Iman Namazi, Sarah Rajabi, Azam Samadian, **Ensiyeh Hajizadeh-Saffar**, Nasser Aghdami and Hossein Baharvand, Exosomes secreted by hypoxic cardiosphere-derived cells enhance tube formation and increase pro-angiogenic miRNA, Journal of Cellular Biochemistry, 2018;119 (5): 4150-4160

- Bahar Saberzadeh-Ardestani, Razieh Karamzadeh, Mohsen Basiri, **Ensiyeh Hajizadeh-Saffar** ,Aisan Farhadi,A.M. James Shapiro, Yaser Tahamtani, Hossein Baharvand, Type 1 Diabetes Mellitus: Cellular and Molecular Pathophysiology at a Glance , Cell J (Yakhteh), 2018, 3, 79

- Anahita Soltanian, Zahra Ghezelayagh, Zahra Mazidi, Majid Halvaei, Soura Mardpour, Mohammad Kazemi Ashtiani, **Ensiyeh Hajizadeh-Saffar**, Yaser Tahamtani, Hossein Baharvand, Generation of functional human pancreatic organoids by transplants of embryonic stem cell derivatives in a 3D-printed tissue trapper, Journal of Cellular Physiology, 2018, doi: 10.1002/jcp.27644

- Montazeri L, Hojjati-Emami S, Bonakdar S, Tahamtani Y, **Hajizadeh-Saffar E,** Noori-Keshtkar M, Najar-Asl M, Ashtiani MK, Baharvand H., Improvement of islet engrafts by enhanced angiogenesis and microparticle-mediated oxygenation, Biomaterials. (2016);89:157-65
- M. Habibi-Anbouhi, K. Azadmanesh, M. Behdani, **E. Hajizadeh-Saffar**, R. Vahabpour, M.A. Shokrgozar, Development and characterization of a new anti-peptide monoclonal antibody directed to human CD20 antigen, published by "Cancer Biotherapy and Radiopharmaceuticals", 2015; 7, 310-316

- M. Hajizadeh Saffar*, S. Nekoee, **E. Hajizadeh Saffar**, A survey of annual effective and genetically significant dose from conventional X-ray examinations in 10 counties in Khorasan province-Iran, Iran. J. Radiat. Res., 2007; 5 (3): 113-118
- **E. Hajizadeh-Saffar**, Human cloning, future of medicine, Journal of Mashhad University of Medical Sciences, 2002; 2, 45-53

- بررسی ایمنی عصاره پرده آمنیون در بهبود زخم پای دیابتی، مطالعه کارازمایی بالینی فاز یک ، محمد عظیمی، نیلوفر شایان اصل، مریم مومنی، معصومه نوری، اعظم کوهکن، انسیه حاجی زاده، فاطمه

سلطانعلیزاده، سیده ملیحه محمودی، مهین جمشیدی ماکیانی، مرضیه ابراهیمی، مجله دیابت و متابولیسم ایران، بهمن-اسفند۹۷، دوره ۱۸، شماره

- پیوند جزایر لانگرهانس؛ روش کم تهاجمی انتخابی برای درمان دیابت نوع یک، دکتر انسیه حاجی زاده، دکتر یاسر تهمتنی، دکتر حسین بهاروند، مجله عرصه پزشکی، شماره ۱۸
- ترجمه کتاب "پپتیدها و پروتیینهای درمانی، فرمولاسیون فراوری و سیستمهای دارورسانی" تالیف آجای بنگا، ترجمه دکتر مهدی حبیبی، دکتر انسیه حاجی زاده، دکتر رضا آهنگری، انتشارات حیان، شابک ۹۷۸-۹۶۴-۴۶۰-۹۲۸-۲
- ترجمه کتاب "دیابت" تالیف دکتر آلن ال روبین، ترجمه دکتر انسیه حاجی زاده صفار، انتشارات آوند دانش، شابک ۹۷۸-۶۲۲-۲۶۲-۰۰۹۷

❖ Abstract presentations

- Advanced therapy medicinal products (ATMP) in skin disorders, **WTRC 2020,** oral presentation.
- Cell therapy approaches for treatment of type 1 diabets, **2nd International Stem Cells and Regenerative Medicine Congress** – 2017. oral presentation.
- Iran s Experience and regenerative Medicine, **3rd national festival and international congress on stem cell & regenerative medicine**.2018. oral presentation.
- preclinical toxicity study of clinical grade allogeneic human bone marrow-derived clonal mesenchymal stromal cells,**Royan International Twin Congress.2020**. poster presentation.
- Bone marrow-derived clonal mesenchymal stromal cells with smaller size have higher proliferation capacity, **Royan International Twin Congress.2020**. poster presentation.
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- Human bone marrow mesenchymal stem cells derived extracellular vesicles in vitro characterization and cytotoxicity on rat islet cells, **ISEV 2018, Spain**, poster presentation.
- A systematic review and meta-analysis of parameters affecting the therapeutic potential of mesenchymal stem cell derived extracellular vesicles in preclinical studies, **ISEV 2018, Spain**, poster presentation.

- Conditional cell-based and slow-release hydrogel delivery of VEGF to enhance transplanted islet revascularization in diabetic Nude mice, **Keystone symposium on Emerging concepts and targets in islet biology, Colorado, USA, 2014**, poster presentation.
- Co-transplantation of mouse pancreatic islets with human embryonic stem cell derived mesenchymal stem cells, **12th International congress on immunology and allergy, Tehran, Iran, 2014**, oral presentation.
- VEGF-Expressing Human Embryonic Stem Cell Derived Mesenchymal Stromal Cells to Ameliorate Alloxan Induced Diabetes in Nude Mice, **10th International congress on stem cell biology and technology, Tehran, Iran, 2014**, oral presentation.
- Mesenchymal Stem Cell therapy for Type 1 Diabetes Mellitus**, 2nd congress on stem cells and regenerative medicine, Mashhad, Iran, 2016**, poster presentation.
- Clinical Islet Transplantation for Type 1 Diabetes Mellitus, **2nd congress on stem cells and regenerative medicine, Mashhad, Iran, 2016**, poster presentation.
- Minimally invasive method of choice for treatment of type I diabetes, **Minimally invasive surgery international congress (MISTIC), Tehran, Iran, 2014**, poster presentation.
- Co-transplantation of VEGF-expressing human embryonic stem cell derived mesenchymal stem cells to enhance islet revascularization, **2nd Annual Congress Stem Cells Research and Application, Mashhad, Iran, 2014,** poster presentation.

❖ Patents

- US Patent, Immunoprotection of pancreatic islets, Pub. No.: US 2019/0338271 A1, Pub. Date: Nov 7,2019
- Protocol of mouse pancreatic islet isolation with high yield and purity, Iran patents number: 84735
- production of human Embryonic Stem Cell derived Mesenchymal Stem Cell with inducible overexpression of vascular endothelial growth factor, Iran patents number: 87330

❖ Workshops attendance and teaching

- Attendance in “Islet isolation training course” in university of California-San Francisco (UCSF), USA, 2015
- Attendance in “workshop of investments in stem cell and iPS research” held in Keystone, USA, 2014
- Attendance in “workshop of drug targets in clinical trials” held in Keystone, USA, 2014
- Attendance in “workshop of human islet procurement and distribution” held in Colorado, USA, 2014
- Attendance in “workshop of Good Clinical Practice (GCP)” held by Neometrix Consulting Inc, 2014
- Executive director and teacher of “ workshop of cell transplantation and pancreas surgery in laboratory mice” held in Royan Institute, 2013
- Teacher of “ workshop of kidney capsule transplantation” in the 4rd Royan International summer school, 2013
- Teacher of five series of “ workshop of cell therapy and regenerative medicine” held in Royan Institute, 2013 & 2014
- Attendance in “ workshop of statistical analysis in medical research” held in Royan Institute, 2013
- Attendance in “ workshop of design of clinical trials” held in Royan Institute, 2013
- Attendance in “workshop of Beta cell therapy in diabetes” held in VUB, Brusseles, Belgium, 2012
- Attendance in “workshop of mice micro-surgery” held in VUB, Brusseles, Belgium, 2011
- Attendance in “ workshop of genetic engineering and molecular cloning” held in Royan Institute, 2011
- Attendance in “ workshop of managing of reference writing, Endnote” held in Pasteur institute,2011
- Attendance in “workshop of scientific information management” held in Mashhad University of Medical Science, 2011

❖ Editorial board

- Cell journal (from 2013)
- Iranian Biomedical Journal (from 2015)
- Iranian journal of pharmaceutical research (from 2015)