➢ *Personal Information:*

Surname: **Esfandiari**
First name: **Fereshteh**
Gender: **Female**
Marital Status: **Married**
Nationality: **Iranian**
Date of birth: **02.08.1986**

Address: Royan Institute for Stem Cell Biology and Technology, Banihashem Sq. Banihashem St., P.O. Box: 19395-4644, Tehran, IRAN.
TEL: 0098 21 23562525
FAX: 0098 21 23562507
E-MAIL: esfandiari65f@royaninstitute.org
Website: www.RoyanInstitute.org

➢ Employment:

Assistant Professor, Department of Stem Cells and Developmental Biology, Royan Institute for Stem Cell Biology and Technology

➢ *Educational background:*

Degree	Major	University	Date	Average
B.Sc	Biology	Shiraz Uni. , Shiraz, Iran	2004-8	18.20 from 20
M.Sc	Cell and Developmental Biology	Royan Institiute joint with university of scinece and culture, Tehran, Iran	2008-11	18.32 from 20
Ph.D	Cell and Developmental Biology	Royan Institute joint with university of scinece and culture, Tehran, Iran	2011-16	19.53 from 20

➢ *Interests:*

1) Reproductive biology and germ line development
2) Assisted reproductive biology (ART)
3) In vitro germ line development from stem cells
4) Tissue engineering approach for improving germ cell research

➢ Teaching experiences:

5) Royan 4th international summer school on developmental biology and stem cells, June 2013 (Title: germ cell development and germ line stem cells)
6) Royan 6th international summer school on developmental biology and stem cells, June 2015 (Title: Germ cells)
7) Embryology, for Master students, Royan Institute 2016
8) Germ line stem cells for PhD students, Royan Institute 2016
9) Developmental biology for PhD students, Royan Institute 2016

➢ Advising experiences

Thesis title	Location (University)	Level
Differentiation of human Wharton's jelly-derived mesenchymal stem cells to female germ cells by human follicular fluid an cumulus cells conditioned media	Royan Institute and Azad University, Science and Research Branch, Tehran	Master
Differentiation of human amniotic fluid stem cells to female germ cells by human follicular fluid an cumulus cells conditioned media	Royan Institute and university of science and culture, Tehran	Master
Making artificial gonad by simultaneously seeding the oogonial and peritoneal stem cells in decellularized ovary	Royan Institute and university of science and culture, Tehran (ongoing project)	PhD
Generation of human endometrial organoid as a model for in vitro study of endometrium and evaluation its effects on embryo development and Asherman syndrome	Shahid Beheshti University and Royan Institute	PhD
Probing the Effect of Clonal MSC-Extracellular Vesicles, Releasing Approach and Rout of Injection in a Murine Model of Asherman Syndrome	Shahid Beheshti University and Royan Institute	PhD
Investigating the Effect of Clonal MSC-Extracellular Vesicles, Releasing Pattern and Route of Injection In Premature Ovarian Failure Mouse Model	Royan Institute and university of science and culture, Tehran	PhD

➢ Supervisor experiences

Thesis title	Location (University)	Level

Investigation of ZnO nanoparticles in self-renewal and differentiation of mouse spermatogonial stem cells	Royan Institute and university of science and culture, Tehran (ongoing project)	Master
Investigation of ZnO nanoparticles in chromosomal integrity of mouse spermatogonial stem cells	Royan Institute and university of science and culture, Tehran (ongoing project)	Master
In vitro differentiation of spermatogonial stem cells on sperm-printed sybstrate	Royan Institute and university of science and culture, Tehran (ongoing project)	Master

Carob effect on mouse spermatogonial stem cells	Royan Institute and university of science and culture, Tehran (ongoing project)	Master
Generation of BMP4-containing microparticles in microfluidic system for germ cell differentiation from embryonic stem cells	Royan Institute and university of science and culture, Tehran (ongoing project)	Master

➢ Awards and Honors:

1) Shared National **Winner of the "Royan 18th International Research Award"** in the field of Stem Cell Biology and Technology for outstanding research entitled "In vitro Generation of Meiosis-Competent Germ Cells From Embryonic Stem Cells By Engineering the Delivery of BMP4".
2) **Honored as first ranked** student for PhD degree
3) Accepted to the 4th edition of the **advances in stem cell biology course**, PASTEUR, Paris, France (Jun 2016)
4) Travel grant winning for 4th edition of the **advances in stem cell biology course,** France (Jun 2016)
5) Honored for the **first ranked research project** in medical sciences by ACECR in 1395, Azar
6) Award winning for best presentation at "**best ideas in stem cells and regenerative medicine conference 2015**" by Iranian Council of Stem Cell Research and Technology
7) Research **grant winning** for my PhD proposal from Iranian Council of Stem Cell Research and Technology among more than 150 submitted proposals, 2014
8) Honor as **the best researcher** in 2015 in Royan Institute
9) The **first one in the PhD entrance exam** and **winner of Dr.Kazemi scholarship** (2011)
10) **Best poster presentation** of Shiraz University stem cell congress 2008

11) **Honor as a gifted student**, office of gifted Students, Shiraz University, 2003-2008

➢ Executive Activities:

- **Germ Cells group leader** in Royan institute since October 2012
- **Supervisor** for stem cells panel in 3th international congress on reproduction, Tehran, Iran

➢ Keynote/invited Speaker in national and international meetings and congresses:

No	TITLE	LOCATION	DATE
1.	In vitro generation of meiosis-competent germ cells from embryonic stem cells by engineering the delivery of BMP4	13th International Congress on Stem Cell Biology & Technology	Sep, 2017
1.	Stem cells in reproductive medicine	Third international reproductive biology congress, Tehran, Iran	May, 2017
2.	Tissue engineering approach in germ cell research	Tissue engineering and regeneration medicine symposium	May, 2017
3.	Application of germ line stem cells in ART	Biology of germ line stem cells in ART, Isfahan, Iran	March, 2017
4.	Engineering approach in germ cell research	The 2nd international congress on reproduction, Tehran, Iran	18-20 May 2016
5.	Stem cells for infertility treatments	6th Yazd international congress for reproductive medicine, Yazd, Iran	17-19, April 2015
6.	Generation of sperm from stem cells	First sperm biology symposium, Isfahan, Iran	26, November 2015
7.	Differentiation of stem cells to germ cells	First international reproductive biology congress	June 2015
6.	In vitro gamete production	Infertility and sterility congress, Isfahan, Iran	June 2014
8.	Production of germ cells in laboratory	10th International congress of women infertility, Tehran, Iran	September, 2014
9.	Pluripotent Stem Cells: A Promising Approach to Cure the Infertility	14th International congress of women infertility, Tehran, Iran	Septemper, 2013
10.	From stem cells to germ cells	First stem cell congress of Damqan University, Damqan, Iran	October, 2012

➢ Chapter Books in Persian

- **Freshteh Esfandiari**, Seyedeh-Nafiseh Hassani, Hossein Baharvand. **Stem Cells and Reproductive Biology.** In Reproductive Biology. By M.H. Nasr-Esfahani and M Tavallaei, In Press

➢ PUBLISHED papers in peer-reviewed INTERNATIONAL Journals:

1) **Esfandiari F**, Mashinchian O, Ashtiani MK, Ghanian MH, Hayashi K, Saei AA, Mahmoudi M, Baharvand H. Possibilities in Germ Cell Research: An Engineering Insight. Trends in Biotechnology 33 (2015) pp. 735-745
2) **Esfandiari F**, Mohammad Kazemi Ashtiani, Mehdi Sharifi Tabar, Maryam Saber, Hamed Daemi, Abdolhossein Shahverdi, Hossein Baharvand, Microparticle-mediated Delivery of BMP4 for Generation of Meiosis-competent Germ Cells from Embryonic Stem Cells. Macromolecular Bioscience (2017)
3) Sharifi Tabar M, Hesaraki M, **Esfandiari F**, Sahraneshin Samani F, Vakilian H, Baharvand H. Evaluating electroporation and lipofectamine approaches for transient and stable transgene expression in human fibroblast and embryonic stem cells. Cell J. 2015 Fall;17(3):438-50
4) Attari F, Sepehri H, Ansari H, Hassani SN, **Esfandiari F**, Asgari B, Shahverdi A, Baharvand H. Efficient induction of pluripotency in primordial germ cells by dual inhibition of TGF β and ERK signaling pathways. Stem cells and development 2014 May 15; 23 (10):1050-61
5) **Esfandiari F**, Fathi A, Gourabi H, Kiani S, Nemati S, Baharvand H, Glycogen Synthase Kinase-3 Inhibition Promotes Proliferation and Neuronal Differentiation of Human Induced Pluripotent Stem Cell-derived Neural Progenitors. Stem cells and development 2012 Nov 20;21(17):3233-43.

➢ Conferences and Meetings:

TITLE	LOCATION	DATE	NAMAE ODER
Derivation of Mouse Sperm from SpermatogonialStem Cells in Three- dimensional Culture System	CDB Symposium, Paris, France	2014, March	Sharbatoqli M, Eftekhari Yazdi P, Dalman A, Hadi M, Kazemi Ashtiani M, **Esfandiari F**, Shahverdi A, Baharvand H
Inhibition of glycogen synthase 3 enhances proliferation and neural differentiation of human pluripotent stem cells-derived neural progenitor cells	first annual neural stem cell conference Tehran, Iran	2011, Sep	**Fereshteh Esfandiari,** Sahar Kiani,Shiva Nemati, Ali Fathi, Hossein Baharvand, Hamid Gourabi
CHIR99021-a GSK3 Inhibitor- Promotes Proliferation of Human Induced Pluripotent Stem Cell-Derived Neural Progenitors via βcatenin and Notch Signalling and Increase	7th Royan International Twin Congress, Tehran, Iran	2011, Sep	**Esfandiari F**, Fsthi A, Kiani S, Gourabi H, Baharvand H
Wharton's Jelly Mesenchymal Stem Cells Derived from Human Umbilical Cord Could Be Isolated, Cultured and Differentiated Morphologically into The Oocyte Like Cells	12th Royan International Twin Congress, Tehran, Iran	2016, Sep	Zolfaghar M1*, Naji T, Beiki B, Rezazadeh Valojerdi M, Fathi R, **Esfandiari F**, Moini A
Establishment of spermatogonial stem cell line	First international reproductive biology congress, Tehran, Iran	2015, May	Arkian E**, Esfandiari F**, Shahverdi A, Baharvand H
A simple and efficient method for cryopreservation, isolation and long term culture of human spermatogonial stem cells	Second international congress on reproduction, Tehran, Iran	2016, May	Moraveji F, **Esfandiari F,** Shahverdi A, Baharvand H
Isolation, Culturing and Differentiation of Human Amniotic Fluid Stem Cells into The Oocyte Like Cells by Using of Cumulus Condi¬tioned Medium and Follicular Fluid	12th Royan International Twin Congress, Tehran, Iran	2016, Sep	Babaee Faraj Abad S1Fathi R, jerdi M, Ebrahimi B**, Esfandiari F**
Establishment of Chemotherapy Induced Premature Ovarian Failure Model	12th Royan International Twin Congress, Tehran, Iran	2017	Khadijeh Bahrebar, **Fereshteh Esfandiari**, RouhollahFathi, Seyedeh Nafiseh Hassani, MojtabaRezazadeValojerdi, Hossein Baharvand
Simultaneous Inhibition of TGFβ and Erk Pathways Promotes the Development of Mouse Single Blastomeres into Blastocyst	12th Royan International Twin Congress, Tehran, Iran	2017,Sep	Farshid Yekani , Mahnaz Azarnia **Fereshteh Esfandiari**, Seyedeh-Nafiseh Hassani , Hossein Baharvand

Mouse Visceral Peritoneum Mesenchymal Stem Cells Express Germ and Oocyte Cells Markers during In Vitro Induction by Human Follicular Fluid	12th Royan International Twin Congress, Tehran, Iran	2017,Sep	Mirzaeian L, **Esfandiari F**, Rezazadeh Volojerdi M, Fathi R
Ovarian Follicular Recruit Loss after Cyclophosphamide Treatment: Premature Ovarian Failure Modeling in Mice	12th Royan International Twin Congress, Tehran, Iran	2017,Sep	Abedi F, Abtahi NS, Eivazkhani F, Eimani H, Montazeri L, Bahrebar Kh, **Esfandiari F**, Fathi R
Human Warton's Jelly Mesenchymal Stem Cells Possess the Potential to Differentiate into Oocyte-Like Cells after Induction by Follicular Fluid	International Opportunities in Stem Cell Research, ISSCr, Basel, Switzerland	2017, Feb	Zolfaghar Mona, Fathi Rouhollah **Esfandiari Fereshteh**, Beiki Bahareh, Naji Tahere, Moeini Ashraf
Dynamic and static microfluidic system for single embryo culture	NanoBioTech-Montreux, Geneva, Switzerland	2017, Nov	Farshid yekani, Reza kowsari Esfahan, Leila Montazeri, **Fereshteh Esfandiari**, Philippe Renaud b and aharvand
ZnO nanoparticles effect on spermatogonial stem cells	NMNS, 2017, Tehran		Azam Javdi, Maryam Farzaneh, Saadat Mokhtari, Faeze Moraveji, Hamid Gourabi, **Fereshteh Esfandiari*** • **Co-correspond author**

➢ Membership

1) European Society of Human Reproduction and Embryology (ESHRE)
2) Iranian Society of Embryology and Reproductive Biology (ISERB)

➢ *Hobbies:*

1) Swimming
2) Jogging