

## CURRICULUM VITAE (2010)

Given Name: **Fereshteh**

Family Name: **Karamali**

Date of Birth: 21.5.1981

E-mail: [karamali@royaninstitute.org](mailto:karamali@royaninstitute.org) or [frkaramali@yahoo.com](mailto:frkaramali@yahoo.com)



## EMPLOYMENT

Royan Ins. Isfahan campus, Iran.

Research staff of the Stem cell lab (2007-Now)

## EDUCATION

- M.S. developmental biology, Tehran University, Tehran, Iran. 2004-2006. (GPA=18.24 out of 20)
- B.S. Zoology, Tehran University, Tehran, Iran. 1999-2003. (GPA=17.01)

## ACADEMIC BACKGROUND

### **M.Sc. Thesis**

Effects of gamma radiation on different strains of mESCs.

## PROJECTS & RESEARCHES

1. Co culture of Retinal Pigmented Epithelium and retinal progenitor cells for transplantation to rabbit injured retina.
2. Co transplantation of Schwann cells and neural progenitor cells to rat injured spinal cord.
3. Assessment of Ecstasy (MDMA) toxicity towards embryonic stem cell-derived cardiac and neural cells.
4. Agonist and antagonist effects of PPAR gamma on mouse embryonic stem cell and it's neural differentiation.
5. Assessments of Poly-hydroxybutyrate (PHB) scaffold properties for transplantation of neural progenitor cells in rat injured spinal cord.
6. Efficiency of small molecule inhibitors in establishment of bovine embryonic stem cells
7. P19 stable cell line by PTS2-EGFP construct.

8. Assessment of Anti-oxidants: Ebselen and NAC effects on decreasing methamphetamine toxicity in dopaminergic PC-12 cells.
9. Stable posterior neural progenitor cells.
10. The Effects of anti-oxidants on the culture of human embryonic stem cells.
11. Co-culture effects of Human embryonic stem cell with chicken Somite and Notochord.

#### COMPUTER SKILLS

- Word, SPSS, Power point, Excel, ImageJ ...

#### EDUCATIONAL COURSES

- Participating in "The 14<sup>th</sup> international conference of the international society of differentiation" , Innsbruck, Austria (2006)
- Participating in "The world congress on medical physics and biomedical engineering: Imaging the future medicine" ,COEX Seoul, Korea (2006)
- Holding workshop in "stem cell: It's culture and differentiation" Royan Institute, Isfahan Campus, Isfahan, Iran (2009)
- Participating in workshop for "Mammalian Cell Transfection", Department of Embryology, Royan Institute, Isfahan Campus, Isfahan, Iran (2009)

#### PUBLICATION

1. Translation of: "developmental biology", Arthur Scott F. Gilbert, 2007, Khaneye Zist Shenasi publishing company, 2008 (In Persian).
2. Differentiation of Human embryonic stem cell-derived retinal progenitors into retinal cells by Retinal cells By Sonic Hedgehogand/or Retinal Pigmented Epithelium and transplantation into the subretinal space of sodium iodate- injected rabbits (*Stem Cells and Development, 2011*)
3. Co-transplantation of human embryonic stem cell-derived neural progenitors and Schwann cells in rat spinal cord contusion injury model elicits a distinct neurogenesis and functional recovery (*Cell Transplantation, 2011*)
4. A Novel Method to Obtain Highly Enriched Cultures of Adult Rat Schwann Cells. Ali Niapour, **Fereshteh Karamali**, Khadijeh Karbalaie, Abbas Kiani, Mohammad

- Mardani, Mohammad Hossein Nasr-Esfahani, Hossein Baharvand (*Biotechnology Letters*,2010)
5. Toxicity of Ecstasy (MDMA) Towards Embryonic Stem Cell-derived Cardiac and Neural Cells. Rokhsareh Meamar, **Fereshteh Karamali**, Hamid Mirmohamad Sadeghi, Mahmood Etebari, Mohammad Hossein Nasr-Esfahani, Hossein Baharvand (*Toxicology in vitro*, 2010)
  6. Dual Effects of PPAR-gamma on Proliferative State of Mouse Embryonic Stem Cells in Presence and Absence of LIF (under revision: *Stem Cell Research*)
  7. The Influence of Peroxisome Proliferator-activated Receptor-gamma During Differentiation of Mouse Embryonic Stem Cells to Neural Cells. Ali Ghoochani ,Khadijeh Shabani ,Maryam Peymani , Kamran Ghaedi , **Fereshteh Karamali**, Khadijeh Karbalaei, Somayeh Tanhaie, Ahmad Salamian, Abolghasem Esmaeili ,Sadegh Valian-Borujeni ,Mehrdad Hashemi , Mohammad Hossein Nasr-Esfahani , Hossein Baharvand (submitted to *Differentiation*)
  8. Practical approach to the thoracic spinal cord injury in rat (Ready to submit)
  9. Does the tissue engineering architecture of poly (3-hydroxybutyrate) scaffold affect cell-material interactions? (Ready to submit)

## WORK EXPERIENCES

- Staff of the Stem cell lab in Royan Institute, Isfahan Campus.
- In charge of completing set-up for stem cell lab.
- Counselor of PhD student's thesis in the stem cell lab.

## JOB SKILLS

### Primary culture

- Isolation, purification and maintenance of Schwann cell from sciatic nerve
- Isolation of Retinal Pigmented Epithelium Cells from rabbit eye: maintenance and culture

- Culture of mouse embryonic fibroblasts from pregnant mouse
- Establishment of mouse embryonic stem cell from mouse embryo (ICM)
- Isolation of Hippocampus cells from neonatal mouse: maintenance and culture
- Isolation of chicken Somite and Notochord

### **Cells**

- Fully experienced in cell culture (mouse embryonic fibroblast and stem cell, human embryonic stem cell and iPS, neural progenitor cell), cell passage and cell freezing.
- Fully experienced in Immunostaining and Flowcytometry techniques and karyotype preparation.
- Cell infection (liposomes , electroporation and viral), Stable cell line achievement

### **Differentiation**

- Human embryonic stem cell to retinal progenitor cell
- Anterior/ Posterior neural differentiation of human embryonic stem cell
- Cardiac and Neural differentiation of mouse embryonic stem cell

### **Media**

Fully familiar with Investigation within the papers, documents and companies, media preparation, PH and Osmolarity adjustment.