

## Masoumeh Seghatoleslam

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### EDUCATION

#### **Ph.D. in Anatomical Sciences (Histology & Embryology)**

Sep 2006 – Jun 2012

Mashhad University of Medical Sciences (MUMS), Mashhad, Iran

*Advisor: Prof. Mehdi Jalali*

*Co-Advisor: Dr. Mahmoud Hosseini*

*Thesis Title: Therapeutic Potential of Umbilical Cord Blood and Adipose Derived Stem Cells  
in Experimental Model of Hemorrhagic Stroke*

#### **M.Sc. in Anatomical Sciences**

Jan 2000 – Jan 2003

Iran University of Medical Sciences (IUMS), Tehran, Iran

*Advisor: Dr. Tabandeh Shariati*

*Co-Advisor: Prof. Behnam Jamei*

*Thesis Title: The Effects of L-arginine and N-nitro-L- arginine methyl ester on Circular Smooth  
Muscle of Pylor in Rat Embryo*

#### **B.Sc. in Nursing**

Feb 1990 – Mar 1994

Mashhad University of Medical Sciences, Mashhad, Iran

### ACCOMPLISHMENTS

- Achieved the first rank in Ph.D. Program in Anatomical Sciences, Mashhad University of Medical Sciences (MUMS) with G.P.A. 18.93/20
- Achieving the first rank in M.Sc. Program in Anatomical Sciences, Iran University of Medical Sciences (IUMS) with G.P.A. 18.53/20.
- Achieved Academic Score 86.49/100 (students assessment) done by the Office of Vice-Chancellor for Education Affairs of MUMS

### RESEARCH INTERESTS

- Neurodegenerative Disease
- Electrophysiology
- Spinal cord injury (SCI)
- Stroke
- Apoptosis
- Stem cells
- Epilepsy
- Plasticity
- Transplantation
- Behavior Studies

### TECHNICAL SKILLS AND EXPERIENCE

- Immunohistochemistry, Tissue Culture, Stereotactic Surgery, Ischemic & Hemorrhagic Stroke Modeling, Stem Cell Isolation, Flow Cytometry, Electrophysiology Methods (hippocampal

slice/LTP paradigms, in vivo & in vitro electrophysiological recording), Behavioral Procedure (MWM, Corner Turn Test, limb-placement test), Stereology

- Computer skills: Microsoft PowerPoint, Microsoft Excel, SPSS, Photoshop, WinMDI, ImageJ, SigmaPlot, CorelDRAW, Win LTP, AxoScope, EndNote

## PUBLISHED ARTICLES

- **Seghatoleslam M**, Alipour F, Shafieian R, Hassanzadeh Z, Edalatmanesh MA, Sadeghnia HR, Hosseini M. The effects of *Nigella sativa* on neural damage after pentylenetetrazole induced seizures in rats. *Journal of Traditional and Complementary Medicine*, available online 11 Aug 2015, In Press
- Homayoun M, **Seghatoleslam M**, Pourzaki M, Shafieian R, Hosseini M, Ebrahimzadeh Bideskan AR. Anticonvulsant and neuroprotective effects of *Rosa damascena* hydroalcoholic extract on rat hippocampus. *Avicenna Journal of Phytomedicine (AJP)*, *Avicenna J Phytomed*, 2015; 5 (3): 260-270
- **Seghatoleslam M**, Hosseini M. Potential of Stem Cells in the Treatment of Nervous System Disorders. *The Neuroscience Journal of Shefaye Khatam*. 2015; 3(1): 99-114. (In Persian with English abstract)
- Ghaffaripour HA, Jalali M, Nikravesh MR, **Seghatoleslam M**, Sanchooli J. Neural cell reconstruction with umbilical cord blood cells in the brain hypoxia-ischemia, *Iranian Biomedical Journal*, 2015: 19 (1); 29-34
- Vafae F, Hosseini M, Hassanzadeh Z, Edalatmanesh MA, Sadeghnia HR, **Seghatoleslam M**, Mousavi SM, Amani A, Shafe MN. The effects of *Nigella Sativa* hydro-alcoholic extract on memory and brain tissues oxidative damage after repeated seizures in rats, *Iranian Journal of Pharmaceutical Research*, 2015:14 (2); 547-557
- **Seghatoleslam M**, Khaleghi Ghadiri M, Ghaffarian N, Speckmann EJ, Gorji A. Cortical spreading depression modulates the caudate nucleus activity. *Neuroscience*, 2014: 267; 83–90
- Hassanzadeh Z, Edalatmanesh MA, **Seghatoleslam M**, Hosseini M. The effects of *Nigella Sativa* hydro-alcoholic extract on spatial memory impairment induced by seizures in rats, *The Neuroscience Journal of Shefaye Khatam*, 2014: 2(3); 1-8. (In Persian with English abstract)
- **Seghatoleslam M**, Jalali M, Nikravesh MR, Hamidi Alamdari D, Hosseini M, Fazel A. Intravenous administration of human umbilical cord blood- mononuclear cells dose-dependently relieves neurologic deficits in rat intracerebral hemorrhage model. *Ann Anat*. 2013; 195(1):39-49
- **Seghatoleslam M**, Jalali M, Nikravesh MR, Hosseini M, Hamidi Alamdari D. Therapeutic Benefit of Intravenous Administration of Human Umbilical Cord Blood- Mononuclear Cells Following Intracerebral Hemorrhage in Rat. *Iranian Journal of Basic Medical Sciences*, 2012: 15(3); 860-872
- **Seghatoleslam M**, Jalali M, Hamidi Alamdari D, Nikravesh MR, Hosseini M, Koliakos G. Optimal incubating time of in vitro bromodeoxyuridine labeling of human umbilical cord blood-mononuclear cells and their functional assessment in ICH rats. *Journal of Cell and Animal Biology*, 2012: 6(9); 144-153
- Nikravesh MR, Ghaffaripour HA, Jalali M, Hamidi Alamdari D, Sanchooli J, **Seghatoleslam M**. Therapeutic Potential of Cord Blood Stem Cell in Brain Damage of an Animal Model. *J Babol Univ Med Sci*. 2012: 14(4); 22-29 (In Persian with English abstract)
- Nikravesh MR, Jalali M, Ghafaripoor HA, Sanchooli J, Hamidi Alamdari D, Mohammadi S, **Seghatoleslam M**. Therapeutic Potential of Umbilical Cord Blood Stem Cells on Brain Damage of a Model of Stroke. *Journal of Cardiovascular and Thoracic Research*, 2011, 3(4), 121-126
- Jalali M, Ghafaripoor HA, Nikravesh MR, Hamidi Alamdari D, Sanchooli J, **Seghatoleslam M**. Therapeutic potential of cord blood stem cell in brain damage of an animal model. *Journal of Iranian Anatomical Sciences*.2011: 9(36); 191-202 (In Persian with English abstract)

- Mehdizadeh M, Nahavandi A, Ebadi B, Shariati T, **Seghatoleslam M**. The effect of nitric oxide on prefrontal cortex of rats impress with stress of immobilization. J Gorgan Uni Med Sci. 2007; 9(1): 5-13 (In Persian with English abstract)
- **Seghatoleslam M**, Shariati T, Jamei B. The effect of N-nitro-L-arginine methyl ester (L-NAME) on the thickness and number of circular smooth muscle cells of pylor in rat embryo. Cell Journal (Yakhteh), 2006: 8(1); 1-6. (In Persian with English abstract)
- **Seghatoleslam M**, Shariati T, Shabani M, Jameie SB. The effect of nitric oxide (NO) on circular smooth muscle of pylor in rat embryo, RJMS, 2004:10(37); 693-701 (In Persian with English abstract)

## CONFERENCE

- Intravenous administration of human umbilical cord blood- mononuclear cells dose-dependently relieves neurologic deficits in rat intracerebral hemorrhage model, Annals of Anatomy, 10th Iranian Anatomical Sciences Congress, Guilan University of Medical Sciences Rasht, Iran, 9-11 May 2012
- Therapeutic benefit of intravenous administration of human umbilical cord blood- mononuclear cells following intracerebral hemorrhage in rat, The 1st Razavi international Neurotroma Congress, Mashhad, Iran, November 2011
- Effect of incubation time on the in vitro labeling of umbilical cord blood hematopoietic cells with bromodeoxyuridine (BrdU). The 12th Iranian Congress of Biochemistry & 4th International Congress of Biochemistry & Molecular Biology- Mashhad, Iran, September 2011
- Study of the simultaneous effects of N-nitro-L-arginine methyl ester (L-NAME) and L-arginin on pyloric sphincter in rat embryo.2008; Poster: The 5th Asian-Pacific International Congress of Anatomists, Iran University of Medical Sciences, Tehran.Iran
- Study of the effect of N-nitro-L-arginine methyl ester (L-NAME) on the thickness and number of circular smooth muscle cells of pylor in rat embryo.2004; Poster: 6th Iranian Congress of Anatomical Sciences, Shiraz University of Medical Sciences, Shiraz. Iran
- Study of inhibition of nitric oxide (NO) synthesis on intra uterine growth and hind limb destruction in rat embryo. 2004; Poster: 6th Iranian Congress of Anatomical Sciences, Shiraz University of Medical Sciences. Shiraz. Iran
- The effect of nitric oxide (NO) on circular smooth muscle of pylor in rat embryo.2003.Poster. 1st Iranian Conference for cell and Developmental Biology, Department of Biology Faculty of Science University of Tehran, Tehran, Iran
- Zinc and brain injury. 2001; Poster: 5th international Congress of Anatomical Sciences. Tehran University of Medical Sciences, Tehran, Iran

## RESEARCH EXPERIENCE

**Assistant Professor, Dept. of Anatomy and Cell Biology**

Sep 2012 – Jun 2015

School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

- Performed research in Neuroscience
- Supervised post-graduate students' thesis:
  - ✓ The effects of ecstasy on the expression of heat shock protein (HSP70) and apoptosis in the testis of adult male rats, started from July 2015, granted by Office of Vice-Chancellor For Research Affairs of MUMS
  - ✓ Effect of hydro-alcoholic extract of Nigella Sativa on cellular apoptosis and the volume of hippocampus of hypothyroid rat during neonatal and juvenile growth, started from June 2015, granted by Office of Vice-Chancellor For Research Affairs of MUMS

- ✓ Explants limbal stem cell culture and cell counting with Immunohistochemistry (p63) method, started from March 2015, granted by Office of Vice-Chancellor for Research Affairs of
- ✓ The effect of Coriander Staivum on brain waves and hippocampal formation neural damage in PTZ induced convulsion model, started from March 2014, granted by Office of Vice-Chancellor For Research Affairs of MUMS
- ✓ Study of Radio protective effect of black mulberry extract against gamma irradiation induced liver and bone marrow cells damage in rat, started from Sep 2014, granted by Office of Vice-Chancellor For Research Affairs of MUMS
- ✓ The effect of hydro- alcoholic extract of Rosa Damascena on Pentylenetrazole (PTZ)-induced neural damage in the hippocampal formation of rat, from November 2013 to December 2014, granted by Office of Vice-Chancellor For Research Affairs of MUMS

**PhD (Sabbatical Leave)**

Aug 2010 – Feb 2011

The Neurophysiology Institute of the Muenster University, Muenster, Germany

- Studied the intracellular activities in vitro and in vivo in animal models on the relation to cortical spreading depression and the cellular characteristics of the caudate nucleus

**TEACHING EXPERIENCE**

**Assistant Professor, Dept. of Anatomy and Cell Biology**

Sep 2012 – Jun 2015

University of Medical Sciences, Mashhad, Iran

**Assistant Professor**

Feb 2012 – Jun 2014

Neyshaboor University of Medical Sciences, Neyshaboor, Iran

**Lecturer, Dept. of Basic Sciences**

Feb 2009 – Jun 2009

Islamic Azad University of Neyshaboor, Neyshaboor, Iran

**Academic Lecturer, Dept. of Nursing**

Feb 2002 – Jun 2006

Islamic Azad University of Kashmarm Kashmar, Iran

*Courses:*

- Principle of Neurophysiology, Human Gross Anatomy (Head & Neck, Trunk & Pelvis, Upper & Lower Limbs), Neuroanatomy, Histology to postgraduate and medical students
- Human Gross Anatomy, Histology and Embryology to nursing, paramedical and midwifery students

**OTHER PROFESSIONAL EXPERIENCE**

**Registered Nurse, Critical Care**

Jan 1998 – May1999

Heart Clinic, Family Hospital, Isfahan, Iran

**Registered Nurse, Maternity Division**

Sep 1995 – Jan 1997

22 Bahman Hospital, Neyshaboor, Iran

**Manager Nurse, Nursing Management & Services Division**

May 1994 – Sep 1995

Ghamar Bani Hashem Hospital, Neyshaboor, Iran

**PROFESSIONAL MEMBERSHIP**

- Member of Iranian Society of Anatomical Sciences (ISAS)