

CURRICULUM VITAE INFORMATION FORM

**Assistant professor of Department of Anatomy & Cell Biology,
Mazandaran University of Medical Sciences, Sari, Iran.**

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1) Personal information

Sur name: Nazm bojnordi
First name: Maryam
Gender: Female
Marital Status: Married
Nationality: Iranian
Date of birth: 16 July 1978
Occupation: Scientific staff of Medical science
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2) Educational background

Fellowship: Fertility Lab, Academic Medical Center, Amsterdam University, Netherlands. 2011.

Ph.D. in Anatomical sciences from Tarbiat Modares University, Tehran, Iran, 2012.

M. Sc. in Anatomical Sciences from Tarbiat Modares University, Tehran, Iran, 2005.

Fellowship Research: Isolation and in vitro propagation of Human spermatogonia stem cells from human and AZFc deletions patients.

Supervisors: Professor. Dr. Sjoerd Repping, Professor. Dr. Ans Van Pelt.

PhD Thesis title: In vitro differentiation of spermatogonia cells into oligodendrocyte like cells and transplantation into demyelination model of rat.

(Supervisor: Professor. Dr. M. Movahedin, Advisors: Professor. Dr.T. Tiraihi, Professor. Dr.M. Javan).

M.Sc. thesis title: Evaluation of Acid Phosphatase Activity Alteration in Mouse Endometrium and ovary after Hyperstimulation during Early Pseudo and Natural pregnancy until Implantation time.

(Supervisor: Professor. Dr. M. Salehnia).

3) Research Experience

- Pluripotent stem cells: Embryonic stem cells and ES Like cells derived from testis, culture and differentiation to Ectodermal, Endodermal and Mesodermal layers especially neuroglia phenotype.**
- Mouse and Human Spermatogonia stem cells: Isolation, culture, and Proliferation.**
- Tissue engineering and 3D culture for survival and differentiation of stem cells specially to neural phenotype.**
- Neuroscience and cell therapy: Bone marrow Stem cells and embryonic stem cells differentiation to neuron and glia cells, Cell transplantation in to demyelination animal model, Spinal cord injury.**
- Human Dental stem cells, culture and differentiation to neuroglial phenotype.**
- Animal models for transplantation of stem cells**
- Multiple sclerosis and spinal cord injury model in rat**
- Immunocytochemistry, Flow cytometry**
- RT-PCR and Real-time PCR**

- Human Sperm freezing and sperm analysis**
- Ovarian hyper stimulation**
- In Vitro Oocyte Maturation (IVM) mouse and human**

PROFESSIONAL MEMBERSHIP

2013-2016 Member of Iranian council of stem cell technology

2012-2016 Member of Iranian Society of Embryology & Reproductive Biology

2006-2016 Member of Iranian anatomical society

2014-2016 Member of Research Council of Faculty Medical, Mazandaran University of Medical Science

2014-2016 Member of Immunogenetic Research Center, Mazandaran University of Medical Science

-2014- Scientific board of International congress of reproductive congress.

4) Research and academic activities

-Assistant professor of Department of Anatomy, Mazandaran University of Medical Sciences 2012 up to no now.

-Researcher in Fertility Lab of Vali e Asr Reproductive Health Research Center, Tehran, 2005-2008.

5) Teaching experiences

- **Limb anatomy: Mazandaran University of Medical Sciences**
- **Head and Neck anatomy: Mazandaran University of Medical**
- **Neuroanatomy: Mazandaran University of Medical Sciences**
- **Embryology: Mazandaran University of Medical Sciences**
- **General anatomy: Mazandaran University of Medical Sciences**
- **Respiratory system course: Mazandaran University of Medical**
- **Surface anatomy: Mazandaran University of Medical Sciences**
- **Embryology: Azad University of Medical Sciences**
- **General anatomy: Azad University of Medical Sciences**

6) Published articles

1- Chitosan-Intercalated Montmorillonite/Poly (vinyl alcohol) Nanofibers as a Platform to Guide Neuronlike Differentiation of Human Dental Pulp Stem Cells. ACS Apply Mater Interfaces. 2017. Impact Factor: 7.5.

2- Transdifferentiation of Human dental pulp stem cells into Oligoprogenitor cells (OPCs). Basic and clinical neuroscience. 2017.

3- Differentiation of Spermatogonia Stem Cells into Functional Mature Neurons Characterized with Differential Gene Expression. Molecular Neurobiology, 2016. Impact Factor: 6.2.

4- Silk Nanofibrous Electrospun Scaffold Enhances Differentiation of Embryonic Stem like Cells derived from Testis in to mature neuron. J Biomed Mater Res A. 2018 Jun 14. Impact Factor: 3.1.

5- Evaluation of Differential Gene Expression During Transdifferentiation of Bone Marrow Stromal Cells to Glial phenotype in the presence of Cerebrospinal Fluid. Avecina J of biotechnology j. 2017. Impact Factor: 0.5.

6- Condition medium of cerebrospinal fluid and retinoic acid induces the transdifferentiation of human dental pulp stem cells into neuroglia and neural like cells. Anatomy & cell biology. 2017.

7- Remyelination after Lysophosphatidyl Choline-Induced Demyelination Is Stimulated by Bone Marrow Stromal Cell-Derived Oligoprogenitor Cell Transplantation. Cell Tissue Organ. 2015.
Impact Factor: 2.23.

8-The applications and recovery outcome of spermatogonia stem cells in regenerative medicine. Middle East Fertility Society Journal.2017. Impact Factor: 0.36.

9- Co-culture of mouse spermatogonial stem cells with sertoli cell as a feeder layer, stimulates the proliferation and spermatogonial stemness profile. Middle East Fertility Society Journal,2017. Impact Factor: 0.36.

10- Improvement of Neuroglial Differentiation from Human Dental Pulp Stem Cells Using CSF. Journal of Mazandaran University of Medical Sciences, 2016.

11- Alteration in genes expression patterns during in vitro differentiation of mouse spermatogonial cells into neuroepithelial-like cells. Cytotechnology. 2012. Impact Factor: 1.85.

12- Oligoprogenitor Cells Derived from Spermatogonia Stem Cells Improve Remyelination in Demyelination Model. Molecular Biotechnology,2014. Impact Factor: 2.23.

13-Using Hydroxyapatite-Gelatin Scaffold Seeded with Bone Marrow Stromal Cells as a Bone Graft in Animal Model. ISMJ.2016.

14- Repair of Critical-Sized Rat Calvarial Defects With Three-Dimensional Hydroxyapatite-Gelatin Scaffolds and Bone Marrow Stromal Stem Cells. Med Arch. 2018.

15- Multipotent SSEA-1 Positive Cells Population Differentiation into Primordial Germ Cells and Subsequently Progress into Oocyte-like Cells. Archives of Iranian medicine. 2015. Impact Factor: 1.61.

16-Spermatogonia stem cells: A new pluripotent source for repairment of regenerative medicine. Research in Molecular Medicine (RMM),2015.

17-In vitro and in vivo evaluations of three-dimensional hydroxyapatite/silk fibroin nanocomposites scaffolds. Biotechnology and Applied Biochemistry . 2014 . Impact Factor: 1.42.

18- Effect of Sambucus ebulus extract on neural stem cell proliferation in oxidative stress condition. Kurdistan medical university of Medical Science. 2018.

19- Evaluation of Transplantation of Bone Marrow Stromal Stem Cell-Derived Neuroprogenitor on improvement of remyelination in to Demyelinated rat corpus callosum. 2018.

20-An Efficient Protocol for Embryonic Carcinoma Cells P19 Differentiation to Cardiomyocytes Using Oxytocin as Inducer. Research in Molecular Medicine, 2016.

21- Spermatogonial Stem Cells: A New Pluripotent Source for Repairment in Regenerative Medicine. Rmm. 2015.

22- Expression of Spermatogonial and Pluripotency Markers in Spermatogonial Stem Cells after Treatment with Different Culture Factors.Rmm.2014.

23- Characterization of Pluripotency Markers Expression on ES like Cells derived from Spermatogonia Stem Cells and Embryonic Stem Cells. Journal of Cell & Tissue, 2014, 5(2):147-155.

24-A simple co-culture system for generation of Embryonic stem like cells from testis, Iranian Red Crescent Medical Journal. 2012. Impact Factor: 0.77.

25- Evaluation of Acid Phosphatase Activity Alteration in Mouse Endometrium after Ovarian Hyperstimulation during Early Pseudo and Natural pregnancy until Implantation time. J Iranian Anatomical Sciences.2006.

26- Effect of Antioxidants supplementation on human sperm parameters after freezing. J Mazandaran University of Medical Sciences.2008.

27- Evaluation of acid phosphatase activity alterations in mouse ovary after ovarian hyperstimulation in early stages of pseudo and normal pregnancies until implantation time. Journal of reproduction and fertility. 2006. Impact Factor: 0.93.

28- In Vitro Oocyte Maturation in Polycystic Ovarian Syndrome patients., International Journal of Fertility & Sterility,2008. Impact Factor: 0.98.

29- An Efficient Protocol for Embryonic Carcinoma Cells P19 Differentiation to Cardiomyocytes Using Oxytocin as Inducer. Research in Molecular Medicine (RMM), 2015.

30- Using Alternative Names and Pictures to Facilitate Learning Afferent and Efferent Nervous System Connections. Strides Dev Med Educ. 2017.

31- Evaluation of gene expression pattern during spermatogonia stem cell differentiation into oligoprogenitor cells. Journal of Babol university of medical scienc, 2017.

7) Presentations

1- Poster presentation: Derivation of Functional Mature Neurons from Testicular Spermatogonia Stem Cells. Miami Winter Symposium. 2018 FL, USA.

2- Poster presentation: Silk Nanofiber Scaffold Enhances Differentiation of Embryonic Stem like Cells derived from Testis in to Neural phenotype. 11 FENS Forum 2018, Berlin.

3- Poster presentation: Trans differentiation of Bone Marrow Stromal Cells to Mature Glial phenotype Characterized with Differential Gene Expression. Miami Winter Symposium 2018. FL, USA.

4- Poster presentation: Oligoprogenitor cells derived from Bone marrow stromal cells improve remyelination in demyelinated rat corpus callosum. 10 FENS Forum, Denmark, 2016.

5- Poster presentation: Efficient differentiation of human dental pulp stem cells into neuronal and glial phenotypes: a Novel method for cell therapy in spinal cord injury. 10 FENS Forum, Denmark.2016.

6- Oral presentation: Generation of Male Germ Cells from Embryonic Stem Cells. 4th International Congress on Reproduction , 2018.

7- Poster presentation: Neuroprotective Effect of Urtica dioica Extract on neonatal rat hippocampus-derived neural stem cells in the oxidative stress condition: An In-vitro Study. Congress of Anatomy, 2016.

8- Poster presentation: Remyelination following Transplantation of Oligoprogenitor Cells Derived from Bone Marrow Stromal Cells into Demyelination Model, the 17 th Congress on Reproductive Biomedicine & th Congress on Stem Cells Biology & Technology 2015.

9- Poster presentation: Derivation of oligodendrocyte like cells from spermatogonia stem cells and transplantation them to a demyelination model. Experimental Hematology 41(8), Vienna, Austria 2013.

10- Poster presentation: Spermatogonia stem cells: A new pluripotent source for repair of demyelination defects. 2 th International conference and exhibition on cell and gene therapy, 23-25 October, 2013, USA.

11- Poster presentation: Effects of growth factors GDNF, BMP4 and RA on proliferation and self- renewal of Spermatogonial stem cells, Experimental Hematology, Vienna, Austria, 2013.

12- Oral presentation. In vitro differentiation of spermatogonia cells into oligodendrocyte like cells and transplantation into

demyelination model, International Journal of Reproductive BioMedicine, 2013.

13- Oral presentation. Generation of embryonic stem like cells from neonatal mouse testis International Journal of Reproductive BioMedicine, 2012.

14-Oral presentation in the 4th Asian-Pacific International Congress of Anatomies (7-10 september 2005 Kusacasi- Turkey): Alteration of Acid phosphatase activity after ovulation induction in ovary.

15- Oral presentation in the 13th World Congress on In Vitro Fertilization Assisted Reproduction & Genetics, Istanbul, Turkey, 26-29, 2005): Acid phosphatase activity after superovulation of mouse endometrium.

16- Oral presentation in the 8 th Congress on Reproductive Biomedicine & 3 th Congress on Stem Cells Biology & Technology (Vol 9, supplement1, Summer 2007): Effects of Alpha-Tocopherol Supplementation on Human Semen Quality and Sperm Parameters.

17- Oral presentation in the 7th Congress on Reproductive Biomedicine& 2th Congress on Stem Cells Biology & Technology (Vol 8, supplement1, Summer2006): Effects of 17Beta-Estradiol on in vitro Maturation of Mouse Oocytes.

18- Oral presentation in the 6th Congress on Reproductive Biomedicine& 2th Congress on Stem Cells Biology & Technology (Vol 7, supplement1, Summer2005.

19- Poster presentation, Evaluation of Acid Phosphatase Activity Alteration in Mouse Endometrium and Ovary after Ovarian Hyperstimulation during Early Pregnancy.11th fertility and sterility congress ,Tehran.

20- Oral presentation in 4th Asian-Pacific International Congress of Anatomies: Alteration of Acid phosphatase activity after ovulation induction in ovary.7-10 septamber 2005 Kusacasi-Turkey, Turkey.

21 - Oral presentation in 8 th Congress on Reproductive Biomedicine & 3 th Congress on Stem Cells Biology & Technology: Effects of Alpha-Tocopherol Supplementation on Human Semen Quality and Sperm Parameters., Iran.

22 - Oral presentation in 7th Congress on Reproductive Biomedicine & 7th Congress on Stem Cells Biology & Technology: Effects of 17 β -Estradiol on in vitro Maturation of Mouse Oocytes. Royan, Summer 2007 Royan, Iran.

23- International Society of Differentiation Conference - Stem Cells, Development and Regulation (NIRM), 5-8 November 2012, Amsterdam.

24- Derivation of neuroepithelial like cells from neonatal mouse testis in vitro, Neural stem cells congress.

25- Generation of Embryonic stem like cells from neonatal mouse testis using a simple co-culture system. Tabriz Reproductive congress.

26- Lysolecithin induces demyelination in rat corpus callosum. Neuromuscular disease congress.

27- Poster presentation 8th Iranian congress of Biochemistry and international congress of biochemistry and molecular biology, 11-15 2005, Tehran.

28- Oral presentation in 7th Iranian congress of Anatomical sciences, 10-12 may 2006, Kashan.

29- Poster presentation in 14th fertility and sterility congress, Yazd 2006.

30- Poster presentation in 5th Annual Research Seminar of Iranian Medical Science Students. Mashhad medical science university, 2011.

8) Research Projects

1- In vitro differentiation of spermatogonia stem cells to neuron like cells and transplantation in to rat spinal cord injury. Granted by Iranian council of stem cell technology.

2- Myelin repair after transplantation of oligoprogenitor cells derived from Bone marrow stromal stem cells into demyelination rat model. Granted by Iranian council of stem cell technology.

3- Evaluation of In vitro differentiation of dental pulp stem cells to neuron-like cells in presence of cerebrospinal fluid and spinal cord repair in rat spinal cord injury. Granted by Iranian council of stem cell technology.

4- Fabrication and evaluation of a bioscaffold made from polyvinyl alcohol/ Montmorillonite-intercalated chitosan nanofibers for differentiation of dental pulp-derived stem cells to neuron-like cells.

5- Evaluation of a bioscaffold made from polymeric modified silk nanofibers for differentiation of embryonic stem like cells to neuron-like cells.

6- Effect of Silk Nanofibrous Scaffold and Sertoli cell Co-culture in Proliferation and Differentiation of Mouse Spermatogonia Stem Cells.

7-The Role of Cardio gel on In Vitro Differentiation of Cardiac Stem Cells to Cardiomyocytes.

8-Designing and synthesis of Hydroxyapatite/Gelatin and Hydroxyapatite/Fibroin Nano-composites as bone substitutes in repair of rat critical bone defect.

9- In vitro propagation of spermatogonia stem cells using co-culture system with autologous sertoli cells.

10- Protective effect of Nano-zinc oxide and melatonin on the cyclophosphamide – inducing toxicity in testis histology and sperm parameters in adult wistar rats.

11- The proliferative and antiapoptotic effects of Sambucus ebulus extract on neonatal rat hippocampus-derived neural stem cells in the oxidative stress condition

12- Evaluation effects of multiwall carbon nanotubes (MWCNTs) on growth of neural stem cells derived from rat olfactory bulb

13- Isolation of Primordial Germ Cells Derived from Mouse Embryonic Stem Cell by Surface Marker of Stage Specific Embryonic Antigen-1 (SSEA-1).

14- In Vitro Induction of Pluripotent Embryonic Stem Cells from spermatogonia Stem Cells derived Mouse Testis.

15- Effect of Antioxidants supplementation on human sperm parameters after freezing.

16- Offering a new method to facilitate learning afferent and efferent connections in the central nervous system.

17- In Vitro Induction of Pluripotent Embryonic Stem Cells from spermatogonia Stem Cells derived Mouse Testis.

18-In vitro propagation of spermatogonia stem cells using co-culture system with autologous sertoli cells.

9) Books

1- E book: Stem Cell Therapy: A Promising Therapeutic Approach for Multiple Sclerosis. Codon publications. Australia, 2017.

2- General Anatomy. 2017.

3- Fertilization and its involved molecular mechanisms. 2017

9) Workshops

-Scientific committee Membership of 4 th International congress of reproductive congress, entitled.

-Scientific secretary and teacher in workshop of 3 th International congress of reproductive congress, entitled: Mouse Spermatogonia stem cells isolation and culture.

-Scientific committee Membership of 3 th International congress of reproductive congress, entitled.

-Scientific committee Membership of Second International congress of reproductive congress, entitled.

- **Participation in the workshop of Gene Transfer into Stem cells. Tarbiat modares university, Tehran.**
- Participation in the workshop of research method**
- Participation in the workshop of Scientific writing**
- Participation in the workshop of End Note**
- Participation in the workshop of Laser Microdissection, Institute of Cancer research, Tehran.**

10) Reviewer

Iran National Science Foundation

1-Histol and Histopathol Journal

2-Plus one

3-Anatomical Science Journal

4-Modares journal

5-Avicenna Journal of Medical Biotechnology

6-Research in molecular medicine Journal (RMM)

7-Mazandaran medical science journal

8- Journal of Fertility Biomarkers Journal

9- Journal of Cell & Tissue

11) Honor & Awards

1- Travel award from “Miami Winter Symposium 2018, Miami, FL, USA.

2-Travel award from Federation of European Neuroscience Societies (FENS Forum) 2016, Copenhagen.

3- Travel award from International Society of Differentiation Conference - Stem Cells, Development and Regulation(NIRM), 5-8 November 2012, Amsterdam.