

Curriculum Vitae

Name

Given name: Vajihe

Family name: Asgari

Address: University of Medical Sciences, Medical faculty, Anatomy department, Isfahan, Iran

Phone: +9831-37924155

Email: V.ASGARI@med.mui.ac.ir

ORCID ID: 0000-0002-0264-4198

PERSONAL INFORMATION

Date of Birth: 24/5/1980- 03/03/1359.

Marital status: Married

EDUCATION

- Ph.D. Anatomy, University of Medical Sciences, Isfahan, Iran. 2012-2016
- M.Sc. Anatomy, University of Medical Sciences, Isfahan, Iran. 2006-2008
- B.Sc. Nursing, Isfahan University of Medical Sciences, Isfahan, Iran. 2002-2006

RESEARCH EXPERIENCE

- All of the below projects have been carried out at the Royan Institute's Isfahan Campus.

End date	start date	Plan duration	position	Research Group	Title	Tracking Code	N0
1398/03/18	1396/07/25	18	Colleague	reproductive biology technology	Evaluation oocyte polarity and the contribution of blastomeres arising from the first cleavage division to the mass and inner cell trophoctoderm in ovine	91000724	1
1396/11/05	1392/07/21	12	Co-worker	reproductive biology technology	effect of vitrification on of in vitro epigenetic status matured sheep oocytes	920046	2
1396/11/05	1392/07/21	12	Colleague	reproductive biology technology	effect of vitrification on of in vitro epigenetic status matured bovine oocytes	920045	3
1393/09/10	1391/07/30	11	Colleague	reproductive biology technology	Effect of Mouse Embryo Vitrification on Methylation Pattern of DMR, Expression Imprinted Genes and of DNA Enzymes Involved in Methylation	91000069	4
1393 /11/26	1391/07/30	18	Colleague	reproductive biology technology	Effect of Mouse Embryo Vitrification on Histone Modifications and Expression of Histone Modifier Enzymes	91000068	5
1397/05/23	1391/07/30	8	Co-worker	reproductive biology technology	Effect of various developmental stage and kinetic of blastocyst formation of in vitro produced bovine embryo on developmental viability and competency after vitrification	91000064	6
1391/09/26	1391/03/21	8	Co-worker	reproductive biology technology	Effect of different activation protocol on developmental competence of in vitro matured sheep oocytes following vitrification-warming	90223905	7
1391 /09/26	391/03/ 21	8	Co-worker	reproductive biology technology	Assessment of credibility of vitrified at ovine oocytes two time points post in vitro maturation	90223904	8

1390/12/14	1390/06/06	12	Advisor	reproductive biology technology	Effect of vitrification on and microtubule status developmental competence parthenogenetically of activated ovine matured oocytes	90000532	9
1387/12/01	1387/02/10	12	Co-worker	reproductive biology technology	Assessment of bovine rate blastocysts survival after in vitro cryotop and vitrification cryoloop methods	90000111	10

TEACHING EXPERIENCE

- Medical school of Islamic Azad University, Najafabad branch (2006-2013)

RELEVANT WORK EXPERIENCE

- Research staff of the Cloning lab in Royan Institute at Isfahan Campus (2009-2013).
- Medical school of Islamic Azad University, Najafabad branch (2006-2013)

PUBLICATIONS

1. Novel approach of differential staining to detect necrotic cells in preimplantation embryos. Hosseini SM, Hajian M, **Asgari V**, Forouzanfar M, Abedi P, Nasr Esfahani MH. IJFS, 2007;1: 103-106.
2. Antioxidant supplementation of culture medium during embryo development and/or after vitrification-warming; which is the most important? Hosseini SM, Forouzanfar M, Hajian M, **Asgari V**, Abedi P, Hosseini L, Ostadhosseini S, Moulavi F, Safahani Langroodi M, Sadeghi H, Bahramian H, Eghbalsaied Sh, Nasr-Esfahani MH. J Assist Reprod Genet, 2009;26:355-64.
3. Optimized method for bovine blastocyst vitrification using a simple hand-made cryotip. **Asgari V**, Forouzanfar M, Hosseini SM, Hajian M, Moulavi F, Abedi P, Hosseini L, Sadeghi H, Bahramian H, Nasr Esfahani MH. Yakhteh Medical Journal, 2009;11:220-227.

4. Time dependent effect of post warming interval on microtubule organization, meiotic status, and parthenogenetic activation of vitrified in vitro matured sheep oocytes.
Asgari V, Hosseini SM, Ostadhosseini S, Hajian M, Nasr-Esfahani MH. *Theriogenology*, 2011;75:904-910.
5. Effect of culture system on developmental competence, cryosurvival and DNA-fragmentation of in vitro bovine blastocysts.
Hajian M, Hosseini SM, Asgari V, Ostadhosseini S, Forouzanfar M, Nasr Esfahani MH. *IJFS*, 2011;5:21-26.
6. Enucleated ovine oocyte supports human somatic cells reprogramming back to the embryonic stage.
Hosseini SM, Hajian M, Forouzanfar M, Abedi P, Tanhaei S, Moulavi F, Asgari V, Abbasi H, Jafarpour F, Ostadhosseini S, Karamali F, Karbaliiae Kh, Baharvand H, Nasr-Esfahani MH. *Cell Reprogram*, 2012;14:155-63.
7. Specific activation requirements of in vitro matured sheep oocytes following vitrification-warming.
Asgari V, Hosseini SM, Ostadhosseini S, Hajian M, Moosae M, Nasr-Esfahani MH. *Mol Reprod Dev*, 2012;79:434-44.
8. Potential applications of sheep oocytes as affected by vitrification and in vitro aging. Hosseini SM, Asgari V, Ostadhosseini S, Hajian M, Piryaei A, Najarasl M, Nasr-Esfahani MH. *Theriogenology*, 2012;77:1741-1753.
9. Vitrification of in vitro produced bovine embryos: Effect of embryonic block and developmental kinetics. Asgari V, Hosseini SM, Forouzanfar M, Hajian M, Nasr-Esfahani MH. *Cryobiology*, 2012;65:278-283.
10. Determining the most oocyte challenging step during vitrification-warming.
Hosseini SM, Asgari V, Hajian M, Forouzanfar M, Nasr-Esfahani MH. *IJFS*, 2013;82-106.
11. Cloned sheep blastocysts derived from oocytes enucleated manually using a pulled pasteur pipette.
Hosseini SM, Hajian M, Moulavi F, Asgari V, Forouzanfar M, Nasr-Esfahani MH. *Cell Reprogram*, 2013;15(1):15-23.
12. Cryosurvival of in vitro produced embryos as affected by health status effect of oocyte donor cow.
Hosseini SM, Hajian M, Asgari V, Forouzanfar M, stadhosseini S, Moulavi F, Abedi P, Kiani M, Tanhaei Vash N, Safahani-Langroodi M, and Nasr-Esfahani MH. *CryoLetters*, 2013;34(6):624-33
13. Nuclear transfer technique affects mRNA abundance, developmental competence, and cell fate of the reconstituted sheep oocytes.
Moulavi F, Hosseini M, Hajian M, Forouzanfar M, Abedi P, Ostadhosseini S, Asgari V and Nasr-Esfahani MH. *Reproduction*, 2013;145: 345-355.
14. The interfering effects of superovulation and vitrification upon some important epigenetic biomarkers in mouse blastocyst.
A Bakhtari, HR Rahmani, E Bonakdar, F Jafarpour, V Asgari, SM Hosseini, M Hajian, MA Edriss, and MH Nasr-Esfahani. *Cellular reprogramming*, 2014;69(3):419-27.

15. Effect of epigenetic modification with trichostatin A and S-adenosylhomocysteine on developmental competence and POU5F1-EGFP expression of interspecies cloned embryos in dog. Mousai M, Hosseini SM, Hajian M, Jafarpour F, Forouzanfar M, **Asgari V**, Nasr-Esfahani MH. *Zygote*, 2014;15:1-13.
16. A physiological, rather than a superovulated, post-implantation environment can attenuate the compromising effect of assisted reproductive techniques on gene expression in developing mice embryos. Bonakdar E, Edriss MA, Bakhtari A, Jafarpour F, **Asgari V**, Hosseini SM, Boroujeni NS, Hajian M, Rahmani HR, Nasr-Esfahani MH. *Mol Reprod Dev*, 2015;82(3):191-206.
17. Cytoplasmic, rather than nuclear-DNA, insufficiencies as the major cause of poor competence of vitrified oocytes. Hosseini SM, **Asgari V**, Hajian M, Nasr-Esfahani MH. *Reprod Biomed Online*, 2015;30(5):549-52.
18. Developmental competence of ovine oocytes after vitrification: Differential effects of vitrification steps, embryo production methods, and parental origin of pronuclei. Hosseini SM, **Asgari V**, Ostadhosseini S, Hajian M, Ghanaei HR, Nasr-Esfahani MH. *Theriogenology*, 2015;83(3):366-76.
19. The Principal Forces of Oocyte Polarity Are Evolutionary Conserved but May Not Affect the Contribution of the First Two Blastomeres to the Blastocyst Development in Mammals. Hosseini SM, Moulavi F, Tanhaie-Vash N, **Asgari V**, Ghanaei HR, Abedi-Dorche M, Jafarzadeh N, Gourabi H, Shahverdi AH, Dizaj AV, Shirazi A, Nasr-Esfahani MH. *PLoS One*, 2016;31;11(3): e0148382.
20. The Story of Nanoparticles in Differentiation of Stem Cells into Neural Cells. Asgari V, Landarani-Isfahani A, Salehi H, Amirpour N, Hashemibeni B, Rezaei S, Bahramian H. *Neurochem Res*, 2019;44(12):2695-2707.
21. Direct Conjugation of Retinoic Acid with Gold Nanoparticles to Improve Neural Differentiation of Human Adipose Stem Cells. **Asgari V**, Landarani-Isfahani A, Salehi H, Amirpour N, Hashemibeni B, Kazemi M, Bahramian H. *J Mol Neurosci*, 2020.

PRESENTATIONS AND POSTER SESSIONS

Presented in international congress:

1. Time dependent effect of post warming interval on microtubule organization, meiotic status and parthenogenetic activation of vitrified in vitro matured sheep oocytes. **Asgari V**, Hosseini SM, Ostadhosseini S, Hajian M, Nasr-Esfahani MH. 2011, Royan International Twin Congress.
2. Specific activation requirements of in vitro matured sheep oocytes following vitrification-warming. **Asgari V**, Hosseini SM, Ostadhosseini S, Hajian M, Moosaei M, Nasr-Esfahani MH. *Molecular Reproduction and Development*. 2012, Royan International Twin Congress.

3. Potential applications of sheep oocytes as affected by vitrification and in vitro aging. S.M. Hosseini, **Asgari V**, Ostadhosseini S, Hajian M, Piryaei A, Najarasl M, MH Nasr-Esfahani. 2012, Royan International Twin Congress.

4. Mouse embryo vitrification cannot effect on global DNA methylation in preimplantation stage. Bakhtari A, Jafarpour F, **Asgari V**, Bonakdar E, Hosseini SM, Hajian M, Rahmani HR, Nasr Esfahani MH. 2012, Royan International Twin Congress.

5. Effect of mouse embryo vitrification on histone modifications. Bonakdar E, **Asgari V**, Jafarpour F, Bakhtari A, Hosseini SM, Hajian M, Rahmani HR, Edris MA, Nasr Esfahani MH. 2012, Royan International Twin Congress.

Participate in international congress:

1. Jahad Reproductive Research Center: 12th International Congress of Fertility and Infertility (2011)
2. The Royan international twin congress: 9th congress on reproductive biomedicine & 4 th congress on stem cell biology & technology (2008).
3. The Royan international twin congress: 10th congress on reproductive biomedicine & 4 th congress on stem cell biology & technology (2009).

RESEARCH INTERESTS

Vitrification, Stem cell biotechnology, cancer cell, Cell culture and Nanotechnology.

TEACHING INTERESTS

Anatomy, histology & embryology

EXTRA CURRICULAR ACTIVITIES

Lectures:

- I have participated as lecturer in Islamic Azad University of Falavarjan; Title of lecture: “Stopping the metabolic activity of biological materials by the vitrification process”.
- I have participated as lecturer in Islamic Azad University of Falavarjan; Title of lecture: “The difficulty of Zonaplusida and the ways to deal with it, in solving infertility problems”.

- I have participated as lecturer in Islamic Azad University of Falavarjan; Title of lecture: “The relationship between limb anatomy and their function”.
- I have participated as lecturer in Arak University; Title of lecture: Oocyte vitrification.

Workshop:

- Cloning
at the Royan Institute's Isfahan Campus, 16.11.2016 & 17.11.2016
- Embryo production by in vitro fertilization
at the Royan Institute's Isfahan Campus, 07.09.2016 & 08.09.2016
- Sperm freezing
at the Royan Institute's Isfahan Campus, 12.08.2015
- Oocyte vitrification
at the Royan Institute's Isfahan Campus, 13.08.2015

Journal reviewer:

Reviewer of International Journal of Fertility and Sterility (IJFS).

1. Early Cleaving Mouse Embryos Have Superior Vitrification Tolerance
2. Effects of number of preovulatory follicles on oocyte quantity and quality and in vitro maturation of Egyptian sheep oocytes
3. Ovarian Tissue Cryopreservation as a Method of Fertility Preservation
4. Fertilization and embryo development of fresh and cryopreserved sibling oocytes
5. Follicular Viability and Histological Investigation after Auto-Transplantation of Whole Canine Ovary by Experimentally Inducing Blood Sinus on Stomach
6. In vitro maturation, fertilization and embryo culture of oocytes obtained from vitrified-autotransplanted mouse ovary.

Work experiences:

- **Embryology**
Birth of the first vitrified bovine in Iran, Department of Embryology, Royan Institute, Isfahan Campus, Isfahan, Iran (2010).

Media preparation, Oocyte stripping, Embryo Culture, Embryo Sorting, Embryo Grading, Embryo vitrification and warming, Embryo loading (in to the transfer catheter).

- **Oocyte**

Fully experienced in bovine, ovine, goat, mouse and rabbit oocyte collection (aspiration and slicing), washing, maturation, dissection, staining (DAPI, Hoechst, and immunostaining), enzymatic zona dissolution, parthenogenetic activation and oocyte vitrification.

Fully familiar and experienced in assessment of the cleavage, detection of fragmentation and degeneration during embryo development, embryo sorting and manipulation, embryo grading and culture, embryo staining (immunostaining), embryo vitrification.

- **Culture media**

Fully familiar with Investigation within the papers, documents and companies, media preparation,

Academic background:

P.hD. Thesis:

The neural differentiation of human adipose-derived stem cells by gold nanoparticles loaded with Retinoic acid as small molecule

M.Sc. Thesis:

Assessment of bovine blastocysts survival rate after in vitro cryotop and cryoloop vitrification methods

Curriculum Vitae

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Academic Qualifications

Degree: assistant professor

University: Isfahan University of Medical Sciences

Dissertation title:

P.h.D. Thesis:

The neural differentiation of human adipose-derived stem cells by gold nanoparticles loaded with Retinoic acid as small molecule

M.Sc. Thesis:

Assessment of bovine blastocysts survival rate after in vitro cryotop and cryoloop vitrification methods

Professional Profile

Academic Employment – Teaching and Research

- Research staff of the Cloning lab in Royan Institute at Isfahan Campus (2009-2013).
- Medical school of Islamic Azad University, Najafabad branch (2006-2013)
- Assistant professor of Isfahan university of medical sciences (2021- now)

Publications:

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