

## Azizollah Bakhtari

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University of Connecticut  
[azizollah.bakhtari@uconn.edu](mailto:azizollah.bakhtari@uconn.edu)



### Education

**Doctor of Philosophy** in Animal Sciences (Genetics). September 2009 - December 2014.  
Department of Animal Sciences, College of Agriculture, Isfahan University of Technology, Isfahan, Iran.

**Master of Science** in Animal Sciences (Genetics). September 2006 - February 2009.  
College of Agriculture, Department of Animal Sciences, Isfahan University of Technology, Isfahan, Iran.

**Bachelor of Science** in Animal Sciences. September 2002 - February 2006.  
College of Agriculture, Department of Animal Sciences, Yasuj University, Yasuj, Iran.



### Professional training and work experience

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**Research Assistant** in Department of Reproductive Biology, School of Advanced Medical Sciences and Technologies, **Shiraz University of Medical Sciences, Shiraz, Iran**. August 2015 – December 2021.

#### Main Projects:

- 1- Protective effects of Clove Bud extract in mouse oocyte vitrification media on the preimplantation embryos derived *in vitro* fertilization.
- 2- Effects of dextran coated superparamagnetic iron oxide nanoparticles on embryo produced by IVF.
- 3- Protective effect of thymoquinone on fertility parameters in bleomycin induced male mice.
- 4- Protective effect of thymoquinone on reproductive hormones, folliculogenesis, and apoptotic and antioxidant enzymes in letrozole-induced polycystic ovaries in the rat.
- 5- Stereological study on effects of different doses and time-dependency of busulfan on testes parameters and spermatogenesis in a rat model.

**Exchange Visitor** in Department of Animal Sciences, **University of California Davis, CA, USA**. March 2013- September 2013.

**Research Assistant** in Department of Reproductive Biotechnology, **Royan Institute for Biotechnology, ACECR, Isfahan, Iran**. January 2010–February 2013



## Selected Publications

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1. Namavar Jahromi B., Keshavarz M., Koohpeyma F., Badr P., Poordast T., Najib F.S., **Bakhtari A.**, Bahmanpour S. 2023. Protective effect of loboob (a Persian traditional remedy) on sexual hormones, antioxidant activities and stereological changes of testis tissue on busulfan induced oligospermia in rats *Indian J. Exp. Biol.* 61: 175-184.
2. Gavanji S., **Bakhtari A.**, Famurewa A.C., Othman E. M. 2023. Cytotoxic activity of herbal medicines as assessed in vitro: a review. *Chem. Biodiversity* 20: e202201098.
3. Gavanji S., **Bakhtari A.**, Baghshahi H. 2023. Evaluation of the Cytotoxicity effects of ethanolic extract of *Ferula assafoetida* resin on oral Squamous Cells Carcinoma (KB) compared with L929 cells. *New Armen. Med. J.*
4. Alae S., Mirani M., Derakhshan Z., Koohpeyma F., **Bakhtari A.** 2022. Thymoquinone improves folliculogenesis, sexual hormones, gene expression of apoptotic markers and antioxidant enzymes in polycystic ovary syndrome rat model. *Vet. Med. Sci.*
5. Gavanji S., **Bakhtari A.** 2022. Comparative effect of honey bee venom and common antifungal agents on *Candida albicans*. *Pharmed: J. Pharm. Sci. Med. Res.* 5: 67-75.
6. Yaghutian L., Mohseni-Kouchesfahani H., Alae S., **Bakhtari A.** 2021. Thymoquinone ameliorates bleomycin-induced reproductive toxicity in male Balb/c mice. *Hum Exp Toxicol* S611-S621.
7. **Bakhtari A.**, Nazari S., Alae S., Kargar-Abarghouei E., Mesbah F., Mirzaei E., Molaei M.J. 2020. Toxic effects of dextran-coated superparamagnetic iron oxide nanoparticles on mouse embryo development, genes expression of antioxidant enzymes and apoptosis, and ultrastructure of sperm, oocytes and granulosa cells. *Int. J. Fertil. Steril.* 14: (3).
8. Bolouki A., Zal F., Mostafavi-Pour Z., **Bakhtari A.** 2020. Protective effects of quercetin on uterine receptivity markers and blastocyst implantation rate in diabetic pregnant mice. *Taiwan J Obstet Gyne.* 59:927-934.
9. Salehi M., Abouhamzeh B., Hosseini A., Zare Z., **Bakhtari A.** 2020. Comparison of epigenetic modifier genes in embryos produced from cloned bovine by bovine adipose tissue-derived stem cells as donors with in vitro and parthenogenesis embryos. *Cell Journal.* 22: 149-157.
10. Bahmanpour S., **Bakhtari A.**, Abouhamzeh B. 2018. Protective effect of vitrified-warmed media with clove bud (*syzygium aromaticum*) extract on mouse oocytes and resultant blastocysts. *Cryoletters.* 39: 288-297.
11. Omid M., Niknahad H., Noorafshan A., Fardid R., Nadimi E., Naderi S., **Bakhtari A.**, Mohammadi-Bardbori A. 2018. Co-exposure to an aryl hydrocarbon receptor endogenous ligand, 6-formylindolo[3,2-b]carbazole (ficz), and cadmium induces cardiovascular developmental abnormalities in mice. *Biological Trace Element Research.*
12. Bahmanpour S., Namavar Jahromi B., Koohpeyma F., Keshavarz M., **Bakhtari A.** 2017. Effects of different doses and time dependency of busulfan on testes parameters and spermatogenesis: A quantitative stereological study. *Journal of Advanced Medical Sciences and Applied Technologies.* 3: 3.

13. Golestannejad Z., Gavanji S., Mohammadi E., Motamedi A., Bahrani M., Rezaei F., Larki B., Mojiri A., **Bakhtari A.** 2017. Comparison of antibacterial activity of essential oils of *Foeniculum vulgare Mill*, *Mentha arvensis* and *Mentha piperita* against *Streptococcus mutans*. *Advanced Herbal Medicine*. 3:3-13.
14. Khazimeh, F., Golestan Nezhad Z., **Bakhtari A.**, Bakhshi M., Yousef Shahi H., Gavanji S. 2016. Cytotoxicity effect of Brevinin-2R peptide on oral squamous cell carcinoma. *J. Adv. Med. Biomed. Res.* 24 (107): 39-48.
15. Gavanji S., Larki B. and **Bakhtari A.** 2015. Comparative analysis of extract of *Punica granatum* var. *pleniflora* (Golnar-e-farsi) to some antibiotics on pathogens. *J. Essent. Oil Bear. Pl.* 18:168-178.
16. Bonakdar E., Edriss M. A., **Bakhtari A.**, Jafarpour F., Asgari V., Sadeghi-Boroujeni N., Hosseini S. M., Rahmani H. R. and Nasr-Esfahani M. H. 2015. A physiological, rather than superovulated, postimplantation environment can attenuate the compromising effect of ART on gene expression of developing mice embryos. *Mol. Reprod. Dev.* 82:191-206.
17. Gavanji S., Sayedipour S.S., Larki B. and **Bakhtari A.** 2015. Antiviral activity of some plant oils against herpes simplex virus type 1 in Vero cell culture. *J. Acute Med.* 5:62-68.
18. Gavanji S., Zaker S. R., Golestannejad Z., **Bakhtari A.**, Shirani-Bidabadi E. and Larki B. 2015. Comparative Efficacy of Herbal Essential oils with Amphotricin B and Ketoconazole on *Candida albicans* *in vitro* condition. *Integr. Med. Res.* 4:112-118.
19. Golestannejad Z., Mohammadi E., Motamedi A., Gavanji S., Fallah N., Bagherie S., Farzane G., Safaripour M., Vally A., Doost Mohammadi M. Larki B., **Bakhtari A.** 2015. Chemical composition and antibacterial activity of some herbal essential oils against *Streptococcus mutans*. *Advanced Herbal Medicine*. 1:1-8.
20. Gavanji S., Mohammadi E., Larki B. and **Bakhtari A.** 2015. Chemical composition identification and comparison antibacterial activity of some essential oils against three pathogenic bacteria. *IJSRK*. 3:94-105.
21. **Bakhtari A.** and Ross P. J. 2014. DPPA3 prevents cytosine hydroxymethylation of the maternal pronucleus and is required for normal development in bovine embryos. *Epigenetics* 9: 1271-1279.
22. **Bakhtari A.**, Rahmani H. R., Bonakdar E., Jafarpour F., Asgari V., Hosseini S. M., Edriss M. A. and Nasr-Esfahani M. H. 2014. The interfering effects of superovulation and vitrification upon some important epigenetic biomarkers in mouse blastocyst. *Cryobiology* 69: 419-427.
23. Mehrsorosh H., Gavanji S., Larki B., Mohammadi M.D., Karbasiun A., **Bakhtari A.**, Hashemzadeh F. and Mojiri A. 2014. Essential oil composition and antimicrobial screening of some Iranian herbal plants on *Pectobacterium Carotovorum*. *Global NEST J.* 16: 239-250.
24. Gavanji S., Larki B. and **Bakhtari A.** 2014. The effect of extract of *Punica granatum* var. *pleniflora* for treatment of Minor Recurrent Aphthous Stomatitis (MiRAS). *Integr. Med. Res.* 3:83-90.
25. Gavanji S., Mohammadi E., Larki B. and **Bakhtari A.** 2014. Antimicrobial and Cytotoxic evaluation of some herbal Essential oils in comparison with common Antibiotics in Bioassay condition. *Integr. Med. Res.* 3:142-152.

26. Kgozeimeh F., Golestannejad Z., Tofighi M., Ayen A., Doost-Mohammadi M., Gavanji S. and **Bakhtari A.** 2014. Antibacterial activity of milk vetch flower honey against four bacteria of Human oral flora: *Streptococcus mutans*, *Lactobacillus casei*, *Lactobasillus rhamnosus* and *Lactobasillus plantarum*. *Ann. Res. Rev. Biol.* 4:3335-3344.
27. Zaker S.R., Gavanji S., Sayedipour S.S., **Bakhtari A.**, Shirani-Bidabadi E., Larki B., Golestannejad Z. 2014. The effect of some herbal essential oils on pathogenic bacteria. *Ethno-Pharmaceutical Products.* 1:23-34.
28. Gavanji S., Jalali Zand A., Larki B., Mojiri A., **Bakhtari A** and Kashkouli M. 2013. In Silico analysis of Metal binding sites in Metal transporter Nramp1 in some Plants. *Tech J Engin & App Sci.* 3(16): 1781-1786.
29. **Bakhtari A.**, Rahmani H. R., Edriss M. A. and Sayed Tabatabaei B. E. 2010. Association of bovine insulin-like growth Factor-I receptor polymorphism gene with milk production traits in Iranian Najdi and Holstein dairy cows. *Cuban J. Agr. Sci.* 44(4):343-346.

### Persian Publications

- 1- Khodabandeh Z., Alae S, Dara M., Davari M., **Bakhtari A.** 2022. Toxic Effects of Sodium Polyacrylate at Different Concentrations on Embryo Development Rate and Expression of Apoptotic and Antioxidant Genes in Mouse Blastocysts. *Experimental Animal Biology* 11 (1), 1-9.
- 2- **Bakhtari, A.**, Rahmani, H.R. 2014. Effect of sperm concentration and condition of *in vitro* maturation and fertilization of oocytes of under heat stress bovine on polyspermy in derived zygotes. *Iranian Journal of Veterinary Clinical Sciences.* 7: 53-62.
- 3- Bonakdar, E., Edriss, M.A., **Bakhtari, A.**, Jafarpour, F., Asgari, V., Hosseini, S.M., Hajian, M., Nasr-Esfahani, M.H. 2014. Comparison of the efficacy of two culture media, handmade (SOF) and commercial (G1/G2), on *in vitro* development of vitrified and non-vitrified mouse embryos. *Iranian Journal of Veterinary Clinical Sciences.* 8: 15-23.



### **Book Publication**

1. Rouhollahi M., Sarami S., **Bakhtari A.** 2021. Lost Existences 3 (A New Approach to Research). *Arkane Danesh* (Compilation). Wroted in Persion language. 256pp.
2. Edriss, M.A, **Bakhtari A.** and Zahmatkesh A. 2011. Statistical analysis and interpratation methods in seiences. *Porsesh* (Translation & Compilation). Wroted in Persion language. 514pp.
3. Edriss M.A, **Bakhtari A.**, Mirzaee M., Hashemzadeh F. and Adami B. 2011. Animal Science book: preparing for master of science exam (Volume 3). *Daneshpajoothane barin.* Wroted in Persion language.
4. Edriss M.A, **Bakhtari A.**, Mirzaee M., Hashemzadeh F. and Adami B. 2011. Animal Science book: preparing for master of science exam (Volume 4). *Daneshpajoothane barin.* Wroted in Persion language.



## National /international conferences

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1. Oxidative stress-dependent toxicity of dextran-coated superparamagnetic iron oxide nanoparticles on mouse embryo produced by *in vitro* fertilization. International Journal of Reproductive BioMedicine, Iran. Vol. 19, No. 5 (Suppl. 1), May 2021.
2. Effect of honey bee venom on *Candida albicans* in comparison with *ketoconazole* and *amphotericin B*. International Conference on Clinical & Medical Case Reports. Netherlands. 2018 Vol. 8. P. 48.
3. Prompting oil yield and reducing fertiliser pollution by using honey bee colonies in sunflower culture. Tropentag, Belgium. 2018. P:93.
4. Assisted reproductive technologies interfere with normal DNA methylation profile at Blastocyst stage. The second international conference on agriculture and natural resources, Kermanshah, Iran, 2013. P:36.
5. Aberrant gene expression profile in blastocyst embryos as consequences for assisted reproductive technologies. IJFS, Iran, 2013. V. 7, sup. 1, P:197.
6. Comparison of the efficacy of two culture media (handmade vs. Commercial) on *in vitro* development of vitrified and non-vitrified mouse embryos. IJFS, Iran, 2013. V. 7, sup. 1, P: 72.
7. Mouse embryo vitrification cannot effect on global DNA methylation in preimplantation. IJFS, Iran, 2012. V. 6, sup. 1, P:82.
8. Effect of Mouse Embryo Vitrification on Histone Modifications. IJFS, Iran, 2012. V. 6, sup. 1, P:83.
9. IGF-IR gene polymorphism of Iranian Holstein cows in Isfahan province. ASAS-CAAV Pacific Rim Conference, China, 2009, P: 67.
10. Biological properties and polymorphism of lactoferrin gene in dairy cows. The Role of Biotechnology in Animal Science, Isfahan University of Technology. Isfahan, Iran. 2011. (Persian)
11. Lactoferrin gene polymorphism of Iranian Holstein cows in Isfahan province. First National Congress Of Agricultural Science And Technology, University of Zanjan, Iran. 2011. (Persian)
12. Evaluation of Kappa casein gene polymorphism of Iranian Holstein dairy cows via PCR-RFLP. First National Congress Of Agricultural Science And Technology, University Of Zanjan, Iran. 2011. (Persian)
13. Genetic factors influencing the response to heat stress in dairy cows. The first national seminar on the management of livestock and poultry in tropical areas, Shahid Bahonar University, Kerman, Iran. 2011. (Persian)
14. Evaluation of IGF-IR gene polymorphism of Holstein dairy cows in Isfahan province. Third National Animal Science Congress, Mashhad, Iran. 2008. (Persian)
15. Evaluation of IGF-IR gene polymorphism of Iranian Najdi cows via PCR-RFLP. National Student Conference of Biotechnology and events, Alzahra University, Tehran, Iran. 2008. (Persian)
16. Genetic correlation between productive and reproductive traits in various environment. The first National Conference on Livestock and Aquatic Sciences. Sanandaj Islamic Azad University, Sanandaj, Iran. 2008. (Persian)



## TEACHING Experiences

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- Engineering Statistics and Probability
- Animal Breeding and Genetics

## ✂ Technical Skills

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- ✂ Knock down of gene expression via siRNA injection method.
- ✂ All technics needed for primer designing, DNA and RNA extraction, PCR and Real time RT-PCR.
- ✂ Bisulfite sequencing.
- ✂ Immunostaining.
- ✂ Confocal laser scanning microscopy.
- ✂ Microinjection.
- ✂ All technics related to oocyte and embryo collection, manipulation and transfer.
- ✂ Surgical for the production of vasectomized mouse.
- ✂ Oocyte and embryo vitrification,
- ✂ Tissue fixation, embedding, sectioning and Hematoxylin/eosin staining
- ✂ Statistical procedures with Statistical software