

Circullum Vita



Tarbiat Modares
University

Mohsen Sharafi (PhD)

Assistant Professor of Animal Physiology

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Department of Animal science

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Education

1. **PhD** in Animal Reproduction Physiology, University of Tehran, top ranked student, 2013.

PhD Thesis: Physiological Effects of Mild Oxidative Stress on Post-thawed quality of bull sperm.

2. **MSc** in Animal Physiology, Isfahan University of Technology, top ranked student, 2010.

MSc thesis: Effects of Sperm Cryopreservation Medium on fertilizing ability and embryo Development in ovine.

3. **BSc** in Animal Science, Gorgan University, 2006.

BSc Project: Methods of Estrus Detection in Dairy Cattles.

Academic Ranks

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Mohsen Sharafi (Assistant Professor of Animal Physiology), Tarbiat Modares University (TMU), Tehran; Iran: m.sharafi@modares.ac.ir

1. **Assistant Professor**, Department of Animal Science, Tarbiat Modares University, 2013 to present.
2. **Assistant Professor**, Department of Embryology, Royan Institute, 2013 to present.

Selected Courses Taught

1. Physiology of Digestion and Metabolism (**PhD Graduate**).
2. Immunology, Reproductive Physiology and Endocrinology (**MSc Graduate**).
3. Biochemistry, Animal Physiology, and Reproduction Technique (**BSc Undergraduate**).

Research Interests

1. Reproduction Physiology in Animal and Avian.
2. Optimizing Semen Cryopreservation and Artificial Insemination in Animal and Avian.
3. Study of Cellular and Molecular Mechanism of Cryobiology in Sperm
4. Epigenetic Aspects of Sperm Cryobiology.
5. Embryology, Isolation and Culture of Embryonic Stem Cells in Avian.
6. Laboratory Production of Transgenic Chicken.

Honors and Awards

1. Selected Young Researcher Award in Iran, 2015.
2. Elected Student in PhD (University of Tehran), 2013.
3. Elected Student in MSc (Isfahan University of Technology), 2010.

Selected Research Projects and Experiences

1. Sperm Mediated Gene Transfer in Rooster For Production of Transgenic Chicken.

2. Expression of Green Fluorescent Protein in Transgenic chicken Using SMGT.
 3. Effects of Sublethal Oxidative Stress in Frozen-Thawed Sperm in Bull and Rooster.
 4. Effects of Cryopreservation on Epigenetic Modification of Frozen-Thawed Rooster Sperm.
 5. Modification in Proteome and Transcriptome in Human Sperm after Freezing.
 6. Isolation and Culture of Spermatogonia Stem Cells in Quail.
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Selected Published National Journals Peer Reviewed Articles

1. **Mohsen Sharafi**, Mahdi Zhandi, Abdolhossein Shahverdi and Malek Shaker. The Time Effect of Induced Mild Oxidative Stress before freezing on the Post-thawed sperm quality. *Journal of Cell and Tissue*; 2014; 5(4): 401-408.
 2. Mahdi Zhandi, Reza Noie, **Mohsen Sharafi**. Filtration of Home-Made Lecithin-Based Semen Extender Has No Effect on Post-Thawed Buck Sperm Quality. *Iranian Journal of Animal Science*: 2013; 46(1): 47-53.
 3. Reza Masoudi, Ahmad Zare, Armin Towhidi, Hamid Kohram, **Mohsen Sharafi**. Determining the Effect of Estradiol, Oxytocin, Prostaglandin E1 and Relaxin on Cervix Dilation and Pregnancy Rate of Zandi Breed Sheep. *Iranian Journal of Animal Science*; 2014; 45(2): 125-133.
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Selected Published International Journal Peer Reviewed Articles

1. A. Shahverdi, **M. Sharafi**, H. Gourabi, A. Amiri Yekta, V. Esmaili, M. Sharbatoghli, E. Janzamin, M. Hajnasrollahi, F. Mostafayi. Fertility and Flow Cytometric Evaluations of Frozen-thawed Rooster Semen in Cryopreservation Medium containing Low Density Lipoprotein. *Theriohenology*, 2015, 83 (1) :78-85.

2. **M. Sharafi**, M. Zhandi, A. Shahverdi, M. Shakeri. Beneficial Effects of Nitric Oxide Induced Mild Oxidative Stress on Post-Thawed Bull Semen Quality. *International Journal of Fertility and Sterility*, 2015, 9(2): 230-237.
3. **M. Sharafi**, M. Zhandi, A. Shahverdi, M. Shakeri. Effects of Oxidative Stress Time During Bull Semen Cryopreservation; A Novel Approach for Enhance the Semen Performance. *Cell and tissue*, 2015, 4 :401-408.
4. Motlagh, Mahdi Khodaei, **Mohsen Sharafi**, Mahdi Zhandi, Abdollah Mohammadi-Sangcheshmeh, Malek Shakeri, Masoud Soleimani, and Saeed Zeinoaldini. "Antioxidant Effect of Rosemary (*Rosmarinus officinalis* L.) Extract in Soybean Lecithin-Based Semen Extender Following Freeze-Thawing Process of Ram Sperm. *Cryobiology*, 2014, 69 (2): 217-222.
5. Najafi A, Najafi MH, Zangane Z, **Sharafi M**, Martinez-Pastor F, Adeldust H. Cryopreservation of Ram Semen in Extenders Containing Soybean Lecithin as Cryoprotectant and Hyaluronic Acid as Antioxidant. **Reproduction in Domestic Animals**. 2014, 49 (6): 934-940.
6. **Sharafi, Mohsen**, Mahdi Zhandi, and Abbas Akbari Sharif. Supplementation of Soybean Lecithin-Based Semen Extender by Antioxidants: Complementary Flowcytometric Study on Post-Thawed Ram Spermatozoa. *Cell and tissue banking*, 2014, 16(2): 261-269.
7. **Sharafi, M.**, Forouzanfar, M., Hosseini, S. M., Hajian, M., Ostadhosseini, S., Hosseini. Nasr Esfahani, M. H. In vitro Comparison of Soybean Lecithin Based-Extender with Commercially Available Extender for Ram Semen Cryopreservation. **International Journal of Fertility and Sterility**, 2009, 3: 149-152.
8. Forouzanfar, **M.**, **Sharafi**, M., Hosseini, S. M., Ostadhosseini, S., Hajian, M., Hosseini, L. Nasr-Esfahani, M. H. In vitro Comparison of Egg yolk-Based and Soybean Lecithin-Based Extenders for Cryopreservation of Ram Semen. *Theriogenology*. 2010, 73(4): 480-487.

9. Emamverdi, M., M. Zhandi, A. Zare Shahneh, **M. Sharafi**, and A. Akbari-Sharif. "Optimization of Ram Semen Cryopreservation Using a Chemically Defined Soybean Lecithin-Based Extender. *Reproduction in Domestic Animals*. 2013, 48(6): 899-904.
10. Najafi, Abozar, Mahdi Zhandi, Armin Towhidi, **Mohsen Sharafi**, Abbas Akbari Sharif, Mahdi Khodaei Motlagh, and Felipe Martinez-Pastor. "Trehalose and Glycerol Have a Dose-Dependent Synergistic Effect on the Post-Thawing Quality of Ram Semen Cryopreserved in a Soybean Lecithin-Based Extender. *Cryobiology*. 2013, 66(3): 275-282.
11. Najjian, Hamid Reza, Hamid Kohram, Ahmad Zare Shahneh, **Mohsen Sharafi**, and Mustafa Numan Bucak. "Effects of Different Concentrations of BHT on Microscopic and Oxidative Parameters of Mahabadi Goat Semen Following the Freeze–Thaw process. *Cryobiology*. 2013, 66(2): 151-155.
12. Najjian, H. R., H. Kohram, A. Zare Shahneh, and **M. Sharafi**. "Effects of Various Concentrations of BSA on Microscopic and Oxidative Parameters of Mahabadi Goat Semen Following the Freeze–Thaw Process. *Small Ruminant Research*. 2013, 113(2-3): 371-375.
13. Najafi, Abozar, Hossein Daghigh Kia, Hossein Mohammadi, Mir Hossein Najafi, Zaynab Zanganeh, **Mohsen Sharafi**, Felipe Martinez-Pastor, and Hamideh Adeldust. "Different Concentrations of Cysteamine and Ergothioneine Improve Microscopic and Oxidative Parameters in Ram Semen Frozen with a Soybean Lecithin Extender. *Cryobiology*, 2104, 69 (1), 68-73.
14. Salmani, Hossein, Armin Towhidi, Mahdi Zhandi, Majid Bahreini, and **Mohsen Sharafi**. "In Vitro Assessment of Soybean Lecithin and Egg Yolk Based Diluents for Cryopreservation of Goat Semen. *Cryobiology*. 2014, 68(2): 276-280.
15. Emamverdi, M., M. Zhandi, A. Zare Shahneh, **M. Sharafi**, A. Akhlaghi, M. Khodaei Motlagh, F. Dadkhah, and N. Dadashpour Davachi. "Flow cytometric and Microscopic

Evaluation of Post-Thawed Ram Semen Cryopreserved in Chemically Defined Home-Made or Commercial Extenders. **Animal Production Science** .2015, 55 (4): 551-558.

16. Mahdi Zhandi and **Mohsen Sharafi**. Negative Effects of Combined Cysteine and Glutathione in Soy Lecithin-Based Extender on Post-Thawed Ram Spermatozoa. *Cell and tissue banking* .2015, 16 (3): 443-448.
17. HV Dodaran, M Zhandi, **M Sharafi**, E Nejati-Amiri, A Nejati-Javaremi. Effect of Ethanol Induced Mild Stress on Post-Thawed Bull Sperm Quality. *Cryobiology* .2015, 71: 12-17.
18. R Noei Razliqi, M Zhandi, M Shakeri, A Towhidi, **M Sharafi**, M Emamverdi, Protective Role of Glutathione in Buck Semen Cryopreservation. *Iranian Journal of Veterinary Research*. 2015, 16 (3): 298-300.
19. M Moghbeli, H Kohram, A Zare-Shahaneh, H Sharideh, **M sharafi**. Effect of Sperm Concentration on Characteristics and Fertilization Capacity of Rooster Sperm Frozen in the Presence of the Antioxidants Catalase and Vitamin E. *Cryobiology*.
20. M Moghbeli, H Kohram, A Zare-Shahaneh, M Zhandi, **M Sharafi**, MM Nabi, Are the Optimum Levels of the Catalase and Vitamin E in Rooster Semen Extender After Freezing-Thawing Influenced by Sperm Concentration? *Theriogenology*.

Paper presented in National Conferences

1. **Mohsen Sharafi**, Mahdi Zhandi, Abbas Akbari Sharif, Abozar Najafi. Synthetic Antioxidant in Animal Free Extender for Cryopreservation of Ram semen. **5th Iranian Animal Science Congress**. 2013, Isfahan, Iran.
2. Mojtaba Emamverdi, Mahdi Zhandi, Ahmad Zare and **Mohsen Sharafi**. Evaluation of diluted semen quality using different extenders. 5th Iranian Animal Science Congress. 2013, Isfahan, Iran.
3. Mojtaba Emamverdi, Mahdi Zhandi, Ahmad Zare and **Mohsen Sharafi**. Effects of different concentrations of soybean lecithin on semen extender on ram sperm after freeze-thawing. **5th Iranian Animal Science Congress**. 2013, Isfahan, Iran.
4. Abozar Najafi, Mahdi Zhandi and **Mohsen Sharafi**. Application of Treehouse in plant-origin extender for improvement of ram sperm quality. **3th National Biotechnology Conference**. Mashhad, Iran.

Paper presented in International Conferences

1. M Noorani, S Rahimi, AH Shahverdi, **M Sharafi**, V Esmaceli, M Rahimi. 2015. Cryopreservation of Rooster Semen Using Hand-Made Cryopreservation Media Supplemented with Different Cryoprotectants. 16th Royan international congers on reproductive biomedicine. **Cell journal: 9 (2.5)**.
2. H Vaseghi-Dodaran, M Zhandi, **M Sharafi**, E Nejati-Amiri. 2015. Stress Preconditioning of Spermatozoa with Sublethal Concentration of Ethanol Improved post-thaw sperm quality in bull. Proceedings of the Annual Conference of the International Embryo Transfer Society, France, **Reproduction, Fertility and Development, 27 (1): 118-119**.

3. A Towhidi, F Farhadi, M Shakeri, M Sharafi. 2015. The effect of adding zinc sulfate to semen extender on post-thaw quality of Holstein bull sperm. European Society for Domestic Animal Reproduction (ESDAR). **Reproduction in Domestic Animal**. **49**, 97-97.
4. **M Sharafi**, AH Shahverdi, V Esmaili, A Amiri, M Sharbatoghli. 2014. Fertility and Flow Cytometric Evaluations of Frozen-Thawed Rooster Semen in Cryopreservation Medium Containing Low Density Lipoprotein. 15th Royan International Congress on Reproductive Biomedicine. **Cell journal**.
5. **M Sharafi**, A Shahverdi, V Esmaili, A Amiri, M Sharbatoghli. 2014. Sperm Mediated Gene Transfer Using Adjuvant Preserving Fertility for Production of Transgenic Chicken Expressing. 14th international congress on reproductive biomedicine. **Cell journal**.
6. **M Sharafi**, M Zhandi, A Najafi, M Emamverdi. 2014. Improvement in Post-Thawed Ram Sperm Quality by Adding Cysteine in Soybean Lecithin. Based Extender. 13th international congress on Reproductive Biomedicine. **Cell journal**.
7. A Najafi, M Zhandi, A Towhidi, **M Sharafi**, M Emamverdi. 2014. In Vitro Assessment of Trehalose for Cryopreservation of Ram Sperm in Extender Containing Soybean Lecithin. 13th international congress on Reproductive Biomedicine. **Cell journal**.
8. V. Esmaili, A. Alizadeh and **M. Sharafi**. 2013. Use of Fish Oil versus Sunflower and Palm to Improved Ram Sperm Characteristics after Thawing. **8th Euro Fed Lipid**.
9. **M Sharafi**. M. H.Nasr-Esfahani and N. Nili. 2012. Soybean lecithin is suitable cry protectant for cryopreservation of ram semen . **60th Annual Meeting of the European Federation of Animal Science**, 399

Selected Supervised MSc and PhD Students

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Mohsen Sharafi (Assistant Professor of Animal Physiology), Tarbiat Modares University (TMU), Tehran; Iran: m.sharafi@modares.ac.ir

1. Zahra Askarian (MSc, Tarbiat Modares University)
2. Sara Feyzi (MSc, Tarbiat Modares University)
3. Masoumeh Salehi (MSc., Royan Institute)
4. Farzad Dadkhodazadeh (MSc, Tarbiat Modares University)
5. Maryam Hezaveyi ((PhD., Royan Institute)

Membership of Scientific Society

1. Iranian Society of Embryology
2. Iranian Society of Animal Science
3. Society of Cryobiology
4. European Society of Reproduction

Selected Referee of Scientific Journals

1. Cryobiology (from 2012 to present)
2. Theriogenology (from 2013 to now)
3. Reproduction, Development and Fertility (from 2013 to now)
4. Iranian Journal of Animal Science (from 2013 to now)
5. Animal Production (from 2012 to now)