

# CURRICULUM VITA

## PERSONAL DETAILS

**Name:** Esmaeel Ghani

**Date of birth:** 6 July 1981

**Place of birth:** Fars, Kherameh

**Marital status:** Married with two children

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## Educational Background

**M.Sc. (2004-2007):** Medical Physiology, Baqiyatallah University of Medical Sciences, Tehran, Iran.

**Ph.D. (2008-2013):** Medical Physiology, Shiraz University of Medical Sciences, Shiraz, Iran

## Employment

**2013 – 2023:** Assistant Professor of Physiology; Department of Physiology, The Medical School, Hormozgan University of Medical Sciences, Bandar Abbas, Iran.

**2023 – Present:** Associate Professor of Physiology; Department of Physiology, The Medical School, Shiraz University of Medical Sciences, Shiraz, Iran.

## Teaching Experiences

**1- Gastrointestinal physiology:** To M.Sc. students in Physiology, M.Sc. students in Biochemistry, Medical, Pharmacy and Dentistry students, Nutrition, Nursing, Midwifery and Paramedicine student

**2- Endocrine physiology:** To M.Sc. students in Physiology, Ph.D. students of Midwifery, M.Sc. students in Biochemistry, M.Sc. students in Nursing, Medical, Pharmacy and Dentistry students, Nursing, Midwifery and Paramedicine student

**3- Respiratory physiology:** To Dentistry, Nursing, Midwifery and Paramedicine student

**4- Renal & body fluid physiology:** To Nursing, Midwifery and Paramedicine student

**5- Cardiovascular physiology:** To Nursing, Midwifery and Paramedicine student

## Research interests

- 1- Reproductive physiology, male infertility
- 2- Oxidative stress study
- 3- Endocrine physiology
- 4- Complementary/herbal medicine study
- 5- Cell culture study

## Thesis Supervision

### Enrolled Theses

**1- Advisor of H. Aramian, Ph.D. in Biology of Reproduction (April, 2023 – Supervisor: Dr S. Keshtgar, Shiraz University of Medical Sciences):** Investigating the effect of vitamin D and platelet-rich plasma on the in-vitro maturation of immature oocytes in a mouse model of polycystic ovary syndrome.

**1- Advisor of S. Nasehi, M.Sc. in Physiology (September, 2024 – Supervisor: Dr S. Keshtgar, Shiraz University of Medical Sciences):** Investigation the Effect of Vitamin D on  $\beta$ -Estradiol and Testosterone, Oxidative Stress, Behavior, Memory, and Structural Changes of Ovary and Hippocampus in Polycystic Ovary Syndrome Rat Models

### Submitted Theses

**1- Supervisor of Mrs P. Zargar, M.Sc. in Physiology (April, 2016):** The effect of acriflavine on HIF1 $\alpha$ , topoisomerase1, topoisomerase2 expression and 5-fluorouracile chemosensitivity in colorectal cancer cell lines.

**2- Supervisor of Mrs Z. Gholami, M.Sc. in Physiology (March, 2017):** Determination the levels of zinc, lipid peroxidation, vitamin C, and total antioxidant capacity in seminal plasma of fertile and infertile men, and its association with semen quality.

**3- Supervisor of Mrs H. Azadikhah, M.Sc. in Physiology (Sep, 2017):** Assessment of TAC and Vitamin C levels in patients with or without atherosclerotic plaques and their relationship with the level of LDL, OX-LDL, and MDA.

**4- Advisor of Dr H. Ghanbari, Ph.D. in Physiology (Sep, 2017 – Supervisor: Dr S. Keshtgar, Shiraz University of Medical Sciences):** The interaction of CatSper and HV1 channels, and NOX5 enzyme on human spermatozoa activity.

**5- Supervisor of Mrs M. Khojasteh, M.Sc. in Physiology (Feb, 2019):** *In vitro* effects of *Capparis spinosa* extract on sperm function, DNA fragmentation and oxidative stress in normozoospermia.

**6- Supervisor of Mrs N. Barkhordari, M.Sc. in Physiology (Sep, 2021):** The effect of *Sargassum glaucescens* on malondialdehyde content, antioxidant capacity, liver function and fat profile in diabetic rats with high fat diet and streptozotocin.

**7- Supervisor of Mrs Z. Mollarostami, M.Sc. in Physiology (Sep, 2021):** Effect of *ulva lactuca* on blood glucose and expression of GLUT4 in type 2 diabetic rats.

**8- Supervisor of Mrs M. Tirandaz, M.Sc. in Physiology (Jan, 2023):** Investigation of the NOX5 expression in human sperm and its relationship with DNA fragmentation.

### Publications: English Articles

1. Tirandaz, M. **Ghani, E.** Samiei, A. Keshtgar, S. Homayounimeymandi M. Relationship between DNA fragmentation and NOX5 expression in human sperm (Andrologia, Submitted)

2. **Ghani, E.** Saljoughi, F. Sheybani-Arani, M.H. Khajavi, F. Sohrabipour, SH. Effects of *Sargassum Glaucescens* Algae on Blood Glucose Level in Diabetic Rats With a High-Fat Diet and Streptozotocin. *Dis Diagn.* 2024;**13**(3): 99-106. doi: [10.34172/ddj.547](https://doi.org/10.34172/ddj.547)

3. Zeini S, Davoodian N, Kazemi H, Shareghi Brojeni M, **Ghani E**, Arab Firouzjaei M, Atashabparvar A. Resveratrol prevents cognitive impairment and hippocampal inflammatory response induced by lipopolysaccharide in a mouse model of chronic neuroinflammation. *Physiol Behav.* 2024 May 1;278:114508. doi: 10.1016/j.physbeh.2024.114508. Epub 2024 Mar 7. PMID: 38460779.

4. Rokhtabnak, N., Ataollahi, M.R., Asadipour, M., Ali-Hassanzadeh, M., Fazeli, P., Khansalar, S., **Ghani, E.**, and Kalantar, K., *Negative Correlation of Interleukin-38 Levels with Alkaline Phosphatase and Persistent Hepatitis C Infection.* Shiraz E-Medical Journal, 2022, 23(9), e121969.

5. Keshtgar, S. and **Ghani, E.**, *Impact of calcium and reactive oxygen species on human sperm function: Role of NOX5.* *Andrologia*, 2022, 54(8), e14470

6. Rashidi, S., Vieira, C., Mansouri, R., Ali-Hassanzadeh, M., **Ghani, E.**, Karimazar, M., Nguewa, P., and Manzano-Román, R., *Host cell proteins modulated upon Toxoplasma infection identified using proteomic approaches: a molecular rationale.* *Parasitology Research*, 2022: p. 1-13.

7. Rashidi, S., Mansouri, R., Ali-Hassanzadeh, M., **Ghani, E.**, Karimazar, M., Muro, A., Nguewa, P., and Manzano-Román, R., *miRNAs in the regulation of mTOR signaling and host immune responses: the case of Leishmania infections.* *Acta Tropica*, 2022: p. 106431.

8. Rashidi, S., Fernández-Rubio, C., Mansouri, R., Ali-Hassanzadeh, M., **Ghani, E.**, Karimazar, M., Manzano-Román, R., and Nguewa, P., *Selenium and protozoan parasitic*

*infections: selenocompounds and selenoproteins potential*. Parasitology research, 2022: p. 1-14.

9. Kargar-Abargouei, E., **Ghani, E.**, Rarani, M.Z., Dastjerdi, Z.S., Firouzjaei, S.A., and Firouzjaei, M.A., *Male Infertility in infected patients with COVID-19: A Narrative Review*. Caspian Journal of Reproductive Medicine, 2021. **7**(1): p. 1-7.

10. Rashidi, S., Mansouri, R., Ali-Hassanzadeh, M., **Ghani, E.**, Barazesh, A., Karimazar, M., Nguewa, P., and Silva, E.A.C., *Highlighting the interplay of microRNAs from Leishmania parasites and infected-host cells*. Parasitology, 2021. **148**(12): p. 1434-1446.

11. Kalantar, K., Manzano-Román, R., **Ghani, E.**, Mansouri, R., Hatam, G., Nguewa, P., and Rashidi, S., *Leishmanial apolipoprotein AI expression: a possible strategy used by the parasite to evade the host's immune response*. Future Microbiology, 2021. **16**(8): p. 607-613.

12. Rashidi, S., Tuteja, R., Mansouri, R., Ali-Hassanzadeh, M., Shafiei, R., **Ghani, E.**, Karimazar, M., Nguewa, P., and Manzano-Román, R., *The main post-translational modifications and related regulatory pathways in the malaria parasite Plasmodium falciparum: An update*. Journal of proteomics, 2021. **245**: p. 104279.

13. Rad, M.K., Ghani, A., and **Ghani, E.**, *In vitro effects of Capparis spinosa L. extract on human sperm function, DNA fragmentation, and oxidative stress*. Journal of Ethnopharmacology, 2021. **269**: p. 113702.

14. Keshtgar, S., Ghanbari, H., **Ghani, E.**, and Moosavi, S.M.S., *Effect of CatSper and Hv1 channel inhibition on progesterone stimulated human sperm*. Journal of Reproduction & Infertility, 2018. **19**(3): p. 133.

15. Zargar, P., **Ghani, E.**, Mashayekhi, F.J., Ramezani, A., and Eftekhari, E., *Acriflavine enhances the antitumor activity of the chemotherapeutic drug 5-fluorouracil in colorectal cancer cells*. Oncology Letters, 2018. **15**(6): p. 10084-10090.

16. **Ghani, E.**, Keshtgar, S., Habibagahi, M., Ghannadi, A., and Kazeroni, M., *Expression of NOX 5 in human teratozoospermia compared to normozoospermia*. Andrologia, 2013. **45**(5): p. 351-356.

17. Mohammadi, M., **Ghani, E.**, Ghasemi, A., Khoshbaten, A., and Asgari, A., *Synaptosomal GABA uptake decreases in paraoxon-treated rat brain*. Toxicology, 2008. **244**(1): p. 42-48.

18. Rasoulzadeh, B., Jafari, M., Noroozadeh, A., Mehrani, H., Wahhab-Aghai, H., Hashemi-Madani, S., **Ghani, E.**, Esmaili, M., Asgari, A., and Khoshbaten, A., *Effects of ischemia-reperfusion on rat renal tissue antioxidant systems and lipid peroxidation*. Acta Medica Iranica, 2008: p. 353-360.

## Publications: Persian Articles

1. Zargar P, **Ghani E**, Jalali Mashayekhi F, Eftekhari E. Combined Effect of 5-Fluorouracil and Acriflavine on Mortality Rate of Colorectal Cancer Cell Lines. Arak Medical University Journal, 2016; 19(108), 19-26.

2. **Ghani E**, Mohammadi M, Jafari M, Khoshbaten A, Asgari A.R. Effect of paraoxon on the oxidative stress indices and lactate dehydrogenase activity in rat liver. *J of Babol Univ Med Sci*, 2012; 14(1), 46-52.
3. Mohammadi M, **Ghani E**, Ghasemi A, Khoshbaten A, Asgari A.R. Determination of the Inhibition and Recovery of the Plasma, Cerebral Cortex and Hippocampus Acetylcholinesterase Activity in Male Paraoxon-Treated Rats. *J of Babol Univ Med Sci*, 2010; 12(1), 9-15,
4. Mohammadi M, Ghasemi A, **Ghani E**, Khoshbaten A, Asgari A.R. Effect of paraoxon on the synaptosomal GABA uptake in rat hippocampus and cerebral cortex. *Physiology and Pharmacology*, 2009; 13 (2), 130 – 138.
5. **Ghani E**, Mohammadi M, Jafari M, Khoshbaten A, Asgari A.R. Evaluation of oxidative stress indices in rat brain following exposure to paraoxon. *Kowsar Medical Journal*, 1386; 12(3), 189-196.

## Abstracts & Presentations

1. **Ghani E**, Keshtgar S, Habibagahi M, Ghannadi A, Kazeroni M, Hosseini A. *Calcium overload induced apoptosis in human normozoospermia and teratozoospermia. 5th Yazd International Congress and Student Award in Reproductive Medicine.*
2. Forootan F, Keshtgar S, **Ghani E**. Deleterious effect of geldanamycin on human sperm motility attenuated by trolox. *5th Yazd International Congress and Student Award in Reproductive Medicine.*
3. **Ghani E**, Keshtgar S, Habibagahi M, Ghannadi A, Kazeroni M. Effects of NOX5 activation on human sperm motility. *The 21<sup>th</sup> Iranian Congress of Physiology and Pharmacology.*
4. Forootan F, Keshtgar S, **Ghani E**, Mirkhani H, Talaei-Khozani T. Investigating the role of HSP90 on human sperm motility. *The 21<sup>th</sup> Iranian Congress of Physiology and Pharmacology.*
5. Ghanbari H, Keshtgar S, **Ghani E**. Investigating the interactive functions of CatSper and NOXS enzyme on activated human spermato zoa by progesterone. *1<sup>st</sup> International and 21<sup>nd</sup> Iranian Congress of Physiology and Pharmacology*, P-05-10.
6. Azadikhah H, **Ghani E**, Farshidi H. Evaluation of blood levels of OX-LDL, MDA and lipid in patients with or without atherosclerotic plaques. *The 15<sup>th</sup> Iranian National Congress of Biochemistry & 6<sup>st</sup> International Congress of Biochemistry & Molecular Biology*, 887.
7. Khojasteh M, **Ghani E**, Ghani A. In vitro effects of Capparis spinosa extract on sperm function, DNA fragmentation, and oxidative stress in normozoospermia. *24<sup>th</sup> Iranian & 3<sup>th</sup> International and Congress of Physiology and Pharmacology.*
8. Keshtgar S, Forootan F, **Ghani E**, Iravanpoor. Effectiveness of NBT test in evaluation of ROS generation by human sperm. *1<sup>st</sup> International Congress on Reproductive Ethics 3<sup>rd</sup> National congress on Ethics & Modern Methods of Infertility Treatment.*

9. Gholami Z, **Ghani E**, Eftekhar E, Khaiatian M. Comparison of oxidative stress parameters in seminal plasma of fertile and infertile men. *23<sup>th</sup> Iranian & 2<sup>th</sup> International and Congress of Physiology and Pharmacology*.

10. Forootan F, Keshtgar S, **Ghani E**, Talaei-Khozani T, Zabihi Asadollah. Effect of geldanamycin, a HSP90 inhibitor, on human sperm characteristic. *19<sup>th</sup> National and Congress on Infertility and Reproduction*, P-71.

## **Executive Records**

1. Deputy Director for Research and Graduate Studies, Department of Physiology, Shiraz University of Medical Sciences (2023/07 – Present).

2. Head of the Physiology Department, Hormozgan University of Medical Sciences (2017/07 – 2023/01).

3. Member of the Endocrine and metabolism Research Center, Hormozgan University of Medical Sciences (2017/03/21 – Present).

4. Member of the Stem Cell Research Center, Hormozgan University of Medical Sciences (2015/04/11 – Present).

5. Member of the Council of Postgraduate Studies of Hormozgan University of Medical Sciences (2017/02/15 – Present).

6. Member of the Council of Matching Unit of Hormozgan University of Medical Sciences (2019/11/20 – Present).

7. Advisor of Medical Student, Hormozgan University of Medical Sciences (2013/10/20 – Present).

8. Member of the Interview Committee with PhD by Research Students, Hormozgan University of Medical Sciences (2019/11/20 – Present).

## **Research skills**

1. Laboratory measurement using Specterophotometry and ELISA methods

2. Measurement of oxidative stress indices

3. Semen analysis

4. Immunohistochemistry

5. Flow cytometry