



**In the name of God**  
**Summary of the scientific-research certificate of the faculty**  
**members and researchers**  
**Endocrinology and Metabolism Research Institute Shahid**  
**Beheshti University of Medical Sciences**



<b>Name:</b> Mahbanoo	<b>Scopus ID number:</b> 57553071700 <a href="https://orcid.org/0000-0003-3769-5160">https://orcid.org/0000-0003-3769-5160</a>
<b>Family name:</b> Farhadi-Azar	
<b>H-Index:</b> 5	<b>Total number of citations to articles:</b> 80 <b>Number of citations to articles in 2025:</b> 16
<b>Total number of research projects:</b> 13 <b>Number of research projects in the role of</b> <b>executor:</b> 3	<b>Total number of articles:</b> 14 <b>Number of articles by the first author/responsible:</b> 7 <b>Number of articles in 2025:</b> 1



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**1. Personal Information:**

<b>Name:</b> Mahbanoo <b>Family name:</b> Farhadi-Azar	<b>Date of birth:</b> 11 <sup>th</sup> Aug 1987	<b>National Code:</b> -
<b>Identity Card No:</b> -	<b>Place of Birth:</b> Tehran	<b>Father Name:</b> -
<b>Email:</b> <a href="mailto:farhadi.mahbanoo@gmail.com">farhadi.mahbanoo@gmail.com</a> <a href="mailto:farhadiazar@endocrine.ac.ir">farhadiazar@endocrine.ac.ir</a>	<b>Mobile phone no:</b> -	

**2. Academic records / training courses**

Grade	Education / orientation	Duration of study		University name	Country / city of study	GPA
		Start	End			
Bachelor	Cellular and molecular	2008	2012	Islamic Azad University	Lahijan /Iran	19.40/20
Master	Biotechnology	2016	2019	Islamic Azad University Science And Research Branch	Tehran/Iran	18.02/20

**3. Employment Status:**

<b>Faculty members and formal researchers:</b> Formal Researcher			
<b>Contract researchers</b>			
<b>Work start date</b>	<b>contract type</b>	<b>Researcher rank</b>	<b>Last upgrade date</b>
2019	-	Researcher	2025

## 4. Educational experience:

### 4.1. Teaching in short courses / educational-research workshops

No.	Course / workshop title	Date	Organization	Teaching title
1	PCOS Animal Modeling	June/2018	Islamic Azad University, Science and Research Branch, Tehran	Modeling of rat and mice using estradiol valerate, testosterone, DHEA in practice along with descriptive explanations of various other methods
2	How to get a vaginal smear from rat and Syrian rat	Feb/2017	Islamic Azad University, Science and Research Branch, Tehran	How to get a vaginal smear from rat and mice
3	Principles and methods of RNA and DNA extraction	Feb/2017	Biocamp research and drug design laboratory	How to extract RNA and DNA from tissue, blood, plant
4	Principles and methods of RNA and DNA extraction	April/2017	Islamic Azad University, Science and Research Branch, Tehran	How to extract RNA and DNA from tissue, blood, plant
5	Principles of working with laboratory animals	Sep/2016	Pastor Institute of Iran	How to get a rat and mice gavage and injection drug in different ways and principles of anatomy and treatment of animals

## 5. Research Activities:

### Publications:

#### 5.1. International articles:

1. **Farhadi-Azar M**, Noroozzadeh M, Mousavi M, Saei Ghare Naz M, Ramezani Tehrani F. Impaired glucose tolerance and insulin resistance in a prenatally-androgenized rat model of polycystic ovary syndrome in later life. *Experimental Physiology*. 2025 Mar;110 (3):410-23.

<https://physoc.onlinelibrary.wiley.com/doi/full/10.1113/EP091912>

<https://doi.org/10.1113/EP091912>

2. Farahmand M, Rahmati M, Saei Ghare Naz M, Amiri M, Noroozzadeh M, **Farhadi-Azar M**, Azizi F, Ramezani Tehrani F. Fracture incidence in women: the impact of reproductive characteristics. BMC Public Health. 2024 Dec 18;24(1):3409.  
<https://link.springer.com/article/10.1186/s12889-024-20890-2>  
<https://doi.org/10.1186/s12889-024-20890-2>
3. Saei Ghare Naz M, **Farhadi-Azar M**, Noroozzadeh M, Farahmand M, Ramezani Tehrani F. Follicle Stimulating Hormone and Diabetes in Postmenopausal Women: A Systematic Review and Metaanalysis. The Journal of Clinical Endocrinology & Metabolism. 2024 Mar 30;dgae198.  
<https://academic.oup.com/jcem/advance-article-abstract/doi/10.1210/clinem/dgae198/7637768>  
<https://doi.org/10.1210/clinem/dgae198>
4. Noroozzadeh M, Rahmati M, **Farhadi-Azar M**, Saei Ghare Naz M, Azizi F, Ramezani Tehrani F. Maternal androgen excess increases the risk of metabolic syndrome in female offspring in their later life: A long-term population-based follow-up study. Archives of Gynecology and Obstetrics. 2023 Nov;308(5):1555-66.  
<https://link.springer.com/article/10.1007/s00404-023-07132-3>  
<https://doi.org/10.1007/s00404-023-07132-3>
5. **Farhadi-Azar M**, Noroozzadeh M, Ghahremani M, Rahmati M, Saei Ghare Naz M, Azizi F, Ramezani Tehrani F. Maternal androgen excess increases the risk of pre-diabetes mellitus in male offspring in later life: a long-term population-based follow-up study. Journal of Endocrinological Investigation. 2023 Sep;46(9):1775-85.  
<https://link.springer.com/article/10.1007/s40618-022-01972-7>  
<https://doi.org/10.1007/s40618-022-01972-7>
6. **Farhadi-Azar M**, Ghahremani M, Mahboobifard F, Noroozzadeh M, Yaghmaei P, Tehrani FR. Effects of Rosa damascena on reproductive improvement, metabolic parameters, liver function and insulin-like growth factor-1 gene expression in estradiol valerate induced polycystic ovarian syndrome in Wistar rats. biomedical journal. 2023 Jun 1;46(3):100538.  
<https://www.sciencedirect.com/science/article/pii/S2319417022000762>  
<https://doi.org/10.1016/j.bj.2022.05.003>
7. **Farhadi-Azar M**, Naz MS, Ghahremani M, Mousavi M, Azizi F, Tehrani FR. Self-reported Male Infertility and Metabolic Disturbance: A Cross-Sectional Study. International Journal of Endocrinology and Metabolism. 2023 Apr;21(2).  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10467580/> <https://doi.org/10.5812/ijem-134895>
8. Dovom MR, Noroozzadeh M, Mosaffa N, Zadeh-Vakili A, Piryaee A, Rahmati M, **Farhadi-Azar M**, Tehrani FR. Continued exposure to D-galactose in postnatal period may inhibit excessive primordial

follicle reduction in rats exposed prenatally to D-galactose. Birth Defects Research. 2022 Oct 15;114(17):1112-22. <https://onlinelibrary.wiley.com/doi/abs/10.1002/bdr2.2083>.

<https://doi.org/10.1002/bdr2.2083>

9. Noroozzadeh M, Amiri M, **Farhadi-Azar M**, Tehrani FR. Bone health in women with polycystic ovary syndrome: a narrative review. Journal of clinical densitometry. 2022 Oct 1;25(4):606-14. <https://www.sciencedirect.com/science/article/abs/pii/S1094695022000117> <https://doi.org/10.1016/j.jocd.2022.02.005>
10. Dovom MR, Noroozzadeh M, Mosaffa N, Piryaee A, Zadeh-Vakili A, Aabdollahifar MA, Rahmati M, **Farhadi-Azar M**, Tehrani FR. Maternal exposure to D-galactose reduces ovarian reserve in female rat offspring later in life. International Journal of Endocrinology and Metabolism. 2022 Apr;20(2). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9383541/> <https://doi.org/10.5812/ijem-123206>
11. **Farhadi-Azar M**, Behboudi-Gandevani S, Rahmati M, Mahboobifard F, Khalili Pouya E, Ramezani Tehrani F, Azizi F. The prevalence of polycystic ovary syndrome, its phenotypes and cardiometabolic features in a community sample of Iranian population: Tehran lipid and glucose study. Frontiers in Endocrinology. 2022 Mar 1;13:825528. <https://www.frontiersin.org/journals/endocrinology/articles/10.3389/fendo.2022.825528/full> <https://doi.org/10.3389/fendo.2022.825528>

## 5.2. National articles:

1. **Farhadi-Azar M**, Saei Ghare Naz M, Noroozzadeh M, Tehrani FR. The role of gut microbiota in the development of common metabolic disorders in polycystic ovary syndrome: a narrative review. 2023 fa401-fa409. <http://ijem.sbm.ac.ir/article-1-3063-en.html> <https://doi.org/10.5555/20230404239>
2. Saei Ghare Naz M, **Farhadi-Azar M**, Tehrani FR. Polycystic ovary syndrome and primary headaches: a narrative review study. 2022 fa94-fa108. [https://ijogi.mums.ac.ir/article\\_21190.html](https://ijogi.mums.ac.ir/article_21190.html) <https://doi.org/10.22038/ijogi.2022.62110.5146>

## 5.3. Congress, Symposiums and Webinars:

1. **Farhadi-Azar M**, Noroozzadeh M, Saei Ghare Naz M, Farahmand M, Ramezani Tehrani F.

Risk of Pre-Hypertensionm Overweight and Obesityin Sons of Women With PCOS. A Long Term Population Based Study. 25<sup>th</sup> Royan International Congress on Reproductive Biomedicine, Tehran, Iran. Presentation/ Poster.

2. **Farhadi-Azar M**, Farahmand M, Noroozzadeh M, Saei Ghare Naz M, Mousavi M , Ramezani Tehrani F. Prevalence of Diabetes Risk in Infertile Men. 25<sup>th</sup> Royan International Congress on Reproductive Biomedicine, Tehran, Iran. Presentation/ Poster.
3. Noroozzadeh M, **Farhadi Azar M**, Ramezani Tehrani F. Cardiac tolerance to ischemia/reperfusion injury in a rat model of polycystic ovary syndrome. 13<sup>th</sup> International Congress of Endocrine Disorders, Tehran, Iran. Presentation/ Poster

#### 5.4. Research projects:

1. Quality control of disease registry program of premature ovarian failure.
2. Investigating the effect of *Rosa damascena* extract on some of oxidative stress index and COX-2 gene expression in the rat model of polycystic.
3. Prevalence of Metabolic Syndrome in Women with Polycystic Ovarian Syndrome, Based on Rotterdam Criteria: Tehran Lipid and Glucose Study.
4. Investigating the effect of *Rosa damascena* extract on same of oxidative stress index and COX-2 gene expression in the rat model of polycystic ovary syndrome: secondary data analysis.
5. Effect of *Rosa damascena* extracts on biochemical and histological parameters and gene expression of IGF-1 in Wistar rat model of polycystic ovary syndrome.
6. Design and Characterization of Mesenchymal Stem Cells Derived Exosomes Loaded With 17-beta Estradiol and Its Therapeutic Effect on a Rat model of premature Ovarian Filure Following Prenetal Galactose Exposure.
7. Bone metabolism in polycystic ovary syndrome: A narrative review.
8. Examination of Perception, cognition, memory, and incidence of Alzheimer's disease in polycystic ovary syndrome.
9. Examination of cardiovascular risk factors in men participating in Tehran Lipid and Glucose Study (TLGS) with maternal hyperandrogenemia history.
10. Comparision of Incidence of alzheimer's disease symptoms in a rat model of polycystic ovary syndrome with controls in premenopausal status.

11. Inducing premature ovarian insufficiency experimental model through in utero exposure to galactose and comparison of the reproductive, metabolic, and immunological characteristics of female first-generation rats with controls.
  12. Prevalence of male infertility and its affecting factors: Tehran Lipid and Glucose Study.
  13. Assessment of bone mass in polycystic ovary syndrome (PCOS) rats compared to controls.
  14. The Examination of Survival of Metabolic Changes in a rat Model of Polycystic Ovary Syndrome from Fertility to Post Menopause periods.
- 13.

## 6. Executive records (responsibilities):

No.	Title of responsibility	Organization / Institute	Year
1	Executive Director of Quality Control for the Premature Ovarian Failure Disease Registry Program	Research Institute for Endocrine Molecular Biology, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran	2025-Present
2	Responsible for the research center site	Research Institute for Endocrine Molecular Biology, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran	2023-Present
3	Laboratory expert	Research Institute for Endocrine Molecular Biology, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran	2019- Present
4	The author is in charge of the monthly magazine of medicine and treatment	Biocomp research and drug design laboratory	Feb/2017
5	Responsible for biotechnology booths and selected achievements	Exhibition of Research and Technology Achievements of Islamic Azad University, Science and Research Branch, Tehran	Dec/2017

## 7. Grant support:

- 2022 Shahid Beheshti University of Medical Sciences, Tehran, Iran (PIs: Ramezani Tehrani F, and **Farhadi Azar M**) “Effect of *Rosa damascena* extracts on biochemical and histological parameters and gene expression of IGF-1 in Wistar rat model of polycystic ovary syndrome”

## 8. Academic Awards:

- Distinguished student of BS. Course.
- Selected as the top graduated student of MSc. course.

## **9. Membership in scientific forums and associations:**

- Member of the Biotechnology Society of the Islamic Republic of Iran (IRBIC).
- Member of Iranian Society of Embryology & Reproductive Biology (ISERB).
- Member of Universal Scientific Education and Research Network (USERN).
- Member of Iranian Genetics Society (IGS).
- Member of Iranian Society of Physiology and Pharmacology (ISPP).
- Member of Iranian Bioinformatics Society (IBIS).

## **10. Membership in the editorial board:**

## **11. Refereeing for international magazines:**

- Scientific Reports (4)
- Obesity Surgery (1)
- BMC Pregnancy and Childbirth (2)
- Journal of Ovarian Research (2)
- Lipid and Health and Disease (3)
- BMC women's health (7)
- Frontiers in endocrinology (2)
- Gynecological endocrinology (1)
- Journal of reproductive immunology (1)
- Life sciences (2)

## **12. Skills (mastering foreign languages, software or device, ...) (with full specifications):**

- **Animal Laboratory Experiences;** Animal modeling in polycystic ovary syndrome and Premature ovarian menopause, Dissection, Intraperitoneal injection, Subcutaneous injection, Blood sampling, Gavage, Preparation of smears Histopathology, Bone separation, Brain separation, Behavioral test (Water Maze), Determining sexual cycle phases in rats, Performing insulin tolerance test in rats Performing glucose tolerance test by intraperitoneal and intravenous methods in rats.
- **Molecular Laboratory Experiences;** DNA, RNA & protein Extraction purification (from blood, tissues & cell line), PCR techniques (RT-PCR, ARMS, Real-Time PCR), RFLP (restriction fragment



length polymorphism), Electrophoresis technique (Protein and DNA agarose and polyacrylamide), Western Blotting, DNA Methylation, cDNA Synthesis.

- **Cell Culture Laboratory Experiences;** Preparation of Medium, Recovery of Cryopreserved Cells, Cryopreservation, Media changes, Passaging cells, Transfection and transduction, Cell Counting, Drug Treatment, MTT Assay.
- **Assisted Reproductive Technology (ART);** Microscopy, ICSI, IVF, Blastomere biopsy, Zona hatching, Sperm extraction and capacitation protocol for IVF technique, Mature and immature oocyte extraction for IVF and IVM techniques.
- **Bioinformatics;** Bioinformatics analysis of DNA, RNA, and Protein sequences (Blast, Alignment), Primer design for mutation detection, expression, and methylation.
- Writing proposal and scientific paper
- Microsoft Office, Word, Excel, PowerPoint, Access, Visio.
- Statistical analysis software; EndNote, SPSS, GraphPad prism, Mendeley reference manager.
- Primer Design Soft wares; Gene runner, Allele ID, Primer3.
- Bioinformatics analysis soft wares; REST software, GenEX, Progeny 7.

### **13. Laboratory set ups/setting up data recording system/preparation of data bank:**

- Preparation of data bank from rat model with Polycystic Ovary Syndrome (PCOS).
- Preparation of data bank from rat model with Premature Ovarian Failure (POF).