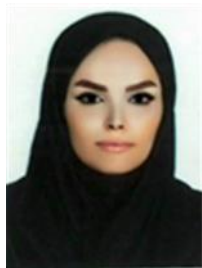**In the name of God**
Summary of the scientific-research certificate of the faculty members and researchers
Endocrinology and Metabolism Research Institute
Shahid Beheshti University of Medical Sciences

Name: Mahbanoo **Family name:** Farhadi-Azar	**Scopus ID number:** 57553071700 https://orcid.org/0000-0003-3769-5160
H-Index: 3	**Total number of citations to articles:** 34 **Number of citations to articles in 2024:** 7
Total number of research projects: 12 **Number of research projects in the role of executor:** 3	**Total number of articles:** 11 **Number of articles by the first author/responsible:** 5 **Number of articles in 2024:** 1

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

1. Personal Information:

Name: Mahbanoo **Family name:** Farhadi-Azar	**Date of birth:** 11th Aug 1987	**National Code:** 0078318701
Identity Card No: 85503	**Place of Birth:** Tehran	**Father Name:** Jaffar
Email: farhadi.mahbanoo@gmail.com farhadi@endocrine.ac.ir	**Mobile phone no:** +98(912)0215217	

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	18.2/20

3. Employment Status:

Faculty members and formal researchers: Formal researcher			
Contract researchers			
Work start date	**contract type**	**Researcher rank**	**Last upgrade date**
2019	-	Researcher	2023

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	Biocomp 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. 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 Meta-analysis. 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

2. 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

3. **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

4. **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

5. **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

6. Dovom MR, Noroozzadeh M, Mosaffa N, Zadeh-Vakili A, Piryaei 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

7. 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

8. Dovom MR, Noroozzadeh M, Mosaffa N, Piryaei 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

9. **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 cardio-metabolic 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.sbmu.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://doi.org/10.22038/ijogi.2022.62110.5146

5.3. Congress, Symposiums and Webinars:

1. Noroozzadeh M, **Farhadi Azar M**, Ramezani Tehrani F. Cardiac tolerance to ischemia/reperfusion injury in a rat model of polycystic ovary syndrome. 13th International Congress of Endocrine Disorders, Tehran, Iran. Presentation/ Poster

5.4. Research projects:

1. Prevalence of Metabolic Syndrome in Women with Polycystic Ovarian Syndrome, Based on Rotterdam Criteria: Tehran Lipid and Glucose Study.

2. 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.

3. Effect of *Rosa damascena* extracts on biochemical and histological parameters and gene expression of IGF-1 in Wistar rat model of polycystic ovary syndrome.

4. 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.

5. Bone metabolism in polycystic ovary syndrome: A narrative review.

6. Examination of Perception, cognition, memory, and incidence of Alzheimer's disease in polycystic ovary syndrome.

7. Examination of cardiovascular risk factors in men participating in Tehran Lipid and Glucose Study (TLGS) with maternal hyperandrogenemia history.

8. Comparision of Incidence of alzheimer's disease symptoms in a rat model of polycystic ovary syndrome with controls in premenopausal status.

9. 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.

10. Prevalence of male infertility and its affecting factors: Tehran Lipid and Glucose Study.

11. Assessment of bone mass in polycystic ovary syndrome (PCOS) rats compared to controls.

12. 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	Responsible for the research center site	Reproductive Endocrinology Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences	Aug/2023
2	The author is in charge of the monthly magazine of medicine and treatment	Biocomp research and drug design laboratory	Feb/2017
3	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:

- BMC women's health (5)
- Frontiers in endocrinology (1)
- Gynecological endocrinology (1)
- Journal of reproductive immunology (1)
- Life sciences (1)

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).

- **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.