



Pourya Raee

Date of birth: 10/01/1993 | **Nationality:** Iranian | **Phone number:** (+98) 9119202298 (Mobile) |

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Address: Shahid Beheshti University of of Medical Sciences Tehran, Iran
(University of the latest degree), Tehran, Iran (Work)

SCOPUS SUMMARY

H Index: 15 **Citation :** 1652

EDUCATION AND TRAINING

22/09/2018 – CURRENT Tehran, Iran

PH.D. IN REPRODUCTIVE BIOLOGY School of Medicine, Shahid Beheshti University of Medical Sciences

Website <https://en.sbmu.ac.ir/> | **Field of study** Reproductive Biology | **Final grade** P.h.D |

Thesis Evaluation of autophagy-related genes expression (AMPK α 1, Beclin1, Bcl2 and Bax), apoptotic changes, telomere length, and DNA integrity in spermatozoa of obese men compared to normal weight individuals

22/09/2011 – 27/07/2018 Tabriz, Iran

DOCTOR OF VETERINARY MEDICINE (DVM) Faculty of Veterinary Medicine, University of Tabriz

Address ast Azerbaijan Province, Tabriz, 29 Bahman Boulevard, Tabriz, Iran |

Thesis Thesis Title: The effect of high-fat diet feeding and two type of aerobic training on stereological structure, apoptotic index, Hsp70 expression and function of testis in rat

LANGUAGE SKILLS

Mother tongue(s): **PERSIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C2	B2	B1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

HONOURS AND AWARDS

2017

• **Ranked first in the Comprehensive Veterinary Examination – Faculty of Veterinary Medicine, University of Tabriz**

2018

• **Ranking second in PhD entrance exam of Reproductive Biology .**

DIGITAL SKILLS

Microsoft Excel | Gene runner | Primer3 | Primer designing using NCBI primer blast | Relative Expression Software Tool (REST) | FlowJo | miRBase | CorelDraw Graphics Suite | IBM Statistical Package for the Social Sciences (SPSS) - Utilizador Independente | Computer Vision using Python | google teachable machine | Step One plus software | BioRender (Scientific illustrations) | GraphPad Prism

● RESEARCH INTRESTS

- Andrology (Role of autophagy in male reproductive health and diseases)
 - Designing different animal models of reproductive diseases
 - Early embryo development In Vitro (Epigenetic changes induced by different types of culture systems)
 - Nanoparticle-based delivery systems for the treatment of reproductive diseases and complications
 - Immunopharmacology in reproductive medicine
 - Evidence-based reproductive biology, with a focus on narrative reviews, systematic reviews and meta-analyses
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● PUBLICATIONS

2023

[**1. Male obesity is associated with sperm telomere shortening and aberrant mRNA expression of autophagy-related genes. Basic and Clinical Andrology. Impact factor: 2.4.**](#)

First Author

2023

2. Autophagy, a critical element in the aging male reproductive disorders and prostate cancer: a therapeutic point of view. Reproductive Biolog and Endocrinology. Impact factor: 4.4 .

First Author

2022

[**3. Gene regulation by antisense transcription: A focus on neurological and cancer diseases. Biomedicine & Pharmacotherapy. Impact factor: 7.5 .**](#)

First Author (Co-first)

2022

[**4. Therapeutic effects of edaravone on azoospermia: free radical scavenging and autophagy modulation in testicular tissue of mice. Journal of Reproduction & Infertility.**](#)

Corresponding Author (CO- Corresponding)

2021

[**5. The evaluation of Human papilloma virus and human herpes viruses \(EBV, CMV, VZV HSV-1 and HSV-2\) in semen samples. Andrologia. Impact factor: 2.4 .**](#)

Co-author

2021

[**6. An effective method for establishing animal models of azoospermia and oligospermia. Andrologia. Impact factor: 2.4 .**](#)

Co-author

2022

[**7. Recent advances in siRNA delivery systems for prostate cancer therapy. Current pharmaceutical biotechnology. Impact factor: 2.8 .**](#)

Co-author

2022

[**8. An elderberry-supplemented diet improves spermatogenesis in mice with busulfaninduced azoospermia. Reproduction, Fertility and Development. Impact factor: 1.9 .**](#)

Co-author

2021

9. Curcumin-loaded Iron particle improvement of spermatogenesis in azoospermic mouse induced by long-term scrotal hyperthermia. Reproductive Sciences. Impact factor: 2.9 .

Co-author

2021

10. Photobiomodulation restores spermatogenesis in the transient scrotal hyperthermia-induced mice. Life Sciences. Impact factor: 6.1 .

Co-author

2021

11. Long non-coding RNAs as new players in bladder cancer: Lessons from pre-clinical and clinical studies. Life Sciences. Impact factor: 6.1 .

Co-author

2020

12. Silymarin protects the structure of kidney in the neonatal rats exposed to maternal cadmium toxicity: A stereological study. Veterinary Research Forum . Impact factor: 1 .

Co-author

2018

13. Airway epithelial barrier dysfunction in chronic obstructive pulmonary disease: role of cigarette smoke exposure. American journal of respiratory cell and molecular biology. Impact factor: 6.4 .

Co-author

2021

14. Association between rs1049174 NKG2D gene polymorphism and idiopathic recurrent spontaneous abortion in Iranian women: a case-control study. Journal of Obstetrics and Gynaecology. Impact factor: 1.3.

Co-author

2021

15. Association of dietary insulinaemic potential and odds of non-alcoholic fatty liver disease among adults: A case-control study. Journal of Human Nutrition and Dietetics. Impact factor: 3.3 .

Co-author

2021

16. Antimicrobial peptides as potential therapeutics for breast cancer. Pharmacological Research. Impact factor: 9.3 .

Co-author

2022

17. Comparative Effect of Photobiomodulation on Human Semen samples pre and post Cryopreservation. Reproductive Sciences. Impact factor: 2.9 .

Co-author

2021

18. Curcumin and its derivatives in cancer therapy: Potentiating antitumor activity of cisplatin and reducing side effects. Phytotherapy Research. Impact factor: 7.2 .

Co-author

2023

19. Global, regional, and national burden of diabetes from 1990 to 2021, with projections of prevalence to 2050: a systematic analysis for the Global Burden of Disease Study 2021. The lancet. Impact factor: 168.9.

Co-author

2023

20. Evaluation of Human Papillomavirus (HPV) in semen of infertile men and its relationship with semen quality. Archives of Clinical Infectious Diseases. Impact factor: 1.4 .

Co-author

2023

21. Global, regional, and national incidence of six major immune-mediated inflammatory diseases: findings from the global burden of disease study 2019. eClinicalMedicine. Impact factor: 15 .

Co-author

2021

22. Association of dietary fiber and depression symptom: A systematic review and metaanalysis of observational studies. Complementary Therapies in Medicine. Impact factor: 3.6 .

Co-author

2021

23. Nonviral siRNA delivery systems for pancreatic cancer therapy. Biotechnology and Bioengineering. Impact factor: 3.8 .

Co-author

2022

24. Therapeutic Potentials of CRISPR-Cas Genome Editing Technology in Human Viral Infections. Biomedicine & Pharmacotherapy. Impact factor: 7.5 .

Co-author

2020

25. Antimicrobial peptides: a promising strategy for lung cancer drug discovery? Expert Opinion on Drug Discovery. Impact factor: 6.3 .

Co-author

2023

26. Recent Advances in CRISPR/Cas9-Mediated Genome Editing in Leishmania Strains. Acta Parasitologica. Impact factor: 1.5.

Co-author

2024

27. Chronic Administration of Lisdexamfetamine Induces Apoptosis and Inflammation and Reduces Sperm Quality in Adult Male Rats. Reproductive Sciences. Impact factor: 2.9 ..

Co-author

2024

28. Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950–2021, and the impact of the COVID-19 pandemic: a comprehensive demographic analysis for the Global Burden of Disease Study 2021.The lancet. Impact factor: 168.9.

Co-author

2024

29. Global, regional, and national burden of disorders affecting the nervous system, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021.The Lancet Neurology. Impact factor: 48.

Co-author

2024

30. Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021.The lancet. Impact factor: 168.9.

Co-author

2024

31. Global, regional, and national incidence and mortality burden of non-COVID-19 lower respiratory infections and aetiologies, 1990–2021: a systematic analysis from the Global Burden of Disease Study 2021. The Lancet Infectious Diseases. Impact factor: 56.3..

Co-author

2024

32. Therapeutic effects of curcumin nanoemulsion on cyclophosphamide-induced testicular toxicity in adult male mice. Clinical and Experimental Reproductive Medicine (CERM) . Impact factor: 1.8.

First Author

● CONFERENCES AND SEMINARS

2016 The third international congress on reproduction (ISERB), Tehran, Iran

The effect of methanolic extract of coconut meat on quality and quantity indexes of sperm in adult rats.

2017 The forth international congress on reproduction (ISERB), Tehran, Iran

The effect of Quercus brantii fruit methanolic extract on mean volume and total number of Leydig cells in type II diabetic rats.

2017 The forth international congress on reproduction (ISERB), Tehran, Iran

The effect of two types of aerobic training on quality and quantity indexes of sperm in adult rats.

2016 The 18th Royan International Twin Congress, Tehran, Iran

The effect of methanolic extract of coconut meat on quality and quantity index of sperm in type II diabetic rats.

2015 13th International Congress of Immunology & Allergy of Iran, Tabriz, Iran

The Zataria multiflora essential oil induces apoptosis and enhances cytotoxicity of A549 non-small cell lung carcinoma.

2015 19th National & 7th International Congress on Biology, Tabriz, Iran

Effect of Avocado (Persea americana) seed extract on stereological structure of ductus epididymis in type II diabetic mice.

2014 The third international and the sixth national conference of Medical Herbs and Stable Agriculture

The supportive effects of silymarin on the thickness of epithelium and tunica muscularis of bronchial lung in rat pups with maternal exposed to cadmium toxicity.

● PROJECTS

2021 – CURRENT

Effects of Curcumin nanoemulsion on improving spermatogenesis in Cyclophosphamide-induced azoospermia mice

2020
Effects of Alderberry diet on improving spermatogenesis in busulfan-induced azoospermia mice

2021
Production of recombinant proteins in Iranian Lizard Leishmania, a systematic review

2021
Production of recombinant proteins in Leishmania Tarentolae host, a systematic review

2020 – 2022
Evaluation of the antioxidant effect of Edaravone on semen parameters, testicular dysfunction and apoptosis in azoospermia mice following busulfan injection

2019 – 2021
The effect of Curcumin-Loaded iron oxide nanoparticles on testicular tissue in busulfan-induced azoospermic mice

2020
Recent advances in siRNA delivery systems for prostate cancer therapy

2019
Non-viral siRNA delivery systems for pancreatic cancer therapy

2020
Antimicrobial peptides: towards a new era for the treatment of breast cancer

2018 – CURRENT
Evaluation of autophagy-related genes expression, apoptotic changes, telomere length, and DNA integrity in spermatozoa of obese subfertile men compared to normal weight fertile individuals

2018 – 2020
Prevalence of Epstein-Barr virus, Herpesvirus type 6 and Cytomegalovirus in sperm samples collected from infertile men compared to fertile individuals

● **BOOKS**

2016
Comprehensive vaccination of livestock and poultry

● **INVENTIONS**

2016
Square dermatome for veterinary surgery

● **LABORATORY SKILLS**

• **In vitro fertilization (IVF) and Intra Cytoplasmatische Sperma Injection (ICSI)**

• **Care and Handling of Laboratory Animals**

• **Conventional Histology**

• **Quantitative Histology (Stereology)**

• **Conventional light microscopy**

• **Phase contrast microscopy**

• **Fluorescent microscopy**

• **Stereo microscopy**

- Inverted microscopy

- Immunohistochemistry

- Immunocytochemistry

- RNA/DNA extraction

- Enzyme-linked immunosorbent assay (ELISA)

- Inducing mice models of azoospermia/oligozoospermia: using Endocrine Disrupting Chemicals (EDC)- Chemotherapy- Hyperthermia

- Inducing mice model of varicocele

- Inducing obese and type II diabetic Rat models

- Semen analysis

- Inducing heavy metal (Cadmium, Pb) toxicity model (mice)

- Sperm Chromatin Maturation Assay (Aniline Blue and CMA3 staining)

- Sperm telomere length assay

- Sperm DNA Fragmentation Analysis (SCD and TUNNEL assay)

- Sperm vitality tests (Eosin-nigrosine staining, triple staining, and hypo-osmotic swelling (HOS) test)

- Sperm Freezing

- Oocyte handling-Denuding

- Embryo culture - Embryo transfer

- Intracytoplasmic Sperm Injection (ICSI)

- Mouse Embryo Assay (MEA)

- **INTERNATIONAL CERTIFICATES/TRAINING:**

1. THE IDEAL IVF LAB 1: THE ENVIRONMENT, QUARTEC (2020).

2. THE IDEAL IVF LAB 1: THE EQUIPMENT, QUARTEC (2020).

3. THE IDEAL IVF LAB 1: THE CULTURE MEDIUM, QUARTEC (2020).

4. Trophoctoderm biopsy - technical difficulties and tips .ESHRE (2021).

5. Canary in the mineshaft how to use KPIs to detect shifts in quality of your culture system.ESHRE (2021).
