PERSONAL INFORMATION

Soheil Aminizadeh

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https://scholar.google.ca/citations?user=O1rEkYwAAAAJ&hl=en

RESEARCH INTERESTS

- Neuromuscular Exercise Physiology
- Behavioral test and Signaling pathways in Cancer (Glioma-G6) – Rodent models
- Mitochondria and signaling pathways in animals
- Effect of Antioxidant supplementation (MitoQ) on behaviors
- Exercise training and obesity
- Cardiovascular Diseases (CVD)
- Metabolic Syndrome (Diabetes and Heart Failure)
- High and Low Frequency Fatigue
- Magnetic Brain Stimulation and Electric Nerve Stimulation
- Exercise Physiology and Sport Sciences
- Metabolic Syndrome (Diabetes and Obesity)
- Mitochondria and signaling pathways in animals
- Effect of Antioxidant supplementation (MitoQ) on behaviors in cancer
- Exercise training and cancer

EDUCATION AND TRAINING

2013-2018 PhD

- PhD in Exercise Physiology, Neuromuscular Physiology

Ahwaz University, Ahwaz, Iran (2013-2018)
Thesis Supervisor: *Professor Abdolhamid Habibi*

Thesis title: The role of PDK4 and ERRα on endurance training-induced adaptation on lipid metabolism in skeletal muscle of diabetic rats
GPA: 19.50/20. First GPA among the students of the same enrollment year.

2016-2017 Research training

❖ Research Scholar at Medical center, Veterans Affairs, University of Utah, Salt Lake City, Utah (USA)

➢ Department of Vascular, Veterans Affairs Medical Center, University of Utah (Studying and Performing Magnetic Brain and Electrical Nerve Stimulation techniques in Human)

❖ Research Scholar at Nutrition and Integrative Physiology department, University of Utah, Salt Lake City, Utah (USA)

➢ Department of Anesthesiology, University of Utah (Performing Western blotting, Real time PCR)

Supervisor: ***Professor Markus Amann*** ***(***https://scholar.google.com/citations?user=kSPTb20AAAAJ&hl=en***)***

2011-2013 Master

- M.Sc. in Exercise Physiology, General
  Shahid Bahonar University of Kerman, Kerman, Iran (2011-2013)
  GPA: 17.97/20. First GPA among the students of the same enrollment year.
  Thesis Title: Comparison of the effects of different exercise intensities on resistance to induced cardiac ischemia in male adult rats
  Thesis Supervisor: *Professor Hamid Marefati*
  Relevant Courses: Exercise Physiology (17.25/20), Human Physiology 1(17/20), Science of training (18.5/20)

2008-2012 Bachelor

- B.Sc. in Physical Education and Sport Sciences,
  Shahid Bahonar University of Kerman, Kerman, Iran (2008-2012)
  GPA: 15.85/20. Second GPA among the students of the same enrollment year.
  Relevant courses: Exercise Physiology (18.25/20), Anatomy (15.5/20), Physical fitness (19/20)

PUBLICATIONS

- ***Soheil Aminizadeh***, Amir Hossein Moslemizadeh, Sara Sheibani, Zahra Sedighi-Khovidak, Zahrasadat Roholamini, Saeideh Jafarinejad, Reza Kheirandish, Vahid Sheibani, Hamideh Bashiri. Preventive effect of MitoQ supplementation and endurance training

on glioblastoma and its consequences: TLR4/CREB/ NF-κβ /IL-1β pathway and behaviors. *International Immunopharmacology*, 145, 3 January 2025, 113756.

- Rouholamini FS, Aminaei M, ***Aminizadeh S*.*** The effect of eight weeks of endurance training and MitoQ supplementation on antioxidant capacity and the expression of sestrin-2 and AMPK in cardiac tissue of aged rats. *Experimental Gerontolgy*. 2024 Sep 2:112572. doi: 10.1016/j.exger.2024.112572. Epub ahead of print. PMID: 39233194.
- Rostamzadeh F, Najafipour H, ***Aminizadeh S***,* Jafari E. Therapeutic effects of the combination of moderate-intensity endurance training and MitoQ supplementation in rats with isoproterenol-induced myocardial injury: The role of mitochondrial fusion, fission, and mitophagy. *Biomedical Pharmacotherapy*. 2024 Jan; 170:116020. doi: 10.1016/j.biopha.2023.116020. Epub 2023 Dec 25. PMID: 38147733.
- Shahouzehi, B., Masoumi-Ardakani, Y., Fallah, H., & ***Aminizadeh, S***.* (2024). Evaluation of the effect of Exercise Trainings and CGRP receptor antagonist (BIBN 4096) on mitochondrial dynamic in the hippocampus of male Wistar rats. *Neuroscience Letters*, 828, 137752.
- ***Aminizadeh, Soheil***, et al. "MitoQ Supplementation during Vigorous Training Improves Reactive Oxygen Species, Glutathione Peroxidase, and miRNAs Regulating Vascular Inflammation in Cyclists." *Brazilian Archives of Biology and Technology* 66 (2023): e23220914.
- Salajeghe Tezergi, Mahboube, Daruosh Moflehi, ***Soheil Aminizadeh***, and Rohollah Nikooie. "Endurance training and MitoQ supplementation increase PERM1 and SMYD1 gene expression and improve hemodynamic function in cardiac muscle of male Wistar rats." *Journal of Kerman University of Medical Sciences* 30, no. 6 (2024): 309-318.
- Zadeh, H. J., Roholamini, Z., ***Aminizadeh, S.***, & Deh-Ahmadi, M. A. (2023). Endurance training and MitoQ supplementation improve spatial memory, VEGF expression, and neurogenic factors in hippocampal tissue of rats. *Journal of Clinical and Translational Research*, 9(1), 1.
- Weavil JC, Thurston TS, Hureau TJ, Gifford JR, ***Aminizadeh S***, Wan HY, Jenkinson RH, Amann M. Impact of aging on the work of breathing during exercise in healthy men. *Journal of Applied Physiology* (1985). ***2022*** Mar 1;132(3):689-698. doi:

10.1152/japplphysiol.00443.2021. Epub 2022 Jan 27. PMID: 35085030; PMCID: PMC8896992.

- Masoumi-Ardakani Y, Najafipour H, Nasri HR, Aminizadeh S, Jafari S, Moflehi D. Effect of Combined Endurance Training and MitoQ on Cardiac Function and Serum Level of Antioxidants, NO, miR-126, and miR-27a in Hypertensive Individuals. Biomed Res Int. ***2022*** Jan 13;2022:8720661. doi: 10.1155/2022/8720661. PMID: 35071600; PMCID: PMC8776465.
- ***Aminizadeh, S.***, Habibi, A., Masoumi-Ardakani, Y. et al. The role of estrogen-related receptor α (ERRα) in metabolic adaptations by endurance training in skeletal muscle of streptozotocin-induced diabetic rats. Sport Sci Health 17, 585–596 (***2021***). https://doi.org/10.1007/s11332-020-00714-7.
- Shahouzehi B, Eghbalian M, Fallah H, ***Aminizadeh S***, Masoumi-Ardakani Y. Serum microRNA-33 levels in pre-diabetic and diabetic patients. Mol Biol Rep. 2021 May; 48(5):4121-4128. doi: 10.1007/s11033-021-06425-7. Epub ***2021*** Jun 19. PMID: 34146198.
- B. Shahouzehi, Y. Masoumi-Ardakani, ***S. Aminizadeh***, H. Nasri*. Expression of antioxidant enzymes genes in the liver and cardiac tissues of rats under L-carnitine administration and high-intensity interval exercise training. Ukr.Biochem.J. ***2021***; Volume 93, Issue 4, Jul-Aug, pp. 55-65
- Shahouzehi, B., Nasri, H., ***Aminizadeh, S.***, Masoumi-Ardakani, Y. (2021). The Effect of High-intensity Interval Training and L-carnitine on the Expression of Some Pro-inflammatory Genes in the Liver and Cardiac Tissues of Rats. *Journal of Kerman University of Medical Sciences*, 28(1), 56-68. doi: 10.22062/jkmu.***2021***.91564
- Hamid Marefati, Yaser Masoumi-Ardakani, Saeed Shakerian, Abdolhamid Habibi, ***Soheil Aminizadeh****, Beydolah Shahouzehi. The Effects of Pyruvate Dehydrogenase Kinase 4 (PDK4) Inhibition on Metabolic Flexibility during Endurance Training in Skeletal Muscles of Streptozotocin-induced Diabetic Rats. *Journal of Kerman University of Medical Sciences*, ***2020***; 27 (4): 304-317.
- ***Soheil Aminizadeh***, Hamid Marefati*, Hamid Najafipour, Siyavash Joukar, Shahriar Dabiri, Beydolah Shahouzehi. Protective Effects of High-Intensity versus Low-Intensity

Interval Training on Isoproterenol Induced Cardiac Injury in Wistar Rats. Research in *Cardiovascular Medicine*. DOI: 10.5812/cardiovascmed.34639

- ***S. Aminizadeh***, Y. Masoumi-Ardakani, B. Shahouzehi. The effects of PDK4 inhibition on AMPK Protein levels and PGC-1α gene expression following endurance training in skeletal muscle of Wistar rats. *Ukr Biochem J*., 2018, Vol. 90, N 6.
- Masoumi-Ardakani, Y., ***Aminizadeh, S.*** & Shahouzehi, B. The adaptations induced by Estrogen Related Receptor alpha (ERRα) disruption and exercise training on healthy and diabetic rat's liver. *Biologia* (***2020***). https://doi.org/10.2478/s11756-020-00532-9
- Yaser Masoumi-Ardakani, ***Soheil Aminizadeh***, Beydolah Shahouzehi. Effect of the Combination of Training and ERRα Inhibition on Liver Metabolism by Modulation of PDK4 and LXR-α Expression in STZ-Induced Diabetic and Healthy Rats. *Biointerface research in applied chemistry*. Volume 10, Issue 6, ***2020***, 7011 – 7022.
- Masoumi-Ardakani, Y., ***Aminizadeh, S.***, Fallah, H. *et al*. L-Carnitine different doses affect serum and pancreas tissue Antioxidative defense and histopathology in STZ-induced diabetic rats. *Biologia* (***2020***). https://doi.org/10.2478/s11756-020-00432-y
- B. Shahouzehi, K. Barkhordari, ***S. Aminizadeh***, Y. Masoumi-Ardakani. Effect of L-carnitine administration on serum insulin and adiponectin levels, and AMPK, APPL1 and PPARγ gene expression in ST Z-induced diabetic rat liver. Ukr Biochem J., ***2017***, Vol. 89, N 6.
- Beydolah Shahouzehi, K. Barkhordari, ***Soheil Aminizadeh***, Yaser Masoumi. Effect of L-carnitine administration on serum insulin and adiponectin levels, and AMPK, APPL1 and PPAR gene expression in STZ-induced diabetic rat liver. *Ukr Biochem* J., ***2017***, Vol. 89, N6. DOI: 10.15407/ubj89.06.048
- ***Soheil Aminizadeh***, Hamid Marefati*, Hamid Najafipour, Beydolah Shahouzehi. Comparison of the Effects of Different Training Intensities on Resistance to Induced Cardiac Ischemia in Male Adult Rats. Iranian Journal of Health and Physical Activity (2013) 4 (2), (30-34).
- Hamid Marefati, ***Soheil Aminizadeh****, Hamid Najafipour, Shahriar Dabiri, Beydolah Shahouzehi. Effects of moderate-intensity interval training on resistance to induced cardiac ischemia in male adult rats. *Qom Univ Med Sci J*. [Full Text in Persian].

- Sadollah Salarmohammadi, Mehdi Mogharnasi, Hamid Marefati*, ***Soheil Aminizadeh***, Mahnaz Hajghani. The effects of endurance training with testosterone injection on Chemerin and Apelin levels in rats with ischemic heart disease. *Journal of Practical Studies of Biosciences in Sport*, vol. 3, no. 6, Fall & Winter, 2015/2016. [Full Text in Persian].
- ***Aminizadeh S***, Habibi A, Marefati H, Shakerian S. The Role of Pyruvate Dehydrogenase Kinase 4 (PDK4) on the Expression of Citrate Synthase in the Skeletal Muscle After 4 Weeks of Endurance Training in Male Wistar Rats. J Rafsanjan Univ Med Sci 2017; 16(3): 191-202. [Farsi]
- ***Aminizadeh S***, Habibi A, Marefati H, Shakerian S. Response of Estrogen-related Receptor Alpha (ERRα) to Endurance Training and its Participation in Endurance Training-induced Adaptations in Lipid Metabolism in Skeletal Muscle of Male Wistar rats. J Shahid Sadoughi Univ Med Sci 2017; 25(5): 414-25. [Farsi]
- Joukar S, Marefati H, ***Aminizadeh S****, Masoumi Ardakani Y. The Effects of Estrogen-Related Receptor Alpha Inhibition on the Serum Levels of Chemerin, Apelin, and Nesfatin-1 After Endurance Training in Male Wistar Rats. J Rafsanjan Univ Med Sci 2018; 16(10): 901-12. [Farsi]

Projects

1. *Performing over 39 research projects at Physiology Research Center, Kerman University of Medical sciences, Kerman, Iran (*http://research.kmu.ac.ir/webdocument/load.action?webdocument_code=8000&masterCode=81000806*)*

Teaching experience:

- ✓ Teaching *Environmental exercise physiology and evaluation of physical activity* at Kerman University of medical Sciences (P.hD. students)
- ✓ Teaching *Anthropometric* and *Body Composition* at Shahid Bahonar University of Kerman (Department of Physical Education) (2017-present-B.Sc students)
- ✓ Teaching *Lifeguard* and swimming at Shahid Bahonar University of Kerman (Department of Physical Education) (2010-present- B.Sc students)
- ✓ Teaching *Physical Education 1&2* at Shahid Bahonar University (Department of Physical education) (2009-present- B.Sc students)

- ✓ Teaching *Exercise Physiology*, *Anatomy*, *Medical Physiology and Sport Sciences* at POLICE university, Kerman (2015-2017- B.Sc students)

INVITED PRESENTATION

- ❖ Protective effects of High and moderate intensity exercise training on heart ischemia. University of Nice. France. 2017
- ❖ Effects of ERR inhibition on metabolic flexibility in male diabetic rats. Dubai, Emirates. 2019
- ❖ Exercise training program design. Sport for all federation. Kerman. Iran. 2019
- ❖ Sport fitness coaching course. Sport for all federation. Kerman. Iran. 2019
- ❖ Resistance training in body building. Body building federation. Kerman. Iran. 2018
- ❖ Advanced Physical Fitness. Volleyball federation, Kerman. Iran. 2016

RESEARCH EXPERIENCE:

SKILLS

Lab

- ❖ Culture cancer cell lines in vivo
- ❖ Western Blotting technique (Expert)
- ❖ Real Time-PCR (Expert in extracting RNA and Micro RNAs and synthesize cDNA (Ampliqon, Biobesic, 5prime kits).
- ❖ Cell culture (Familiar)
- ❖ **All behavioral test in animals** (Shuttle Box, MWM, Socila Interaction tests, pain tests, and …..)
- ❖ All exercise physiology lab instruments (EMG, Ergometer, Body composition, All anthropometry analysis, All kinds of gas analyzer (CORTEX-Metalyzer and ANKER)(Expert), and magnetic brain stimulation and nerve electrical stimulation)
- ❖ Animal work (Mice-Rat), surgical techniques

Language

- ❖ Persian: Native
- ❖ English: Fluent

Computer

- Windows XP/7/8/10/11
- Software: Office (Word, Power point, Excel), Endnote, Sigma Plot, Spike software, SPSS, Graph Pad Prism

HONORS & AWARDS

- Member of the National Elite Foundation of Iran (2018-present)
- Reviewer in the *Journal of Kerman University of Medical Sciences, BMC Endocrine Disorders, Molecular Biology Reports, scientific Reports* (2019-present)
- Ranked first in Iranian swim national student Olympiad as Strength and Conditioning coach (2018).
- Scientific consular of Iranian physical fitness association (2016- 2017).
- Ministry of science sabbatical fund award (2017).