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EDUCATION AND TRAINING

Department of Physical Education and Sports Science, College of Physical Education & Sport Sciences, (Isfahan) Khorasgan Branch, Islamic Azad University MSc, Sport & Nutrition	Isfahan, Iran 2014-2016
Department of Agriculture, University Islamic Azad BSc, Food Sciences & Engineer	Isfahan, Iran 2008-2012
Work Experience: Researcher in Royan institute in Cellular Biotechnology lab Researcher in University of Isfahan Researcher in Azad Islamic University of Isfahan	2012-2019 2019-2021 2021-Present

PUBLICATIONS

- i. Journal Articles:
- <u>Navid Abedpoor</u>, Farzaneh Taghian, Kamran Ghaedi, Iman Niktab, Zahra Safaeinejad, Farzaneh Rabiee, Sommayeh Tanhaei, Mohammad Hossein Nasr Esfahani. (2018) PPARγ/Pgc-1α-Fndc5 pathway up-regulation in gastrocnemius and heart muscle of exercised, branched chain amino acid diet fed mice. Nutrition & Metabolism. IF: 4.5
- 2. Mehrnosh Bahadorani, Marzie Tavalaee, <u>Navid Abedpoor</u>, Kamran Ghaedi, Mohamad Naser Nazem, Mohammad Hossein Nasr-Esfahani, (2018). Effects of branched-chain amino acid supplementation during aerobic training on sperm parameters and chromatin integrity in male mouse. **Andrologia.** IF: 2.7
- Fatemeh Azizian-Farsani, <u>Navid Abedpoor</u>, Mohammad Hasan Sheikhha, Ali Osmay Gure, Mohammad Hossein Nasr Esfahani, Kamran Ghaedi. (2020). Receptor for advanced glycation end products acts as a fuel to colorectal cancer development. Frontiers in Oncology. IF: 6.5
- Fatemeh Azizian-Farsani, Marcin Osuchowski, <u>Navid Abedpoor</u>, Farzad Seyed Forootan, Maryam Derakhshan, Mohammad Hossein Nasr-Esfahani, Mohammad Hasan Sheikhha, Kamran Ghaedi. (2020). Anti-inflammatory and -apoptotic effects of an herbal extract on DSS-induced colitis in mice fed with high AGEs-fat diet. Scientific Reports. Nutrition & Metabolism. IF: 4.5
- 5. Golbarg Rahimi; Salime Heydari; Bahare Rahimi; <u>Navid Abedpoor</u>; Iman Nicktab; Zahra Safaeinejad; Maryam Peymani; Farzad Seyed Forootan; Zahra Derakhshan; Mohammad Hossein Nasr Esfahani, Kamran Ghaedi. (2020). A combination of herbal compound (SPTC) along with exercise or metformin more efficiently alleviated diabetic complications through down-regulation of stress oxidative pathway upon activating Nrf2-Keap1 axis in AGEs rich diet-induced type 2 diabetic mice. Nutrition and metabolism.IF:4.5
- Fahimeh Akbarian, Mohsen Rahmani, Marziyeh Tavalaee, <u>Navid Abedpoor</u>, Mozhdeh Taki, Kamran Ghaedi, Mohammad Hossein Nasr-Esfahani. (2021). Effect of different high-fat and AGEs diets in obesity and diabetes-prone C57BL/6 mice on sperm function. International Journal of Fertility and Sterility. IF:2.7
- 7. Navid Abedpoor, Farzaneh Taghian, Fatemeh Hajibabaie. (2022). Physical activity ameliorates the

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function of organs via adipose tissue in metabolic diseases. Acta histochemical. IF: 2.7

- 8. Fatemeh Hajibabaie, <u>Navid Abedpoor</u>, Nazanin Asareh, Mohammad Amin Tabatabaiefar, Ali Zarrabi and Laleh Shariati. (2022). The importance of SNPs at miRNA binding sites as biomarkers of gastric and colorectal cancers: a systematic review. **Personal Medicine.**
- 9. <u>Navid Abedpoor</u>, Farzaneh Taghian, Fatemeh Hajibabaie. (2022). Cross Brain-Gut Analysis Highlighted Hub Genes and LncRNAs Networks Differentially Modified During Leucine Consumption and Endurance Exercise in Mice with Depression Like Behaviors. **Molecular Neurobiology. IF: 5.6.**
- 10. <u>Navid Abedpoor,</u> Iman Niktab, Mohammad-Hossein Beigi, Masoud Baghi, Fahimeh Arzande, Naeimeh Rezaei, Mohammad-Sajad Zare, Timothy L. Megraw, Hoi-Ying Holman, Amirkianoosh Kiani, Farzad Seyed Forootan, Hossein Baharvand, Mohammad Hossein Nasr Esfahani, Kamran Ghaedi (2022). Exercise facilitates the browning of fat tissue by up-regulating Irisin receptors. (Submitted).
- 11. Maryam Haghparast Azad, Iman Niktab, Shaghayegh Dastjerdi, <u>Navid Abedpoor</u>, Golbarg Rahimi, Zahra Safaeinejad, Maryam Peymani, Farzad Seyed Forootan, Majid Asadi-Shekaari, Mohammad Hossein Nasr Esfahani & Kamran Ghaedi. The combination of endurance exercise and SGTC (Salvia–Ginseng–Trigonella–Cinnamon) ameliorate mitochondrial markers' overexpression with sufficient ATP production in the skeletal muscle of mice fed AGEs-rich high-fat diet. (2022). Nutrition & Metabolism.
- 12. Golnaz Pakravan, Maryam Peymani, <u>Navid Abedpoor</u>, Zahra Safaeinejad, Mehrdad Yadegari, Maryam Derakhshan, Mohammad Hossein Nasr Esfahani, Kamran Ghaedi. Antiapoptotic and anti-inflammatory effects of Pparγ agonist, pioglitazone, reversed Dox-induced cardiotoxicity through mediating of miR-130a downregulation in C57BL/6 mice. (2022). Journal of Biochemical and Molecular Toxicology.
- 13. Fatemeh Azizian-Farsani, <u>Navid Abedpoor</u>, Maryam Derakhshan, Mohammad Hossein Nasr-Esfahani, Mohammad Hasan Sheikhha, Kamran Ghaedi. Protective Effects of the Combination of the Herbal Compound Against Inflammation Related to Obesity and Colitis Induced by Diet in Mice. (2022). Iranian Journal of Diabetes and Obesity.
- 14. Global multi-stakeholder endorsement of the MAFLD definition. (2022). The Lancet Gastroenterology & Hepatology.
- 15. Fatemeh Hajibabaie, Faranak Aali, <u>Navid Abedpoor*</u>. Pathomechanisms of non-coding RNAs and hub genes related to the oxidative stress in diabetic complications. (2022). **F1000Research.**
- 16. Fatemeh Hajibabaie, <u>Navid Abedpoor*</u>, Kamran Safavi, F. Taghian. Natural remedies medicine derived from flaxseed (secoisolariciresinol diglucoside, lignans, and α-linolenic acid) improve network targeting efficiency of diabetic heart conditions based on computational chemistry techniques and pharmacophore modeling. (2022). Journal of food biochemistry.
- 17. Fatemeh Hajibabaie, Navid Abedpoor*, Farzaneh Taghian, Kamran Safavi. A cocktail of polyherbal bioactive compounds and regular mobility training as senolytic approaches in age-dependent Alzheimer's: The in-silico analysis, lifestyle intervention in old age. (2023). **Journal of Molecular Neuroscience.**
- 18. System biology analysis to develop diagnostic biomarkers, monitoring pathological indexes, and novel therapeutic approaches for immune targeting based on maggot bioactive compounds and polyphenolic cocktails in mice with gastric cancer. Elina Kaviani, Fatemeh Hajibabaie, <u>Navid Abedpoor*</u>, Kamran Safavi, Zahra Ahmadi, Azadeh Karimy. (2023). Environmental Research.
- 19. Types of Cell Death from a Molecular Perspective. Fatemen Hajibabaie, <u>Navid Abedpoor*</u>, P. Mohamadynejad. (2023). **Biology.**
- 20. The molecular perspective on the development of melanoma and genome engineering of T-cells in targeting therapy. Fatemen Hajibabaie, **Navid Abedpoor**, Shaghayegh Haghjooy Javanmard, Anwarul

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Hasan, Mehran Sharifi, Ilnaz Rahimmanesh, Laleh Shariati, Pooyan Makvandi. (2023). Environmental Research.

- 21. Sparassis latifolia and exercise training as complementary medicine mitigated the 5-fluorouracil potent side effects in mice with colorectal cancer: bioinformatics approaches, novel monitoring pathological metrics, screening signatures, and innovative management tactic. <u>Navid Abedpoor</u>, Farzaneh Taghian, Khosro Jalali Dehkordi, Kamran Safavi. (2024). Cancer Cell International.
 - ii. Book Chapter:
 - **<u>1.</u>** <u>Navid Abedpoor,</u> Kamran Ghaedi. Branched-Chain Amino Acids and Their Role in Disease. Nova Science Publishers, Inc. 2020.
 - **<u>2.</u>** <u>Navid Abedpoor.</u> Farzaneh Tahian, Fatemeh Hajibabaie. Advances in Health and Disease. Nova Science Publishers, Inc. 2023.
 - <u>3.</u> <u>Navid Abedpoor</u>, Fatemeh Hajibabaie. Hub Genes and their Role in Health and Disease. Nova Science Publishers, Inc. 2023.
 - **<u>4.</u>** <u>Navid Abedpoor</u>, Fatemeh Hajibabaie. Properties and Uses of Linolenic Acid. Nova Science Publishers, Inc. 2023.

PEER-REVIEW AND OTHER ACADEMIC SERVICE

1. Referee	ACS Chemical Neuroscience, ACTA Scientific Nutrition, Frontiers Molecular Biosciences, Gene Journal, Journal of Natural Science, Biology and Medicine, Acta Histochemica, Journal of Natural Science, Biology and Medicine, Gene Report, Diabetes therapy, DOVEpress, Endocrinologia Diabetes y Nutricion, Diabetes Obesity and metabolism (DOM), Frontiers in Microbiology, section Virology, Molecular Neurobiology, Gene MDPI, Healthcare. Nutrients MDPI, Cell protocols, Diabetes Research and Clinical Practice.
2. Coordinator Topic	Frontiers in reproductive health

INVITED TALKS

- <u>Navid Abedpoor</u>, Kamran Ghaedi, Mohammad Hossein Nasr Esfahani. 1. PPARγ/Pgc-1α-Fndc5 pathway up-regulation in Gastrocnemius and Heart muscle of exercised, branched chain amino acid diet fed mice. 17th International Conference on Nutrition and Fitness. Held during May 23-24, 2019. Vienna, Austria.
- <u>Navid Abedpoor</u>, Kamran Ghaedi, Mohammad Hossein Nasr Esfahani. Induced Type 2 Diabetes by High fat in male C57BL/6. Type 2 diabetes and Obesity symposium. 2020. Isfahan.
- 3. Navid Abedpoor, Kamran Ghaedi, Mohammad Hossein Nasr Esfahani. 2020. Type 2 diabetes

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and metabolism pathway. Yazd

- <u>Navid Abedpoor</u>, Farzaneh Taghian, Fatemeh Hajibabaie. Physical activity modulated molecular signaling pathways in pathomechanism aging women. 2022. 6th International USERN (Universal Scientific Education and Research Network). Istanbul, Turkey.
- 5. Protective role of Chlorella vulgaris supplement and endurance exercise against oxidative stress parameters in colorectal cancer mine. Fatemeh Zahra Abdollahi, <u>Navid Abedpoor</u>, Fatemeh Hajibabaie. The 8th national student congress on sports science of Shahid Beheshti University.
- 6. Exercise training as complementary medicine could mediate the side effects of Paclitaxel chemotherapy in Gastric Cancer by triggering FNDC5/IRISIN. **Navid Abedpoor**, Farzaneh Taghian, Fatemeh hajibabaie. The 14th International congress on sports science.

POSTERS

- 1. <u>Navid Abedpoor</u>, Kamran Ghaedi, Mohammad Hossein Nasr Esfahani. PPARγ/Pgc-1α-Fndc5 pathway up-regulation in Gastrocnemius and Heart muscle of exercised, branched chain amino acid diet fed mice. 2nd International Conference on Gastroenterology and Digestive Disorders.
- Fatemeh Hajibabaie, Farzaneh Taghian, <u>Navid Abedpoor</u>. Reversing molecular signaling pathways involved in Alzheimer's disease pathogenesis via high physical activity in old age. 2022. 6th International USERN (Universal Scientific Education and Research Network). Istanbul, Turkey.
- 3. <u>Navid Abedpoor</u>, Farzaneh Taghian, Fatemeh Hajibabaie. Integrative Analysis to discover the association between physical exercise and COVID-19: Molecular signaling pathway analysis. 2022.13th International Congress on Sport Science.
- 4. Fatemeh Hajibabaie, <u>Navid Abedpoor</u>, Farzaneh Taghian. Physical activity protects and manages heart dysfunctions by modulating the mRNA expression profiles: A bioinformatics analysis. 2022.13th International Congress on Sport Science.
- 5. <u>Navid Abedpoor</u>, Farzaneh Taghian, Fatemeh Hajibabaie. Leucine and Endurance Exercise Altered the Hub Genes and LncRNAs Networks in Brain-Gut axis of Mice with Depression Like Behaviors. 2022. Royan International twin congress, Reproductive Biomedicine & Stem Cell.
 - 6. <u>Navid Abedpoor</u>, Farzaneh Taghian, Khosro Jalali Dehkordi, Kamran Safavi. Sparassis latifolia and exercise training as complementary medicine improved the in mice with colorectal cancer. Medicinal Plant congress.
 - 7. Elina Kaviani, Fatemeh Hajibabaie, <u>Navid Abedpoor</u>, Kamran Safavi. Polyphenolic compounds regulate the hub genes for proper management, early prognosis, and diagnosis of gastric cancer. Medicinal Plant congress.

PATENT

- 1. Mouse Models of Type 2 Diabetes Mellitus due to AGEs and sedentary. Patent no. 139750140003010609.
- 2. The process of food supplement production from flaxseed and oil with chemical and ultrasonic

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methods. Patent no. 140150140003003255

My Projects

- 1. Effects of branched-chain amino acid supplement associated with aerobic training on plasma irisin and gastrocnemius and heart muscle Fndc5 expression in male C57BL/6 mice.
- 2. Create Mice models of type 2 diabetes.
- 3. Designed diets (High fat diet 45 & 60%, Advanced glycation end products, enrich antioxidant and omega 3).
- 4. Analysis Transcriptomics of diabetic and pre-diabetic mice.
- 5. Effects of herbal drugs and endurance exercise in mitochondrial functional and oxidative pathway in muscle of T2DM mice models.
- 6. Assessment of genes expression in energy expenditure axis and metabolism upon a high fat diet enriched with advanced glycation end products.
- 7. Anti-inflammatory effect of phytoarthrit on DSS-induced colitis mice model challenged with High Fat Diet enriched with advanced glycation end products.
- 8. Cross Talk between Gut and brain in depression condition.
- 9. Comparison of eight weeks aerobe training with leucine on neurogenesis genes in depress mice

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GRANT

- Elite Researcher, National Institute for Medical Research Development (NIMAD). 2016, Investigating the effects of the novel combination of several herbal extracts and exercise training on expression of gene profile involved in mitochondrial function and biogenesis in high fat diet C57BL/6 mice as a diabetic model.
- 2. Elite Researcher, National Institute for Medical Research Development (NIMAD). 2018, Assessment of genes expression in energy expenditure axis upon a high fat diet enriched with advanced glycation end products.
- 3. Elite Researcher, National Institute for Medical Research Development (NIMAD). 2019, Analysis Transcriptomics of diabetic and pre-diabetic mice

<u>Honor</u>

- 1. Won the Young Scientist Award in "International Scientist Awards on Engineering, Science, and Medicine." 2020.
- Best Poster in Royan International twin congress, Reproductive Biomedicine & Stem Cell. Protective approaches of Fraxinus excelsior compounds on the Implantation based infertility via bioinformatics and chemoinformatic analysis.

CONFERENCE AWARDS

17th International Conference on Nutrition and Fitness, video presentation, 2019, Vienna, Austria.

LABORATORY SKILLS

i. Bioinformatics:

- 1. Primer designing (Oligo, Beacon designer, Primer3, Quik Change Primer Design, Primer X)
- 2. Gene bank databases (NCBI, Ensemble, UCSC)
- 3. Protein-Protein intraction analysis
- 4. Cytoscape
- 5. Gephi analysis
- 6. Artificial intelligence in biology and health science

ii. Molecular techniques:

- 1. PCR reverse transcriptase PCR, Real Time PCR
- 2. Gel Electrophoresis
- 3. Western blotting

iii. Cell culture techniques

- 1. Immortal cells culture (adherent and suspension)
- 2. Fibroblast cells culture
- 3. Stem Cells culture and their differentiation.
- 4. Cell and Tissue Staining

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iv. Animal working:

- 1. Oral Gavage
- 2. Injected (Subcutaneous, Intraperitoneal, intradermal, Intramuscular, Intravenous)
- 3. Blood collection (Lateral Tail Vein, Saphenous vein, Intravenous Injections)
- 4. Surgery
- 5. Handling and Restraint
- 6. Euthanasia
- 7. Animal cell culture

Knowledge

- 1. Prism software
- 2. SPSS
- 3. Microsoft Office
- 4. Presentation Software
- 5. Image J
- 6. Adobe Photoshop

Coaching Level

- 1. Karate
- 2. Bodybuilding
- 3. Fitness

Third Class Third Class Third Class