

## *Curriculum Vita*



### *A. Personal information:*

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### ***B. Present position:***

- Assistant Professor in Rajaei Cardiovascular medical and research center, Iran University of Medical Sciences. Tehran, Iran.

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### ***C. Education:***

- 1- MSc: Physiology, 2005-2007, Joundishapoor University of Medical Sciences Ahvaz, Iran. (Score I)
- 2- PhD: Physiology, 2008-2014, Iran University of Medical Sciences Tehran, Iran. (Score I)

### ***Complementary scientific course:***

- Working at inflammatory Lab in department of Neuroscience, pharmacological research institute of Mario Negri, **Milan, Italy**. Under supervision of Prof. Maria Grazia De Simoni. (2012-2013)

***Award:*** Scholarship from Iran Ministry of Health and Medical Education for scientific course in Italy. 2012.

### ***D. Theses:***

- MS.c

The vasodilator and antihypertensive activities of *Allium cepa* peel hydro- alcoholic extract on rat.

**Supervisor:** Prof. Mohammad Kazeme Gharib Naseri

- Ph.D

Effect of morphine dependency on hippocampal neuronal damage following global ischemia reperfusion injury and involved molecular mechanisms in mice.

**Supervisors:** Dr. Nahid Aboutaleb and Dr Hamidreza Pazoki

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### *J. Publication:*

- 1- Higher improvement of cardiac function following myocardial infarction using menstrual blood stromal/stem cells (MenSCs) suspended in conditioned medium versus conditioned medium alone in rat model. Mahmood Manshori, Somaieh Kazemnejad, Nasim Naderi, Abolfazl Shirazi, **Arabian Maedeh**, Marzieh Eghtedardoost, Maryam Darzi, Samaneh Montazeri, Nahid Aboutaleb, Hannaneh Golshahi. *Avicenna Journal of Medical Biotechnology*. **2023**.
- 2- Development of a patients' satisfaction analysis system using machine learning and lexicon-based methods. Shiva Khaleghparast, Majid Maleki, Ghasem Hajianfar, Esmaeil Soumari, Mehrdad Oveisi, Hassan Maleki Golandouz, Feridoun Noohi, Reza Golpira, Saeideh Mazloomzadeh, **Maedeh Arabian**, Samira Kalayinia. *BMC Health Services Research*.**2023**: 23 (1):1-12.
- 3- Circular RNAs: New Players in Cardiomyopathy. Maedeh Bagheri Moghaddam, Majid Maleki, Maziar Oveisee, Mahrokh Bagheri Moghaddam, **Maedeh Arabian**, Mahshid Malakootian. *Genes*. **2022**, 13, 1537. <https://doi.org/10.3390/genes13091537>.
- 4- Investigating the effect of different light intensities in work environments on Circadian rhythm using animal model. Yekzamani P, Ashtarinezhad A, Aboulghasemi J, Masruri B, **Arabian M**, Alimohammadi I. *Occupational Medicine Quarterly Journal*. **2022**:14(1):19 -28.
- 5- The fate of the fresh autologous pericardium after right ventricular outflow tract reconstruction. Hassan Tatari, Gholamreza Omrani, **Maedeh Arabian**, Kambiz Mozaffari, Yaser Toloueitabar1, Sanaz Asadian, Nader Givtaj, Maziar Gholampour Dehaki, Amirhosein Jalali. *J Cardiovasc Thorac Res*, **2022**, 14(1), 47-52.
- 6- Potential Roles of Circular RNAs and Environmental and Clinical Factors in Intervertebral Disc Degeneration. Mahshid Malakootian, Akram Gholipour, Mahrokh Bagheri Moghaddam1, **Maedeh Arabian**, Maziar Oveisee. *Environmental Health Engineering and Management Journal* **2022**, 9(2), 189-200.
- 7- Warning signals of elevated prediabetes prevalence in the modern Iranian urban population. Somayyeh Barati, Parham Sadeghipour, Zahra Ghaemmaghami, Bahram Mohebbi, Mohammadreza Baay, Mohammad Javad Alemzadeh-Ansari, Zahra Hosseini, Yeganeh Karimi, Mojtaba Malek, Majid Maleki, Feridoun Noohi, Yasaman Khalili, Azin Alizadehasl, Nasim Naderi, **Maedeh Arabian**, Hamidreza Pouraliakbar, Shiva Khaleghparast, Behshid Ghadrdoost, Shabnam Boudagh, Hooman Bakhshandeh. *Prim. Care Diab.*, <https://doi.org/10.1016/j.pcd>. **2021**.04.002.
- 8- Diagnostic and Prognostic Values of Soluble Suppression of Tumorigenicity-2 Measurements in the Treatment Assessment of Adult Patients With Congenital Heart Disease and cardiac failure. Zahra Khajali; Ata Firouzi; **Maedeh Arabian**; Nasim

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Naderi; Majid Maleki, Sedigheh Saedi; Maryam Aliramezany. *Int Cardiovasc Res J*. **2020**;14(4):127-131.icrj.109763.

- 9- Intravenous Vitamin C to prevent contrast-induced nephropathy in patients undergoing percutaneous coronary interventions. Farzaneh Futuhi, Mahshid Malakootian, Majid Maleki, Mohammad Mehdi Peighambari, Maryam Hosseini Moghadam, Shabnam Boudagh, **Maedeh Arabian**\*. *Iranian heart journal*. In press. **2020**
- 10- Best management in isolated right ventricular hypoplasia with septal defects in adults. Zahra Khajali, **Maedeh Arabian**, Maryam Aliramezany. *J Cardiovasc Thorac Res*, **2020**, 12(3), 237-243.
- 11- Heart Assessment and Monitoring in Rajaie Hospital (HAMRAH): A population-based cohort study. Hooman Bakhshandeh, Majid Maleki, Feridoun Noohi, Shabnam Boudagh, Yasaman Khalili, Azin Alizadehasl, Nasim Naderi, Bahram Mohebbi, Yousef Moghaddam, Majid Haghjoo, **Maedeh Arabian**, Mohammad Javad Alemzadeh-Ansari, Mohammadreza Baay, Hamidreza Pouraliakbar, Zahra Ghaemmaghami, Shiva Khaleghparast, Behshid Ghadrdoost, Hamidreza Pasha, Zahra Hosseini, Reza Golpira, Nejat Mahdieh, Akbar Nikpajouh, Parham Sadeghipour. *Research in Cardiovascular Medicine* 9(2):29, **2020**.
- 12- Insights into role of microRNAs in cardiac development, cardiac diseases, and developing novel therapies. **Maedeh Arabian**, Fatemeh Mirzadeh Azad, Majid Maleki, Mahshid Malakootian. *Iran J Basic Med Sci*, Vol. 23, No. , **2020**.
- 13- Small Molecules with Big Impacts on Cardiovascular Diseases. Fatemeh Mirzadeh Azad, **Maedeh Arabian**, Majid Maleki, Mahshid Malakootian. *Biochemical Genetics*. **2020**. <https://doi.org/10.1007/s10528-020-09948-z>.
- 14- Role of epicardial adipose tissue in cardiovascular diseases. Mahshid Malakootian, Farzaneh Futuhi, **Maedeh Arabian**\*. *Razi Journal of Medical Sciences*.**2019**;26(10):28-37.
- 15- In Silico Analysis on mRNA, lncRNA, and miRNA Expression Profiles in Ischemic Cardiomyopathy Left Ventricular Tissues and Differentiated Cardiomyocytes. Gholipour, Akram; Sharifi-Zarchi, Ali; Shakerian, Farshad; Zahedmehr, Ali; Oveisi, Mehrdad, **Maedeh Arabian**, Majid Maleki, Elham Taheri Bajgan, Seyed Javad Mowla, and Mahshid Malakootian *World Heart Journal*; Hauppauge Vol. 11, Iss. 4, (**2019**): 319-327.
- 16- Modulatory Role of SIRT1 and Resistin as Therapeutic Targets in Patients with Aortic Valve Stenosis. Niloufar Samiei, Saeid Hosseini, Majid Maleki, Lida Moradi, Mohammad Taghi Joghataei, and **Maedeh Arabian**\*. *Archives of Medical Research* 50 (**2019**) 333-341.
- 17- Interaction of mTOR and iNOS pathways in protection against Ischemia/ Reperfusion injury. **Maedeh Arabian**, Nahid Aboutaleb, Marjan Ajami and Rouhollah Habibey *Iranian Journal of Pharmaceutical Research* (**2019**), 18 (2): 785-792.

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- 18- Prevalence of Cardiac Dysfunction Among Adult Patients With Congenital Heart Disease: A Single-Center Investigation. Zahra Khajali, Majid Maleki, Ahmad Amin, Sedigheh Saedi, **Maedeh Arabian**, Mahmood Moosazadeh, Nasim Naderi, Kambiz Mozzafari, Hadi Khalaj, Maryam Aliramezany. Iranian Heart Journal; **2019**; 20 (3): 12-19.
- 19- Unusual Presentation of Takayasu's Arteritis with Cardiac Involvement and Renal Artery Stenosis. Zahra Khajali, Farzaneh Futuhi, Parham Sadeghipour, **Maedeh Arabian**, Maryam Aliramezany. Res Cardiovasc Med **2018**;7:207-9.
- 20- Preconditioning with Morphine Protects Hippocampal CA1 Neurons Against Ischemia/Reperfusion Injury via the Activation of the mTOR Pathway. **Maedeh Arabian**; Mansoureh Soleimani; Marjan Ajami, Rouhollah Habibey; Yousef Rezaei; Nahid Aboutaleb; Hamidreza Pazoki-Toroudi. Canadian Journal of Physiology and Pharmacology. Can J Physiol Pharmacol. **2018** Jan; 96 (1):80-87.
- 21- Activation of mitochondrial KATP channels mediates neuroprotection induced by chronic morphine preconditioning in hippocampal CA-1 neurons following cerebral ischemia. **Arabian M**, Aboutaleb N, Soleimani M, Ajami M, Habibey R, Pazoki-Toroudi H. Adv Med Sci. **2017** Dec 6;63(2):213-219.
- 22- CX3CR1 (fractalkine receptor) deficiency is associated with early protection but late worsening of outcome following brain trauma in mice. Elisa R Zanier, Federica Marchesi, Fabrizio Ortolano, Carlo Perego, **Maedeh Arabian**, Tommaso Zoerle, Francesca Pischiutta and Maria-Grazia De Simoni. J Neurotrauma. **2016** Jun 1;33(11):1060-72.
- 23- Role of morphine preconditioning and nitric oxide following brain ischemia reperfusion injury in mice. **Arabian M**, Aboutaleb N, Soleimani M, Zare Mehrjerdi F, Ajami M, Pazoki-Toroudi H. Iranian Journal of Basic Medical Sciences. Iran J Basic Med Sci. **2015** Jan;18(1):14-21.
- 24- Contracting responses of thoracic aorta to hindlimb unloading in rat. Hajar Soltani, Zahra Hajebrahimi, **Maedeh Arabian**, Sima Nasri, Nahid Aboutaleb. Razi Journal of Medical Sciences.2014. RJMS **2015**, 22(130): 53-62.
- 25- Increased phosphorylation of mTOR is involved in remote ischemic preconditioning of hippocampus in mice. Zare Mehrjerdi F, Aboutaleb N, Habibey R, Ajami M, Soleimani M, **Arabian M**, Niknazar S, Hossein Davoodi S, Pazoki-Toroudi H. Brain Res. **2013** Aug 14;1526:94-101. doi: 10.1016/j.brainres.2013.06.018. Epub 2013 Jun 24.
- 26- Diminished response of isolated aorta following chronic physical and psychological stresses and its reversibility in rats. ghasemi A, Faraji F, Valaee F, Sedaghat K, **Arabian M**, Zahediasl S. International Journal of Endocrinology and Metabolism (Ijem); **2012**; 10(1);423-428.
- 27- "Vasorelaxant and Hypotensive effects of *Allium cepa* peel hydroalcoholic extract in rat". Mohammad Kazem Gharib Naseri, **Maedeh Arabian**, Mohammad Badavi and

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Akram Ahangarpour. Pakistan Journal of Biological Sciences (PJBS). **2008**, 11(12): 1569-1575.

- 28- "Antispasmodic Activity of Onion (*Allium cepa* L.) peel extract on rat ileum". Mohammad Kazem Gharib Naseri, Hoda Yahyavi, **Maedeh Arabian**. Iranian Journal of Pharmaceutical Research (IJPR). **2008**, 7(2): 155-159.
- 29- "Spasmolytic effect of *Glycyrrhiza glabra* leaf extract on rat ileum ". Mohammad Kazem Gharib Naseri, **Maedeh Arabian**, Zahra Gharib Naseri. Journal of shahrekord university of medical science. Autumn 1386. p: 1-9.
- 30- "Spasmolytic effect of Onion (*Allium cepa* L.) peel extract on rat ileum ". Mohammad Kazem Gharib Naseri, **Maedeh Arabian**, Hoda Yahyavi. Journal of Rafsanjan university of medical science. Autumn 1386 (6). p: 205-212.
- 31- Study of hypergravity and flight stress on different cell lines function in sounding rocket. Zahra Hajebrahimi, Leila Alidoust, **Maedeh Arabian**, Leila Najafi, Mohammad Ebrahimi, Mohsen Bahrami. Journal of space science and technology (jsst). Winter 1392, 6(4), p: 37-42.

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### *K. Selected Congress Participation:*

- 1- Cardiac adipose tissue-derived factors: new opportunities for precision medicine. The 3<sup>rd</sup> international personalized medicine congress. 13-15 February, 2019, Tehran, Iran.
- 2- Intravenous vitamin C for the prevention of contrast- induced nephropathy in patients undergoing percutaneous coronary intervention. ISN world congress of nephrology. 12-15 April, 2019. Melbourne, Australia.
- 3- The Correlation of VE/VCO<sub>2</sub> Slope with the Bode Index and Quality of Life in Patients with COPD. M Mirdamadi, B Rahimi, M Arabian. CLINICAL ISSUES IN COPD II, American Thoracic Society. 2018.
- 1- SIRT1 and resistin as therapeutic targets of resveratrol in aortic stenosis. 3 World Heart Congress. April 19-20, 2018. Amsterdam, Netherlands. ScientificTracks Abstracts: J Clin Exp Cardiology. DOI: 10.4172/2155-9880-C2-092.
- 2- RNAs as novel biomarkers in cardiovascular disease. 6<sup>th</sup> Iranian Joint Cardiovascular Congress. 27th Feb \_ 2March, 2018. Tehran- Iran.
- 3- The Mitochondria as a Target for Neuroprotection following Ischemia/Reperfusion injury. 23rd Iranian Congress of Physiology and Pharmacology. Chabahar, Iran, 15-18 Feb. 2018.

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- 4- Activation of mTOR pathway is involved in neuroprotection effects of chronic morphine treatment on CA1 hippocampus neurons. 5th Neuroscience Congress 2016 Tehran - Iran, December 7-9, 2016.
- 5- Effect of morphine dependency on hippocampal neuronal damage following cerebral ischemia reperfusion injury in mice. 21st International Iranian Congress of Physiology and Pharmacology, 23-27 August, 2013, Tabriz, Iran.
- 6- KATP channels mediate the protective effects of remote renal ischemia- preconditioning in the global cerebral ischemia in mice. 21st International Iranian Congress of Physiology and Pharmacology, 23-27 August, 2013, Tabriz, Iran.
- 7- Thoracic Aorta Contracting Response to Microgravity Simulation: Role of L-Type Calcium Channels. International Conference on Life Science & Biological Engineering. July 22-24, 2013, Osaka, Japan.
- 8- Role of morphine preconditioning and nitric oxide following brain ischemia reperfusion injury in mice. Brain Ischemia and Stroke, 12-14 December, 2012, Rome, Italy.
- 9- Vasorelaxant and hypotensive effects of *Allium cepa* peel hydroalcoholic extract in rat. In the Vascular & Smooth Muscle Physiology Themed Meeting, 6-8 December 2011. Royal College of Surgeons of Edinburgh, Edinburgh, UK.
- 10- Mutation Analysis exons 7,8&9 of PTEN Gene in Iranian Colorectal Cancer. In The 12th International Congress of Human Genetics and the American Society of Human Genetics 61st Annual Meeting October 11-15, 2011 Montreal, Canada.
- 11- Vasorelaxant and Hypotensive effects of *Allium cepa* peel hydroalcoholic extract in rat. The 3<sup>rd</sup> Congress of Medicinal Plants. 24-25 Oct, 2007, Tehran, Iran.
- 12- Antispasmodic Activity of Onion (*Allium cepa* L.) peel extract on rat ileum. 18st International Iranian Congress of Physiology and Pharmacology, 2007, Mashhad, Iran.

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### ***H. Selected Research Projects:***

- 1- Evaluation of the relationship between epicardial adipose tissue with involved gens expression and inflammatory phenotype as a prognostic index for CAD. Rajaie cardiovascular medical and research center.
- 2- Temporal pattern of expression and co localization of microglia/macrophage phenotype markers following traumatic brain injury in mice, with Prof. Maria Grazia De Simoni in Mario Negri Institute of Pharmacological Research, Milan, Italy.



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- 3- The Effect of Resveratrol on Resistin and Sirtuin-1 Gene Expression in Patients Undergoing Surgery for Degenerative Aortic Valve Stenosis, with Prof. Saeid Hosseini. Rajaie cardiovascular medical and research center.
  - 4- Evaluation of the role of pro-fibrotic factor on atrial fibrillation and cardiac electrical and structural remodeling in aging. Rajaie cardiovascular medical and research center, Tehran, Iran.
  - 5- Evaluation of Intralipid cardio-protective effects following Ischemia- Reperfusion injury in Rat. Rajaie cardiovascular medical and research center, Tehran, Iran.
  - 6- Evaluation the effects of menstrual blood stem cell combined with injectable hydrogel on cardiac function in myocardial infarction in rat. Rajaie cardiovascular medical and research center, Tehran, Iran.
  - 7- Bioinformatical and experimental analysis of nucleotide changes, expression alteration and alternative splicing of a long noncoding RNA, ANRIL, in premature CAD Patients: to find a specific molecular biomarker related to CAD in Iranian population. Rajaie cardiovascular medical and research center, Tehran, Iran.
  - 8- Epidemiological evaluation of cardiovascular diseases and related risk factors in Tehran urban district. Rajaie cardiovascular medical and research center, Tehran, Iran.
  - 9- Effect of morphine dependency on hippocampal neuronal damage following global ischemia reperfusion injury in mice with Dr. Nahid Aboutaleb in Iran University of medical science, Tehran, Iran.
  - 10- Increased phosphorylation of mTOR is involved in remote ischemic preconditioning of hippocampus in mice. Dr. Nahid Aboutaleb in Iran university of medical science, Tehran, Iran.
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### ***F. Laboratory Skills:***

#### **➤ Animal modelling techniques:**

- Cardiac ischemia modelling by LAD artery occlusion in rat
- Global cerebral ischemia modeling by common carotid artery occlusion in mice (2VO).
- Global cerebral ischemia modeling by vertebral and common carotid artery occlusion in rat (4VO)
- Traumatic brain injury modeling by Controlled Cortical Impact (CCI) in mice
- Noninvasive Measurement of blood pressure by tail-cuff method
- Invasive Measurement of blood pressure and ECG by implantable transmitter
- Passive avoidance learning test (with shuttle box)
- Microgravity simulation modeling in rats (Hind Limb Unloading- HLU)



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### ➤ **Cellular, molecular and histological techniques:**

- Isolation, culture, proliferation and transplantation of mesenchymal stem cell
- Isolated organ bath Technique for assessment heart, vessels and smooth muscle function
- Measurement of protein expression by Western blotting analysis
- Immunohistochemical techniques
- DNA Extraction, RNA Extraction
- PCR and real-time PCR
- Preparation tissue sections with Cryostat and Microtome
- TUNEL and NISSL staining in tissue sections
- Measurement of enzyme level in different samples by ELISA

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