

*In the Name of God*

# **Curriculum Vita**

## **General Characteristics**

**Family Name:** Keyhanmanesh

**Name:** Rana

**Work Address:** Physiology department, Tabriz University of medical sciences

**Phone:** (Work) 098 4133364664

**Fax:** 098 4133364664

**E-mail:** keyhanmaneshr@tbzmed.ac.ir

rkeyhanmanesh@gmail.com

r\_keyhanmanesh@yahoo.com

## **Qualification**

**1985 – 1990** Primary school ; *Tabriz, IR Iran*

**1991 - 1996** High school; *Mashhad, IR Iran*

**1996 - 2002** Doctrate in medicine (*MD*) (*Tabriz University of Medical Sciences*),  
*Tabriz, IR Iran*

**Jan 2005- March 2008** Postgraduate student (PhD Degree); *Department of Physiology*,  
*Tabriz University of Medical Sciences, Tabriz, IR Iran*

## **Official Posts**

**Nov 2002 – Apr 2004** worked in Behzisty center as a physician (Desiagned by  
Government) in Tabriz

**March 2008 – Dec 2012** The assistant professor of physiology at Tabriz university of  
medical science

**Dec 2012-March 2017** The associate professor of physiology at Tabriz university of  
medical science

**March 2010- Sep 2012** The education office manager of medicine faculty of Tabriz  
university of medical science

**Aug 2011-Nov 2016** The educational deputy of physiology department, Tabriz  
university of medical science

**Nov 2016-now** The head of physiology department

<b>March 2017- now</b>	The professor of physiology at Tabriz university of medical sciences
<b>July 2017- now</b>	Secretary of integration Committee of faculty of medicine
<b>May 2018- now</b>	Secretary of the Accreditation Committee of the General Medical Course

## **Main Interest**

١. Respiratory Physiology
٢. Endocrine physiology
٣. physiology of kidney and urinary system
٤. medical education

## **Doctorate (MD) Thesis**

The evaluation of the marriage and the first pregnancy age and the socioeconomic factors between primigravidas of the gynecology and obstetrics clinics

## **PhD thesis**

The evaluation of physiologic responses of airway smooth muscle to *Nigella sativa* and its main constituent, thymoquinone in a guinea pig model of asthma

## **Publications**

### **A) Articles in journals (in English)**

- 1- R. Keyhanmanesh, *et al.* The Contribution of Water and Lipid Soluble Substances in the Relaxant Effects of *Nigella sativa* Extract on Guinea Pig Tracheal Smooth Muscle (in vitro). Iranian Journal of Basic Medical Sciences 10(3):154-161; (2007).
- 2- R. Keyhanmanesh, *et al.* Relaxant effects of different fractions from *Nigella sativa* on guinea pig tracheal chains and its possible mechanism(s). IJEB 46: 805-10; (2008).
- 3- R. Keyhanmanesh, *et al.* The Effect of Thymoquinone, the Main Constituent of *Nigella sativa* on Tracheal Responsiveness and White Blood Cell Count in Lung Lavage of Sensitized guinea pigs. Planta Med 75: 1–5; (2009).
- 4- R. Keyhanmanesh, *et al.* Effect of thymoquinone on the lung pathology and cytokine levels of ovalbumin-sensitized guinea pigs, pharmacological reports 62 (5): 910-916; (2010).

- 5- MR Alipour, H. Feizi, G Mohaddes, R. Keyhanmanesh *et al.* Effect of exogenous ghrelin on body weight and hematocrit of male adult rats in chronic hypoxia, International Journal of endocrinology and metabolism 8 (4): 201-205; (2010).
- 6- MH Boskabady, R. Keyhanmanesh, *et al.* Potential immunomodulation effect of the extract of *Nigella sativa* on ovalbumin sensitized guinea pigs, Journal of Zhejiang university-science B 12 (3): 201-209; (2011).
- 7- MH Boskabady, R. Keyhanmanesh, *et al.* The effect of *Nigella sativa* extract on tracheal responsiveness and lung inflammation in ovalbumin-sensitized guinea pigs, Clinics 66 (5): 879-887; (2011).
- 8- MR Alipour, MR Aliparasti, R. Keyhanmanesh, *et al.* Effect of ghrelin on protein kinase C- $\epsilon$  and protein kinase C- $\delta$  gene expression in the pulmonary arterial smooth muscles of chronic hypoxic rats, J. Endocrinol. Invest. 34: 369-73 (2011).
- 9- R. Keyhanmanesh, MH Boskabady: Relaxant effects of different fractions from Thymus Vulgaris on guinea pig tracheal chains and its possible mechanism(s), Biol Res 45: 67-73 (2012).
- 10- MR Alipour, S. Almasi, R. Keyhanmanesh, MR Aliparasti, KH Ansarin, H. Feizi: Effect of exogenous ghrelin on heme oxygenase and rock isoforms gene expression in the lung of chronic hypoxic wistar rats, Acta endocrinologica 8 (1): 5-15 (2012).
- 11- MA Ebrahimi Saadatlou, H Tavousi, R. Keyhanmanesh: A study of the histogenesis of sheep fetus iris, Kafkas Univ Vet Fak Derg 19 (2):337-42 (2013).
- 12- R. Keyhanmanesh, *et al.* The Relaxant Effects of Different Methanolic Fractions of *Nigella sativa* on Guinea Pig Tracheal Chains, Iranian Journal of Basic Medical Sciences 16: 123-28 (2013).
- 13- H Mazouchian, F Mirzaei Babil, MA Ebrahimi Saadatlou, MR Bonyadi, R. Keyhanmanesh: The Effects of *Nigella sativa* on endothelin level of ovalbumin sensitized Guinea Pig, Annals of biological research 4(4): 209-13 (2013).
- 14- R. Keyhanmanesh, *et al.* The main Relaxant constituents of *Nigella sativa* Methanolic Fraction on Guinea Pig Tracheal Chains, Iranian Journal of Allergy, asthma and immunology 12 (2): 136-43 (2013).
- 15- H Mazouchian, F Mirzaei Babil, MA Ebrahimi Saadatlou, MR Bonyadi, R. Keyhanmanesh: The Effect of Thymoquinone, the main Constituent of *Nigella sativa*, on Endothelin level of Ovalbumin Sensitized Guinea Pigs, Advances in Bioresearch 4 (3): 105-108 (2013).

- 16- M. Mohammadi, R. Ghaznavi, R. Keyhanmanesh, *et al.*: Voluntary Exercise Prevents Lead-Induced Elevation of Oxidative Stress and Inflammation Markers in Male Rat Blood, *The ScientificWorld Journal*, 2013: 5 pages (2013).
- 17- H. Feizi, K. Rajaei, R. Keyhanmanesh, *et al.*: Effect of ghrelin on renal erythropoietin production in chronic hypoxic rats, *Endocrine regulations*, 48:3–8 (2014).
- 18- R. Keyhanmanesh, *et al.* The effect of single dose of thymoquinone, the main constituents of *Nigella sativa*, in guinea pig model of asthma, *BioImpacts* 4(2): 75-81 (2014).
- 19- L. Pejman, H. Omrani, Z. Mirzamohammadi, A.A. Shahbazfar, M. Khalili, R. Keyhanmanesh: The Effect of Adenosine A2A and A2B Antagonists on Tracheal Responsiveness, Serum Levels of Cytokines and Lung Inflammation in Guinea Pig Model of Asthma, *Advanced Pharmaceutical Bulletin* 4(2): 131-138 (2014).
- 20- M. Mohammadi, R. Ghaznavi, R. Keyhanmanesh, *et al.*: Caloric Restriction Prevents Lead-Induced Oxidative Stress and Inflammation in Rat Liver, *The Scientific World Journal*, 2014: 5 pages (2014).
- 21- R. Keyhanmanesh, *et al.* *Nigella sativa* Pretreatment in Guinea Pigs Exposed to Cigarette Smoke Modulates In Vitro Tracheal Responsiveness, *Iran Red Crescent Med J* 16 (7): e10421 (2014).
- 22- S. Kolahian, AA Shahbazfar, H Tayefi-Nasrabadi, R. Keyhanmanesh, *et al.*: Tiotropium effects on airway inflammatory events in the cat as an animal model for acute cigarette smoke-induced lung inflammation, *Experimental Lung Research*, 40 (6): 272-87 (2014).
- 23- F. Mirzaie Babil, G. Mohaddes, H. Ebrahimi, R. Keyhanmanesh, *et al.*: Ghrelin Increases Lymphocytes in Chronic Normobaric Hypoxia, *Adv Pharm Bull*, 4(4): 339-343 (2014).
- 24- R. Keyhanmanesh, *et al.* The Beneficial Effects of Applied Physiology Study Guides on Dentistry Students' Learning, *Res Dev Med Educ*, 3(2): 105-107 (2014).
- 25- L. Pejman, H. Omrani, Z. Mirzamohammadi, R. Keyhanmanesh: Thymoquinone, the main constituent of *Nigella sativa*, affect adenosine receptors in asthmatic guinea pigs, *IJBMS*, 17:1012-19 (2014).
- 26- R. Keyhanmanesh, *et al.* The relaxant effect of *Nigella sativa* on smooth muscles, its possible mechanisms and clinical applications, *IJBMS*, 17: 939-949 (2014).

- 27- F. Mirzaei Babil, MR Alipour, R. Keyhanmanesh, *et al.*: Ghrelin Decreases Angiogenesis, HIF-1 $\alpha$  and VEGF Protein Levels in Chronic Hypoxia in Lung Tissue of Male Rats, *Adv Pharm Bull*, 5(3): 315-320 (2015).
- 28- R. Keyhanmanesh, *et al.* The Protective Effect of  $\alpha$ -Hederin, the Active Constituent of *Nigella sativa*, on Lung Inflammation and Blood Cytokines in Ovalbumin Sensitized Guinea Pigs, *Phytother Res*, 29: 1761–1767 (2015).
- 29- S. Saadat, M. Mohammadi, M. Fallahi, R. Keyhanmanesh, M.R. Aslani. The protective effect of  $\alpha$ -hederin, the active constituent of *Nigella sativa*, on tracheal responsiveness and lung inflammation in ovalbumin-sensitized guinea pigs, *J Physiol Sci* 65:285–292 (2015).
- 30- Z. Gholamnezhad, R. Keyhanmanesh, M.H. Boskabady. Anti-inflammatory, antioxidant, and immunomodulatory aspects of *Nigella sativa* for its preventive and bronchodilatory effects on obstructive respiratory diseases: A review of basic and clinical evidence, *Journal of Functional Foods*, 17: 910–927 (2015).
- 31- M. Fallahi, R. Keyhanmanesh *et al.* Effect of Alpha-Hederin, the active constituent of *Nigella sativa*, on miRNA-126, IL-13 mRNA levels and inflammation of lungs in ovalbumin-sensitized male rats, *Avicenna J Phytomed*, 6 (1): 77-85 (2016).
- 32- H. Ebrahimi, M. Fallahi, A.M. Khamaneh, M.A. Ebrahimi Saadatlou, S. Saadat and R. Keyhanmanesh, Effect of  $\alpha$ -Hederin on IL-2 and IL-17 mRNA and miRNA-133a Levels in Lungs of Ovalbumin-Sensitized Male Rats, *Drug Development Research*, 77(2): 87–93 (2016).
- 33- R. Keyhanmanesh, *et al.* The Contribution of Water and Lipid Soluble Substances in the Relaxant Effects of *Tymus vulgaris* Extract on Guinea Pig Tracheal Smooth Muscle (in vitro). *Chinese Journal of Integrative Medicine*, 22(5): 377-383 (2016).
- 34- Z. Mirzamohammadi, B. Baradaran, D. Shanehbandi, R. Keyhanmanesh, Thymoquinone, the Main Constituent of *Nigella sativa*, Could Impact on Adenosine A2 Receptors in Ovalbumin-sensitized Guinea Pigs, *Kafkas Univ Vet Fak Derg* 22 (2): 203-214 (2016).
- 35- M.R. Aslani, R. Keyhanmanesh *et al.* Tracheal overexpression of IL-1 $\beta$ , IRAK-1 and TRAF-6 mRNA in obese-asthmatic male Wistar rats. *Iran J Basic Med Sci* 19: 350-357 (2016).
- 36- M.R. Aslani, R. Keyhanmanesh *et al.* Lung Altered Expression of IL-1 $\beta$  mRNA and its Signaling Pathway Molecules in Obese-Asthmatic Male Wistar Rats. *Iranian Journal of Allergy, Asthma and Immunology* 15(3):183-197 (2016).

- 37- M. Ahmadi, R. Rahbarghazi, S. Soltani, M.R. Aslani and R. Keyhanmanesh, Contributory anti-inflammatory effects of mesenchymal stem cells, not conditioned media, on ovalbumin-induced asthmatic changes in male rats. *Inflammation* 9(6): 1960-71 (2016).
- 38- M. Ahmadi, R. Rahbarghazi, M.R. Aslani, A.A. Shahbazfar, M. Kazemi, R. Keyhanmanesh. Bone marrow mesenchymal stem cells and their conditioned media could potentially ameliorate ovalbumin-induced asthmatic changes. *Biomedicine & Pharmacotherapy* 85: 28–40 (2017).
- 39- M.R. Aslani, R. Keyhanmanesh, M.R. Alipour, Increased visfatin expression is associated with nuclear factor- $\kappa$ B in obese ovalbumin-sensitized male wistar rat tracheae. *Med Princ Pract* 26: 351-58 (2017).
- 40- R. Keyhanmanesh et al., Effects of diet-induced obesity on tracheal responsiveness to methacholine, tracheal visfatin level, and lung histological changes in ovalbumin-sensitized female wistar rats. *Inflammation* 41(3): 846-858 (2018).
- 41- G. Bayrami, A. Alihemmati, P. Karimi, A. Javadi, R. Keyhanmanesh et al., Combination of vildagliptin and ischemic postconditioning in diabetic hearts as a working strategy to reduce myocardial reperfusion injury by restoring mitochondrial function and autophagic activity. *Adv Pharm Bull* 8(2): 319-329 (2018).
- 42- M. Ahmadi, R. Rahbarghazi, A.A. Shahbazfar, H. Baghban and R. Keyhanmanesh. Bone marrow mesenchymal stem cells modified pathological changes and immunological responses in ovalbumin-induced asthmatic rats possibly by the modulation of miRNA 155 and miRNA 133. *General physiology and biophysics* 37: 263-274 (2018).
- 43- R. Keyhanmanesh et al., Protective effects of sodium nitrate against testicular apoptosis and spermatogenesis impairments in streptozotocin-induced diabetic male rats. *Life Sciences* 211: 63–73 (2018).
- 44- M. Ahmadi, R. Rahbarghazi, A.A. Shahbazfar, R. Keyhanmanesh. Monitoring IL-13 expression in relation with miRNA-155 and miRNA-133 changes following intra-tracheal administration of mesenchymal stem cells and conditioned media in ovalbumin-sensitized rats. *The Thai Journal of Veterinary Medicine* 48(3): 347-355 (2018).
- 45- R. Keyhanmanesh et al., Systemic delivery of mesenchymal stem cells conditioned media in repeated doses acts as magic bullets in restoring IFN- $\gamma$ /IL-4 balance in asthmatic rats. *Life Sciences* 212: 30–36 (2018).

- 46- R. Rahbarghazi, R. Keyhanmanesh *et al.*, Bone marrow mesenchymal stem cells and condition media diminish inflammatory adhesion molecules of pulmonary endothelial cells in an Ovalbumin-Induced asthmatic rat model. *Microvascular Research* 121: 63–70 (2019).
- 47- H. Oghbaei, M.R. Alipour, G. Hamidian, M. Ahmadi, V. Ghorbanzadeh, R. Keyhanmanesh. Two months sodium nitrate supplementation alleviates testicular injury in streptozotocin-induced diabetic male rats. *Experimental Physiology*. 103: 1603–17 (2018).
- 48- R. Keyhanmanesh *et al.*, Systemic transplantation of mesenchymal stem cells modulates endothelial cell adhesion molecules induced by ovalbumin in rat model of asthma. *Inflammation* (2018).
- 49- Z. Zavvari Oskuye, F. Mirzaei Babil, G. Hamidian, K. Mehri, A. Qadiri, M. Ahmadi, H. Oghbaei, A.M. Vatankhah, R. Keyhanmanesh. The effect of troxerutin on male fertility in prepubertal type 1 diabetic male rats. *Iranian Journal of Basic Medical Sciences*. 22: 197-205 (2019).
- 50- H. Oghbaei, M.R. Alipour, G. Mohaddes, G. Hamidian, R. Keyhanmanesh. Evaluation of ameliorative effect of sodium nitrate in experimental model of streptozotocin-induced diabetic neuropathy in male rats. Accepted in *Endocrine regulations*.
- 51- M.R. Alipour, R. Keyhanmanesh *et al.*, Effect of high-fat diet on NF- $\kappa$ B–microRNA146a negative feedback loop in ovalbumin-sensitized Rats. *Biofactors*. 45(1): 75-84 (2019).
- 52- H. Oghbaei, M.R. Alipour, G. Mohaddes, G.R. Hamidian, R. Keyhanmanesh. Evaluation of ameliorative effect of sodium nitrate in experimental model of streptozotocin-induced diabetic neuropathy in male rats. *Endocrine Regulations*. 53(1): 14–25 (2019).
- 53- R. Keyhanmanesh *et al.*, Beneficial effects of dietary nitrate on testicular injury by improving glycemia and inhibiting apoptosis in Streptozotocin-induced diabetic male rats. Accepted in *Reproductive Biomedicine Online*.
- 54- H. Ghobadi, M.R. Alipour, R. Keyhanmanesh *et al.*, Effect of High-fat Diet on Tracheal Responsiveness to Methacholine and Insulin Resistance Index in Ovalbumin-sensitized Male and Female Rats. Accepted in *Iranian Journal of Allergy, Asthma and Immunology*.
- 55- A. Qadiri, F. Mirzaei Babil, G.R. Hamidian, Z. Zavvari Oskuye, M. Ahmadi, K. Mehri, H. Oghbaei, A.M. Vatankhah, R. Keyhanmanesh. Administration of Troxerutin

Improves Structure and Function of Testis in Type 1 Diabetic Adult Rats by Reduction of Apoptosis. Accepted in Avicenna Journal of Phytomedicine.

## **B) Articles in journals (in Persian)**

1- F. Aslanpour, M.R. Alipour, S. Khamaneh, N. Ahmadi asl, R. Keyhanmanesh, *et al.*

The Correlation between habitual and compulsory oronasal switching point with tidal volume and respiratory frequency in young non-smoking, non-athletic men, Urmia medical journal 20 (4): 244-253, 1388.

2- M.R. Alipour, A.H. Baiat, R. Keyhanmanesh, *et al.* The Correlation between anterior nasal resistance and oronasal switching point in young non-smoking, non-athletic men, Journal of Isfahan Medical School, 29 (157), (2011).

3- R. Keyhanmanesh, *et al.*: Effect of vitamin C on tracheal responsiveness and pulmonary inflammation in chronic obstructive pulmonary disease model of guinea pig, Physiology and Pharmacology, 17 (1), 101-115 (2013).