

In the Name of God

Curriculum Vita

General Characteristics

Family Name: Keyhanmanesh

Name: Rana

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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

March 2017- now	The professor of physiology at Tabriz university of medical sciences
July 2017- now	Secretary of integration Committee of faculty of medicine
May 2018- now	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- ϵ and protein kinase C- δ 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 α 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 α -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 α -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 α -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 β , 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 β 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- κ 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- γ /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- κ 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).