

*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

March 2017- now

The professor of physiology at Tabriz university of medical science

## **Main Interest**

1. Respiratory Physiology
2. Endocrine physiology
3. physiology of kidney and urinary system

## **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- 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).

42- 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: XXX-X (2018).

## **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).

## **B) Published contributions to academic conferences**

### **- International congresses:**

- 1- **Rana Keyhanmanesh, et al. :** "The contribution of water and lipid soluble substances in the relaxant effects of *Nigella sativa* on guinea pig tracheal chains"  
**"6<sup>th</sup> international traditional / complementary medicine conference (Intracom) and 3<sup>rd</sup> international congress on traditional medicine and materia medica"** (Malaysia- July 17<sup>th</sup> -20<sup>th</sup> , 2007).
- 2- **Rana Keyhanmanesh, et al. :** "The relaxant effect of water and lipid soluble substances of *Nigella sativa* extract on guinea pig tracheal chains"  
**"The 1<sup>st</sup> International Congress on Health Genomics and Biotechnology"**  
(Tehran - Nov. 24<sup>th</sup> - 26<sup>th</sup> , 2007).
- 3- **Rana Keyhanmanesh, et al. :** "Relaxant effects of different fractions from *Nigella sativa* on guinea pig tracheal chains and its possible mechanism(s)"  
**"Turkish Thoracic Society 11th Annual Congress"** (Turkey- April 23<sup>th</sup> – 27<sup>th</sup> , 2008).
- 4- **Rana Keyhanmanesh, et al. :** "The effect of *Nigella sativa* on tracheal responsiveness of ovalbumin sensitized guinea pigs"  
**"36<sup>th</sup> congress of the international union of physiological sciences"** (Japan- 27<sup>th</sup> July-1<sup>st</sup> August, 2009).
- 5- **Rana Keyhanmanesh, et al. :** The effect of different methanolic extracts of *Nigella sativa* on tracheal responsiveness of guinea pigs  
**"21<sup>st</sup> annual congress of European respiratory society"** (Netherlands- 24<sup>th</sup> -28<sup>th</sup> september 2011).

### **- National congresses:**

- 1- **Rana Keyhanmanesh, et al.:** "Relaxant effects of different fractions from *Rosa damasina* on guinea pig tracheal chains and its possible mechanism(s)"  
**"6<sup>th</sup> biennial congress on immunology, asthma & allergy"** (Tehran- May 22<sup>th</sup>- 24<sup>th</sup> , 2007).
- 2- **Rana Keyhanmanesh, et al.:** "Relaxant effects of different fractions from *Nigella sativa* on guinea pig tracheal chains and its possible mechanism(s)"

**"18<sup>th</sup> Iranian congress of physiology & pharmacology"** (Mashhad- August 26<sup>th</sup>- 30<sup>th</sup>, 2007).

**3- Rana Keyhanmanesh, et al.:** "Relaxant effects of different fractions from *Thymus vulgaris* on guinea pig tracheal chains and its possible mechanism(s)"

**"19<sup>th</sup> Iranian congress of physiology & pharmacology"** (Tehran- Nov 3<sup>th</sup>- 6<sup>th</sup>, 2009).

**4- Rana Keyhanmanesh, et al.:** "Relation of switching between habitual and obligatory oronasal breathing during exercise with pulmonary function tests in healthy non-athlete individuals"

**"19<sup>th</sup> Iranian congress of physiology & pharmacology"** (Tehran- Nov 3<sup>th</sup>- 6<sup>th</sup>, 2009).

**5- Rana Keyhanmanesh, et al.:** "The effect of different doses of *Nigella sativa* on blood cytokines and lung pathology of ovalbumin sensitized guinea pig"

**"3<sup>th</sup> Iranian asthma meeting"** (Tehran- Nov 17<sup>th</sup>- 19<sup>th</sup>, 2009).

**6- Rana Keyhanmanesh, et al.:** "the evaluation of the effectiveness of the study guide of applied physiology on dentistry students' learning"

**"11<sup>th</sup> Iran medical education conference"**(Tehran- April 30<sup>th</sup>- May 2<sup>nd</sup>, 2010).

**7- Rana Keyhanmanesh, et al.:** "The effect of different doses of *Nigella sativa* on lung inflammation of ovalbumin sensitized guinea pigs"

**"10<sup>th</sup> international congress of Immunology and Allergy of Iran"** (Tehran- May 17<sup>th</sup>- 18<sup>th</sup>, 2010).

**8- Rana Keyhanmanesh, et al.:** "The relaxant effect of different fractions of *Nigella sativa* on tracheal responsiveness of ovalbumin sensitized guinea pigs"

**"20<sup>th</sup> Iranian congress of physiology & pharmacology"** (Hamadan- October 10<sup>th</sup>- 14<sup>th</sup>, 2011).

**9- Rana Keyhanmanesh, et al.:** "The Prophylactic Effect of Thymoquinone on Lung Inflammation of Sensitized Guinea Pigs"

**"6<sup>th</sup> biennial congress of Iranian society of asthma & allergy"** (Shiraz- Nov 11<sup>th</sup>- 13<sup>th</sup>, 2011).

**10- Rana Keyhanmanesh, et al.:** "The design, implementation and evaluation of educational program of visiting the pharmaceutical factory for medical students of Tabriz university of medical sciences"

**"13<sup>th</sup> National conference on medical education"** (Sari-April 30<sup>th</sup> –May 3<sup>rd</sup>, 2011).