

## Curriculum Vitae

Ali Nasimi, PhD

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### EDUCATION

- 1986** BSc in biology, International University of Shiraz, Shiraz, Iran
- 1987-90** MSc in human physiology Tarbiat Modarres University, Tehran, Iran
- 1993-97** PhD in Neuroscience, Newcastle University, UK  
Thesis title: *The regularity of firing of neurons in the inferior colliculus*,  
using single unit recording  
Supervisor: prof. Adrian Rees,

### POSITIONS

- 1997-2003** Assistant Professor in Physiology, Shahrekord University of Medical Sciences, Iran
- 2003-** Associate Professor in Physiology, Isfahan University of Medical Sciences, Iran  
من باید حدود ده سال پیش استاد می شدم ولی بدلیل نداشتن پست اجرایی مانع ارتقاء من شدند

### TEACHING EXPERIENCE

- I have more than 30 years of successful experiences in teaching human physiology:

- 1997-2003** Teaching Cell, Nervous System, Renal, Respiratory and Cardiovascular Physiology to students of medicine in Shahrekord University of Medical Sciences, Iran
- 2003-now** Teaching Neurophysiology, Cardiovascular and Gastrointestinal physiology to postgraduate students (MSc and PhD), as well as to medical students in Isfahan University of Medical Sciences, Iran

### RESEARCH EXPERIENCE

**Main research topic:**

Central regulation of the cardiovascular system: finding the function of neurotransmitters and networks in controlling the cardiovascular system in some brain nuclei (including the BST, Diagonal band of Broca, Kolliker- fuse and Cuniform nuclei and in last 6 years, the PVN nucleus), using microinjection, direct blood pressure & heart rate recording, histology and single unit recording.

### **A very important new discovery**

- For the first time I discovered that the PVN renin-angiotensin system is a main control system of the cardiovascular system, So, another major cardiovascular control system, the PVN renin-angiotensin system, was added to the two previously known systems: Baroreflex and circulating renin-angiotensin. The paper has been published in **Brain Research Bulletin**

### **Techniques developed in the department**

- Brain histology
- electrode pulling
- cardiovascular research on brain centers
- single unit recording
- field potential recording
- microiontophoresis

### **Developing new techniques**

I have developed new technique for microiontophoresis, and used it for 10 years. It makes the technique much easier and much more resultful, and does not need the microiontophoresis equipment.

### **PhD supervision**

- I supervised more than 10 PhD students in Neuroscience

### **Editorial Board**

- I am a Review Editor in Neuropharmacology, part of the journal(s) Frontiers in

Neuroscience, Pharmacology, Neurology and Psychiatry.

**A well-known reviewer in Neuroscience**

- I reviewed tens of articles for high level international journals including Neuroscience, European Journal of Neuroscience, Frontiers in Neuroscience, Experimental Neurology, Brain Research and several others.

**OTHER SKILLS**

**Computer programming**

- using Visual C++ for real time single unit, blood pressure, heart rate and field potential data collection and analysis.  
- My developed softwares have been used for almost all of my papers.

**Teaching Medical statistics**

- I teach medical statistics to PhD students, explaining all the statistical tests used in physiology as a two unit course (two hours/week/one semester).

**PUBLICATIONS:**

**Note: - All publication have impact factor >2 till 3.6**

**- most of the co-authors have been my PhD students**

1- A Nasimi, F Haddad, N Mirzaei-Damabi, B Rostami, M Hatam, Another controller system for arterial pressure. AngII-vasopressin neural network of the parvocellular paraventricular nucleus may regulate arterial pressure during hypotension  
Brain Research 1769, 147618

2- Mirzaei-Damabi N, Hatam M, Yeganeh F, Ketabchi F, Nasimi A Roles of glutamate and GABA of the Kölliker-Fuse nucleus in generating the cardiovascular chemoreflex.  
Pflugers Arch.,Eur J Physiol 2020 Aug;472(8):1051-1063

- 3- Khanmoradi M, Nasimi A. Endogenous angiotensin II in the paraventricular nucleus regulates arterial pressure during hypotension in rat, a single-unit study. *Neurosci Res.* 2017 Jan;114:35-42.
- 4- Khanmoradi M, Nasimi A. Functions of AT1 and AT2 angiotensin receptors in the paraventricular nucleus of the rat, correlating single-unit and cardiovascular responses. *Brain Res Bull.* 2017 Jun;132:170-179
- 5- Yeganeh F, Nasimi A, Hatam M, Interaction of GABA and norepinephrine in the lateral division of the bed nucleus of the stria terminalis in anesthetized rat, correlating single-unit and cardiovascular responses. *Neuroscience.* 2017 Jul 25;356:255
- 6- Khanmoradi M, Nasimi A. Angiotensin II in the paraventricular nucleus stimulates sympathetic outflow to the cardiovascular system and make vasopressin release in rat. *Neurosci Lett.* 2016 Oct 6;632:98-103.
- 7- Nasimi A, Kafami M. Vasopressin and sympathetic system mediate the cardiovascular effects of the angiotensin II in the bed nucleus of the stria terminalis in rat. *Neurosci Res.* 2016 Jul;108:34-9.
- 8- Kafami M, Nasimi A. Contribution of amygdala to the pressor response elicited by microinjection of angiotensin II into the bed nucleus of the stria terminalis. *Brain Res Bull.* 2016 Oct;127:202-207
- 9- Nasimi A, Kafami M. Vasopressin and sympathetic system mediate the cardiovascular effects of the angiotensin II in the bed nucleus of the stria terminalis in rat. *Neurosci Res.* 2016 Jul;108:34-9.
- 10- Kafami M, Nasimi A. Cardiovascular and single-unit responses to microinjection of angiotensin II into the bed nucleus of the stria terminalis in rat. *Neuroscience.* 2015 Aug 6;300:418-24.

- 11- Hatam M, Rasoulpanah M, Nasimi A. GABA modulates baroreflex in the ventral tegmental area in rat. *Synapse*. 2015 Dec;69(12):592-9.
- 12- Ranjbar A, Hatam M, Nasimi A. Cardiovascular and single-unit responses to L-glutamate injection into the posterior insular cortex in rat. *Neuroscience*. 2015 Oct 15;306:63-73.
- 13- Yeganeh F, Ranjbar A, Hatam M, Nasimi A. Mechanism of the cardiovascular effects of the GABAA receptors of the ventral tegmental area of the rat brain. *Neurosci Lett*. 2015 Jul 23;600:193-8.
- 14- Radahmadi M, Hosseini N, Nasimi A. Effect of chronic stress on short and long-term plasticity in dentate gyrus; study of recovery and adaptation. *Neuroscience*. 2014 Nov 7;280:121-9
- 15- Hatam M, Sheybanifar M, Nasimi A. Cardiovascular responses of the anterior claustrum; its mechanism; contribution of medial prefrontal cortex. *Auton Neurosci*. 2013 Dec;179(1-2):68-74.
- 16- Nasimi A, Shafei MN, Alaei H. Glutamate injection into the cuneiform nucleus in rat, produces correlated single unit activities in the Kolliker-Fuse nucleus and cardiovascular responses. *Neuroscience*. 2012 Oct 25;223:439-46.
- 17- Shafei MN, Nasimi A., Effect of glutamate stimulation of the cuneiform nucleus on cardiovascular regulation in anesthetized rats: role of the pontine Kolliker-Fuse nucleus. *Brain Res*. 2011 (18);1385:135-43.
- 18- A Nasimi, Hemodynamics, - The Cardiovascular System-Physiology, Diagnostics ..., 2012 - intechopen.com

- 19- Nasimi A, Hatam M. (2011) The role of the cholinergic system of the bed nucleus of the stria terminalis on the cardiovascular responses and the baroreflex modulation in rats. *Brain Res* 1386: 81-8.
- 20- Hatam M, Kharazmi F, Nasimi A., Vasopressin and sympathetic systems mediate the cardiovascular effects of the GABAergic system in the bed nucleus of the stria terminalis. *Neurosci Res.* 2009 Dec;65(4):347-52.
- 21- Hatam M, Nasimi A., Glutamatergic systems in the bed nucleus of the stria terminalis, effects on cardiovascular system. *Exp Brain Res.* 2007 Apr;178(3):394-401.
- 22- Nasimi A, Hatam M., GABA and glutamate receptors in the horizontal limb of diagonal band of Broca (hDB): effects on cardiovascular regulation. *Exp Brain Res.* 2005 Nov;167(2):268-75.
- 23- Hatam M, Nasimi A., Interaction of GABA and glutamate in the horizontal limb of diagonal band of Broca (hDB): role in cardiovascular responses. *Brain Res.* 2005 Apr 25;1042(1):37-43.
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- 25- Nasimi A, Rees A. (2010) Regularly firing neurons in the inferior colliculus have a weak interaural intensity difference sensitivity. *J Comp Physiol A Physiol.* 196: 889-97.
- 26- Fesharaki M, Nasimi A, Mokhtari S, Mokhtari R, Moradian R, Amirpoor N., Reactive oxygen metabolites and anti-oxidative defenses in aspirin-induced gastric damage in rats: Gastroprotection by Vitamin E. *Pathophysiology.* 2006 Dec;13(4):237-43.
- 27- Radahmadi M, Shadan F, Karimian SM, Sadr SS, Nasimi A., Effects of stress on exacerbation of diabetes mellitus, serum glucose and cortisol levels and body weight in rats. *Pathophysiology.* 2006 Feb 21;13(1):51-5.

- 28- Rajaei Z, Alaei H, Nasimi A, Amini H, Ahmadiani A., Ascorbate reduces morphine-induced extracellular DOPAC level in the nucleus accumbens: A microdialysis study in rats. *Brain Res.* 2005 Aug 16;1053(1-2):62-6.
- 29- Alaei H, Esmaeili M, Nasimi A, Pourshanazari A., Ascorbic acid decreases morphine self-administration and withdrawal symptoms in rats. *Pathophysiology.* 2005 Sep;12(2):103-7.
- 30- Khazaei M, Barmaki B, Nasimi A. Hemodynamic responses and serum nitrite concentration during uncontrolled hemorrhagic shock in normotensive and hypertensive rats. *Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub.* 2012 Sep;156(3):224-8.
- 31- Khazaei M, Barmaki B, Nasimi A Protective role of selective nitric oxide synthase inhibitor for treatment of decompensated hemorrhagic shock in normotensive and hypertensive rats. *Int J Prev Med.* 2012 Jan;3(1):47-53.
- 32- Barmaki B, Nasimi A, Khazaei M. Effects of hypertension on hemodynamic response and serum nitrite concentration during graded hemorrhagic shock in rats. *J Res Med Sci.* 2011 Sep;16(9):1168-75.
- 33- MN Shafei, A Nasimi, H ... The role of non-NMDA receptor of glutamate in cuneiform nucleus on cardiovascular response in anaesthetized rats, *Pharmacology online*, 2009
- 34- A Nasimi, A Rostami... Difference of blood's Oxygen between smokers and non-smokers patients with acute myocardial infarction and finding its cause in animal model - *Journal of Shahrekord ...*, 2005
- 35- M Delaram, A Nasimi, F Aein The effect of Atropine and Promethazine on the labor process and Apgar score of infants ... - *Journal of Shahrekord ...*, 2002
- 36- A Nasimi, AM Moradi, M Ravari, F Kharazmi, The role of muscarinic cholinergic receptor of the bed nucleus of stria terminalis on cardiovascular response and baroreflex modulation in rat. ... - *Physiology and pharmacology...*, 2009
- 37- B Heshmatian, E Saboory, A Nasimi The Effect of Morphine on Low Mg<sup>2+</sup> ACSF Induced Epileptiform Activity in Mice Whole Hippocampus, *Avicenna Journal of Clinical ...*, 2008
- 38- A Nasimi, H Alaei Effects of electrical stimulation of ventral tegmental area on morphine addiction in rat, *Journal of Shahrekord Uuniversity of ...*, 2004

