

## **CURRICULUM VITAE (CV)**

***ELHAM HAKIMIZADEH***

### **ADDRESS:**

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### **Personal information:**

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|-----------------------|------------------|
| <b>Last Name</b>      | HAKIMIZADEH      |
| <b>First Name</b>     | ELHAM            |
| <b>Citizenship</b>    | IRANIAN          |
| <b>Place of birth</b> | RAFSANJAN - IRAN |

### **Education (Academic Training):**

|             |                                                                                                                                    |
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| 2002 - 2006 | B.Sc. Biology, Shahid Bahonar University, Kerman, Iran.                                                                            |
| 2007 – 2010 | M.Sc. Physiology, Department of Biology, Science and Research Branch, Islamic Azad University, Tehran, Iran.                       |
| 2012-2017   | PhD by Research of physiology, Physiology-Pharmacology Research Center, Rafsanjan University of Medical Sciences, Rafsanjan, Iran. |

### **PhD Thesis**

Effect of agonist (Capsaicin) and antagonist (AMG9810) TRPV1 receptor on stroke outcome and gene expression of TRPV1, Toll-like receptor2 and 4 in the permanent middle cerebral artery occlusion in male rat.

### **Work experience & Skills:**

- Animal Handling (Rat & Mouse)
- Induction of Cerebral Ischemia in rat & mice
- Creating an Aging Model
- Brain Cannulation and stereotaxic brain surgery in rats & mice
- Behavioral studies:

Elevated plus Maze, Shuttle-box, Ledge beam walking, Tail flick, Hanging test, Sticky test, Locomotor activity, Morris Water Maze Test, Y-Maze, Novel Object Recognition Test (NORT)

- Plant extraction
- Creating an ovariectomy Model
- Spectrophotometry
- Tissue perfusion
- RT-PCR
- ELISA

### **Teaching experience:**

Teaching Physiology to biology students

Teaching Physiology to paramedical students

Teaching Advanced Research Methods to PhD by Research student

### **Membership:**

Iranian society of Physiology and pharmacology

### **Research projects participation:**

- ✓ Investigate the protective effect of calcium dobesilate on cisplatin-induced neurotoxicity in male mice.
- ✓ Investigate the neuroprotective effect of gemfibrozil against cisplatin- induced neurotoxicity in male mice.
- ✓ The relationship between cigarette smoking and alcohol with liver enzymes in population of Rafsanjan: A cross sectional study based on Rafsanjan Adult Cohort Study.
- ✓ Evaluation of docosahexaenoic acid effects on some aging related parameters induced by D-galactose in male mice.

- ✓ Evaluation of gemfibrozil effects on kidney and liver complication of aging model induced by D-galactose in male mice.
- ✓ Investigation of the hepatoprotective effects of hydro- alcoholic extract of pistachio on cisplatin-induced liver toxicity in mice.
- ✓ The effect of gemfibrozil on some behavioural aging related parameters in male mice.
- ✓ Evaluation of Ceftriaxone effects on kidney and liver complication of aging model induced by D-galactose in male mice
- ✓ Effect of troxerutin on focal ischemic brain injury in mice.
- ✓ Effect of Sumatriptan against cisplatin-induced nephrotoxicity in rat.
- ✓ A study on the pretreatment effect of metformin on cognitive impairment induced by ischemia/reperfusion (IR) injury in male.
- ✓ A study on the effect of metformin on cognitive impairment induced by ischemia/reperfusion (IR) injury in male.
- ✓ A study on the effect of Q10 on cognitive impairment induced by Ischemia/reperfusion injury in male rats.
- ✓ Effect of truxerutin against cisplatin-induced nephrotoxicity in mice.
- ✓ The effects of ceftriaxone on some aging related parameters in D-galactose induced in male mice.
- ✓ Effect of calcium dobesilate against cisplatin-induced nephrotoxicity in mice.
- ✓ The effect of oleuropein on hemodynamic, functional and renal tissue parameters following unilateral ureteral obstruction in male Wistar rats: with emphasis on the role of oxidative stress and inflammation.
- ✓ Effects of 2.4 GHz electromagnetic signals (emitted from local wifi apparatus) on cross modal. object recognition test and expression of muscarinic and GABAergic receptors in hippocampus of rats.
- ✓ The survey of Metformin effects on tactile learning, anxiety-like behavior and Brain Derived Neurotrophic Factor (BDNF) in ovariectomized mice.
- ✓ The effect of metformin on aging related changes in ovariectomized mice.
- ✓ The effect of single dose of opium consumption on muscle and central fatigue in male rat.
- ✓ Study the effect of intraventricular (ICV) injection TRPV1 receptors antagonist on the process of binding (integration of different sensory information) in male rat.
- ✓ The effects of MAG pathway inhibition on stroke outcome and its interaction with cannabinoid system in mice pMCAo model.
- ✓ The survey of Ascorbic Acid Effects on tactile learning, working memory, anxiety-like behavior and Brain Derived Neurotrophic Factor (BDNF) in ovariectomized mice.
- ✓ The survey of troxerutin administration effect on muscle fatigue, oxidative stress and expression of bcl-2 and Bax in male rats.
- ✓ Effect of agonist (Capsaicin) and antagonist (AMG9810) TRPV1 receptor on stroke outcome and gene expression of TRPV1 and Toll-like receptor 2 and 4 in the permanent middle cerebral artery occlusion in male rat.
- ✓ The survey of troxerutin effect on muscle fatigue and matrix metalloproteinase-9 activity in male.
- ✓ The survey of naringin effect on muscle fatigue in male rats.
- ✓ Survey of cardiovascular system in the Holy Qura'n.
- ✓ Examination of Herbal drug and fruit in the Holy Qura'n.
- ✓ Genetics from the perspective of the Qur'an.

- ✓ Effect of hydro-alcoholic extract of *Teucrium Polium*, *Descurainia Sophia* and *Artemisia aucheri* on morphine withdrawal induced diarrhea.
- ✓ Effect of the hydroalcoholic extract of chicory by mothers on male neonatal bilirubin mice.
- ✓ Evaluation the role of TRPV1 receptors of the ventral hippocampus in learning and spatial memory of the male rats.
- ✓ Effect of postconditioning on late therapy of cerebral ischemia with recombinant tissue plasminogen activator (r-tPA) in the ovariectomized (OVZ) female rat in model of embolic stroke.
- ✓ The effect of acute and chronic swim stress on orexin receptor expression in brain stem in Wistar male rats.
- ✓ Interaction between dopaminergic and opioidergic systems at the level of dorsal hippocampus in orofacial pain modulation in rats.
- ✓ The effect of exercise preconditioning on neuronal function (behavioural indices and inflammation) following induction of transient global cerebral ischemia in rats.
- ✓ The study of Epigallocatechin gallate (EGCG) effect on cognitive deficits, apoptosis, inflammation, brain derived nerve factor (BDNF) and some antioxidant factor levels in hippocampus of morphine treated rats.
- ✓ Preparation of Pistachio topical dosage forms for burn wound healing in rat model.
- ✓ The effects of metformin on some age-related factors in middle aged male rats under chronic stress situation.
- ✓ The effect of single dose of Morphine on muscle fatigue in rat.
- ✓ Effect of Metformin on some consequences of the natural aging process over a period of a year in ovariectomized female rat.
- ✓ Effect of exercise on therapy of cerebral ischemia in the ovariectomized female mouse in the permanent model of stroke in mouse.
- ✓ Effect of alcoholic extract of propolis of Khurasan Razavi and Kerman provinces in focal ischemic brain injury in mice.
- ✓ Study the effects of *Achillea millefolium* aqueous extract in a Parkinsons disease model induced by intra-cerebral-ventricular injection of 6 - hydroxydopamine in male rats.
- ✓ Effect of hypothermia on late therapy of cerebral ischemia with recombinant tissue plasminogen activator (r-tPA) in the male rat in model of embolic stroke.
- ✓ Survey effect of postconditioning on inflammatory cytokines produce in model of embolic stroke in male rats.
- ✓ Evaluation of the expression levels of the TRPV1 and TRPV2 molecules in active chronic HBV infected patient's immune cells in comparison to healthy controls in Rafsanjan city during 2012 to 2013.
- ✓ Role of TRPV1 receptor on 6-OHDA induced Parkinsonism in rat.
- ✓ Effect of the aqueous extract of *Achillea millefolium* on tactile learning in male mice.

### Full Text Publications:

1. **Hakimizadeh E**, Kazemi Arababadi M, Hassanshahi G, Nasiri Ahmadabadi B, Hakimi H, Rezaeian M, Kennedy D. Association of-592 region of IL-10 polymorphisms with asthma in south-eastern Iranian patients. *Clinical laboratory*.2012; 58(3): 267.

2. **Hakimizadeh E**, Oryan SH, Hajizadeh moghaddam A, Shamsizadeh A, Roohbakhsh A. Endocannabinoid system and TRPV1 receptors in the dorsal hippocampus of the rats modulate anxiety-like behaviors. *Iranian journal of basic medical sciences*. 2012 ;15(3), 795.
3. Taghavi Rafsanjani A, Haghparsat A, Shamsizadeh A, Haeri Rohani A, Roohbakhsh A, **Hakimizadeh E**, Amin F, Allahtavakoli M. The effect of nicotine administration on physical and psychological signs of withdrawal syndrome induced by single or frequent doses of morphine in rats. *Basic and Clinical Neuroscience*. 2012: 49-57.
4. Karimabad MN, Arababadi MK, **Hakimizadeh E**, Daredori HY, Nazari M, Hassanshahi G, Kennedy D. Is the IL-10 promoter polymorphism at position -592 associated with immune system-related diseases? *Inflammation*. 2013;36(1):35-41.
5. Khorramdelazad H, **Hakimizadeh E**, Hassanshahi G, Rezayati M, Sendi H, Arababadi MK. CCR5  $\Delta$  32 mutation is not prevalent in Iranians with chronic HBV infection. *J Med Virol*. 2013;85(6):964-8.
6. Jamali Z, Nazari M, Khoramdelazad H, **Hakimizadeh E**, Mahmoodi M, Karimabad MN, Hassanshahi G, Rezaeian M, Balaei P, Darakhshan S, Poor NM. Expression of CC chemokines CCL2, CCL5, and CCL11 is associated with duration of disease and complications in type-1 diabetes: a study on Iranian diabetic patients. *Clin Lab*. 2013;59(9-10):993-1001.
7. **Hakimizadeh E**, Shamsizadeh A, Nazari M, Arababadi MK, Rezaeian M, Vazirinejad R, Jamali Z, Poor NM, Khorramdelazad H, Darakhshan S, Hassanshahi G. Increased circulating levels of CXC chemokines is correlated with duration and complications of the disease in type-1 diabetes: a study on Iranian diabetic patients. *Clin Lab*. 2013;59(5-6):531-7.
8. **Hakimizadeh E**, Kazemi Arababadi M, Shamsizadeh A, Allahtavakoli M, Rezvani ME, Roohbakhsh A. Morphine Reduces Expression of TRPV1 Receptors in the Amygdala but not in the Hippocampus of Male Rats. *Iran J Med Sci*. 2014;39(3):261-7.
9. Ostadebrahimi H, Jamali Z, Nazari M, Bahri M, Farahmandnia Z, Khandany BK, Taheri M, Khorramdelazad H, **Hakimizadeh E**, Zaker F, Rezaeian M, Hassanshahi G. CXC chemokines CXCL1, CXCL9, CXCL10 and CXCL12 are variably expressed in patients with sickle cell disease and carriers: are they predictive tools for disease complications? *Clin Lab*. 2014;60(1):99-104.
10. EsmaeiliNadimi A, Hasani M, Allahtavakoli M, **Hakimizadeh E**, Bakhshi, H. A two-year survey on the effect of temperature changes on the incidence of myocardial infarction in patients referred to the Ali-ibn Abi Talib Hospital, Rafsanjan, Iran, in 2013-2014. *Journal of Occupational Health and Epidemiology*. 2014; 3(3), 160-165.
11. **Hakimizadeh E**, Kazemi Arababadi M, Shamsizadeh A, Roohbakhsh A, Allahtavakoli M. The Possible Role of Toll-Like Receptor 4 in the Pathology of Stroke. *Neuroimmunomodulation*. 2016;23(3):131-136.
12. Fatehi F, Fatemi I, Shamsizadeh A, **Hakimizadeh E**, Bazmandegan G, Khajehasani, Rahmani M. The effect of hydroalcoholic extract of Pistacia vera on pentylenetetrazole-induced kindling in rat. *Res J Pharmacogn*. 2017; 4(4), 45-51.
13. **Hakimizadeh E**, Shamsizadeh A, Roohbakhsh A, Arababadi MK, Hajizadeh MR, Shariati M, Fatemi I, Moghadam-Ahmadi A, Bazmandegan G, Rezazadeh H, Allahtavakoli M. TRPV1 receptor-mediated expression of Toll-like receptors 2 and 4 following permanent middle cerebral artery occlusion in rats. *Iran J Basic Med Sci*. 2017;20(8):863-869.

14. **Hakimizadeh E**, Shamsizadeh A, Roohbakhsh A, Arababadi MK, Hajizadeh MR, Shariati M, Rahmani MR, Allahtavakoli M. Inhibition of transient receptor potential vanilloid-1 confers neuroprotection, reduces tumor necrosis factor- $\alpha$ , and increases IL-10 in a rat stroke model. *Fundam Clin Pharmacol*. 2017;31(4):420-428.
15. Bazmandegan G, Boroushaki MT, Shamsizadeh A, Ayoobi F, **Hakimizadeh E**, Allahtavakoli M. Brown propolis attenuates cerebral ischemia-induced oxidative damage via affecting antioxidant enzyme system in mice. *Biomed Pharmacother*. 2017; 85:503-510.
16. Naderi S, Alimohammadi R, **Hakimizadeh E**, Roohbakhsh A, Shamsizadeh A, Allahtavakoli M. The effect of exercise preconditioning on stroke outcome in ovariectomized mice with permanent middle cerebral artery occlusion. *Can J Physiol Pharmacol*. 2018; 96(3):287-294.
17. Fatemi I, Heydari S, Kaeidi A, Shamsizadeh A, **Hakimizadeh E**, Khaluoi A, Allahtavakoli M. Metformin ameliorates the age-related changes of d-galactose administration in ovariectomized mice. *Fundam Clin Pharmacol*. 2018;32(4):392-399.
18. Rahmani MR, Shamsizadeh A, **Hakimizadeh E**, Allahtavakoli M. Monoacylglycerol Lipase Inhibitor is Safe when Combined with Delayed r-tPA Administration in Treatment of Stroke. *Inflammation*. 2018;41(6):2052-2059.
19. Pak-Hashemi M, Hassanipour M, Mohammadinasab M, Kaeidi A, Shamsizadeh A, **Hakimizadeh E**, Fatemi I. Study the effects of Pistacia vera seed (pistachio) oil on working memory and spatial learning and memory. *Pistachio and Health Journal*. 2018; 1(3), 1-7.
20. Dehnamaki F, Karimi A, Pilevarian AA, Fatemi I, **Hakimizadeh E**, Kaeidi A, Allahtavakoli M, Rahmani MR, Khademalhosseini M, Bazmandegan G. Treatment with troxerutin protects against cisplatin-induced kidney injury in mice. *Acta Chir Belg*. 2019;119(1):31-37.
21. Zakeri M, Fatemi I, Kaeidi A, Zakeri MA, **Hakimizadeh E**, Hassanipour M, Rahmani M, Hassanshahi J, Ayoobi F, Allahtavakoli M. Pro-neurocognitive and anti-sarcopenic benefits of one-year metformin therapy in ovariectomized aged mice. *Clin Exp Pharmacol Physiol*. 2019;46(12):1133-1140.
22. Alimohamadi R, Fatemi I, Naderi S, **Hakimizadeh E**, Rahmani MR, Allahtavakoli M. Protective effects of Vitex agnus-castus in ovariectomy mice following permanent middle cerebral artery occlusion. *Iran J Basic Med Sci*. 2019;22(9):1097-1101.
23. **Hakimizadeh E**, Jandaghi F, Hajmohammadi M, Fatemi I, Kaeidi A, Shamsizadeh A, Allahtavakoli M. Pistachio extract improves neurocognitive behaviors in ovariectomized mice. *Research Journal of Pharmacognosy (RJP)* 6(4), 2019: 45-51.
24. Kaeidi A, Sahamsizadeh A, Allahtavakoli M, Fatemi I, Rahmani M, **Hakimizadeh E**, Hassanshahi J. The effect of oleuropein on unilateral ureteral obstruction induced-kidney injury in rats: the role of oxidative stress, inflammation and apoptosis. *Mol Biol Rep*. 2020;47(2):1371-1379.
25. Kaeidi A, Maleki M, Shamsizadeh A, Fatemi I, **Hakimizadeh E**, Hassanshahi J. The therapeutic approaches of renal recovery after relief of the unilateral ureteral obstruction: A comprehensive review. *Iran J Basic Med Sci*. 2020; 23(11):1367-1373.
26. Fatemi I, Saeed-Askari P, **Hakimizadeh E**, Kaeidi A, Esmail-Moghaddam S, Pak-Hashemi M, Allahtavakoli M. Long-term metformin therapy improves neurobehavioral functions and antioxidative activity after cerebral ischemia/reperfusion injury in rats. *Brain Res Bull*. 2020; 163:65-71.

27. **Hakimizadeh E**, Hassanshahi J, Kaeidi A, Nematollahi MH, Taghipour Z, Rahmani M, Fatemi I. Ceftriaxone improves hepatorenal damages in mice subjected to D-galactose-induced aging. *Life Sci.* 2020; 258:118119.
28. Pak-Hashemi M, Hassanipour M, Kaeidi A, Saeed-Askari P, Fatemi I, Rahmani MR, **Hakimizadeh E**, Hassanshahi J, Ehsani V, Taghipour Z, Khademi M, Allahtavakoli M. Effect of metformin on some cognitive functions in old rats. *Journal of Shahid Sadoughi University of Medical Sciences.* 2020; 28(3): 2479-2489.
29. Kaeidi A, Taghipour Z, Allahtavakoli M, Fatemi I, **Hakimizadeh E**, Hassanshahi J. Ameliorating effect of troxerutin in unilateral ureteral obstruction induced renal oxidative stress, inflammation, and apoptosis in male rats. *Naunyn Schmiedebergs Arch Pharmacol.* 2020;393(5):879-888.
30. **Hakimizadeh E**, Kaeidi A, Taghipour Z, Mehrzadi S, Allahtavakoli M, Shamsizadeh A, Bazmandegan G, Hassanshahi J, Aflatoonian MR, Fatemi I. Ceftriaxone improves senile neurocognition damages induced by D-galactose in mice. *Iran J Basic Med Sci.* 2020; 23(3):368-375.
31. Mohammadi M, Mobini M, Mashayekhi F, Allahtavakoli M, Kaeidi A, Hassanshahi J, Shamsizadeh A, **Hakimizadeh E**, Hassanipour M. Ischemic post-conditioning is neuroprotective even at delayed tPA administration after embolic stroke in female rats. *Iran J Basic Med Sci.* 2021; 24(12):1676-1682.
32. Kaeidi A, Amirteimoury M, Zare MS, Nazari A, **Hakimizadeh E**, Hassanshahi J, Fatemi I. Effects of valsartan on morphine tolerance and dependence in rats. *Res Pharm Sci.* 2021; 12;16(3):286-293.
33. **Hakimizadeh E**, Zamanian M, Giménez-Llort L, Sciorati C, Nikbakhtzadeh M, Kujawska M, Kaeidi A, Hassanshahi J, Fatemi I. Calcium Dobesilate Reverses Cognitive Deficits and Anxiety-Like Behaviors in the D-Galactose-Induced Aging Mouse Model through Modulation of Oxidative Stress. *Antioxidants (Basel).* 2021;10(5):649.
34. **Hakimizadeh E**, Moghadam-Ahmadi A, Shamsizadeh A, Ehsani V, Amin F, Allahtavakoli M. The effects of pistachio hydroalcoholic extract on stroke in permanent middle cerebral artery occlusion in ovariectomized female rats. *Pistachio and Health Journal.* 2021;4(2): 52-64.
35. Mohammadi M, Fatemi I, Taghipour Z, Azin M, Kaeidi A, **Hakimizadeh E**, Taghizadeh R, Hassanipour M. Polycystic Ovary Syndrome Can Lead to Neurocognitive Changes in Female Rats Treated with Letrozole. *Arch Neurosci.* 2021; 8(2): e112023.
36. **Hakimizadeh E**, Kaeidi A, Hassanshahi J, Mehrbani M, Rahmani M. Ameliorating effect of pistachio hydroalcoholic extract on cisplatin-induced nephrotoxicity in mice. *Research Journal of Pharmacognosy.* 2021; 8(1): 73-79.
37. **Hakimizadeh E**, Zamanian MY, Damankhorshid M, Giménez-Llort L, Sciorati C, Nikbakhtzadeh M, Moradbeygi K, Kujawska M, Kaeidi A, Taghipour Z, Fatemi I. Calcium dobesilate protects against d-galactose-induced hepatic and renal dysfunction, oxidative stress, and pathological damage. *Fundam Clin Pharmacol.* 2022;36(4):721-730.
38. **Hakimizadeh E**, Zamanian MY, Borisov VV, Giménez-Llort L, Ehsani V, Kaeidi A, Hassanshahi J, Khajehasani F, Movahedinia S, Fatemi I. Gemfibrozil, a lipid-lowering drug, reduces anxiety, enhances memory, and improves brain oxidative stress in d-galactose-induced aging mice. *Fundam Clin Pharmacol.* 2022; 36(3):501-508.

39. Chupradit S, Bokov D, Zamanian MY, Heidari M, **Hakimizadeh E**. Hepatoprotective and therapeutic effects of resveratrol: A focus on anti-inflammatory and antioxidative activities. *Fundam Clin Pharmacol*. 2022;36(3):468-485.
40. Najafizadeh A, Kaeidi A, Rahmani M, **Hakimizadeh E**, Hassanshahi J. The protective effect of carvacrol on acetaminophen-induced renal damage in male rats. *Mol Biol Rep*. 2022;49(3):1763-1771.
41. **Hakimizadeh E**, Kaeidi A, Rahmani M, Allahtavakoli M, Hassanshahi J. Calcium dobesilate ameliorates hepatorenal injury induced by carbon tetrachloride in mice. *Iran J Basic Med Sci*. 2022; 25(2):148-154.
42. Mozafari N, Hassanshahi J, Ostadebrahimi H, Shamsizadeh A, Ayoobi F, **Hakimizadeh E**, Pak-Hashemi M, Kaeidi A. Neuroprotective effect of *Achillea millefolium* aqueous extract against oxidative stress and apoptosis induced by chronic morphine in rat hippocampal CA1 neurons. *Acta Neurobiol Exp (Wars)*. 2022; 82(2):179-186.
43. Fatemi I, Saeed Askari P, **Hakimizadeh E**, Kaeidi A, Esmail Moghaddam S, Pak-Hashemi M, Allahtavakoli M. Chronic treatment with coenzyme Q10 mitigates the behavioral dysfunction of global cerebral ischemia/reperfusion injury in rats. *Iran J Basic Med Sci*. 2022; 25(1):39-45.
44. **Hakimizadeh E**, Tadayon S, Zamanian MY, Soltani A, Giménez-Llort L, Hassanipour M, Fatemi I. Gemfibrozil, a lipid-lowering drug, improves hepatorenal damages in a mouse model of aging. *Fundam Clin Pharmacol*. 2023;37(3):599-605.
45. Golmohammadi M, Zamanian M.Y, Muzahem Al-Ani A, L. Jabbar TH, Kamil Kareem A, Hashem Aghaei Z. Tahernia H, HJazi A, Abdul-ridh Jissir S, **Hakimizadeh E**. Targeting STAT3 signaling pathway by curcumin and its analogues for breast cancer: A narrative review. *Anim Models Exp Med*. 2024; 7:853–867.
46. Bagheri S, **Hakimizadeh E**, Allahtavakoli M. Nephroprotective Effect of *Ferula assa-foetida* Oleo Gum Resin on Type 2 Diabetic Rats. 2024; 30 (31): 2485-2492.
47. **Hakimizadeh E**, Fatemi I, Hassanshahi J, Kaeidi A. Protective effects of pistachio hydroalcoholic extract on morphine-induced analgesic tolerance and dependence: investigating the impact of oxidative stress. *Res Pharm Sci*. 2024; 19;19(4):366-375.
48. Bagheri SM, Allahtavakoli M, **Hakimizadeh E**. Neuroprotective effect of ischemic postconditioning against hyperperfusion and its mechanisms of neuroprotection. *J Res Med Sci*. 2024; 29:31.
49. Ivraghi MS, Zamanian MY, Gupta R, Achmad H, Alsaab HO, HJazi A, Romero-Parra RM, Alwaily ER, Hussien BM, **Hakimizadeh E**. Neuroprotective effects of gemfibrozil in neurological disorders: Focus on inflammation and molecular mechanisms. *CNS Neurosci Ther*. 2024; 30(3): e14473.
50. Bagheri SM, **Hakimizadeh E**, Allahtavakoli M. A Review on Antidiabetic Potential of Genus *Ferula* (Apiaceae). *Current Traditional Medicine*. 2024; 10(1): 114-122.
51. Bagheri SM, **Hakimizadeh E**, Allahtavakoli M. Nephroprotective effect of remote ischemic conditioning on type 2 diabetic rats. *Iran J Basic Med Sci*. 2024; 27(10):1340-1345.
52. Bagheri SM, **Hakimizadeh E**, Allahtavakoli M. Effects of Limb Remote Ischemic Conditioning and *Asafoetida* on Biochemical, Histological, and Neurological Parameters and Metabolic Gene Expression in Diabetic Rats. *Combinatorial chemistry & high throughput screening*. 2025.

53. Amin F, Basirat H, Parvaz N, Khademalhosseini M, **Hakimizadeh E**, Fatemi I. Protective effects of myrtenol against paraquat-induced toxicity in rats. *Pulmonary Medicine*. 2025; 25:17.
54. **Hakimizadeh E**, Kaeidi A, Fatemi I, Shamsizadeh A, Hassanshahi J. Troxerutin alleviates hepatorenal toxicity induced by carbon tetrachloride in male mice. *Iranian Journal of Basic Medical Sciences*. 2025; 28(7).

### Articles in Persian:

1. Hassanshahi J, Hassanshahi GH, Zamani M, **Hakimizadeh E**, Soleimani M. Comparing the therapeutic effects of vitamin C and CoQ10 in reducing the number of damaged cells in mice hippocampus following ischemia-reperfusion. *J Mazandaran Univ Med*. 2012; 22: 2-13. (Persian)
2. Honari N, Pourabolli I, **Hakimizadeh E**, Roohbakhsh A, Shamsizadeh A, Vazirinejad R, Allahtavakoli M. Effect of vitex agnus castus extraction on anxiety-like behaviors in ovariectomized rats. *Journal of Babol University of Medical Sciences*. 2012; 5(68), 29-35. (Persian)
3. **Hakimizadeh E**, Askary A, Shamsizadeh A, Rahmani M, Vazirinejad R, Ayoobi F, Allahtavakoli M. Effect of hydro-alcoholic extract of *Artemisia aucheri* on castor oil-induced diarrhea in male rat. *Journal of Shahrekord University of Medical Sciences*. 2013; 15(3):1-8. (Persian)
4. Rezazadeh H, Kahnouei H, Fatemi I, Shamsizadeh A, **Hakimizadeh E**, Allahtavakoli M. The Effect of Mechanical Control of Brain Blood Flow on the Embolic Model of Stroke after Delayed Tissue Plasminogen Activator Therapy. *Journal of Babol University of Medical Sciences*. 2014; 16(6), 43-49. (Persian)
5. **Hakimizadeh E**, Shamsizadeh A, Vazirinejad R, Kazemi Arababadi M, Rezazadeh H, Mobini M, Allahtavakoli M. Investigate the effect of TRPV1 receptor antagonist (AMG9810) on stroke outcome in the permanent middle cerebral artery occlusion in male rat. *Physiology and Pharmacology*. 2014; 18(1), 27-35. (Persian)
6. **Hakimizadeh E**, Baniasadi Pour H, Rezazadeh H, Ansari Jaber A, Mashayekhi N, Ismaili M, Zare L. Survey on the Protective Effect of Total Hydro-alcoholic Extract of *Artemisia Aucheri* on Mercuric Chloride-induced Nephrotoxicity in Male Mice. *IJFM*. 2014; 19(2), 251-256. (Persian)
7. **Hakimizadeh E**, Baniasadi Pour H, Rezazadeh H, Ansari Jaber A, Mashayekhi N, Ismaili M, Zare L. Survey on the Protective Effect of Total Hydro-alcoholic Extract of *Artemisia Aucheri* on Mercuric Chloride-induced Nephrotoxicity in Male Mice. *IJFM*. 2014 ;19(2), 251-256. (Persian)
8. Aminian F, Shamsizadeh A, Ayoobi F, Rezazadeh H, **Hakimizadeh E**, Mashayekhimazar J, Allahtavakoli M. Effect of hydro-alcoholic extract of *Teucrium polium*, *Descurainia sophia* and *Artemisia aucheri* on naloxone-precipitated morphine withdrawal in male rat. *Journal of Shahrekord University of Medical Sciences*. 2015; 17(3), 84-92. (Persian)
9. Zamanian M, Hajizadeh MR, Shamsizadeh A, **Hakimizadeh E**, Tavakoli M. Effect of troxerutin on serum glucose level and lactate dehydrogenase activity after exhaustive swimming in male rats. *Journal of Shahrekord University of Medical Sciences*. 2016; 18(5), 1-7. (Persian)
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### **Workshops:**

Hplc workshop, 2011.

Science Beam Electrophysiology Workshop Single-unit and Field Potential Recording on march 8-9, 2012.

PCR and Real Time PCR Workshop, 2012.

EndNote workshop, 2012.

Elisa Workshop, 2012.

EndNOTE X3, 2012.

General introduction to nano, 2012.

ELISA Workshop, 2012.

Method of Research, 2013

Animal work workshop, 2016.

Stroke, 2017.

Article Review Workshop, 2018.

Statistics in Physiology and Pharmacology, 2018.

Ethical Principles in Writing Papers, 2018.

Stroke 2018.

Research method workshop, 2018.

paper writing workshop, 2018.

English Grammar and Vocabulary Learning Tips, 2018.

Animal Models of Stroke, 2019.

Workshop on Introduction to Mendeley Software, 2019.

Working with laboratory animals, 2019.

Stroke induction and behavioral testing workshop, 2019.

Adobe Connect and e-poll, 2020.

Laboratory animal research ethics, 2020.

Artificial Intelligence Educational Webinar and Article Publishing in the Field of Medical Sciences, 2025.

Using artificial intelligence tools to search and review scientific evidence in research activities, 2025.