Curriculum Vitae

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EDUCATION

2014-2020 Ph.D. Toxicology, Pasteur Institute of Iran, Pasteur Ave., Tehran, Iran.
1989-1995 Doctor of Pharmacy, Shaheed Beheshti University of Medical Sciences, Tehran, Iran.

EMPLOYMENT

- September 1998 up to now; Full time laboratory research at the Physiology & Pharmacology department of Pasteur Institute of Iran.

- November 1997 to September 1998; Director and person in charge of Shahid Motahari Hospital Pharmacy, Iran University of Medical Sciences.

RESEARCH PUBLICATION

- **Azizi Z.**, Majlessi N., Choopani S., Naghdi N. (2022) Neuroprotective effects of carvacrol against Alzheimer's disease and other neurodegenerative diseases: A review. *Avicenna J. Phytomedicine.* doi:10.22038/AJP.2022.19491

- Nourmohammadi S., Yousefi S., Manouchehrabadi M., Farhadi M., **Azizi Z.**, Torkaman-Boutorabi A. (2022) Thymol protects against 6-hydroxydopamine-induced neurotoxicity in in vivo and in vitro model of Parkinson's disease via inhibiting oxidative stress. *BMC Complement Med Ther*. doi: 10.1186/s12906-022-03524-1.

- **Azizi Z.**, Choopani S., Salimi M., Majlessi N., Naghdi N. (2022) Protein kinase C involvement in neuroprotective effects of thymol and carvacrol against toxicity induced by amyloid-β in rat hippocampal neurons. *Basic Clin Neurosci.* doi:10.32598/bcn.2021.666.2

- **Azizi Z.**, Choopani S., Majlessi N. (2021) A study on the association between cystatin C gene polymorphism and late-onset Alzheimer's disease in a population of Iranian patients. *Iran JPP.* 5: 207-213. URL: http://ijpp.phypha.ir/article-1-522-fa.html

- **Azizi Z.**, Choopani S., Majlessi N. (2021) Therapeutic effects of Cinnamomum zeylanicum aqueous extract on cognitive deficits in a rat model of Alzheimer's disease. *Iran JPP.* 5: 53-61. URL: http://ijpp.phypha.ir/article-1-486-en.html

- **Azizi Z**., Salimi M., Majelssi N., Naghdi N. (2019) The protective effect of Zataria multiflora on the amyloid β25-35-induced cytotoxicity in PC12 Cells. *Iran JPP.* 3(3): 150-158. URL: http://ijpp.phypha.ir/article-1-381-en.html

- **Azizi Z**, Salimi M, Amanzadeh A, Majelssi N, Naghdi N. (2020) Carvacrol and thymol attenuate cytotoxicity induced by amyloid beta$_{25\text{-}35}$ via activating protein Kinase C and inhibiting oxidative stress in PC12 cells. *Iran Biomed J*. 24(4): 243-250. doi: 10.29252/ibj.24.4.243.

- Manouchehrabadi M., Farhadi M., **Azizi Z.**, Torkaman-Boutorabi A. (2020) Carvacrol protects against 6-hydroxydopamine-induced neurotoxicity in in vivo and in vitro models of Parkinson's disease. *Neurotox Res*. 37(1):156-170. doi: 10.1007/s12640-019-00088-w.

- **Azizi Z.**, Ebrahimi Sh., Saadatfar E., Kamalinejad M., Majlessi N. (2012) Cognitive-enhancing activity of thymol and carvacrol in two rat models of dementia. *Behavioral Pharmacology*. 23(3):241-249. doi: 10.1097/FBP.0b013e3283534301.

- Majlessi N., Choopani S., Kamalinejad M., **Azizi Z.** (2011) Amelioration of amyloid β-induced cognitive deficits by Zataria multiflora Boiss. essential oil in a rat model of Alzheimer's disease. *CNS Neuroscience & Therapeutics.* 18(4):295-301. doi: 10.1111/j.1755-5949.2011.00237.x.

- **Azizi Z.,** Noroozian M., Kaini-Moghaddam Z., Majlessi N. (2010) Association between NOS3 gene G894T polymorphism and late-onset Alzheimer's disease in a sample from Iran. *Alzheimer Disease & Associated Disorders,* 24(2):204-8. doi: 10.1097/WAD.0b013e3181a7c8fd.

- Majlessi N., Choopani S., Bozorgmehr T. & **Azizi Z.** (2008) Involvement of hippocampal nitric oxide in spatial learning in the rat. *Neurobiology of Learning and Memory,* 90: 413-419. doi: 10.1016/j.nlm.2008.04.010.

- **Azizi Z.**, Delmaghani S., Zeinali M., Moghaddam Z. & Zeinali S. (2001) The value of ARMS/PCR and RFLP/PCR in prenatal diagnostic accuracy of β-Thalassemia, *Iranian Journal of Medical Sciences*, 26 (3&4), 133-136.

RESEARCH PROJECTS

- The effects of carvacrol and thymol on the expression and activity of protein kinase C and Amyloid β-induced cytotoxicity in vivo and in vitro (Ph.D. thesis), Funded by Pasteur Institute of Iran.

- A study of the association between cystatin C and clusterin genes polymorphism and late-onset Alzheimer's disease, grant no. 543.

- Evaluation of possible protective effects of *Zataria multiflora* essential oil and its main constituents on β-amyloid-induced cytotoxicity in PC12 cells as an in vitro Alzheimer's disease model, grant no. 536.

- A study of therapeutic of *Cinnamomum Zeylanicum* extract on cognitive deficits in animal model of Alzheimer's disease. Funded by Pasteur Institute of Iran, grant no. 520.

- Effect of *Zataria multiflora* essential oil on spatial learning deficits in a rat model of Alzheimer's disease, grant no. 475.

- A preliminary study of the association between endothelial nitric oxide synthase gene polymorphism and late-onset Alzheimer's disease, grant no. 252.

- Effects of nitric oxide synthase inhibition in the CA1 region of rat hippocampus on spatial learning in the Morris water maze, grant no.

CONGRESS PRESENTATIONS

- 24th Iranian and 3rd International Congress of Physiology and Pharmacology (FAOPS Satellite Congress, 30 Oct-01 Nov 2019, Shahed University, Tehran, Iran. Carvacrol attenuates cytotoxicity induced by amyloid c_{25-35} via activating protein kinase C and inhibiting oxidative stress in PC12 cells.

- 8th Basic and Clinical Neuroscience Congress, Dec. 18-20, 2019, Razi Hall, Tehran, Iran. Effects of thymol on amyloid β25-35-mediated PC12 cells death by activating protein kinase C and inhibiting oxidative stress.

- 7th Basic and Clinical Neuroscience Congress, Dec. 12-14, 2018, Razi Hall, Tehran, Iran. Thymol inhibits Aβ-induced neurotoxicity in Alzheimer's disease animal by activating the protein kinase C pathway.

- 2st International Congress of Physiology and Pharmacology, Feb. 15-18, 2018, Chabahar, Iran. Involvement of PKC in cognitive-enhancing activity of carvacrol in Alzheimer's disease animal model.

- 6th Basic and Clinical Neuroscience Congress, Dec. 20-22, 2017, Razi Hall, Tehran, Iran. Protective effects of carvacrol and thymol against β-amyloid induced cytotoxicity in vivo and in vitro.

- 1st International and 22nd Iranian Congress of Physiology and Pharmacology, Sep. 7-11, 2015, Kashan University of Medical Sciences, Iran. Protective effects of carvacrol against amyloid beta-induced cytotoxicity.

- 3rd Basic and Clinical Neuroscience Congress, Oct. 29-31, 2014, Tehran, Iran.
  Neuroprotective effects of *Zataria multiflora* essential oil on β-amyloid-induced cytotoxicity in PC12 cells as an in vitro Alzheimer's disease model.

- 21st International Iranian Congress of Physiology and Pharmacology, Aug. 23-37, 2013, Tabris University of Medical Sciences, Iran. Cognitive-enhancing activity of thymol and carvacrol in two rat models of dementia.

- The 17th National & 5th International Iranian Biology Conference, Sep. 4-6, 2012, Kerman, Iran. Cognitive enhancing activity of thymol and carvacrol in two rat models of dementia.
- The 1st International and 5th Annual Congress of Iranian Neurogenetic Society, Nov. 23-25, 2011, Tehran, Iran. A preliminary study of the association between Cystatin C gene polymorphism and late-onset Alzheimer's disease in a sample from Iran.

- 20th World Congress of Neurology, Nov. 12-17, 2011, Marrakesh, Morocco. Therapeutic effects of Carvacrol, a constituent of *Zataria Multiflora* essential oil, on cognitive deficits in an Alzheimer's disease animal model.

- 10th International Conference on AD/PD, Mar. 9-13, 2011, Barcelona, Spain. Amelioration of amyloid β-induced cognitive deficits by *Zataria multiflora* Boiss. essential oil in a rat model of Alzheimer's disease.

- 11th Alzheimer's Association International Conference (AAIC), Jul. 16-21, 2011, Paris, France. Thymol as a main constituent of *Zataria multiflora boiss*: essential oil attenuates amyloid β-induced cognitive deficits in a rat model of Alzheimer's disease.

- 9th International Conference on AD/PD, Mar. 11-15, 2009, Prague, Czech Republic. Association between NOS3 gene G894T polymorphism and late-onset Alzheimer's disease in a sample from Iran.

- 3rd International Congress on Brain and Behavior, 28 Nov-2 Dec, 2007, Thessaloniki, Greece. Effects of nitric oxide synthase inhibition in the CA1 region of rat hippocampus on spatial learning.

- 3rd International Congress on Brain and Behavior, 28 Nov-2 Dec, 2007, Thessaloniki, Greece. Post-training nitric oxide synthase inhibition in the CA1 region of rat hippocampus does not impair spatial memory consolidation.

- 6th Congress on Biochemistry, Oct. 22-25, 2001, Tehran, Iran. Title of oral presentation: Chromosomal recombination within the β-globin gene observed in the course of prenatal diagnosis of β-Thalassemia in a family.

- The 8th International Conference on Thalassemia and the Hemoglobimopathies, Oct. 18-21, 2001, Athens, Greece. Using ARMS/PCR and RFLP/PCR increases prenatal diagnosis accuracy for β-Thalassemia disease.

- 12th Iranian Congress of Physiology & Pharmacology, Nov. 6-9, 1995, Tehran, Iran. The effects of nucleus reticularis paragigantocellularis electrolytic lesion on tonic pain.

WORKSHOPS ATTENDED

- Flow Cytometry, Iranian Molecular Medicine Network, Pasteur Institute of Iran, 13-14 Feb 2012.

- DNA SIS MAX, Iranian Molecular Medicine Network, Pasteur Institute of Iran, 5-6 Feb 2011.

- Cell Culture Techniques, Iranian Molecular Medicine Network, Pasteur Institute of Iran, 28-29 Dec 2010.
- Proteomics and its application in medical sciences, Biotechnology Research Center, Pasteur Institute of Iran, 10-11 Mar 2009.
- EndNote-X2, Iranian Molecular Medicine Network, Pasteur Institute of Iran, 4 Mar 2009.
- Bio Safety in Molecular Biology Lab, Biotechnology Research Center, Pasteur Institute of Iran, 2008
- Phylogenetics, Iranian Molecular Medicine Network, Pasteur Institute of Iran, 17-18 Feb 2008.
- Bioinformatics, Iranian Molecular Medicine Network, Pasteur Institute of Iran, 24-27 Jun 2007.
- Advanced Molecular Genetics Course, Pasteur Institute of Iran, 10-12 Jun 2006.
- Molecular Biology, Shahid Beheshti University of Medical Science, 12- 14 May 2004.
- Amino Acid Analysis of Peptides and Proteins, Pasteur Institute of Iran, February 2003.
- Protein Purification in Downstream Process, December 2002.

RESEARCH EXPERIENCES

- Constructing the non-transgenic Alzheimer's disease research models
- Animal behavioral testing on spatial memory by Morris Water Maze
- Cell Culture & cytotoxicity assay
- Molecular biology techniques; DNA & RNA extraction, PCR, RT-PCR, RFLP/PCR, Agarose gel electrophoresis
- Immunoassay; SDS-PAGE, Western blotting, ELISA assay
- Flow cytometry; ROS assay
- Chromatography (HPLC)

LANGUAGES

- Farsi (Native)
- English (Satisfactory)
- French (Satisfactory)