

Alireza Tavakkoli - Curriculum vitae

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Education and training

Sep 2012- Sep 2017	Pharm.D. (Doctor of Pharmacy) - GPA: 17.70/20 School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran Thesis title: Investigation of protein changes resulted in sub-chronic neurotoxicity of Bisphenol A in rat brain
Apr 2022 – Oct 2022	Visiting Scholar Department of Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, Lexington, KY, USA
Sep 2017 – Nov 2023	Ph.D. in Pharmacognosy – GPA: 18.59/20 Mashhad University of Medical Sciences, Mashhad, Iran Thesis title: Isolation and identification of fungal endophytes of some Iranian endemic <i>Ferula</i> spp. and purification, structure elucidation and antibiotic evaluation of their secondary metabolites

Awards and Honors

Jul 2012	Iran's National University Entrance Exam (Konkour) National rank: 585 (among ~ 400,000 students in natural sciences, top national 0.2%)
Sep 2014	Iran's National Basic Sciences Exam for Pharmacy Students 3rd rank in university and 16th national rank (top national 2.5%)

Professional experience

Apr 2024 – to date	Assistant Professor, Urmia University of Medical Sciences, Urmia, Iran
Apr 2022 – Oct 2022	Visiting Researcher, University of Kentucky, Lexington, KY, USA
Mar 2021 – Nov 2021	Director of Scientific Affairs – 23rd Iranian Pharmacy Students Seminar
Aug 2018 – Nov 2023	Research and Teaching Assistant, Mashhad University of Medical Sciences
Sep 2017 - Apr 2022	Pharmacist, Dr. Sheikh Hospital Clinic Pharmacy, Mashhad, Iran

Teaching experience

- 1- Mashhad University of Medical Sciences - Courses: Pharmacy Internship
- 2- Urmia University of Medical Sciences - Courses: Medicinal Plants, Pharmacognosy (Theory and Practical), Complementary and Alternative Medicine, English for Pharmacy Students, Pharmacy Internship

Published peer-reviewed articles

- 1- Tavakkoli, A., A. Ahmadi, B.M. Razavi, and H. Hosseinzadeh, Black seed (*Nigella sativa*) and its constituent thymoquinone as an antidote or a protective agent against natural or chemical toxicities. Iranian Journal of Pharmaceutical Research, 2017. 16: p. 2-23.
- 2- Tavakkoli, A., V. Mahdian, B.M. Razavi, and H. Hosseinzadeh, Review on clinical trials of black seed (*Nigella sativa*) and its active constituent, thymoquinone. Journal of Pharmacopuncture, 2017. 20(3): p. 179-193.
- 3- Tavakkoli, A., M. Iranshahi, S.H. Hasheminezhad, A.W. Hayes, and G. Karimi, The neuroprotective activities of natural products through the Nrf2 upregulation. Phytotherapy Research, 2019. 33(9): p. 2256-2273.
- 4- Tavakkoli, A., K. Abnous, F. Vahdati Hassani, H. Hosseinzadeh, R. Birner-Gruenberger, and S. Mehri, Alteration of protein profile in cerebral cortex of rats exposed to bisphenol a: a proteomics study. NeuroToxicology, 2020. 78: p. 1-10.
- 5- Tavakkoli, A., T.P. Johnston, and A. Sahebkar, Antifungal effects of statins. Pharmacology and Therapeutics, 2020. 208: 107483.
- 6- Jafarian-Haris, T., A. Tavakkoli, M. J. Najafzadeh, and A. Danesh, Characterization and Optimization of L-Malic Acid Production by Some Clinical Isolates of *Aureobasidium pullulans*. Research in Molecular Medicine, 2020, 8(4): p. 209-214.
- 7- Tavakkoli, A., J. Asili, V. Soheili, M. Iranshahi, M. Saiar, M. J. Najafzadeh and M. Iranshahi, GC/MS profiling of the essential oils from *Ferula xylorhachis* Rech.f. roots and aerial parts and assaying their antimicrobial activity against human skin pathogens. Journal of Essential Oil Bearing Plants, 2023, 26 (5): p. 1236-1244.
- 8- Tavakkoli, A., T. P. Johnston and A. Sahebkar, Fluvastatin: A Choice for COVID-19-ASSOCIATED Mucormycosis Management. Current Medicinal Chemistry, 2024, 31 (40): P. 6649 – 6655.
- 9- Babaei, F., M. Mirzababaei, A. Tavakkoli, M. Nassiri-Asl and H. Hosseinzadeh, Can nonsteroidal anti-inflammatory drugs (NSAIDs) be repurposed for fungal infection?. Naunyn-Schmiedeberg's Archives of Pharmacology, 2024, 397 (1): p. 59-75.

Poster Presentation

- 1- Tavakkoli, A., F. Vahdati Hassani, S. Mehri, and K. Abnous, P48: Protein Changes Resulted in Sub-Chronic Neurotoxicity of Bisphenol A in Rat Brain, in 2nd International Neuroinflammation Congress and 2nd Student Festival of Neuroscience. 2018: Mashhad, Iran.

Book chapter

- 1- Tavakkoli, A. and H. Hosseinzadeh, *Nigella sativa* L. and thymoquinone as neuroprotective antioxidants, in Oxidative Stress and Dietary Antioxidants in Neurological Diseases, C.R. Martin and P.V. R., Editors. 2020, Academic Press: London, UK. p. 325-342.

Workshops and Certificates

- Workshop on New Modalities in Drug Discovery, Tehran University of Medical Sciences, Dec 2023
- Biosafety Training Program. University of Kentucky, May 2022
- Chemical Hygiene Plan (Lab Safety) Training Program, University of Kentucky, May 2022
- Computational Drug Design Program. Iran Virtual University of Medical Sciences, Feb 2021
- Workshop on High Performance Thin Layer Chromatography (HPTLC), Mashhad University of Medical Sciences, Aug 2019
- Workshop on Real Time PCR, Mashhad University of Medical Sciences, Feb 2019
- Evolution Summer School. Sharif University of Technology, Sep 2018
- The Autumn School on Clinical Pharmacy, Tehran University of Medical Sciences, Nov 2016

Professional memberships

- The Iranian Society of Pharmacognosy, 2018 to the present
- The American Society of Pharmacognosy, 2020 to the present
- The American Society for Microbiology, 2022 to the present
- Society for Medicinal Plant and Natural Product Research (GA), 2022 to the present

Research interests

Natural Products, Fungal Secondary Metabolites, Antibiotics, Anti-infective Natural Product, Neurotoxicology, Neuroprotective Natural Products

Relevant lab skills

- Spectroscopy techniques including 1-D and 2-D Nuclear Magnetic Resonance (NMR) and Mass Spectrometry (including ESI-TOF and MALDI-TOF HRMS)
- Chromatographic methods including CC, HPLC (analytical and semi-preparative), HPTLC, TLC, GC, GC/MS and LC/MS
- Molecular Biology methods including 2-D Proteins Gel Electrophoresis, Western Blot, ELISA, PCR, RT-PCR, DNA Alignment and BLAST
- Microbial and Mammalian cell cultures; Microdilution MIC and IC50 determination
- Lab animals handling (Including mice, rats, rabbits); drug administration, behavioral tests
- Fungal Endophytes isolation and identification, Fermentation of Fungal Microorganisms
- Software: ChemOffice, MarvinSketch, MestReNova, Chromas, DNAMAN, Design Expert, ImageMaster 2D, GraphPad Prism, EndNote, Mendeley, Microsoft Office

Peer-Review works

I have served as an invited reviewer for the following scientific journals:

- Frontiers in Pharmacology
- Iranian Journal of Basic Medical Sciences
- Avicenna Journal of Phytomedicine

GenBank® depositions:

I have deposited more than 30 fungal genomic sequences in the NIH genetic sequence database GenBank® up to date:

[https://www.ncbi.nlm.nih.gov/nuccore?term=\(Tavakkoli\)+AND+%22fungi%22%5Bporgn%5D&cmd=DetailsSearch](https://www.ncbi.nlm.nih.gov/nuccore?term=(Tavakkoli)+AND+%22fungi%22%5Bporgn%5D&cmd=DetailsSearch)

Languages

- Persian (Native)
- English (Fluent)
- Arabic (Basic)

Referees:

- Prof. Mehrdad Iranshahi
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- Prof. Mohammad Javad Najafzadeh
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