

## Alireza Tavakkoli - Curriculum vitae

Email: [Tavakkoli.a@umsu.ac.ir](mailto:Tavakkoli.a@umsu.ac.ir)

ORCID: <https://orcid.org/0000-0002-9044-4371>

ResearchGate: <https://www.researchgate.net/profile/Alireza-Tavakkoli>

### 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  
School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran  
Dissertation title: Isolation and identification of fungal endophytes of some Iranian endemic *Ferula* 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%)

---

From Sep 2014      Member of the Organization of Exceptional Talented Students in Mashhad University of Medical Sciences

---

Sep 2021      Visiting PhD Student Scholarship Award, Mashhad University of Medical Sciences

---

## 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. Iranshahy, 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.
10. Abdoli M., A. Tavakkoli, M. R. Bakhtiari and A. Danesh, Improvement of Cyclosporin A Production in the fungus *Tolypocladium inflatum* PTCC 5253 by Random Mutagenesis. *Journal of Reports in Pharmaceutical Sciences*, 2025, 13(1): e149901.
11. Tavakkoli, A., An Early Record of Photochemotherapy for Vitiligo by Rhazes (865–925 ce) in *Liber Continens*. *JEADV Clinical Practice*, 2026, 5: p. 684-685.
12. Tavakkoli, A., H. Mortazavi, M. Iranshahi, F. Kalalinia, K. Jamialahmadi, J. S. Thorson, K. A. Shaaban and F. Mosaffa, Phaeosphaeride A Isolated from an Endophytic *Paraphoma* sp. Alleviates ABCG2-mediated Resistance to Mitoxantrone in Breast Cancer Cells. *Planta Medica*, 2026, 92(07): p. 746-755.
13. Haghi, S. M., A. Tavakkoli, M. Iranshahi, F. Kalalinia, M. Hashemi, M. J. Najafzadeh and F. Mosaffa, Brefeldin A induces apoptosis in cisplatin-resistant ovarian cancer cells independent of ABCC2-mediated drug efflux. *Toxicology and Applied Pharmacology*, 2026, 514: 117904.

## Poster Presentations

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.
2. Tabatabai Gilani, S. and A. Tavakkoli, Identification of fungal monographs in Avicenna's Canon of Medicine (980-1037 AD), determination of their scientific names and review of their therapeutic applications in Iranian traditional medicine textbooks, in 25th Iranian Pharmacy Students' Seminar (IPSS25). 2025: Ahvaz, 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**

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

## **Professional memberships**

1. Islamic Republic of Iran Medical Council (IRI M.C.), 10 Apr 2018 to the present
2. The Iranian Society of Pharmacognosy, 1 Aug 2018 to the present
3. The American Society of Pharmacognosy, 27 Jun 2020 to the present
4. The American Society for Microbiology, 14 Feb 2022 to the present
5. Society for Medicinal Plant and Natural Product Research (GA), 7 Jan 2022 to the present

## **Research interests**

Natural Products, Fungal Secondary Metabolites, Antibiotics, Anti-infective Natural Product, Neuropharmacology, 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 associate editor in the editorial board of Jundishapur Journal of Natural Pharmaceutical Products, and also as an invited reviewer for the following scientific journals:

- Frontiers in Pharmacology
- Iranian Journal of Basic Medical Sciences
- Avicenna Journal of Phytomedicine
- Pharmaceutical Sciences
- Jundishapur Journal of Natural Pharmaceutical Products

## 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%5BAuthor%5D+AND+fungi%5Bfilter%5D>

## Languages

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

## Referees:

Prof. Mehrdad Iranshahi

School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran

Email: [Iranshahim@mums.ac.ir](mailto:Iranshahim@mums.ac.ir)

Prof. Mohammad Javad Najafzadeh

Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Email: [Najafzadehmj@mums.ac.ir](mailto:Najafzadehmj@mums.ac.ir)