



ARASH SALEHI

Assistant Professor, Pharmacognosy Department, Isfahan University of Medical Sciences, Isfahan, Iran

PROFILE

Dynamic and dedicated professional with extensive expertise in Pharmacognosy, Phytotherapy, and Natural Products Chemistry. Demonstrates a profound understanding of Pharmaceutical Sciences, particularly in Pharmacology and mechanisms of action. Over five years of experience in both research and teaching, focusing on **Pharmacology**, **Phytotherapy** and **Herbal Medicine**, while actively contributing to the academic community as a Teaching and Research Assistant at Isfahan University of Medical Sciences. Proficient in isolating and characterizing natural compounds, with a strong background in neuropharmacology, employing various animal models to assess therapeutic effects. Committed to fostering an engaging learning environment for students, facilitating their academic growth through mentorship and guidance on research projects. Possesses exceptional organizational skills, capable of independently conducting research programs while collaborating effectively within multidisciplinary teams. Strong analytical abilities complemented by a commitment to critical thinking and responsible practice in scientific inquiry. Eager to contribute to innovative research initiatives that explore the potential of natural products in developing new therapeutic agents.

RESEARCH INTERESTS

- Pharmacognosy and the Chemistry of Natural Products
- Mechanisms of Action in Phytotherapy, Herbal Medicine, and Natural Products
- Traditional Healing Practices
- Discovering New Lead Compounds from Natural Sources
- Production of Microalgae Biomass
- Research Involving Animal Studies

PROFESSIONAL EXPERIENCE

- **Assistant Professor** Jun 2024 - Present
Pharmacognosy Department, Isfahan University of Medical Sciences
- **Academic lecturer** Sep 2018 - Mar2024
Pharmacognosy Department, Isfahan University of Medical Sciences
- **Researcher** Sep 2018 - Mar2024
Pharmacognosy Department, Isfahan University of Medical Sciences
- **Health Care Provider (Responsible Pharmacist)** Jun 2018 - Present
University-affiliated pharmacies

CONTACT

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EDUCATION

2018- 2024
ISFAHAN UNIVERSITY OF MEDICAL SCIENCES

- Ph.D, Pharmacognosy and Natural Products Chemistry
- GPA: 18.23 / 20

2012 - 2018
ISFAHAN UNIVERSITY OF MEDICAL SCIENCES

- Pharm.D., Pharmacy, Pharmaceutical Sciences and Administration

SOFT SKILLS

- Communication
- Adaptability
- Teamwork
- Problem-Solving
- Leadership
- Empathy
- Critical Thinking

LANGUAGES

- English (Professional)
- Persian (Fluent)
- Arabic (Intermediate)

TEACHING EXPERIENCE

Developing an effective teaching strategy involves integrating various pedagogical methods. I propose a combination of Problem-Based Learning (PBL) and Team-Based Learning (TBL) to enhance student engagement and understanding. This approach encourages collaborative learning and critical thinking through real-world case studies. Additionally, incorporating Flipped Classroom (FC) techniques will allow students to review materials at their own pace before class, fostering deeper discussions. Utilizing gamification can further motivate students by making learning interactive and enjoyable. Regular assessments and feedback will ensure continuous improvement and adaptation of teaching methods to meet students' needs effectively

- **Pharmacognosy** 2018 - Present
Isfahan University of Medical Sciences
- **Persian Traditional Medicine** Sep 2024 - Jan 2025
Isfahan University of Medical Sciences
- **Pharmacology** Sep 2022-Jan 2023
Isfahan University of Medical Sciences
- **Phytotherapy** Sep 2020 - Sep 2022
Isfahan University of Medical Sciences

RESEARCH EXPERIENCE

- Isolation of diterpene alkaloids from *Delphinium* spp.
- Assessing the inhibitory effects of alkaloidal compounds on acetylcholinesterase activity.
- Review article on the neuropharmacological potential of diterpene alkaloids.
- Review article on Differentiating Cannabis Products: Drugs, Food, and Supplements
- Review article on natural remedies for smoking cessation
- Review article on anti-obesity effects of Triphala
- Mass production of *Haematococcus pluvialis* microalgae

ACCOMPLISHMENTS

- Recipient of a scholarship for high school in National Organisation for Development of Exceptional Talents (Sampad)
- Recipient of a scholarship for Pharmacy and Pharmaceutical sciences in Isfahan University of Medical Sciences
- Recipient of a Ph.D scholarship in Department of Pharmacognosy, Isfahan University of Medical Sciences
- Best Presentation Award in 2nd Pharmacognosy Congress

HARD SKILLS

- Structure elucidation of natural products utilizing 1D and 2D NMR, mass spectrometry, infrared (IR), and UV-Vis spectroscopy.
- Focus on phytotherapy and herbal medicine.
- Conducting systematic and narrative reviews.
- Exploring pharmacology and mechanisms of action.
- Employing various neuropharmacology techniques, including animal models to evaluate anti-convulsant, anti-depressant, analgesic, and acetylcholinesterase inhibitory effects.
- Implementing extraction, fractionation, isolation, and purification techniques for natural products.
- Utilizing diverse chromatography methods such as normal and reversed-phase column chromatography, vacuum liquid chromatography (VLC), flash chromatography, medium pressure liquid chromatography (MPLC), high-performance liquid chromatography (HPLC), and closed-loop recycling HPLC.
- Applying thin-layer chromatography (TLC) for analytical, quantitative and preparative purposes.
- Handling chemical reagents effectively.
- Quantifying key active compounds in plants or herbal supplements through UV spectroscopy and HPLC analysis.
- Investigating the chemistry of secondary metabolites in plants.
- Professional Molecular Docking using Autodock software package.
- Proficient in software tools including ChemDraw, MesreNova, Microsoft Office, EndNote, Mendeley, Autodock, Discovery Studio, Focusky, and GraphPad Prism, .
- Knowledgeable in healthcare, pharmaceutical sciences, and administration

PUBLICATIONS

- Sajjadi, S. E., Ghanadian, M., Aghaei, M., & Salehi, A. (2020). Two new dammarane triterpenes isolated from *Cleome khorassanica* Bunge & Bien with cytotoxicity against DU-145 and LNCaP prostate cancer cell lines. *Journal of Asian natural products research*, 22(1), 38-46. DOI: 10.1080/10286020.2018.1538211
- Salehi, A., Puchalski, K., Shokoohinia, Y., Zolfaghari, B., & Asgary, S. (2022). Differentiating cannabis products: drugs, food, and supplements. *Frontiers in pharmacology*, 13. DOI: 10.3389/fphar.2022.906038
- Salehi A, Ghanadian M, Zolfaghari B, Jassbi AR, Fattahian M, Reisi P, Csupor D, Khan IA, Ali Z. Neuropharmacological Potential of Diterpenoid Alkaloids. *Pharmaceuticals (Basel)*. 2023 May14;16(5):747. DOI: 10.3390/ph16050747
- Salehi A, Zolfaghari B, Aghaei M, Sirous H, Sadeghi M, Gholami MR, Reisi P, Ghanadian M. New amide and diterpene alkaloids with anticholinesterase activity from *Delphinium cyphoplectrum* roots. *Daru*. 2024 Jun;32(1):237-251. doi: 10.1007/s40199-024-00509-y. Epub 2024 Mar 18. PMID: 38498253; PMCID: PMC11087438.
- Book translation "Phytotherapy for Pharmacy Students" Author: Dezső Csupor, Institute of Clinical Pharmacy, Faculty of Pharmacy, University of Szeged, Szeged, Hungary

REFERENCE

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