

Homa Faghihi

Contact Information

Email: faghihi.h@iums.ac.ir

Tel: 44604800

extension: 111

Address: Kazem Besarati St., Kabiri Tameh Ave., Shahid Hemmat Expy, School of Pharmacy, Iran University of Medical Sciences, Tehran, Iran.

Associate Professor of Pharmaceutics, Department of Pharmaceutics and Pharmaceutical Nanotechnology, School of Pharmacy, Iran University of Medical Sciences, Tehran, Iran

EDUCATION/ YEAR

Ph.D. in Pharmaceutics: Tehran University of Medical Sciences, Tehran (2010-2016), Overall GPA: 17.96/20

Pharm D: The Islamic Azad University, Tehran Medical Branch, Tehran (2004-2010), Overall GPA: 17.27/20

RESEARCH INTERESTS & SKILLS

1- Inhalation Drug Delivery

Formulation and characterization of **bacteriophage (M13KO7 Helper)** dried powders for pulmonary delivery using **spray drying and spray freeze drying**.

Combination of **bacteriophage** with antibiotics like **ciprofloxacin** to combat antimicrobial resistance (AMR) for lung infections.

Preparation and characterization of different drug molecules for respiratory administration, including **Desmopressin, Rizatriptan, and Cefixime**.

2- Artificial Intelligence in Pharmaceutical Sciences

Familiar with the application of **AI and machine learning tools** in pharmaceutical research, including **drug formulation optimization, predictive modeling, and data-driven decision-making** in product development.

3- Particle engineering of particles in dried formulations

Using spray drying and spray freeze drying to improve the properties of formulations for **pulmonary, parenteral, and mucosal** drug delivery.

4- Biologics & Monoclonal Antibodies

Stabilization and formulation of monoclonal antibodies (**IVIG, adalimumab, trastuzumab, infliximab**) using advanced drying technologies.

Formulation and characterization of **probiotics (enteric-coated L. reuteri pellets)**, for the treatment of colitis.

5- Nanoparticles for Hair Regrowth

Development of chitosan-based and functionalized polymeric nanoparticles for follicular delivery of **finasteride and minoxidil**.

6- Data Analysis & Experimental Design Software

Proficient in **Design-Expert (DoE)**, **SPSS**, **GraphPad Prism**, **Microsoft Office Suite**, and related analytical tools.

PRESENTATIONS

Pharmaceutics 1

Pharmaceutics 2 (Theory and Practice)

Pharmaceutics 3 (Theory and Practice)

Pharmaceutics 4 (Theory and Practice)

Biopharmacy and Pharmacokinetics

Cosmetics

Industrial Internship

LINKS

[ORCID](#)

[Scopus Profile](#)

[Google Scholar](#)

[ISID](#)

[Research Gate](#)