

Reza Hamed Rahimi

hamer23@wfu.edu

+1(336)-403-7658

EDUCATION

Ph.D. in Biology

2024-present

Wake Forest University

M.Sc. in Chemical Engineering-Biotechnology

2021-2023

Sharif University of Technology (Ranked the best university in Iran, according to QS Top University ranking)

- **Thesis Topic:** “Investigation of Anticancer Drug Metabolism in *Saccharomyces cerevisiae* as a Drug Resistance Model”
- **Thesis Score:** Perfect
- **GPA:** 3.61/4

B.Sc. in Chemical Engineering

2016-2020

Isfahan University of Technology

- **Field of Study:** Biotechnology
- **Thesis Topic:** “ β -Carotene Microbial Biosynthesis – *Blakeslea trispora* and *Dunaliella salina*”
- **Thesis Score:** 19.75/20
- **GPA (last two years):** 17.16/20 (3.62/4)

RESEARCH INTERESTS

Microfluidics

Bioinformatics

Metabolic Engineering

Microbiology

Drug Design and Development

Drug Screening

TEACHING EXPERIENCE

Laboratory Teaching Assistant

January 2024 – Present

Microbiology Laboratory, Dr. Sheri Flöge, Dr. St. James

Department of Biology, Wake Forest University, North Carolina, USA

Laboratory Teaching Assistant

January 2023 – July 2023

Biotechnology Lab, Dr. Zahra Ghobadi Nejad

Department of Chemical and Petroleum Engineering, Sharif University of Technology, Tehran, Iran

Teaching Assistant**September 2020-February 2021**

Plant Design and Economics, Dr. Mohammadhadi Jazini
Department of Chemical Engineering, Isfahan University of Technology, Isfahan, Iran

Teaching Assistant**February 2018-June 2018**

Computer Programming; C and C++, Dr. Elham Mahmoudzadeh
Department of Computer and Electrical Engineering, Isfahan University of Technology, Isfahan, Iran

WORKING EXPERIENCE

Research Assistant**August 2022 – September 2023**

Department of Medical Biotechnology, Pasteur Institute of Iran, Tehran, Iran

Research Assistant (Internship)**Summer 2020**

Behnoush Iran Company, Tehran, Iran

PUBLICATIONS

Hamed Rahimi R, Sardari S, Yaghmaei S, “**Non-animal and Non-human Cancer Models for Drug Screening**” (Submitted to Health Biotechnology and Biopharma)

T. Saberbaghi¹, R. Salahandish, F. Soheili, R. H. Rahimi, C. Peng, E. Ghafar-Zadeh, “**High-Throughput Molecular Delivery Technique for Non-Invasive Transcellular Studies of Follicles**” (Submitted to Nature Scientific Reports)

Fatemeh Haghayegh, Alireza Norouziyazad, Elnaz Haghani, Ariel Avraham Feygin, Reza Hamed Rahimi, Hamidreza Akbari Ghavamabadi, Deniz Sadighbayan, Faress Madhoun, Manos Papagelis, Tina Felfeli, Razieh Salahandish, “**Revolutionary Point-of-Care Wearable Diagnostics for Early Disease Detection and Biomarker Discovery through Intelligent Technologies**” (Submitted to Advanced Science)

Reza Hamed Rahimi, Soroush Sardari, “**Enhancing Cisplatin Sensitivity in Lung Cancer Through the Therapeutic Potential of EGCG: Efficacy Assessment Using a Cisplatin-Resistant *Saccharomyces cerevisiae* as a Model with High Metabolic Homology**” (In preparation)

“**Microfluidics for Automating and Miniaturizing Biological Assays in Biomedical Devices: A Review**” (In preparation)

ACADEMIC PROJECTS

“**Investigation of Anticancer Drug Metabolism in *Saccharomyces cerevisiae* as a Drug Resistance Model**”

September 2023

Advisor: Prof. Soroush Sardari and Prof. Soheila Yaghmaei

“Computational Modeling of Intraocular Drug Delivery Supplied by Porous Implants” **July 2022**
Advisor: Dr. Shohreh Mashayekhan

“Evaluation of Bacteriophages to Combat Bacterial Infections” **December 2021**
Advisor: Dr. Reza Roosta Azad

“β-Carotene Microbial Biosynthesis – *Blakeslea trispora* and *Dunaliella salina*” **September 2020**
Advisor: Prof. Keikhosro Karimi

“Centrifugal and Filter Press Separator Design for Bio-Separation of Valuable Products” **July 2020**
Advisor: Dr. Mohammadhadi Jazini

“Sieve Tray Design for Separation of CS₂ from Polluted Air” **July 2019**
Advisor: Dr. Nasrin Etesami

“Kettle Reboiler Heat Exchanger Design and Rating – Brine 5%” **May 2019**
Advisor: Dr. Masoud Haghshenasfard

“Poly Lactic-co-Glycolic Acid (PLGA) for Bone Tissue Engineering” **January 2019**
Advisor: Dr. Laleh Ghasemi

HONORS AND AWARDS

- Ranked **1st** in the National University Entrance Exam for M.Sc. degree in Chemical Engineering-Biotechnology and Pharmacology among 1266 participants **(2021)**
- Ranked **3rd** among all graduating B.Sc. students of Chemical Engineering with the field of Biotechnology – Isfahan University of Technology, Isfahan, Iran **(2020)**
- Ranked within the **top 1.6%** in the National University Entrance Exam for B.Sc. degree among 160,000+ participants **(2016)**
- Ranked **2nd** among all students of Motahari High School class of 2016 **(2016)**

CERTIFICATES

- Health and Safety Executive (General HSE) – Isfahan University of Technology, Isfahan, Iran **(Winter 2019)**
- Requirements & Documentation & Internal Audit ISO 45001:2018 – Isfahan University of Technology, Isfahan, Iran **(Winter 2019)**
- Java SE 8 Programming – Tehran Institute of Technology **(Summer 2017)**

SKILLS

Language Scores

- **TOEFL:** 105 (Reading: 27, Listening: 27, Speaking: 28, Writing: 23) **August.28.2022**

- **GRE:** 311 (Quantitative: 167, Verbal: 144), Analytical Writing: 3.5

October.04.2021

Computer Skills

- **Engineering Software:** COMSOL Multiphysics, AutoCAD, Autodesk Inventor, Aspen HYSYS, Aspen Exchanger Design and Rating, Aspen Plus, MATLAB
- **Programming Language:** JavaScript, C++, C, MATLAB
- **General Software:** Microsoft Windows, Microsoft Office, Adobe Photoshop, Adobe Premiere Pro, Pinnacle Studio, Audacity