Maryam Rouhani

Gender: Female

Date of birth: July 18th, 1988

Nationality: Iranian

Marital Status: Married

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PROFILE

- Assistant Professor in Department of Tissue Engineering and Applied Cell Sciences at Shahid Beheshti University of Medical Sciences.
- Deputy and Vice-Dean of Reasearch Affairs of ”Regenerative Medicine Institute, Shahid Beheshti University of Medical Sciences”.

EDUCATION

- **Ph.D. in Medical Biotechnology** **2014-2018**
  Pasteur Institute of Iran
  Dissertation Title: Development and evaluating anti-biofilm activity of nano-conjugated recombinant endopeptidase

- **Master Science in Microbiology** **2011-2013**
  Azad university, science and research branch
  Thesis Title: Cloning, expression and evaluation of recombinant Plasmodium falciparum Apical Membrane Antigen-1 for using in vaccine development and seroepidemiology studies

- **Bachler Science in Microbiology** **2006-2010**
  Azad university, Tehran north branch

WORK EXPERIENCE

- **Pasteur Institute of Iran** **2012-2019**
  The National Reference Laboratory for Molecular Diagnosis of Malaria
  - Laboratory inside director
  - Senior laboratory expert
  - Teaching at graduate level
  - References senior laboratory expert
  - Bio-Safety senior laboratory expert

- **Masih Daneshvari hospital** **2008-2009 , 2010-2011**
  - Senior laboratory expert in department of Microbiology
  - Laboratory expert in department of Hematology
  - Laboratory expert in department of Serology
  - Laboratory expert in department of Parasitology
  - Laboratory expert in department of Molecular lab

RESEARCH PAPERS

1.	Conjugation of serratiopeptidases to cellulose nanofibers improves outcomes of their long-lasting effects, proteolytic and anti-biofilm activities	Publishing Process
2.	Molecular docking studies of novel designed serratiopeptidase analogs with inhibitor and substrate ligands	Publishing Process
3.	Design, expression and functional assessment of novel engineered serratiopeptidase analogs with enhanced protease activity and thermal stability	2022
4.	Production and expression optimization of heterologous serratiopeptidase	2019
5.	Molecular dynamics simulation for rational protein engineering: Present and future prospectus	2018
6.	Computational design, structure refinement and molecular dynamics simulation of novel engineered serratiopeptidase analogs	2018
7.	High prevalence of *pfdhfr-pfdhps* triple mutations associated with anti-malarial drugs resistance in *Plasmodium falciparum* isolates seven years after the adoption of sulfadoxine-pyrimethamine in combination with artesunate as first-line treatment in Iran	2015
8.	Comparative analysis of the profiles of IgG subclass-specific responses to *Plasmodium falciparum* apical membrane antigen-1 and merozoite surface protein-1 in naturally exposed individuals living in malaria hypoendemic settings, Iran	2015

TRANSLATED MANUSCRIPTS

1.	Biochemistry, Molecular Biology and Genetics (Book)	2021
2.	ISSCR guidelines for stem cell research and clinical translation 2021 (Book)	2022
3.	A Handbook of Gene and Cell Therapy (Book)	2022

PATENT

- Engineered Serratiopeptidase with enhanced thermo stability and anti-biofilm activity **(National Patent)** 2019
- Truncated and modified Seratiopeptidase and polynucleotides encoding the same **(International Patent)** 2021
- Engineered Serratiopeptidase with enhanced thermo stability and anti-biofilm activity **(US Patent)** 2022

COLLABRATED PROJECT

- *Shahid Beheshti University of Medical Sciences*
  - Gene therapy for MPSIII — 2022-2024
  - In vitro manufacturing, and characterization of functional CD19-CAR-T cells — 2021-2023
  - Production of GMP-grade virus-specific T cells to prevent and treat CMV infected patients after hematopoietic stem cells transplantation — 2021-2023
  - Optimizing GMP-compliant expansion, and product scale up of virus specific T cells — 2021-2022
  - In vitro application of CMV-specific T cells against tumor cells-derived from patients with glioblastoma multiform — 2021-2022
  - Establishment of an online system for collecting, storing and presenting cell therapy products — 2021-2023
  - Immune checkpoint inhibitor and CAR T cells for cancer immunotherapy — 2020-2021
  - Evaluation of changes in the promoter region of *lysyl* endopeptidase gene in mutant strains of *Lysobacter enzymogenes* by physical method — 2020-2021
  - The effect of cell therapy approach on diabetic foot wound healing: systematic and meta-analysis — 2020-2022
  - Evaluating synergistic effects of Serralysin enzyme and a topical antibiotic loaded in niosomal gel for burn wound healing in animal model — 2019-2021

- *Pasteur Institute of Iran*
  - Evaluation of the anti-inflammatory and anti-fibroid effect of endopptidase Seratiopeptidase engineered in animal sample — 2017-2018
  - Evaluation of different adjuvants with recombinant protein Apical Membrane Antigen 1 Vivax species on the immune system in the mouse model — 2015-2016
  - Comparison and evaluation of three adjuvant compounds consisting of CpG, NLX, QS-21, Poly (I: C) and MPL to increase the responses of hemoral and cellular immune systems against Apical Membrane Antigen 1 antigen *Plasmodium falciparum* and *Vivax* in the mouse model for development of multi-species vaccines — 2014-2015
  - Establishment of microalgae platform for the development of malaria vaccine transmitters — 2014-2016

- *Shahid Beheshti university*
  - Extraction and examination of soil microbes for the cultivation of transgenic agricultural products — 2011-2012

CONFERENCES

- **Second International Conference on Biotechnology and Global Development (Scientific Secretary of Conference)** **Tehran 2022**
- **First International Conference on Biotechnology and Global Development (Chairman on Medical Biotechnology Panel)** **Tehran 2021**
- **12th International Congress of Immunology and Allergy *(Oral*)** **Tehran 2014**
  Bacterial-expressed recombinant *Plasmodium falciparum* Apical Membrane Antigen 1: Impact on functional immune responses to a malaria vaccine candidate
- **First International Congress and 13th Iranian Genetics Congress *(Poster)*** **Tehran 2014**
  Design of recombinant *Plasmodium falciparum* Apical Membrane Antigen 1

WORKSHOPS

- Scientific Writing, Tehran university of medical sciences 2021
- How to review a paper, Tehran university of medical sciences 2021
- Academic Writing, Azad university, science and research 2012
- Laboratory Bio-safety, Pasteur Institute of Iran 2013
- Vector and Primer design, Pasteur Institute of Iran 2014
- Flow Cytometry, Pasteur Institute of Iran 2014
- Working Techniques with Laboratory Animals, Pasteur Institute of Iran 2016

ADDITIONAL SKILLS

- *Laboratory Skills*
  - Primary and Lined Cell Culture
  - Parasite Culture
  - Vector and Primer Design
  - PCR, Real-time PCR, Overlap PCR, RFLP
  - Cloning and Protein Expression and Purification
  - ELISA, IFAT, Western blot
  - Working with Laboratory Animals
  - HLA testing used to match organ and tissue transplant recipients
  - Hematology and Serology test
  - Hormonology test
  - Microbial culture
  - Measurement of gastrointestinal parasites
- *Computer Skills*
  - Professional software and programs: OLIGO Primer Analysis Software, Gene Runner, Modular Software, SnapGene, Visual Molecular Dynamics, QMol, ExPASy, RCSB PDB**,** Clustal Omega, ViewerLite, GROMOS
  - General software and programs: ICDL 1, ICDL 2, SPSS, EndNote, Adobe Photoshop
- *Bilingual*: English