

Issa Sadeghian

Curriculum Vitae

Personal Information

First Name: Issa
Last Name: Sadeghian
Birth Date: 28.05.1984
Place of birth: Nourabad, Fars, Iran
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Contact Details

Address: Pharmaceutical Science Research Center, School of Pharmacy,
Shiraz University of Medical Sciences
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Education:

2013-2018: **Ph.D. Pharmaceutical Biotechnology**, Department of Pharmaceutical Biotechnology, School of Pharmacy and Pharmaceutical Sciences Research Center, Shiraz University of Medical Sciences, shiraz, Iran.

Thesis: Cloning, expression and intracellular delivery of carboxypeptidase G2 into HepG2 cells mediated by HIV1-TAT peptide and evaluation of its potential in inhibiting methotrexate-induced cytotoxicity

2007-2010: **M.Sc. Cellular and molecular biology**, Department of Cellular and Molecular Biology, School of Biology, College of Science, University of Tehran, Tehran, Iran.

Thesis: Protein profiling of Iranian honey: a comparative study

2003-2006: **B.Sc. Plant Biology**, Department of biology, Faculty of Science, University of Zabol, Zabol, Iran.

Publications:

- 1. Sadeghian I**, Heidari R, Sadeghian S, Raei, M. J, & Negahdaripour M. Potential of Cell-Penetrating Peptides (CPPs) in Delivery of Antiviral Therapeutics and Vaccines. *European Journal of Pharmaceutical Sciences*, (2022). 106094.
- 2. Sadeghian I**, Hemmati S. Characterization of a Stable Form of Carboxypeptidase G2 (Glucarpidase), a Potential Biobetter Variant, From *Acinetobacter* sp. 263903-1. *Molecular Biotechnology*. 2021 63(12), 1155-1168.
- 3. Ommati M M**, Hojatnezhad S, Abdoli N, Manthari R K, Zhipeng J, Najibi A, Akbarizadeh A M, **Sadeghian I**, Farshad O, Azarpira N, Niknahad H, Heidari R. Pentoxifylline mitigates bile duct obstruction-associated cholemic nephropathy. *Clinical and Experimental Hepatology*. 2021 7(4), 1-13.
- 4. Ghoshoon MM**, Raei MM, Shabanpoor MR, Dehghani Z, Ebrahimi N, Berenjian A, Negahdaripour M, Hemmati S, **Sadeghian I**, Ghasemi Y. Whole cell immobilization of recombinant *E. coli* cells by calcium alginate beads; evaluation of plasmid stability and production of extracellular L-asparaginase. *Separation Science and Technology*. 2021, 1-7.
- 5. Abdoli, N., Sadeghian, I., Azarpira, N., Ommati, M. M., & Heidari, R.** Taurine mitigates bile duct obstruction-associated cholemic nephropathy: effect on oxidative stress and mitochondrial parameters. *Clinical and Experimental Hepatology*. (2021) 7(1), 30-40.
- 6. Behzadipour, Y., Sadeghian, I., Ghaffarian Bahraman, A., Hemmati, S.** Introducing a delivery system for melanogenesis inhibition in melanoma B16F10 cells mediated by the conjugation of tyrosine ammonia-lyase and a TAT-penetrating peptide. *Biotechnology Progress*, (2021) 37(1), e3071.
- 7. Abdoli, N., Sadeghian, I., Mousavi, K., Azarpira, N., Ommati, M. M., Heidari, R.** Suppression of cirrhosis-related renal injury by N-acetyl cysteine. *Current Research in Pharmacology and Drug Discovery*, 1 (2020) 30-38.
- 8. Sadeghian B, Sakhteman A, Faghih Z, Nadri N, Edraki E, Iraj A, Sadeghian I, Rezaei Z.** Design, synthesis and biological activity evaluation of novel carbazole-benzylpiperidine hybrids as potential anti Alzheimer agents. *Journal of Molecular Structure*. 2020 Jul 2:128793.
- 9. Sadeghian I, Rezaei Z, Rahmatabadi SS, Hemmati S.** Biochemical insights into a novel thermo/organo tolerant bilirubin oxidase from *Thermosediminibacter oceani* and its application in dye decolorization. *Process biochemistry*, 88 (2020), pp. 38-50.

10. Rahmatabadi, S.S., **Sadeghian, I.**, Ghasemi, Y., Sakhteman, A. Hemmati, S. Identification and characterization of a sterically robust phenylalanine ammonia-lyase among 481 natural isoforms through association of in silico and in vitro studies. *Enzyme and microbial technology*, (2019)122, pp.36-54.

11. Sadeghian I, Khalvati B, Ghasemi Y, Hemmati S. TAT-mediated intracellular delivery of carboxypeptidase G2 protects against methotrexate-induced cell death in HepG2 cells. *Toxicology and applied pharmacology*. 346 (2018), 9-18.

12. Rahmatabadi SS , **Sadeghian I**, Nezafat N, Negahdaripour M, Hajighahramani N, Hemmati S, Ghasemi Y. In silico investigation of pullulanase enzymes from various *Bacillus* species. *Current Proteomics*. 2017 Sep 1;14(3):175-85.

13. Mahmoodi-Khaledi E, Lozano-Sánchez J, Bakhouché A, Habibi-Rezaei M, **Sadeghian I**, Segura-Carretero A. Physicochemical properties and biological activities of honeys from different geographical and botanical origins in Iran. *European Food Research and Technology*. 2017 Jun 1;243(6):1019-30.

14. Sadeghian I, Hassanshahian M, Sadeghian S, Jamali S. Antimicrobial effects of *Quercus brantii* fruits on bacterial pathogens. *Jundishapur Journal of Microbiology*. 2012 Jul 1;5(3):465.

15. Sadeghian I, Heidari R, Raei MM, Negahdaripour M, Ghasemi Y. Cell-penetrating peptide-mediated delivery of therapeutic peptides/proteins for the management of diseases involving oxidative stress, inflammatory response, and apoptosis, *Journal of Pharmacy and Pharmacology*. 2022.

16. Sadeghian S, Gholami A, Khabnadideh S, Razmi R, **Sadeghian I**, Ghasemi Y, rezaei Z Evolution of antibacterial and anticandidal activities of some imidazole, benzimidazole and benzotriazole derivatives, *Trends in Pharmaceutical Sciences*. 2022.

Abstracts and congress presentations:

1. Sadeghian, I. Zargar, S.J, Habibi Rezaei, M. Protein content and enzyme activity of honey samples in several regions of Iran. Fourth international conference of biology, Ferdowsi University of Mashhad.

2. Sadeghian, I. Zargar, S.J, Habibi Rezaei, M., Alikhani, M. U., Hossainipanah.S.M. Antibacterial activity of five honey samples from Iran. Second national conference of applied microbiology.

3. Mahmoodi-Khaledi, E., **Sadeghian, I.**, Habibi-Rezaei, M., Kashef, N. The physicochemical and biochemical survey of the honey types from Iran: Protein and Enzyme profiling. *The first ICBC congress 2012, June 13-15, Iran*.

Honors:

- Second grade promoted in 24th Pharmaceutical Biotechnology Ph.D Exam.
- Ranking the first in Ph.D comprehensive exam, Shiraz University of Medical Sciences.
- Eighth grade promoted in biology M sc. Exam.

Mentoring Experiences:

1. Behzadipour, Y. Intracellular delivery of the recombinant tyrosine ammonia lyase into melanocytes mediated by the HIV1-TAT peptide. Pharm. D thesis (2017). Shiraz University of Medical Sciences, Faculty of pharmacy.
2. Rezaei, Z. Determination of thermostability and kinetic properties of the recombinant bilirubin oxidase like protein from *Thermocediminibacter oceani* for polymer degradation. Pharm. D thesis (2018). Shiraz University of Medical Sciences, Faculty of pharmacy.
3. Moradi, A. Bioinformatic analysis of signal peptides to optimize in vitro secretory production of carboxypeptidase G2. Pharm. D thesis (2017). Shiraz University of Medical Sciences, Faculty of pharmacy.
4. Mazaree, N. Secretory production of the recombinant eugenol synthase enzyme from *ocimum basilicum* using pelB as the signal peptide. D thesis (2017). Shiraz University of Medical Sciences, Faculty of pharmacy.

Laboratory and Technical skills:

- Molecular cloning and genetic engineering
- Protein expression and purification
- Protein transduction
- Enzyme assay
- Cell Culture
- Western Blotting
- PCR
- Real Time PCR
- DNA electrophoresis
- SDS-PAGE
- 2D electrophoresis
- Fluorescent microscopy
- Antimicrobial assay
- Cell toxicity assay
- Elisa
- Laboratory animals handling

- Bioinformatics skills

- BLAST
- Alignment
- Homology Modeling
- Docking

Research interests:

- Recombinant proteins
- Protein engineering
- Protein delivery
- Cancer research
- Proteomics
- Biocatalysts
- Toxicity research
- Enzyme technology
- Nanotechnology
- Bioinformatics

Languages:

Persian: Native

English: listener and speaker (Intermediate), reading and writing (Fluent)

Work experience:

Medical Laboratory technician in army hospital, Shiraz (14 month)

Research expert in biotechnology incubator, Shiraz University of Medical Sciences (From 2020-2-9 until now)

References:

1. Dr. Y. Ghasemi, Professor in Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran, E-mail: Ghasemiy@sums.ac.ir
2. Dr. S. Hemmati, Associate Professor in Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran, E-mail: hemmatish@sums.ac.ir

3. Dr. M. H. Morowvat, Assistant Professor in Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran, E-mail: mhmorowvat@sums.ac.ir

4. Dr. R. Heidari, Assistant Professor in Pharmaceutical Sciences Research Center, Shiraz University of Medical Sciences, Shiraz, Iran, E-mail: rezaheidari@hotmail.com