



Soheila Mohammadi

Assistant Professor of Nanobiotechnology

School of Pharmacy, Kermanshah University of Medical Sciences, Kermanshah, IRAN

Personal Records:

Name: Soheila Mohammadi

Date of Birth: May 1, 1983

Nationality: Iranian

Place of Birth: Kermanshah, Iran

Appointment: PhD in Nanobiotechnology

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Educational Records:

B.Sc: Biology, (2002-2006), University of Razi, Kermanshah, Iran

M.Sc: Biochemistry, (2008-2010), Tarbiat Modares University, Tehran, Iran

Thesis: Cloning, Sequencing, Expression and Purification of Pyruvate Kinase from Iranian *Geobacillus sp*

Ph.D: Nanobiotechnology, (2011-2016), Tarbiat Modares University, Tehran, Iran

Thesis: The effect of nanoparticles on α -Synuclein amyloid nanofibril formation and the construction of a cell-based biosensor to monitor α -Synuclein aggregation inside the cells

Honors and Awards:

Top B.Sc student of Biology Department, Razi University, (2002-2006).

Top M.Sc student of Biochemistry Department, Faculty of Sciences, Tarbiat Modarres University, 2010.

Selected as the best researcher at Tarbiat Modares University, 2011.

Teaching Experience:

1. Polymer
2. Introduction to Nanotechnology
3. Nanobiotechnology
4. Nanosafety
6. Nanomaterials & Nanostructures
- 7- Plant Biotechnology
- 8- Cell Culture
- 9- Advanced Topics in Biotechnology

Publications:

Book: Concept of Genetics, (Translation) Published in 2014

1. **Mohammadi S**, Nikkhah M, Nazari M, Hosseinkhani S. Design of a Coupled Bioluminescent Assay for a Recombinant Pyruvate Kinase from a Thermophilic Geobacillus. Photochem Photobiol. 2011, 87, P: 1338–1345.
2. **Mohammadi S**, Nikkhah M. TiO₂ nanoparticles as Potential Promoting Agents of Fibrillation of α -Synuclein, a Parkinson's Disease-Related Protein. Iranian J Biotech. 2017, Apr. 15(2):e1519
3. **Mohammadi S**, Nikkhah M, Hosseinkhani S. Loss in Toxic Function of Mutants α -Synuclein Aggregates by a β -Synuclein Derived Peptide. Protein Pept Lett. 2017, 24, P: 757-764.

4. Rezaeian N, Shirvanizadeh N, **Mohammadi S**, Nikkhah M, Arab S.S. The inhibitory effects of biomimetically designed peptides on α -synuclein aggregation. *Arch Biochem Biophys*. 2017, 634, P: 96-106
5. **Mohammadi S**, Nikkhah M, Hosseinkhani S. Whole Cell Recombinant Biosensor for Screening of Carbon-based Nanomaterials on Oligomerization of Mutant (A53T) α -Synuclein. *Int J Nanomedicine*. 2017, 12, P: 8831–8840.
6. Tajvar S, **Mohammadi S**, Askari A, Janfaza S, Nikkhah M, Tamjid E, Hosseinkhani S. Preparation of liposomal doxorubicin-graphene nanosheet and evaluation of its in vitro anticancer effects. *J Liposome Res*. 2018 Apr
7. **Mohammadi S**, Nikkhah M. Carbon Nanotubes as Potential Agents against Fibrillation of α -Synuclein, a Parkinson's Disease-Related Protein. *Biomacromol. J*. 2018, 4, P: 127-133.
8. Vafadar A, Shabaninejad Z, Movahedpour A, **Mohammadi S**, Fathollahzadeh S, Mirzaei H.R, Namdar A, Savardashtaki A, Mirzaei H. Long Non-Coding RNAs as Epigenetic Regulators in Cancer. *Current Pharmaceutical Design*, 2019, 25, P: 3563-3577.
9. **Mohammadi S**, Yousefi F, Shabaninejad Z, Movahedpour A, Mahjoubin Tehran M, Shafiee A, Moradzarmehri S, Hajighadimi S, Savardashtaki A, Mirzaei H. Exosomes and cancer: From oncogenic roles to therapeutic applications. *IUBMB Life*. 2019;1–25.
10. Yousefi F, Movahedpour A, Shabaninejad Z, Ghasemi Y, Rabbani S, Sobnani-Nasab A, **Mohammadi S**, Hajimoradi B, Rezaei S, Savardashtaki A, Mazoochi M, Mirzaei H. Electrochemical-Based Biosensors: New Diagnosis Platforms for Cardiovascular Disease. *Current Medicinal Chemistry*, 2020, 27, 1-24.
11. Akbari V, Ghobadi S, **Mohammadi S**, Khodarahmi R. The antidepressant drug; trazodone inhibits Tau amyloidogenesis: Prospects for prophylaxis and treatment of AD. *Arch Biochem Biophys*. 2020, 679, P: 108218.
12. Askaria A, Samira T, Nikkhah M, **Mohammadi S**, Hosseinkhani S. Synthesis, characterization and in vitro toxicity evaluation of doxorubicin-loaded magnetoliposomes on MCF-7 breast cancer cell line. *J Drug Deliv Sci Tec*. 2020, 55, P: 101447.

Conferences:

1. Expression, purification and characterization of pyruvate kinase from thermophilic *Geobacillus* sp and coupled bioluminescent assay for ADP measurement. **Mohammadi S**, Nikkhah M, Nazari M, Hosseinkhani S. The 9th Iranian Congress of Biochemistry and Biophysics, Tehran, Iran, Journal of the Iranian Chemical Society, Vol. 7, Suppl. 1, February 2010.

2. Investigation of DOPAC analogues inhibitory effects on nanofibril formation. **S. Mohammadi**, S. S. Arabb, S. Hosseinkhania, M. Nikkhah. 5th International Congress on Nanoscience and Nanotechnology, October 2014.

3. Design and development of a whole-cell biosensor to monitor amyloid aggregates of α -Synuclein protein using a split-luciferase complementation assay. **S. Mohammadi**, S. S. Arabb, S. Hosseinkhania, M. Nikkhah. Light and biology congress Zanjan, 2015.

Selected Invited talks:

1. Molecular cloning, expression and purification of pyruvate kinase from thermophilic *Geobacillus*. S. Mohammadi. M. Nikkhah, M. Nazari, S. Hosseinkhani, The 10th Iranian Congress of Biochemistry and the 3rd International Congress of Biochemistry and Molecular Biology, Tehran, Iran, November 16-19, 2009.

2. The inhibitory effects of a β -Synuclein derived Peptide on the fibrillation of human α -Synuclein. The 13th conference on biophysical chemistry, 2014.