Joulia Alizadeh-Rahrovi

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Education

2013 M. Sc. in Physical Chemistry
University of Tehran, Tehran, Iran

2009 B. Sc. in Applied Chemistry
Azad University, Shahr-e-Ray Branch, Tehran, Iran

M. Sc. Thesis

Title: Molecular Dynamics Simulation of Native and Glycated forms of Myoglobin and Study the Glycation Reaction of Some Amino Acids by DFT Method. (G.P.A of 19.75/20, accepted with "Excellent" grade.)
Supervisors:
Dr. Alireza Shayesteh (Associate professor of University of Tehran)
Prof. Dr. Azadeh Ebrahim-Habibi (Professor of Tehran University of Medical Sciences).

Research and Teaching Experiences

2013-up to now

- **Research assistant** in the Modeling and Simulating in Medical Sciences (MSMS) Group, Endocrinology and Metabolism Research Institute (EMRI), Tehran University of Medical Sciences (TUMS), Tehran, Iran**.**

2018, November 15th **Teaching** the session of "Introduction to Principles of Molecular Dynamics Simulation" (8 hrs.) in the workshop entitled: "Introduction to Principles of Molecular Modeling of Proteins", Endocrinology and Metabolism Research Institute (EMRI), Tehran University of Medical Sciences (TUMS), Tehran, Iran.

2018, February 15th **Teaching** the session of "Introduction to Principles of Molecular Dynamics Simulation" (4 hrs.) in the workshop entitled: "Introduction to Principles of Molecular Modeling of Proteins", Endocrinology and Metabolism Research Institute (EMRI), Tehran University of Medical Sciences (TUMS), Tehran, Iran.

Publications

Articles

- Structural Stability of Myoglobin and Glycomyoglobin: A comparative Molecular Dynamics Simulation Study, ***J. Alizadeh-Rahrovi****, A. Shayesteh, A. Ebrahim-Habibi*, Journal of Biological Physics, 2015, 41(4): 349-366.,doi: 10.1007/s10867-015-9383-2.

Abstracts

- Human Apo-myoglobin Structural Stability in The Presence of Ligands: A Molecular Dynamics Study, ***J.Alizadeh-Rahrovi****, A. Ebrahim-Habibi,* 30th Molecular Modeling Workshop, Erlangen, April 4-6, Germany, 2016.
- Search for Beta-sheet Formation: Using Unfolding Simulations to Observe Initial

Amyloid Structures,*A. Ebrahim-Habibi, M. Chinisaz, **J. Alizadeh-Rahrovi** M. Ghobeh, T. Khaghani-Milani,* Models for Protein Dynamics 1976-2016 Workshop, CECAM-HQ-EPFL, Lausanne, Switzerland, Feb 15-18, 2016.

- The Effect of Ligands on The Unfolding of Human Apo-myoglobin: AMolecular Dynamics Study,***J. Alizadeh-Rahrovi**, A. Ebrahim-Habibi,* 18th Iranian Physical Chemistry Conference, Kish Island, Iran, 2016.
- Molecular Dynamics Simulation Study on the Initial Stages of Amyloid Formation in Myoglobin and Search for Anti-Amyloid Compounds, ***J. Alizadeh-Rahrovi**, A. Ebrahim-Habibi,* the National Conference on Protein and Peptide Sciences: From Basic to Medical and Industrial Applications, Shiraz University, Shiraz, Iran, 2014.
- Structural Comparison of Amylin Between Species: Molecular Dynamics Simulation, *T. Khaghani-Milani*,***J. Alizadeh-Rahrovi***,*B. Goliaei, A. Ebrahim-Habibi*, the National Conference on Protein and Peptide Sciences: From Basic to Medical and Industrial Applications, Shiraz University, Shiraz, Iran, 2014.
- Comparison of Native and Glycated Myoglobin Structural Stability: A Molecular DynamicsSimulation Study, ***J. Alizadeh-Rahrovi**, A. Ebrahim-Habibi, A. Shayesteh,* Kowsar Medical Journal, 5th International Congress of Biochemistry and Molecular Biology & 13th Iranian Congress of Biochemistry, Yazd, Iran, 2013.
- Molecular Dynamic Simulation Study on Native and Glycated Form of Myoglobin, ***J. Alizadeh-Rahrovi,** A. Shayesteh, A. Ebrahim-Habibi,* 15th Iranian physical chemistry conference, University of Tehran, Tehran, Iran, 2012.

Contribution in Research Projects

- Rational Design of Stable and Functional HirudinIII Mutants with Lower Antigenicity**,***S.Asgari, H.Mirzahoseini, M.Karimipour, H.Rahimi, A.Ebrahim-Habibi,* Biologicals, 2015, 43(6):479-91., doi: 10.1016/j.biologicals.2015.07.008.
- Structural and Dynamic Insight Into Hirudin Epitopes-HLADRB10101 Complexes and Their Modified Peptide Ligands:A Molecular Dynamic Simulation Study,*S. Asgari, H. Mirzahoseini, M. Karimipour, A. Ebrahim-Habibi,* Tropical Journal of Pharmaceutical Research, 2015, 14(12): 2171-2178, doi: 10.4314/tjpr.v14i12.3.

Executive Team Member of Conferences

2016- May-June 10-day workshop entitled "Introduction to Molecular Modeling", Modeling and Simulating in Medical Sciences Group (MSMS), Endocrinology and Metabolism Research Institute (EMRI), Tehran University of Medical Sciences (TUMS),

2016- March 18th Iranian Physical Chemistry Conference, University of Tehran, Kish Island, Iran.

2012- September 15th Iranian physical chemistry conference, University of Tehran, Tehran, Iran.

Skills and Competencies

Computer

- Operating Systems: Windows, Linux
- Familiar with YASARA, MOE, GROMACS, VMD, and ORCA software suits.
- C++ programming, (elementary)

Language

- Persian (native)
- English (upper intermediate)
- French (Intermediate)