

Faramarz Mehrnejad

Field of Biophysics (PhD)



PERSONAL DATA:

Date of Birth: June 23 1975

Languages: Turkish- Persian - English

CONTACT

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EDUCATION

2001-2006 Ph.D. in Biophysics, Tarbiat Modares University Tehran
Iran, Supervisor: Prof. H. Naderi-Manesh. Thesis: *Production of Antimicrobial Peptide and Study of Secondary Structure of Peptides in Different Solutions by Molecular Dynamics Simulations and Using of Antimicrobial Peptides in the Nanobiotechnology*

1998-2001 M.Sc. in Biophysics Tarbiat Modares University Tehran
Iran, Supervisor: Prof. H. Naderi-Manesh. Thesis: *Synthesis of PPIX-PE amphiphile molecules for designing and producing self-assemble parts of nanoelectronics with the inspiration of their performance in internal membrane of mitochondria*

1994-1998 B.Sc. in Biology Esfahan University Esfahan Iran

PROFESSIONAL TRAINING

- 1999-2003 Researcher in Nanobiotechnology Lab** with Prof. H. Naderi-Manesh
Dep. of Biophysics Tarbiat Modares University, Tehran, Iran
- 2004-2006 Researcher of Molecular Biology in Protein Engineering Lab**, with
Prof. H. Naderi-Manesh Dep. of Biophysics Tarbiat Modares University,
Tehran, Iran
- 2000-2006 Researcher in Molecular Modeling Center** Dep. of Biophysics Tarbiat
Modares University, Tehran, Iran
- 2007-2008 Scientific Visitors in Structural Bioinformatics Unit**, With Prof. M.
Nilges Dep. of Structural Biology and Chemistry, Pasteur Institute of Paris,
France
- 2009 Scientific Committee of First National workshop** entitled “Computational
Nanobiotechnology and application in Drug Design”
29th Sept-1st Oct 2009, in the University of Tabriz.
- 2009 Scientific Committee of Second National workshop** entitled “
Computational Nanobiotechnology and application in Drug Design”
27th-29th Nov 2009, in the University of Tabriz
- 2011 Attending in School of Biophysics** “Channels and Transporters”
meeting held in ERICE, Italy, 11-17 May 2011
- 2011 Attending in CECAM workshop** "Perspectives and challenges of
simulations at bio-materials interfaces" meeting held in Bremen,
Germany, October 10th-14th 2011.

EXPERIENCE

- 2012-present Assistant Professor of Biophysics**
Department of Life Science Engineering, Faculty of New Sciences
Technologies, University of Tehran, Tehran, Iran
- 2008-2012 Assistant Professor of Biophysics**,
Department of Cell and Molecular Biology Azerbaijan University
Tarbiat Moallem, Tabriz, Iran
- 2006-2007 Assistant Professor of Biophysics**,
Department of Cell and Molecular Biology Azerbaijan
University of Tarbiat Moallem, Tabriz, Iran

HONORES & AWARDS

- Tarbiat Modares University 2006
- Azarbaijan University of Tarbiat Moallem 2010

PUBLICATIONS

1. **Mehrnejad F**, Naderi-Manesh H, Nanotechnology and Biomolecular Electronic, *IR Nanotechnology* (Conference) 2002, 1; 193-210
2. M.Mirzaei Salehabady, **F. Mehrnejad**, H.Naderi-Manesh, A.Heydari M. Adib, The synthesis of SRBF & PPIX-PE in order to design and produce self-assembled nanoelectronic devices based on inner membrane of mitochondrion, *IR Nanotechnology* (Conference) 2002, 2; 121-135
3. **Mehrnejad F**, Naderi-Manesh H, Ranjbar B. The structural properties of magainin in water, TFE/water, and aqueous urea solutions: Molecular dynamics simulations. *Proteins*, 2007 Mar 13; 67(4):931-940
4. **Mehrnejad F**, Naderi-Manesh H, Ranjbar B, Maroufi B, Asoodeh A, Doustdar F. PCR-based Gene Synthesis, Molecular Cloning, High Level Expression, Purification, and Characterization of Novel Antimicrobial Peptide, Brevinin-2R, in Escherichia Coli. *Appl. Biochem. Biotechnol.* 2008 May; 149(2):109-118.
5. **Mehrnejad F**, Chaparzadeh N. Structural and Dynamical Studies of Humanin in Water and TFE/Water Mixture: A Molecular Dynamics Simulation. *J Biomol Struct Dyn.* 2008 Oct; 26(2):255-262.
6. Nasiripourdori A, Ranjbar B, Naderi-manesh H, **Mehrnejad F**, Soofian S, Sadeghi G, Kolahian S. Structural-functional studies of peptides derived from a long-chain snake neurotoxin Naja naja oxiana. *The Journal of Physiology and Pharmacology.* 2008 12 (3) :209-220.
7. **Mehrnejad F**, Zarei M, Structure and Dynamics of Antimicrobial Peptides in Solution and in Membrane Bilayer: Coarse-Grained and All-Atom Molecular Dynamics Simulation. *J Biomol Struct Dyn.* 2010 Feb; 27(4):551-60
8. Ghahremanpour MM, **Mehrnejad F**, Moghaddam ME. Structural studies of SNARE complex and its interaction with complexin by molecular dynamics simulation. *Biopolymers.* 2010 Jun; 93(6):560-70.
9. **Mehrnejad F**, Khadem-Maaref M, Ghahremanpour MM, Doustdar F. Mechanisms of amphipathic helical peptide denaturation by guanidinium chloride and urea: a molecular dynamics simulation study. *J Comput Aided Mol Des.* 2010 Oct; 24(10):829-41.
10. **Mehrnejad F**, Ghahremanpour MM, Khadem-Maaref M, Doustdar F. Effects of osmolytes on the helical conformation of model peptide: molecular dynamics

- simulation. *J Chem Phys.* 2011 Jan 21; 134(3):035104.
11. Godarzi H, Karimi F, Asadi F, Abedinifar Z, Doustdar F, **Mehrnejad F**. Genetic fingerprinting and antimicrobial susceptibility profiles of *Pseudomonas aeruginosa* isolates from eye infections. *Iranian Journal of Clinical Infectious Diseases.* 2011;6(1):41-46
 12. Mohammad Mirzaei Salehabady, **Faramarz Mehrnejad**, Akbar Heidari, Mohammad Nabi Sarbolouki, Mehdi Adib, Hossein Naderi-manesh. Synthesis of two compounds with self-assembled monolayer properties; Riboflavin 2', 3', 4', 5' tetra octadecanoate & Bis (phosphatidyl ethanol) protoporphyrin IX amide. *Iranian journal of chemistry & chemical engineering.* Vol. 30, No. 3, 2011
 13. Zahabi A, Shahbazi E, Ahmadideh H, Hasani N, Totonchi M, Taei A, Masoudi N, Ebrahimi M, Aghdami N, Seifinejad A, **Mehrnejad F**, Daftarian N, Salekdeh GH, Baharvand H. A New Efficient Protocol for Directed Differentiation of Retinal Pigmented Epithelial Cells from Normal and Retinal Disease induced Pluripotent Stem Cells. *Stem Cells Dev.* 2012 2012 Aug 10;21(12):2262-72.
 14. Mahmoud Khadem-Maaref, **Faramarz Mehrnejad**, Naser Arzani Zonoz and Mohammad Mehdi Ghahremanpour. Role of hydrophobic forces and backbone hydrogen bonding on helical stability of peptide encapsulated into single wall carbon nanotubes. *J. Computational and Theoretical Nanoscience.* Volume 9, Number 6, June 2012 , pp. 783-788(6)
 15. Arezoo Rahmanpour, Mohammad Mehdi Ghahremanpour, **Faramarz Mehrnejad**, Majid Erfani Moghaddam. Interaction of Piscidin-1 with Zwitterionic Versus Anionic Membranes: a Comparative Molecular Dynamics Study. *J Biomol Struct Dyn.* 2013 Dec; 31(12):1393-403.
 16. Nader Chaparzadeh, **Faramarz Mehrnejad**. Oxidative markers in five Iranian alfalfa (*Medicago sativa* L.) cultivars under salinity stress. *Iranian Journal of Plant Physiology*, 2013 Vol (3), No (4): 793-799.
 17. Robab Azargoon, Farahnoosh Doustdar, Ghamartaj Khanabaei, Mona Ghazi, **Faramarz Mehrnejad**, Hossein Goudarzi. *Pejouhesh dar Pezeshki* 2013 37(3): 189-193
 18. Nader Chaparzadeh, Younes Aftabi, Meysam Dolati, **Faramarz Mehrnejad** & Mohammad Pessarakli. Salinity Tolerance Ranking of Various Wheat Landraces from the West of the Urmia Saline Lake in Iran by Using Physiological Parameters. *Journal of Plant Nutrition* 37:1025–1039, 2014

19. Islami M, **Mehrnejad** F, Doustdar F, Alimohammadi M, Khadem-Maaref M, Mir-Derikvand M, Taghdir M. Study of Orientation and Penetration of LAH4 into Lipid Bilayer Membranes: pH and Composition Dependence. ***Chem Biol Drug Des.*** 2014 Mar 3. doi: 10.1111/cbdd.12311. [Epub ahead of print]