

Curriculum Vitae

Personal details:

Title: Fahimeh Ghasemi, PhD.

Birth of Data: 4 July 1986

Tell: +98 313 792 3865

Nationality: Iranian

Marital status: Married

Email: f_ghasemi@amt.mui.ac.ir & f_ghasemi_82@yahoo.com

Office Address: Department of Bioinformatics and System Biology, School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, Hezar-Jerib Ave., Isfahan, IR Iran.



Research Fields of Interest:

Pattern Recognition, Statistical Modeling, Computational Drug Design.

Education:

2012-2017: Doctoral Researches: Bioelectrics, Department of Bioelectrics and Biomedical Engineering, School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, Isfahan, Iran,

Dissertation topic: "Proposing HIV-1 growth inhibitor compounds using Nonlinear Deep Learning Modeling and Ligand-Protein Interaction"

Supervisors: Alireza Mehridehnavi, Afshin Fassihi

Co-Supervisor: Horacio Emilio Prez-Sanchez

2010-2012: Master of Science: Bioelectrics, Department of Bioelectrics, School of Electrical Engineering, Sharif University of Technology, Tehran, Iran.

Passed M.Sc. courses: Biomedical Signal Processing, Biomedical Image Processing, Ultrasound, Pattern Recognition, Advanced Programming, Speech Recognition, Neural Networks, Bio-instruments, Advanced Bio-instruments.

2005-2009: Bachelor of Science: Biomedical Engineering, Department of Bioelectrics, School of Engineering, Isfahan University, Isfahan, Iran.

Dissertation topic: "Detection of Right or left hand Movements"

Supervisors: Mansour Vali

Publications:

- a) **F Ghasemi***, A Mehridehnavi, Alfanso Perez Sanchez, Horacio P Sánchez*, "Neural network and deep-learning algorithms used in QSAR studies: merits and drawbacks", *Drug Discovery Today*, 23, 2018, **IF: 6.864**
- b) Z Vahabi, R Amirfattahi, F Shayegh, **F Ghassemi**, "Online epileptic seizure prediction using wavelet-based bi-phase correlation of electrical signals tomography", *International journal of neural systems*, 2015, **IF: 6.33**.
- c) JP Ceron-Carrasco, T Coronado-Parra, B Imbernón-Tudela, **F Ghasemi**, *et al.*, "Application of Computational Drug Discovery Techniques for Designing New Drugs against Zika Virus", *Drug Designing*, 2016, **IF: 5.5**.
- d) **F Ghasemi**, A Mehridehnavi, A Fassihi, Horacio P Sánchez*, "Deep neural network in QSAR studies using deep belief network", *Applied Soft Computing*, 2018, **IF: 3.98**.
- e) **F Ghasemi**, A Mehridehnavi*, A Fassihi, Horacio P Sánchez, "The role of different sampling methods in improving biological activity prediction using deep belief network", *Journal of computational chemistry*, 2017, **IF: 3.67**.
- f) Tahereh Mostashari-Rad, Roya Arian, Houri Sadri, Alireza Mehridehnavi, **Fahimeh Ghasemi***, Afshin Fassihi, "Study of CXCR4 Chemokine Receptor Inhibitors Using QSPR and Molecular Docking Methodologies", *Journal of Theoretical and Computational Chemistry*, 2019, **IF: 0.7**
- g) **F Ghasemi**, A Mehri, J Peña-García, *et al.*, "Improving Activity Prediction of Adenosine A2B Receptor Antagonists by Nonlinear Models", *Drug development and delivery*, 2015.
- h) Juluri A., **Ghasemi F.**, Pérez-Sánchez H., Murthy R., Murthy N., "IONTOPHORESIS - Captisol-Enabled(TM) Lipophilic Drug Complex Delivered Transdermally by Iontophoresis ", *Drug development and delivery*, 2015.
- i) **Ghasemi F**, Rabbani H*, "A statistical model for 3D segmentation of retinal choroid in optical coherence tomography images", in *Proc. SPIE 9038, Medical Imaging 2014: Biomedical Applications in Molecular*,

Structural, and Functional Imaging, 90381W, San Diego, California,
United States Feb. 15-20, 2014.

Work Experience:

Expert medical equipment, Nour and Hazrat Aliasghar Hospital, Isfahan
University of Medical Science

Teaching Experience:

- 1- PhD level_courses: School of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, 2015-2017
 - a) Computational Drug Design,
- 2- M.Sc. level_courses: School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, 2017.
 - a) Modeling of Physiological Systems
 - b) Special Issues (Computational Drug Design)
 - c) Signals and Systems
- 3- B.Sc. level_courses: Islamic Azad University, Najafabad Branch, 2010-2011.
 - a) Electronics
 - b) Linear Integrated Circuits
 - c) Computer Programming
- 4- B.Sc. level_courses: Islamic Azad University, Dolatabad Branch, 2009-2010.
 - a) Linear Integrated Circuits
 - b) Electrical Installations
 - c) Computer Programming

International collaboration:

Bioinformatics and High Performance Computing Research Group, Murcia, Spain.

Organization of workshops:

- a) Vice-Chancellery for Health, Isfahan University of Medical Sciences, "Pacemaker", 2010.
- b) School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, "Calibration of medical equipment", 2017.
- c) School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, "Application of Computer Softwares in Drug Design", 2018.
- d) School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, "Application of Computer Softwares in Drug Design (Advanced)", 2018.

(Co)-Supervision of Master and PhD thesis

- a) PhD Thesis: Shima Nazem, "Protein-ligand binding site prediction using deep learning methods", School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, 2016.
- b) M.Sc. Thesis: Fahimeh Motamedi, "Proposed The Optimum Molecular Descriptors in Order to Design New Compounds for Acetylcholinesterase (ACHE) Using Random Forest (RF) Technique", School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, 2017.

- c) M.Sc. Thesis: Roya Arian, "Identification of Effective Molecules on Different Targets to Investigate Side-Effect", School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, 2018.
- d) Pharm, Thesis: Shiva Hosseini, " Study of structural features of some acetyl choline esterase inhibitors with benzimidazol scaffold using QSAR and molecular docking approaches in order to suggest novel inhibitors of this enzyme", School of School of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, 2018.

Research Funding (as Principal Investigator [PI] or Co-Investigator [Co-I])

- a) Isfahan University of Medical Sciences "Online single-channel seizure prediction, based on seizure genesis model of depth-EEG signals using extended Kalman filter", 2010, (PI).
- b) Isfahan University of Medical Sciences, "Identifying appropriate compounds of acetylcholinesterase (AChE) and HIV-1 reverse transcriptase using PCA-SVM", 2017, (PI).
- c) Isfahan University of Medical Sciences, " Improving Biological Activity Prediction of Small Molecules Using Clustering Data and Genetic Algorithm ", 2017, (PI).
- d) National Institute for Medical Research Development (NIMAD), "Theoretical studies on molecules affecting some biological targets responsible for Alzheimer disease", 2017, (Co-I).
- e) Murcia University, Spain, "Development of Advanced Drug Discovery Techniques, Their Implementation on Software and Web Tools, and Their Application to Contexts of Pharmacological Relevance", 2017, (Co-I).