Curriculum Vitae

Name: Atiyeh (Najla) Hosseini (1991)

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Summary

Hi

I'm a Ph.D. student at Sharif University of Technology and my major is Nanotechnology at the extraordinary institute for Nanoscience and Nanotechnology (INST) in Iran.

My background is in Biomedical Engineering and I have my bachelor's degree and master's degree in this field from Amirkabir University of Technology, the most distinguished university in biomedical science and engineering in Iran.

I've promised myself to fight like an army guy to jettison away all the blind hopes of people succumbing to anathema of cancer and this is what I'm living for. Hence, I started my bachelor project about computational modeling of drug release profile for bone cancer. Later, I did my master project about Exosome-inspired targeting of cancer cells, glioblastoma and melanoma, in Dr. Mohammad Mahdi Hasani-Sadrabadi's lab and under their valuable supervisions.

Education

Ph.D.

University: Sharif University of Technology (2015-present)
Major: Nanotechnology

M.Sc.

University: Amirkabir University of Technology - Tehran Polytechnic (2013-2015)
Major: Biomedical Engineering
Thesis: Molecular dynamics simulation of ligand-receptor interactions in cancer cells in order to design optimized therapeutic nanocarriers
Supervisors: Dr. Mohammad Mahdi Hasani-Sadrabadi- Dr. Shahriar Hojjati Emami

B.A.Sc.

University: Amirkabir University of Technology - Tehran Polytechnic (2009-2013)
Major: Biomedical Engineering
Thesis: Computer and mathematical modeling study for release of drug from layered double hydroxide carriers for bone cancer
Supervisor: Dr. Mohammad Mahdi Hasani-Sadrabadi

Diploma

High School: Imam Sadiq High School at Shahrak-e Gharb, related to Imam Sadiq University (2005-2009)
Field of Study: Mathematics & Physics

Research Experience

- Molecular dynamics approach to design novel targeted nanocarriers for cancer therapeutics
- Modeling release of Ibuprofen drug

Teaching Experience

Undergraduate Teaching Assistant at Amirkabir University of Technology, Biochemistry course

Skills

- Computational Science
- GROMACS, C, MATLAB, Materials Studio, Argus Lab, Docking, Chimera, Linux, NAMD, COMSOL
- 3ds Max, CAD, Photoshop
- Chess, Basketball, Climbing
- English

Interest Areas

- Advanced Drug Delivery Systems (ADDSs)
- Cancer Therapy
- Molecular Dynamics (MD) simulation of Bio-systems
- Novel Targeted Nanocarriers
- Bio-inspired Systems for Cancer Therapy
- Exosome Engineering
- Modeling of Cancer Microenvironment
- Cancer Nanotheranostic Devices
- Protein Corona
- Cancer Early Detection Biosensors

Courses

- Engineering of Drug Delivery Systems
- BioMEMS
- Fluid Mechanics in Biomedical Eng.
- Programming
- Fundamentals of Radiation
- Tissue Engineering
- Biological Tests
- Fundamentals of Biomedical Laboratory (In-vivo/In-vitro studies)
- Behavior of Cells
- Medical Physics
- Hospital Medical Equipment
- Histology and Pathology
- Biosensor
- Biocompatibility

Publications

I. Journal Papers

1. Atiyeh Hosseini, Shirin Soleimani, Hassan Pezeshgi Modarres, Shahriar Hojjati Emami, Mahdi Tondar, Ghasem Bahlakeh, Mohammad Mahdi Hasani-Sadrabadi," Exosome-Inspired Targeting of Cancer Cells with Enhanced Affinity", Journal of Materials Chemistry B, 4(4), 768-778, 2016.

II. Conference Papers

1. Atiyeh Hosseini , Lida Ghazanfari, Mohammad Mahdi Hasani-Sadrabadi , "Tumor-Derived Exosomes-Based Cancer Early Detection: A Molecular Dynamics Simulation", 22nd Iranian Conference on Biomedical Engineering (ICBME), pp. 38 – 41, Tehran, Iran, 25-27 Nov. 2015. (Selected paper, Oral)

2. Atiyeh Hosseini, Shirin Soleimani, Hassan Pezeshgi Modarres, Mohammad Mahdi Hasani-Sadrabadi ," Novel Targeted Nanocarriers for Cancer Therapy by Mimicking "Trojan Horses"", Sixth International Conference on Nanostructures (ICNS6), Kish Island, Iran, 7-10 March. 2016. (Oral)

3. Atiyeh Hosseini, Hassan Pezeshgi Modarres, Hamid Modarress, Mohammad Mahdi Hasani-Sadrabadi , " Innovative Mitochondrial Targeted Strategy for Enhancement in Cancer Therapeutic Efficacy of Nanomedicines", Sixth International Conference on Nanostructures (ICNS6), Kish Island, Iran, 7-10 March. 2016. (Poster)

References and Recommendations

1. Dr. Mohammad Mahdi Hasani-Sadrabadi, Parker H. Petit Institute for Bioengineering and Bioscience, Georgia Institute of Technology, Email: Mahdi.Hasani@gatech.edu
2. Dr. Hamid Modarress, Professor, Chemical Engineering Department, Amirkabir University of Technology, Email: hmodares@aut.ac.ir
3. Dr. Lida Ghazanfari, Department of Biological Science, Florida State University, Email: lghazanfari@fsu.edu
4. Dr. Hamid Keshvari, Biomedical Engineering Department, Amirkabir University of Technology, Email: keshvari@aut.ac.ir
5. Dr. Shahriar Hojjati Emami, Biomedical Engineering Department, Amirkabir University of Technology, Email: emami@mit.edu

Honors & Awards

1. Among the top 5% of the most talented students, Bachelor's degree, Amirkabir University of Technology
2. Ranked 2rd in master's degree, Amirkabir University of Technology, Department of Biomedical Engineering
3. Offered M.Sc. admission at Amirkabir University of Technology, Biomedical Engineering
4. Offered Ph.D. admissions at Sharif University of Technology & Amirkabir University of Technology, Nanotechnology and Biomedical Engineering