Armin Darvish
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EDUCATION

Drexel University, Philadelphia, PA
PhD in Biomedical Engineering, Anticipated Graduation – June , 2016

Amirkabir University of Technology, Tehran, Iran
Bachelor of Science in Biomedical Engineering, September 2004 - October 2010 Biomaterials,

WORKING & RESEARCH EXPERIENCE

Research Assistant,
Kim's Lab, Mechanical Engineering Department , Drexel University, Philadelphia, PA **January 2013 to Present**
Research: Single Virus Analysis in Solid State Nanopores
Supervised by: Dr. MinJun Kim

Research Assistant,
Chaiken's Lab, Drexel College of Medicine, Philadelphia, PA **August 2011 to December 2012**
Research: Nanobioengineering of artificial proteins, including fluorescent gold nanoparticles conjugated to HIV entry inhibitor peptides to from multivalent peptide-particle assemblies. Designing experimental assays to investigate and model protein interactions and mechanism of action of drug-induced virolysis. Training of new lab members on design, synthesis and characterization of gold nanoclusters as well as
Supervised by: Dr. Irwin Chaiken & Dr. Wan Shih

Teaching Assistant,
Physics Department, Drexel University, Philadelphia, PA **January 2011 to December 2012**
Responsibilities: Teaching recitation classes of undergraduate physics courses. Designing course materials, giving lectures and helping students during office hours were part of the responsibilities.

Research Assistant,
Bionanotechnology Lab., Drexel University, Philadelphia, PA, **September 2010 to April 2011**
Research: Development a quantum dot-linked immunoassay for detection of biomarkers, including diagnostic protocols for troponin as a cardiac marker and markers for HIV.
Supervised by: Dr. Elisabeth S. Papazoglou

Research Assistant,
Nanobiomaterials Lab., Amirkabir University of Technology, Tehran, Iran **September 2007 to November 2009**
Research: Designed Gadolinium-containing magnetic layered nanoinorganics as novel multifunctional theranostic nanomedicines, and modified the surface of the particles with folic-acid for folate-mediated targeted delivery of anticancers to breast tumor cells.
Supervised by: Dr. M. Solati-Hashjin

Intern,
Chitotech Ltd., Eshtehard, Karaj, Iran **Summer 2007**
Responsibilities: Worked for the quality control department and was trained on GMP regulations as well as European and British QC standards.

TECHNICAL TRAININGS

- Cell culture training workshop, July 2011, School of Biomedical Engineering, Drexel University, Philadelphia, PA
- Medical Equipment Technical Supervisors' training course, April 2010, Tehran, Iran
- English Teachers Training Course, TAC-C Language Center, February - March 2007, Tehran, Iran
- Programming with MATLAB, July - August 2005, Amirkabir University of Technology, Tehran, Iran

LAB SKILLS

- Nanofabrication Techniques (FIB)
- Synthesis of nanoparticles (Quantum Dots, Gold Nanoclusters, Layered nanoinorganics, etc.)
- Characterization of Nanomaterials (SEM, TEM, DLS, etc.)
- Molecular Assays (ELISA, Western Blot, Biacore SPR etc.)
- Spectrofluorometry and UV/vis Spectroscopy
- Atomic Absorption Spectroscopy

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- Bioconjugation Techniques
- Dialysis and gel filtration
- Cells Culture and Cell toxicity assays
- Viral Infectivity Assays

RELEVANT COURSEWORK

Graduate Level:

Biochemistry
Biostatistics
Biosensors
Nanometrology
Proteins
Biomaterials
Biosimulation

Undergraduate Level:

Histology and Pathology
Tissue Engineering
Principles of Biomaterials
Principles of Biocompatibility
Drug Delivery Systems
Physiology and Anatomy
Cellular and Molecular Biology
Bioassays

IT SKILLS

- Proficient in MATLAB
- Proficient in Microsoft Word, Excel and PowerPoint
- Experience with ImageJ and Jmol
- Familiar with SPSS

LANGUAGE SKILLS

- Farsi – Fluent
- German - Elementary (A2 Level)

SELECTED PUBLICATION AND PRESENTATIONS

- M. S. Azimi, Z. T. Birgani, **A. Darvish**, S. S. Shafiei, M. Solati-Hashjin, "Ca/Al Layered Double Hydroxides: An Advanced Nanoceramic for Biomaterials Applications ", European Cells and Materials Vol. 19. Suppl. 1, pp. 19, 2010

- **A. Darvish**, M. Solati-Hashjin, Z. T. Birgani, M. S. Azimi, S. S. Shafiei, “A guided missile targeting tumors: novel bioceramics as multifunctional targeted traceable nanocarriers”, International Conference of Advanced Ceramics and Composites (ICACC), Daytona Beach, Florida, USA, 24th-29th Jan. 2010.

- S. S. Shafiei, Z. T. Birgani, **A. Darvish**, M. S. Azimi, M. Solati-Hashjin, “Layered Double Hydroxides for Diagnostic Applications”, International Congress of Evaluation of Medical Diagnosis Modern Technologies, Tehran, Iran, 28th-30th Jan. 2009.

- M. S. Azimi, Z. T. Birgani, **A. Darvish**, S. S. Shafiei, M. Solati-Hashjin, “Ca/Al Anionic Nanoclays Synthesis by Hydrothermal Method”, 7th Iranian Ceramic Congress, Shiraz, Iran, 27th-28th Apr. 2009.

VOLUNTARY ACTIVITIES

Instructor, April 2008
Workshop on “Using self-monitoring blood glucose (SMBG) devices for diabetic patients”
Gabric Diabetes NGO, Tehran, Iran

Member of student committee, Iran's first conference on biomaterials, November 2007
University of Tehran, Iran

REFERENCES

Available upon request