

**Objective:** Assistant Professor

### Summary of Qualifications

Bioengineering Research, Simulation and Modeling  
Biopharmaceutical Research experience

### Relevant Skills and Experience

### Publications & Accomplishments

*Structural Biology of Peptide derivatives of BMP-2 binding Proteins*, Keystone Symposia: Frontiers of Structural Biology conference proceedings, 2014 119:Z3014

*Stochastic Simulation for analyzing Risk in a Biomedical Time Series*, R<sup>2</sup> Risk and Regulation Workshop, National Univ Singapore, workshop proceedings, 2014

*Polymer Modification of Metal Surface for Nanocluster Attachment: A Method for Bioactivation*, Nano Science & Technology, 2013

*Random Wobbles in the Movement of a Route-Following Robot: Simulating Neuromotor Deficit Using an Embedded Navigation System*, IEEE Computer Society ICISA conference proceedings 2013

*Proteomic Methods for Orthopedic Biopharmaceuticals*  
J Biomol Tech. 2013 May; 24 (Suppl): S64.

*Analyzing Drug Delivery and Osteoblast Growth on a Porous Scaffold in a Perfusion Bioreactor* Comsol Multiphysics Conference Proceedings 2011

*Alanine-scanning mutations of the BMP-binding domain of recombinant secretory bovine spp24 affect cytokine binding.* Connect Tissue Res. 2010 Dec;51(6):445-51

Created and presented research posters at UCLA Tech Forum 2009 and UC BioE Symposium 2011-2012, Oral presenter- UC BioE Symposium 2013, International Drug Delivery Science & Technology conference 2013

### Work Experience

1999-2000	Researcher – Intestinal Wound Healing	UCLA General Surgery, Los Angeles, CA
2001	Staff Research Associate –DNA Methylation	UCLA Human Genetics, Los Angeles, CA
2002	Research Fellow – Combinatorial Chemistry	UC Davis Oncology, Sacramento, CA
2003-2004	Lab Assistant –Vestibular Science	UCLA Head & Neck Surgery, Los Angeles, CA
2008-2013	Teaching Assistant	Bioengineering & Chemistry, Los Angeles, CA
2008-2014	Researcher –Bone Metabolism	US Dept of Veteran Health, North Hills, CA

### Education

BS Organism Biology and Evolutionary Ecology, UCLA 2001  
Specialization in Business and Administration, Minor in Literature & Writing  
MS Biomedical Engineering, UCLA 2009  
Specialization in Biomaterials and Tissue Engineering  
PhD Bioengineering, UCLA 2014  
Biomaterials, Tissue Engineering, minor fields Molecular Cellular Bioengineering, Biomedical Instrumentation

## **Organizations**

- Biomedical Engineering Society
- Society for Biomaterials
- American Chemical Society –Biochemical Technology
- International Society of Pharmaceutical Engineers
- International Union of Pure and Applied Chemists
- Institute of Electrical and Electronic Engineers –Computer Society

## **Background Knowledge**

- Polymer science
- Biomarker Expression Screening
- qPCR
- Bioconjugate chemistry
- Plasmid design
- Epigenetics
- Assay design
- Bioreactor design
- AutoCAD, Rapid Prototyping
- Molecular Modeling
- Comsol Multiphysics
- Maple
- Matlab
- HPC
- Python, C++, Java
- Microfluidics
- Microfabrication
- Nanotechnology
- Medical Basic Science Coursework