

# Shyama Sathianathan

## EDUCATION

*University of California Los Angeles* (2013 – 2017)  
B.S. – Bioengineering Major,  
GPA: 3.54

## RESEARCH INTERN EXPERIENCE

*Vascular and Bone Mineralization Research, UCLA* (Dec 2013 - June 2014)

Dr. Demer and Dr. Tintut

- Designed and executed in-vitro experiments with TNF-a to induce gene expression involved in osteoblastic differentiation and vascular calcification in mouse aortic and valve cells
- Performed cell culture and assisted in dissections of mice
- Performed gel electrophoresis, PCR, RNA quantification, alkaline and Bradford staining, and protein activity assay
- Performed immunofluorescence and quantified data from immunofluorescence and ALP staining using Metamorph Analysis Imaging software

*Growcells, TriForest Inc., Irvine, CA* (Summer 2012)

Dr. Syed Rehan

- Performed DNA extractions from human placenta
- Prepared all chemical solutions and reagents involved in purifying DNA product
- Created official safety lab procedures and regulations in accordance with California Department of Public Health (CDPH) Clinical Laboratory Personnel Standards

## LEADERSHIP & VOLUNTEER EXPERIENCE

*Mobile Clinic Project at UCLA – Referrals Committee* (June 2014 – present)

- Volunteer at free street-side clinic in West Hollywood providing food and medical care to homeless clients

*Venice Family Clinic, Venice, CA – Clinic Assistant* (November 2013 – present)

- Volunteer at free clinic that provides general and specialty medical care to low-income patients from underdeveloped communities

*Biomedical Engineering Society (BMES)– Publicity Committee* (October 2014 – present)

- Design, organize, and execute publicity campaigns for all BMES events, including speaker series, speaker panels, fundraisers, and networking socials

## SKILLS & CERTIFICATIONS

- *Computer Skills:* MATLAB, Excel, DAQ (Data Analysis software), and Metamorph Analysis Software

- *Lab Skills:* Gel electrophoresis, pipette techniques, PCR, RNA quantification, acid-base titration, thin layer chromatography (TLC), liquid-liquid organic extractions, ion-exchange chromatography
- *Certifications:* CPR Certified, Open Water Diver Certified