

Saad Noor Mohammad

EDUCATION

Ph.D. – Pharmaceutical Sciences
University of California, Irvine
June 2021, Expected

M.S. – Biotechnology
Northwestern University
Robert R. McCormick School of Engineering and Applied Science
December 2015

B.S. – Molecular Environmental Biology – Human Health
University of California, Berkeley
December 2012

ACADEMIC RESEARCH EXPERIENCE

UC Irvine

Graduate Researcher | PI: Young Kwon
September 2016-December 2016, April 2017-Present

Researched drug delivery methods using in vitro models. Optimized alternative methods of exosomal vesiculation and uptake of gold nanoparticles. Utilized TEM and DLS. Researched polymer-encased multi-modal delivery of anti-cancer therapeutics.

Ph.D. Rotation Student | PI: Daniele Piomelli
January 2017-March 2017

Researched lipids and their role in pain and inflammation. Used mouse models to determine pharmacology of potential inhibitors. Elucidated mechanism of pain and inflammation using LCMS, GC, enzyme assays, and behavioral assays.

Northwestern University

Graduate Researcher | PI: William Klein
January 2015-December 2015

Research geared towards discovering effective mechanism-based diagnostics and therapeutics for Alzheimer's. Conducted experiments to characterize size and structure of amyloid-beta oligomers. Utilized FPLC-SEC, Western blotting, and crosslinking, and software such as ImageJ, Excel, and UNICORN. Mentored a high school student and an undergraduate student researcher.

UC Berkeley

Research Assistant | PI: Michael Silver
May 2013-July 2013

Researched auditory memory and perception, investigating how the brain constructs representations of the environment and how these representations are modified by cognitive processes. Employed MATLAB to assess subjects during self-administered experimental sessions by editing and generating code. Composed and evaluated data.

Research Assistant | PI: Dennis Levi
July 2012-August 2012

Investigated the mechanisms that limit spatial vision in humans with amblyopia. Assessed subject visual acuity by administering standardized optometry tests. Administered subject training sessions, utilizing stereoscopic videogame imagery and Gabor patches to acquire

data. Utilized Excel and MATLAB to extract and analyze data. Proposed new parameters for experimental exploration.

INDEPENDENT RESEARCH PROJECTS

- Polymer-encased multi-modal delivery of anti-cancer therapeutics
- Optimization of alternative exosomal vesiculation methods
- Crosslinking stabilization of amyloid-beta oligomers
- Determining the effects of storage, preparation, and treatment on amyloid-beta oligomers

MANUSCRIPTS IN PROGRESS

Native Size and Structure of Pathogenic A β O_s

- Erika N. Cline, Saad N. Mohammad, Madeline G. Rollins, Yuchen Yang, Kyle C. Wilcox, Lynn R. Zieske and William Klein

CONFERENCES AND PRESENTATIONS

Society for Neuroscience 2015 Poster Presentation

An Ultrasensitive Immunoassay Detects Soluble A β Oligomers in Tg Mice Prior to Memory Loss

- Erika N. Cline, Kirsten L. Viola, Madeline G. Rollins, Saad N. Mohammad, Lynn R. Zieske, and William L. Klein

Master of Biotechnology Program Industrial Advisory Board 2015 Poster Presentation

Effects of Storage, Preparation, and Treatment on Amyloid- β Oligomers

- Saad N. Mohammad, Erika N. Cline, Madeline G. Rollins, Yuchen Yang, and William L. Klein

INDUSTRY EXPERIENCE

Genentech, Inc.

BioProcess Manufacturing Technician | Large Scale Cell Culture

April 2013-July 2013

Produced mammalian cell culture biotherapeutics. Ensured safety by maintaining cGMP compliance. Cleansed and sterilized vessels, prepared solutions, and operated fermenters, centrifuges, and purification systems. Reviewed all documentation and checked all calculations (tickets, labels, and equipment readings). Supported process improvement efforts. Operated computers for process control and data entry with MES and DCS.

MRO Technician | Maintenance and Repair Operations

July 2008-April 2013

Created Business Process Instruction documents, performed time-motion studies, and revised SOP's. Worked cross-functionally to accurately provide FMS point monitors with informational access to time-sensitive company products, updating over 3,700 alarm points ahead of schedule. Employed SAP and Struxure to receive and issue out goods, conduct inventory analysis, facilitate central receiving, and manage inventory information. Kept IRA above 98% in two locations, improving the material availability and allowing for on-time work performance.