

Anson A. Lee

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Education

University of California, Los Angeles

Expected June 2017

Chemical Engineering, Biomolecular Option 3.5 on a 4.0 scale
Bachelor of Science
Dean's Honors list

Experience

HHMI Undergraduate Researcher | UCLA | Ozcan Lab

October 2016 – Present

- Designed paper based capillary filtration device for detection of bacterial Meningitis
- Contributed to paper structure design to improve filtration efficiency
- Utilized analytical method for characterizing membrane effectiveness through microscopy

Undergraduate Researcher | UCLA | Andre Nel's Lab

October 2014 – Present

- Designed experimental procedures to investigate the effects of mammalian cell death from metal oxide nanoparticles (MOx) and conduct safe design through coating
- Contributed to in-vivo and in-vitro experiments supporting studies related to MOx safe design
- Utilized analytical methods for cell and particle characterization
- Assembled viability data from MOx dosing using MTS and ATP to measure cell death

Operational Excellence - Intern | Bayer Healthcare

June 2016 – August 2016

- Supported Manufacturing Intelligence on implementing reporting system in key products
- Created dashboards and documented user requirements for Purification and Quality parameters

Manufacturing Sciences - Intern | Bayer Healthcare

June 2015 – August 2015

- Performed studies to optimize purification operations by establishing viscosity data library
- Operated GE ÄKTA Pure systems with UNICORN software for scale-down chromatography studies with affinity columns
- Enhanced understanding of protein purification by analyzing viscous fingering phenomenon

Lab Technical Assistant | City University of Hong Kong | Professor Wey Yang Teoh

July 2014 – September 2014

- Investigated the usage of microfluidics on single cell PCR amplification
- Created PDMS-based microfluidic devices through spin coating to test models

Publications

Refereed journal publications

- X. Cai*, **A. Lee***, J. Zhaoxia, C. Huang, C.H. Chang, X. Wang, Y.P. Liao, T. Xia, R. Li, "Surface Passivation by Phosphonate Coating as a Safe Design Approach for Metal Oxide Nanoparticles", Submitted. (*Equal contribution)

Poster presentation

- **A. Lee**, T. Xia, R. Li, A. Nel, "Surface Passivation by Phosphonate Coating as a Safe Design Approach for Metal Oxides", UCLA Grand Challenges 2015.

Technical Skills

- GE ÄKTA Pure
- Mammalian Cell Culture
- ELISA & Bradford Assays
- Cell Viability Assays (MTS&ATP)
- UV Spectroscopy
- Control Charts, Lean and 5S

Leadership

Director of Speaker Events | Bruin Medical Entrepreneurs

January 2015 - Present

- Collaborated with UCLA physicians to launch clinical surveillance program to tackle sepsis
- Contacted and maintained business relations with corporations and local organizations

Project Leader | Grand Challenges - Undergraduate Research Scholars Program

October 2014 – June 2015

- Collaborated with 5 undergrads to develop and coordinate interventions that encourage students to take public transportation
- Presented findings and data to a class of fifty students

Internal Fundraising Chair '14-'15 | Circle K International UCLA

September 2014 – June 2015

- Raised over 5,000 dollars through fundraisers and sponsorships
- Planned events and taught fundraising initiatives for an organization of 200 members

Achievements

- University of Waterloo's Avogadro's Exam Top 5% Recipient
- Languages: Cantonese (fluent), Mandarin (fluent), and French (basic)
- Programming: Matlab