

Xiaoxuan (Alice), Wu

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Education:

University of California, San Diego

September 2017- Expected June 2021

- Major: Biochemistry and cellular/ molecular biology (Contiguous B.S./M.S.)
- Related Courses completed: Organic Chemistry, Mechanisms/Organic Reactions, Pharmaceutical Chemistry/Advance Chemistry, Microbiology, Cell Biology, Structural Biology, Metabolic, Human Physiology
- Activities: Active member of Society of Cosmetic Chemists and Pre-Pharmacy Society

UCSD Extension, The Coding Boot Camp

September 2020 – Expected March 2021

- Full stack web development with Front-end and back-end technologies, including HTML5, CSS3, JavaScript, Java, jQuery, Bootstrap, Express.js, React.js, Node.js, Database Theory, MongoDB, MySQL, Command Line, and Git

Work/Laboratory Experiences:

Independent Research at the Skaggs School of Pharmacy

Palmer Taylor Lab, UCSD– La Jolla, CA

February 2018 - Present

- Synthesized, purified, and isolated selective stimulants of the alpha 7 nicotinic receptors. Confirmed structure and purity using NMR, and assessed the potency, affinity, and selectivity of these compounds in vitro with cell-based fluorescent assay
- Synthesized more than 10g with over 98% purity antidote (RS194) for organophosphate, injected in mice and collected organ samples, analyzed concentration in organs with mass spectrometry
- Designing synthesis scheme and troubleshoot independently

Neuroscience Research Intern at The Scripps Research Institute

The Lippi Lab – La Jolla, CA

August 2018 - June 2020

- Studied Parvalbumin protein's effect on balancing excitation and inhibition in the developing brain using non-coding miR-34a
- Assisted post doc in designing and executing experiments including primary neuronal cell culture, Fluorescence activated cell sorting, immunostaining, viral injection, cloning, DNA and RNA purification, genotyping with PCR, and cryostat and vibratome slicing, etc
- Present updates on current research process in weekly lab meetings; Review relevant journals in biweekly journal club meetings

Lab Assistant, Cardiovascular Remodeling Lab at Peking University – Beijing, China

Summer 2016

- Assisted P.H.D student on studies about the cardiovascular system, specifically abdominal aortic aneurysm, through disease models derived from 5/6 Nephrectomy and Osmotic Pumps embedding operation in mice
- Conducted a wide variety of experiments including mice operation, establishing primary cell culture, cloning, western blotting, animal perfusion and tissue extraction, qPCR, DNA extraction

Lab Assistant, Bioinformatics Lab at Peking University– Beijing, China

Summer 2016 and 2017

- Assisted P.H.D student with a graduating project that assesses gender's effect on cardio diseases using large data set processing utilizing Python Programming language and machine learning

Professional Skills:

Lab Techniques: chemical synthesis, NMR, TLC, Animal perfusion/fixing/tissue extract/operations, FACsorting, DNA/RNA extraction, electrophoresis, western blotting, immunohistology, cloning, qPCR, ELISA, cloning, primary cell culture, Mini/Medi/Maxi Preps, cryostat, vibratome, confocal microscope

Computer Skills: Full stack web development skills, Introductory Python and JAVA programming, proficient in ChemDraw, TopSpins, Microsoft Office

Language: Fluent in Mandarin Chinese, English, basic conversation in French