

CNU Research Opportunities 1/24

Start: 6:00

- About CNUCOP
 - Established in 2007
 - Had first class graduate in 2012
 - 4 year program
 - 3 years didactic and 1 year experience
 - 1 year AAPES
 - In Elk Grove
 - Team based learning across curriculum
 - Pre-class assignment → readiness assurance test → in class application
 - Research Opportunities for PharmD students
 - Student Organizations and Opportunities
 - Professional, Leadership, and Social Organization clubs
 - Given membership into of CPHA
 - Capital Leadership Forum; Management, Policy & Leadership Certificate
 - Covid-19 clinic
 - Work on projects, serve in health fairs
 - Hand sanitizer production during lockdown
 - Made hand sanitizer to provide to firefighters, nursing homes, schools, etc
 - Mentoring and Academic Success Program
 - Each student has 2 faculty advisors
 - Help guide through P1-P4 years
 - Help personalize academic advice
 - Letters of reference
 - Career guidance
 - 19 PGY1 Residency and Fellowships
 - 4th out of 14 on CJPE
- Pathways for Research
 - Why Research?
 - Adds deeper understanding of topic(s)
 - Better reading and understanding of the literature
 - Possible long term impact on basic or clinical science
 - Can lead to career pathways

- Post grad training
 - Pharmaceutical industry
- Career Paths
 - Industry
 - Biotech companies
 - Clinical trials
 - Academic Research
 - Bench or Clinical Research
 - Can become faculty
 - PharmD research projects
 - Post-graduate training
 - Public Health
 - State of California
 - Federal US Public Health
 - Global agencies and organizations
 - Government Agencies
 - FDA
 - CDC
- Example:
 - Clinical Pharmacist - Investigating Drug Service/Research
 - 88-123k per year
 - Full time, entry level
- Education - take some classes
 - Bio Sci classes
 - Biochemistry. molecular biology. Genetics, etc
 - Anatomy, physiology, etc
- How to choose a lab
 - Research about the different labs
 - Search up labs that list articles and grants
 - Look for the newest paper written
 - Make and appointment with the lab
 - Look up the faculty researcher, lab director, students
 - Search what projects are open for students
 - Ask if you can shadow researchers
 - Look for opportunities for presentations/publications

- Look at what techniques you have and what you can learn and expand on
- Planning for Research
 - Start as early as possible
 - Keep track of schedule and projects
 - Understand project aims
 - Write it down and get ready for an elevator pitch
 - See if you can understand what the research is about
 - Can be used during interviews
 - Do background readings
 - Reviews, Seminal experiments, current research
 - Talk to the grad students
 - Only take in from high quality resources
 - PubMed, etc
- First Semester at School
 - Focus on classes
 - Deep learning
 - Career options: what do you want to do, what diseases or drugs you're interested in
 - Talk to upperclassmen about their experiences
 - Start research in P1 spring or after summer P1
 - Research Output in 2021
 - 34 Peer Reviewed Publications
 - 9 of them included CNUCOP students
 - 53 Research Presentations
 - 21 presentations included CNUCOP
 - Had 6 students from CNUCOP which were given research fellowships
- Student Research & Scholarship Opportunities
 - Didactic elective courses (independent study)
 - APPE elective courses
 - Summer research fellowship programs
 - Volunteering
 - Attending CNU seminars
- Research is not only acquiring a certain skill, it helps sharpen critical thinking, reading the literature, and even more transferable skills
- Current Projects (explanation of current research projects by Dr. Mohamed)

- Shear Stress, Atherosclerosis, and microRNAs
- In Vitro OSS Model
- Anti-Atherogenic roles for Shear Sensitive miR-146a
 - To test the hypothesis whether overexpression of Shear Sensitive miR-146a can prevent EC Inflammation
- What is it like to do research at CNU
 - Very competitive
 - Required letters of rec and minimum GPA requirement
 - Talked to professors and found which research projects were interesting to them
 - Learned a lot through lab, was a slow start but it soon got better since they got used to working in a lab
 - Helped learn that there was more to pharmacy than just community
 - Lead to current job at Kaiser
 - Don't be scared for using the resources given and don't be scared with talking to others or faculty
 - Make some connections!
- Research is just a way of thinking
 - It helps with critical thinking and trains you to be a thinker and doer

End: 7:00