



UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS)

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PharmD Candidate, Class of 2020

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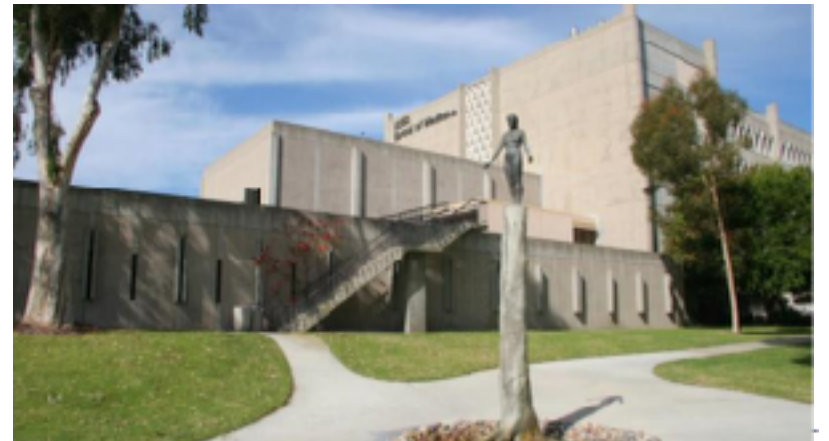
UC San Diego
SKAGGS SCHOOL OF PHARMACY
AND PHARMACEUTICAL SCIENCES

The School ...

- Was established to serve the needs of the citizens of the state of California, the nation and the global community.
- Has a three-part mission of
 - Education
 - Research
 - Service



Health Sciences Campus



SKAGGS SCHOOL OF PHARMACY
AND PHARMACEUTICAL SCIENCES

Pharmaceutical Sciences Building (PSB)

- Houses the administrative, teaching and research space for SSPPS
- 250 seat auditorium
- Four 70 seat classrooms, foyer and reception area, joint classes with medical students are held in the Health Sciences Educational Center
- Additional classes throughout HS campus



The curriculum is intended ...

- To educate pharmacists, not for today, not for five years from now, but for the evolving practice of pharmacy over the next 30-40 years
- You will be taught how to be a “self-learner”
- Coursework is on the cutting edge of new technology and information
- Innovative Doctor of Pharmacy (PharmD) curriculum
- Courses are taught by faculty who are nationally recognized researchers, leaders and/or practitioners in their field of expertise

Our Experiential and Clinical Training is Unique in the Number of Sites We Offer

- Jacobs Medical Center
- Hillcrest Hospital, Thornton Hospital, Sulpizio Cardiovascular Center
- Rady Children's Hospital
- Moore's Cancer Center
- VA, Navy, Pendleton
- Independent Pharmacies
- Retail Pharmacies
- Palomar Medical Center and other community hospitals
- Free Clinics
- LA/Orange County Sites
- International Sites
- Veterinary Hospital
- Salk Institute



Year 1 of the Curriculum

Fall Qtr	Winter Qtr	Spring Qtr
Biostatistics	Histology	Gross Anatomy
Adv. Organic Chemistry	Physical Chemistry	Pharmacological Biochemistry
Pharmacy Practice I	Pharmacy Practice II	Pharmacy Practice III
Biopharmaceutics	Clinical Pharmacokinetics	Dosage Forms & Delivery Systems
Law and Ethics	Clinical Research Design & Applications	Pharmacy Informatics
Concepts in Pharmacy Practice	Intro to Health Care Systems & Policy	Drug Information

Introductory Pharmacy Practice Experiences (IPPEs)

- Goal is to achieve practice competencies in a number of different practice locations; responsibility increases with student experience
- Throughout years 1-3, students are assigned to Introductory Pharmacy Practice Experiences
- Students may participate in the UC San Diego Student-run Free Medical Clinics
- Current structure:
 - 3 weeks community pharmacy in summer after P1 year
 - 2 weeks hospital pharmacy in summer after P2 year
 - Objective Structured Clinical Evals in years 1, 2 & 3
 - Service learning and Simulations in years 1, 2, &3



Many Opportunities Begin in the 1st Year

- SSPPS student government, faculty committees
- Professional Associations (just a sampling below)
 - Association of Student Pharmacists (ASP)
 - American Pharmacists Association (APhA)
 - California and San Diego Pharmacists Association (CPhA, SDPhA)
 - American Society of Health System Pharmacists (ASHP)
 - California and San Diego Societies of Health System Pharmacists (CSHP, SDSHP)
 - Kappa Psi Pharmaceutical Fraternity, Inc.
 - Academy of Managed Care Pharmacy (AMCP)
 - American Society of Consultant Pharmacists (ASCP)
 - College of Psychiatric and Neurologic Pharmacists (CPNP) – Student Chapter
 - Pharmaceutical Industry Liaison Loop (PILL)
 - Christian Pharmacists Fellowship International (CPFII)

Year 2 of the Curriculum

- Focuses on the basic biomedical sciences that all health professional students require
- Many courses are taught by School of Medicine faculty and taken along with School of Medicine students
- This is unique among current schools of pharmacy in the US



Year 2 of the Curriculum



*Joint courses with medical students

Fall Qtr (15 wks)	Winter Qtr (10 wks)	Spring Qtr (12 wks)
Foundations of Human Biology* (5 wks)	Renal System* (3 wks)	Endocrine, Reproduction and Metabolism* (4 wks)
Cardiovascular System* (4 wks)	Laboratory Medicine	Microbiology* (3 wks)
Pulmonary System* (3 wks)	Health Care Systems & Policy	Immunology and Hematology* (5 wks)
Gastrointestinal System* (3 wks)	Basic Neurology	Principles of Pharmacology and Physiology
Principles of Pharmacology and Physiology	Principles of Pharmacology and Physiology	Team-Based Learning
Team-Based Learning	Team-Based Learning	

Year 3 of the Curriculum



Fall Qtr	Winter Qtr	Spring Qtr
Therapeutics I	Therapeutics II	Therapeutics III
Contemporary Topics in Pharmacology	Contemporary Topics in Pharmacology	Contemporary Topics in CNS Pharmacology
Neurology	Pharmacogenomics	Applied Pharmacoeconomics
Pathology – Human Disease	Microbiology & Infectious Diseases	Microbiology & Infectious Diseases
Electives	Electives	Electives

Year 4 of the Curriculum

Advanced Pharmacy Practice Experiences (APPEs)

Five Required: Acute Care, Ambulatory Care, Hospital, Community, Acute or Ambulatory Care II

Two Electives

Summer Qtr	Fall Qtr	Winter Qtr	Spring Qtr
APPE 1 & 2	APPE 3 & 4	APPE 5 & 6	APPE 7



Grading System

- Honors
- Pass
- Fail
- Used to reduce competition, promote teamwork, learn to retain



Cost of Study/Financial Aid

Spring Quarter 2016

- Resident Fees **\$12,925.06**
- Non-Resident Tuition/Fees **\$17,007.06**
- Students are encouraged to apply for eligible federal and state financial aid
- Scholarships opportunities available for 2nd, 3rd and 4th year students

Scholarships and Grants

- Our school offers scholarships and grants anywhere between \$1,000-25,000 based on merit and need throughout your time as a student
- Once our students matriculate there will be opportunities for them to apply for scholarships and grants

Accreditation

- Our Doctor of Pharmacy program has been given the status of Full Accreditation

Board Exam Results: 2006-2016

- First Attempt Pass Rates:
- NAPLEX
 - 99% over the last 5 years
 - UC San Diego graduates scores are consistently higher than National and some California averages
- California Pharmacist Jurisprudence Examination (CPJE)
 - 92% pass rate on 1st attempt
 - 100% pass rate on 2nd attempts

2006 - 2016 NAPLEX and CPJE Results

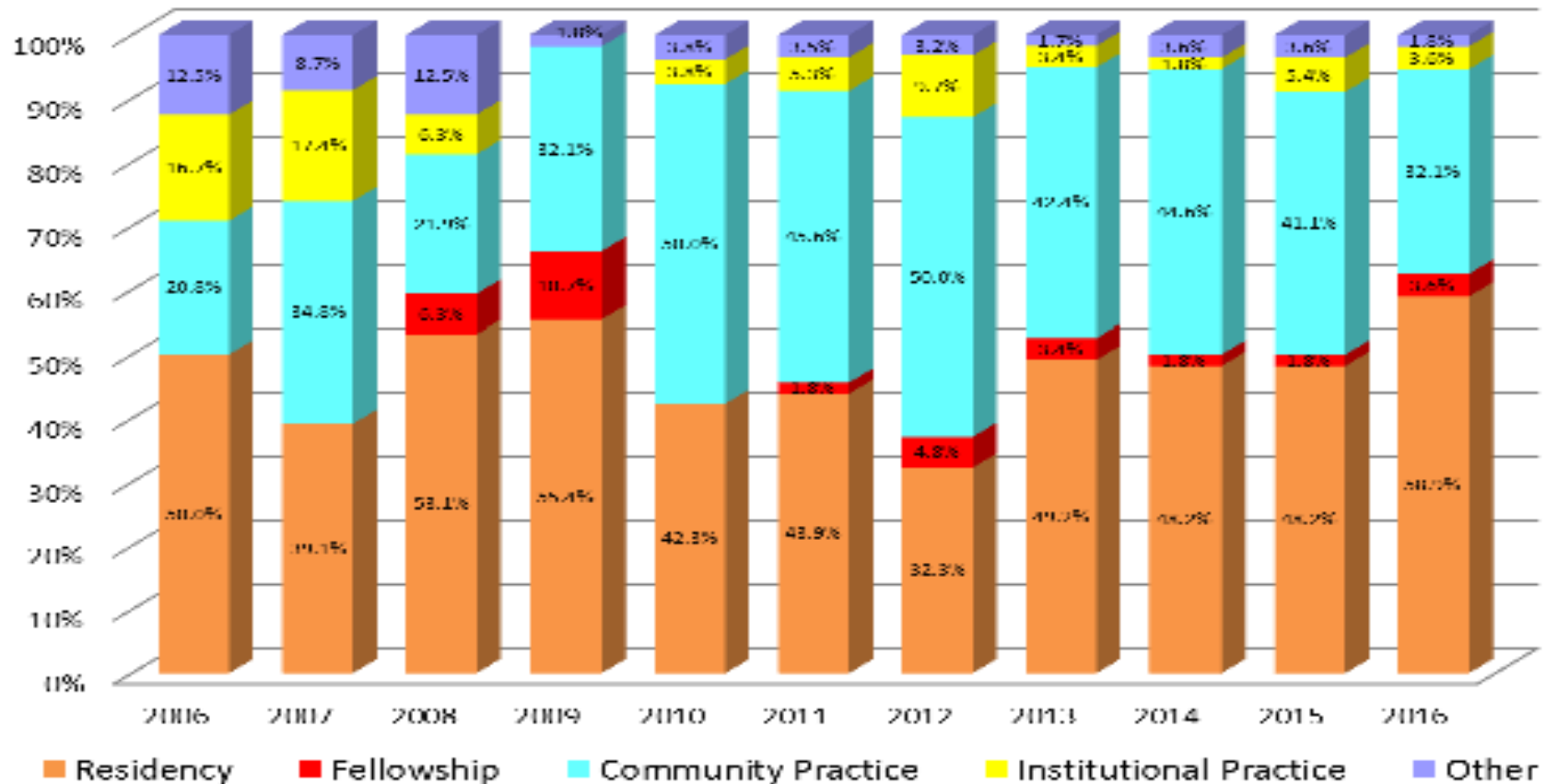
School	NAPLEX Pass Rate	CPJE Pass Rate
UC San Diego	99%	92%
UC San Francisco	99%	87%
USC	99%	94%
UOP	98%	86%
Western	97%	92%
Loma Linda	96%	84%
Touro (since 2009)	96%	91%
Cal Northstate (since 2012)	94%	90%

Additional Education Programs

- Dual Degree Program
 - PharmD/PhD
 - PharmD/Masters
- Post-PharmD Residency Programs
 - General – PGY1
 - Specialty – PGY2
- Post-PharmD Fellowship Programs
 - Joint UC San Diego/Pfizer Research Fellowship in Clinical Pharmacology-Oncology
 - Joint UC San Diego/Millennium Health Research Fellowship in Health Economics, Outcomes Research & Pharmacogenomics

Post-Graduate Activity: 2006-2016

UCSD SSPPS - Post Graduate Activity Percentage of Activity by Year



Residency/Fellowship Locations - Examples

- UC San Diego Residency & Fellowship
- University of Texas
- Kaiser San Diego
- Kaiser West Los Angeles
- San Diego Rady Children's
- Sharp Healthcare
- Stanford University
- VA Long Beach, Baltimore, Dallas, Las Vegas, LA, Manhattan, Palo Alto
- UC San Francisco
- UC Irvine
- University of Washington
- Prescription Solutions, Los Angeles
- Cedar Sinai, Los Angeles
- Tarzana Medical Center
- Texas Medical Center, Houston, TX
- UC Davis
- University of Illinois Chicago
- California Pacific Medical Center
- Kaiser Kern County
- Scripps Memorial
- Tripler Army Medical Center, Honolulu
- Loma Linda
- St. Luke's Regional – Boise
- University of Utah
- University of North Carolina
- Legacy Health System – Portland, OR
- USC Residency & Fellowship
- Rutgers/ Hoffman La Roche Fellowship
- Rutgers / Schering Plough Fellowship
- Forest Research Institute Fellowship, New York
- Fountain Valley Medical Center
- Huntington Memorial Hospital
- Naval Medical Center San Diego
- Naval Medical Center Camp Pendleton
- Providence Health Portland, OR
- Providence Sacred Heart Spokane, WA
- San Joaquin General hospital
- Scripps Mercy
- Palomar Medical Center
- Beth Israel Deaconess Medical Center, Boston, MA
- City of Hope Medical Center
- Children's Hospital Orange County

Types of Pharmacists

- Ambulatory care
- Acute care
- Managed care
- Home Infusion/IV
- Biotech or
Pharmaceutical
Industry
- Academia/research
- FDA
- NIH
- Board of Pharmacy
- Center of Disease Control
- World Health Org.
- Pharmacy Informatics
- Medical Science Liaison
- Retail

A Commitment to Pharmacy = Life-Long Learning

Fellowships

- Research Fellowship in Clinical Pharmacology-Oncology
- UCSD & Millennium Health Post-doctoral Research Fellowship in Health Economics of Personalized Medicine

Residency (PGY1/PGY2)

- Acute care
- Ambulatory Care
- Community
- Critical Care
 - NICU, BICU, SICU, Trauma
- Health System Pharmacy Administration
- Infectious Diseases
- Oncology
- Psychiatry
- Solid Organ Transplantation
- Internal Medicine

Research Opportunities at UCSD School of Pharmacy

Computational Chemistry and Structure-Based Drug Design

- [Ruben Abagayan, PhD](#)
- [Mike Gilson, PhD](#)
- [Nuno Bandeira, PhD](#)
- [Larissa Podust, PhD](#)
- [Geoffrey Chang, PhD](#)

Medication Safety

- [Grace M. Kuo, Pharm.D., MPH, Ph.D.](#)

Medicinal Chemistry and Natural Products

- [William Gerwick, Ph.D.](#)
- [Bradley Moore, Ph.D.](#)
- [Tadeusz \(Ted\) Molinski, Ph.D.](#)
- [Dio Siegel, PhD](#)
- [Anthony O'Donoghue, PhD](#)

Pediatric Pharmacology and Bacterial Drug Resistance

- [Victor Nizet, M.D.](#)

Nanotechnology and Nanoparticle Delivery

- [Adah Almutairi, Ph.D.](#)

Mass Spectrometry and the Microbiome

- [Pieter Dorrestein, Ph.D.](#)

Cardiovascular Biology and Pharmacology

- [Sylvia Evans, Ph.D.](#)
- [Asa Gustaffson, PhD](#)

Immunology

- [Tracy Handel, Ph.D.](#)

Neurodegenerative Disease

- [Vivian Hook, Ph.D.](#)

Virology

- [Deborah Spector, Ph.D.](#)

Pharmacoeconomics and Outcomes

- [Charles Daniels, Ph.D.](#)
- [Jan Hirsch, Ph.D.](#)

Pharmacokinetics/Pharmacodynamics/Drug Metabolism

- [Brookie Best, Pharm.D.](#)

- [Jeremiah Momper](#)
- [Edmund Capparelli](#)
- [Marion Sewer](#)

Neuropharmacology and Receptor Mechanisms

- [Palmer Taylor, Ph.D.](#)
- [Zoran Radic, PhD](#)

Drug Discovery Targeting Neglected Tropical Diseases

- [Jair Lage de Siqueira Neto, PhD](#)
- [James McKerrow, MD, PhD](#)
- [Conor Caffery, PhD](#)
- [Anjan Debnath, PhD](#)



Fun Activities...

A/C Party



ACTION CNY Celebration



Phun Run



SOM-Pharm Wipeout



Culture Fusion



SKAGGS SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES

Professional Activities...



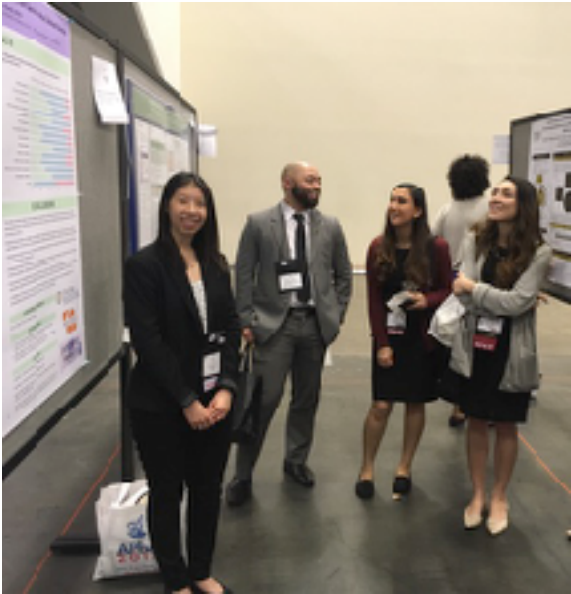
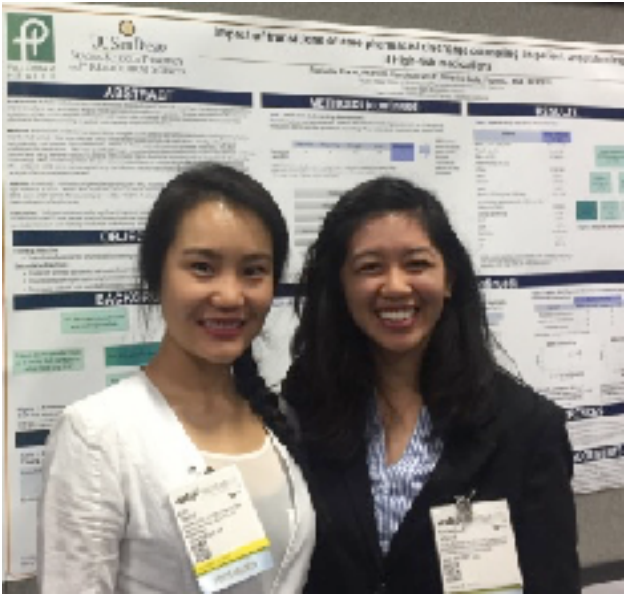
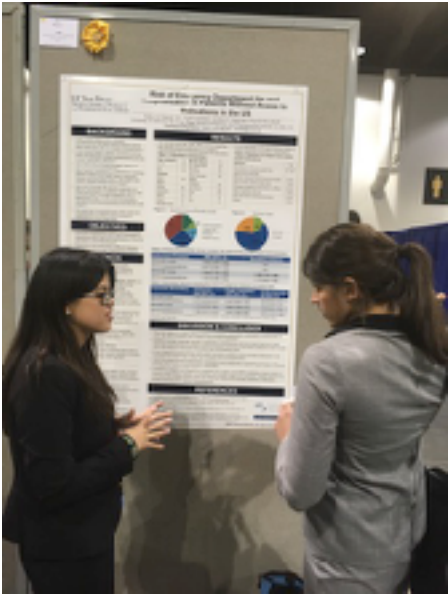
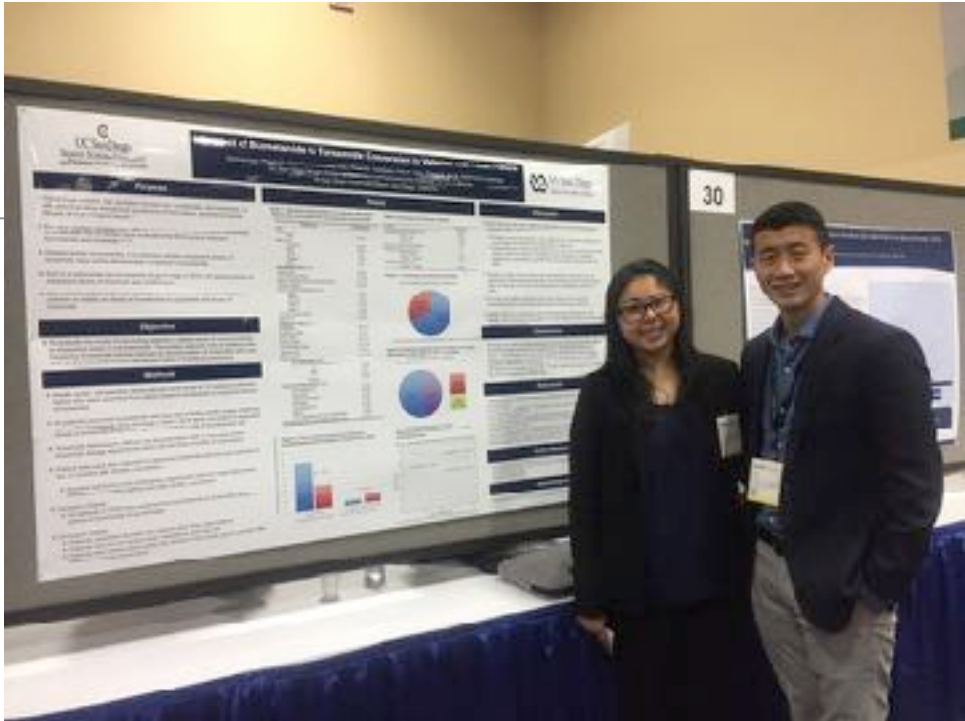
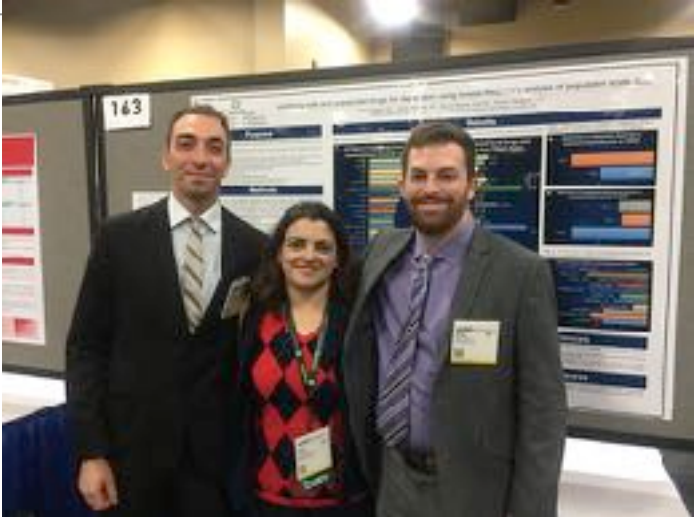
AS Pharmacy Day



Health Fairs



Research Poster Sessions



International Opportunities



California Pharmacy Student Leadership Conference (CAPSLEAD)

Phi Lambda Sigma Pharmacy Leadership Society




Background

- UCSD B.S. in Biochemistry and Cell Biology
- UCSD Thornton Hospital Outpatient Pharmacy Volunteer
- UCSD Student-Run Free Clinic Volunteer Typist
- UCSD Division of Biology Sciences Undergraduate Instructional Assistant
- UCSD Pre-Pharmacy Society Historian, Vice President

UC San Diego
Biological Sciences

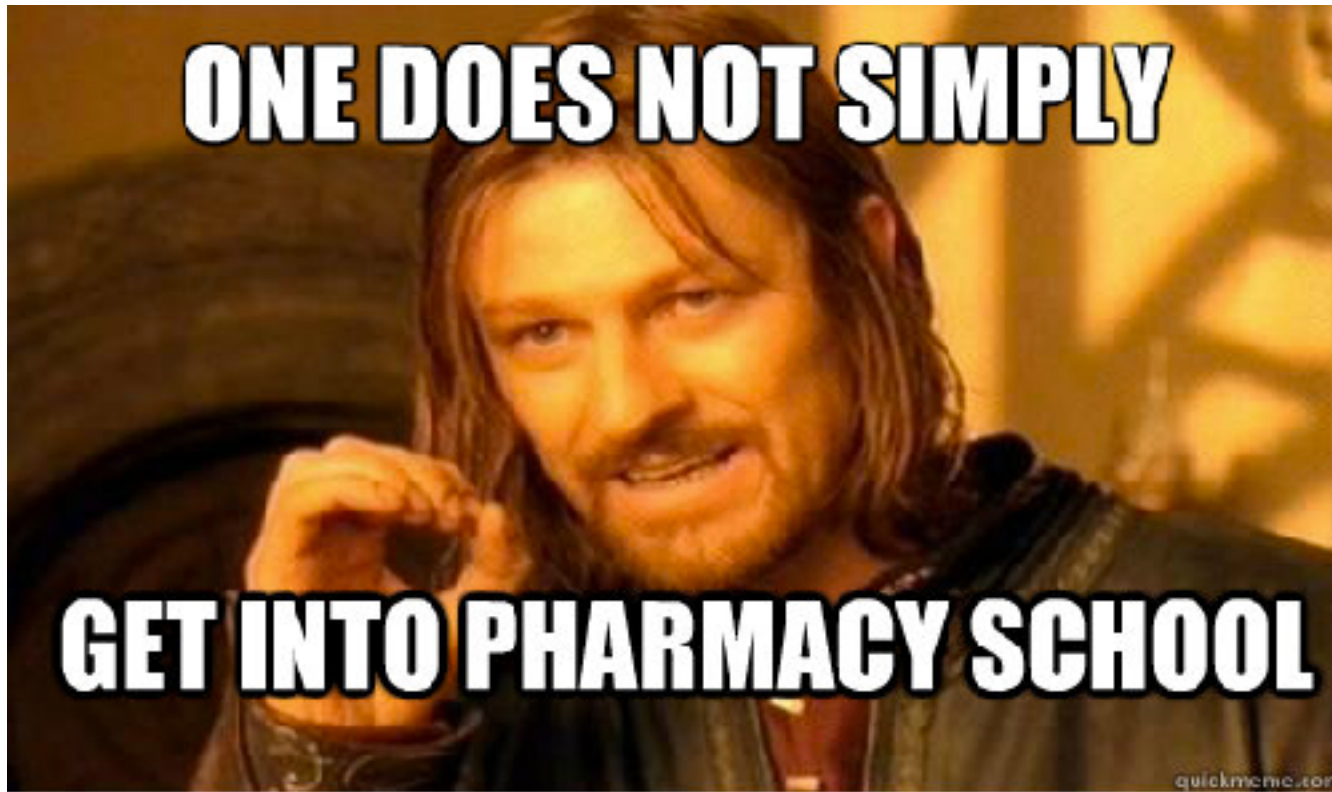


 **UC San Diego**
Pre-Pharmacy Society

UC San Diego
SKAGGS SCHOOL OF PHARMACY
AND PHARMACEUTICAL SCIENCES

Background





APPLICATION PROCESS

Admissions Requirements

- Completion of bachelor's degree prior to matriculation.
 - No specific undergraduate major is required
- A minimum overall grade point average (GPA) of 3.0 is required to apply
- Must complete all prerequisite coursework by the end of the summer prior to beginning school
- Must complete both
 - the PharmCAS online application
 - and the SSPPS **supplemental application** and submit prior to the Nov. 1 deadline

Prerequisites

Category	Requirement	Laboratory	Notes
Biology	One year (12 quarter or 8 semester units) of Biology	Must include at least one laboratory	Must include cell and molecular biology and the study of biology of whole animals or humans
Chemistry	One year (12 quarter or 8 semester units) of general chemistry	Must include one year of laboratory	
Organic Chemistry	One year (12 quarter or 8 semester units) of organic chemistry	Must include one year of laboratory	
Physics	2 courses, Physics I and Physics II (8 quarter or 6 semester units)	Must include at least one laboratory	

Prerequisites

Category	Requirement	Notes
Calculus with Analytical Geometry	2 courses, Calculus I and Calculus II (8 quarter units or 6 semester units)	
English	2 courses, English I and English II (8 quarter units or 6 semester units)	Must include English with a writing component. English as a second Language courses are not acceptable to meet this requirement.
Economics	1 course (4 quarter or 3 semesters units)	Macro or Microeconomics
Public Speaking or Debate	1 course (4 quarter or 3 semesters units)	May not be an online course.
Human Behavior	1 course (4 quarter or 3 semesters units)	May include a course in psychology, sociology, cultural anthropology or related course

Recommendations

- We recommend a cumulative 3.30 or higher GPA in order to be a competitive applicant based on applicant pools in recent years
- We recommend that you take upper division science courses
- We recommend that you thoroughly explore the field of pharmacy prior to your interview

Your Pathway to Exploring the Profession

- What is it like to work in a pharmacy or health related field?
 - Working or volunteering in a pharmacy
 - Shadowing pharmacists in various settings
 - Work or community service in various healthcare settings
 - Pre-pharmacy and other student organizations
- What other experiences are we looking for?
 - Leadership positions
 - Other extracurricular activities

Your Pathway to Exploring the Profession

- Why do I want to be a pharmacist?
 - What do I think a pharmacist does?
 - What types of pharmacists am I interested in learning more about?
- What do I need to do in order to become a pharmacist?
- What makes SSPPS different?
- Am I interested in pursuing a joint degree
 - PharmD + Masters of Science in Drug Development and Product Management
 - PharmD/Ph.D.
- Am I interested in pursuing a residency or fellowship after Pharmacy School?
- Am I interested in conducting research in the field of Pharmacy?
 - basic sciences, clinical, or translational?

Timetable



- Interview offers late November/early December
- Interviews January
- Admissions committee will review files in February
- Offers of admission will be made before March 1st
 - Offers needed to fill 70 positions
 - Alternate list
- Cooperative admissions guidelines
- If a positive response is not received then an alternate will be offered admission with an immediate response expected.

UC San Diego Institutes and Collaborations

- UCSD Drug Development Pipeline
- NMR facility
- Center of Excellence in Nanomedicine
- Drug Discovery Institute
- Center for Computational Mass Spectrometry
- Clinical and Translational Research Institute
- Research Collaboratory for Structural Bioinformatics
- Panama International Cooperative Biodiversity Group
- Pharmacogenomics Education Program
- Health Sciences International
- Center for Discovery and Innovation in Parasitic Diseases



UNIVERSITY of CALIFORNIA, SAN DIEGO
 SKAGGS SCHOOL of PHARMACY
 and PHARMACEUTICAL SCIENCES



Pharmacists are
 health care providers!



70 students per year
 73 faculty members



Shared curriculum with
 UCSD medical students



Unique pass/no pass
 grading system



Patient care interactions
 starting year 1



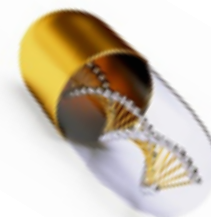
Research intensive
 UCSD national leader



PharmD/PhD with
 Biomedical Sciences



Masters Degree Programs in Health Informatics,
 Drug Product Development, Pharmacogenomics



<https://pharmacy.ucsd.edu>
ssppsadmissions@ucsd.edu

858-822-4900
 Twitter: @UCSDSkaggsSOP

Tips

- Keep a journal or Word document of your experiences
 - Can be pharmacy related, or not
 - This will give you a collection of experiences when it comes to writing your personal statement and supplemental essays
- Put everything in your calendar
 - Good time management can help you achieve a lot
 - Don't forget to schedule the fun things in too!

April 2018

< Today >

	Sun 8	Mon 9	Tue 10	Wed 11	Thu 12	Fri 13	Sat 14
all-day	Orthodox Easter						
6 AM		8 AM SPPS 237 - Lectur...	8 AM SPPS 237 - Lectur...	8 AM SPPS 237 - Lectu...	8 AM SPPS 237 - Lect...		
8 AM	Phun Run	8 AM SPPS 237 - Lectur...	8 AM SPPS 237 - Lectur...	8 AM SPPS 237 - Lectu...	8 AM SPPS 237 - Lect...		
10 AM		10 AM L19, L20	10 AM SSPPS TBL 3 - TBL Pharmacy Science Building Health Sciences Educad...	10 AM SPPS 249 - Thyroid hormone/Anti- thyroid hormone Agents		9:40... Wester n Pharma dy Exchan ge	10 AM SSPPS TBL 3 - TBL Pharm...
11 AM	11 AM L11, L12, L13, L14, L16, L16, L17, L18						
Noon		12 PM [ASP]...	12... L27, L28	12... C... 12... P3...	12 PM [ASP]... [PILL]...		
1 PM		1 PM SPPS 249 - Pharmacology of drugs affecting mineral homeosta...			12 PM ASCP Spring GBM		
2 PM					1 PM [CSHP] Poison P...	1 PM SPPS 237 - Anat...	
3 PM		2:45 PM L22, L23	3 PM Hepati...	3 PM Work		2:15 PM SPPS 237 - Review Reproduction Week Biomedical Sciences Building Lieber Auditorium	
4 PM			3:30 PM [ASCP] Vibam...				
5 PM			4:30 PM TCC Training			5 PM SPPS 237 - BRM...	
6 PM		6 PM Boxing	6:30 PM [CSHP-UCSD] Sp...	6 PM (1 AM GMT) [CSHP] SOSHP...			6:30 PM WPE Alumni Reception 111 W. Harbor Drive
7 PM			7 PM L30, L31				
8 PM	8 PM Jesus Christ Superstar Mendeliev Auditorium	8 PM L25, L26					
9 PM							
10 PM							
11 PM							

Tips

- Keep a journal or Word document of your experiences
 - Can be pharmacy related, or not
 - This will give you a collection of experiences when it comes to writing your personal statement and supplemental essays
- Put everything in your calendar
 - Good time management can help you achieve a lot
 - Don't forget to schedule the fun things in too!
- Believe in yourself!



Video

- Skaggs Student Life: https://www.youtube.com/watch?v=MLuPRM9xd6U&index=1&list=PL_jahAMKAnU6vq6dpkHIQevSWsUdu8o6j

Contacts

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Questions

