

Newsletter



Alexander Chan, PharmD, MPH, FCCP, FISOPP, BCPS, BCOP, APh
Professor and Chair

On behalf of the UCI Department of Clinical Pharmacy Practice (DCPP), I hope everyone's Spring Quarter is off to a great start! DCPP has recently moved into Berk Hall. We are still in the middle of renovating and settling into our new office space, however, our clinical faculty are very excited to be housed under the same roof!

I am very proud to share some of the wonderful achievements that our faculty have accomplished over the past few months. Dr. Christine Cadiz was elected as a Board of Director for the California Society of Health-System Pharmacists (CSHP). Dr. Farah Khorassani was appointed to the Board of Pharmacy Specialties (BPS) Psychiatry Pharmacy Specialty Council. Dr. Nana Entsuah's research was funded by the UC END Disparities Program, and Dr. Aryana Sepassi published two back-to-back peer-reviewed journal articles within the same week. Dr. Keri Hurley-Kim and Dr. Sarah McBane, who are co-advisors for UCI APhA-ASP, have guided our student chapter to receive their official charter at the most recent American Pharmacist Association (APhA) Annual Meeting. Our faculty are truly making great strides!

In this newsletter, you will learn more about our clinical faculty and their innovative work through their clinical services, patient-centered research, and roles within professional organizations. Dr. Farah Khorassani will give us an insight into her newly created clinical service here at UCI, and Dr. Nana Entsuah will introduce us to her professional organization involvement. Dr. Alexis Tran, who is our Albertson/UCI SPPS PGY1 Community-based Pharmacy Resident, will introduce us to her residency experience. And beginning with this issue, Dr. Larry Lovett will be sharing in a 2-part series the history of Clinical Pharmacy and how far we have come.

DCPP is currently recruiting. Do you know someone who is looking for a faculty position in pediatric pharmacy? If you know someone who is interested, please share the listing: [Clinical Faculty \(Pediatric Pharmacy Practice\)](#)

Last but not least, please also mark your calendars for our upcoming Department Seminar on May 16th at noon. The webinar will focus on COVID-19 in kidney transplantation. I hope to see you there! ●

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Clinical Service

Farah Khorassani, PharmD



UCI Health Neuropsychiatric Center specializes in the treatment of patients with acute exacerbations of mental health conditions such as schizophrenia and bipolar disorder. The hospital has inpatient

units for adolescents, adults, and patients with comorbid medical issues. Each unit provides comprehensive care for patients who are experiencing acute psychiatric or behavioral problems that require intensive treatment. The units provide a safe and structured environment with 24-hour nursing care, medication management, individual and group therapy, and discharge planning.

My role thus far has been working with the interdisciplinary team on the adult and medical psychiatric units to optimize patient medication regimens. Aside from performing comprehensive medication regimen assessments, my role on the interdisciplinary team includes educating on evidence-based psychiatry, managing drug interactions, emphasizing the importance of deprescribing, and providing guidance on medication tapers and cross-titrations.

Additionally, I provide patient medication education in both one-on-one and group settings. Discussions can focus on a variety of topics, such as medication adherence, general information about psychotropic medications, and strategies for managing side effects. My hope is that these sessions reduce feelings of isolation and stigma and increase patients' willingness to engage in their treatment. ●

Professional Organization

Nana Entsuah, PharmD

I currently serve on the Programming Committee of the American Public Health Association (APHA) Pharmacy section. My focus within this committee is public health and aging programming. As a committee member, my duties include identifying, developing, and presenting scientific programming topics for annual meetings, collaborating with other APHA Sections to develop interprofessional programs, collaborating with APHA to develop Continuing Education (CE) credits, and assisting with the preparation and submission of the annual sub-committee report. Through my involvement within this national organization, I have been able to combine my two areas of passion: public health and geriatrics. My hope is to continue to further the goals of this organization while highlighting the crucial role of the pharmacist in caring for the older adult. ●



Residency Experience

Alexis Tran, PharmD

Student Pharmacist



I am currently completing my PGY1 Community-based Pharmacy Residency through a partnership between Albertsons Companies and University of California, Irvine (UCI). The purpose of the Community-based Program is to build upon the doctor of pharmacy (PharmD) education and outcomes to develop community-based pharmacist practitioners with diverse patient care, leadership, and education skills who are eligible to pursue advanced training opportunities including postgraduate year two (PGY2) residencies and professional certifications.

Each week I am always doing a variety of different activities from both Albertsons and UCI. From the Albertsons side, my activities include working at my home pharmacy store located in the city of Orange providing clinical services (immunizations, consultations, travel health, medication administration, etc.) and interacting with pharmacy leadership

through my Leadership and Management learning experiences. From the UCI side, I spend a day each week at the UCI Medical Center Ambulatory Care Clinic (performing chronic care management, transitions of care, or anticoagulation clinic). I also am earning a teaching certificate through the UCI School of Pharmacy & Pharmaceutical Sciences where I am able to teach student pharmacists and serve as a preceptor in many of their learning experiences.

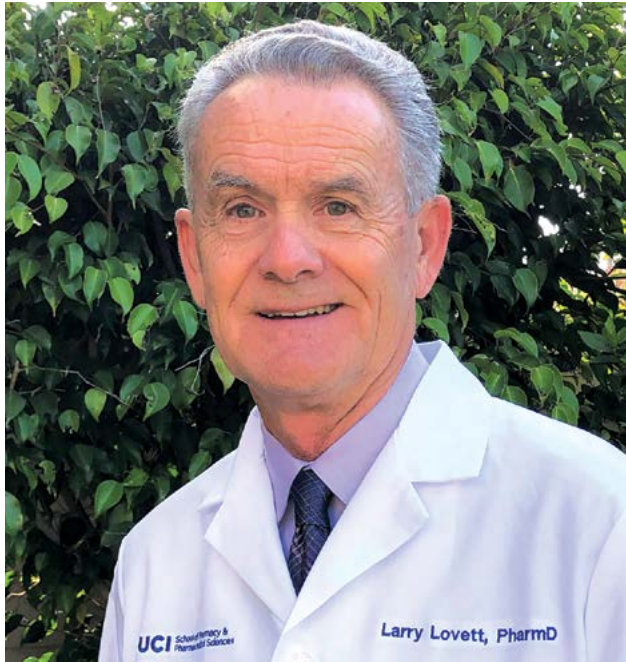
My favorite part about my residency program so far is being able to participate in the student pharmacists' education whether that be in a classroom setting, Objective Structured Clinical Examinations (OSCEs), or as a preceptor for a rotation site. Having graduated from pharmacy school recently myself, one of my long-term goals is to give back to my profession by serving as an educator for future pharmacy students. ●



Alexis Tran, PharmD is a current PGY-1 Community-based Pharmacy Resident with Albertsons/UCI. Dr. Tran earned her PharmD degree from Chapman University School of Pharmacy where she discovered her love of interacting with patients in the community setting. She is also passionate about drug information education and loves teaching her patients and pharmacy students at every given chance.

Clinical Pharmacy – A Brief History (Part 1)

Larry Lovett, PharmD




As the inaugural PharmD class of UCI School of Pharmacy & Pharmaceutical Sciences approaches the end of its second year, let's pause to reflect on a historical perspective. While the UCI Department of Clinical Pharmacy Practice established in 2019 is still in its infancy, it may surprise you to learn that "clinical pharmacy" was born out of hospital pharmacy practice over six decades ago!

During the 1950s and early 1960s, pharmacists and pharmacy organizations had little influence on the direction of the physician-dominated health-care system in the United States. Pharmacy was still searching for a place in healthcare beyond dispensing medications. Mounting evidence of a disturbing trend in medication errors in hospitals required a strategic change. Increased involvement of skilled pharmacists in a more "patient-oriented"

role was seen by many pharmacy leaders and educators as a solution to the problem and the advancement of clinical pharmacy was the vehicle. In about 1957, the University of Kentucky Medical Center under the leadership of trailblazing pharmacy director, Paul Parker, began experimenting with pharmacists "rounding" with physicians to improve drug prescribing.¹ This was an impressive leap for a pharmacy profession that had not changed significantly in the previous 100 years.

The first clinical pharmacy program in California began in 1966 at UC San Francisco as the Ninth Floor Pharmacy Project with the opening of a satellite pharmacy staffed by pharmacists in an inpatient surgical unit. UCSF pharmacy leaders including Jere Goyan, Donald Brodie, and Eric Owyang were instrumental in convincing hospital administrators to add pharmacists and a "drug station" to a planned Ninth Floor Pilot Project designated as an experimental location to innovate new systems to improve the quality of patient care. The program was directed by clinical pharmacy innovator William (Bill) Smith. For the first time, pharmacists moved from the basement pharmacy up to the patient care area to provide 24 hour a day clinical pharmacy services including drug order review, rounding with physicians, drug information and consultation, patient drug histories, IV admixture preparation, and participation on the Code Blue Team. Some of these tasks had not typically been performed by pharmacists and certainly not in an inpatient care area. The Ninth Floor Pharmacy Project served as a role model for clinical pharmacy programs throughout the United States and around the world.²





The emerging concept of clinical pharmacy was described by a Pharmacy leader in 1969 as, “one of the most dramatic changes affecting pharmaceutical education and the future of pharmaceutical practice.”³

This revolution in pharmacy practice was complemented by an evolution in inpatient drug distribution systems that produced the safer and more efficient unit dose drug distribution. Nurses were supportive of the new decentralized approach where drugs and IV admixtures were delivered more rapidly and accurately. Physicians welcomed the convenient access to drug consultants. Patients benefited from improved patient care. The role of Pharmacy Technician was initiated to delegate more drug distribution tasks away from pharmacists to allow them more time for clinical activities. The decentralized concept was a radical step in the 1960s and surprisingly some of the strongest opponents were pharmacists who were overwhelmed by the magnitude of the change in their traditional practice.⁴

UCSF PharmD students began taking clinical clerkship rotations at the Ninth Floor Pharmacy in 1967. This prototype clinical clerkship was possibly the first one in pharmacy education. Clinical pharmacists now became part of the UCSF School of Pharmacy teaching faculty. The Department of Clinical Pharmacy Practice was born and the new clinical instructors became an important and influential component of the UCSF faculty. The PharmD curriculum had to be systematically and radically updated to keep pace with the new reality in pharmacy practice. Several of the basic lab science courses were eliminated or moved to prerequisite status and replaced with more extensive pharmacology, biopharmaceutics, pharmacokinetics, therapeutics, and other courses needed to build more robust clinical skills. The senior year was vacated to enable an entire year of inpatient and ambulatory clerkships. This disruptive transition was being instituted while

current pharmacy students were completing their coursework. Many of the students, like some pharmacists, were not happy with these changes. Gradually, the curriculum settled down and pharmacy students became enthusiastic supporters of the future of clinical pharmacy. The UCSF pharmacy student clinical clerkship program was later expanded to the University of California hospitals in San Diego, Los Angeles, Irvine, and Davis.⁴

Pharmacy school programs across the country began to evolve their curriculum to train more clinically-oriented pharmacists. Passage of federal health manpower training legislation in 1968 and 1971 accelerated the movement toward clinical education of student pharmacists and enabled a doubling of pharmacy school enrollment.¹

Bill Smith left UCSF in 1967 to become director of pharmacy at Long Beach Memorial Hospital. He and his staff established a distinguished clinical pharmacy program that at its peak included thirteen satellite pharmacies, a subscription drug information service, a pharmacokinetic service, and an expansive array of pharmacist-regulated drug therapies including TPN, anticoagulants, antibiotics, and more. Notably Long Beach Memorial pharmacists successfully managed the anticoagulant therapy of the 37th President of the United States, Richard Nixon, following his life-threatening DVT and pulmonary embolus.

The clinical pharmacy model quickly expanded to other medical centers in California and throughout the country as administrators recognized the benefits to improved patient care. By 1973, UCI Medical Center in Orange already had a satellite pharmacy and several clinical pharmacy services in place including an anticoagulation clinic and a poison control center. The U.S. Public Health Service – Indian Health Service was an early adopter of the clinical role of pharmacists as



“physician extenders” and by 1972 they were experimenting with programs that gave Indian Health Service pharmacists medication prescribing authority. The Veterans Administration and Kaiser Permanente endorsed the expansion of pharmacists into a more clinical role in inpatient and ambulatory settings in the early 1970s.

The UCI Department of Clinical Pharmacy Practice is built on the shoulders of the pioneers in clinical pharmacy including pharmacy legends Paul Parker, Donald Brodie, Jere Goyan, and Bill Smith. Many other forward-thinking pharmacists, too numerous to list here, joined in the six-decade effort to propel clinical pharmacy to the standard of pharmacy practice that it is today.

Larry Lovett, PharmD is a Volunteer Clinical Professor with the UCI Department of Clinical Pharmacy Practice. He was the Lead Pharmacist for the successful UCI Health-Bren Center COVID-19 Vaccination Program. Dr. Lovett earned his Pharm.D. at UC San Francisco where he was a student during the transition of the curriculum to a clinical focus. He was a student intern at the Phoenix Indian Medical Center and initiated a program whereby pharmacists independently triaged prescription refills for chronic medications. He was one of the first clinically-trained pharmacists to complete the hospital pharmacy residency at UCI Medical Center while it was converting from Orange County Medical Center to acquisition by the University of California. Dr. Lovett joined Long Beach Memorial Medical Center as a clinical pharmacist, moved up to become Director of Pharmacy, and later created the first Discharge Pharmacist position over a four-decade career. He was instrumental in developing the Pharmacy Technician Training Program at Cerritos College. ●

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The Department of Clinical Pharmacy Practice is an essential component of the UCI School of Pharmacy & Pharmaceutical Sciences. It is the home of our clinical pharmacy practice faculty who are developing and delivering didactic and experiential curricula for the Doctor of Pharmacy program.

DCPP offers unparalleled training for future careers in pharmacy. Our innovative curriculum focuses on integrative health and putting the patient first. Our goal is to train students in the classroom and in the field to improve our society's health and well-being.

[For more information: pharmsci.uci.edu](https://pharmsci.uci.edu)