

# UC San Diego Skaggs School of Pharmacy & Pharmaceutical Sciences Newsletter

Spring 2018

## A Message from the Dean – James H. McKerrow, PhD, MD

As the 2018 academic year draws to a close, we are pleased to anticipate the upcoming graduation of the PharmD Class of 2018. This is a special class for me as it is the first for which I have been Dean since their arrival and the White Coat Ceremony. Last Saturday my wife and I hosted the graduating class and many of our SSPPS faculty and alumni for a farewell party at our home. It was great to see members of the class reconnect after having spent most of the year at a variety of clinical and community sites. Aside from great food and camaraderie, we were serenaded by Tigran and Cara of the Serotones.

While the remainder of this newsletter highlights the many accomplishments of faculty and students at our school, I want to particularly note the national and local media recognition of Drs. Jan Hirsch, Jonathan Watanabe, and Nathan Painter. Dr. Painter looked so poised on local TV that I hope we don't lose him to Hollywood.

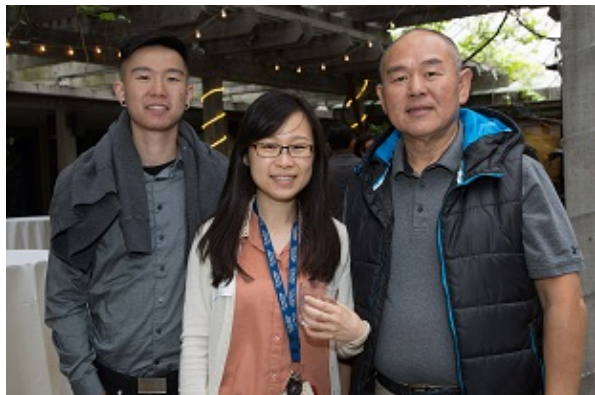


I have again enjoyed connecting with our P1 class by assisting with the histology and anatomy labs, and having lunch with groups of class members. Their feedback on the first year of education is invaluable to our future planning and strategy.

I am pleased that several of our students have begun to take advantage of a new initiative at UC San Diego on entrepreneurship and support of new startups. This is a UC-wide and statewide effort to enhance innovation in the state of California and it is particularly logical to support the efforts of our pharmacy students in developing new approaches to drug delivery and therapy management.

## Student News

### Class of 2018 Graduation Celebration









## Class of 2018 Graduation











## SSPPS Annual Students Award Banquet

The results of the student awards for faculty and volunteer faculty were:

Dr. Ruben Abagyan (P1),  
Dr. Nora Laiken (P2),  
Dr. Felix Yam (P3),  
Dr. Andrew Khosho (P4),  
Dr. David Bao (volunteer)

**Congratulations to the awardees!!**

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## SSPPS PGY1 Community Pharmacy Residency Program Update

**By Christina Mnatzaganian, PharmD**

It's hard to believe we are already approaching the end of the second year of the Post-graduate Year 1 (PGY1) Community Pharmacy Residency Program!

Our second resident, Dalga Surofchy, PharmD, is currently pursuing clinical opportunities. We will miss him but wish him the best as he continues to grow his talents and expertise within the pharmacy world!

We are looking forward to welcoming our third resident, Janet Cantada! Janet will be joining us in July from Loma Linda University, where she has completed her pharmacy degree. She received a Bachelor's degree in Chemistry at San Diego State University (2013). Janet will have shared learning experiences with both Ralphs Pharmacy and UC San Diego Health clinics in addition to teaching and research responsibilities. Please look for her in July and extend a warm welcome on behalf of the SSPPS family!

Lastly, we are proud to announce that the American Society of Health-System Pharmacists has accredited our program for a three-year period. Many thanks for the ongoing support of the program from our UC San Diego faculty, Ralphs Pharmacy preceptors and partners, Dean, and Associate Deans. Looking forward to another successful residency year!





The innovative SSPPS PGY1 Community Residency program prepares pharmacy residents to be community-based advanced practice pharmacists with direct patient care skills including comprehensive medication management, innovative clinical programs, leadership in pharmacy practice management, education, and practice-based research. Graduates are prepared to provide patient care services to meet the needs of members of the community and are eligible for board certification and postgraduate year two (PGY2) pharmacy residency training. For more information about the residency program, please visit <http://pharmacy.ucsd.edu/faculty/residents.shtml>.

## UC San Diego Academy of Managed Care Pharmacy (AMCP) Team Reaches National Pharmacy and Therapeutics Competition Finals for 3<sup>rd</sup> Time in Four

By Jefferson Luong, P1

Our own UC San Diego Pharmacy and Therapeutics (P&T) Team of Trinh Nguyen (P2), Timothy Reynolds (P2), Victor Tang (P2), and Kelly Chan (P1) again reached the National Finals as one of the **top eight teams** out of more than 60 pharmacy schools across the country at the 18th Annual National Student Pharmacist P&T Competition at the Academy of Managed Care Pharmacy (AMCP) Managed Care & Specialty Pharmacy Annual Meeting 2018 in Boston, MA. This year, the drug for P&T consideration was the combination insulin degludec/liraglutide pen (Xultophy) 100/3.6. The teams completed a challenging monograph and multiple evidence reviews, then presented to a panel of pharmacist judges at our UC San Diego SSPPS local competition. Winners of the local competition submitted to AMCP for consideration for the national finals. Remarkably, this marks the third time in four years in which UC San Diego's team made it to the national stage. This year's first place winner was the University of North Carolina. Special thanks goes to 2017-18 P&T Coordinator Jincheng Yang (P3), Chapter President Kathy Linh Nguyen (P3), our AMCP chapter advisors, Dr. Jonathan Watanabe and Dr. Sara Carruth, and also to our local competition judges, Dr. Jan Hirsch of SSPPS, Dr. Carolyn Szigethy of MedImpact, and Dr. Vincent Lin of Kite Pharmaceuticals, a Gilead Company. Please contact P&T coordinator Timothy Reynolds at [tgreynol@ucsd.edu](mailto:tgreynol@ucsd.edu) if you have questions about the P&T Competition.

For more info please visit <http://www.amcp.org/Newsletter.aspx?id=23417>



From left on stage: Victor Tang (P2), Kelly Chan (P1), Trinh Nguyen (P2), Timothy Reynolds (P2)  
UC San Diego Team with UC San Diego AMCP Alumni at Annual Meeting in Boston, MA



## Academy of Managed Care Pharmacy (AMCP) P & T Finals 2018

By Jonathan Watanabe, PharmD, PhD

Taking a moment to recognize our four amazing UCSD SSPPS student teams that reached the National Finals for the Pharmacy and Therapeutics (P&T) Competition in Boston. One of eight teams to make the final cut after 46 schools submitted and more than 60 schools began the process. While North Carolina won the P&T this year, our students performed extremely well with a new format and shorter timeline. This was our most “precocious” team to reach the Finals (Remarkably three P2s and a P1).

Great work Trinh Nguyen, Victor Tang, Tim Reynolds, and Kelly Chan. They brought home a National Finalist plaque to check out in the Deans' Suite display case.



Thanks to Kathy Nguyen, P3 and Jincheng Yang, P3 for serving as student coordinators. Special thanks to judges for our local competition, Dr. Jan Hirsch, Dr. Carolyn Szigethy from MedImpact, and Dr. Vince Lin from Kite Pharmaceuticals, a Gilead Company, and to the faculty that lectured in the elective. Thanks to the excellent AMCP co-advisor, Dr. Sara Carruth. It takes a great team to build a great team.

# Energy Boost of Inter-professional Collaboration at the UC San Diego Student-Run Free Clinic Project

By Anne Gerd Granaas, Fulbright Scholar at SSPPS

*As we arrive at the parking lot, the smell of dust and dinner fills the air. A handful of dubious characters spot Dr Eduardo Fricovsky through the car window. They shout out greetings in English and Spanish, wave their arms and grin, as if we were long expected movie stars. And indeed: Their beloved pharmacist of the San Diego Downtown Free Clinic has arrived.*

On the short car ride from the posh UC San Diego La Jolla Campus, Eduardo shared with me how he fought to get an education, growing up in one of the poorer neighborhoods of San Diego. His father struggled to keep a job. His mother had serious health issues. Himself, he was always eager to get a good education and at the same time care for his family. As I try to comprehend where his seemingly endless energy comes from, he keeps name-dropping and praising more than a dozen people who supported him as a pupil, a student, and as a young pharmacist. We eventually exit the car and elbow our way through the crowds.

For me, coming from a European country with a free universal healthcare system, the USA has such a different approach to healthcare that it is nearly impossible to compare. So, I will drop any comparisons. My questions are simple: Why do students and residents volunteer? What do they learn by working here? Moreover, how do they interact with the other professions?



Eduardo Fricovsky, Director

## The heart of the Free Clinic

The pharmacy students and residents are super busy and bustling in the “control room” in the Downtown Free Clinic, one of four sites in San Diego. Patients’ names and their clinical or social needs are written on a white board. Shelves and fridges are stuffed with medicines. Dispensing and labelling take place at large tables. There is a buzzing of instructions for the volunteers to go and see such and such patient.

Counseling and health education is provided on topics including first aid, nutrition, hepatitis, diabetes management, drug and alcohol addiction, smoking cessation, blood pressure surveillance, eye disease, mental health awareness, and preventive care. A number of different professions care for the patients: medicine, pharmacy, dentistry, acupuncture, social work, and legal advice. The clinic also collaborates



with the county's Health and Human Services in providing flu vaccines, and the pharmaceutical industry supports them with pneumonia vaccines and free prescription medications.

Soon, they will also provide shingles vaccines.

The core values of the clinic are clear: *"In partnership with the community, our mission is to provide respectful, empowering, high quality health care for the underserved while inspiring the next generation of health-professionals."*

### How do students find the work at the clinic?

"Here at the clinic, we equip students to address the social, cultural, religious and linguistic challenges, in addition to the usual pharmaceutical challenges. It enhances the way they see all people, from the humanistic side of medicine. Most of our patients are undocumented, and afraid of deportation. The students get first-hand experience with mostly Hispanic patients. For this reason, SSPPS also teaches an elective course on consultation and education in Spanish, and even has an OSCE in Spanish. Half of our students take the introductory course and 8-10 take the advanced conversational Spanish curricula."



### A step at a time: From foot care to diabetes care clinic

Many of the clinical services provided by pharmacists here at the Free Clinic are not common in Europe. At USCD, first-year pharmacy students are trained to both give vaccines and examine patients' feet. It makes me wonder if European pharmacists are too reserved in expanding their professional role.

Eduardo explains: "We have a large diabetic population that takes an average of 7-8 medicines a day that we monitor. We also run a diabetic foot clinic, identifying ulcers and trying to prevent amputations. We also provide free diabetic shoes, socks, glucometers and test strips to prevent short- and long-term complications."



### What can other countries learn from how you set up the Free Clinic for underserved patients?

Eduardo sighs a little. "You know, we all go through ups and downs. I can only explain this from a humanistic outreach perspective. In the USA, I am encouraged to see how willing people are to help to improve the wellbeing of our communities, be it pharmacists, lawyers, doctors, surgeons, dentists, schools or churches. Maybe our model can help address some of the challenges Europe or elsewhere is facing, especially with the large immigration of people with little resources that challenges your health care system. Our pharmacy students are trained to identify, assess, and address new health disparities and barriers to

access to care affecting a diverse immigrant population. We need to deal with illiteracy, food and housing needs, access to free medications and learn to be sensitive to religious and cultural barriers.”

### **Which students choose to work as volunteers?**

“I am very proud of our engaged students. Their hard work and dedication has made our community healthier and has helped to prevent the spread of flu and hepatitis A. All of our first-year pharmacy students have to do an introductory pharmacy practice experience through the Free Clinics. For the majority of pharmacy students this is their first experience working with the underserved community. Afterwards our students engage in afterschool service learning activities that involve providing immunizations, smoking cessation, medication therapy management, education and consultations.”

### **Filling in the health care gap of the underserved – a team effort**

Unquestionably, the 120 students, 8 residents and 10 volunteer faculty staff who annually run the Free Clinic, fill a gap in the health care system for the underserved population in San Diego. The Free Clinic also provides an invaluable learning arena where younger students absorb knowledge and skills from older students and professional pharmacists.

My strongest impression from my visits to the Free Clinics is without a doubt the inter-professional approach during patients' consultations: the different professions sitting shoulder to shoulder is nothing less than amazing to observe.

*Four hours and 120 dispensed prescription items later, it is time to store away pill containers and to go home. Dr. Fricovsky waves goodbye as another interprofessional team effort has helped patients the community that he loves.*



### **Interested to learn more about the UCSD Student-Run Free Clinic Project?**

<https://medschool.ucsd.edu/som/fmph/education/freeclinic/pages/default.aspx>



# Office of Admissions and Outreach Student Ambassadorship Program

**By Rabia Atayee, PharmD**

The Office of Admissions and Outreach established a Student Ambassadorship Program in the 2017-2018 academic year. Who better to represent our school than our current students? The interaction between current students and prospective applicants allows discussion surrounding what is most important to students in selecting their pharmacy school of choice and what makes a successful Skaggs student.

In this Ambassadorship program, first, second, and third year student pharmacists are selected to represent Skaggs in the admissions process and outreach recruitment events. In addition to interviewing applicants, Student Ambassadors also participate in the following events as directed by the Office of Admissions and Outreach:

- Lead, recruit other student colleagues to participate in student host room and campus tours during interview days
- Participate as student panel speakers in the biannual Open House event, where we invite prospective students to our campus to learn more about our school
- Present to pre-pharmacy clubs at universities, to students at high schools and participate in various pre-health events promoting our school and our profession, respectively
- Correspond with applicants in person or via email who have questions about the student experience
- Create and assist in providing content for social media to feature the success of Skaggs, our students, faculty, and alumni.

The Office of Admissions and Outreach, including Kim Ciero, Terry Le, and Rabia Atayee hold quarterly meetings with the Student Ambassadors to highlight the work they achieved and to plan for future events.

## **The Impact of the Student Ambassadorship Program on Admissions and Outreach** **By Courtney Moc, P3**

As Student Ambassadors, our goal is to make an impactful impression on prospective students about our Skaggs experience and student life. Our experiences provide the prospective students with a detailed and first-hand source of what it is like to be a student at Skaggs. In addition to the Student Ambassador efforts, we encourage our current students to get more involved during our admissions process, especially spending time with prospective applicants in the student host room

and outreach recruitment events because we all have different experiences. By providing the prospective students with various experiences, they can truly see and feel whether SSPPS is the right school for them.

Being a representative for our school, we participate in interviews, which is extremely beneficial for the school and for us as students at Skaggs. We know what it takes to be a successful student at our school and because of our experience we can determine whether prospective students will fit



into our Skaggs culture and succeed as our colleagues. Looking forward to the future, I hope our Student Ambassadors will be more cohesive and proactive to implement great ideas to highlight our amazing school and transform our interviewing process. To make this happen, we will have to start from the foundation of the Student Ambassadorship program: students themselves as well as the structure of the program. I hope student will continue to eagerly represent our school, showcase what our school has to offer, and work together to brainstorm. In regard to the structure of the program, as mentioned above, prospective students would greatly benefit from multiple experiences shared from our Student Ambassadors. As a result, I would advocate all of the Student Ambassadors attend certain events such as our biannual Open House and our student host room during the interview process. I hope Student Ambassadors continue to participate in recruitment events as they are identified and further expand recruitment by establishing a



forum for prospective applicants and pre-pharmacy societies who would like to get a glimpse of our pharmacy school. This forum would provide prospective applicants the opportunity to shadow current students for a day to mimic what it is like to be a pharmacy student at Skaggs by attending classes, student organization meetings, and even our free clinic. I believe we can inspire those who are unsure of what they aspire to do, show what pharmacy has to offer as a profession and showcase the flavors of what being a pharmacy student is like at Skaggs. From my own experience as a student ambassador in the past year, I think by being integrally involved with the Outreach and Admissions process, we can provide input and improve efforts in both areas. As Student Ambassadors, it is our hope that we can impact our future classes, alumni, and ultimately our profession.

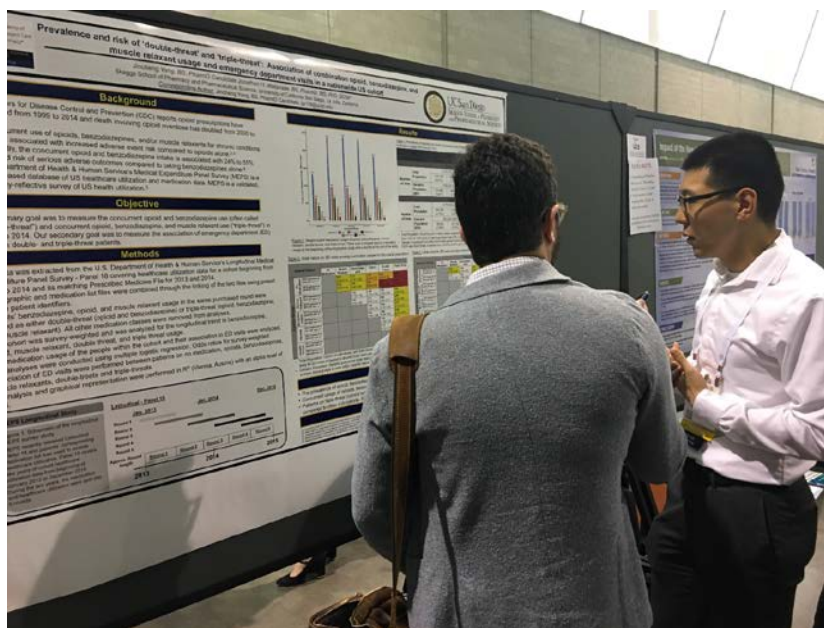
## Student Research News

### Student Receives Bronze Medal at AMCP Annual Meeting

By Trinh Nguyen, P2

In April, Jincheng Yang, P3 received a Bronze Medal at the AMCP Managed Care & Specialty Pharmacy Annual Meeting 2018 (Boston, Massachusetts) for his research abstract titled “Prevalence and Risk of Double-Threat and Triple Threat: Association of Combination Opioid, Benzodiazepine, and Muscle Relaxant Usage and Emergency Department Visits in a Nationwide U.S. Cohort”, which was co-authored by Dr. Jonathan Watanabe. The abstract was peer-reviewed by other professionals.

Jincheng's research was a retrospective cohort study. Using medical expenditure data, the study shed light on an important aspect of the opioid epidemic. Double-threat refers to concurrent use of opioids and benzodiazepines, and triple-threat refers to opioids, benzodiazepines and muscle relaxants use. Jincheng calculated the odds ratios of



emergency department (ED) visits between triple and double-threat patients and patients who were on only one medication at a time. The results were calculated for the general population and the geriatrics population. It was found that patients on triple threat had much higher odds of ED visits compared to other groups.

More details can be found here: <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2018.24.4-a.s1>

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## **SSPPS News**

### **When Drugs are Wrong, Skipped or Make You Sick: The Cost of Non-optimized Medications**

**By Heather Buschman, PhD**

Rising drug prices have gotten a lot of attention lately, but the actual cost of prescription medications is more than just the dollars and cents on the bill. Researchers at Skaggs School of Pharmacy and Pharmaceutical Sciences at University of California San Diego estimate that illness and death resulting from non-optimized medication therapy costs \$528.4 billion annually, equivalent to 16 percent of total U.S. health care expenditures in 2016.

The analysis is published in the March 26 online issue of the [\*Annals of Pharmacotherapy\*](#).

"Ideally, when you're sick, a health care professional prescribes you a medication, you take it as directed and you get better," said Jonathan Watanabe, PharmD, PhD, associate professor of clinical pharmacy in the Skaggs School of Pharmacy. "But what happens a lot of the time is the medication regimen is not optimized. In other words, the prescription may not be exactly appropriate for your indication — not quite the right medication or dose — or you just don't take the medication for whatever reason, don't take them as directed, or the medication causes an adverse event or a new health problem."

Watanabe led the study with Jan Hirsch, PhD, professor of clinical pharmacy and chair of the Division of Clinical Pharmacy at Skaggs School of Pharmacy, and Terry McInnis, MD, of Laboratory Corporation of America and the Get the Medications Right Institute.

Here's an example of non-optimized medication therapy: You come down with the flu and visit the local hospital's emergency department. A doctor prescribes Tamiflu, but you don't fill the prescription. It's too expensive or you don't have time or energy. Your symptoms worsen and you end up back at the hospital, and eventually in the Intensive Care Unit (ICU) — all at great



Jonathan Watanabe,  
PharmD, PhD



cost to yourself as the patient, as well as to the hospital and insurance company.

But the problem isn't just nonadherence (not taking the medication at all, or not taking it as directed), Watanabe said. Non-optimized medication therapy also includes instances in which a medication contributes to a new health problem. For example, the ACE inhibitor you're taking to lower your blood pressure causes you to cough, so you take an over-the-counter cough-and-cold medicine that also includes an ingredient that increases blood pressure and raises the risk of sleepiness and falls.

"In that case, the drug treatment is functioning like a new disease," Hirsch said. For this study, Watanabe, Hirsch and McInnis created decision analytic models of the many health outcomes that could ensue due to a treatment failure or new treatment-caused medical problem, including emergency department visits, hospitalization, long-term care, medical appointments and additional medications. The data came from a variety of validated sources, including the federal government and the National Nursing Home Survey. The researchers considered the current cost of each possible consequence and estimated the total annual cost of illnesses and deaths that result from non-optimized medication therapy to be \$528.4 billion, with a plausible range of \$495.3 billion to \$672.7 billion. They estimated that the average cost of an individual experiencing treatment failure, a new medical problem or both after initial prescription use to be approximately \$2,500. The estimates did not include non-medical costs such as transportation or caregiving or indirect costs related to lost productivity.

This is the first time these data have been updated since 2008, when it was last estimated to cost \$290 billion annually, or about 13 percent of U.S. health care spending at that time. Watanabe said a lot has happened since.

"We've experienced increased medical costs and we now have the Affordable Care Act, which gave 20 million more people access to prescription drugs and, as a result, more chances for nonadherence and medication-related health issues.

"Our study also clarifies that the cost of \$528.4 billion is due to much more than simply nonadherence, which has been a misinterpretation of prior estimates, but also includes any situation when the medication regimen is not optimized to correctly and safely treat something treatable."

While the estimate is the best researchers can make based upon available data, they acknowledge uncertainty in the probabilities of the predicted outcomes. Watanabe said better coding and tracking systems, now being rolled out in many health systems, will improve monitoring of medical outcomes related to medication therapy — and help prevent problems.

"Non-optimized medication therapy is a massive avoidable cost. If medications were prescribed, monitored and taken properly, we wouldn't face this cost, and patients would be healthier," he said.

To improve outcomes and lower costs, Watanabe and team propose expanding the presence of direct patient care models by clinical pharmacists in collaboration with prescribing clinicians, a process known as comprehensive medication management.



Jan Hirsch, PhD

There are many evolving models of pharmacists providing enhanced medication management services. Across the U.S., pharmacists review medications as part of the federal Medicare-mandated Medication Therapy Management program. Pharmacists in some states, including California, also have provider status, meaning they can initiate, change or end a patient's prescription in a collaborative agreement with prescribers. In other models, pharmacists work with prescribers and other members of a patient's health care team to review medications and recommend medication regimen changes under a prescriber's supervision.

To improve medication-related care, Watanabe and co-authors wrote that they would like to see a systematic and coordinated effort to break down prescriber-pharmacist silos and expand comprehensive medication management programs, in which clinical pharmacists have access to complete medical records, improved dialogue with other members of a patient's health care team and input as a medication is prescribed — similar to what is now taking place at many U.S. Veterans Affairs clinics.

Meanwhile, their study findings are already being used to support several national initiatives to improve medication management.

"Pharmacists and pharmacies are the most readily available health care access point for most people, and their role will likely expand as the health care landscape shifts to emphasize more community-based and ambulatory care," Watanabe said. "Simply put, pharmacists can help optimize medication regimens to produce the best outcomes at the lowest cost."

This research was supported, in part, by the National Institutes of Health Loan Repayment Program through the National Institute on Aging.

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## Host Jean-Pierre Changeux honored with 2018 ALBERT EINSTEIN World Award of Science

Prof. Jean-Pierre Changeux, Emeritus Professor of Neuroscience at the Institut Pasteur and Collège de France has been selected as the winner of the 2018 ALBERT EINSTEIN World Award of Science.

The eminent scientist has made contributions to multiple fields of investigation, from molecular neurochemistry to the theory of consciousness. In the Human Brain Project he leads the Co-Design Project "[Modelling Drug Discovery](#)" which uses molecular dynamics simulations for the design of new classes of drugs targeting allosteric sites of receptor proteins. He also has been a founding member and later leader of the research area [Ethics and Society](#) in HBP and will be a keynote speaker at the [HBP International Conference on Consciousness](#) from June 21-22 in Barcelona. The prize is awarded in recognition of his exceptional scientific achievements and leadership in the field of neuroscience and especially for his pioneering contributions to the science and understanding of neuroreceptors for the past 50 years. Professor Changeux's breakthrough discovery of the acetylcholine receptor as a model membrane receptor



was ground-breaking since it has proven to be one of the most central regulatory mechanisms in biology. This has led to an original insight into the chemistry of the brain and ultimately the brain-mind relationship.

The jury acknowledged the significant impact of his research on healthcare and on our understanding of human neural processes. Professor Changeux's deep thought on the mechanism of neural networks has narrowed the gap between molecular biology and cognitive sciences.

At the beginning of his career in the 1960s, working with Jacques Monod, François Jacob and Jeffries Wyman, he made a breakthrough that led to the development of the theory of allosteric transitions in proteins. This now well-established theory postulated that regulatory ligands control the activity of the active sites of enzymes when they bind to topologically distinct sites.

Soon after, Professor Changeux proposed a similar concept to explain the behavior of synaptic receptors for neurotransmitters. During the decades that followed, he proved this hypothesis too. He characterized and purified the acetylcholine receptor from the electric organ of a fish, the first receptor for a neurotransmitter and ligand-gated ion channel to be identified.



Jean-Pierre Changeux, PhD



Further studies have shown that human diseases are associated with mutations that change the conformational equilibrium of allosteric proteins, including growth factor receptors. Furthermore, many of the drugs developed to modulate receptors coupled to G proteins are in fact allosteric modulators. Currently, many pharmaceutical and biotechnology companies are developing allosteric modulators of receptors or other key proteins in human cells for use as efficient drugs in neurological disorders as well as other diseases including cancer.

Moving from the molecules and the isolated neurons or muscle cells to the development of neuronal networks, Professor Changeux and his colleagues made a far-reaching contribution by first proposing in mathematical terms and then testing the theory that the long-term epigenesis of neuronal networks occurs by the selective stabilization and elimination of developing synapses.

At the same time, Jean-Pierre Changeux and his colleagues proposed theoretical models for defined cognitive tasks that bridge the gap between molecular biology and cognitive sciences and where allosteric receptors play a key role in the regulation of synaptic efficacy. Furthermore, they put forward an original

hypothesis describing a neuronal mechanism for conscious access, implying a “global neuronal workspace” composed of a brain-scale horizontal network of reciprocally connected long axon pyramidal neurons.

Jean-Pierre Changeux has been concerned about the ethical consequences of recent progress in neuroscience for medicine and for society in general, and has made it widely known in his popular work *L'homme neuronal*, (*Neuronal Man: The Biology of The Mind*), 1983, and his book with the philosopher Paul Ricoeur *La Nature et la Règle* (1998), *What makes us think?* a neuroscientist and a philosopher argue about ethics, human nature and the brain 2000. This major work was followed by books on the way we perceive paintings and music or how we think and speak, all of which were further enhanced by his vast knowledge of art, music, history and philosophy. During his career, he has accumulated a vast collection of works of art, mostly paintings, lithographs and prints of the seventeenth century. Part of this was donated to the Bossuet Art Museum in Meaux.

Professor Changeux has received many major scientific acknowledgements and prizes, among them the Wolf Prize in Medicine (1983), Grand Prix de la Fondation pour la Recherche Médicale (1997), the Linus Pauling medal (1999) and the Balzan prize (2001). He was invited to become a member of various academies of Science and Letters, among them Academia Europaea, Accademia dei Lincei, Leopoldina and the French Académie des Sciences. He is *doctor honoris causa* of almost twenty universities worldwide.

This year the World Cultural Council will celebrate its 35th Award Ceremony on Thursday 8th November 2018 at 2:30 in City University of Hong Kong, Hong Kong. This innovative university is an ideal environment for recognizing the outstanding achievements of the WCC's laureates and celebrating the inspiration that they bring as role models for future generations.

As part of the programme, the WCC, in cooperation with City University, organizes Laureates' Lectures to create an opportunity for interaction between the local community and the winners. These lectures will take place on Wednesday 7th November. During the Award Ceremony, the World Cultural Council will grant special acknowledgements to young researchers or scholars from Hong Kong who have achieved outstanding performance in the fields of science, education or the arts. This year, nine promising young research leaders from City University Hong Kong will receive a Commemorative Diploma for their exemplary work at an early stage of their careers. For more than three decades the World Cultural Council has been recognizing individuals that have made exceptional achievements in science, education and the arts, with the final objective of promoting tolerance, peace and fraternity, seeking to encourage the use of science, art and education to further the well-being of humanity.

Text adapted from World Cultural Council press release

Related links:

<http://www.consejoculturalmundial.org>

<http://www.cityu.edu.hk/2018-wcc/>



# UC San Diego Geriatrics Workforce Enhancement Program Host First Homeless Healthcare Summit for Older Adults

By Bitá Naderi, PharmD

The UC San Diego Geriatric Workforce Enhancement Program (GWEP) recently held the first ever Homeless Healthcare Summit at UC San Diego. The vibrant, all-day event focused on challenges in caring for homeless geriatric patients and how these challenges can be overcome via interdisciplinary efforts. An overall theme of the event was the importance of an interprofessional team approach towards caring for this vulnerable and complex patient population with an emphasis on pharmacy and medication-related outcomes.

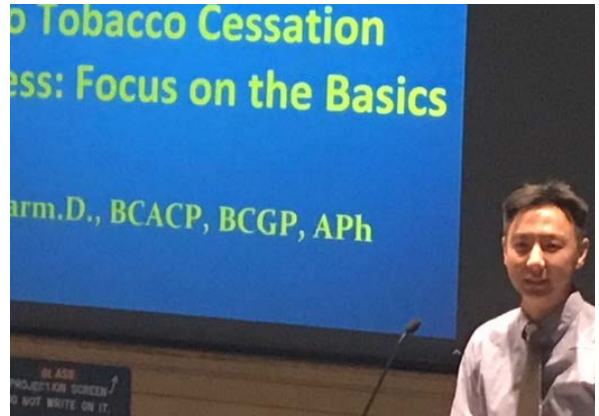
As the current UC San Diego SSPPS GWEP Fellow and Homeless Healthcare Summit Planning Director, I moderated the sessions and panel with Richard Bodor, MD, Director of Spinal Cord Injury Wound Care at VA San Diego Healthcare System (VASDHS).

Professionals from a range of healthcare backgrounds who specialize in working with the homeless population presented. This included Karis Grounds, MPH from 2-1-1 San Diego who discussed the community and health services her organization provides to those who are homeless in San Diego.



From left to right: Carmelo Veneracion, PT, Merce Veneracion, PT, Jonathan Watanabe, PharmD, PhD, Vera Sverdlovsky, MD, PhD, Bitá Naderi, PharmD

work together to improve patient health and better coordinate the care that homeless patients receive. The summit ended with all attendees sharing one thing they plan to do differently in their clinical practice to improve the care of homeless patients. More than forty healthcare workers attended the



Dr. Timothy Chen describes smoking cessation treatment considerations for homeless patients

VASDHS social worker, Helena Harvie, LCSW, brought awareness to barriers that homeless older adults often face when attempting to find housing. Director for the National Tobacco Cessation Clinical Resource Center (TCCRC) at VASDHS Timothy Chen, PharmD, BCACP, BCGP, APh discussed the prevalence of tobacco use disorder in the homeless population, the severe implications it can have on their health and comorbid conditions, and nonpharmacological and pharmacological interventions that healthcare professionals can use to assist in smoking cessation. Beth Palmer, DNP, a primary care provider serving homeless veterans at VASDHS, focused on how best to address cardiovascular disease in these patients.

The day culminated with a panel of several speakers who addressed questions and discussed with the audience ways in which all members of the healthcare team can

event from different institutions including UC San Diego, VASDHS, San Diego Program of All Inclusive Care for the Elderly (PACE), Eisenhower Medical Center, and St. Paul's PACE.

This event was funded by a grant from Health Resources & Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services. The goal of the grant is to improve geriatric healthcare, particularly in underserved populations, by designing new and innovative interprofessional clinical training environments led at San Diego by program director Diane Chau, MD with Jonathan Watanabe, PharmD, PhD, BCGP directing the SSPPS GWEP program. To find out more about this program please e-mail me at [bnaderi@mail.ucsd.edu](mailto:bnaderi@mail.ucsd.edu).

## SSPPS Strategic Plan

By Jenna Bastear, MA

The 2017-2022 SSPPS Strategic Plan (<https://pharmacy.ucsd.edu/about/strategic-planning.shtml>) encompasses school-wide initiatives and strategic plans for education and training, clinical division, and pharmaceutical chemistry and pharmaceutical sciences divisions. School-wide initiatives include four areas: Graduate Programs, Informatics and Data Science for Big Data, Pharmacogenomics, and Optimize Drug Therapy Response. SSPPS faculty and staff look forward to working with each other and our collaborators to achieve and exceed these strategic goals and objectives.



Photo taken at the SSPPS Strategic Planning Retreat on November 16, 2017



## SSPPS Faculty News

### National Academy of Medicine (NAM) Emerging Leaders Forum

By Palmer Taylor, PhD

For the past two years, Dr. Jonathan Watanabe, Associate Professor of Clinical Pharmacy, has served as the Pharmacy Fellow at the NAM in Washington, DC. This is a designated part-time position, where Jonathan's expertise in pharmaceutical development, regulation, education and practice is proffered to select *ad hoc* working committees of the National Academies of Science, Medicine and Engineering. Periodic working group consensus reports are issued that enhance public understanding and guide legislative issues, scientific endeavors and professional practice standards in science and health care. Jonathan has provided a unique niche of expertise to several committees that address contemporary issues related to pharmaceuticals and pharmacy practice. Nearing the completion of his term as fellow this summer, President Victor Dzau and the leadership board of the NAM invited him to become a member of the National Academy of Medicine Emerging Leaders Forum, for a three-year term.

Members of the forum engage in, experience, learn and develop activities affecting healthcare and medicine under the umbrella of the NAM. Not only is it great to have pharmacy, as a discipline, represented in the forum and dealing with contemporary, cross-disciplinary challenges in health and medicine, but we have our school, the university and State of California well represented on the banks of the Potomac River. Let us hope that Jon finds Washington DC summers hot and muggy and February-March snows sufficiently contentious that he doesn't catch the politician's Potomac fever.

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## Alumni News

### Forty Under Forty

In connection with UC San Diego alumni weekends and graduation, highlighting our alumni of the classes of 2008 and 2013, ten and five years post-graduation, respectively, Emeka Okeke in the class of 2012 received a UC San Diego campus-wide, "Forty Under Forty Award" for leading student and resident endeavors in Nigeria. Emeka, Hein Tran, Bayan Yaktieen, Christine (Luu) Cadiz, Echezona Okila, Whitney Dickson, Kevin Me and others have replicated in Nigeria the efforts of our Student-run Free Clinics in San Diego, coordinated between the schools of pharmacy and medicine at UC San Diego.

The efforts of this group have expanded to other critical health endeavors in therapeutics and pharmacy practices in the Anambra State of Nigeria, such as the RISE Clinics, Nigeria and the RISE Global Health Initiative, both associated with the prevention and treatment of seizures and emerging from the Nigeria Epilepsy Care Advanced Program (NECAP). In Nigeria, periodic seizures that can be treated relatively inexpensively with generic pharmaceuticals are often overlooked, since a common element in past cultures was associated with these individuals being bewitched by unknown forces.

Prenatal care, labor and delivery, and post-natal care to mothers and children have been other team priorities that prevent life-long complications attributable to unsanitary delivery practices and improper post-natal and early childhood care.



Indeed, these efforts and UC San Diego's student contributions have to be carefully coordinated within the Nigerian states. Although Anambra State is free from terrorism within the state, getting there requires flying from Lagos. Pictures from Anambra show large numbers of patients at these clinics and attending the educational programs. They attend resplendent in their native dress and anxious to learn more about western medicine and pharmaceutical care. Through Emeka's binational efforts, coordination with neurologists at Stanford along with his classmates and resident colleagues, SSPPS has set a global footprint for pharmaceutical care.

## Library News

### UC San Diego Biomedical Library

#### Recent Changes and Addition to Our Drug Resources

- **VIDAL Vademecum – NEW**

ViDAL Vademecum includes PDR-like resources that contain information on drugs from Latin America, including Mexico. UCSD has access to the drug resources for Spain, Mexico, Chile, Latin America, France, and Germany. These databases are in the original language of each country. Use the Consult database to search over 40 countries and to also get a generic record for a specific drug in English language.

- **AHFS Drug Information – NEW INTERACTIVE VERSION**

This is the new interactive online version of this classic drug compendium, published by ASHP. You will need to create a free personal account the first time you access the database. Print editions are also available at the Biomedical Library Building.

- **Handbook on Injectable Drug (Trissel's) – NEW INTERACTIVE VERSION**

This is the new interactive online version from ASHP. Print editions of this textbook are also available at the Biomedical Library Building. ASHP's Handbook on Injectable Drugs™ is designed for use as a professional reference and guide to the literature on the clinical pharmaceuticals of parenteral medications.

- **USP-NF – PRINT EDITIONS ONLY**

The library no longer subscribes to the online version of the U.S. Pharmacopeia – National Formulary, due to a major change in electronic accessibility by the publisher. Print editions are still available at the Biomedical Library Building, in the Reference collection on First Floor.

## **Erik T. Mitchell Named New Audrey Geisel University Librarian**

The Library is delighted to welcome Erik Mitchell, PhD as the new Audrey Geisel University Librarian. Michael formerly served as Associate University Librarian of Digital Initiatives and Collaborative Services and associate chief information officer at UC Berkeley.

Read more about Mitchell in our blog post <<http://libraries.ucsd.edu/blogs/blog/erik-t-mitchell/>>.



## **Dimensions: A New Tool to Discover Information! University Librarian**

Announcing a new Research Information Platform!

*Dimensions* is a linked research data tool with information on publications, research funding, patents and clinical trials - all on an international scale. *Dimensions* is designed to help anyone involved in research gain better knowledge about what is going on in their research area, and how this is changing over time.



You can start using *Dimensions* by going directly to <https://app.dimensions.ai/> or through the Library website at <http://ucsd.libguides.com/az.php>



Some examples of things you can do:

- Discover the latest publications, awarded funding, clinical trials or patents worldwide.
- Find unbiased analysis of the research activity, including citation metrics.
- Identify new sources of research funding for future funding applications.

A "Quick Start Guide" video, describing how to use Dimensions, can be found [here](#), and also on the front Dimensions support center page.

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## UC San Diego Biomedical Library

9500 Gilman Drive 0699  
La Jolla, California  
92093-0699

**Penny Coppernoll-Blach, MLS**  
Biomedical Library Liaison for SSPPS  
**[pblach@ucsd.edu](mailto:pblach@ucsd.edu)**  
**(858) 534-4431**

**Email Reference Service:**  
[biomed@ucsd.edu](mailto:biomed@ucsd.edu)

**Visit the library website for hours:** <http://scilib.ucsd.edu/bml/>

**Proxy Access to Library System:** - [pharmacy@ucsd.edu](mailto:pharmacy@ucsd.edu)