

One who mixes ingredients, drugs or medications: a pharmacist

Kāwili Lā'au

The Daniel K. Inouye College of Pharmacy at the University of Hawai'i at Hilo
Winter 2019 • Volume 11, Issue 2



Committing to the 'Oath of a Pharmacist'



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Dean's Message



Students who only this year went through their White Coat Ceremony are just beginning to build upon a professional network that will last them throughout their lifetime. Relationships in pharmacy and healthcare can run deep. I often hear from our young alumni, that they met someone who one of our faculties trained with, or worked with back in the day.

I'm pleased to welcome Dr. Mahoe (Class of 2016) or "Jai" as we called him as a student, as an alumni contributor for a new column. Jai, who distinguished himself after graduation with two post-graduate residency programs, will share his experiences as a professional and also interview his peers in an effort to show the varied career paths a pharmacy degree can take.

For the third year in a row, the December ASHP Midyear Conference in Anaheim was the "not-to miss rooftop event" for our graduates, faculty and preceptors. Mahalo to the faculty who helped the University of Hawai'i Foundation's Alumni Director Nico Verissimo pull off a star studded evening with great food, camaraderie and the Disney fireworks show.

The importance of networking with other health care professionals along with the advantages of teamwork is highlighted in this issue with the selection of Dr. Maureen Shannon as our Champion of Pharmacy. As a highly respected faculty with UH Manoa's School of Public Health and Dental Hygiene, her spearheading an interprofessional team care project at Oahu's Dole Middle School Student Health Center demonstrates tremendous impact and moves the healthcare needle a bit further ahead in our underserved neighborhood communities.

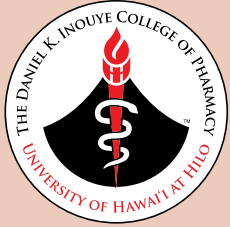
Other stories in this issue are evidence of our hardworking Department of Student Services. Besides the day to day jobs of running student organizations, admissions, recruitment and counseling, every year, this group plans each new arriving classes' orientation, White Coat, annual Health Fair, Career and Jobs Fair, on through to each spring's graduation festivities. As the staff that consistently interacts and supports our students, their dedication deeply roots the Hawaiian 'ohana' (family) experience for our alumni's lifetime.

This issue also explains some intricate work done on the development of nanomedicine, another indication of our commitment to networking and the future. Our researchers not only network with people within UH Manoa but with global researchers.

Through all these efforts, our students, faculty and staff help make the world a little smaller, and a lot more accessible.

A handwritten signature in black ink that reads "Carolyn Ma". The signature is fluid and cursive.

Carolyn Ma
Dean



Kāwili Lā'au

Winter, 2019

Volume 11, Issue 2

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On the cover: The Class of 2022 posed for their formal photo after taking the Oath of a Pharmacist at the White Coat Ceremony. (Photo by Robbyn Peck)





From left: Dr. Roy Goo (Associate Professor and Chair, Department of Pharmacy Practice), Dr. Marina Ortiz (PGY1 Pharmacy Resident), Dr. Garret Hino Jr. (PGY1 Pharmacy Resident), Dr. Gay Antonette Subia (PGY2 Critical Care Pharmacy Resident) and Dr. Sheri Tokumaru (Associate Professor, Department of Pharmacy Practice)

Class of 2022 commit to providing compassionate patient care

Members of the Class of 2022 from the Daniel K. Inouye College of Pharmacy heard words of inspiration from a prominent pharmacist who helped spearhead personalized care in Hawai'i at their White Coat Ceremony on October 14. The event took place in the UH Hilo Performing Arts Center from 2-4 p.m.

The keynote speaker was Byron Yoshino, president and CEO of Pharmicare Hawai'i, a locally owned multi-service pharmacy company based on O'ahu. He is a current member of DKICP's Dean's Council and has been involved in the growth of the College since the beginning.

Yoshino spoke to his future colleagues about his experience opening his first retail pharmacy in 1980 and later founding a company that is now Pharmicare Hawai'i with Richard Sakurada in 1983. The pair began the business by delivering intravenous drug therapy to home patients locally on O'ahu, then statewide and have grown to a company of more than 200 employees with 38 pharmacists. Other staff includes registered nurses, certified dietitians, enrollment specialists and delivery personnel. They offer various health care services including home infusion, specialty pharmacy, retail pharmacy, long-term care pharmacy, pharmacy consulting services and nutrition support at home and in nursing facilities.

He received his Pharm.D. at the University of the Pacific Thomas J. Long School of Pharmacy and has a Business Administration Certificate from the University of Hawai'i's Executive Business Program.

The ceremony, where new student pharmacists recite the Oath of a Pharmacist, signifies a rite of passage for individuals entering their first year in the professional program. This year 82 students were cloaked with a short white coat that symbolizes their student status, clinical care, and the values of the profession.

Three pharmacy residents who are continuing their training with DKICP faculty on Kaua'i and O'ahu and one student in the Ph.D. program also were recognized and received long white coats.

Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language performed the mele ho'ōkipa, or welcoming chant, *Ua Ao Hawai'i*.

DKICP Dean Carolyn Ma and Keegan Sugimoto provided the welcoming remarks. Sugimoto is a Walgreens Pharmacy Manager at the Nuuanu Store on Oahu and a DKICP graduate from the inaugural Class of 2011. Walgreens has been a dedicated supporter of the DKICP white coat ceremonies since 2009. Attendees were also addressed by UH Hilo Interim Chancellor Marcia Sakai and Hawai'i Island Mayor Harry Kim.

A recording of the event may be found on the UH Hilo DKICP channel on YouTube. (Photos by Robbyn Peck)



Dr. Byron Yoshino



Dr. Keegan Sugimoto



“ It was an AMAZING turnout! Overall, this year’s health fair surpassed all of our expectations with attendance, screenings, and vaccinations ”



Annual health Fair connects DKICP with community for 10th time

DKICP presented the 10th Annual Health Fair on Oct. 20 from 10 a.m. to 3 p.m. at the Prince Kuhio Plaza in Hilo.

The annual Health Fair is the College of Pharmacy's largest community outreach event. Members of the public were invited to visit educational health care booths and obtain health screenings, including blood pressure, blood sugar and body mass index (BMI) tests. Vaccinations provided by CVS Pharmacy also were available.

From Dean Carolyn Ma: "With a rainy Saturday, even before the 10 a.m. bell rang, we had a large crowd of people already in our screening booths, watching the performances, and talking to our students and their poster boards. I always hear wonderful feedback as well as enjoy the collaboration of so many other booths and vendors."

As the health fair has grown throughout its 10-year history, many sponsors and local businesses have been responsible for its success through their support, Dean Ma noted. They include HMSA, APhA-ASP, NCPA, Hilo Hawaiian Hotel, Big Island Candies, Grand Naniloa Hotel, Target, Walmart, Safeway, Starbucks, Island Naturals, IHOP, Airgas Gaspro, Zippy's, Wiki Fresh, R. Weinstein, KTA, Chromagraphx and VHO7V.

Booths featuring community organizations, live demonstrations and entertainment were spread throughout the mall. New this year was a "Keiki Korner," designed to educate and excite kids about science. Youngsters learned how to "compound" silly putty and ice cream, and make their own Cartesian Diver, a new booth that demonstrates the principle of buoyancy.

"The fair allows us to help the community by having conversations about various health topics, provide health screenings to give people a general picture of their health, and promote healthy lifestyles," said Tyler Peterson, a student pharmacist from the Class of 2020. "For students, it is a great opportunity to practice our communication skills and putting our classroom knowledge into practice. For the community, it is an opportunity to ask questions relevant to their health and, hopefully, become more motivated to take greater responsibility for their own health and wellbeing."

DKICP health screeners provided BMI, blood pressure, blood glucose, asthma/COPD, and lifestyle/diet modification counseling to 123 community members. About 213 adults and 104 children received passports that allowed them to participate in various raffles and drawings. Local businesses donated more than 40 gift cards that were given to community members who participated in a raffle drawing by "blacking out" their passports and visiting all of the health fair booths. Gift card values ranged from \$5-\$100. Grand prize winners were treated to a one-night stay, and free buffet at the Grand Naniloa and Hilo Hawaiian Hotel.

In addition, CVS provided 79 vaccinations, Project Vision gave 30 people vision screenings, Hawai'i Island HIV/AIDS Foundation (HIHAF) provided counseling points and testing, and the Narcotic



Enforcement Division (NED) collected 34 pounds of medication in their take-back program.

Organizations who participated with booths included AlohaCare, American Cancer Society, American Red Cross Disaster Preparedness, Big Brothers Big Sisters, Big Island Substance Abuse Council, Bone Marrow Registry, Center for the Study of Active Volcanoes, Hawai'i Benefit Solutions, Hawai'i Island HIV/AIDS Foundation, Hilo Vet Center, HMSA, Hope Services Hawai'i, Hui Malama Ola Na Oiwi, MasterCare, NAMI-National Alliance of Mental Illness-Big Island, Partners in Developments, Pillow Case Project, SHARP, SMP Hawai'i-State Executive Office on Aging, The Arc of Hilo, UH Hilo Doctor of Nursing Practice Program and United Healthcare.

The DKICP Health Fair Committee consisted of seven committees: advertisement, community outreach, educational boards, entertainment, fundraising, health screenings, and logistics, overseen by Chair Kathleen Nguyen (Class of 2020).

"We have been planning this event since the 9th Annual Health Fair ended," Nguyen said. "We worked together with various community organizations, student volunteers, and preceptors to ensure that DKICP's largest event of the year was a success. It was nice to see all our hard work unfold after spending months organizing this community wide event."

Student pharmacists prepared for the Health Fair by holding a Mock Fair on DKICP campus October 11, led by Kelsey Trujillo (Class of 2020). They presented educational boards as well as practiced how to interact with community members to relay accurate information about their topic for the actual Health Fair.

"It was an AMAZING turnout! Overall, this year's health fair surpassed all of our expectations with attendance, screenings, and vaccinations," said Tiana L. Ramos (Class of 2021), Health Fair Advertisement Co-Chair. "We're excited to brainstorm new ideas for next year and the Health Fair Committee is already starting to plan ahead."

Follow the DKICP Health Fair on Facebook and Instagram @DKICPhealthfair & Instagram @dkicp_health_fair. (Photos by Tracey Niimi and Tiana Ramos)



Student pharmacists make connections at Career Fair, Interview Day

DKICP held its annual Career Fair on the UH Hilo campus Oct. 26 and Interview Day at the Gold Bond Office on O’ahu Oct. 27. The annual events are for DKICP students only.

Student ambassadors Mary Lui, Vincent Manalo, Karen Pae, and Henry Quach were standing by to welcome company representatives from CVS Health, Hilo Medical Center, McKesson, Safeway, and Walgreens. Before meeting with prospective job candidates, they participated in guided hard-hat tours of the future two-story building that will house DKICP with Dean Carolyn Ma, Interim Associate Dean of Academic Affairs Aaron Jacobs, and Regional Director of Development Andrea Furuli.

They also met with experiential team members Lara Gomez and Jennifer Aguiar as well as the student ambassadors over a full breakfast prior to the start of the fair. For the next few hours, the representatives discussed internship and future employment opportunities with current students. In addition, 13 first-, second-, and third-year students were interviewed for intern positions and four fourth-year students were interviewed for post-graduate positions.

The following day, fourth-year students buttoned up into their professional attire for DKICP’s Interview Day. Company representatives from CVS and Safeway conducted a total of 28 interviews with 19 fourth-year student pharmacists. (Photos by Tracey Niimi)



Office of Student Services works beyond job description

The DKICP Office of Student Services is here to support prospective, current students and alumni on their academic path to becoming successful healthcare providers. The team members in this office work cohesively with each other to advise in-state and out-of-state pre-pharmacy students; conduct transcript reviews; coordinate and attend recruitment visits, fairs, and webinars; create promotional materials; process Pharm.D.

and Ph.D. applications; work closely with internal committees and offices including financial aid and the registrar's office; coordinate events including orientation week, the white coat ceremony, health fair, career fair, interview day, spring awards, and the graduation luncheon and dinner; provide students with academic and personal support; maintain the student handbook; process registration, graduation/degree audits, and enrollment/degree verification forms; assist student organizations; provide scholarship information; and promote student well-being.

"Our Student Services is often the first and last point of contact with DKICP for applicants who become student pharmacists or pharmaceutical researchers, so that interaction can make or break whether someone chooses UH Hilo to continue their education," Dean Carolyn Ma said. "What makes this team unique is their ability to leave their egos at the door as they concentrate on helping potential, current and past students make important decisions."

Daryl Masanda, director of student services and academic advisor, received his bachelor's degree in Sociology from the University of Hawai'i at Manoa. Mr. Masanda joined DKICP in October 2010 and has more than twenty years of Student Services experience including athletics, recruitment, admissions, international student services and advising. He previously worked as an assistant baseball coach at UH Manoa prior to moving to Hilo in 2001. At UH Hilo, Mr. Masanda has worked as a support specialist in the Office of International Affairs and as an admissions officer in the UH Hilo Admissions Office. "I really enjoy working with the students and helping them to find their best self. The staff in Student Services are the most professional team players that you can ever dream of working with. They are really great people whom I truly enjoy working with." Outside of work, he coaches youth and high school volleyball at Kamehameha Schools Hawai'i and also teaches Brazilian Jiu Jitsu to children and adults in Hilo at the BJ Penn Academy. He mostly enjoys spending quality time with his wife and two children.

Kristy Fujii, admissions counselor, is a UH Hilo graduate with a bachelor's degree in Business Administration and an Economics minor. Prior to joining DKICP, she worked at Hawai'i Community College's business office for three years. Kristy initially started as the secretary for the pharmacy practice department in April 2008 and transitioned to her current position in 2010. She's seen several site changes over the years; classes were first held in Wentworth 1 and UCB 100 and there were offices in the USDA Forestry Building and in the Wainaku Execu-



The Office of Student Services includes (from left) Tracey Niimi, Lyssa Sakamoto, Cara Ikeda, Kristy Fujii and Daryl Masanda. (Photo by Reid Kubo Photography)

utive Center. "I truly enjoy working with the people around me. Everyone has different backgrounds and interesting stories to share." She enjoys spending time with her family including her son and daughter, ages 6 and 3. Her interests include reading and watching HGTV.

Cara Ikeda, academic support/graduate admissions specialist, received her bachelor's degree in Business Administration and Accounting from UH Hilo. While completing her undergraduate studies, she worked in the College of Pharmacy's Office of Student Services as an admissions assistant and additionally served as a tutor for UH Hilo's Student Support Services Program. Cara has been with the DKICP Office of Student Services for ten years. When she first started with the college she noted that there were about 20 faculty/staff and today there are more than 60 employees. Some of the highlights of her workday include completing detail-oriented tasks and working with her co-workers and students. She enjoys shopping, binge-watching Netflix, traveling with her husband, and going on walks with her Maltese.

Tracey Niimi, student support specialist, received his bachelor's degree in Business Administration and Accounting from UH Hilo. While completing his undergraduate studies, Tracey worked in the Office of Campus Technology and Distance Learning, the Student Life Center, and served as the College of Business and Economics senator on the UH Hilo Student Association. Following his graduation, Tracey worked as a fiscal and administrative specialist for the Dean's Office in the College of Pharmacy. Tracey started in the office of student services in 2012 where he enjoys working with his co-workers and student organizations. Outside of work, Tracey and his wife are professional photographers.

Lyssa Sakamoto, pre-pharmacy advisor and recruitment specialist, received her associate's degree in Liberal Arts from Hawai'i Community College. She received her bachelor's degree in Administration of Justice and Sociology and master's degree in Counseling Psychology from the University of Hawai'i at Hilo. Upon graduation, she worked as a Student Success Advisor under UH Hilo's Career Development Services and the Advising Center. In 2014, she became an Academic Advisor with the Advising Center. She joined DKICP's office of student services in August 2017. Her favorite part of her job is working with students and being able to help and support them along their academic journey in pursuing their dreams. She's proud to be part of such a strong academic professional team. In her free time she enjoys spending time with her family and friends.

ASHP Midyear Clinical Meeting gives students chance to network, compete, show research

Contributed by Kara Paulachak (Class of 2019), Alan Trinh (Class of 2021), Athena Borhauer (Class of 2019) and Dennis Le (Class of 2019)

The American Society of Health-System Pharmacists Midyear Clinical Meeting (ASHP Midyear) was held from December 2-6 in Anaheim, CA at the Anaheim Convention Center. It is the largest gathering of pharmacy professionals in the world, welcoming more than 25,000 attendees.

The conference offered a plethora of choices, including 175 educational sessions offering 235 hours of continuing education (CE) for pharmacy professionals, a keynote speaker session from Magic Johnson, and an extensive exhibit hall.

Many DKICP student pharmacists were able to take advantage of the learning opportunities at the conference, and with help from faculty members, selected sessions to attend that were most pertinent to their level of training.

"Overall, the conference was a fulfilling experience for those of us lucky enough to attend," noted Kara Paulachak (Class of 2019). "As student pharmacists, there are not many chances to intermingle with so many other professionals who have aligning energy and interests, and the knowledge to be gained was priceless."

Highlights included:

Residency Showcase Sessions

The Residency Showcase spanned throughout two days and consisted of 3 three-hour sessions. Students interested in pursuing a residency were able to meet-and-greet with ASHP-accredited residency programs from around the nation. Speaking to programs of interest allowed students to learn more about each program and

decide which programs may be a good fit for them to enhance their professional growth following graduation. Generally, programs may focus on any area of pharmacy, from acute inpatient care, to ambulatory care, a mixture of both, or even management or community pharmacy. With such a variety of options available, being able to personally enquire and discuss with current residents, program directors, or pharmacy staff about their programs helps students make better-informed decisions for their future pharmacy careers.

Personnel Placement Service

For students interested in the pharmacy industry, ASHP midyear also hosted the Personnel Placement Service (PPS) – the industry's largest and most widely attended national pharmacy recruitment event. The event hosted more than 3,000 pharmacy candidates and nearly 400 employers – including major companies such as Genentech, Eli Lilly, Novartis, and Bayer. Student's signed up for PPS ahead of time and could interview for residency, fellowship, or employment at these companies during the conference. Interviews spanned over 4 days, and students may have as many as 7-10 interviews a day. Interviews and other social events with the participating employers gave



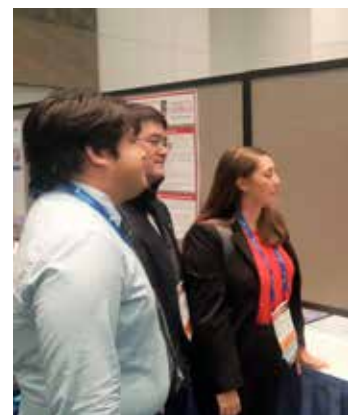
students a great chance to acquire positions in these companies and pursue careers in the industry.

Student Poster Sessions

Students had opportunities to display and discuss projects and research they had completed prior to the conference. At the sessions, students were able to explain their work in an informal setting to those interested, and also garnered feedback for future projects from other pharmacy professionals. For those who were not presenting, the sessions were also a wonderful chance to learn about what kind of research or projects are currently happening or are in the pipeline around the nation for our profession.

Clinical Skills Competition

Fourth-year student pharmacists Athena Borhauer and Dennis Le represented DKICP in the Clinical Skills Competition. They tested their critical thinking skills and clinical knowledge with a complex patient case, competing in the written portion of the competition against 136 other teams. Although they did not make the Top 10 group and present their oral case to the





judges, they said they felt the experience was very rewarding.

Borhauer remarked about competing: "This competition really pushes you to think critically and efficiently. They can ask about any disease state and you and your partner have limited time and access to resources to complete the case."

Le commented: "This was a great experience to test our clinical knowledge against the best in the nation. With the various lectures, a multitude of residency sites showcasing their programs, and pharmaceutical

companies marketing their latest and greatest, ASHP Midyear 2018 was as bustling and chaotic as everyone said it would be."

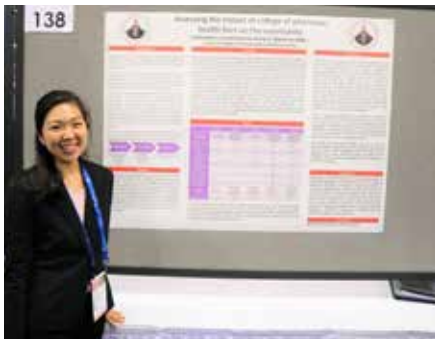
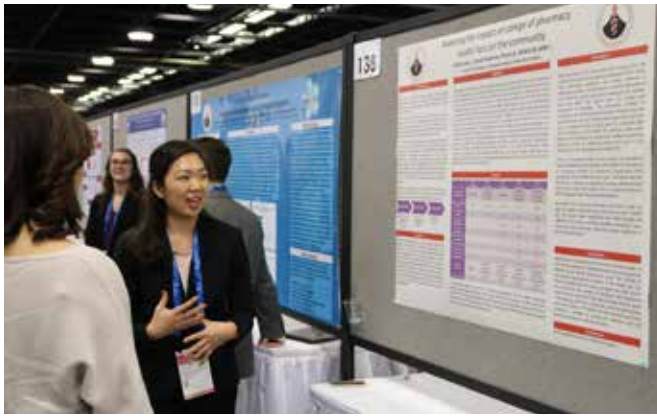
Networking: Student Society of Health System Pharmacy (SSHP)

Hundreds of students from all over the continental United States representing our Student Society of Health System Pharmacy (SSHP) organization began the conference Sunday with introductions and sharing ideas from local chapters. Round table discussions ranged with topics from membership, advocacy for the profession, and how to improve

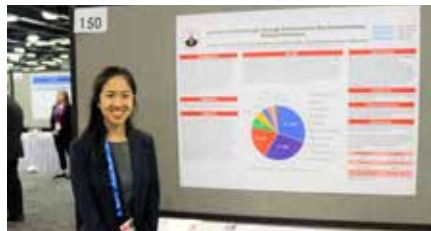
our chapter's performance. Throughout the Midyear conference, there were many workshop sessions to learn about the residency process, get your application answers from representatives from PhORCAS, improve your Curriculum Vitae workshops, and much more. At the end of Sunday, representatives from ASHP recognized our SSHP Chapter that presented a poster on a project that highlighted our involvement in our community ranging from advocacy for the profession to chili cook offs as a fundraiser.



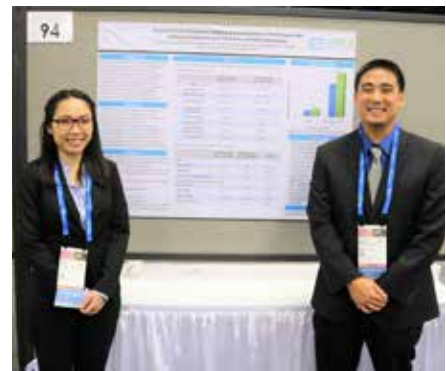
Poster Sessions prepare students for future



Cathlyn Goo



Janet Vu



Vy Tran and Nicholas Pang



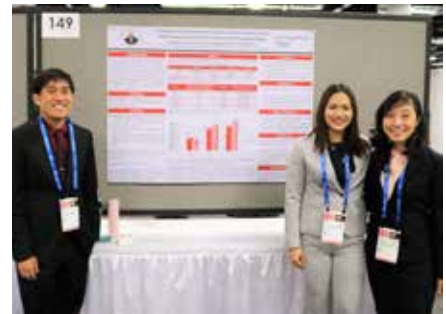
Athena Borhauer



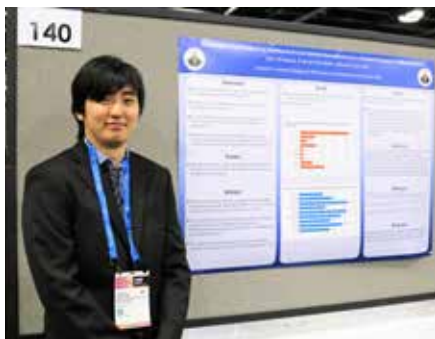
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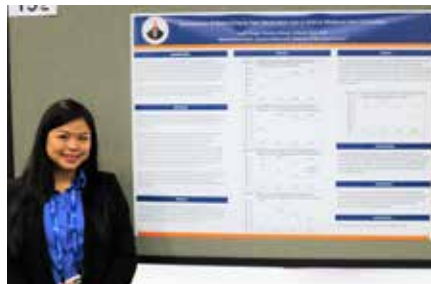
Alan Trinh



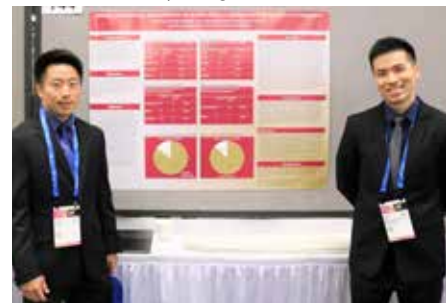
Nicholas Tsoi, Nancy Wong, and Kara Paulachak



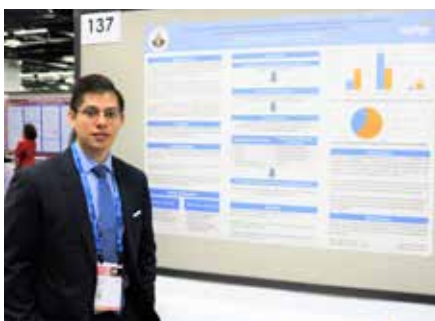
Tyler Hirokawa



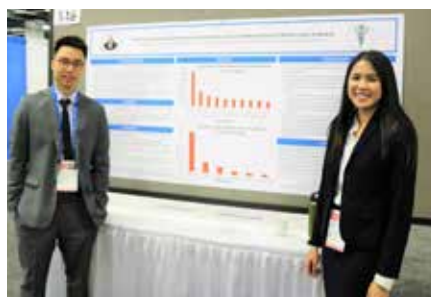
Carrie Yeung



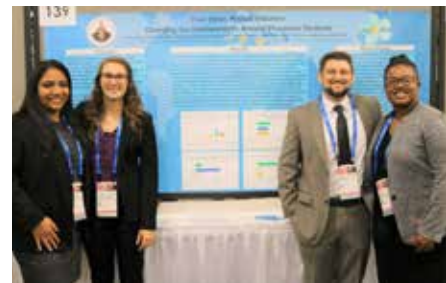
Faculty preceptor Bryce Fukunaga (left) with Kevin Lei



Rene Chavez



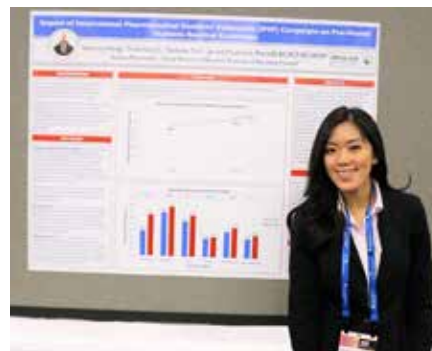
Kevin Phu and Shannon Trinh



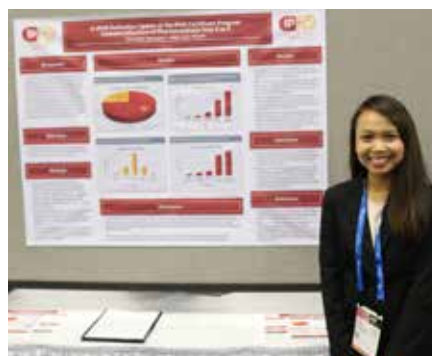
Krishelle Kamakeeaina-Mendoza, Ashley Gordon, Kam Sahba, and Faith Hicks

Variety of research topics produces well-rounded results

Athena Borhauer	Describing high-cost prescription medications users: results from the Medical Expenditures Panel Survey.
Natalie Chan	Evaluation of anticoagulation related adverse events in patients in Kauai
Rene Scott Chavez	Assessing the effectiveness of a commercially available pharmacokinetics program in achieving desired vancomycin targets: experience from a community hospital in Hawaii
Cathlyn Goo	Assessing the impact of college of pharmacy health fairs on the community
Faith Hicks	Blue Zones project initiative: changing the environments around pharmacy students
Tyler Hirokawa	Medication type related to likelihood of cost-related nonadherence in a national sample of elderly patients.
Trish Huynh	A 2018 Evaluation Update of the Industry Pharmacist Organization Certificate Program: Commercialization of Pharmaceuticals from A to Z.
Gurinder Kaur	Cost-savings analysis of a metered-dose inhaler (MDI) to nebulizer therapeutic interchange procedure at a community hospital
Logan Kostur	Hawaii clopidogrel lawsuit: A population pharmacogenetic perspective
Kevin Lei	Effects of pharmacy consultations on zoster vaccine adherence and reaction management
Stacy Lu	Evaluation of a medication reminder program designed to optimize patient adherence to direct oral anticoagulants (DOAC)
San Ly	Trends in opioid and extended-release opioid prescribing rates and their correlation to opioid-related inpatient stays and ED visits among Medicare beneficiaries in the United States.
Jennifer Nguyen	Fourth-year student pharmacists-led prescription renewal authorization process in collaboration with medical resident physicians at a family medicine clinic
Shannon Trinh	Identifying potentially inappropriate medication use in Medicare Part D patients living in Hawaii
Nicholas Tsoi	Comparison of hospital-acquired Clostridium difficile infection onset in patients receiving stress ulcer prophylaxis: a retrospective study
Janet Vu	Journey to cost savings through intravenous to oral acetaminophen protocol revisions
Veronica Wong	Impact of IPSF Campaigns on Pre-Health Students Baseline Knowledge
Carrie Yeung	Examination of Beers Criteria pain medication use in elderly Medicare Part D enrollees
Khanh Vy Tran	Assessment of intravenous and oral acetaminophen in the perioperative setting following elective total knee and hip arthroplasty



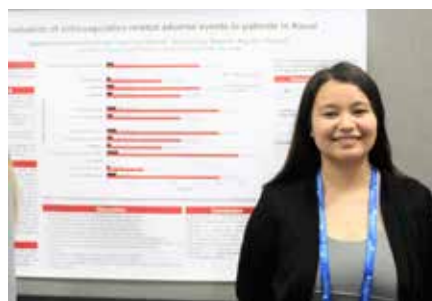
Veronica Wong



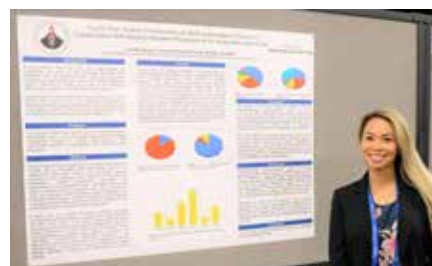
Trish Huynh



Logan Kostur



Natalie Chan



Jennifer Nguyen

Alumni gather with students, faculty and friends outside ASHP Midyear

Many DKICP affiliates were able to cut loose for a “Pau Hana” event on Dec. 4 after an active few days of participating in the American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting.

Although attendance at the conference wasn’t required, the social event was held on the third day of the action-packed conference that featured residency showcase, poster presentations, personal placement services (PPS) and continuing education courses. Admission included heavy pūpū, one drink ticket and a skyline fireworks display at the end of the evening.

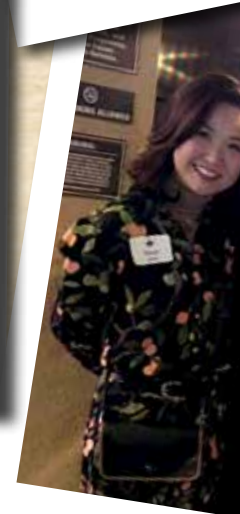
Open to all DKICP students, faculty, alumni and friends, the gathering was held at a chic venue called The Fifth at the Grand Legacy at the Park. It was organized by the DKICP Alumni Advancement Committee, led by Drs. Cherie Chu (Class of 2011) and Nicole Young (Class of 2015), both now DKICP assistant professors and the UH Foundation Alumni Relations Office, led by Senior Director of Community & Alumni Engagement Nico Verissimo.

“The DKICP Pau Hana event was one of the most anticipated events for many students, alumni, faculty and staff during Midyear. It was a time for everyone to celebrate, relax, catch up with friends, and to have fun. It was an excellent opportunity for everyone to gather and connect with one another,” says Dr. Garret Hino, Jr., DKICP Pharmacy Resident and Alumnus (Class of 2018).

Cathlyn Goo (Class of 2019) was at the ASHP Midyear with an aspiring goal to pursue a post-graduate (PGY-1) pharmacy residency, and she attended the Pau Hana event to make connections with alumni and receive insight regarding her journey to acquire a residency. She explains: “As a fourth-year student about halfway through rotations, the once intangible thought of becoming a pharmacist is just a few months away from becoming a reality. The DKICP Pau Hana Event was a great way to help with this transition and to be given the opportunity to interact with future/potential colleagues. The event brought together students, alumni, and faculty in an environment outside of work and the classroom to facilitate the reconnection with old faces as well as the introduction to new ones. Sharing the bond of having affiliations with the same school, we were able to celebrate the College of Pharmacy together and to learn about the future direction of both the institution and the individuals from it.”

Dr. Kelsea Mizusawa (Class of 2017) attended ASHP Midyear to receive an award on behalf of Straub Medical Center for being a national finalist for the Excellence in Medication Safety Award for her innovation and efforts to establish an opioid stewardship program. She completed a PGY-1 pharmacy residency program at DKICP in 2018 and currently practices as a clinical pharmacist at the Straub Medical Center. From Dr. Mizusawa: “The Pau Hana event is a good opportunity to see everyone again and I am grateful that DKICP hosts it each year. It must take a lot of organization and effort to bring that many people together!”

All DKICP alumni are encouraged to update their career and contact information so they can hear about these types of events in the future. Go to the UH Alumni page: <https://uhalumni.org/contact/update>



SUCCESS STORY

From a member of the inaugural class who attended the 2018 Pau Hana event in Anaheim

Update from Dr. Jason Braithwaite (Class of 2011), PharmD, MS, BCPS Senior Director, Clinical Pharmacy Services HealthTrust



In August this year we had our fourth child and she is a sweetheart. When people ask what it's like

having four children, I say "imagine yourself drowning and then someone hands you a baby!" In all honesty, we couldn't be happier. Our children are Lily (age 9, born during my third year of pharmacy school), Nora (age 6, born during residency), Jack (age 4, wild man), and Evie (4 months in December). My wife Lindsay somehow finds time to run her own graphic design business while being a fantastic mother to our four children.

Since graduating from UH Hilo in 2011, I completed PGY1 and PGY2 residencies and obtained further schooling by getting a master's degree focused on Healthcare Administration and Outcomes Research. In 2013, I sat and passed the Board Certification as a Pharmacotherapy Specialist. In 2015, I received an award for Advanced Pharmacy Professional Experience (APPE) preceptor of the year from Roseman University.

Following a residency at Intermountain Healthcare in 2013, I took a role as Clinical Director for HCA Healthcare in the Mountain Division (11 hospitals in Utah, Idaho, and Alaska). During that time I started a residency program at St. Marks Hospital and expanded a program at Eastern Idaho Regional. I hired amazing specialists to build out an Antimicrobial Stewardship Program for all of the hospitals and created a program for board certification for our pharmacists that saw them grow from two board certified pharmacists in 11 hospitals to 33 board-certified pharmacists.

Last year I moved to a role with our Group Purchasing Organization where I oversee the review and contracting strategies for \$7B of drug spend for 1600 hospitals and 35,000 clinics.

None of the success I have had in my career would be possible without a lot of help and some luck. I want to thank the staff and professors at UH Hilo for taking a chance on me and for providing a great well-rounded learning experience. It truly was a blessing to be part of the inaugural class and to forever be part of the UH 'ohana.





Construction Update

One of the highlights of the Midyear Pau Hana in Anaheim was a slide show, featuring not only early photos of student pharmacists from UH Hilo's College of Pharmacy but also a chronology of construction photos. Progress continues on the construction, with a grand opening planned for August 2019. (Photos provided by Tracey Niimi and Hawaii Department of Accounting and General Services.)

Save the date!

All-Class Reunion Weekend at the grand opening of the new home of DKICP

August 17-18, 2019 in Hilo
Details to come

Introducing Dr. Abhijit Date: Working to improve drugs for diabetes, HIV

Dr. Abhijit Date joined the Department of Pharmaceutical Sciences at DKICP as an Assistant Professor in August 2017. He is a pharmaceutical scientist by training and he received his B.Pharm., M.Pharm. (Pharmaceutics), and Ph.D. (Pharmaceutics) from the University of Mumbai, India. After finishing Ph.D., degree, he completed his post-doctoral training in nanomedicine research at the Chemistry of Life Processes Institute, Northwestern University, School of Pharmacy and Health Professions, Creighton University and at The Center for Nanomedicine at Johns Hopkins University School of Medicine.



Dr. Abhijit Date

Dr. Date has a vast experience in the development and pre-clinical evaluation of conventional and novel drug delivery systems (nanomedicines) for the prevention and/or treatment of a variety of ailments such as cancer, AIDS, bacterial infections, diabetes, acne, and inflammatory bowel diseases. He is listed as an inventor on five U.S. patents or patent applications. He has 43 peer-reviewed publications (h index: 23; Total citations: > 3400; Source: Google Scholar) and four book chapters to his credit and his research work have been

published in the renowned drug delivery/translational journals like Clinical Cancer Research, Biomaterials, Journal of Controlled Release, and Molecular Pharmaceutics. He received the Johns Hopkins Center for Nanomedicine research excellence award in 2016. He has served as the guest editor for Journal of Drug Delivery's special issue on translational nanotechnology in 2012 and he also serves as a reviewer for more than 20 drug delivery journals.

Dr. Date's research interest include the development of nanomedicines to improve delivery of drugs and natural products for the prevention and/or treatment of cancer, skin ailments, infectious diseases, and metabolic disorders.

What kind of research are you doing in your lab?

Currently, my research group is actively involved in two different projects.

The first project is focused on the development of nanoparticles to improve delivery of metformin, a front-line anti-diabetic drug that has been used for the treatment of diabetes for several decades. In recent years, research has shown that metformin can be used as an adjunct for the treatment of a variety of ailments such as cancer, tuberculosis, fibrosis, and cardiovascular diseases. From a pharmaceutical

scientist's perspective, metformin is a BCS Class III drug, which means it has high solubility and poor membrane permeability that leads to low oral bioavailability. As a result, metformin is required to be taken at a very high dose to obtain the desired therapeutic effect. Our research group is working on strategies to improve lipophilicity of metformin using principles of physical chemistry. Using simple strategies, we have developed lipophilic salts of metformin. We have been experimenting on incorporating these lipophilic salts of metformin into nanoparticles composed of FDA-approved lipids or polymers. Using this innovative approach, we expect to improve oral bioavailability and potency of metformin, which will also result in a reduction of its therapeutic dose for a variety of indications including diabetes.

The second project is focused on the development of antiviral nanomedicines to improve the prevention of sexually transmitted viral infections caused by human immunodeficiency virus (HIV) and herpes simplex virus (HSV). Sexually transmitted viral infections such as HIV/AIDS and genital herpes represent a major healthcare challenge globally and together, they affect more than 500 million individuals globally. Epidemiological studies have shown that genital herpes increases transmission and acquisition of HIV-1 infection by 3- to 4-fold. Currently, no vaccine is available to prevent HIV or HSV infections. Hence, researchers have been exploring the potential of antiviral drugs for the prevention of these sexually transmitted viral infections. Tenofovir disoproxil fumarate is a nucleotide reverse transcriptase inhibitor approved for the prevention and treatment of HIV infections. Recently, it has been shown to inhibit HSV DNA polymerase but its efficacy against HSV is much lower compared to HIV. There's a growing interest in developing tenofovir disoproxil fumarate as a modality to prevent local (vaginal or rectal) transmission of HIV and HSV infections. However, due to low hydrolytic stability, tenofovir disoproxil fumarate cannot be administered in vaginal gels or rectal enemas. Our research group is working on developing nanomedicines to improve the stability and potency of tenofovir disoproxil fumarate for the prevention of HIV and HSV infections. We have identified low-cost FDA approved polymers which have inherent activity against HIV and HSV. We are working on using these bioactive polymers to improve the stability and efficacy of tenofovir disoproxil fumarate against HIV and HSV. We intend to incorporate these novel nanomedicines into polymeric films suitable for vaginal administration whereas, for rectal administration, we will transform these nanomedicines to a dry powder that can be reconstituted into enema.

Why are these projects important?

The major goal of drug delivery systems including nanomedicines is "enabling optimum delivery of therapeutic agent to maximize its efficacy and minimize its side-effect." Diabetes is a globally prevalent metabolic disorder and it is one of the top 10 medical condition-related deaths in Hawai'i and the United States. Metformin is a front-line antidiabetic drug. However, metformin does not have optimal biopharmaceutical properties. Its oral bioavailability ranges from 50-60 percent and almost 30 percent of the drug is excreted unchanged via feces due to poor absorption. Furthermore, metformin

shows considerable intra- and inter-individual variation in absorption. The metformin nanoparticles being developed in our lab are expected to improve its oral bioavailability, which will improve its therapeutic efficacy with a concomitant reduction in the therapeutic dose and dose-related side effects. Furthermore, our metformin nanoparticles can also be evaluated for other applications such as treatment of early-stage bladder cancer and infectious diseases.

Sexually transmitted infections caused by HIV or HSV pose a heavy burden on healthcare globally. Genital herpes affects more than 500 million individuals globally whereas more than 36 million individuals worldwide are affected by HIV. Every year, several million new individuals are affected by these sexually transmitted viral infections. Currently, there is no FDA-approved vaccine available for the prevention of these infections. Our novel tenofovir disoproxil fumarate



From left: Arul Manavalan, Pratik Patel, Abhijit Date and Hiwa Saeed. Missing from the photo: Jody Yamada-Ueda, Dallas Tada (Photo by Allan Prior)

nanoparticles are expected to offer improved local (vaginal or rectal) delivery of tenofovir while improving its stability and potency. We expect to utilize significantly smaller amounts of tenofovir to achieve local prophylaxis from these sexually transmitted infections. This will reduce the unwanted off-target exposure of tenofovir resulting from oral tenofovir disoproxil fumarate tablets which can cause dose-related side effects and the emergence of drug-

resistant viral strains. Our novel approach is expected to have a global impact in the field of STD prevention.

What kind of funding have you gotten?

Our metformin nanoparticles development work is currently funded by the Center for Biomedical Research Excellence (COBRE) on Diabetes Pilot Project Program at the John A. Burns School of Medicine (JABSOM). Our antiviral nanomedicines work is funded by the Ola HAWAII Pilot Project Program at JABSOM.

What do you have planned for the future of this research?

We plan to carry out in vitro and pre-clinical studies on the metformin nanoparticles to evaluate their ability to improve oral bioavailability of metformin. We plan to collaborate with investigators from the University of Hawai'i Cancer Center and the National Cancer Institute to further evaluate the potential of metformin nanoparticles for the treatment of various cancers such as early-stage bladder cancer. We plan to evaluate our tenofovir disoproxil fumarate nanoparticles for in vitro antiviral activity with the help of our collaborators from JABSOM and University of Alabama School of Medicine. In the future, we would like to evaluate the in vivo preventive efficacy of tenofovir disoproxil fumarate nanomedicines in the mouse model of genital herpes and humanized mouse model of HIV infection. Our long-term goal is to translate these novel nanomedicines from pre-clinical to the clinical settings.

Who are the members of your research group?

Currently, my research group consists of three postdoctoral fellows: Dr. Pratik Patel, Dr. Hiwa Saeed, and Dr. Arulmani Manavalan, a DKICP Pharm.D. student pharmacist, Jody Yamada-Ueda (Class of 2021), and an undergraduate student from the SHARP program, Dallas Tada.



Attendees included: Bruce Meno (Class of 2021, BZPAC Co-Chair), Venerable Sayadaw U Osadha, Dr. Soe Win (M.D. at Hilo Medical Center), Justin Pequeño, Tiana E. Ramos (Class of 2021, BZPAC Co-Chair), Dr. Leng Chee Chang, Dr. Ghee Tang, Shwe Yee Win, Pauline Chong, Cassandra Quitgua, Heather Quitgua, Kimberly Chun (Class of 2022). Not included in photo: Johnson Tran (Class of 2020 BZPAC Co-Chair), Earl Emboltura (Class of 2022 BZPAC Co-Chair).

Blue Zones Project encourages 'mindful meditation' with guest speaker

Venerable Buddhist Monk Sayadaw U. Osadha led a "Mindful Meditation" event in the evening of October 24 on the DKICP campus. The event was open to all students, staff and faculty, including families.

The Blue Zone Project Advisory Committee (BZPAC) presented the session alongside Drs. Leng Chee Chang and Ghee Tan from the Department of Pharmaceutical Sciences.

BZPAC promotes the Power 9 principles of health, happiness, and longevity by focusing on the respective ideals of each "Power of the Month." During October, Downshift was highlighted because it is commonly the busiest month of the fall semester according to BZPAC Chair Bruce C. F. Meno (Class of 2021).

"As striving leaders, student pharmacists were encouraged to find practices that would better help them manage stress throughout their career in order to ensure quality community care," Meno said. "The DKICP community was grateful to Sayadaw for providing the opportunity to learn from his professional practice."

Sayadaw U. Osadha has been a Resident monk at Dhammananda Vihara Monastery in Half Moon Bay, California, since July 1997. He has been conducting mindfulness meditation sessions in English in Malaysia, Indonesia, Europe and Australia and gives dharma talks in English and Burmese.

"The concept of mindfulness, which is the non-judging attention that observes present time life experiences as they really are without biases, is taught in many clinical settings, including neurological, cognitive and anxiety disorders," Dr. Chang said. "It has been used to treat chronically ill patients and also has been attributed to trigger the immune function. It's a valuable lesson for our student pharmacists."

The Life of a Pharm.D.

By Dr. Jairus Mahoe (Class of 2016)



Dr. Jairus Mahoe

The first contributions I made to the Kawili La'au started in 2014 when I was president of Phi Delta Chi at DKICP, two years away from graduating with a Pharm.D. (Doctor of Pharmacy). Since then, I have been writing for various newsletters and websites about pharmacy and healthcare. Now, I am excited to be returning as your guide in a new column that highlights the profession of pharmacy. In this series, we'll be exploring the opportunities a Pharm.D. degree opens by visiting pharmacists in the various areas of this diverse profession.

What's special about specialty pharmacy? What is a nuclear pharmacy and is it dangerous? What does a pharmacy benefits manager do and why is it important?

Join me for each issue as we answer these questions and more by learning about the diverse characters that shape the profession of pharmacy and the numerous doors that can open when earning a Pharm.D.

For this first column, I'd like to start by introducing myself and explaining the experiences that have given me the skills to lead this tour.

"Oh, you're a pharmacist? Do you work at (...add your local pharmacy here...)"

That's a question that many of my colleagues and I have heard countless times. And it wouldn't be wrong to assume that when you meet a pharmacist, she or he might work at your local pharmacy. After all, about 60 percent of all pharmacists work in community pharmacies and drug stores. But what do the other 40 percent do?

Flashback to Friday, March 18, 2016. The dim light from my phone illuminated the corner of the bedroom. 5:00am. It was a restless-sleep night. As I was trying to quietly crawl back into bed, a voice broke the silence.

"Well, aren't you going to check your email?" my girlfriend said, half-awake.

I remembered it was our Match Day. Each year in March, graduating pharmacy students get "matched" to residencies for which they have meticulously compiled an application. A pharmacy residency is a postgraduate training program in a specific area of pharmacy. Students pursue residencies to gain a large amount of experience over a short amount of time. Depending who you ask, it's estimated that a single one-year residency can be equivalent of up to three to five years of experience. The first residency is also known as a PGY1 (post-graduate year 1) and the second residency is a PGY2 (post-graduate year 2). Currently, there are no PGY3 residencies for pharmacy (thank goodness), but who knows what the future may bring.

I had applied to several residency programs and this would be the day I find out whether I had matched or not. All I had to do was check my email.

"Congratulations! You have been matched to: University of California San Diego."

In that moment, I was reassured my career as a pharmacist would be a unique. Why? For one, this was a community residency, which

makes up about only 10% of all pharmacy residencies. Therefore, my experiences in general would be less common, but not by any means less valuable. For another, I would be the inaugural resident for this program. Prior to this match, this particular residency did not exist. The innovative leaders at the UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) had created this dynamic program to promote clinical pharmacy services in the community and build relationships between various healthcare providers. Another plus was that Dr. Christina Mnatzaganian, a former DKICP faculty member, not only contributed to the creation of this program but she would function as the residency program director (RPD). Needless to say, I was ecstatic, and I drove to rotation that day in the best mood I've been in for months – the future awaited!

That was more than two years ago. Since that sleepy moment, I've received my Pharm.D. from DKICP, completed a PGY1 and a PGY2, graduated out of the Pharmacy Leadership Academy, and on course to complete my MBA in Health Informatics in 2019.

The PGY1 with UCSD was a community (retail) pharmacy residency, which means it focused on the area of pharmacy with which most people are familiar.

These are the pharmacies you find in grocery or drug stores. They are a fundamental part to our profession and healthcare altogether. These pharmacies are the main provider medications to our communities. I was able to work on the frontlines and also contribute to overall pharmacy operations. My duties stretched far past the normal responsibilities of daily operations and reached into district and company management. I contributed to developing company-wide (more than 70 stores) policies and protocols regarding new laws and regulations. I assisted with the expansion of clinical services, and efforts often included business principles and concepts.

Because it was a UCSD residency, I was able to work in areas outside of community pharmacy as well. My passion for academia landed me in front of pharmacy students multiple times, providing unique experiences such as giving classroom lectures and creating clinical examinations. I was also able to embrace teaching experiences across the ambulatory care clinics I rotated through. (Think of ambulatory care as the type of healthcare you would receive at a clinic setting, rather than a hospital.) These clinics included specialties such as Family Medicine, Chronic Kidney Disease Management, Diabetes Education, Anticoagulation Management, and Student-Run Free Clinic. I would assist providers (physicians, pharmacists, nurses) and coach students at these clinics, focusing on patient care. It was through these interactions I was able to realize and overcome one of the biggest challenges newly-graduated-pharmacists face: the transition from learner to provider. The difference in expectations of performance as a student and a resident is enormous, and many struggle to cross this gap. To briefly illustrate a general scenario, a student may be asked to help with patient care while they are monitored by their preceptor, and then be coached by the preceptor throughout and after the interaction. This is a fundamental learner experience. A resident (who is a

licensed pharmacist) would likely see the patient themselves, provide recommendations to the physician, and assist in creating the care plan for the patient. Fortunately for me, the caliber of my preceptors was exceptional, and they assisted me through this transition, molding me into the patient-care provider I am today.

After a year at UCSD, I matched to a PGY2 residency focused on pharmacy administration (management) with Palomar Health, a hospital system in the north county of San Diego. A pharmacy in a hospital is very different than that found in the community. Hospital pharmacy, often referred to as inpatient pharmacy, is directed at providing the most appropriate medications to patients who are currently admitted in the hospital. Hospital pharmacists typically work with physicians and nurses, and unlike community pharmacy, there is limited interaction with the patient/customer.

My role as a PGY2 resident varied greatly. Informatics, medication safety, clinical management, finance, and operations are just some of the areas where I've gained experience. Given the opportunity, a pharmacist could specialize in any of these areas, and I wanted to learn more, because prior to those experiences, they were foreign to me. (And although

I could dive into each of those areas of pharmacy now, we'll wait for later articles to really get into it.) It provided me the opportunity to work closely with professions outside of pharmacy – nurses, physicians, administrators, etc. From filling medication orders for a patient to leading collaborative initiatives with anesthesiologists, it was amazing to contribute to patient care on various levels throughout a hospital. One of my most memorable experiences was creating a program that helped prevent the theft of controlled substances, like opioids. In doing so, we were able to raise awareness, implement new safeguards, and successfully stop unauthorized drugs from entering our communities.

Hold up – wait a minute.

Lectures? Chronic Kidney Disease clinic? Informatics? Preventing theft? You might be thinking, "I thought this guy was a pharmacist?" And you'd be right – I am a pharmacist. But there is so much more to the world of pharmacy than we think.

The role of pharmacist has been expanding for decades. The profession is more dynamic now than it has ever been. The Pharm.D. has become a gateway to jobs and careers that even pharmacists may not know of. Remember the other 40% of pharmacists? Where do they work? What do they do?

These are the questions I hope to answer for you as I take my own journey through "Life as a Pharm.D." I will introduce you to other Pharm.D.s in various areas of pharmacy to show the diversity that is my profession.

As for me, I am currently a Pharmacy Project Manager at University of California San Francisco (UCSF) Medical Center. What does that mean? Stay tuned and you'll find out as we explore the life of a Pharm.D.

Footnote: Enjoy the content? Have suggestions? Questions? Comments? Feedback? Contact Dr. Jairus Mahoe at jairus@hawaii.edu with subject line: Kawili La'au



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Caring for health care providers

Carrie Yeung (Class of 2019) with cardiologist Dr. Albert Ing after getting his flu shot at the Adventist Health Castle Employee Health Fair on Oahu in October. Fourth-year DKICP student pharmacists participated in the Health Fair throughout the month of October.

HPhA honors DKICP alumni at general membership meeting

A DKICP alumna from the inaugural Class of 2011 was honored at the Hawai'i Pharmacists Association (HPhA) General Membership meeting held on October 26 in Honolulu.

Dr. Pua Akana (Class of 2011), now a pharmacist at the Waianae Coast Comprehensive Health Center, was awarded "Pharmacist of the Year" for her drive and commitment to further promote the pharmacy profession through service to the community, interprofessional teamwork, and student development.

Also recognized at the meeting was Dr. Lorrie Wong from University of Hawai'i at Manoa's School of Nursing and Dental Hygiene was given the "Friends of Pharmacy" award for her contribution to interprofessional education endeavors. Dr. Wong develops interprofessional simulations and other opportunities for students from pharmacy at DKICP, nursing, medicine, social work, and public health to work and learn together.

The evening featured a talk on pharmacogenomics by Assistant Professor Youssef Roman from the Department of Pharmacy Practice. Dr. Roman described the fundamentals of clinical and genetic-based variability in drug response and explained the role of pharmacogenetic testing to improve clinical outcomes.

At the beginning of the evening, fourth-year pharmacy students explored future career options as they attended the Hawai'i Residency Showcase. Students met with pharmacists and current residents throughout the state to discuss the ins and outs of each of the different residency programs. Participating residency programs include: PGY1 Kaiser Permanente Hawai'i, PGY1 Tripler Army Medical Center, PGY1 University of Hawai'i at Hilo Daniel K. Inouye College of Pharmacy, PGY1 VA Pacific Islands Health Care System, and PGY2 Psychiatric Pharmacy Hawai'i State Hospital/PharMerica.



From left: Athena Borhauer (Class of 2019), Dr. Chad Kawakami (Assistant Professor, Department of Pharmacy Practice), Dr. Garret Hino Jr. (PGY1 Pharmacy Resident at DKICP), Cathlyn Goo (Class of 2019), Dr. Gay Antonette Subia (PGY2 Critical Care Pharmacy Resident at DKICP).



Dr. Pua Akana (left) with Dr. Jasmine Kimura



Dr. Lorrie Wong (left) and Dr. Jasmine Kimura

Spring Fever brings many couples together, but for several DKICP graduates, it's...

Pharmacy Fever!!!

In 2014, Kawili La'au had the honor to introduce several couples who originally met at DKICP. Here's an update on a couple of those couples, which you can also see online at the University of Hawai'i Hilo Alumni site at <https://uhalumni.org/hilo/story/uh-hilo-love>

Paul Narciso and Danita Henley, Class of 2011

We first met during lab class. I was late and Paul invited me to join his group at his lab table. Paul and I were friends first and shared a lot of common interests (sports, outdoor activities, and of course pharmacy). We were not sure about our future until fourth-year pharmacy school rotations. We were deciding where we would complete our rotations



2014

(which meant traveling for us both). We came to the decision that we would travel but remain a couple. It was a point in our lives where we would have either gone our separate ways or committed to a future together. We chose the latter.

We graduated with the inaugural class in 2011 and got married August 18, 2012. We have three loving little girls, Maya Elizabeth Narciso (5), Olivia

Ann Narciso (4) and Sophie Narciso (big black dog 3). With hard work and a little bit of luck, we were both given the opportunity to work for Wilcox Medical Center on Kauai, and trying to make a difference on this lovely island.



2018

Lawrence Chan and Irene Chaisri, Class of 2012

[This was then]

Striving to achieve our goals, Lawrence and I met each other during pharmacy school at the University of Hawaii DKICP in 2008. We sat at opposite ends of the classroom and often passed one another with a simple smile for a greeting. Our paths often crossed but our conversations were always short. We were complete opposites. But this changed when we started spending more time together along with mutual friends. It was then we got to know one another a little better and realized our differences were not as extreme. We had similar aspirations, similar goals and became a couple in 2010. We are engaged



Photo taken 2014

to be married in 2015.

After graduation in 2012, we moved to Northern California. Both Lawrence and I work for Walgreens. I work in Fremont and Lawrence in San Mateo. Both of us are very thankful for our education at the College of Pharmacy, we were well prepared and have become successful in our careers as pharmacists.

[THIS IS NOW]

Looking back at our original article, I reminisce the cool Hilo evenings that Irene and I had spent studying together at the Prince Kuhio Starbucks. Also, memories flow back to some of the wonderful times we had in Kona with our friends, in between exams.

We are a little older now, a little more wrinkled, a little further into our career and welcomed a little baby girl Olivia into our lives about a year ago. After enjoying our time in the San Francisco Bay area we relocated to San Diego in pursuit of new ambitions as a pharmacist with the help of a fellow classmate. In either of those cities we have met new faces that were proud alums of the college of pharmacy and we are so happy that we were able to connect by having shared similar experiences and joys. We are delighted to see the school blossom as we grow as well.

The cliché holds true, time does fly and no matter how fleeting it is, through friends and through memories, Hilo and the Daniel K. Inouye College of Pharmacy will always be a part of us.



Photo taken Feb 2018

Faculty Briefs

Julie Adrian, D.V.M., associate professor in the Department of Pharmacy Practice, was accepted to deliver four hours of CE on the Opioid Crisis to veterinarians, veterinary technicians and veterinary office management at the 91st Annual Western Veterinary Conference Feb. 17-20 in Nevada. The conference, which has been held for 91 years, is known for highlighting insights by the most highly sought-after speakers in the veterinary profession.



Shugeng Cao, associate professor, Department of Pharmaceutical Sciences, was a co-author on the following articles: 1) "Two new tricycloalternarenes from Hawaiian endophytic fungus *Didymella* sp. FT433" *Tetrahedron Lett.* 2018, 59(36), 3381-3383. Co-authors were Chunshun Li, Zhenquan Hu, Qingsong Liu and Xiaohua Wu. And 2) "Flabelliparicine, a Flabelliformide-Apparicine-Type Bisindole Alkaloids from *Tabernaemontana divaricata*." *J. Nat. Prod.* 2018, 81(9), 1976-1983. Co-authors were You-Sheng Cai, Ariel M. Sarotti, Ting-Lan Zhou, Rong Huang, Guofu Qiu, Congkui Tian, Ze-Hong Miao, Attila Mándi, Tibor Kurtán and Sheng-Ping Yang.



Bryce Fukunaga, Jared Prudencio and Roy Goo have been awarded funding from AlohaCare's Waiwai Ola Community Reinvestment for a project called "Improving Access to Care through Primary Care Clinical Pharmacies." The project will work towards implementation of ambulatory care pharmacist services on Hawaii island. AlohaCare is a local, non-profit health plan founded in 1994 by Hawai'i's Community Health Centers. AlohaCare is the third-largest health plan in Hawai'i.



Ingo Koomoa-Lange, instructor in the Department of Pharmaceutical Sciences, was awarded an IDeA Networks of Biomedical Research Excellence (INBRE) IV pilot grant for a project entitled



"Antineoplastic drug induced calcium signaling regulates drug resistance in Neuroblastoma progenitor-like subpopulations." The grant is part of INBRE's Developmental Research Project Program (DRPP). The research concentrates on identifying the molecular components that regulate the spatial and temporal dynamics of calcium signals between the plasma membrane and organelles, and the resulting physiological consequences (e.g. regulation of transcription, reprogramming the cell fate including cell deaths). One of the main areas of research is to understand these processes and their contribution to the malignant progression and the development of multi-drug resistance in Neuroblastoma. Another area of research investigates the dynamic signaling cascades that are induced by pathogens and pathochemical stimuli in the cells of the innate immune system.

Karen Pellegrin, Director of Continuing Education, Strategic Planning, and the Center for Rural Health Science, is co-author on a paper entitled "Acute Respiratory and Cardiovascular Outcomes Associated with Low Levels of Ambient Fine Particulate Matter (PM_{2.5}) on the Island of Oahu" presented at the annual Hawai'i International Conference on System Sciences (HICSS-52), January 9-11, 2019 Wailea, Maui. Co-authors were C. Mnatzaganian, A. Lozano, J. Miyamura, M. Knox and A. Hanlon. Dr. Pellegrin was also featured in the January Hawai'i Journal of Medicine & Public Health for her study on rural disparities in US mortality rates published in *SSM-Population Health*, an Elsevier publication.



Dianqing Sun, associate professor, Department of Pharmaceutical Sciences, coauthored a paper entitled "The Fatty Acid Synthesis Protein Enoyl-ACP Reductase II (FabK) is a Target for Narrow-Spectrum Antibacterials for *Clostridium difficile* Infection" in *ACS Infectious Diseases*, with coauthors Ravi K.R. Marreddy, Xiaoqian Wu, Madhab Sapkota, Allan M. Prior, Jesse A. Jones, Kirk E. Hevener, and Julian G. Hurdle.



Deborah Taira, professor, Department of Pharmacy Practice, is a co-author of a manuscript entitled "Healthcare network analysis of diabetes patients and their physicians" accepted for publication in the *American Journal of Managed Care*.



Alumni Notes

Daniel Hu, Class of 2012, was a co-author on a manuscript entitled "The evaluation and management of decompensated hypertrophic cardiomyopathy in the emergency department" published in Elsevier's *American Journal of Emergency Medicine*.

Faculty Seminar Series



Dr. Jennifer R. Honda, an instructor with the Center for Genes, Environment, and Health at National Jewish Health in Denver, Colorado, presented a seminar entitled "Why are nontuberculous mycobacterial lung disease cases highest in Hawai'i? What we know and don't know" on DKICP campus November 20. Shown with Dr. Honda (second from right) are (from left) Drs. Karen Pellegrin, Leng Chee Chang and Dianqing Sun.

Booths at local grocery stores help educate public about antibiotics

By *Jhoana Gonzales (Class of 2021)*

DKICP student pharmacists from the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) presented booths at KTA and Safeway Pharmacies in Hilo during World Antibiotic Awareness Week November 12-18.

The week is recognized every year to raise awareness about antibiotic resistance and prevention. Antibiotic Resistance is a growing public health concern and student pharmacists have the knowledge and ability to provide education to the community about the prevention of resistance through counseling.



At KTA were (from left) *Wilson Datario (Class of 2020)*, *Gregg Tam (Class of 2020)* and *Jhoana Paula M Gonzales (Class of 2021)*.

Our events were held for two-days at KTA Pharmacy (Nov. 14), and Safeway Pharmacy (Nov. 15) in Hilo. Student pharmacists were able to talk to patients about statistics of resistance particularly in Hawai'i, how to properly take their medications to prevent resistance, and how resistance affects their health as well as their family. We also provided a brochure about antibiotic resistance. We managed to reach more than 50 people in three hours at KTA. The next day, student pharmacists were able to educate more than 60 people at Safeway Pharmacy.

David Cao, third-year student pharmacist commented, "It was a rewarding experience to be able to help people understand the importance of antibiotic resistance and taking their medications properly."



At Safeway were *Mia Tran (left)* and *David Cao (Both Class of 2020)*

Student leaders network at regional meeting

By *Brandi Chun (Class of 2020)*

On October 12-14, several select student pharmacists from the American Pharmacist's Association – Academy of Student Pharmacists (APhA-ASP) at DKICP were fortunate enough to attend the 2018 Midyear Regional Meeting (MRM) in Stockton, California.

As one of the few conferences designed exclusively for student pharmacists, MRM is nationally renowned for the passion that student leaders bring to the meeting. It is this passion and dedication showcased by student representatives from various colleges of pharmacy that leaves a lasting impression on the attendees, pushing each and every one of us to bring back exciting, innovative ideas for our own respective chapters.

The conference began with a grand opening session, allowing for ample networking opportunities between student pharmacists from the Pacific region. After meeting fellow student leaders, the attendees were encouraged to attend a legislative session, during which policy proposals affecting the scope of pharmacy practice were presented and voted upon. Our chapter's policy proposed to grant pharmacists prescriptive authority to administer the tuberculin skin test (TST) in the retail setting. If this policy passes, patients would be able to bypass the physician's office, and instead receive the TST and counseling conveniently in the retail setting. Fortunately, the proposal was passed on the regional level at MRM; however, prior to the Board of Pharmacy reviewing the intended proposal, it also needs to be approved of on the national level, which will be determined at the 2019 APhA-ASP Annual Meeting March 22-25 in Seattle, Washington.

In spite of the Hawai'i chapter having to leave the conference before the closing ceremony due to the prolonged commute, this year's MRM was a great and unforgettable experience. As the first MRM I personally had the privilege of attending, I would highly recommend all student pharmacists interested in any scope of practice to attend this or a similar conference. Although heavily policy-driven, MRMs are an excellent opportunity to connect, reconnect and learn from fellow driven student pharmacists.



Members of the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) met with Mayor Harry Kim in his office on Oct. 19 to discuss pharmacy legislation to begin training and setting up curriculum for Pharm.D. students to learn how to give tuberculosis tests and to be able to read the tests without the need for a collaborative practice agreement. Mayor Kim also signed a Proclamation for Pharmacy Legislative Week in order to help DKICP and APhA make an impact locally and eventually nationally. (Photo by Tracey Niimi)

APhA - ASP and NCPA

Pharmacy groups work together to present info on HIV/AIDS medications

By Jhoana Gonzales (Class of 2021)

Student pharmacists representing the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) collaborated with their peers from the National Community Pharmacists Association (NCPA) on Nov. 30 at a World AIDS Day event on UH Hilo campus.

World AIDS Day is one of UH Hilo's biggest public health awareness events of the year. The East Hawai'i Coalition of HIV/AIDS,



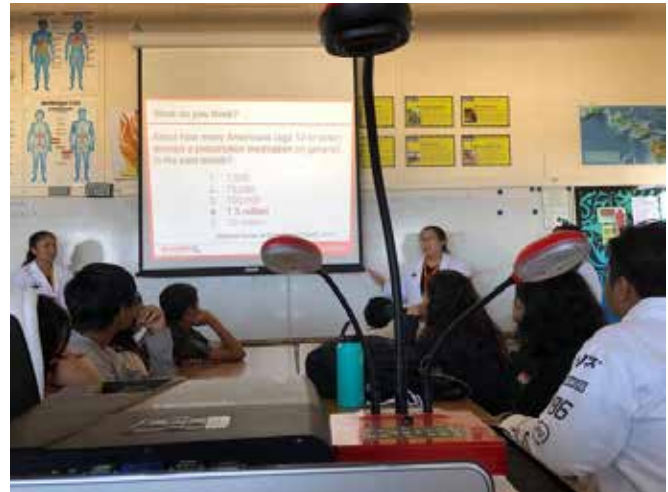
partners with DKICP, Hawai'i Island HIV/AIDS Foundation, Registered Independent Student Organizations (RISO), Women's Center, and

LGBTQ Center to present various activities going on through out the day to spread awareness about HIV/AIDS and to help erase the stigma about the disease.

First-year student pharmacists, Patricia Stevens, Jessica Song, Samantha Okubo, and second-year student pharmacists Karen Pae, Clifford Agcaoili, Nichole Chaffin, Noelle Lovesy, and Kimberly Lin, spent their Friday morning educating the community about the side effects of HIV/AIDS medications. Clifford who represented APhA-ASP stated, "It was a great event! We hope to have more people come out next year!"

NCPA representative and Vice President, Noelle Lovesy commented, "It was nice being able to educate students on different drug regimens and preventions for HIV/AIDS because many didn't know that prevention was possible. A few students even asked me to follow up questions and thanked us because they actually learned something."

Pharmacists have an important role in patient care for people who are HIV/AIDS positive by helping with the selection of medications that help fit their lifestyle and necessities, advising about potential adverse drug reaction and monitoring for side effects, and assisting



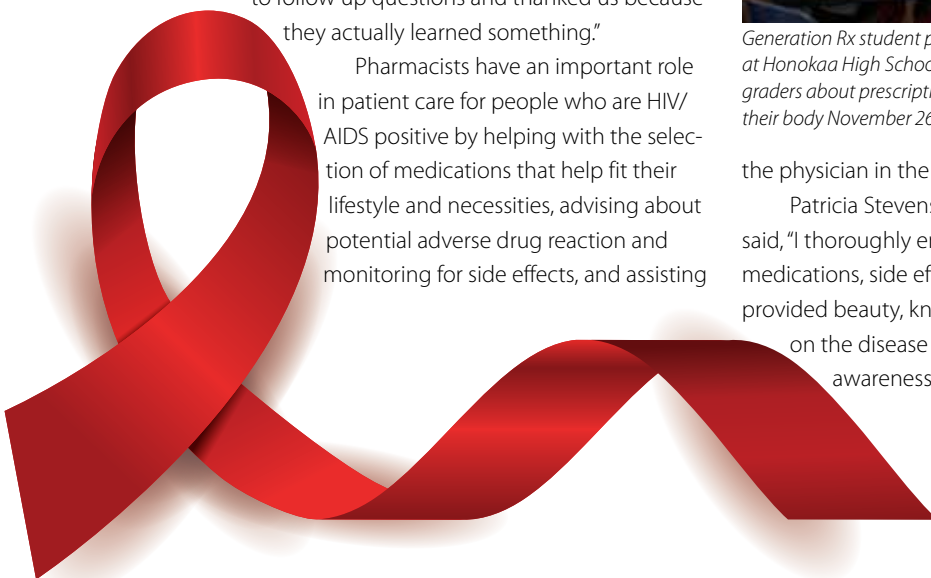
Brittany Luna, Jhoana Gonzales, both Generation Rx Chairs for the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) and National Community Pharmacists Association (NCP), and NCPA members Ashley Maldonado and Brooke Higa presented to seven health classes totaling about 158 students and two teachers.



Generation Rx student pharmacists spent the Monday after Thanksgiving break at Honokaa High School on the east side of the Island of Hawai'i to talk to 10th graders about prescription drug misuse and abuse and the effects of opioids on their body November 26.

the physician in the dose adjustments if needed.

Patricia Stevens, first-year student representative for APhA-ASP said, "I thoroughly enjoyed the event as not only did we cover medications, side effects, and patient adherence, but other groups provided beauty, knowledge on discrimination, and even speeches on the disease state itself. We were able to spread love and awareness for patients experiencing this lifelong battle."



Kappa Psi

Fraternity provides relief far and near

By Sean Domingo (Class of 2021)

In November, Kappa Psi Epsilon Psi welcomed the Theta Class to the brotherhood. The 22 new brothers faced numerous challenges during the process but never gave up. We are so proud of them and cannot wait to see what they accomplish during the rest of their time at DKICP. As pledges, the Theta class organized a relief fund for the victims of Super Typhoon Yutu, which hit the Mariana Islands. It was a great bonding experience for the pledges as they were all reminded of how small actions can make a big difference, even half way around the world.

In early December, the Brothers of Kappa Psi Pharmaceutical Fraternity Inc. spent their evening judging senior theses at the Kamehameha Schools Hawai'i Campus. These projects included the subjects of health sciences, engineering, visual arts, and business. Events like these really allow the Brothers to give back to the community while helping the younger generations pursue their dreams.

Lastly, on behalf of all the brothers of Kappa Psi, we would like to wish the best to our faculty adviser, Dr. Linda Connelly, on her new adventure. Although we are sad to see her go and will miss her dearly, we would like to thank her for all of the time she has given to our Fraternity.



NCPA

Independent pharmacies are still a viable option to graduates

*By Jared Toba (Class of 2020)
NCPA Student Chapter President*

One of the National Community Pharmacists Association's (NCPA) biggest goals is to promote the continuing growth and prosperity of the independent pharmacy. On the evening of October 26, NCPA at DKICP was fortunate enough to host guests from Health Mart Pharmacy and McKesson, a healthcare company for wholesale medical supplies & equipment, pharmaceutical distribution, and healthcare technology solutions. Joining us were Dr. Mark DeWoskin, Operations Director at Health Mart, and Dallas Nakashima, Account Manager at McKesson. Most individuals know that McKesson is one of the most important and successful drug distributors in the world today. What is less known is information about Health Mart, a company within McKesson that helps individuals open their own independent pharmacies. Today, retail chain pharmacies are becoming increasingly popular; however, independent pharmacy ownership is still a very promising and possible career path for pharmacists to pursue.

Dr. DeWoskin was able to provide an insight into the specialty of independent pharmacy to about 30 student pharmacists at DKICP. He spoke from his own personal experiences along with providing useful information on how McKesson and Health Mart can help potential owners along the way. For example, one way that McKesson helps individuals open their own pharmacy is by providing them with services such as location analysis of a potential pharmacy location. Health Mart also provides new independent pharmacies with marketing tools to help promote themselves in their respective communities. Dr. DeWoskin also provided very useful and interesting information about how he was able to become a pharmacy owner shortly after graduating from pharmacy school.

At the conclusion of the presentation, student pharmacists were able to ask various questions they had about future pharmacy ownership. Questions ranged from cost of ownership to the biggest challenges of owning an independent pharmacy. NCPA hopes to continue this relationship with McKesson in the future, and hopes to make this presentation on independent pharmacy an annual event at the college of pharmacy. NCPA will continue to promote events like these, which support and inspire others to pursue careers in independent pharmacy. (Photo by Cherie Baldugo (Class of 2020))



NCPA

Food drive helps families in need

Student pharmacists representing the DKICP chapter of the National Community Pharmacists Association (NCPA) gathered hundreds of items to donate to the Hilo Salvation Army at their Annual Thanksgiving Food Drive Nov. 13-20.

The class that donated the most items won free snacks to help them get through finals week. The winning group was the Class of 2020.

"We would like to thank everyone for their contributions, knowing that these donations will help those in need during the holiday season," said Jared Toba, NCPA Student Chapter President (Class of 2020).



NCPA's Community Service Co-Chairs, Brittany Luna (left) and Kevin Lee (right) pose with Lieutenant Jacob Bratton after they donated the items from their annual food drive.

Phi Delta Chi

The Ho'omalua Ola Committee of Phi Delta Chi celebrates 7 years of Miloli'i Outreach

By Mary Lui (Class of 2020)

The Ho'omalua Ola Committee (Guardians of Health) of Phi Delta Chi returned to the Miloli'i community in a large-scale outreach effort Nov. 10. The Miloli'i community is one of the last remaining fishing villages on the island and is comprised primarily of Native Hawaiian elders and their kin. Because Miloli'i is secluded, healthcare access is severely limited as the commute to clinics and medical facilities is extensive.

At the event, Brothers provided comprehensive health screening services including checks on blood pressure, blood glucose, body mass indices, as well as patient consultations. These counseling sessions provided valuable information regarding ASCVD risk, as well as COPD and asthma. Furthermore, each student screener shared applicable lifestyle modification tips ranging from dietary and exercise changes to smoking cessation. The Brothers also presented educational boards regarding common chronic diseases and basic dietary modifications. All the boards involved interactive activities to allow involvement and continued



interest for each participant. A Compounding for Kids station was also set up to involve the numerous keiki of the community.

In coordinating this health fair event for the Miloli'i community, the primary challenge was participation. Many individuals in the community were fearful and reluctant to know their point-of-care values, as the numbers may not always be ideal. However, with the encouraging words shared by the Brothers in a comforting and respectful manner, many of these individuals were recruited to participate in the fair throughout the day. This year, in an effort to increase visits at educational boards, a passport was handed out and adults who received a health screening

service and visited an educational board were eligible to enter a raffle contest. Similarly, Keiki who visited the compounding station and completed an interactive activity regarding healthy foods were also included in the drawing. Prizes were given out each hour of the health fair event to further encourage participation.

Overall, the Miloli'i Health Fair Event was a huge success because Brothers were able to provide service to an otherwise underserved community and, in doing so, helped build trust in the pharmacy profession. Whether it was the keiki learning more about pharmacy itself, or adults receiving health screenings services, important health information was shared and multiple lives were catalyzed for the better. The faces of astonishment when Brothers discussed the absence of noticeable symptoms with hypertension, or what sources of food were optimal to control diabetes, served as a testament of the event's impact on the community. Many of the community members expressed their sincere thanks and appreciation for the fraternity's seventh year of service for the village. Brothers of Phi Delta Chi showed once again that there should be no barriers to healthcare and that the role of pharmacists will always be integral in our society.



Student Organizations

Phi Delta Chi

Annual breakfast shows appreciation to faculty, staff for hard work

By Nicholas Pang (Class of 2020)

Throughout the year, faculty and staff worked meticulously to prepare lectures, assignments, and many more materials to facilitate students' learning at DKICP. In order to commemorate their services to both the college and student pharmacists, the Brothers of Phi Delta Chi, a professional pharmacy fraternity, hosted a bi-annual staff appreciation breakfast. It is an end-of-semester event where all faculty and staff were invited to enjoy a delicious feast. Everyone was welcomed by bubbles and greeters leading up to a homemade breakfast provided by the Brothers as they spent time together reflecting on the semester. Don't worry! No faculty was left behind as Brothers provided a delivery service and dropped off freshly made food for everyone to enjoy at the Annex. This occasion has been a crowd favorite amongst the staff as well as the Brothers as they enjoyed giving back to the individuals who have given them so much more than they have asked.



PIMSC

Students volunteer free health screenings and education at Walk to End Alzheimer's Disease event

By Tiana Ramos (Class of 2021)

The Pacific Islander Mobile Screening Clinic (PIMSC) provided free health screenings and education at the "Walk to End Alzheimer's" event at Lili'uokalani Park in September.

"Walk to End Alzheimer's" is an annual fundraising walk hosted by the Alzheimer's Association and is held in over 600 communities, making it the largest worldwide effort to raise awareness, support and funds for Alzheimer's disease.



Kara Tsuzaki informs a walk participant about the resources offered at Walk to End Alzheimer's event.



Mr. Karvas, PIMSC preceptor, and students posing at the end of one out of three shifts during the event. Left to Right: Anthony Peguese, Faye Diez, Roanne Deabler, Keisha Salvilla, Marie Cidera, Destinee Ogas, Henry Quach, Mr. Karvas, Ashley Maldonado, and Sean Domingo

Many people participated in PIMSC services, in which both community members and students gained a positive and impactful experience. Kara Tsuzaki (Class of 2022) said, "The 'Walk to End Alzheimer's' was the first time I participated in a community outreach event with DKICP. The amount of support the community showed, not only in sheer numbers but also genuine curiosity in the screenings we offered, and the overall health of themselves and those around them astounded me. I was lucky enough to have the opportunity to talk with many participants about how they were changing their habits to move towards a healthier lifestyle. It was a proud moment when many of them mentioned how screenings offered by DKICP has helped them move towards their goal. Many promised to return again next year, and I can't wait to see how far they've come."

For some, particularly second-year student pharmacists, it was their first time to perform qualified health screenings under the gracious supervision of preceptor Mr. George Karvas. Brittney Palomares-Layaoen (Class of 2021) claimed, "By being a part of PIMSC, I had the opportunity

to be a part of 'Walk to End Alzheimer's'. This gave me field experience such as blood glucose testing, blood pressure testing, and BMI. I was not only able to practice what was learned in school but got to connect with the community of Hilo."

Duy Nguyen (Class of 2021) reflecting on his experience, said, "I feel like health screening is the best way to give back to the community. I love the small conversations I had during the health screening. It made me feel more connected to the people in the community; it also reminded me of the reason of my attendance in pharmacy school. Overall, it was a good memory that I would carry with me to the future."

PIMSC volunteers at community events such as "Walk to End Alzheimer's" to create a lasting impact on health for both event participants and student volunteers.

PLS Phi Lambda Sigma Fall Leadership Symposium

By Jhoana Gonzales, P3

On November 17, Phi Lambda Sigma (PLS) Delta Lambda Chapter held our first student-led Leadership Symposium of the year. The attendees of this symposium gained invaluable experience for their personal and professional leadership development. Dean Carolyn Ma, PLS Faculty and honored guest, talked about current legislative news, the importance of advocacy in our profession, and an introduction to testimony writing.

Similar to previous years, the symposium held various presentations and workshops which included Robert's Rules of Order, Presentation Skills, Public Speaking Skills, Letter of Intent, Curriculum Vitae. This year we added a new presentation and workshop called Testimony Writing 101. Mia Tran, a third-year pharmacy student states, "PLS has taught me that no matter what the cultural backgrounds we may have, we all have the chance to be a successful leader. PLS members showed us how to write a testimony and run a meeting properly which is helpful and applicable in our profession."

The members of PLS also provided templates, examples, and tips and tricks to enhance the professionalism and leadership skills of student pharmacists. The members of Phi Lambda Sigma were amazed at the attendance from all levels of classes, P1 to P3, and are extremely impressed with the number of P1s who were interested to improve on their skills. Jeffrey Lee, a first-year pharmacy student states, "The PLS Fall Leadership



Symposium is an experience like no other. The knowledge and various activities, such as their Public Speaking Skills workshop introduced me to different suggestions that I can use to help me improve upon that skill. I am excited to attend future PLS Leadership Symposiums to help enhance my skills as a professional student pharmacist."



With new members every year, the PLS Fall Leadership Symposium continues to develop and improve with new topics that will encourage, support, and develop students to embody professionalism and display leadership throughout their pharmacy career. The members of PLS are extremely grateful for the support we received from faculty and the student body and we are encouraged to continue to provide essential leadership tools for student pharmacists.

A special report: Work with Medication Therapy Management program has long-term benefits for students, alum

Alumni Update and Preceptor Focus: Dr. James Montague at SinfoniaRx

Dr. James Montague (Class of 2013)

Medication therapy management (MTM). If you had asked me what MTM stood for as little four years ago, I probably would've said "bless you," handed you a tissue, and walked away. But in 2015, when looking for a change in pharmacy career paths, MTM is exactly what I stumbled upon after being hired at the University of Arizona and SinfoniaRx's Medication Management Center (MMC).

Coming from a community setting at a large chain pharmacy, this relatively new field of MTM immediately appealed to me. It was like taking all the things I had grown to love about being a pharmacist and distilling it into perfection. I found that MTM demanded creative problem solving, empathetic patient counseling, and intimate knowledge of chronic disease state management.

These days I divide my time between working as the center's clinical trainer and optimizing patient's drug regimens as a medication management specialist. Unique to MMC, my center completes comprehensive medication and targeted medication reviews telephonically. This means that the reviews are completed with patients in the comfort of their own homes; removing the need for them to travel. Additionally, the technicians do fantastic work scheduling the reviews, contacting qualified patients, and completing the initial medication reconciliation. They then transfer the patient to a clinical pharmacist to complete the review. This division of labor allows the pharmacists to practice at the top of their licenses and focus on the clinical work.

One of the skills that pharmacists working in MTM quickly develop is the ability to glance at a medication list, quickly analyze it, and identify potential issues. Because the pharmacists do not have time to work up patients ahead of time, they must be familiar with various chronic disease guidelines' goals and their corresponding treatment regimens, medication dosing, side effects,

and counseling points. Taking all of these things into consideration while simultaneously keeping a patient engaged requires a combination of knowledge, improv, and communication skills. For example, it is common while checking a medication list to observe various drug-disease interactions that may not typically be identified within routine drug utilization review software. The risks of these types of interactions increase as patients age, develop multiple comorbidities, and receive medication treatment from multiple health care providers under various specialties.

Another unique experience I have had, while working at the MMC is working with a large number of other pharmacists in close proximity. This allows for a lot of clinical collaboration as we draw upon each other's clinical experience while discussing evidence-based medicine and guideline updates. It also helps that I work with are some of the nicest people I know.

I am truly fortunate that the culture of the medication management center is one that fosters growth and professional development. Because of the MMC's close involvement with the state's premiere professional pharmacy association, the Arizona Pharmacy Association (AzPA). A few years ago the center's director, Kristin Calabro, encouraged me to become more active in the organization and she inspired me to run for a board of directors position. As a result, I was very fortunate to be elected to the Managed Care Academy's Chair. And at the 2018 AzPA annual convention I was very honored and humbled to be presented the organization's Distinguished Young Pharmacist of the



Dr. James Montague

Year Award.

Recently I finished serving my two-year term on the board and plan to run for another position in the near future. The experience of serving on the board was very gratifying, while the opportunity to have served with some of the brightest and most passionate professionals in my state was very eye opening. I've realized how instrumental your state's pharmacy organization is in shaping the future of our profession because the states are responsible for regulating the profession of pharmacy. Your state's professional organization is the one promoting legislature that affects you most immediately and advances

the profession. They are often working with other healthcare providers to advance bills that can promote the public's well being. Conversely, they also fight against potentially harmful legislation that could hurt the public and negatively impact how pharmacists practice. These days, I take great pains to recommend that all students, no matter where they end up in, become active in their state's organization.

On these thoughts, my wife and I had completed a piece of artwork for the cover for the AzPA's quarterly journals.

This drawing was inspired by the fact that not only does AzPA advocate for new initiatives that advance the practice of pharmacy in Arizona, but a big part of its role in promoting the profession as a whole is protecting pharmacy from potentially harmful legislation and initiatives. The picture depicts various pharmacy professionals and technicians banding together to form a shield wall. The strength of this bulwark is the sum of its members; the darkly colored

arrows deflected are symbolic of the negative initiatives which can seemingly come from anywhere.

As a preceptor at the MMC, I have the privilege of working closely with many wonderful pharmacy students from the University of Arizona, Midwestern University, Regis School of Pharmacy and Creighton University.

However, the experience I had at DKICP was life-changing. Since graduating and moving home to Arizona, I wanted to try and find some small way to give back because I



wanted other DKICP students to have this unique opportunity to experience MTM. So setting up an MTM APPE block for DKICP students was my way of doing that.

At the time of writing this report, I am happy to say the MMC has already had three DKICP students finish their 2018 APPE

blocks -- Jennifer Nguyen, Joshua Frazier, and Vance Hill all with reports here -- with one more student coming in 2019. Each student was impressive in their knowledge,

came to their rotations every day with the desire to learn, and worked hard to personify what it means to be a professional. They did an excellent job of setting a high standard of excellence for DKICP. I am very proud for our schools future, and I think the outlook for our school is very bright if it can continue to provide such high a quality of students. It is my hope that all of my future DKICP APPE students will continue to inspire me as well as my fellow preceptors.

Rotation Reports from SinfoniaRx: Joshua Frazier, Vance Hill and Jennifer Q. Nguyen (all Class of 2019)

Fourth-year experiences in Arizona give new perspective on Medication Therapy Management

Joshua Frazier (Class of 2019)

My rotation at SinfoniaRx was one of my most anticipated rotations of fourth year. The main reason I looked forward to this rotation was because I had little



Joshua Frazier

exposure to medication therapy management (MTM) throughout my pharmacy work experience. Going into this rotation I felt nervous, as I didn't know what to expect. Would I be able to recall everything I learned from Integrated Therapeutics and IPPE activities? But aside from all the butterflies I had on the first day, I knew DKICP prepared me for success.

I felt a warm welcome as I was greeted by the team of pharmacists at SinfoniaRx. My first few days I was given the opportunity to review chronic disease states in order to be well prepared to conduct live comprehensive medication reviews (CMRs) with Medicare patients. This involves performing a thorough review that includes counseling patients on each one of their medications, answering any questions they had on their medications, discussing any adverse drug reactions and recommending any add-on therapies the patient then could discuss with their provider on optimizing their medication regimen.

One of my favorite activities of the

rotation was the live transfer calls I would complete throughout my day. This would involve taking a transfer from a pharmacy technician without seeing the patient profile, and on the fly look through their allergies and medications and finish the review. A majority of the calls averaged around 20 minutes long, but I had some top more than an hour. After the first few calls I was able to get into my groove and felt confident counseling on common chronic disease states using clinical guidelines.

During my time at SinfoniaRx I was able to overlap with University of Arizona and Midwestern pharmacy students, which provided me with unique insights and viewpoints I wouldn't have had otherwise. In addition, I was assigned to a project working alongside another APPE student to create a counseling excerpt about inhalers that would be published in SinfoniaRx's newsletter and used to educate patients.

My favorite thing about this rotation was working with my preceptor, Dr. James Montague. Not only is Dr. Montague an alumni of DKICP, but I could tell right away he was very passionate about developing successful future pharmacist such as myself. Dr. Montague challenged me as a student with thought-provoking clinical questions that would affirm my learning as a student pharmacist. Dr. Montague always made time for his students and played a huge part in making me feel more confident to enter my pharmacy career next year. Overall, the com-

munication between student and preceptor was thorough and clear, and I always knew what was expected of me. Each of the pharmacists were available for any questions I had throughout my rotation.

Vance Hill (Class of 2019)

Back when I started as a pharmacy technician, Medication Therapy Management (MTM) was just a dream. It was a whispered buzzword that held a key to the future of pharmacy.



Vance Hill

More than a decade later, Medicare requires that all their Part D patients receive MTM from a qualified healthcare professional. Pharmacists have been able to flourish in this role and none more so than the staff at SinfoniaRx, where I completed one of my final year's rotation experiences. Partnered with universities across the country, SinfoniaRx has taken pharmacy patient care to a new level with their ability reach so many people throughout the United States.

As an Advanced Pharmacy Practice Experience (APPE) student, I started by shadowing the technicians and pharmacists who work daily to provide personalized care to their population. The staff's ability to conquer the barriers associated with uninterested patients and show them that MTM is worthwhile was superb. They were

able to show me how to convince patients of pharmacist's value in being included in their healthcare team. On the first day, I was able to witness them not only improving patient quality of life, but even preventing harm. Many patients do not even know the reason they take a specific medication, let alone if it is similar to a medication they already received from another doctor. In today's world of comorbid conditions and specialty medicine, this is the rule, not the exception. This separation is designed to improve patient care but can lead to patient confusion and even medication duplication. SinfoniaRx's staff works to prevent problems that can arise from these situations.

While pharmacists are one of the most trusted and accessible healthcare providers, we often still seem to be on the outside looking in. Patients do not always see our value despite our training and some physicians still avoid using pharmacists as an integral piece of the healthcare team. Increased volume and performance metrics have led community pharmacies away from counseling and connecting with their patients leaving a large gap. SinfoniaRx has been able to fill that void and continues to look at a bright future ahead.

Jennifer Q. Nguyen (Class of 2019)

While selecting rotation sites for my fourth-year Advanced Pharmacy Practice Experience (APPE), I was very excited to see that a medication therapy management (MTM) rotation was offered in Phoenix



Jennifer Q. Nguyen

this year and that the preceptor Dr. James Montague, is an alumnus of DKICP.

Before my rotation at SinfoniaRx, I knew very little of what MTM was and exactly what an MTM pharmacist does. I would soon learn how valuable MTM pharmacists, interns and technicians are in helping patients manage their disease states. At SinfoniaRx, pharmacy technicians, interns and pharmacists work together to provide comprehensive medication reviews to patients to help optimize health outcomes, increase adherence and reduce adverse events and drug interactions.

During my six weeks at SinfoniaRx, I was able to work closely with three precep-

tors who helped mentor and guide me to eventually complete medication reviews with patients on my own. MTM was my first rotation block and I was pretty nervous because I was not really sure how to prepare for this rotation or what to expect. However, during my first week of rotation, I was given time to review PowerPoints and guidelines created by clinical pharmacists from SinfoniaRx to help prepare me to counsel and educate patients. To help ease me into being comfortable with completing medication reviews, the pharmacy technicians also took the time to schedule calls for me so that I would have time to review patient's medication lists ahead of time and prepare everything I would go over with them. Once I was comfortable with scheduled calls, I would then go on to taking live calls, which were nerve-racking but really challenged me to think quickly and apply what I have learned during school and from my preceptors.

One of my assignments each week was to choose an interesting patient encounter on which to present a SOAP (stands "for subjective, objective, assessment, and plan"). After each presentation, I would have the chance to discuss the patient with pharmacists, interns and technicians and use the feedback to improve on future medication reviews and SOAP notes. I really enjoyed having these open conversations because it allowed me to learn and grow.

What I really like about SinfoniaRx is that it is a company that is dedicated to the growth and learning of student pharmacists. There are numerous resources for students to use to look up information and all the pharmacists who work there are very knowledgeable, passionate and enthusiastic in teaching students.

One of the highlights of my rotation

was that I was able to create a "quick clip" for pharmacists and interns to use to counsel patients on the proper technique of measuring blood pressure at home. I was told that this "quick clip" I created would go on to be reviewed by the clinical pharmacy team to be used by all SinfoniaRx MTM centers. It was a nice feeling knowing that as an intern, I was able to contribute something valuable during my rotation.

I remember conducting a medication review on a patient who reported to me that she constantly had high blood pressure readings. When I asked her when she was measuring her blood pressure, she let me know that she would measure it after having coffee each morning. I was able to educate her on proper blood pressure measuring technique and confounders. Another memorable patient I had was a gentleman who was put on multiple inhalers. After conducting my interview with him, I found that he was still having a lot of trouble with breathing and it had much to do with inhaler technique and adherence. He was on multiple inhalers but was unsure of how often to use certain ones and how to even use them. I was able to take my time with him to go over each inhaler and educate him on how proper technique and medication adherence can improve his breathing and quality of life.

It was encounters like these that really made me understand where the role of MTM pharmacists fit into our healthcare system. I was able to see how great of an impact MTM pharmacists, interns and technicians play a role each day. Not only does it provide patients with a better understanding of their health and how to better manage their disease states and medications but it also expands the role of pharmacists as health care providers.



Champions of Pharmacy

Champion of Pharmacy: Dr. Maureen Shannon

Dr. Maureen Shannon has been named a Champion of Pharmacy for Winter 2019.

Dr. Shannon's recent involvement with DKICP has been through her federally funded project called the Hawai'i Interprofessional Education and Collaborative (HIPEC) Alliance practice at Dole Middle School (DMS). As Principal Investigator/Project Director, she coordinates a project at Dole Middle School in Honolulu that involves interprofessional students and faculty from UHM School of Nursing and Dental Hygiene, UHM Nutritional Sciences Department, the University of Hawai'i at Hilo Daniel K. Inouye College of Pharmacy, and the UHM John A. Burns School of Medicine Department of Child/Adolescent Psychiatry.

"The continued support and enthusiasm of Dean Carolyn Ma and Assistant Professor Chad Kawakami has contributed to the ongoing success of this interprofessional collaborative practice," Dr. Shannon said. "This practice provides all of the health professions students that have clinical rotations there with the opportunity to share their knowledge, skills and perspectives so that the Dole Middle School children receive state-of-the-art clinical care. Of particular note is the increasing number of clinical pharmacy consultations that many of the children at Dole Middle School require and how important it is to have clinical pharmacists as part of this primary care team."

Dr. Shannon is the Graduate Chairperson for the Department of Nursing and the Ph.D. Program Director at the University of Hawai'i at Manoa. She has more than 35 years experience as a clinician, researcher, educator and mentor. Her research focuses on vulnerable women and families and adverse health outcomes related to socio-cultural health disparities. Her current research projects are investigating the correlation between oral and placental microbiota, the relationship between placental microbiota and perinatal complications, and behavior change in oral health practices of families at high risk for dental disease.

In 2007, Dr. Shannon came to the University of Hawai'i at Manoa - School of Nursing and Dental Hygiene as the Frances A. Matsuda Endowed Chair in Women's Health after completing her Ph.D. degree at the University of California-San Francisco School of Nursing. She has been involved in the education of doctoral and advanced practice nursing students, serves on a number of University and school committees and is the Chair of the University of Hawai'i Ethics Committee.

From Dr. Shannon: "I really cannot imagine working in any clinical setting without having an established collaborative relationship with clinical pharmacists, especially given the complexities of health care today. It's wonderful that this practice model allows each profession to shine while simultaneously learning from other health professions. I think we all really look forward to and enjoy our Thursday clinics at Dole Middle School!"

With this award, we recognize Dr. Maureen Shannon's unwavering support and guidance to the Daniel K. Inouye College of Pharmacy, and are grateful for her continued affiliation.

The Champions Corner allows us to recognize and say mahalo to the people who have been instrumental in leaving a legacy of pharmacy education to thousands of students who have attended the Daniel K. Inouye College of Pharmacy. We encourage your input. Please send suggestions to morrissm@hawaii.edu.



College of Pharmacy names fall 2018 Dean's List



The following students from the University of Hawai'i at Hilo Daniel K. Inouye College of Pharmacy have been named to the Dean's List for the fall 2018 semester:

Class of 2020

Logan Abney
Taryn Chang
Brandi Chun
Joshua Dillon
Jensine Melody Domingo
Courtney Elam
Amelia Furlan
Jhoana Paula Gonzales
Taylor Hori
Kamala Lizama
Tracy Lopez
Mary Lui
Vincent Manalo
Jarin Miyamoto
Shahrazad Mohammadi
Tony Moua
Stacey Nguyen
Kathleen Nguyen
Brent Ocker
Rachel Paragas
Tyler Peterson
Felix Rasgo
Robyn Rector
Shaina Saiki
Reid Shimada
Rajesh Shrestha
Charles Slusher
Niloofar Soltanipour
Joseph Tanchevski
Samantha Teixeira
Jared Toba
Mia Tran
Kelsey Trujillo
Kyle Tsubota
Thi Hong Vo
Stacie Waiamau
Brooke Zariello

Class of 2021

Trang Bui
Brandon Chagami
Lauren Domingo
Tailai Guan
Taylor Hiraga
Jake Hoctor
Feng Ming Huang
Patsylynn Jetley
John-Michael Kimhan
Da Hai Lee
QiXin Li
Noelle Lovesy
Brittany Luna
Nu Nguyen
Lan Thi Hoang Nguyen
Rebecca Oshiro
Calvin Ostler
Jaymee-Rae Pang
Elaine Phan
Tiana Ramos
Norlyn Ranchez
Sera Shimizu
Johnson Siu
Donald Waddell

Class of 2022

Germain Atmospera
Kayla Bajo
Tyler Jo Branco-Hedke
Bryson Cadiz
Paige Cajudoy
Kimberly Chun
Matthew-Allen Clemente
Niel Carlo Concepcion
Alysha Cosier
Roanne Deabler
Tran Dinh
Tara-Ann Dumlao
Kazumi Fujitani
Ashley Fukuchi
Trent Furuta
Laura Hardaway
Leia Hasegawa
Yan Yee Ho
ZhiLing Huang
Brandi Hutchins
Thien Huynh
Minkyung Kim
Jane Lakritz
Tiffany Lam
Zhian Lin
Kyle Nakagawa
Danh-Ronald Nguyen
Angelyn Park
Yun Soo Park
Brian Petrone
Jenny Phong
Cody Porter
Donald Sachs
Melanie Sacro
Jessica Song
Patricia Stevens
Kara Tsuzaki
Kristi Ann Zane



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Since opening in 2007, DKICP has produced 670 graduates who are now providing excellent pharmaceutical healthcare, education and research within our State and beyond. With your continued support, together we can make an impact on the future of healthcare in Hawai'i and throughout the Pacific.

Thank you for helping lay the foundation for future generations of DKICP students, alumni and our community by choosing to give to DKICP.

Please contact UH Foundation Hawai'i Island Regional Development Office at Hawaii.Island@uhfoundation.org or 808-932-7705 to learn more about the different ways to support our work.