

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

Summer 2020 • Volume 12, Issue 2

**Congratulations**

**Class of 2020!**

► PG. 11-17

## Local outreach

One way pharmacy makes  
Hawai'i healthier



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# Dean's Message



## Weathering challenges, celebrating achievements, continuing with hope

We've all just experienced a spring of many challenges. The rapid spread of the COVID-19 coronavirus required us to make quick and significant adjustments to the way we live, work and study. And while those changes haven't been easy, our DKICP ohana really pulled together, in every way possible, to make the transition to online classes and experientials successful.

Both faculty and staff dedicated hard work and long hours to ensure the continuation of teaching and learning. We should also acknowledge our clinical partners, who made extra efforts to accommodate students on rotations this spring and summer. I have so much admiration for

my healthcare colleagues who work on the front lines. It can't be sufficiently expressed that we all appreciate your sacrifices. You are our heroes.

I'd like to thank our University of Hawaii leadership, including UH System President David Lassner and UH Hilo Chancellor Bonnie Irwin, for their quick responses, institutional support and personal encouragement. This issue's Pharmacy Champion acknowledges Dr. Mary Boland for her 15 years of leadership at UH Mānoa's School of Nursing and Dental Hygiene. Our faculty's work with her team and with all nurses to champion education for interprofessional health care sets the bar for our long-term vision of team-based care. I wish her the best in her upcoming retirement.

Congratulations to all of our students. I commend them for their perseverance and determination over the past months. Their valued but altered student time shows their ability to adapt to personal and scholastic changes, with revised class formats, virtual clinic rotations, technical difficulties and social restrictions. This demonstration of resilience will serve them well in the future as health care takes on a very different modus operandi.

To the Class of 2020, we're very proud of you all. The whole DKICP ohana shares the disappointment you feel in not being able to gather together with family and friends to celebrate your achievement with traditional commencement ceremonies. Although I wasn't able to tell you in person, I am confident in your abilities to face the oncoming challenges in health care. I wish you the best as you embark on your new career, at a time when the world needs you most.

As we progress through an antithesis of past summers – travel, family gatherings and time for rejuvenation – I am reminded of a familiar quote as we all work tirelessly towards fall. "Hope springs eternal." I am assured that our new normal will still contain the heart, spirit and joy of community, but with respect and care for all our fellow man.

Aloha mai,

Carolyn Ma, PharmD, BCOP  
Dean



## Kāwili Lā'au

Summer 2020  
Volume 12, Issue 2

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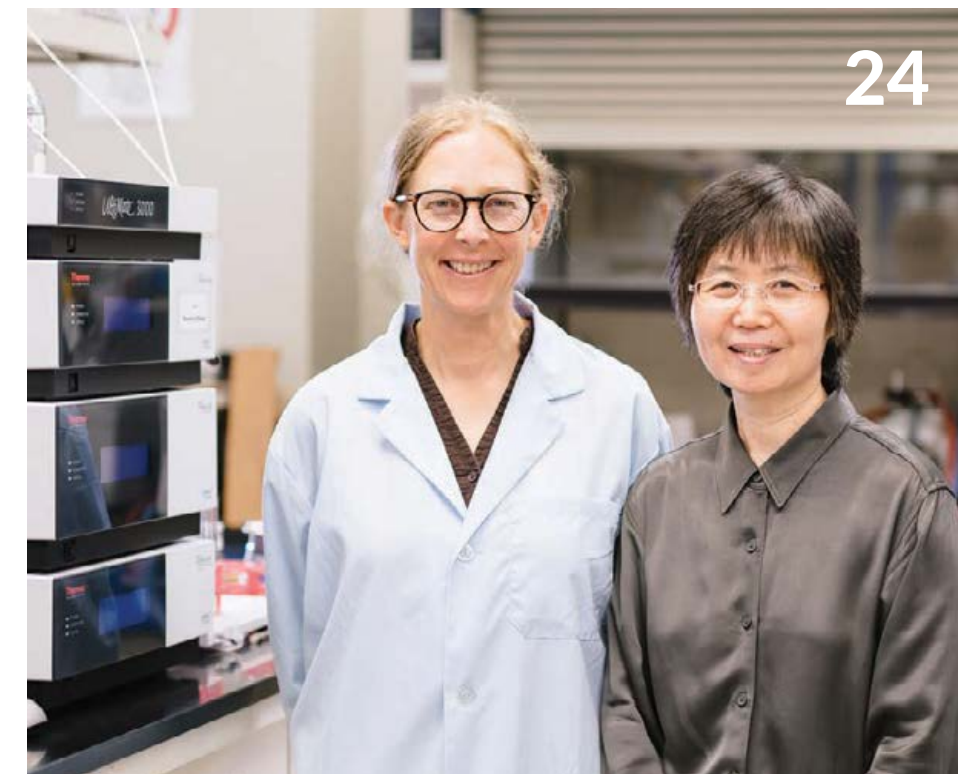
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One of eight graduate students at DKICP, Sasha Nealand pauses from her research on medicinal plant compounds to pose for a picture with advisor Dr. Leng Chee Chang.

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**ON THE COVER:** At last year's DKICP Annual Health Fair in Hilo, student pharmacist (now graduate) Mia Tran checked the bloodpressure of a participant. It is just one of many community outreach events organized and staffed by DKICP students to promote better health maintenance among island residents. (Photo by Tracey Niimi)





## Pharmacy's role in a healthier Hawai'i

The work and mission of DKICP dovetail with a new UH System healthcare initiative.

by Peg Zenk Bitter

Hawai'i may have an image as a healthy place to live but according to recent data collected by the state's Department of Health, its rate of chronic diseases such as heart disease, hypertension and diabetes follow upward general U.S. trends. Just over 80 percent of adults in the state have at least one chronic disease and over half have two or more. Those numbers have

been rising in recent decades.

At the same time, the state faces a shortage of healthcare professionals, especially in more rural areas and on the neighbor islands, as well as growing disparities in the level of healthcare services available to all of its residents.

In an effort to address these and other healthcare challenges, the University of Hawai'i System last year launched UHealthy

Hawai'i, an initiative to leverage the UH health sciences programs to improve health and health care in Hawai'i and the Pacific through meaningful collaborative partnerships. Some of the UH programs involved include medicine, nursing, pharmacy, social work, public health, the UH System's Community Colleges programs, and the UH Cancer Center.

The role of pharmacy in healthcare delivery is an important one, and it has been evolving over the past few decades. Today's pharmacists are focused on improving the care experiences of patients, often as an integral part of the healthcare team, and as an educator, providing health screenings and working to teach patients more about chronic disease detection and management.

### FOUR AREAS OF FOCUS

Heading up the UHealthy Hawai'i initiative is Dr. Aimee Grace, who brings a background in pediatrics, public health and healthcare policy. "UHealthy Hawaii developed through many listening sessions with UH programs, as well as public and healthcare industry stakeholders throughout the state.

"We saw lots of opportunities where UH could support the growth and improvement of Hawai'i's healthcare ecosystem, especially in terms of improving reach to all residents, particularly those in rural and underserved areas," she says.

Based largely on information gathered at those listening sessions, as well as input from diverse community stakeholders, the UHealthy Hawai'i initiative prioritizes four key areas:

1. Ensuring a robust statewide health workforce
2. Discovering and innovating to improve and extend lives
3. Promoting healthier families and communities
4. Advancing health in all policies

As a UH System initiative, UHealthy Hawai'i is one of UH President David Lassner's top priorities, notes Grace.



▲ With a background in health policy, Dr. Aimee Grace is heading up the new University of Hawai'i System initiative called UHealthy Hawai'i.

In its role as the only college of pharmacy in the Pacific region, the Daniel K. Inouye College of Pharmacy is demonstrating its value by contributing to improving healthcare in Hawaii in each of these four areas. Here are some current examples.

### 1. ROBUST HEALTHCARE WORKFORCE

Since it graduated its first class in 2011, the Daniel K. Inouye College of Pharmacy has produced 744 Doctor of Pharmacy degree students and five Doctor of Philosophy degree students. While the majority of those students have gone on to work in community pharmacies, hospitals and clinic settings, others have pursued careers in academia, government and regulatory agencies, and the pharmaceutical industry.

Not all students enter the Pharm.D. program with a defined career goal, but Dr. Tiffany Pualei

graduated with her Pharm.D. degree. Over the years she has worked at pharmacies in Hilo and Waimea, on Hawai'i Island, and currently manages the Safeway Pharmacy in Kailua-Kona.

She says her work has evolved over the last decade, and she enjoys learning new things. "We're doing more medication therapy management now than we did when I started, and I really like forming long-term relationships with patients.

"We're now able to prescribe naloxone to prevent overdose deaths, as well as birth control," she notes. "This pharmacy also offers more vaccinations than others do, as well as specialty, long-term injections, including for schizophrenia and osteoporosis. We talk to drug company reps, read industry magazines, take continuing education classes, and read about new drugs. And we're putting to use all the skills we learned in pharmacy school."



◀ DR. TIFFANY PUALEI SANTORE

DKICP Class of 2011

Manager, Safeway Pharmacy, Kailua-Kona, HI

DR. CHAZ BARIT

DKICP Class of 2012

Associate chief of clinical pharmacy program, Veterans Health Administration, Honolulu, HI

Santore (DKICP Class of 2011) did. "I was involved in Upward Bound in high school, which allowed me to shadow a pharmacist. That's when I knew what I wanted to do," says the Maui native.

She also spent 10 years during college and pharmacy school working as a pharmacy technician, so she was very familiar with the environment within a community pharmacy, and even had a job lined up when she

Dr. Chaz Barit (DKICP Class of 2012) also feels that his work in ambulatory care allows him to put his four years of pharmacy school education to work. As associate chief of the clinical pharmacy program at the Veterans Health Administration in Honolulu, he's able to pursue his passion – working with veterans. "Pharmacists are well integrated into healthcare teams here at the VA, and we add a lot



of value for the patients,” he says. “We know more than just drugs; we have a lot of skills and training that can really be put to use in this type of setting.”

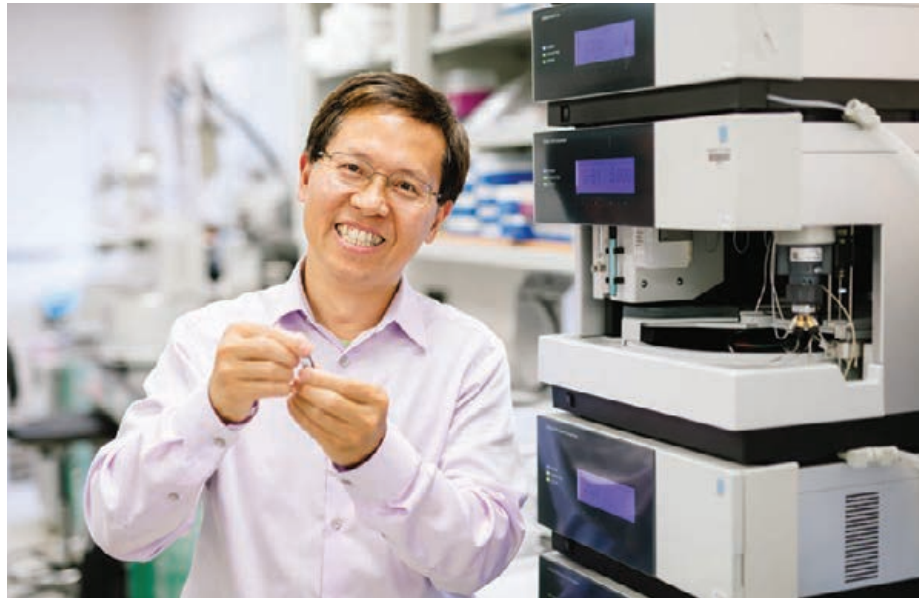
When he entered pharmacy college, Barit says he originally planned to go into research. “Then I did a clinic rotation and learned about ambulatory care and realized I wanted to work with people.”

He encourages students to try to find their passions. “Expose yourself to as many opportunities as you can early, and sometimes be willing to step outside your comfort zone. That’s the best way to figure out what type of work will make you happy,” he says. “I’m very fortunate that I’m here in Hawaii, where I want to live, working at the VA and serving those who have served our country.”

## 2. RESEARCH AND INNOVATION

Research is a vital part of the college’s mission, and several DKICP faculty and their students are conducting research to solve local problems. For instance, rat lungworm disease has sickened nearly 100 people on Hawai‘i Island over the past decade, with eight cases in 2019, alone. Caused by the parasite that is found in the pulmonary arteries of rats, which is how it gets its name, rat lungworm disease is commonly transmitted to humans when parasite eggs in rat feces are eaten by snails or slugs, which are accidentally ingested by humans on unwashed produce.

The resulting effects in humans are often flulike-symptoms, headache, stiff neck and nerve pain. In the worst cases, MRI scans have shown larvae can make their way into the brain, leading to eosino-

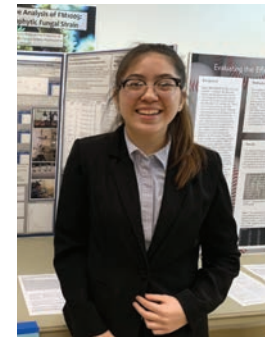


Top: DKICP professor Sue Jarvi is head and co-founder of the Hawaii Island Rat Lungworm Working Group, a information forum for discussion on all aspects of the disease and its prevention. Bottom: Prior to joining the DKICP faculty, Dr. Shugeng Cao worked at Virginia Tech, the Marcus Natural Product Laboratory in Boston and the UH Cancer Center studying compounds from bacteria, fungi, plant and marine organisms.

philic meningitis, which can cause severe neurological problems. Diagnosis is often difficult because symptoms can vary from person to person, and there is currently no simple test to administer.

Dr. Susan Jarvi, DKICP professor of pharmaceutical sciences, hopes to change that. She and her research team are working on developing an inexpensive blood test to enable faster diagnosis.

In the meantime, DKICP graduate student and pharmacist Dr. John Jacob is investigating the effectiveness of commonly used anti-parasitic medicines that can immobilize the larvae before they can enter the bloodstream and damage the central nervous system. Jacob is working with his advisor Jarvi and other DKICP faculty, including Dr. Ingo Lange and Dr. Ghee Tan, to publish the



Top: Dr. John Jacob examines the parasitic larvae that causes rat lungworm disease to see if exposure to anti-parasitic medicine is able to kill or paralyze it.

Bottom: Lela DeVine is one of the most recent high school students to train in the Cao Lab at UH Hilo, and this spring won a trip to a Mainland science fair competition.

results of their first study. Jacob says they are also investigating other medications that could be used to kill the larvae outright, including the anti-worm medication albendazole.

Jarvi, who has studied the disease for nearly a decade, says her recent research reveals that more species can spread the parasite, including Coqui frogs and centipedes. That, combined with the high level of infection among Hawai‘i Island’s rat population, means the disease is not going away. As head of the Hawai‘i Island Rat Lungworm Working Group, she continues to seek funding for more research, as well as to better educate the public

about the disease, how it is spread and the need for rodent control.

For Dr. Shugeng Cao, it was the wealth of tropical flora and fauna that drew him to Hawai‘i, first to the University of Hawai‘i Cancer Center on Oahu in 2013, and then to DKICP in 2015. The associate professor of pharmaceutical sciences has long been studying and working with tropical plants and marine fungi to isolate compounds for medicinal uses, including potential drugs to treat cancer and malaria.

One of his current focus areas is studying under-explored microorganisms in Hawai‘i, including plant endophytes, fungi found high on the volcanic mountains and deep in the ocean. “We have already identified some anticancer, antibacterial and antifungal agents in the fungi found in certain types of coral and sediment, and we are working to understand how they work, how they could be modified through gene manipulation and eventually synthesized into effective compounds for treating disease,” he explains.

His lab’s other area of research is herbal medicines, including *Morinda citrifolia*, locally called noni. Well-known as a traditional Hawaiian medicinal plant, noni’s juice is believed to have properties that aid in the treatment of gout, arthritis, fever and even some cancers. “We are trying to identify biologically active molecules that account for the claimed therapeutic effects and mechanisms of action,” says Cao. “We have also been looking at *Barleria lupulina*, commonly known as Philippine violet, which is believed to work as an anti-inflammatory and to help control blood glucose levels.”

Cao’s lab employs both graduate and undergraduate students, as well as a couple of gifted high school students. “We train the

undergraduate and high school students in basic laboratory skills and procedures, and broader research strategies, while getting the benefit of their help in performing repetitive but necessary tasks,” he adds.

The results of their work has garnered recognition. Ph.D. student KH Ahammad uz Zaman has already coauthored and published two research papers in noted journals. Waiakea High School student Lela DeVine, who this spring participated in the East Hawaii Science Fair, was chosen to participate in the 2020 International precollege science competition on the Mainland. “Although the competition was cancelled due to the pandemic, her selection is recognition of Lela’s excellent research in our lab,” adds Cao.

## 3. HEALTHIER RESIDENTS

Hawai‘i’s residents are facing increasing rates of chronic diseases. For example, the prevalence of type-2 diabetes in the state increased by 60 percent between 2000 and 2010. Recent Department of Health statistics show as many as 40 percent of the population may now have prediabetes. But, according to the Centers for Disease Control, nine out of 10 people with prediabetes don’t know they have it.

That’s what makes early detection of chronic disease so important, says Dr. Roy Goo, DKICP associate professor of pharmacy practice and department chair. He notes that Pacific Islanders have higher rates of tobacco use, obesity, heart disease and diabetes than other segments of the state’s population. “That’s complicated by the fact that many have limited access to health care.” For years, Goo has worked with local health-care provider Hui Mālama Ola Nā



‘Ōiwi to organize screening clinics and improve that access.

At these events, DKICP student pharmacists conduct health screenings for diabetes, cholesterol and hypertension, as well as providing information on healthy diets and lifestyle changes. “Many of the residents we consult with have no primary care provider, so for those who want or need to follow up with a doctor, our students are able to connect them with someone at Hui Mālama Ola Nā ‘Ōiwi,” says Goo. “Helping them find a source for ongoing care is a critical step in helping

them manage their diseases and improve their long-term health.”

Community outreach and service to the state’s residents has been an integral part of the college values and practices since its founding. Through many student organizations, DKICP student pharmacists regularly interact with the community and, in many cases, become a part of it. Some yearly community outreach program include:

- The **DKICP Annual Health Fair**, the college’s largest outreach event, is held at the Prince

Kuhio Plaza in Hilo. Open to the public, the fair features around 20 educational health-care booths manned by students and sponsoring organizations and businesses, as well as healthcare screenings, local entertainment and drawings for donated prizes.

- **Mililoi‘i Lā Ohana** is an annual event hosted by the DKICP Phi Delta Chi chapter in the rather isolated fishing village of Mililoi‘i, on the leeward side of Hawai‘i Island. Student pharmacists provide health screenings, activities for kids and educa-

tional boards. Local residents are happy to organize crafts, live music and food.

- A **diabetes screening event** is one of several activities that are part of a local **Hilo Ladies Night Out** event, held at the beginning of the school year, and manned by students in the Hawai‘i Student Society of Health Systems Pharmacy and Academy of Managed Care Pharmacy. This past year, the same groups, in collaboration with Kappa Psi Pharmaceutical Fraternity, also offered screenings at the American Cancer

Society chapter’s annual 5K Color Run event.

- Working in collaboration with Hawai‘i Island business KTA Pharmacy, student members of the American Pharmacists Association – Academy of Student Pharmacists helped conduct a **series of health fairs and screenings** at locations around the island. The group also organized a fitness fair open to everyone on the UH Hilo campus.

#### 4. PROMOTING HEALTH POLICIES

Discussions about nationwide health policy have focused on several key areas in recent years, says Grace, who worked as health policy advisor for U.S. Senator Brian Schatz in Washington, D.C., prior to taking her current position at the University of Hawai‘i. They include:

- The Affordable Care Act and its attempt to provide coverage for all citizens
- The move from volume-based to value-based care
- State laws increasing the minimum age for tobacco sales to 21
- State and federal laws allowing expanded use of telehealth services

While all of these initiatives could have an impact on the pharmacy profession, the move to a value-based healthcare delivery model (basing payment on patient outcomes instead of on volume of services provided)

offers opportunities to make better use of the skills and training that pharmacists bring to the healthcare team, notes Grace. “We’ve been looking at other successful models in North Carolina and California, where pharmacists are embedded into primary care teams. The work that Jarred Prudencio is doing at East Hawai‘i Health Clinic – 1190 Primary Care (formerly Hawai‘i Island Family Health Center) in Hilo is a great example of the value a pharmacist can bring when integrated into primary care.”

Prudencio, DKICP assistant professor, maintains a clinical practice site as an ambulatory care clinical pharmacist at the Hilo clinic. Three mornings per week he spends with patients who have chronic diseases in order to optimize their medication care, while afternoons are either spent teaching or following up with insurers and completing patient paperwork.

“I get to work one-on-one with patients to address any medication concerns or side-effects they might be having and make adjustments to dosages or prescriptions, if needed,” he says. “I’m able to do this as part of a collaborative practice agreement with a physician at the clinic.”

Viewed as a critical team member at the clinic, Prudencio says his work in ambulatory care allows him to practice at the top of his license and make the most of his pharmacological expertise. “In this role I’m able to make lasting relationships with our patients in working to improve their health, but also freeing up time for other clinic staff to focus on other areas,” he notes. “Overall, this model makes the clinic more cost-effective, as well.”

◀ At last year’s Mililoi‘i Lā Ohana community event, student pharmacists Minneh Oyas, Brittney Palomares-Layaoen and Tiana Ramos from the DKICP Phi Delta Chi chapter help with educational activities for local children.







▲ Jarred Prudencio, DKICP assistant professor, maintains a clinical practice site as an ambulatory care clinical pharmacist at a Hilo clinic.

Prudencio got exposure to this type of pharmacy curriculum while doing a residency year at the University of California Davis Medical Center, after graduating from DKICP in 2015. In that program, ambulatory pharmacists are an integral member of a multi-disciplinary team with physicians, nurses, dietitians, and respiratory and physical therapists. Several states, including California, have established additional credentialing procedures for pharmacists, allowing them to achieve provider status, which is essential for coverage by most healthcare insurers.

Within Hawai'i, several major healthcare systems, including the Veterans Administration, have incorporated ambulatory care pharmacists onto their healthcare teams, notes Prudencio. "There is so much evidence that the concept helps to improve patient outcomes and is more cost-effective."

One of the most important things students learn from his rotation is how to work with the patient to develop a plan for managing their own health and wellbeing. "Many of our students really enjoy their interaction with our patients,

and express an interest in this pharmacy specialty. That's good because the number of positions in ambulatory care is growing," he says.

If federal and state policies are advanced to support the role of ambulatory clinical pharmacists, that interest is likely to further grow, adds Grace.

## STATE LAWS ADD GREATER SUPPORT AND FUNCTION TO PHARMACY

Administration, faculty and students of the Daniel K. Inouye College of Pharmacy have worked hard in recent years to communicate with state and federal legislators and the public on key issues impacting the pharmacy profession. "As pharmacy best-practice leaders for the state, we at DKICP have offered valuable insight and provided support in the form of testimony to move legislative bills forward that help to meet the state's public health and safety needs," says Dean Carolyn Ma.

Here are several examples of those efforts coming to fruition in state laws that aim to more fully utilize the knowledge and skills of pharmacists in order to improve access to health care, promote greater public safety and recognize the value of professional training.

- **HPV vaccines** – As of July 1, 2020, the human papillomavirus (HPV) vaccines will now be required for all students in the state of Hawai'i before starting grade 7. The series of two vaccines can be administered by pharmacists at many pharmacies around the state.
- **Immunizations** – Recently updated immunization laws in the state allow pharmacists to administer Tdap (tetanus, diphtheria, pertussis), meningococcal or influenza vaccines to people 11 to 17 years of age.
- **Prescriptive powers** – Pharmacists in Hawai'i can now prescribe and dispense contraceptives without needing evidence of a previous prescription. They can also prescribe and dispense an opioid antagonist (naloxone) to an individual at risk of opioid overdose or the family member or caregiver of someone at risk.
- **Medication take-back program** – In 2018 the state partnered with federal agencies to launch a drug drop-box program in an effort to remove unwanted and potentially dangerous opioids from Hawai'i homes. The program also ensures proper drug disposal and prevents them from entering the water supply or the ocean. Because Hawai'i pharmacies, hospitals, clinics and physicians were not allowed to take back unused medications, the drop boxes were initially located at police stations on all islands. A new law passed in 2019 now allows pharmacies with a reverse distributors license to take back medications.
- **Preceptor tax credit** – Beginning in 2019, eligible healthcare providers who serve as preceptors to eligible students may apply for a tax credit. The credit is intended as an incentive that will help to increase the number of providers willing to serve as preceptors.



## Congratulations from the Dean

May 15, 2020

**Dear Graduates of the Class of 2020,**

My heartfelt congratulations on achieving your dream of fulfilling your aspiration of becoming a pharmacist! Alongside your family and friends, our faculty and staff share in your joy and excitement.

I know you will join me in expressing a warm mahalo to the videos crafted by the U.S. Public Health Commission Corp's Rear Admiral Scott Giberson and Lieutenant Commander Jill Gelviro ('11). Their messages at your 2016 White Coat Ceremony now seem oddly fortuitous. RADM Giberson's distinguished efforts to lead the United State's intervention in the Ebola virus epidemic and alumna Jill Gelviro's passionate outreach work at the Alaska Native Medical Center and the Southcentral Foundation's Soldier's Heart Program, offer examples of a pharmacist's impact on this world's struggles. Their distinctions set a high bar for us all. Your lessons and collective experiences over the past four years has set the foundation for you to continue striving as life-long learners.

I understand how much it must hurt that for all the work that you have put forth in these four years, to not be able to celebrate in commencement ceremonies. But perhaps your disappointment will deepen your capacity for empathy and compassion, values that are so essential as you face the oncoming challenges in health and wellness. I look forward to the day when we will celebrate, face to face, your success and achievements.

I am so proud of your work as a Class of 2020, how each of you has contributed to the legacy of this college, and how you will soon honor and represent our profession. I wish you the best in your journey forward to fulfill your commitment to care for others in need and for those whom you will shine your light upon.

Respectfully,

**Carolyn Ma,**  
PharmD, BCOP  
Dean





# Reflections from the CLASS OF 2020



Logan Abney



Bj Isaac Acosta



Cherie Baldugo



Aaron Brown



David Cao



Taryn Chang



Imai Chock



Brandi Chun

## David Cao

Pharmacy school was very memorable for me because of the many influential people I worked with. I had a lot of fun traveling with friends and experiencing APPE rotations. I enjoyed learning from faculty through research and rotations; it was inspiring to see them in their element and doing what they love. I am thankful for the friends that I made during these past four years. They have been very supportive in their own way and had a positive impact on my experience in pharmacy school. A lot has changed with the college since my P1 year and my hope is that things will continue to improve.

## Jhoana Paula Gonzales

The last four years at DKICP were full of challenges and successes. I was able to be part of several organizations that allowed me to become a well-rounded student and inspire others. My greatest memory was when I was awarded DKICP Student Leader of the Year, which has motivated me to continue to be a role model to other aspiring leaders.

I am so thankful for all the friends I made and the Class of 2020. To all the organizations I was a member and leader of, thank you for the opportunity to be of service. Thank you to my parents, my husband, my now 4-year-old son, and my family for always supporting and loving me. I was a mother, wife, student, and colleague, which wasn't easy, but as pharmacists, we have to endure and persevere to be able to give exceptional care to our patients.



## Vincent Manalo

Pursuing my pharmacy education at DKICP was a great experience, one that I will never forget. I will always be grateful for all of the memories that I have gained along my journey to become a pharmacist.

## Brandon Frijas

We made it through pharmacy school! This was definitely a hard-earned and interesting journey. Between the friends I made, my Kappa Psi Brothers, and my beloved housemates at the Patrón Palace, I found my family over here and we had plenty of incredible times. While it is unfortunate that we couldn't all be in Hilo to see each other one more time and celebrate this milestone of achieving our PharmD, I am still very proud and honored to have been part of this school. I would love to thank my Mom, Dad, and brother for supporting me throughout pharmacy school. Good luck everyone!



## Gregg Tam

There were many fond memories while at DKICP, such as studying with friends for an exam all weekend, to getting involved in the community and hanging out with friends around Hawai'i Island, including the APhA events and the ALOHA Project Health Screenings. The many events gave us a chance to see different parts of the island and meet people with different backgrounds and communities. One memorable event was the White Coat Ceremony, when we were officially inducted into DKICP as pharmacy students and one step closer to becoming pharmacists. Another event was the APhA Diabetic Food Sampler because we got to make different diabetic-friendly dishes, got to try everyone's recipes and had a mini contest. The most fun part was making the food with friends at each other's homes. I'll never forget the fun times I had at DKICP.



## Jared Toba

My time at DKICP has been a journey of personal growth and development. As a student, I matured from a shy P1 to a confident soon-to-be pharmacist. My proudest accomplishments include becoming the president of NCPA, an intern at Safeway Pharmacy, and an inducted member of Kappa Psi, Phi Lambda Sigma, and the Rho Chi Society. I will never forget the friends and memories I gained at DKICP, and I am forever thankful to my professors, preceptors, family, and friends who helped me along the way. As a P4, I was able to fall in love with the field of pharmacy all over again, gaining hands-on experience that I will treasure for a lifetime. Thank you to the school and everyone who helped me live out my dream - to be a community pharmacist.



Marlisa Corpuz



Wilson Datario



Joshua Dillon



Jensine Domingo



Les Domingo



Courtney Elam



Brandon Frijas



Amelia Furlan



Christina Gallegos



Adi Gjolla



Jhoana Paula Gonzales



Thomas Ha



Taylor Hori



Kelly Kofalt





### Mia Mayumi Cao Tran

Four years ago, during my P1 year, I was very excited to attend DKICP, which was my first choice when I was applying for pharmacy schools. I was also nervous at that time thinking what did I get myself into with the extensive amount of information we were taught. However, every time I think back on all of the learning and memories I had with my friends, classmates, and faculty members, including hard times and great times, I truly believe that I made the right choice in coming here for pharmacy school. I have met many wonderful people who helped me to be a strong and positive person. I appreciate everyone who has been supporting me and making great impacts in my life. Congratulations Class of 2020! I am proud of our class' accomplishments and grateful to be graduating together! Thank you and I wish you all the best!



### Stacie Waiamau

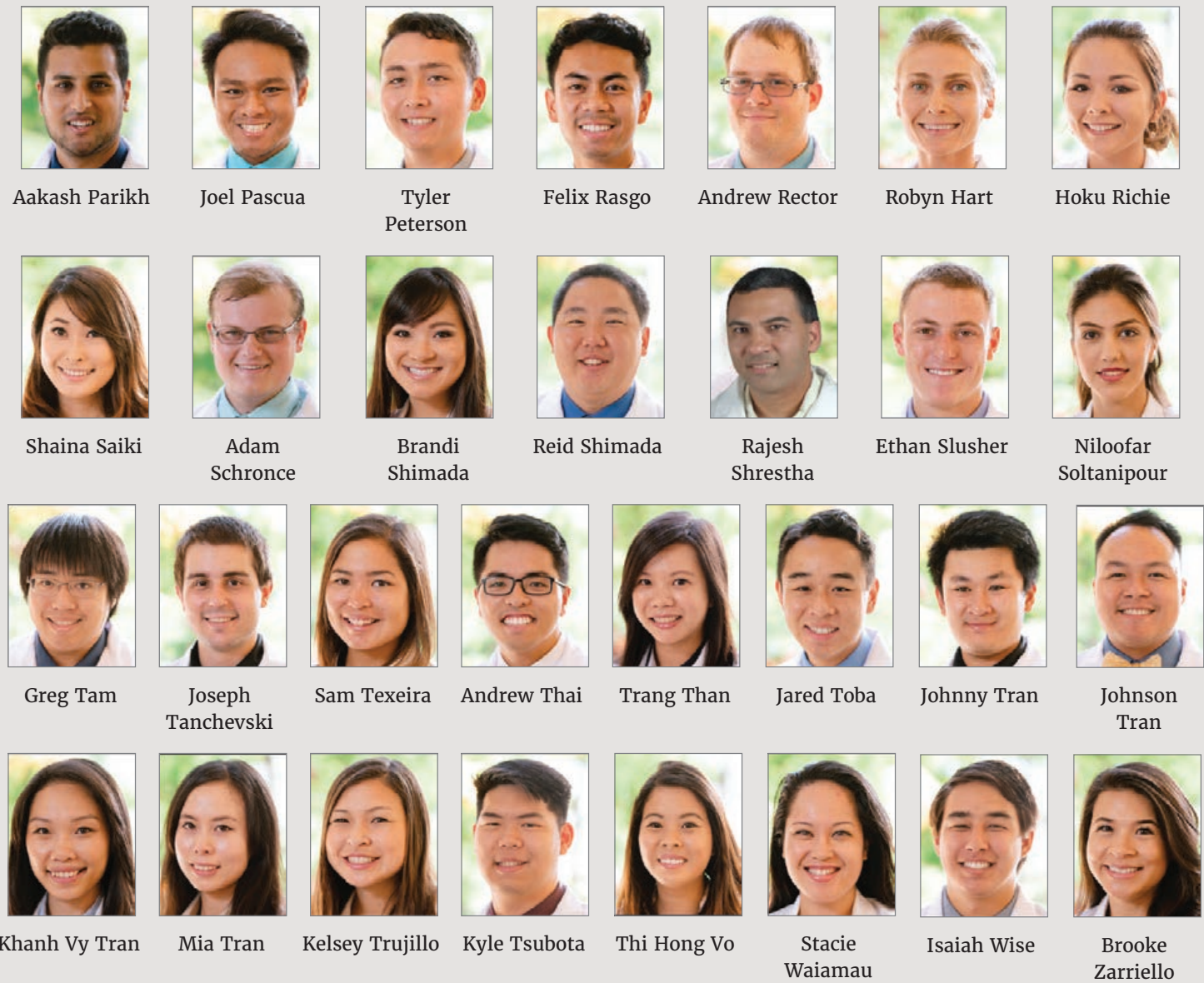
It's amazing how days seem to drag along but years pass by in an instant. I can still remember my first day at DKICP and the nervous excitement I felt at the beginning of my Pharm.D. journey four years ago. I wouldn't have survived this process without the classmates who became my friends and who I now consider my family. Thank you for all the late nights "studying" in the mods, brunches, birthday surprises, ohana meetings, brotherhood, championship games, stakeouts, lost items, shenanigans at MV and all the reindeer games. Thanks for the memories. To my fellow 2020 grads, good luck in your future endeavors. We made it! Turn up!

### Khanh Vy Tran

My time at DKICP is coming to a close, but I will never forget the experiences and memories I made as a pharmacy student. I would like to thank my family, friends, and school faculty for all the support, words of encouragement, and wonderful memories you all have given me. My favorite memories as a pharmacy student were practicing injecting myself with "insulin" in Introductory Pharmacy Practice Experience (IPPE) and gaining hands-on experience during Advanced Pharmacy Practice Experience (APPE) rotations. During my time as a student I am proud of becoming an intern at Straub Medical Center and being the Business Plan Chair for NCPA. Both experiences allowed me to grow as a leader and helped me to gain valuable clinical knowledge. This is only the beginning of my career and I am excited to be able to give back to my community as a pharmacist!

### Johnson Tran

These past four years have been the most memorable years of my life thus far. The professors, staff members, students and the strong Hilo community all have made an impact in my life one way or another. I am truly thankful for my time at DKICP and wish everyone the best on their future endeavors.







## Advice for the graduates

Following are graduation addresses given in video form to the DKICP class of 2020. The first is by Rear Admiral Scott Giberson, with the U.S. Public Health Commission Corp, who also addressed this class at their White Coat Ceremony in 2016. The second speech is by Lieutenant Commander Jill Gelviro (Class of 2011), who is also with the U.S. Public Health Commission Corp and is currently stationed in Anchorage, Alaska.



▲ Rear Admiral Scott Giberson

to what a new normal might look like. Does a new normal include the ability for pharmacists to provide comprehensive care for patients? Provide treatment? Do testing? Vaccinate without restrictions? And even prescribe, where appropriate?

Will pharmacists be universally accepted as healthcare providers? Will you be compensated appropriately and continue to have greater impact? Will you be seen as the gatekeepers of health, due to your expertise and accessibility to the community? These are all questions that you will help answer, if you want to have impact.

I want to issue to you a challenge. I challenge every graduate, as a matter of fact, I challenge every pharmacist across the nation to be infectious. As

discordant as that may sound, given the current events, that is the exact irony we need. Your commitment, expertise, leadership, trusted relationships with patients, and ability to have impact on the health of the nation are the characteristics you already have, and you should infect others with them.

This will result in energy and resilience and, much like a virus, you will be contagious. The infection will spread and a new culture will develop.

The nation needs you to get through these challenging times and set a new normal moving forward. It is your turn to help people, to impact the nation even more as pharmacists, and to be infectious. You were built for it.

Speaking from experience, I don't remember individual data from patients or specific research I did on topics or outcomes, or even programs or projects I led. In general, most people don't remember these types of things. However we do remember the stories, the stories of learning – all-nighters, impossible exams or even great parties.

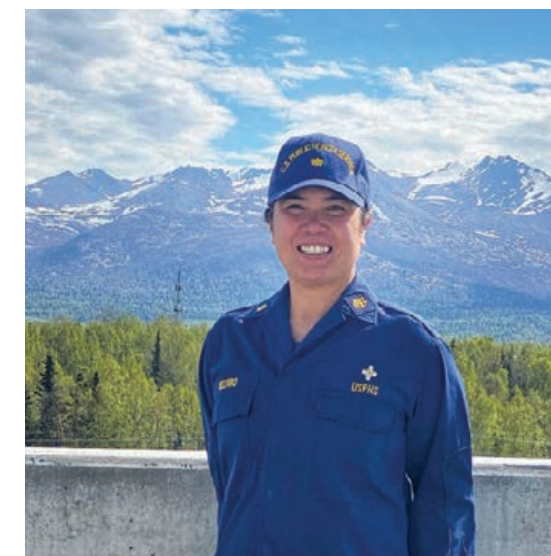
On a bigger scale, we remember response to as crisis, adventures, displays of courage, feelings of humility and friendships. The stories make you who you are. The stories help illuminate your character. The stories are how people – patients and friends – identify with you. People will remember the stories.

So right now, you have an incredible opportunity to begin your story, amidst a once-in-a-generation crisis. This does not happen often. Whether it lasts four months or four years it is some-

thing you will never forget and neither will those you help.

Only this year's class of 2020 can say they graduated and made a positive impact at one of the most unique times in our nation's documented history. Now is the time for you to write your first story as a professional, a story that no one will ever forget.

**To the graduating class of 2020, stay strong, stay healthy and, once again, congratulations!**



▲ Lieutenant Commander Jill Gelviro

### Stay resilient and challenge yourself

Aloha and congratulations to the Daniel K. Inouye College of Pharmacy class of 2020. Hopefully you remember me. I am Lieutenant Commander Jill Gelviro, a pharmacist with the United States Public Health Service and a proud alumni of the class of 2011.

It has been a little less than four years ago that I returned to Hilo, and it was for your White Coat Ceremony and a pharmacy leadership society meeting that I had come back to visit. It really was an honor to spend time with all of you. I remember getting lost during site seeing, riding bikes through the lava flow, and watching folks stress out because there were scheduled exams that following week.

All of it was fun to witness but my favorite memories were seeing the pride and excitement you all had in being in your white coats, hearing the passion and wonder about future possibilities in the pharmacy profession as we spoke.

I remember listening to Rear Admiral Giberson talk about leadership and resiliency, and I am sure your journeys have been full of many challenges since then. But you made it through and I am so excited and proud of you.

Yes, you are graduating during a different and unique time for the world but that does not take away from your accomplishments. Know that we have all been called upon to make sacrifices that none of us could have imagined. But maintain your resiliency and passion in helping others.

Seek out new opportunities and continue to challenge yourselves since every choice that you make, from this moment forward, has the potential to be able to define your life.

I want to close by saying congratulations and best wishes in your future endeavors.

**Aloha and a hui hou, until we meet again.**

### Seek opportunities to help people and impact the nation

Aloha to the University of Hawai'i College of Pharmacy. I'm coming to you direct from my home in Maryland. Thank you once again Dean Ma for this invitation. For all of those listening in the virtual space, and especially to the graduating Class of 2020, it's a privilege to be here as part of the event. I've even dressed for the occasion in my whites, which I don't get to wear much around here. It reminds me of Hawai'i.

I hope you remember that I was your White Coat Ceremony speaker four years ago, so I certainly feel a special connection to this class. I can't believe time has passed so quickly and now you have earned your doctor of pharmacy degree. We are all four years older and, hopefully, a little wiser.

During my message to you in 2016, one of the remarks made was that you would build your ship at this university and you would have the capacity for great impact. I also said that a ship is safest in the harbor, yet it is built for the sea.

Well you now have completed your training, and you have the

capacity to do great things. However, you will need to lead and challenge the status quo to have the most impact. Four year ago, we also spoke about challenges you will have to navigate. Although I had no foresight of what was to come, ladies and gentlemen, you are presented with some of the most unique challenges we have ever faced as a nation. However, you are also presented with some of the most unique opportunities that we have ever experienced before. Think about looking through that lens as we move forward.

Think about the fact that there is a huge need for vision in health care, almost an unsurmountable amount, in some cases, where you can directly contribute. Think about all the public health need that exists, from prevention to testing to treatment. People need you as healthcare professionals. Yes, there is a crisis around the world but you are positioned to have direct and positive impact. It is a privilege to have this opportunity.

Currently, the status quo has been upended and we're all open



# CELEBRATING REAL ACHIEVEMENT WITH AN ONLINE CEREMONY



What this year's DKICP Spring Awards Ceremony lacked in hugs and handshakes, it made up for in virtual enthusiasm. Students, faculty and staff gathered via Zoom for an online version of the event. Along with the presentation of many awards and scholarships, viewers enjoyed a slide-show recapping highlights of the many student activities that took place earlier in the year.

Here's a list of this year's award winners.

## STUDENT CHOICE AWARD FOR TEACHING

**Class of 2023:** Drs. Abhijit Date and Supakit Wongwiwatthananutit

**Class of 2022:** Drs. Dianqing Sun and Jarred Prudencio

**Class of 2021:** Drs. Daniela Guendisch and Chad Kawakami

## PRECEPTOR OF THE YEAR:

Bonnie Bennett, Pharm.D., BCPS, CDE, from Tripler Army Medical Center

**FACULTY PRECEPTOR OF THE YEAR:** Allen Shih

## RECOGNITION OF STUDENT AMBASSADORS

**Class of 2021:** Joseph Joyce, Brandon Kozima, Christian Macaspac, Josephine McDonald, Karen Pae, Henry Quach, Donald Waddell

**Class of 2022:** Alysha Cosier, Ashley Fukuchi, Olivia Graham, Danh Nguyen, Angelyn Park, Kara Tsuzaki

## RECOGNITION OF UH HILO STUDENT ASSOCIATION MEMBERS

Roanne Deabler, DKICP senator  
Nadra Nour, graduate senator

## RECOGNITION OF PHARMACY CURRICULUM OUTCOMES ASSESSMENT HIGHEST ACHIEVEMENT:

Qixin (Sandy) Li

## USPHS EXCELLENCE IN PUBLIC HEALTH

**PHARMACY AWARD:** Josephine McDonald

## MYLAN PHARMACEUTICALS EXCELLENCE IN

**PHARMACY AWARD:** Stacey Nguyen

## APHA-ASP SENIOR RECOGNITION CERTIFICATE:

Gregg Tam

## NCPA OUTSTANDING STUDENT MEMBER

**OF THE YEAR:** Brittany Luna

## KAHELE STUDENT LEADER OF THE YEAR:

Clifford Agcaoili

## SCHOLARSHIPS

### UH HILO DKICP ALUMNI ASSOCIATION

**SCHOLARSHIP:** Kalen Niimi

### ALOHA SHOYU PHARMACY SCHOLARSHIP:

Katrina Jardine and Trisha Nobriga

### CVS HEALTH FOUNDATION PHARMACY SCHOOL

**SCHOLARSHIP:** Nina Cardoza, Tran Dinh and Daijiro Oshitari

### ELWIN & VALERIE GOO ENDOWED EXCELLENCE

**SCHOLARSHIP:** Yun Soo Park

### GRACE MIZUKO MIYAWAKI PHARMACY

**SCHOLARSHIP:** Travis Hirayama

### HAGA FAMILY ENDOWED SCHOLARSHIP:

Tyler Branco-Hedke



### HAWAII INDEPENDENT PHARMACIES, INC. EN-DOWED EXCELLENCE SCHOLARSHIP:

Roanne Deabler and Cleighton Lagmay

### EDWIN AND GEORGIANA KAM ENDOWED EXCELLENCE SCHOLARSHIP:

Ashley Fukuchi

### MOLOKAI DRUGS, INC. SCHOLARSHIP:

Kendrick Justin Dalmacio and Matthew Neumann

### MR. NAGAKATSU KUMAO OTSUKA AND DR. RAYMOND MASASHI OTSUKA MEMORIAL SCHOLARSHIP:

John Jacob and Sasha Nealand

### ALBERTSONS SAFEWAY PHARMACY

**SCHOLARSHIP:** Alysha Cosier

### WALGREENS DIVERSITY AND INCLUSION

**SCHOLARSHIP:** Nadra Nour

### WALGREENS MULTILINGUAL SCHOLARSHIP:

Danh Ronald Nguyen

### JOHN M. AND MIMI F. PEZZUTO EXCELLENCE

**SCHOLARSHIP:** Qixin (Sandy) Li, Duy Nguyen and Henry Quach

## DKICP MERIT AWARD RECIPIENTS

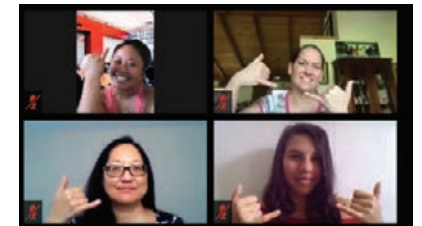
### Class of 2021:

Sean Domingo, Qixin (Sandy) Li, Brittany Luna, Jaymee-Rae Pang, Johnson Siu, Donald Waddell

### Class of 2022:

Alysha Cosier, Tran Dinh, Ashley Fukuchi, Leia Hasegawa, Brian Petrone, Donald Sachs, Melanie Sacro

**Class of 2023:** Selin Cross, Jasmine Curiel, Emily Tu Le, Kalen Niimi, Sung Mi Yoon



### STUDENT ORGANIZATION OF THE YEAR:

Hawaii Student Society of Health Systems Pharmacy and Academy of Managed Care Pharmacy



# Adapting to life with a PANDEMIC

Students and faculty share stories of adjustment.

The arrival of the COVID-19 virus in the United States and Hawai'i this spring impacted the way nearly everyone lives and works. For DKICP students, faculty and staff, working from home and taking classes online became the new normal.

For students and faculty on rotations, and for the clinical partners the college works with to provide on-site teaching and training, communication methods changed but the learning continued. And for one DKICP faculty mem-

## MAKING THE MOST OF TELEMEDICINE

by Jarred Prudencio, DKICP assistant professor

The East Hawaii Health Clinic – 1190 Primary Care is an interdisciplinary family medical clinic located in Hilo, HI. Two clinical pharmacist faculty from DKICP oversee a comprehensive medication management (CMM) service at this clinic while precepting students on their ambulatory care rotation.

Under normal circumstances, the pharmacists and students would have scheduled appointments with patients in the clinic to discuss their chronic conditions and medications and make the necessary adjustments to optimize their medication regimen. The COVID-19 pandemic has definitely affected the healthcare settings in many ways. While the pharmacists in this clinic are not involved in acutely treating any patients with COVID-19, their work must continue in treating patients since more common conditions such as diabetes, hypertension and COPD have not declined.

In an effort to keep patients safe at home but still provide them with the necessary healthcare needed, the clinic has moved to conducting the majority of patient visits by telephone. This transition to telehealth has allowed the pharmacists to continue to provide CMM appointments and also allows for

DKICP fourth-year pharmacy students to complete the mandatory APPE ambulatory care rotation requirements and gain experience in caring for patients during this pandemic.

In this adapted model, students work with the pharmacists to review patient cases and prepare for phone appointments. Patient appointments are then completed by phone with the pharmacist and student, where the student can provide medication counseling and adjust their medications under the supervision of the pharmacist.

In addition to patient appointments, students participate in case discussions, review topics of therapeutics, and work with nurses and physicians in the clinic for any drug information questions.



▲ P4 student Emmanuel Anozie provides medication counseling to a clinic patient by phone.

▼ Dr. Matthew Koenig, a physician at The Queen's Medical Center in Honolulu, discusses patient care with DKICP P4 students Raha Hosseini, Jake Hocter and Clifford Agcaoili.



## TAKING ROUNDS ONLINE AT QUEENS

by P4s Jake Hocter, Raha Hosseini and Jaymee-Rae Pang

Due to the COVID-19 pandemic, social distancing has become a new aspect of daily life. As a result, medical rounds in the neuroscience intensive care unit at The Queen's Medical Center have moved from an in-person format to online via Webex video conferencing, which is HIPAA-compliant.

In this setup, each member of the healthcare team practices social distancing by remaining in their own separated location. The reporting nurse is in the intensive care unit, while the attending physician and nurse practitioner are in their respec-

tive offices. The pharmacy students are located in an offsite conference room.

The rounds are conducted as normal, with the nurse reporting to the team any patient changes that have occurred. Despite being online, the members of the healthcare team still work collaboratively and efficiently to create optimized treatment plans. Each member is able to convey their ideas to the team and the conference-call style allows for discussion about the plan. When possible, family members of the patient also join the call

to get updates and be part of the decision-making process.

Using Webex, physicians and nurses can share their screen during rounds to show scans, images, lab work and progress notes and explain what they think is going on and what the best course of action might be.

Though social distancing has resulted in a change to the style of ICU rounds, thanks to telehealth technology such as Webex, medical care decision-making is able to remain an interdisciplinary task. Seeing how communications skills have been optimized has been a great learning experience.



## TIPS FOR A SUCCESSFUL VIRTUAL ROTATION

When the coronavirus pandemic interfered with the normal pace of final rotations for DKICP P4 students this past spring, it didn't take long for preceptor Bonnie Bennett to regroup. The pharmacist clinician at Tripler Army Medical Center quickly mapped out a plan that would allow DKICP P4 student Courtney Elam to be able to complete her rotation in a virtual format.

Both mentor and student feel the experience was a positive one, offering advantages and challenges. They offer these takeaways:

### 1. Develop a detailed plan.

Bennett revamped a weekly outline to fit in as much of the original curriculum as possible that could be completed online, then got it approved by DKICP administration. She also set aside a few hours for weekly phone calls with Elam to discuss the content and answer questions. While Elam initially feared the time con-

straints, she says they actually helped both focus their conversations and make the most of their weekly discussions.

### 2. Tailor the approach.

Topics were tailored to accommodate Elam's background and previous experiences. "We skimmed topics that Courtney had covered in other rotations, and focus on the areas where she had less experience," says Bennett.

### 3. Make expectations clear.

Both Bennett and Elam have strong organizational skills and benefited from a detailed outline and structured schedule. "Courtney knew what was expected of her, always completed her work and was prepared each week," says Bennett. "Her diligence kept me motivated. I needed to work hard to make it a good experience for her. There was mutual respect."

### 4. Expect technical challenges.

Due to the hospital's electronic firewalls, the pair weren't able to use internet conferencing or telemedicine technologies, but Elam was able to get patient interaction. "I visited with the same patient by phone each

week to monitor his blood sugar levels and other vitals, and to discuss other health concerns," says Elam.

### 5. Accept some limits.

"I didn't get to have the hands-on, in-person exchanges that you normally would with a mentor and patients but felt I developed the start of a good patient relationship through the weekly phone calls," says Elam.

"I didn't get to do hands-on patient care, such as foot exams and device counseling. I also wasn't able to access patient notes, making it challenging to write comprehensive notes and workups."

### 6. Understand personal challenges.

Because of shelter-at-home provisions, Elam had to work around taking care of her two small children. Bennett had school-age kids at home, as well, so she understood those challenges. "We were able to find a time to talk each week that fit Courtney's family schedule. It also gave us an opportunity to talk about the importance of balancing life and home demands with those of work," she says.

were planning to start sending students there this spring," explains Roy Goo, DKICP associate professor and department chair of Pharmacy Practice. "After the COVID-19 outbreak, so many things were up in the air. But they called and said they still wanted to move ahead with student rotations and were ready to take it all online. "OHP really rose to the occasion and demonstrated their commitment to our students," adds Goo. "We were really impressed, and grateful."

Ohana Health Plan (OHP) is a part of the Centene Corporation of health plans, committed to helping people live healthier lives, says Dr. Rane Shoji, director of state pharmacy for OHP. "By providing access to high-quality health care, innovative programs and a wide range of health solutions, we are focused on helping families and individuals get well, stay well and be well. One of the innovative programs at OHP is our Advanced Pharmacy Practice Experience (APPE), in conjunction with the Daniel K. Inouye College of Pharmacy," he says. "This APPE hybrid rotation provides students with an understanding of disease states, pharmacotherapy and population health management, as they relate to ambulatory care and managed care pharmacy settings."

He says that throughout the rotation students will develop skills in the delivery of pharmaceutical care using the various didactic and tactile learning opportunities available at OHP, including medication therapy management, clinical care guidelines and literature-based medicine, quality of care programs and pharmacy impact on the overall business viability of a health plan.

## NEW CLINICAL PARTNER DURING CHALLENGING TIMES

Despite the added pressures for manpower and resources that so many healthcare providers felt this spring, DKICP was very fortunate to add a new clinical partner and site for student rotations.

"We had been talking with the staff at Ohana Health Plan about becoming a clinical partner for several months, and

## CALLED TO SERVE

The following email is from Lieutenant Colonel Chad Kawakami, a pharmacist and plans officer for the 1984th United States Army Hospital. He has 14 years of service in the United States Army Reserve. Chad is also an assistant professor of pharmacy practice at DKICP.

Greetings DKICP Ohana,

On June 12, 2006, I took the Oath of Commissioned Officers by raising my right hand. The oath states "that I will support and defend the Constitution of the United States against all enemies, foreign and domestic." I never imagined that one day that fight would be against a virus.

On the evening of April 9, 2020, I was having dinner with my family when I got a call from the Brigade Commander, notifying me of my deployment to Guam and the Commonwealth of the Northern Mariana Islands (CNMI) as a Medical Planner in support of COVID-19 Operations. By the middle of the following week I was in Guam.

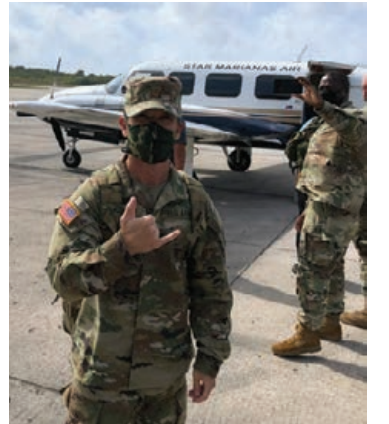
I am among more than 1,200 Army Reserve medical professionals that have been mobilized in Urban Augmentation Medical Task Forces (UAMTF) as part of the Department of Defense response to COVID-19. The UAMTF is a new construct that was created to respond in this time of crisis, and is meant to augment the civilian medical community by delivering a wide range of critical medical capabilities. In Guam and the CNMI, medical forces were aligned to augment local community hospitals and Alternate Care Sites (ACS). ACSs (i.e. Javits Center in NYC) are constructed to address the immediate and projected medical needs from the COVID-19 pandemic, for state, local, and territorial governments.

My mission on this deployment is to serve as the Medical Planner for Task Force West. Task Force West consists of Officers from the Army, Navy, Air Force and Marines. I was responsible for overseeing and leading the joint medical planning operations that consisted of ensuring forces arrive in theater safely. I was also responsible for developing plans for evacuation and future support operations.

During the deployment, I visited Saipan and conducted site visits at the Kanoa Resort and Commonwealth Health Corporation. These are the sites that Army medical personnel were assigned to augment. Should the need arise, I can also serve as the pharmacist for a 50-bed ACS. This campaign and deployment has validated that the Army Reserve is an agile, adaptable asset to our homeland, in addition to being a global medical force provider. As a member of the Army Reserve, I must be trained and ready to respond to a no-notice event when called upon.

When I serve, everyone around me serves. I want to thank my family and especially my wife for taking care of the home front. And to my DKICP Ohana, thank you for your support and for covering for me while I am away.

Best,  
Chad



▼ A positive attitude and a willing and determined mentor allowed Courtney Elam to complete her last rotation this spring and graduate with the DKICP Class of 2020.





# Meet the GRAD STUDENTS

The Daniel K. Inouye College of Pharmacy (DKICP) at the University of Hawai'i at Hilo is the only institution in the central Pacific to offer a Ph.D. in Pharmaceutical Sciences degree program. This program utilizes the extraordinary biological, geographical and cultural diversity on the Island of Hawai'i, and within both the State and Asia-Pacific Region, as a focus of investigation and study.

The Ph.D. degree program provides graduate training in the pharmaceutical sciences, including medicinal chemistry, pharmacology, pharmaceuticals and pharmacognosy, with an emphasis on the role of natural products in drug discovery and development, and their importance in pharmacy and health care in general. The faculty includes researchers in the fields of cancer and infectious diseases, in addition to analytical and medicinal chemistry.

The program is designed to foster student development as critical thinkers, team players, self-directed interdisciplinary scholars and communicators. Students are prepared for leadership positions in the pharmaceutical sciences in academia,

research, education, government, industry and associated fields. They are trained to become leaders who can identify, research, and solve problems related to the biomedical sciences.

Since its inauguration in 2011, the program has graduated seven students who have gone on to secure positions ranging from scientists at major national and international research institutions, to much-coveted appointments in industry and academia. Currently, eight graduate students are at various stages of training in the program.

Here's a look at what seven of those students are working on and where they hope their research and completed degree might take them.

## Samiul Atanu

**HOMELAND:** Bangladesh

**DEGREES:**

- MS in pharmaceutical sciences, Jahangirnagar University, Dhaka, Bangladesh
- B.Pharm., Jahangirnagar University, Dhaka, Bangladesh

**PRIOR WORK:** Lectured for five years at Jahangirnagar University before coming to Hawai'i.

**ADVISOR:** Dr. Ghee Tan

**RESEARCH:** My research focuses on the molecular pharmacology of *Morinda citrifolia* (noni). The project aims to optimize and standardize the fermentation process of noni according to the anticancer potency of the resulting product and its profile of bioactive chemical constituents. This work also seeks to investigate the modulatory effect of pure chemical compounds isolated from optimally fermented noni juice on key cellular signaling pathways associated with the hypoxic solid tumor micro-environment. It is anticipated that the outcome of this study will provide critical impetus for future clinical trials on fermented noni juice.

**CAREER GOAL:**

I wish to become a faculty member at an academic institution that allows me to teach and conduct research.



## Sasha Nealand (Kovacs)

**HOMETOWN:** Half Moon Bay, California

**DEGREES:**

- MS in Pharmaceutical chemistry, University of Florida, Gainesville, FL
- BS in Chemistry/Biology, Excelsior College, Albany, NY
- AS in Biotechnology, Skyline College, San Bruno, CA
- Biotechnology laboratory technician certification, Foothill College, Los Altos, Hills, CA

**AWARDS:**

- 2020 Garden Club of America Anne S. Chatham Fellowship in Medicinal Botany
- 2020 Mr. Nagakatsu Kumao Otsuka and Dr. Raymond Masashi Otsuka Memorial Scholarship, DKICP

**ADVISOR:** Dr. Leng Chee Chang

**RESEARCH:** My doctoral thesis focuses on a native medicinal plant found around my home area in California. I propose that this plant, *Grindelia stricta* var. *platyphylla*, which is rich in resinous terpenes, may have useful anti-mycobacterial activity. Preliminary screenings that I have conducted thus far have determined that crude chromatographic fractions of the extracted flowers of this plant do indeed have anti-mycobacterial activity. In support of my thesis, I am now attempting to further isolate these active compounds using bioas-

say-guided fractionation by chromatography and screening with non-pathogenic strains of mycobacteria as a surrogate model for the disease causing mycobacteria. In addition, I am characterizing the separated active compounds using several spectroscopic methods, including nuclear magnetic resonance (NMR).

I would like to thank my advisor, Dr. Chang, who has kindly allowed me to carry out my project in her laboratory at the Waiakea Research Station, Department of Pharmaceutical Sciences, DKICP. I would also like to acknowledge the assistance provided by collaborator and microbiology professor Dr. Christine Case and her staff and students at Skyline College, San Bruno, Calif. Thanks to her mentorship and generous offer of materials, laboratory space and student help, I was able to carry out some preliminary investigations including the anti-microbial assay of hundreds of fractionated samples of *G. stricta* var. *platyphylla* extract. I would also like to thank Dr. Wendy Applequist and the Garden Club of America for helpful correspondence about the correct botanical classification of my plant and for the recent granting of a fellowship in support of my work. It means a lot that they have reviewed my research ideas and found my thesis and data to be scientifically valid.

**BIGGEST GRAD SCHOOL CHALLENGE:** Graduate school expects students to be somewhat independent. As a doctoral student, I must come up with my own thesis question and design all of my experiments from scratch. I can get many experiment ideas from scientific journals, visiting scholars in our laboratory and from other mentors, but ultimately, I must design and carry out all of the experiments in support of my thesis on my own, although I can seek out and forge connections with scientific collaborators for experiments outside of my expertise. This means that I must often teach myself new instruments and techniques by trial and error, and that initially I might miss certain crucial information. There can be many failures, dead ends, mistakes and repeat experiments to contend with and solve. This freedom to design and carry out my own experiments is why I came to graduate school in the first place and it can be both exciting and, at times, discouraging. Every day in the lab presents new challenges that require inventive solutions.





## John Jacob

**HOMELAND:** India

**DEGREES:** Pharm.D., Poona College of Pharmacy, Pune, Maharashtra, India

**PRIOR WORK:** One year residency at Bharati Hospital and Research Centre, Pune, Maharashtra, India

**ADVISOR:** Dr. Susan Jarvi

**RESEARCH:** I am working on treatment aspects of neuroangiostrongyliasis (rat lungworm disease) using anthelmintic drugs. The use of anthelmintics for the treatment/management of neuroangiostrongyliasis remains controversial due to inconsistent and discrepant conclusions from multiple studies, most of which

are case reports and uncontrolled studies. In addition, the efficacy of anthelmintics on *Angiostrongylus cantonensis* (rat lungworm) has not yet been thoroughly established. My field of study includes *in vitro* and *in vivo* investigation of FDA-approved anthelmintic drugs on *Angiostrongylus cantonensis*.

**RECENT PUBLICATION:** I published two articles in the journal *Parasitology* (Cambridge University Press): 1) co-authoring the publication entitled "Validation of a death assay for *Angiostrongylus cantonensis* larvae (L3) using propidium iodide in a rat model (*Rattus norvegicus*)" in 2019, 2) and was first author in the recently-accepted article, "In vitro efficacy of anthelmintics on *Angiostrongylus cantonensis* L3 larvae."

**CAREER GOAL:** I hope to be employed in the public health sector of the State of Hawaii and remain associated with epidemiological and/or clinical research.



## Md Afjalus Siraj (Saeed)

**HOMELAND:** Bangladesh

**DEGREES:** B.Pharm. and M. Pharm. from Khulna University, Gollamari, Khulna, Bangladesh

**PRIOR WORK:** Four years in pharmaceutical industry and one year as university lecturer

**AWARDS:** Received Bangladesh Sweden trust fund travel fellowship in 2016 for travel to the U.S. and am a member of Rho Chi Society (Delta Iota chapter) since 2018.

**ADVISOR:** Dr. Ghee Tan

**RESEARCH:** My work focuses on the pharmacological characteri-

zation of small molecule therapeutics for breast and non-small cell lung cancers. To that end, I am exploring the secondary metabolites of the foliar endophytes of Hawaiian *Morinda citrifolia* (noni) for their anticancer properties. This work demonstrated that a tetrahydroanthraquinone metabolite of a noni fungal endophyte suppresses estrogen receptor positive breast cancer cell proliferation by modulating the AKT/P13K cellular signaling pathway. I continue to perform in-depth studies into this mechanism of action.

**CAREER GOAL:** I am passionate about teaching and would like to develop a career in academia where I will continue to conduct research.

**BIGGEST GRAD SCHOOL CHALLENGE:** Pursuing my Ph.D. degree far away from family and friends in Bangladesh is hard, at times. My resolve and perseverance will ensure success and a family reunion is imminent.



## KH Ahammad uz Zaman

**HOMELAND:** Bangladesh

**DEGREES:**

- B.Pharm., Khulna University, Gollamari, Khulna, Bangladesh
- MSc. in pharmaceutical sciences, University of Greenwich, London, England

**ADVISOR:** Dr. Shugeng Cao

**RESEARCH:** I investigate Hawaiian indigenous fungi for their capability to produce anticancer, anti-inflammatory, antibacterial and antifungal metabolites. The development of antibiotic resistance necessitates exploration of novel antibiotics with unique chemical scaffolds, along with unique biological targets. The investigation of secondary metabolites of microorganisms from unusual sources such as Hawaiian fungi may increase the chance of finding novel compounds. Recent studies have found several promising candidates. The

main objective of my research is to isolate and identify hundreds of fungal strains from the wide variety of environments (especially extreme environments) found in and around Hawai'i Island. This includes deep sea and high mountain environments. I have, thus far, isolated 50 fungal strains from Hawaiian marine samples and soil collected from volcanic habitats. I have isolated 18 new compounds from these fungal strains, some of which have demonstrated significant anticancer and anti-inflammatory activities.

**RECENT PUBLICATIONS:** I co-authored three articles published in 2020: 1.) "NF-κB Inhibitory and Antibacterial Helvolic and Fumagillin Derivatives from *Aspergillus terreus*" in *Journal of Natural Products*; 2.) "Tryptoquivalines W and X, two new compounds from a Hawai'ian fungal strain and their biological activities" in *Tetrahedron Letters*; 3.) "Antibacterial and NF-κB Inhibitory Lumazine Peptides, Aspochalasin, γ-Butyrolactone Derivatives, and Cyclic Peptides from a Hawaiian *Aspergillus flavipes*" in *Journal of Natural Products*.

**CAREER GOAL:** I hope to be a natural product scientist in an academic setting. I previously served as a faculty member at Daffodil International University in Bangladesh and very much enjoyed it.



## Dustin Tacdol

**HOME ISLAND:** Maui

**DEGREE:** BS in Biology from University of Hawai'i at Hilo

**ADVISORS:** Drs. Dana and Ingo Koomoa-Lange

**RESEARCH:** My work focuses on understanding and elucidating how Store Operated Calcium Entry (SOCE) plays a role in neuroblastoma. The two main questions I am looking to answer are: 1.) Does downregulation or inhibition of SOCE re-sensitizes drug resistance in neuroblastoma? and 2.) Can downregulation or inhibition

of SOCE can prevent drug resistance in neuroblastoma? I believe finding answers to these questions can provide novel information in the fight against drug resistance in cancer.

**CAREER GOAL:** After completing postdoctoral training, I want to become a researcher in my own lab, and be influential in the continued progress towards a cure for cancer. I would also give opportunities to those aspiring to become researchers, much like the opportunity was given to me.

**BEST ADVICE FROM MENTOR:** Some days the cancer cells aren't very uncooperative, and one day my mentor told me, "Some days things won't go your way. When they do, though, make sure to make the most of it."





## Emilio Quarta

**HOME ISLAND:** Big Island

**DEGREE:** BS in Biology, University of Hawai'i at Hilo

**PRIOR WORK:** Three years in research and product development of cannabinoid-based delivery methods at a local biotechnology company. Two years in quality control conducting product analyses on industrial algae production on the Big Island of Hawai'i.

**ADVISOR:** Dr. Ghee Tan

**RESEARCH:** I am participating in the construction of a dual aerobic/anaerobic model of the human gastrointestinal tract, complete with the gut microbiome, to investigate the effects of food additives, drugs and xenobiotics on gut bacterial and intestinal cell metabolism. This work aims to clarify the role of the gut microbiome in drug biotransformation and human health.

**CAREER GOAL:** I plan to be a biomedical scientist in industry or academia.

**BEST ADVICE FROM MENTOR:** "Prepare your experiments meticulously on paper. Then do it once, and do it right!"



## Ghee Tan, Ph.D.

### PROFESSOR

Director of Ph.D. in Pharmaceutical Sciences program

### DEGREES:

- B.Sc. (Hons.) in Pharmacy from National University of Singapore, Singapore
- Ph.D. in molecular pharmacology, University of Illinois at Chicago (UIC), Chicago, Ill.

**RESEARCH:** My initial focus was on the biochemistry and natural product inhibitors of the human immunodeficiency virus (HIV) reverse transcriptase. I spent a decade devoted to natural products drug discovery research for major tropical diseases (HIV/AIDS, malaria and tuberculosis) and cancer. I participated in the quest for new anticancer agents through the NIH-National Cooperative Drug Discovery Group program and served as program director for the drug arm of the NIH-UIC International Cooperative Biodiversity Groups consortium that explored the biodiversity of Vietnam and Laos as sources of lead molecules for potential drug development. I continue to be passionate about the mechanism of action of natural product molecules and their role in health care as I engage in interdisciplinary projects that address cancer and other major diseases that impact humanity.

**MENTORING:** Over the years I have mentored many doctoral students and supervised post-doctoral, as well as undergraduate students. I'm also a founding DKICP faculty member.



**Julie Adrian**, DVM, associate professor in the Department of Pharmacy Practice, was invited to make the following presentations for veterinary continuing education at the 92nd Annual Western Veterinary Conference, February 2020 in Nevada:

The opioid crisis: Are we prescribing and dispensing those drugs I? | The opioid crisis: Are we prescribing and dispensing those drugs II? Are we contributors to the problem? | The opioid crisis: What resources are available to help? | The opioid crisis: What? Really?



**Shugeng Cao**, Ph.D. and associate professor, Department of Pharmaceutical Sciences, was co-author on three publications including: "Circumdatin M, a new benzodiazepine alkaloid with a unique pyrimidone-4-pyrone moiety from a Hawaiian marine

fungus *Aspergillus* sp. FM242", *Tetrahedron Lett.* 2019, 60, 1724-1726, with co-authors F Wang, Z Hu, C Li and X Wu.

"Clavukoellians A-G, highly rearranged nardosinane sesquiterpenoids with anti-angiogenic activity from *Clavularia koellikeri*", *J. Nat. Prod.* 2019, 82(5), 1331-1337, with co-authors Q Wang, Z Hu, X Luo, J Liu, G Li and Q Liu.

"An unusual benzoisoquinoline-9-one derivative and other related compounds with antiproliferative activity from Hawaiian endophytic fungus *peyronellaea* sp. FT431", *Molecules.* 2019, Jan 7; 24(1). pii: E196. doi: 10.3390/molecules24010196, with co-authors C Li, AM Sarotti, X Wu, B Yang, J Turkson, Y Chen and Q Liu.



**Bryce Fukunaga**, Pharm.D. and assistant professor, Department of Pharmacy Practice, was elected to the board of the Hawaii Pharmacists Association for 2020-21, as director, neighbor islands.



**Carolyn Ma**, dean, published an article entitled "Evaluation of distance facilitation and technology in an interprofessional simulation exercise," in the journal *Currents in Pharmacy Teaching and Learning*, July 2020, 12(7), 776-785, with co-authors

L Wong, A Wen, R Arndt, A Katz, K Richardson, A Yamanaka and K Masaki.



**Karen Pellegrin**, Ph.D., MBA, and director of continuing education, strategic Planning and the Center for Rural Health Science, was invited to serve as Healthcare Management Series editor for 2020 SAGE Business Cases, a peer-reviewed library

of applied learning resources for faculty teaching business courses, SAGE Publishing.

She also was co-author on a poster presentation that received the Gold award at the 2020 Pharmacy Quality Alliance annual meeting held May 6-7, 2020. The presentation was titled "Socio-economic and Geographical Characteristics of Medicare Beneficiaries Accessing Medication Therapy Management (MTM) Services", and co-authors were Chou J, Cooke C, Zarowitz B, Hanlon A, Lozano A, Brandt N.



**Jarred Prudencio**, Pharm.D. and assistant professor; **Michelle Kim**, Pharm.D. and assistant specialist; **Camlyn Masuda**, Pharm.D. and assistant specialist; **Bryce Fukunaga**, Pharm.D. and assistant professor; and **Wesley Sumida**, Pharm.D. and associate professor

published an article entitled "Ambulatory care clinical pharmacy services through the Daniel K. Inouye College of Pharmacy Faculty" in the *Hawai'i Journal of Health & Social Welfare*, April 2020, 79(4).





**Jarred Prudencio**, Pharm.D. and assistant professor; and **Michelle Kim**, Pharm.D. and assistant specialist; co-authored two research posters that were accepted for presentation at the 2020 American Pharmacists Association Annual Meeting held online. Poster titles

were “Transitioning patients with type 2 diabetes from Prandial insulin to Glucagon-like peptide 1 agonists” and “Improving patient outcomes by providing pharmacist comprehensive medication management in a primary care clinic.”



**Justin Reinicke**, instrument specialist and safety officer, published a paper entitled “Isolation, Structure Determination, and Synthesis of Cyclic Tetraglutamic Acids from Box Jellyfish Species *Alatina alata* and *Chironex yamaguchii*” in the journal *Molecules* 2020,

25(4), 883; with co-authors R Kitatani, SS Masoud, KK Galbraith, W Yoshida, A Igarashi, K Nagasawa, G Berger, A Yanagihara, H Nagai and FD Horgen.



**Wesley Sumida**, Pharm.D. and associate professor, Department of Pharmacy Practice, was elected to the board of the Hawaii Pharmacists Association for 2020–21, as director, health systems.



**Dianqing Sun**, professor and chair of the Department of Pharmaceutical Sciences, has been granted a U.S. Patent 10,654,869 on the continuation application “*Bacterial topoisomerase I inhibitors with antibacterial activity*” with Dr. Yuk-Ching Tse-Dinh at Florida

International University. In addition, Dr. Sun was recently invited to serve as a grant reviewer for the Medical Research Council in the UK.

**Deborah Taira**, professor, Department of Pharmacy Practice, is co-author on two manuscripts

that were accepted for publication at peer-reviewed journals. They are entitled, “Relation of the networks formed by diabetic patients sharing physicians with emergency department visits and hospitalizations,” *Medical Care* and “Level of Self-Reported Pain’s Interference with Work, and Association with Number of Prescriptions and Health Care Expenditures,” *Journal of Pharmaceutical Health Services Research*.

**Supakit Wongwiwatthananutit**, professor in the Department of Pharmacy Practice, was a corre-



sponding author on a publication entitled: “What a pharmacist/practitioner should know about evaluating noninferiority trials” published in *Interprof J Health Sci (IJHS)*, with coauthors Truong, Q. and Ferreira, E.

Wongwiwatthananutit was a corresponding author on a publication entitled: “What a pharmacist/practitioner should know about evaluating noninferiority trials” published in *Interprof J Health Sci (IJHS)*, with coauthors Truong, Q. and Ferreira, E. He also served as a co-author on the research project entitled: “Development of an interaction database for anticancer drugs and Thai herbs” and was presented at the 2020 Annual Thesis Projects in Pharmaceutical Care and Industrial Pharmacy Conference/Symposium, Faculty of Pharmacy, Chulalongkorn University, Bangkok, Thailand. The project was selected to be the Winner of the Best Poster/Presentation Award in pharmaceutical care. Coauthors are S Soopairin, K Phoemsap, P Damrongsakul, P Vivithanaporn, V Yodsurang, N Pornputtpong, and P Khemawoot.

**KH Ahammad uz Zaman**, graduate student, has published coauthored two papers, the first titled “NF-κB Inhibitory and Antibacterial Helvolic and Fumagillin Derivatives from *Aspergillus terreus*,” in the *Journal of Natural Products*, 2020, 83(3), 730–737. Coauthors include Z Hu, X Wu, S Hou, J Saito, TP Kondratyuk, JM Pezzuto, S Cao. The second paper, titled “Tryptoquivalines W and X, two new compounds from a Hawaiian fungal strain and their biological activities,” was published in *Tetrahedron Letters*, 2020, 61(14), Article 151730, with coauthors Z Hu, X Wu and S Cao.

Three DKICP faculty were successful in this year’s Promotion and Tenure process. “Their valuable contributions have helped make significant strides not only for our college but also for research and Hawai‘i’s health care,” says Dean Carolyn Ma. “Our faculty, staff and students are fortunate to have their dedicated commitment in helping to continue fulfilling our mission of education, research and service.”

**IN THE DEPARTMENT OF PHARMACY PRACTICE:**

**Dr. Cherie Chu** received tenure and promotion to associate professor.

**Dr. Wesley Sumida**, associate professor, received tenure.

**IN THE DEPARTMENT OF PHARMACY SCIENCE:**

**Dr. Ghee Tan** received promotion to full professor.

## APhA – ASP



### WEARING RED TO CELEBRATE WORLD HEART DAY

by Nikko Marion Magtoto

On a beautiful sunny day in Hilo, students at the Daniel K. Inouye College of Pharmacy dressed in red attire in observance of World Heart Day. As aspiring pharmacists, the students advocate for all types of ways to raise awareness and prevent diseases. World Heart Day helps to bring awareness to the growing prevalence of cardiovascular disease in America. Wearing red is meant to signify the promises we make to our families to eat and cook healthier, to our children to stay active, and as future healthcare workers to advocate for heart-healthy choices.



◀ Students participating in World Heart Day include Brooke Higa, Taylor Hiraga, Elaine Cottom, Nu Nguyen and Alan Trinh.



## Blue Zones

### STAYING HEALTHY WHILE SOCIAL DISTANCING

Since 2016, April has been recognized as “Blue Zones Health Month” to celebrate when the Blue Zones Project Advisory Committee (BZPAC) was certified as an official worksite by Blue Zones Project East Hawai‘i. Last April, the committee held “Power Hours” every Thursday at the DKICP modular rooms. Each “Power Hour” event incorporated various activities related to the “Power of 9” principles: Move Naturally, Purpose, Belong, Loved Ones First, Right Tribe, Wine at 5, Plant Slant, 80% Rule, and Down Shift.

“The committee educated pharmacy students about these ‘powers’ through healthy cooking demos, moving naturally with hula exercises, and card making for loved ones,” says BZPAC chair Tiana L. Ramos. This year, due to the COVID-19 pandemic, BZPAC continued the tradition of hosting Blue Zones Health Month while respecting current Centers for Disease Control and Prevention (CDC) recommendations.

“CDC recommendations not only include social distancing to prevent COVID-19 spread, but they also emphasize continuous care for our physical and mental health,” says BZPAC chair Bruce Meno. With the help of Zoom, a cloud-based video conferencing service, the committee hosted two virtual “Mālama Hours” events: “Eat & Play” on May 2nd and “Get Up & Get Moving” on May 3rd.

“Eat & Play” invited students to virtually share a meal together while playing fun, creative games such as Kahoot, freeze dance and an “around-the-house” scaven-



DKICP student participated in online events via Zoom to remind them to exercise and stretch in order to relieve stress while staying at home during the pandemic.

ger hunt. “Get Up & Get Moving” focused on promoting a healthy and active lifestyle by teaching students how to properly stretch before exercising, and encouraging physical activity in the midst of the advised stay-at-home protocols.

“My experience attending the Mālama Hours event was very comforting and fun,” says first-year pharmacy student Cierralyn Cabral. “I initially went into the event feeling hesitant because I didn’t know everyone, but as we did activities like Kahoot, the scavenger hunt, and ‘Get Moving’ stretches, I felt more comfortable.

“In addition, the Blue Zones leaders made all participants feel welcomed and made it an event worth remembering,” she adds. “Participating in this event really helped me feel relaxed, especially because finals were underway. It also taught me how much a break from studying can help relieve stress and overthinking.”

Each participant who attended the virtual events received a “Mālama Hours” care package of relaxation and self-care items. “These care packages were designed with



Students who participated in the virtual “Mālama Hours” events got a care package.

love to highlight the power of ‘purpose,’” says BZPAC chair Roanne Deabler. “During this unique time of physical distancing, we wanted to provide quality care items to support our classmates’ physical and mental well-being, while also highlighting some local eco-friendly businesses.”

This event was co-sponsored by the UH Hilo Student Association (UHHSAs), which provided funding for the care package items. “UHHSAs serves as the liaison between UH Hilo students, staff and administration. We seek to provide students with an enjoyable experience at UH Hilo, whether it’s online, internationally, or even just across the island in Kona,” says UHHSAs President Michael Taylor.

“Our Blue Zones Project team would like to give a huge shoutout and sincere mahalo to UHHSAs for their collaboration and support of this event,” adds Deabler, who also serves as the UHHSAs College of Pharmacy Senator.

“We would also like to thank everyone who attended our ‘Mālama Hours,’” notes Ramos. “We hope everyone had fun de-stressing with us. Please stay safe and keep healthy!”

## Phi Lambda Sigma

### NEW PHI LAMBDA SIGMA MEMBERS INDUCTED

by Ashley Fukuchi and Jessica Song

With the start of the spring semester, the Phi Lambda Sigma Delta Lambda Chapter of the Daniel K. Inouye College of Pharmacy welcomed eight new inductees and two honorary faculty members on February 29, 2020, at Hilo Bay Cafe.

On this evening we were joined by several faculty members including Dean Carolyn Ma, Dr. Wesley Sumida, Dr. Lara Gomez and special guest speaker Dr. Karen Pellegrin, who shared an inspirational speech on transformative leadership. Dr. Pellegrin emphasized the beauty and dynamic of leadership through empowering



▲ New members and guests include, front row (left to right) Paige Cajudoy, Brittany Luna, Ashley Fukuchi, Dean Carolyn Ma, Jared Toba, Clifford Agcaoili and Jessica Song; Back row (left to right) Karen Pae, Dr. Lara Gomez, Tricia Stevens, Kimberly Lin, Noelle Lovesy, Dr. Karen Pellegrin, Sean Domingo, Henry Quach and Tiana Enos-Dano.

others to go above and beyond expectations. This event was dedicated to our current members, alumni, and faculty members to recognize outstanding leaders

in the Daniel K. Inouye College of Pharmacy and perpetuate the mission of Phi Lambda Sigma in fostering leadership in the pharmacy profession.

### MOCK INTERVIEWS HELD FOR PRE-PHARMACY STUDENTS

Earlier in February, chapter members prepared a professional mock interview session for pre-pharmacy students at the University of Hawai‘i at Hilo. Prior to the event, participating students were required to submit a CV and be prepared to conduct an interview based on

◀ Phi Lambda Sigma members helping with mock interviews included Henry Quach, Kimberly Lin, Clifford Agcaoili, Paige Cajudoy and Tricia Stevens.

their CV. Our members provided potential interviewing questions for the Daniel K. Inouye College of Pharmacy admission, providing participants with a scoring rubric and personalized feedback on their interviews and CVs, and tips regarding interviews and pharmacy school.

The pre-pharmacy students who attended had very positive feedback on our event and said they would feel more confident in their future interviews. This is an event that Phi Lambda Sigma looks forward to hosting again in collaboration with the Delta Iota Chapter of Rho Chi.





## Rho Chi



▲ Those attending the journal club event included Sandy Li, Alan Shih, Dr. Daniela Guendisch, Nichole Chaffin, Emmanuel Anozie, Melody Keshavarz, Tiana Enos-Dano and Dr. Supakit Wongwiwatthananutit.

### SOCIETY HOSTS JOURNAL CLUB AND QUIZ BOWL EVENTS

by Donald Waddell

The Rho Chi Academic Honor Society at the Daniel K. Inouye College of Pharmacy had a successful semester in spite of the pandemic. On February 12, we were able to host two journal club presentations. P3 students Emmanuel Anozie and Melody Keshavarz presented on oral paracetamol versus combination oral analgesics for acute musculoskeletal injuries. P3 student Nichole Chaffin and P2 student Tiana Enos-Dano presented on the association between marijuana use and the risk of cancer.

On February 26, Rho Chi hosted a self-care quiz bowl for the

first-year pharmacy students, resulting in a great turnout.

Although there were some events that had to be cancelled, we are proud to have been able to continue our tutoring services through Zoom. Given the great success of the program, we hope to continue providing Zoom as an option for students to receive tutoring.

### NEW MEMBERS INDUCTED IN ONLINE CEREMONY

Rho Chi also had the privilege of inducting 17 new collegiate members and one faculty member into our honor society. Although we were not able to hold our formal banquet, the new

members were able to record themselves reciting the oath.

To induct our officers, a small Zoom gathering was held to recognize and install the newly elected executive board. Through the challenges of the Spring semester, our members rose to the occasion and worked to ensure that we closed out the year on a successful note.

### NEW MEMBERS

Roanne Deabler  
Tran Dinh  
Ashley Fukuchi  
Trent Furuta  
Leia Hasegawa  
Yan Yee Ho  
Viky Huang  
Thien Huynh  
Jane Lakritz  
Zhian Lin  
Kyle Nakagawa  
Danh-Ronald Nguyen  
Andelyn Park  
Yun Soo Park  
Brian Petrone  
Melanie Sacro  
Kara Tsuzaki

### NEW FACULTY INITIATE:

Dr. Abhijit Date

### NEW CHAPTER OFFICERS

**President** – Zhian Andy Lin  
**Vice president** – Viky Huang  
**Treasurer** – Melanie Sacro  
**Secretary** – Roanne Deabler  
**Historian** – Danh-Ronald Nguyen

## MARY BOLAND

For her work in fostering collaborative, interdisciplinary healthcare education and community outreach programs throughout Hawaii, Dean Mary Boland has been named Champion of Pharmacy for Summer 2020.

No one healthcare provider is the expert. It takes a team to understand the life context of patients – doctors, nurses, therapists, pharmacists and others, all working together.

That's the collaborative philosophy that Mary Boland has embraced over several decades of work in nursing education. She applied an interdisciplinary approach to her work as Dean and professor of the School of Nursing and Dental Hygiene at the University of Hawai'i at Mānoa over the last 15 years.

In several projects, those collaborations have included pharmacists. "In recent years we've seen the role of the clinical pharmacist be merged onto the primary care team. They are well-trained to provide support, especially when patients are dealing with one or more chronic diseases and there are multiple drug prescriptions to be monitored."

Boland sees pharmacists playing an important part in delivering more consumer-focused health care. That's why she looked to involve the Daniel K. Inouye College of Pharmacy in the activity of the nationally accredited UH Translational Health Science Simulation Center. "We were looking for other partners for involvement in lab simulations, and pharmacy students were a logical fit, for example, helping to man-



age the medications of patients being discharged from the hospital," she says. "That's especially important for elderly patients who often have several different prescriptions to manage."

DKICP faculty have also been involved for several years in co-teaching classes within the School of Nursing, adds Boland. "Pharmacology is a subject that's critical for nurses – knowing when certain drugs should be used and being aware of common side effects. Co-teaching these classes has worked really well by making use of the skill set offered by pharmacy faculty."

Another interdisciplinary project Boland spearheaded in 2014 was partnering with the Hawai'i Department of Education to create the Hawai'i Keiki Program, designed to improve student success by providing on-campus nursing and health services. At one urban

middle school, a team of faculty and students from UH nursing, dental hygiene, child psychiatry, pharmacy and social work are on campus once a week. They learn from each other, while providing support to the school and rapid assessment of health conditions impacting student success.

"Hawai'i public schools did not have school nurses on campus," she explains. "This project – Hawai'i Keiki: Healthy and Ready to Learn – is a way to address some of the unmet healthcare needs of school-age children. It helps them be healthier and, in turn, do better in school."

Working on healthcare teams provides upper-level college students with field experience under faculty supervision, she says. "This kind of learning is key in showing our students the value of working as a team to deliver the best care possible for patients."



## PRECEPTOR OF THE YEAR



### BONNIE BENNETT

Mentoring that's tailored to each student

For pharmacist Bonnie Bennett, her approach to precepting students is much the same as it is to working with her patients at Tripler Army Medical Center in Honolulu. She focuses on the individual's needs.

"I don't have standard goals for students, when it comes to precepting, other than making sure they progress and grow every week," she says. "I try to create a nurturing environment, yet sometimes nudge them a little bit out of their comfort zone to allow for professional growth." The value of taking a team approach to patient care was something she learned during her residency and work at Froedtert Hospital in Milwaukee, Wis. "We had students there all year long and they really learned

to become part of a team, and quickly became involved with doing things such as helping with medical histories. Now I expect students to help me, and I help and guide them. It's a reciprocal process. Each student brings with them their unique experience and I also learn things from them."

Encouraging students to reinforce healthy messages with patients is a common team

strategy she uses. "I may have been repeating the same advice to a patient about changes to diet or the need for exercise, but hearing it from someone else can sometimes have more impact.

"I also try to get students to see that their learning goes beyond textbooks and lab work," says Bennett. "Ambulatory care is less about what the student knows and more about how well they get the patient to learn. At the end of the day, it's about teaching the patient self-care strategies to reach goals and to feel motivated when they leave the appointment."

Establishing mutual respect is also an important step in developing a positive work and learning environment, she says. "I expect them to give me their best effort and, in return, I do my best to clearly communicate my expectations and give them regular feedback. It's really important to give them positive feedback, as well as constructive feedback because they tend to hear the

constructive comments louder than anything else."

She also encourages them to be life-long learners by taking advantage of opportunities outside of the workplace. "So much of my professional learning has come from attending conferences about diabetes or preceptor development, and from my own mentors."

International travel has also been an important part of Bennett's personal growth and learning, she says. "Experiencing other countries, learning about their cultures and different eating habits has not just been fun but valuable to me in my work. It has broadened my perspectives and helped to shape the way I work with patients and students."

#### PROFESSIONAL MILESTONES

- Received PharmD from University of Wisconsin, Madison - 2007
- Completed residency at Froedtert, a teaching hospital in Milwaukee, Wis.
- Worked four years at Froedtert, serving as inpatient pharmacy preceptor
- Moved to Hawai'i in 2012
- Worked at Hilo Medical Center (six months), and Makalapa Navy Clinic (3 years)
- Became certified Diabetes Care and Education Specialist
- Started at Tripler Army Medical Center (TAMC), in Honolulu, in 2016
- Began precepting for DKICP in 2017
- Became TAMC pharmacy student rotation coordinator

## FACULTY PRECEPTOR OF THE YEAR



### ALLEN SHIH

Encouraging students to ask why

Even though educating students is no longer in his job description, Allen Shih says teaching pharmacy students at the Daniel K. Inouye College of Pharmacy the past five and half years will change the way he approaches any other job he has.

"One of the first things I would tell students is to not just learn and accept the information being discussed in class and on rotations but to ask why," he says. "When they're on the job as a pharmacist, they need to understand why things are being done in order to do the best work they can. Why is that patient on that specific medication? Why are they having problems? It's all part of understanding a patient's needs."

His dedication to his students and his ability to relate to them through his somewhat laid-back teaching style have made him

effective and popular, and earned him the DKICP Faculty Preceptor of the Year award for this past academic year. In his new position as director of hospital pharmacy at Hilo Medical Center, he expects to be asking why a lot. "I think the teaching didactics I've been using will help me a lot in my new job, which will involve managing people and processes."

He says he will miss the daily contact with students, but hopes to still be able to interact with them. While at DKICP, he lectured about congestive heart failure, arrhythmias and pulmonary diseases, and precepted students in both introductory and advanced pharmacy practice experience.

He says working with students in sometimes traumatic situations required close student monitoring. "You can talk about what happened in an ER and try to describe situations to help prepare them for it, but you never know how they'll deal with it. So I would try to gauge each student's comfort level with critical care situations, and was always trying to watch them during an ER process. If they started to turn white, I'd make sure they went outside."

He regularly told stories about his experiences in emergency care. "That kind of fast-paced, exciting environment was what attracted me to this type of pharmacy work when I first experienced it on rotations," he says.

"I wanted to help students see all aspects of patient care, and tried to challenge them," he says. "It's usually not a lack of knowledge that holds students back but more often past experiences, so I would try to take a more low-stress approach, especially during high-stress situations."

"When he came to DKICP, Dr. Shih brought seven years of practice experience in Emergency Medicine and Critical Care settings," says Dean Carolyn Ma. "He has always been very patient and done an amazing job of guiding students through their thought processes."

"He created a great learning environment for students and kept them engaged by using real-life applications and his humor. His rotations have been among the students' favorites," she notes.

"We will certainly miss him, but wish him well."

#### CAREER PATH

- B.S. in Computer Science, University of Illinois, Urbana-Champaign
- Pharm.D. from the University of Utah
- PGY1 residency at Multicare Good Samaritan Hospital, Puyallup, Wash.
- Clinical pharmacist, Multicare Good Samaritan Hospital - 6 years
- Clinical pharmacist at Hilo Medical Center, Hilo, Hawaii - 1 year
- Assistant Specialist, Pharmacy Practice, DKICP - 5½ years
- Newly appointed director of hospital pharmacy, Hilo Medical Center



# Spring 2020 Dean's List

The following students from the Daniel K. Inouye College of Pharmacy at the University of Hawai'i at Hilo have been named to the Dean's List for the 2020 Spring semester:



CLASS OF 2021

Clifford Agcaoili	Jake Hoctor	Josephine McDonald	Elaine Phan
Heather Ah Cook	Raha Hosseini	Ryan Mcmillan	Henry Quach
Alyssa-Marie Almogela	Feng Ming Huang	Bruce Meno	Tiana Ramos
Emmanuel Anozie	Jenna James	Jiyoun Min	Norlyn Ranchez
Trang Bui	Patsylynn Jetley	Shane-Earl Naeole	Habibo Salad
Aileen Bulatao	Joseph Joyce	Nu Nguyen	Sera Shimizu
Jessica Cadiz	Melody Keshavarz	Lan Thi Hoang Nguyen	Maysyville Sistoza
Nichole Chaffin	John-Michael Kimhan	Duy Nguyen	Johnson Siu
Brandon Chagami	Da Hai Lee	Kimo Okamoto	James Soe
Robin James Dalmacio	Kevin Lee	Rebecca Oshiro	Deena Tanimoto
Lauren Domingo	QiXin Li	Calvin Ostler	Alan Trinh
Sean Domingo	Kimberly Lin	Minneh Oyas	James Vasper
Angina El	Noelle Lovesy	Karen Pae	Donald Waddell
Tailai Guan	Brittany Luna	Brittney Palomares Layaoen	Tiffany Wong
Brooke Higa	Christian Macaspac	Jaymee-Rae Pang	Jody Yamada-Ueda
Taylor Hiraga	Ashley Maldonado	Jearld Peguese	

CLASS OF 2022

Brenna Alvarez	Roanne Deabler	Minkyung Kim	Brian Petrone
Tricia Amuimuia	Mercedes Dennis Graves	Cleighton Lagmay	Jenny Phong
Jordan Anderson	Tran Dinh	Jane Lakritz	Cody Porter
Liana Ang	Tara-Ann Dumlao	Tiffany Lam	Donald Sachs
Germain Atmospera	Kazumi Fujitani	Connie Le	Melanie Sacro
Kayla Bajo	Ashley Fukuchi	Jeffrey Lee	Micheal Angelo Sagun
Caroline Boule	Trent Furuta	Zhian Lin	Kellen Sakamoto
Tyler Jo Branco-Hedke	Olivia Graham-Mclennan	Nikko Marion Magtoto	Jessica Song
Bryson Cadiz	Jacqueline Hackworth	Madalyn Mccauley	Patricia Stevens
Paige Cajudoy	Laura Hardaway	Wangui Mwaniki	Bernadette Tabula
Latisha Cajudoy	Leia Hasegawa	Kyle Nakagawa	Lillian Tran
Nina Cardoza	Yan Yee Ho	Danh-Ronald Nguyen	Kara Tsuzaki
Marie Cidera	Viky Huang	Trisha Nobriga	Sabrina Uchino
Matthew-Allen Clemente	Brandi Hutchins	Nadra Nour	Shumin Wu
Niel Carlo Concepcion	Thien Huynh	Samantha Okubo	Kristi Ann Zane
Alysha Cosier	Katrina Jardine	Angelyn Park	
Kendrick Justin Dalmacio	Christopher Kaneko	Yun Soo Park	

CLASS OF 2023

Michael Bernard Abundo	Travis Hirayama	Stephanie Mojumdar	Andrew Schuler
Reygan Agcaoili	Brandi Hughes	Selena Joy Morita	Alyson Soranaka
Kateleen Caye Bio	Mi Huynh	Steve Moua	Tiana Tran
Cierralyn Cabral	Emily Tu Le	Matthew Neumann	May Ann Vicente
Chrystal Cardoza	Johnson Le	Lina Nguyen	GaYeon Wang
Jasmin Curiel	Hyeji Lee	Kalen Niimi	Rosalie White
Noreen Aura Mae Gonong	Tristan Magdalera	Daijiro Oshitari	Kyle Wong
Alyssa Hatada	Analeslie Martinez	Lily Pham	Sung Mi Yoon
Katrina Heyer	Kathleen Millard	Brayton Sakai	

# NAME A BRICK, INSPIRE A LEGACY

The Legacy Path provides alumni, family and friends of the The Daniel K. Inouye College of Pharmacy the chance to show their support for the college and the pharmacy profession.

When you buy an inscribed brick on the DKICP Legacy Path, which leads up to the main entrance of our new home, you establish a permanent link to the history of the college. And you pave the way for future generations to remember it. Show your UH pride or make a lasting tribute to a loved one today, and leave a legacy for tomorrow.

- The Legacy Path is located at the UH Hilo Daniel K. Inouye College of Pharmacy, and begins at the entry garden and extends up the walkway to the main entrance.
- Bricks are installed in Spring and Fall. We will let you know when your brick is installed.
- Each rust-hued brick is approximately 4½ by 9 inches.
- Inscriptions can be up to 3 lines of 16 characters/spaces per line. (Include spaces and punctuation in the count.)
- Special requests will be accommodated if possible. Submit orders together for adjacent bricks.
- Participation is open to all alumni, parents, friends and supporters.
- The full amount of your gift is tax deductible.



## I want to be part of the DKICP Legacy

Please reserve my brick in the:

- Kawili La'au Kipuka: \$500 per brick
- Oath of a Pharmacist Path: \$750 per brick
- DKICP Gateway: \$1000 per brick
- Alumni & 'Ohana Legacy Circle: \$1500 per brick

Purchaser: \_\_\_\_\_

Alumni Class Year if applicable: \_\_\_\_\_

- Friends & Family
- Other

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

Inscription: 3 lines, 16 characters each (including spaces and punctuation)




To reserve multiple bricks, please submit forms together.

### Payment Information

- Check/Money Order  
*(payable to UH Foundation. Add "DKICP Legacy Path" on bottom of check.)*

For credit card payments visit <https://online.uhfoundation.org/memberships/UHHLegacyPath.aspx> or submit payment with form to:



**DKICP Legacy Path**  
**Attn: Nadine Hara**  
**200 W. Kawili Street**  
**Hilo, Hawai'i 96720**



## Kāwili Lā‘au

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University of Hawai‘i at Hilo  
200 W. Kāwili St.  
Hilo, HI 96720

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- ▼ *Gathering via Zoom became part of the new normal during spring semester, including for the DKICP graduate students, who held their annual spring seminar online. Read more about them and their current work inside this issue.*

