Summer means WORK

Engaging in learning through cultural activities
Highlighting Hawaiian culture in this issue of Kawili La’au may seem coincidental to another important cultural event of the summer. The highly respected voyaging canoe, the Hōkūle’a, returned to Honolulu in June after a three-year around-the-world voyage. Malama Honua was a voyage with a message that the health and well-being of our people are intertwined with the health and well-being of our environment. A replicate of canoes that had been used for hundreds of years to travel the islands, the Hōkūle’a was launched from O’ahu in 1975 and spurred the renaissance for Hawaiian culture and language as well as the ancient Polynesian art of ‘wayfinding’.

A miniature replica of wa’a Hokule’a from the Daniel K. Inouye Legacy Collection is now showcased at our DKICP’s Annex location, waiting to be displayed in our permanent building. The reproduction was give to our College by Mrs. Irene Inouye in 2013 after the Senator’s death. Mrs. Inouye’s gift honored our own “wayfinders” efforts of becoming first successfully accredited college of pharmacy in the Pacific.

This historical connection mirrors activities our faculty members conducted this summer working with students on various educational ventures, which we feature here. From working with students in the Students of Hawai’i Advanced Research Program (SHARP) project, to mentoring students in our labs, to teaching an indigenous science course, to accompanying students to health fairs as well as our annual trip to Kalaupapa, Moloka’i, we are passing along the culture of the islands that is so critical to our growth.

Growth that includes working with the legislature on bills that expand the scope of pharmacy practice. One momentous step gives pharmacists the ability to prescribe contraceptives. We are only the third state to pass this groundbreaking legislation and the college is working with Oregon and Colorado on the continuing education module to help certify our state’s pharmacists. Other legislation signed by Gov. Ige also influences our student pharmacists’ future regarding the ability to provide vaccinations to 11-17-year-olds, and offering informed consent to opioid therapy. You can read more about what those mean to our College and our profession in this issue.

Something else you may notice in this issue of Kawili La’au is that we have now reached Volume 10 -- ten years of a chronicle that tells every inch of our journey as the only College of Pharmacy in the Pacific Region. I never cease to be honored to help guide a small part of this voyage.

Carolyn Ma
Dean
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On the cover: Student pharmacists participate in learning activities through several summer projects, many concentrating on Hawaiian culture.
Welcome
CLASS OF 2021
Incoming student pharmacists gathered in the Longs Pavilion Lecture Hall on the UH Hilo campus on August 14 to participate in a weeklong orientation guided by the Daniel K. Inouye College of Pharmacy’s Office of Student Services. With the help of Student Ambassadors, the new student pharmacists were registered and fitted for their white coats and treated to doughnuts and coffee graciously donated by Safeway.

Following registration, Dean Carolyn Ma welcomed the new Doctor of Pharmacy students to the DKICP ‘ohana, and the students met faculty and key personnel. In the afternoon, Student Ambassadors Vance Hill, Mary Lui, San Ly, Vincent Manalo, Andrew Nguyen, Kara Paulachak, Kevin Phu, Shaina Saiki, Johnson Tran and Preston Young met the newcomers at the Edwin H. Mookini Library to tour the UH Hilo main campus.

Later that day, the students and their families were treated to a warm welcome reception at the Imiloa Astronomy Center, sponsored by CVS Pharmacy. The speaker was Jacqueline Mccune, University Relations Manager from CVS.

On the second day, Daryl Masanda, director of the Department of Student Services and Aaron Jacobs, associate professor and interim associate dean of academic affairs, led an examination of the Student Handbook and talked about effective learning strategies.

Throughout the rest of the week, students participated in sessions.
about professionalism, time management, student involvement opportunities and other topics that aimed to support a smooth transition from an undergraduate to a professional level while getting to know their classmates, faculty and the UH Hilo community. A special student panel consisting of second- and third-year students gave incoming classmates their peers’ perspective on topics such as tips for academic success, how to balance work and play, island life and how to make the most of their time as Pharm.D. students at DKICP.

The Class of 2021 is the 11th incoming class of pharmacy students at UH Hilo, the only College of Pharmacy in Hawai‘i and the Pacific region. (Photos by Tracey Niimi)
After a positive vote from the University of Hawai‘i Board of Regents on August 24, Dr. Aaron Jacobs serves as interim associate dean for academic affairs for the University of Hawai‘i at Hilo Daniel K. Inouye College of Pharmacy (DKICP).

Dr. Jacobs joined DKICP’s Department of Pharmaceutical Sciences as an assistant professor in 2009. He earned tenure and was promoted to associate professor last year. He received his Ph.D. in Pharmacology from UCLA under the mentorship of Nobel Prize recipient Louis J. Ignarro and completed a postdoctoral fellowship at Vanderbilt Institute of Chemical Biology in Nashville, Tenn. His current research is centered around chemoprevention and therapy in colon cancer. “Dr. Jacobs has demonstrated excellent teaching skills with annual student awards for his teaching since his arrival,” said Dean Carolyn Ma. “He has a talent in mentoring student successes having successfully guided undergraduate, Ph.D., Pharm.D. and post-doctoral students.

With an extensive record of service that encompasses numerous committees for the DKICP including chair for the Curriculum Committee, as well as on a University level (UH Hilo Graduate Council and Academic Policy Committee), Dean Ma noted that Dr. Jacob’s experience will help to guide DKICP’s standing committees that are the “backbone of the operations” of the college.

The role of interim associate dean for academic affairs encompasses the responsibilities for assuring academic success for students, the robustness of curriculum, overseeing the Department of Student Affairs and the Information Technology team and serving as an academic liaison for DKICP to the University. In addition, the role contributes significantly to the DKICP Executive Committee and the collaboration between the Departments of Pharmaceutical Sciences and Pharmacy Practice.

What I did last summer...

Despite the summer exodus of many students from universities everywhere, DKICP faculty work throughout the year. Many faculty members continue with work on various committees, preparing for new courses and making changes and improving existing coursework. Clinical faculty supervise fourth-year student pharmacists beginning their final year of rotations, research faculty work on existing grants or prepare new applications. These are just a few examples of some of the many projects DKICP faculty took on last summer.
What I did last summer...

Hawaiian culture mixes with sciences for full agenda of activities

By Dana-Lynn Koomoa-Lange
Associate Professor, Department of Pharmaceutical Sciences

What are some of the activities you took part in this summer?

In June, I presented two posters of my research at the “Calcium Signalling” Gordon Research Conference (GRC) in Lucca (Barga) Italy.

Presented a research poster at the “Polyamines” Gordon Research Conference (GRC) in Waterville, NH.

Mentored an undergraduate student who was awarded an all expense paid visit to National Institutes of Health (NIH) for the NIH visit.

Taught an undergraduate summer course, IS-394 Indigenous Applied Science.

I attended a Proteomics workshops in Oklahoma City, OK for work associated with the grant from Institutional Development Award (IDeA) Networks of Biomedical Research Excellence (INBRE), for which I am a Junior Investigator.

Coordinated a visit and seminar from Dr. Michelle Martinez-Montemayor, an associate professor at the Universidad Central Del Caribe in Puerto Rico. We are hoping to develop a research and an education grant together that will address indigenous science and under-represented minorities.

With fellow faculty member (and husband) Dr. Ingo Lange, we are building a Mala La’au Lapa’au for the DKICP.

Why are these conferences important to you and to DKICP?

Calcium and ion channel signaling is a core part of my research. All of my extramural grant funding has a component of calcium and ion channel signaling. Going to GRC in Italy was a wonderful experience, and I received great feedback that will further my research progress. I also connected with some key people in the field that I will be able to turn to for advice in the future.

At the Polyamines GRC, which is another aspect of my research funding, I was able to take one of our Ph.D. students, Nathan Sunada. Networking and learning how to present yourself and your research is critical for graduate students. This was an amazing opportunity for Nathan. I have always been hesitant and unsure of myself when it comes to networking, as I am in fact quite introverted. I wanted to make sure Nathan gains experience in networking and learning how to present himself and his research. Nathan actually surpassed my networking skills. He impressed the GRC participants, and was therefore nominated to be a co-chair for the next “Polyamines” Gordon Research Seminar (GRS), which is a special session for Postdoctoral researchers and graduate students.

I’m also proud of Dallas Freitas, the undergraduate student who was my INBRE SRE student last year and is currently in the Students of Hawai‘i Advanced Research Program (SHARP). I am committed to increasing the participation of under-represented...
minorities in STEM, particularly Native Hawaiians and Indigenous people. Dallas has been an amazing student researcher. He has shown to be committed and quite talented in his research and intellectual abilities. I have no doubt that he will excel in his future endeavors as he pursues a degree and career in research.

**What did your course entail?**

The core activities and topics of the course included indigenous science ethics, indigenous research methodology, an indigenous approach to cancer research, as well as Huaka'i and lab activities, culminating with the students presenting a poster of their research projects. I'm putting together a video of these activities. I am co-principal investigator on a National Science Foundation (NSF) grant that is based on developing this indigenous science research course to increase the participation of under-represented minority students, particularly indigenous minorities, in STEM fields and biomedical research.

**What are your future plans for the course?**

This year, I am lecturing in PHPP 528 Pharmacy Communication and Culture, for first-year students, PHPP 525 Complementary Medicine for third-year students, PHPP 550 History of Pharmacy. In the future, I would like to organize a La'au Lapa'au/compounding workshop or bootcamp, an indigenous science in Pharmacy elective as well as an indigenous science elective in Pharmaceutical Sciences. Finally, Dr. Linda Connelly and I are working on a NCI grant to increase the participation of underrepresented minorities in biomedical sciences research.

**What is a Mala La'au Lapa'au and what is its purpose at DKICP?**

The Mala La'au Lapa'au is a garden with Hawaiian medicinal plants that will include plants such as Ko'oko'olau, Māmaki, 'Ōlena, 'Awapuhi, seven different types of Hawaiian 'Awa (tested and certified), Naupaka, Noni and kukui. I plan to add more plants in the future. Dean Ma and I hope these may be seeder plants for a bigger Mala in the permanent building. This Mala La'au Lapa'au will also be available for other DKICP courses (e.g. IS-394 Indigenous applied science and other courses), with approval. In addition, the 'Awa from the Mala La'au Lapa'au will be used for 'Aha 'Awa, which is a ceremony where 'Awa is served at an important gathering of people, at DKICP.
Collaborations, students, community, research all remain priority for busy professor, even in the summer

By Deb Taira, ScD
Professor, Department of Pharmacy Practice

What did you work on over the summer months?
I was busy with research, teaching, and service. These included:
• Submitting two research grants;
• Beginning work on a newly funded NIH grant;
• Serving as a preceptor for fourth-year students on rotation;
• Mentoring an undergraduate student for a Summer Research Institute in the Department of Native Hawaiian Health;
• Working with the Hawaii State Health Planning and Development Agency to improve awareness of elderly abuse through a media campaign;
• Accompanying pharmacy and undergraduates to Kalaupapa on Moloka‘i for a weekend in July;
• Helping my mentee and pharmacy students put together posters for a summer research symposium held at the John A. Burns School of Medicine in August.

Who did the projects involve?
The first research grant proposal was entitled, “Adherence to Guideline-Based Blood Pressure Goals for Hawaiians & Filipinos.” Working with collaborators in public health, nursing, medicine, and statistics, we proposed using Ambulatory Blood Pressure Monitoring and other home monitoring with feedback to providers to improve blood pressure control for Native Hawaiian and Filipino patients with hypertension.

The second grant proposal was a collaborative effort with investigators from the John A. Burns School of Medicine (JABSOM) and psychology. The goal of the grant was to reduce the burden of comorbid conditions on HIV positive patients.

The grant that was recently funded by the NIH National Institute of Diabetes and Digestive and Kidney Diseases is a collaborative project with the Kaiser research group (Principal Investigator: Connie Trinacty, PhD) entitled, “Does Free Medicines Coverage Improve Diabetes Self-Care and Outcomes for Diverse Populations?”

My undergraduate mentee in the Department of Native Hawaiian Health worked on a research project entitled, “Pathways to Preventable Hospitalizations for Filipino Patients with Diabetes or Heart Disease in Hawai‘i.”

What’s your history with these topics?
The research projects are a continuation of prior research regarding health disparities and chronic conditions. Dr. Wesley Sumida and I have been taking students to Kalaupapa every summer for the past several years. I have also been mentoring...
undergraduate pre-med students in the Department of Native Hawaiian Health summer internship program for several years.

**Why did you choose these projects?**

In Hawai‘i, our overall health status is good, but large health disparities remain, disproportionately affecting certain groups, such as Native Hawaiians and Filipinos. We know these two ethnic subgroups have the highest cardiovascular mortality in Hawaii. The research projects that I work on are designed to reduce health disparities and improve the quality of care.

**What kind of feedback did you get?**

Here are some quotes from the fourth-year students regarding the summer projects:

**Kalaupapa:**

Kimberly Wu: “Despite reading books beforehand and listening to Dr. Brady’s introductory presentation, I felt that going to Kalaupapa really cemented the feeling of isolation that the residents must have felt years ago, when they were first forced to leave their homes and loved ones and travel to that lonely “flat leaf” peninsula. The experience of going to Kalaupapa is one I will cherish for years. I greatly appreciate the opportunity to visit and learn and am extremely grateful to all who have made this trip possible, including the residents of Kalaupapa who extended the invitation to visit, Dr. Brady and the staff at the Department of Native Hawaiian Health who helped facilitate the trip, and the faculty at DKICP, Dr. Taira, Dr. Sumida, and Dr. Ko‘omoa-Lange, who made the trip possible.”

Chelsea Aipoalani: “The tour through Kalaupapa was very eye-opening for me. It was amazing to take a step into their history and try to gain a better understanding of what went on in this special place. Dr. Brady kept calling Kalaupapa “a wahi kapu,” or sacred place, and as we made our way around the peninsula it was clear why this is so. Kalaupapa serves as a reminder of a dark time in Hawaiian history, a time when people were treated like criminals and sentenced to a life of solitude away from their loved ones for simply having a disease. Making our way through Kalaupapa and seeing the numerous graves that take up space really brought home the fact that this place has so much history. As we continued our tour, we learned about Saint Marianne and Saint Damien. Learning about the selfless acts that these two individuals did to help the patients with Hansen’s Disease was inspiring. It also made me think of how we could implement this type of selflessness when treating patients as healthcare professionals. Both Saint Marianne and Saint Damien put the patients and their well-being before themselves and I believe that as healthcare professionals we should always be putting patients and their care first. As a Catholic, I also felt a sense of reassurance in my faith. Seeing how these two ordinary people were able to make such a huge impact in peoples’ lives is inspiring. I aspire to be the type of pharmacist that is able to make a difference in someone’s life and help them to live the best life that they can live.”

**Poster presentation:**

Chris Nakagawa: “I really enjoyed presenting our poster at the Student Research Intern Poster Presentations. Speaking about our research to medical professionals, students, and families with no medical background gave me a great perspective of how our findings can be interpreted. In addition, it was insightful to learn about a variety of research from different organizations that focused on topics such as quality improvement initiatives, monocyte correlation with atherosclerosis, and health disparities among immigrants in Hawai‘i.”

Kimberely Wu: “Learning how to best present data in a poster format was both enjoyable and educational. I gained new Excel skills, learned to use heat maps for the first time, realized the impact of choosing colors judiciously and most importantly, became more comfortable with a different way of public speaking.”

**Do you have future plans to continue this work?**

The newly funded grant has a four-year duration. We are hoping the other grants get funded, but are awaiting our scores. The community service and teaching is ongoing.
What I did last summer...

Students engage in biomedical research on medicinal plants

Ghee Tan
Associate Professor and Director, Ph.D. in Pharmaceutical Sciences Program

What are some of the projects you worked on over the summer months?
An ongoing project in my lab is managing and directing the Ph.D.-arm of the Students of Hawai‘i Advanced Research Program (SHARP) together with SHARP Director, Dr. Lynn Morrison of the Department of Anthropology, UH Hilo. SHARP is funded by the National Institutes of Health (NIH) Research Initiative for Scientific Enhancement (RISE) grant on which I am the Co-Investigator. SHARP supports all under-represented students, and particularly Native Hawaiians and Pacific islanders, at UH Hilo, to develop interest and competence in biomedical and behavioral sciences research to help them advance to Ph.D. studies. To that end, a native Hawaiian student currently enrolled in the Ph.D. in Pharmaceutical Sciences Program is fully supported by SHARP. This summer, five under-represented students from various backgrounds participated in ongoing projects in the Tan Laboratory.

Who did the projects involve?
The project participants are: DKICP graduate students Afjalus Siraj and Samiul Atanu; SHARP students Stephanie Montoya and Donald Carter, and Gates Millennium Scholar Kupa’aikekaia Thomas.

Why is this topic important to you?
In addition to their passion and commitment, it is obvious that the engine of the Tan lab is the diversity and diverse perspectives of the students that propel all projects forward to a successful conclusion. The students who participate in the program are able to take advantage of these aspects of my lab.

What do you work on in your lab?
As director of the Ph.D. in Pharmaceutical Sciences Program, it became evident to me early on that projects centering on natural products and herbal medicines are of particular interest to students from the Big Island and developing countries. My background in sustainable drug discovery research, and the identification of promising lead molecules from nature have allowed me to conduct research, and to develop projects in this area to meet the interests of our students. Ultimately, research projects harness the biomedical potential of the biodiversity and rich natural surroundings of the Big Island. Notable scientific findings and applications are intended to provide incentives for environmental protection and conservation efforts.

Research in the Tan Lab focuses on the validation of Traditional Hawaiian Medicine (e.g., noni and mamaki) using molecular and cell biology tools and approaches. Projects are directed by an understanding of the ethnopharmacology of these plants as revealed by their use in traditional Hawaiian healing practices. Work starts with the organic extraction of medicinal plants followed by the separation of their constituents. All isolates, crude and pure, are evaluated for biological activity in cellular models for cancer, inflammation, diabetes and infectious diseases. Projects culminate with attempts at elucidating the molecular mechanism(s) of action of pure compounds isolated from these medicinal herbs and other endemic plants.

What are your future plans with this project?
Through a memorandum of understanding (MOU), the Ph.D. in Pharmaceutical Sciences Program at DKICP will collaborate with Hui Mālama Ola Nā ‘Ōiwi (HMONO), a private, non-profit organization dedicated to the health and well being of the native Hawaiian population in Hawai‘i, to work on collaborative research projects and grants that benefit both parties. This is an excellent way for the program and its students to give back to the community. In addition, the partnership aims to fulfill the mutual vision of co-hosting the WHO Congress on Traditional Medicine in the near future. The support of David “Kawika” Lovell (Director of University-Business Partnerships), Louis Hao (Executive Director), and Mabel DeSilva (Chair, Board of Directors, HMONO), is acknowledged as we pave the road to future successes.
What are some of the projects you worked on over the summer months?

I have been studying the effects of pet bereavement for many years and worked on a study that was published in the journal Anthrozoös in January. In the original study, entitled “Pet Loss, Complicated Grief, and Post-Traumatic Stress Disorder in Hawai‘i,” we examined the impact of pet/animal death on 355 participants. We are in the process of drafting our second manuscript titled, “There For You: The Impact of Attending Pet Euthanasia.”

I also served as an expert on a panel discussion along with Roy Goo, our department chair, on Mau‘i following a video viewing in August titled, “Resistance,” a film about antibiotic resistance in agriculture.

Who did the projects involve?

For the bereavement project, I am working again with Alex Stitt, a graduate of UH Hilo’s College of Arts and Sciences with a master’s degree in psychology as well as students of the College of Agriculture, Forestry, and Natural Resource Management (CAFNRM). On the first project, we discovered after assessing a 37-item questionnaire from respondents and student volunteers, that there is a need for multicultural awareness regarding both human–pet/animal relationships and bereavement.

The discussion on Mau‘i was presented by the Hawai‘i Public Health Association and the Hawai‘i State Department of Health. In attendance were community people, including several RNs, home health care workers, students, public health workers, social workers, case workers, an attorney, and a police dept juvenile counselor.

Why is this topic important to you?

My personal motivation comes from a kitten I adopted during my first year of vet school in Oklahoma. He was the greatest cat ever! He was always there for me and, really, he was my support system while I was thousands of miles away from home. At graduation, I brought him back to Hawai‘i with me and he continued to be my rock. Unfortunately, on September 16, 2011 he passed away from Chronic Renal Failure. To date, I haven’t been able to get another cat.

Many of us are very close to our pets and consider them part of our family. I wanted to study what effects losing a pet has on humans, in particular complicated grief and post-traumatic stress disorder. My contribution on the panel discussion was my expertise with livestock agriculture as well as sharing insight on drug usages in livestock, i.e., in feedlots.

What kind of feedback have you gotten?

In addition to the 355 participants in our study, many researchers have reached out to us to request a copy of the publications in order to cite them in their work. Thus far, our work has been featured in The New York Times and the Honolulu Star Advertiser.

What are your future plans to continue this work?

I would like to broaden the project and now study the effects that pet loss may have on other pets in the household. I recently became a SHARP mentor in the Students of Hawai‘i Advanced Research Program (SHARP) and will be working on this sequel with Lynn Morrison and a student studying pre-veterinary medicine.

Based on our panel discussion, we need to continue to reach out to communities, including the agricultural sector.
For the first time in the history of the State of Hawai‘i, pharmacists can have authority to prescribe and dispense a drug thanks to the passage of SB513 in state legislature last spring. Governor David Ige signed the bill into law on July 3, and now, after undergoing an ACPE certified training course, pharmacists can write a prescription for oral contraceptives to a woman when it’s convenient for her after a standard intake assessment.

Administrators at DKICP are formulating a certification program for pharmacists to take their careers to this next level. Dean Carolyn Ma applauds this new direction, and points out pharmacists are trained specifically in medication management, monitoring and assessment specifically in areas of contraceptive hormonal therapy and women’s health.

“Pharmacists are the most accessible health professional to the public via their availability in community pharmacies and are also health educators and advocate for their patient’s health and safety,” Dean Ma said.

The legislature also passed two other bills that impact pharmacists: SB514, which allows pharmacists to vaccinate children down to age 11-years-old for HPV, TDap, Meningococcus, Influenza; and SB 505, which requires prescribing health care providers to adopt and maintain policies for informed consent to opioid therapy in circumstances that carry elevated risk of dependency.

“Immunization administration is considered a basic skill of registered pharmacists, and pharmacists are vaccination certified via an ACPE-approved program sponsored by the American Pharmacists Association (APHA),” Dean Ma said. “In the last decade, the uptake of vaccinations has risen significantly because of the pharmacists availability to vaccinate the community. And with opioid addiction on the rise all over the country, our profession can help educate patients on the effects and risks of taking drugs such as benzodiazepines, fentanyl, codeine, and morphine.”

Dean Ma believes the spotlight on expansion of these roles for the pharmacist has the potential to significantly impact the scope of practice for the pharmacist as an essential member of the health care team to manage health and wellness and manage chronic diseases.

“This has the potential to unsnag much of the clogs in the system and help relieve the physician shortage,” she said. “The next step will be to develop a way for pharmacists to receive reimbursement for their expertise in medication management and patient care.”
Hawai’i State Senator Kai Kahele holds town hall meeting in Hilo

Visiting with Senator Kai Kahele at his August 30 Town Hall meeting in Hilo were DKICP representatives (from left): Wilson Datario (DKICP Class of 2020), DKICP Community Liaison Gerald De Mello, Matt Chen (DKICP Class of 2018), Kara Paulachak (DKICP Class of 2019), Senator Kahele, Dean Carolyn Ma, Kaylee Hoang (DKICP Class of 2019), Amber Masulit (DKICP Class of 2019) and Chair of the Department of Pharmaceutical Sciences Linda Connelly.

The East Hawaii Higher Education Town Hall was held in University Classroom Building 100 at the University of Hawai‘i at Hilo. The meeting kicked off Kahele’s statewide higher education tour in which he plans to visit all 10 campuses in the UH system.

Kahele, a Democrat who represents Hilo, chairs the Senate Committee on Higher Education. The meeting included discussions about higher education leadership, enrollment, tuition, governance, athletics, student life and facilities, among other topics. (Photo by Cara Suefuji)

Hawai‘i agencies work to stem tide of opioid crisis

A member of DKICP’s Department of Pharmacy Practice is teaming with members from multiple state agencies assigned by Governor David Ige to combat opioid abuse in Hawai‘i. Aryn You, assistant professor in the Department of Pharmacy Practice based on the island of Kaua‘i, is the chair of the workgroup responsible for establishing new protocols for pharmacists pertaining to opioid prescriptions and access to the opioid reversal agent: naloxone.

“At this time, our main focus is pharmacist education,” Dr. You noted. “We are working on developing a naloxone training program, which will cover the opioid epidemic, naloxone prescribing and education, current Hawai‘i laws, and the use of SBIRT (Screening, Brief Intervention, and Referral to Treatment).”

The opioid epidemic has been called the worst drug crisis in American history, killing at least 27,000 people in the nation every year. Although Hawai‘i ranks in the lowest 14 percentile of overdose deaths in the country, drug overdose remains the leading form of injury-related deaths for Hawai‘i residents, according to a press release from the governor’s office. The two areas within the Department of Health facilitating this effort with the support of federal grant funds are the Alcohol & Drug Abuse Division and the Emergency Medical Services and Injury Prevention System Branch.

The Opioid Use Initiative is broken down into six focus groups whose focus is on treatment access, pain management practices, data use improvement, prevention and public education, protocols for opioid prescriptions, and support for law enforcement.

According to Dr. You, the protocols for opioid prescriptions group anticipates an American Accreditation Council for Pharmacy Education (ACPE) accredited training program by 2018. This training could be implemented in colleges of pharmacy across the nation, including DKICP.

“We plan to integrate the training program into the DKICP curriculum, which will contribute to the evolution of pharmacy education,” she said.
Antimicrobial Stewardship Programs expand to aid long-term care facilities

By Louis Lteif, Assistant Professor, Department of Pharmacy Practice

Antimicrobials have changed the face of modern health care. They are most commonly used to prevent or treat diseases and infections due to microorganisms, such as bacteria, fungi or viruses. However, increasing resistance to current available antimicrobials is one of the major global public health threats.

One effective way to curve this potential disastrous issue has been the utilization of Antimicrobial Stewardship Programs (ASPs). Briefly, ASPs are constituted of several health care providers and members and its main goal is the optimization of antimicrobials use (i.e. select the best antimicrobial for each patient at the correct dose, frequency, formulation and duration).

More recently, ASPs have gained particular attention from different stakeholders as it has become a requirement for accreditation standards as well as a condition of participation in governmental agencies’ reimbursement programs. The State of Hawai‘i has been proactively preparing to these standards and requirements for several years now.

The Hawai‘i Antimicrobial Stewardship Collaborative (HASC) was formed in 2014 whereby the Hawai‘i Department of Health (HDOH) partnered with the Daniel K. Inouye College of Pharmacy (DKICP) to provide technical support to HASC and help all the participating facilities establish and maintain ASPs. Thus far the collaborative has been successful in helping all the participating institutions establish and maintain ASPs. The current participating institutions are the vast majority of hospitals in the state of Hawai‘i throughout the different islands.

Though the collaborative achieved major accomplishments, more challenges remain ahead. A significant portion of antimicrobial misuse and overuse is attributed to the nursing home and long-term care settings that are distributed across the islands of Hawai‘i. The next objective of the collaborative is to translate its prior success and experience to the long-term care facilities setting. In order to do so, the HDOH, in collaboration with DKICP as well as Mountain-Pacific Quality Health, Healthcare Association of Hawai‘i (HAH) and the Hawai‘i Medical Directors Association (HMDA) are leading a similar collaborative targeting long-term care facilities and nursing homes. This new collaboration will be utilizing standards and requirements from different organizations as well as relying on major national guidelines such as core elements from the Centers for Disease Control and Prevention (CDC) for establishing and maintaining ASPs in nursing homes in order to reproduce the successful impact it had on hospitals throughout Hawai‘i.

As an Infectious Diseases Specialist practicing as an ASP pharmacist at Hilo Medical Center, my role in this new collaborative targeting long-term care facilities is to act as the lead consultant from DKICP. As a technical consultant, I will deliver educational webinars to introduce ASPs to the different facilities as well as provide customized and specific technical assistance to each institution in order to help them develop and maintain a successful program. It is my goal to be able to duplicate the success achieved in acute care settings and hospitals and help shape nursing homes and long-term care facilities across the state. Succeeding in this next task will tremendously help curve the growing concern of antimicrobial resistance and will provide a solid basis for long-term projects, which would include duplicating these initiatives in the out-patient setting, a setting known to be very difficult to control and as a result of which being a major culprit in the rise of antimicrobial overuse and misuse.
UH Hilo adds Australia to list of countries with formal collaborative ties

DKICP student pharmacists will be able to formally expand their educational experiences to the land-down-under for the first time after an agreement that has been signed with an educational partner in Australia.

UH Hilo has signed a Memorandum of Agreement with Blackmores Institute, an academic and research organization headquartered in the northern Sydney suburb of Warriewood, New South Wales.

“We are excited to partner with Blackmores Institute,” said DKICP Dean Carolyn Ma. “This MOU signifies our commitment to giving our students the most competitive education possible while fulfilling our mission to establish a global identity.”

The agreement establishes a program called the “U.S. BI Student Pharmacist Intern Program” that promotes the exchange of international experiences. Students will have the opportunity to get credit through elective Advanced Pharmacy Practice Experience courses, which all fourth-year students in the professional program must take before obtaining a Pharm.D.

“Blackmores Institute’s focus on advancing the knowledge and research on complementary medicine dovetails nicely with our own emphasis on natural products,” said Dean Ma.

Thai university honors Dr. Supakit with award

The Faculty of Pharmacy at Rangsit University (RSU), in Bangkok, Thailand, honored Supakit Wongwiwatthanaknit, professor, Department of Pharmacy Practice, with the Outstanding Pharmacy Engagement Recognition Award on July 26 in Bangkok. This award is presented to a non-alumnus visiting scholar/professor who has made significant contributions to the Faculty of Pharmacy and to the pharmacy profession.

Known to all as Dr. Supakit, the award recognized his contribution to the Faculty as a visiting professor as well as his work on gaining accreditation with the Pharmacy Council of Thailand. Dr. Supakit has been a curriculum committee member since his appointment to the faculty of pharmaceutical sciences at Chulalongkorn University and continues to advance the Faculty at the international level while being a pharmacy professor at UH Hilo’s DKICP.

Dr. Supakit helped develop a relationship between UH Hilo and RSU, and created the memorandum of understanding (MOU), which encourages pharmaceutical sciences research and innovation, pharmacy student/faculty exchange program in international Advanced Pharmacy Practice Experience (APPE), and organization of joint research projects, including conferences and meetings between the Faculty of Pharmacy at RSU and the DKICP.

Through the MOU, five DKICP students had their APPE (Pharmaceutical Technology and Industrial Pharmacy Rotation) at RSU. Five DKICP faculty members have presented lectures, conducted preceptor training, participated in a seminar series and international conferences as visiting scholars/professors and/or keynote speakers, and have also collaborated on teaching and joint research projects with RSU faculty/practitioners.

“As global health issues continue to evolve in importance, I believe the Faculty of Pharmacy should enhance global experiences and perspectives for our students by reaching out to faculty and maintaining international relationships, taking advantage of existing university services and relationships, and collaborating with other health professions programs,” says Thanapat Songsak, Dean of Faculty of Pharmacy RSU. “It is important that educators learn how clinical practice and research innovations from other cultures can help us improve our own pharmacy and healthcare systems.”
Aerial views as well as shots of the second-floor slab being poured show construction continues on DKICP’s permanent home of the future. For everyone keeping track of progress, you can see more photos from the Hawai‘i Department of Accounting and General Services on our Website gallery at http://pharmacy.uhh.hawaii.edu/galleries/ConstructionTimeline/index.php.
DKICP team attends pharmacy education innovation conference

A team from DKICP attended the second annual Transformation and Innovation in Pharmacy Education (TIPEd) conference hosted by Washington State University’s College of Pharmacy at their Spokane campus from June 13-15.

The team consisted of faculty from both Pharmacy Practice, Drs. Jarred Prudencio and Donna Ohora, and Pharmaceutical Sciences, Drs. Aaron Jacobs and Linda Connelly, as well as a student representative (Athena Borhauer, Class of 2018, class president).

“As part of our commitment to state-of-the-art teaching, we enjoyed the opportunity to both hear from and have discussion with current innovators in pharmacy education,” said Dr. Jacobs, who was chair of the DKICP curriculum committee and has since the conference been appointed DKICP interim associate dean of academic affairs. “We were delighted to receive a warm welcome from our hosts at WSU.”

The topics covered included active learning, interprofessional education, co-curricular activities and approaches to support student success, all with a focus on educational transformation.

The team was able to share what they had learned at the conference with their colleagues in a presentation at the annual DKICP Curriculum Retreat in July.

“As a result, DKICP faculty have committed to enhance student engagement in the classroom throughout the 2017-18 academic year by providing more instructional activities, group discussions, and opportunities for hands-on learning,” Dr. Jacobs said.
Student pharmacists join national conference for independent pharmacies

By Kaylee Hoang (Class of 2019)

For the first time, students from the Daniel K. Inouye College of Pharmacy (DKICP) had the opportunity to attend an all-expenses-paid Independent Pharmacy Cooperative (IPC) Conference in Scottsdale, Arizona from April 6-9.

IPC is the nation’s largest group purchasing organization owned by independent pharmacies, representing almost 4,500 members. They provide access to services and programs that maximize the success of independent pharmacies and encourage ownership.

Representing DKICP were Goody Cacal (Class of 2018), Kaylee Hoang (2019), Lam Le (2018), and Kerri Nakatsu (2018). IPC, McKesson and RxScholarship Fund generously awarded scholarships to 25 students who attended, including Kaylee Hoang, Lam Le, and Kerri Nakatsu.

DKICP Dean Carolyn Ma remarked about the significance of these awards: “I am especially proud because the other awardees came from well-established pharmacy programs, such as Maryland, Creighton, Northeast Ohio and Midwestern universities. For UH Hilo to have three recipients is pretty awesome!”

During this three-day conference, there were up to 9.5 hours of continuing education courses and four hours of student presentations offered, which provided the latest information on independent pharmacy practice and ownership. There were also ample opportunities to network with current leaders in independent ownership, representatives from different independent pharmacy resources such as McKesson and Health Mart, and students from 13 other pharmacy colleges nationwide.

Every experience was incredible – from the inspirational speech from keynote speaker Captain Mark Kelly to the warm remarks from IPC President and CEO Don Anderson. The IPC members who attended were all wonderfully, friendly, passionate about independent pharmacy and teaching those who were interested in ownership.

Thank you IPC for giving us the opportunity to learn, network and be apart of your 2017 conference. We are grateful for your generosity and continue support in assisting ambitions pharmacy students on their journey in pursuing independent pharmacy.

Software donation helps students prepare for working on future databases

By Christina Method, Clinical Education Support Specialist

A big MAHALO to ComputerRx, a community pharmacy software company, who donated operations software worth $7,700 to DKICP’s Retail Lab.

With this software, students will experience an enhanced community pharmacy simulation compared to our previous homegrown system.

ComputerRx provides the platform for students to be involved in each step of the prescription filling process. From entering patient and prescription information, to filling and checking a prescription, as well as utilizing the signature capture device for prescription pick-up. This software will also allow us to create and maintain patient and drug databases.
**Student pharmacists reach out to high schoolers on O‘ahu**

Paolo Truong (left) and Jessica Lee, both from DKICP’s Class of 2018, accompanied UH Hilo’s Assistant Director of Admissions, Jennifer Naguwa, to the Mililani High School Mini College/Career Fair September 20. The fourth-year students manned a booth while on rotation on O‘ahu. The fair was open to all students and parents at Mililani High School and took place before Senior Parent Night. “Overall, there was a good turnout and we spoke to quite a few parents who wanted to learn more about the program,” Jessica said.

**Banner signifies years of work on Blue Zones Project**

*By Faith Hicks (Class of 2019)*

The Blue Zones Project Advisory Committee (BZPAC) was presented with a banner that shows the Daniel K. Inouye College of Pharmacy has earned Blue Zones Project Approval as a worksite that helps East Hawai‘i become a Certified Blue Zones Project Community. Jana Ortiz-Misziszek, who is the lead for The East Hawai‘i Blue Zones Project Organization, delivered the banner and said DKICP was one of the first Colleges of Pharmacy in the country to be approved to help with this initiative.

The banner is a representation of the hard work and efforts put on by the BZPAC throughout the last two years. It will be displayed in the courtyard of our campus to commemorate our mission and passions as health care professionals, and to promote healthier lifestyles on campus and amongst our patients in the community.

To become a Blue Zones Project Approved worksite, an organization and/or business must pledge and act on their responsibilities to meet their goals of promoting happy and healthier lives amongst their communities. As a school community, students pledged to live healthier lifestyles by having them commit to incorporating aspects of the Blue Zones Project “Power of 9” in their everyday life.

The efforts of both students and staff at DKICP played a crucial role in the college becoming Blue Zones approved. Our current BZPAC is continuing the initiative by educating the first-year students about the Blue Zones Project and having them pledge to live healthier, incorporating “walking groups” in between classes, and creating events that promotes healthier eating, down shifting and purpose. Year after year, we hope to carry out these practices, not only as students but as pharmacists, as well.
Students practiced an mock health fair Sept. 20 on student, faculty and staff volunteers in anticipation of the annual October event at Prince Kuhio Plaza. (Photos by Kathleen Nguyen, Class of 2019)

Faculty Seminar Series

Dr. Michelle M. Martinez-Montemayor, associate professor with the Department of Biochemistry and Cancer Research Unit at Universidad Central del Caribe-School of Medicine in Bayamón, Puerto Rico, presented a seminar titled “Inflammatory Breast Cancer: Biomarker and Treatment Discovery” on DKICP campus July 20.

Dr Richard Klemke (left), professor in the Department of Pathology and Moores Cancer Center at the University of California San Diego, presented a seminar entitled “Noni-derived Therapeutics Regulate Angiogenesis by Modulating PEAK1 Kinase” on August 15 on DKICP campus at UH Hilo. Dr. Matthew Platz, professor of chemistry in the Natural Products Division and former vice chancellor for academic affairs at UH Hilo, introduced Dr. Klemke, posing with Dr. Linda Connelly, chair, Department of Pharmaceutical Sciences.
Fulbright scholar relays her research experiences at DKICP lecture

Dr. Selis Onel, a Fulbright scholar from Ankara, Turkey who is a visiting scholar at the Center for Engineering in Medicine at Harvard Medical School and Massachusetts General Hospital, was the featured speaker at a public lecture on DKICP campus September 15. The title of her lecture was “Engineering Solutions for Cryoprotectant Loading of Cells Prior to Freezing: A Fulbright Experience.”

Dr. Onel is an associate professor of chemical engineering at Hacettepe University in Ankara, Turkey. She received her Ph.D. degree in mechanical engineering at Northeastern University in Boston and bachelor’s and master’s degrees in chemical engineering at Middle East Technical University in Ankara.

Her multi-disciplinary background includes research and teaching in the fields of materials science, thermal engineering, and biomedical engineering with a focus on mathematical modeling of thermodynamic systems, especially involving nonequilibrium phase transformations due to fast interface kinetics. In her current research, she uses mathematical models and develops thermo-fluidic micro systems to control the preconcentration of cells prior to biopreservation.

Dr. Ghee Tan, DKICP associate professor and director of the Ph.D. program, submitted the successful application for her lecture at UH Hilo, which was conducted through the Fulbright Scholar Program's Outreach Lecturing Fund (OLF). OLF enables Visiting Scholars to share their research interests, speak about their home country, and exchange ideas with U.S. students, faculty, and community organizations.
Accomplishment helps to integrate Hawaiian culture into the College of Pharmacy

A member of the DKICP ‘ohana has been recognized for leadership through hula this summer.

Tammy M. Tanaka, who has been the secretary in the Office of Research Affairs since 2008, was recognized for her accomplishments in the study of Hula. On May 6, she danced at her ‘Ūniki and was one of the participants in a Unukupukupu ceremony at Hawai‘i Community College Papa‘A Hale to recognize her years of study and celebrate their accomplishments.

Many people define ‘Ūniki as to graduate to become a Kumu Hula, but she said that’s not entirely true in this case.

“This ‘Ūniki or graduation ceremony is a formal debut of the learning in front of the community. We presented our dances to our family, friends and the community on a sunny Saturday afternoon in May. This ‘Ūniki marks the transition of the foundation, knowledge and tradition that have been passed down from Kumua (teacher), Kumua’s Kumua, and Kumua before that. This means that the dances and the chants get passed down throughout the generations,” she explains.

Unlike many in Hawai‘i who study the ancient form of expression from childhood, Tammy didn’t start to learn hula until she joined professional development program in the spring of 2008.

“As a child growing up in a Japanese family, hula was not an option. My sisters and I had to take Japanese dance classes, Japanese language and Ikebana (flower arranging). So I knew nothing about hula when I started this long journey,” she recalls.

The Unukupukupu hālau, or school of hula, began as an experiential program, directed by Kumu Hula Dr. Taupouri Tangaro, director of Hawaiian Culture and Protocols Engagement. The program develops inter-intra campus relations between faculty, staff and students by bridging together the diverse group of people from the Community College and the University through hula. It also develops life-long commitment to hula protocol and practices.

The first hula cohort, consisting of faculty, staff and a few students from both Hawai‘i Community College and UH-Hilo, was assigned to learn leadership through hula. Because they were the older sisters of the halau, they became known as the Kūkū‘ena, who was the eldest sister of the Hawaiian Goddess Pele. Tammy requested to be given a Hawaiian Name when she started the program, and the name given to her is Hi‘i Tanaeta.

The hula cohort lasted for two years, and consisted of four semester-long classes: ‘Aiha‘a, ‘Ōlapa, ‘Auana, Hu‘elopo. Between each section, the students contributed by helping out in some of the other classes, Kīpaepae and other cultural events throughout the year.

In the summer of 2012, Tammy was asked to participate in the Smithsonian Folklife Festival in Washington D.C. from June 27 to July 8, 2012. The University of Hawai‘i was among 20 public land-grant universities featured in the Smithsonian Folklife Festival in Washington D.C. from June 27 to July 8, 2012.

“This is an experience that I will never forget from long practices months prior, seeing all the different museums in Washington D.C., visiting the Capital and seeing the King Kamehameha statue and to the unexpected storms that took us by surprise,” she remembers. “Because of the storm we even became Night Marchers in the wee hours of the morning moving to another dorm.”

Through her participation on the Kīpaepae-Hawai‘i Protocols Committee, Tammy hopes to help Hawai‘i Community College/UH Hilo “build the capacity to ensure equity and well-being for the diversity they serve and employ through a kīpaepae, or Hawaiian Ceremony.”

Within the College, she is working with DKICP faculty member Dana-Lynn Ko‘omoa-Lange, who is also on the Kīpaepae-Hawai‘i Protocols Committee, in starting an ‘Aha ‘Awa, which is a ceremony of serving ‘Awa (also known as kavakava). The ‘awa promotes peaceful relationships and connections between the people drinking ‘awa, and helps them enter discussions, places or situations with good intentions.
Welcome to DKICP

Abhijit Date, assistant professor, Department of Pharmaceutical Sciences. Dr. Date comes to UH Hilo after completing postdocs at The Center for Nanomedicine, Johns Hopkins School of Medicine, Creighton University School of Pharmacy and Health Professions, Northwestern University. He earned his Ph.D. at Bombay College of Pharmacy, University of Mumbai. His research focus is on drug delivery.

Bryce Fukunaga, assistant professor, Department of Pharmacy Practice. A DKICP alum, Dr. Fukunaga received his Pharm.D. in 2016.

Aryn You, assistant professor, Department of Pharmacy Practice. Dr. You earned her B.A. in Pharmacy Studies and her Pharm.D from DKICP in 2016. She completed a PGY-1 Pharmacy Residency with DKICP/Hawai‘i Pacific Health.

Nicole Young, assistant professor, Department of Pharmacy Practice. Dr. Young has a bachelor’s degree in microbiology from the University of Hawai‘i at Manoa and a Pharm.D from DKICP in 2015. She completed her Post-graduate Year One (PGY1) residency at Peacehealth St. Joseph Medical Center, Bellingham, Washington, and her Post-graduate Year Two (PGY2) residency in Critical Care through DKICP at Queen’s Medical Center.

New staff joining DKICP this fall include: Lyssa Sakamoto, pre-pharmacy advisor; John “Keoni” Wood, information technology specialist; Chelsy Rapozo, administrative & fiscal support specialist; and Robert Birdsall, information technology specialist.

Faculty/Staff Briefs

Shugeng Cao, associate professor, Department of Pharmaceutical Sciences, was a co-author on three articles: 1) “A New N-methoxypyridone from the Co-Cultivation of Hawaiian Endophytic Fungi Camporesia sambuci FT1061 and Epicoccum sorghinum FT1062” published in the journal Molecules. Coauthors were C. Li, A.M. Sarotti, B. Yang and J. Turkson. 2) “Linear peptides are the major products of a biosynthetic pathway that encodes for cyclic depsipeptides” published in Organic Letters, a publication for the American Chemical Society. Co-authors were Thomas P. Wyche, Antonio C. Ruzzini, Christine Beemelmanns, Ki Hyun Kim, Jonathan L. Klassen, Shugeng Cao, Michael Poulsen, Tim S. Bugni, Cameron R. Currie, and Jon Clardy. And 3) “Macrotermycins A-D, Glycosylated Macrolactams from a Termite-Associated Amycolatopsis sp. M39,” also published in Organic Letters. Co-authors were Beemelmanns C, Ramadhar TR, Kim KH, Klassen JL, Cao S, Wyche TP, Hou Y, Poulsen M, Bugni TS, Currie CR, Clardy J.

Susan Jarvi, professor, Department of Pharmaceutical Sciences, presented updates on rat lungworm research and education projects completed in her lab to the following audiences: Mayor Harry Kim, the Hilo Rotary Club, the Lyman Museum and at the RLWD awareness concert held at Green Lake in Pahoa on the Big Island. Dr. Jarvi also was invited to speak at the fall meeting of the Northern California Branch of the American Society for Microbiology in Santa Clara, CA on Oct. 21. She also was co-author on a viewpoint article with Kathleen Howe published in the American Chemical Society journal Chemical Neuroscience, called “Angiostrongyliasis (Rat Lungworm Disease): Viewpoints from Hawai‘i Island.”

Dean Carolyn Ma is co-investigator with Reni Soon, M.D., a physician at Kapi‘olani Medical Center, on a project that was funded to Dr. May Rose Dela-Cruz from the Department of Public Health Studies at University of Hawai‘i – Manoa. The five-tiered grant, involving faculty from Public Health, UH Cancer, Social Sciences and John A. Burns School of Medicine (JABSOM) as well as pharmacists and M.D.s, is funded from the National Institute of Health (NIH). The basis of the project, entitled “Assessing providers’ views of increasing HPV vaccination uptake through the utilization of Pharmacists,” will be a pharmacists survey. In addition, Dean Ma served on a panel discussion entitled “Using Simulation to Build Teamwork” at the East Hawaii IPA 21st Annual Healthcare Symposium on Aug. 20. The event on “Successful Hawai‘i Teamwork and Collaborations” was held at the Fairmont Orchid Hawai‘i in Waikoloa on the Big Island of Hawai‘i. Dean Ma also presented two talks on Sept. 18 to the Natural Energy Laboratory of Hawai‘i Authority.
Camlyn Masuda, assistant professor, Department of Pharmacy Practice, was co-author in an abstract published at the American Diabetes Association – Scientific Sessions in San Diego, CA June 9-13. She also presented a poster of the work, entitled “A Quality Improvement (QI) Initiative to Address Diabetes (DM) Disparities in a Multiethnic Population.” Dr. Masuda also presented a poster entitled “Interdisciplinary Approach to Reduce Polypharmacy and Improve Medication Reconciliation in a Family Medicine Clinic” at the 21st International Association of Gerontology and Geriatrics (IAGG) World Congress of Gerontology and Geriatrics July 23-27 in San Francisco. Co-authors were Drs. Lovedhi Aggarwal, Monica CheungKatz, et al.

Karen Pellegrin, director, Continuing Education/Strategic Planning, was elected to serve on the Board of Directors and was appointed to the board’s finance committee for the Hawai’i Health Information Exchange, a non-profit organization established to enhance care coordination, and improve the health outcomes of Hawai’i’s patients. In addition: 1) Dr. Pellegrin was featured in a story in “Managed Health Care Connect” called “Pharmacist Involvement: Improving Care for Patients After Hospital Discharge.” 2) She was a co-author on a paper entitled “Potentially Preventable Medication-Related Hospitalizations: A Clinical Pharmacist Approach to Assessment, Categorization, and Quality Improvement” published by the Journal of the American Pharmacists Association with co-authors Elizabeth Lee, Reece Uyeno, Chris Ayson and Roy Goo. 3) She was an invited speaker on “Reducing Medication-Related Readmissions” at Hawai’i Health Workforce Summit Rural Health Track on Innovative Approaches to Improving Access to Quality Healthcare in Rural Hawai’i in Honolulu on Sept. 9.

Deborah Taira, professor, Department of Pharmacy Practice, is lead author on two peer-reviewed manuscripts, “Attitudes of College-Aged Electronic Cigarette Users In Hawai’i,” which was accepted for publication in the Health Behavior and Policy Review and “Examining Factors Associated With Non-Adherence And Identifying Providers Caring For Non-Adherent Subgroups,” which was accepted for publication at the Journal of Pharmaceutical Health Services Research. She also is co-author on two abstracts presented at the Research Center in Minority Institutions (RCMI) conference in October and two other abstracts presented at the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) conference in November.

Justin Reinicke, instrument specialist, Office of Research Affairs, received the “Rising Start Award” from Bismarck State College (BSC) in North Dakota. The award recognizes up and coming professionals who have graduated from Bismarck State College. He also received funding through INBRE to attend a proteomics workshop at the University of Arkansas for Medical Sciences in May.

Dr. Dianqing Sun to work on NIH project with faculty from Tennessee, Texas

Dianqing Sun, associate professor, Department of Pharmaceutical Sciences, has received an Exploratory/Developmental Research Grant (R21) subaward from the University of Tennessee Health Science Center (UTHSC). This R21 grant, entitled “Investigation of the FAS-II enzyme, FabK, as a druggable target for C. difficile” is funded by the National Institute of Allergy and Infectious Disease (NIAID) within the National Institutes of Health (NIH).

Dr. Sun will be working with Dr. Kirk Hevener at UTHSC, whose expertise lies in structural biology, protein biochemistry and computational chemistry and microbiologist Dr. Julian Hurdle at Texas A&M Health Science Center. Dr. Sun will provide medicinal chemistry expertise and his lab will synthesize FabK inhibitors for assay development and target validation studies.
Undergraduate Mentors

John Malabel, an undergraduate student who interned this summer with DKICP Professor Deb Taira, won first place at the Hawai‘i Health Workforce Summit Poster Competition. Malabel won $400 for his project entitled “Pathways to preventable hospitalizations for Filipino patients with heart failure in Hawai‘i.” The event was held at the Hawai‘i/Pacific Basin Area Health Education Center in Honolulu on September 9.

Cori Sutton, an undergraduate student who was mentored by Drs. Taira and Wesley Sumida in the summer of 2016, was featured in the July 2017 edition of Hawai‘i Journal of Medicine and Public Health for her winning essay in the 2016 Writing Contest. Her manuscript, entitled “The Relationship Between Medication Adherence and Total Healthcare Expenditures by Race/Ethnicity in Patients with Diabetes in Hawai‘i,” compared total annual healthcare expenditures of patients with diabetes in Hawai‘i by race and ethnicity and determined whether any existing differences persisted after controlling for medication adherence and demographic factors.

Networking, health care discussions were highlights of national convention

By Tyler Peterson (Class of 2020)

During this past summer, the Brothers of the Epsilon Psi Chapter of Kappa Psi Pharmaceutical Fraternity Inc. learned a lot on their rotations and enjoyed time off at home with family and friends.

A few of the Brothers from our chapter were fortunate enough to attend our fraternity’s national conference, the 58th Grand Council Convention (GCC), in Naples, Florida on August 1-5. Possessing a rich history, this conference, held every two years, significantly impacts the growth and development of its members.

The first national body was held in New York City on March 31, 1900. Kappa Psi has grown incredibly since its inception in 1879 as a local preparatory school fraternity to a national organization, serving more than 80,000 members across North America.

Brothers from all over the nation converge at one location to discuss various health care topics, engage in leadership workshops, mentorship activities, and network. Some are directors in hospitals, staff pharmacists, and fourth-year students on rotation. Others include Pharm.D./JD lawyers working on healthcare legislation, compounding pharmacists and many bright-eyed collegiate students. These Brothers travel far and wide, with some even braving 26-hour flights with layovers to attend this convention.

Brothers Raul Flores (Class of 2020) and Natalie Chan (immediate left) enjoyed a meal with Brothers from all over the country at GCC.

Brothers from Kappa Psi met for the 58th Grand Council Convention.
“It was very inspiring to see much older graduates still involved in our fraternity and continuing to make a difference in the profession of pharmacy,” Natalie said.

At the beginning of the conference they met with Brothers who are further along in their careers who encouraged them to do well in their studies and to be engaged in their community, whether that be through health screening or wellness presentations.

“These interactions were anything but shallow or on the surface. At GCC, you could feel the warmth and genuine camaraderie. Everyone there truly looked after each other, and encouraged one another to be better, do better, and achieve greater to ultimately pass that on to our patients,” said Raul.

This same energy resonated as the convention progressed from leadership and networking workshops to collegiate and chapter development workshops. Each event provided a chance to develop member’s skills and knowledge that could be used to improve their studies, patient care and interactions, and to shape them to be better leaders.

Other notable events that took place during the weeklong convention included a philanthropy campaign to raise funds for the Safe & Healthy Children’s Coalition of Collier County, and a plenary event to bring better awareness and knowledge of Depression and Suicide Risk Awareness and Prevention.

By the week’s end, they were exhausted, but they were enlivened by all the information they had gathered, the good times shared with good company, and the memories made at GCC. When asked whether it was worth going, Raul said: “I can truly say that the friendships made and the advice imparted will last a lifetime.”

The Brothers of Kappa Psi are looking forward to meeting again at the next GCC in 2019 in Washington DC.

Kappa Psi/Phi Delta Chi

Professional pharmacy fraternities team to volunteer at Big Brothers Big Sisters fundraiser

By Cathlyn Goo (Class of 2019)

The two professional pharmacy fraternities – Kappa Psi and Phi Delta Chi – teamed up to volunteer at a fundraiser event August 26 for Big Brothers Big Sisters Hawai‘i, an organization that provides mentorship services for at-risk children across the state.

The program pairs children ranging from 6-18 years with a “big brother” or “big sister” to spend time, do school work, talk to, and have as a role model or someone to look up to.

The event, called “Dessert Before Dinner,” was held at the Hilo Hawaiian Moku’ola Room and included a dessert buffet, live entertainment, games and prizes for children, and a silent auction.

The student pharmacists assisted with setting up table decorations, putting together goodie bags, and monitoring children at the games booth. Parents could relax and enjoy a wide spread of desserts while children were able to have fun playing ring toss and bean bag toss games.

The inaugural event was a success and will hopefully continue as an annual event in subsequent years.
Student pharmacists from the Pacific Islander Mobile Screening Clinic (PIMSC) represented DKICP in a multidisciplinary health screenings event providing care to participants of the 2017 Ho’oku’ikahi Establishment Day.

The event was presented at the Pu’u Kohola Heiau National Historic Site in Kawaihae on the west side of the Big Island of Hawai’i on August 11-12. This free public event was made possible through the cooperation of the Hawai’i Pacific Parks Association, Na Aikane o Pu’ukoholā Heiau, Na Papa Kanaka o Pu’ukoholā Heiau, the National Park Service, and many friends of the Park. DKICP was one of more than 20 community booths offering information and demonstrations.

Ho’oku’ikahi means “to unify,” and the event is a ceremonial gathering of people who wish to see Native Hawaiian cultural practices continue.

Students from PIMSC presented lifestyle and pharmacy-related topics, such as hyperlipidemia, medication adherence, and emergency medication planning. PIMSC also provided cholesterol and fasting blood glucose screenings. Over the two days, our 16 student volunteers screened 98 event participants under the watch of four preceptors – Mr. George Karvas and Drs. Wesley Sumida, Michelle Kim and Jarred Prudencio.

Chaminade University nursing students and JABSOM medical students also assisted with screenings. Doctors from Big Island gave individualized guidance based on the participants’ screening results.

Many of the event participants do not have access to regular medical care, and this screening event may be their only visit to a doctor. Overall, the event was very successful, and PIMSC hopes to provide more screenings at next year’s Ho’oku’ikahi.
Reflections of serving the community

By George Karvas, Instructor
Department of Pharmacy Practice

As faculty advisor for the Pacific Island Mobile Screening Clinic (PIMSC), I helped coordinate and mentored students at the 2017 Ho’oku’ikahi Establishment Day August 11-12 in Kawaihae. I love giving back to the community and I’m always so excited when I’m presented with an opportunity to give freely from what I’ve been given in life.

The actual event took place over a four-day period and had a very significant spiritual and historical feel connected to it. The Pu’u Kohola Heiau in Kawaihae was of great significance in the times of King Kamehameha I as he sought to unify the Hawaiian Islands. The heiau looks over the Kawaihae Bay into the vast Pacific Ocean, and I’m sure that from this vantage point, King Kamehameha I, along with his chiefs (Ali‘i) and warriors, were able to see their enemies approaching, riding in their canoes from a vast distance.

I’ve come to realize that having a positive impact in our Hawaiian community is important for DKICP. I feel like I was a small part of a really big picture and it was a pleasure and honor to have gotten to serve in the capacity I did. So much thanks goes out to Dr. Wesley Sumida, DKICP faculty member who flew in from Oahu. The connections he has through his clinical site were so key and foundational in the great success this event garnered. Fellow faculty members Dr. Michelle Kim and Dr. Jarred Prudencio also came to support us as preceptors during the health screenings. Chaminade University had their nursing students there and there were also medical students from JABSOM (John A. Burns School of Medicine) manning a first aid site.

Ms. Geri Kaleponi, the mother of one of our student pharmacists, Imaikalani Chock (Class of 2020), was also so key and foundational in assuring the smoothness with which this event was held. She served both as a liaison and a point of connection between DKICP, JABSOM and Chaminade University and the community of participants. This event would not have happened without her presence. She always made sure that we were well cared for with refreshments and sandwiches, and other snacks.

This was a first time event for PIMSC and I’m so very thankful for the coordination efforts of third-year student pharmacist, Athena Borhauer. She was very instrumental in making sure we had all the necessary supplies to perform the cholesterol and blood glucose screenings. In total, 15 of our students screened 98 participants over the two days of screenings.

Overall, I am so very proud of our students and my colleagues. I get to work with some of finest professionals in the field of pharmacy. Our students served a community of participants who don’t always have the necessary resources or wherewithal to seek out health care. So our ability to provide these health screenings were very much appreciated by the leaders of their community.

In the future, we’re looking to continue our participation with this event and to coordinate it in such a way so that we can reach even greater amounts of participants.

Leaders in pharmacy inspire students to ‘look beyond’

By Veronica Wong (Class of 2019)

On September 20, students and faculty members of University of Hawai’i’s Daniel K. Inouye College of Pharmacy (DKICP) were given the opportunity to learn more about pharmacy in the U.S. Public Health Service (USPHS). Captain Tom Duran, RPh and Captain Gregory Dill, Pharm.D., MPH, both leaders in the realm of pharmacy, went out of their way to speak with our student body about their journey through their different careers in the pharmacy field.

Captain Duran began his presentation introducing the purpose of Commissioned Corps of USPHS. As America’s health responders, these officers are the guardians of natural disasters and disease outbreaks. USPHS has sent thousands of
public health officers such as pharmacists to aid people in need of health care from Hurricane Harvey and Hurricane Irma. Afterwards, he shared with us his journey prior to his current position as Centers for Medicare and Medicaid Services (CMS) Region IX Pacific Area Representative for Hawai‘i and the U.S. territories.

As a descendant of the Navajo and Southern Ute Indian Tribes, Captain Duran continued to follow in his mother’s footsteps in providing health care to Native Americans and Alaskan Natives. Early on in his pharmacy career, he worked in the Indian Health Service as a pharmacy resident, and over time became the Chief Executive Officer. One hallmark of his career included his draft and implementation of the Public Law 93-638 Indian Self Determination contract that fought for separate management of the healthcare systems for Native Americans. His best moments in practice were the times that he was able to hold the hands of his fellow tribes members in their time of death and recovery.

Captain Dill shares a different background from Captain Duran. He began his story as a first-year pharmacy student who worked in retail pharmacy and realized that he yearned for something more. He took on leaps of faith and accepted internships with the U.S Food and Drug Administration and Searle, the predecessor of the Pfizer pharmaceutical company. As an intern, he spent time reading through boxes of material and writing reports. He emphasized that no matter what the task or negativity he faced, he did everything with a smile. His enthusiastic attitude and experience led him to numerous job opportunities. Currently, Captain Dill stands as the CMS San Francisco Regional Administrator and Deputy Consortium Administrator in the Consortium for Financial Management and Fee for Service Operations (CFMFFSO) who helps determine changes in health care policies.

As student pharmacists, the main takeaway from these leaders is that we should keep our options open and always move forward with a positive attitude. Pharmacy is a continuously growing field and there will always be a limitless amount of opportunities ahead of us as long as we push ourselves to pursue it.

We would like to give a special thanks to Captains Tom Duran and Gregory Dill for taking the time to share with us their stories and lessons gained throughout their pharmacy career. Many students had claimed this speaker event to have been “eye opening” to all the possibilities our profession has to offer.

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**Rotation Report**

**UH Hilo student pharmacists among few in nation to experience pharmacy practice in Guam**

*By Seungyeun Kris Yoo (Class of 2018)*

*This rotation is part of the Rural Health Training Initiative in partnership with the Area Health Education Center, Hawai‘i/Pacific Basin*

For the first four weeks of my Veterans Affairs elective rotation for rural health in Guam, I interned at the Community-Based Outpatient Clinic (CBOC), which is like an ambulatory care clinic that serves only veterans. I shadowed an anticoagulation pharmacist, who reviewed INRs, or international national ratios, which are used to check whether medicine to prevent blood clots is working, and adjusted warfarin dosages.

I also worked at the Home Based Primary Care clinic that my preceptor, a nurse practitioner, had opened up several years ago for the non-ambulatory veterans. I performed medication reconciliations when we visited the patients’ homes and afterwards worked up brief SOAPs (which stands for subjective, objective, assessment, and plan, a method of documentation in patients charts).

What stood out to me the most was witnessing the care that my colleagues provided to patients, including medication management, teaching patients on how to manage their conditions, and working with primary care providers to ensure continuity of care.

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DKICP alum now working in Guam include (from left) Drs. Jed Sana (Class of 2014), Veronica Cummings (Class of 2013), Jizan Evangelista Benavente (Class of 2014), Blanche Duarasan (Class of 2015), Meg Kang (Class of 2013) with Kris Yoo (Class of 2018)
preceptor and the attending nurses provided. For example, they helped get an obese patient off the couch while they redressed the wound on his derriere. It was an extra struggle because this patient also had hip problems, making it tough for him to stand on his own. There were also cellulitis cases, which the nursing team handled with composure and even neatly bandaged up the wounds. I can hear the gentleness and care in their voices as they talked to the patients throughout the process. Many of these homes lack air conditioners, so usually the team is working under sweltering heat. It was eye-opening, not because I was surprised by what nurses do, but because it further underscored their value within the healthcare team. With the help of my preceptor, I had the opportunity to intern the last two weeks of my rotation at Guam's one and only public hospital, Guam Memorial Hospital (GMH). There are about 13 pharmacists total, nearly half of which are DKICP alumni! I shadowed the pharmacy manager, anticoagulation and antibiotic stewardship pharmacists, and had the chance to work at their separate skilled nursing facility. However, my most exciting time there was going on morning ICU rounds alongside the ICU pharmacist, nurses, physical therapists, social workers, and most importantly, our physician. Outside each patient’s room, we discussed within a circle, which felt like the most crucial spot to stand in ever. What was shared within that circle was either going to lead to a patient’s survival or demise. I had only seen stuff like this on TV! I was awestruck by the physician. What did she not know? Her clinical knowledge seemed boundless. I had never had more respect and deference for physicians till then.

As my rotation progressed, I started noticing that a lack of resources was a problem in Guam’s health sector. This explains the slow progression in healthcare. The fact is, there just aren’t enough healthcare professionals to maintain a solid healthcare system. At CBOC, the physician turnover rate is high and some patients already complain of having to frequently see a new doctor. Furthermore, due to the lack of physician availability, CBOC has recently incorporated the Veterans Integrated Service Network (VISN), where some patients are checked up by off-island doctors via computer screens, but with a nurse on site. However, I’m left to wonder how effective and comprehensive that method of health assessment really is. Transition of care is also lacking and there aren’t enough pharmacists to help implement it. Therefore, problems like not finishing the antibiotic regimen or not picking up prescriptions from community pharmacies upon hospital discharge are causing hospital re-admittance. Diabetes, hypertension, and hyperlipidemia are highly prevalent in Guam. I love Guam’s rich culture of frequent family gatherings with an array of delicious food. I’m a fan of their red rice, chicken keleguen, barbequed meat, and their sweet desserts. However, this can pose as a serious health problem over time, and it doesn’t seem like people are that concerned till it’s too late. Not enough is done to educate or bring health awareness. But the lack in all of these is also an opportunity for growth that healthcare professionals should take advantage of.

Not only did I gain experience clinically, but culturally as well. The indigenous people in Guam, called Chamorros, often wanted to share their food and to invite us to events. It’s not surprising to hear of another upcoming family function, sometimes there was one every weekend. It’s evident that Chamorros value mutuality rather than independence. It’s disheartening that North Korea has been making bomb threats lately. Hopefully, that will never happen. Chamorros are so generous and kind. Just as they say Hawaiians have the “aloha” spirit, I’d like to say people of Guam have the “hafa adai” spirit. I am grateful for this wonderful experience. I hope one day you can experience it too.
Varied experiences give alum chance to precept

By Dr. Aaron Chun (Class of 2012)

Being from Hilo, I have always dreamed of going away for college, but when the opportunity of attending pharmacy school somewhere else arose, I could not bring myself to leaving the community that I have grown up in. Attending the DKICP has been amazing and cannot believe it has already been over five years since I have graduated.

After graduation, I decide to, once again, stay in Hilo and started working as a floater for the local grocery store, KTA. As a floater, I was able to develop and hone my skills as a pharmacist. Working at numerous sites allowed me to work with and learn from many different pharmacists. I had ample time off to evaluate my workflow, communication, and patient interaction skills to better prepare me for full time work. I parted ways with KTA after two years and moved over to another local company, Foodland.

With my free time, I was able to continue my work with Dr. Douglas Olsen (I have worked with him since high school). I was able expand my duties to include more patient counseling and medication management of things like anticoagulation and diabetes. Having direct patient contact for diabetes, along with doing numerous diabetes continuing education hours, allowed me to meet the requirements to sit for the certified diabetes educator (CDE) exam in December of 2015.

Currently, I am serving as the president for the DKICP alumni association and am pharmacy manager at Foodland/Sack-N-Save Puainako in Hilo. At Sack-N-Save, we take on numerous first- and fourth-year students throughout the year. We go over the technical skills needed to process a prescription, but we also try to instill a sense of aloha and caring for each and every patient that we service. Since these roles take up a majority of my time, I have not been able to make use of my CDE yet, but continue to look for ways to implement it into my daily work flow.

I am extremely grateful that I was able to attend pharmacy school here in Hilo, it would not be the same anywhere else. DKICP gave me a great sense of pride in the school and our community and it felt like we were one big ohana. I could not have been happier with my decision to stay.
Champions of Pharmacy

Dr. Evelyn Ahhing-Faaiuaso has been named a Champion of Pharmacy for Fall 2017.

Born and raised in American Samoa (AS), Dr. Evelyn Ahhing-Faaiuaso was the first-ever Samoan woman pharmacist with a pharmacy license to practice on her native island. She has been a key figure in bringing DKICP students to AS since 2010 when the College began a pre-pharmacy initiative at American Samoa Community College through a grant from the U.S. Department of Education.

Her background and job experiences may be the most varied of any of the DKICP preceptors. She traveled all the way to Omaha, Nebraska to earn a bachelor’s degree in pharmacy from Creighton University in 1987. The same year, she was commissioned as a second lieutenant in Medical Service Corp as a pharmacist, but had to put her military career on hold because she needed to return to AS to care for aging parents. She joined Lyndon B. Johnson Tropical Medical Center (LBJ Medical Center) as a young pharmacist in Pago Pago, AS. In addition, she has been an officer of US Army Reserves, retiring in 2012 after serving almost 30 years of active and reserve duty; she held various positions as an adjutant officer and a pharmacy officer. In 2005, she was re-activated back to active duty and served as a chief of the outpatient pharmacy in Tripler Army Medical Center in Honolulu from 2005 to 2007, at which time she returned to American Samoa again and rejoined LBJ as the chief pharmacist.

Officially, Dr. Ahhing-Faaiuaso has precepted student pharmacists from UH Hilo since 2010, which was the first year of eligibility to offer Advanced Pharmacy Practice Experiences (APPE). The students wholeheartedly named her the APPE Preceptor of the Year in 2015, and during the ceremony, Dr. Carolyn Ma recognized the importance of the preceptors not only to offer exceptional practice sites, but to ensure that these practice sites are safe. She expressed some of the reasons Dr. Ahhing-Faaiuaso was chosen for the award:

“Not only does she teach our students about pharmacy, but she gives them projects, and she has them interact with physicians and nurses and supervises their work. She also watches over them from the day they land to the day they leave. She arranges for housing, welcomes them into her home, feeds them, and, even on occasion, sends out search parties for students lost on an innocent Sunday hike.”

Accepting the award for Dr. Ahhing-Faaiuaso in 2015 were two women also from American Samoa who were soon to graduate from DKICP that year: Francine Amoa and Emily Lin. With Dr. Ahhing-Faaiuaso as a role model, both showed their commitment American Samoa by returning to begin their pharmacy careers there. Dr. Amoa is clinical pharmacist with the Department of Health, and Dr. Lin is working at LBJ Medical Center as the in-patient clinical pharmacist.

With this award, we recognize her unwavering support and guidance throughout our existence, and are grateful for her continued affiliation.
Highlighting Hawaiian culture in this issue of *Kawili La'au* may seem coincidental to another important cultural event of the summer. The highly respected voyaging canoe, the Hōkūle'a, returned to Honolulu in June after a three-year around-the-world voyage. Malama Honua was a voyage with a message that the health and well-being of our people are intertwined with the health and well-being of our environment. A replicate of canoes that had been used for hundreds of years to travel the islands, the Hōkūle'a was launched from O'ahu in 1975 and spurred the renaissance for Hawaiian culture and language as well as the ancient Polynesian art of wayfinding.

A miniature replica of wa'a Hokule'a from the Daniel K. Inouye Legacy Collection is now showcased at our DKICP's Annex location, waiting to be displayed in our permanent building. The reproduction was given to our College by Mrs. Irene Inouye in 2013 after the Senator's death. Mrs. Inouye's gift honored our own “wayfinders” efforts of becoming first successfully accredited college of pharmacy in the Pacific.

This historical connection mirrors activities our faculty members conducted this summer working with students on various educational ventures, which we feature here. From working with students in the Students of Hawai'i Advanced Research Program (SHARP) project, to mentoring students in our labs, to teaching an indigenous science course, to accompanying students to health fairs as well as our annual trip to Kalaupapa, Moloka'i, we are passing along the culture of the islands that is so critical to our growth.

Growth that includes working with the legislature on bills that expand the scope of pharmacy practice. One momentous step gives pharmacists the ability to prescribe contraceptives. We are only the third state to pass this groundbreaking legislation and the college is working with Oregon and Colorado on the continuing education module to help certify our state's pharmacists. Other legislation signed by Gov. Ige also influences our student pharmacists' future regarding the ability to provide vaccinations to 11-17-year-olds, and offering informed consent to opioid therapy. You can read more about what those mean to our College and our profession in this issue.

Something else you may notice in this issue of *Kawili La'au* is that we have now reached Volume 10—ten years of a chronicle that tells every inch of our journey as the only College of Pharmacy in the Pacific Region. I never cease to be honored to help guide a small part of this voyage.