

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

Spring 2015 • Volume 7, Issue 3



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**HILO**

## National honor society inducts new members

Inside: ACPE awards DKICP full accreditation

# Dean's Message



Recent headlines regarding fraternities may give you the impression that student members have a lot of time on their hands and this leads them to participate in objectionable, or even criminal, activities. Clearly, this is not so with our student pharmacists. In addition to serving as members of Student Councils, the Pacific Islander Mobile Screening Clinic, and A Life of Healing and Awareness (A.L.O.H.A.) Project, our students participate in the following organizations, all of which have been chartered on our relatively new campus: American Pharmacists Association - Academy of Student Pharmacists (APhA-ASP); Academy of Managed Care Pharmacy (AMCP); Hawai'i Student Society of Health-Systems

Pharmacy (HSSHP); National Community Pharmacist Association (NCPA); Phi Delta Chi - Gamma Theta; Phi Lambda Sigma - Pharmacy Leadership Society - Delta Lambda Chapter; Kappa Psi Pharmaceutical Fraternity - Epsilon Psi Chapter; Rho Chi - The Academic Honor Society in Pharmacy - Delta Iota Chapter.

Students engaged with these activities have historically stood above the rest both academically and socially because they make it their purpose to become future leaders by being leaders while in college. This is the certainly the case with the Delta Iota Chapter of Rho Chi Society, whose induction ceremony we feature as our cover story. I am proud of this group, as I am of the other fraternities we support at the Daniel K. Inouye College of Pharmacy. Each and every one of their undertakings shows the entire community that not only will they represent UH Hilo well when they go into the job force, but they are the kinds of individuals we can entrust with our most precious commodity: our health care. From conducting health fairs to presenting testimony for the State Board of Pharmacy, our students show they have chosen this profession carefully and with deliberation in order to become pacesetters in their communities, no matter where they live.

We can thank many of our faculty for leading by example. Many are proven leaders as highlighted in our story about the annual meeting of the Hawai'i Pharmacists Association. Several of our faculty members and students presented posters and were invited to give lectures.

We are also pleased to provide an overview of the work being conducted by the inaugural students in our PhD program. The stories in this issue illustrate their dedication. We hear of their day-to-day endurance, as they complete their classes and perform their lab work, often tedious and exasperating, and strive to contribute to future discoveries that may change the world.

Working with our skilled, international faculty also gives all of our students an advantage on a global scale. One of our goals is to continue expanding our contacts with colleagues throughout the world. In this issue, we show our work in Thailand and Japan through MOUs and exchange programs, while reminding our students of our host cultures through guest lectures and visits to neighbor island schools. It's critical for our future to recognize and highlight the uniqueness of these types of experiences. We are fortunate in being so well-positioned to serve as a bridge from the West to the East.

Meanwhile, as a sign of true confidence in our future, I am delighted to welcome a long-time friend to our staff, Gerald De Mello. Gerald has tirelessly supported the College since Day One when he was director of University Relations, and his insight and historical perspective will be priceless as we move forward in meeting our goal to become a top 25 college of pharmacy.

Aloha,

A handwritten signature in black ink, appearing to read 'John M. Pezzuto'.

John M. Pezzuto  
Professor and Dean



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**On the cover:** Associate Dean Edward Fisher lights the candle for faculty member Mimi Pezzuto, who was inducted into the Delta Iota chapter of Rho Chi Society March 12.





*New members of Rho Chi (Photo by Allan Higa, Class of 2016)*

## New members pledge to join national pharmacy honor society

The Daniel K. Inouye College of Pharmacy at UH Hilo acknowledged the admission of 17 new members to the Delta Iota chapter of Rho Chi Society at the fourth induction ceremony for the college on March 12 at Hilo Yacht Club. Walgreens sponsored the event, which featured an inspirational keynote address delivered by Hawai'i County Prosecuting Attorney Mitch Roth.

The Rho Chi Society is a national organization that encourages and recognizes excellence in intellectual achievement and fosters fellowship among its members. New members must complete one half of the required didactic coursework of pharmacy education and be among the top 20 percent of their class.

Dean John Pezzuto made opening remarks at the induction ceremony, noting the significance of the prestigious group to DKICP's national reputation.

"All top-ranked pharmacy schools have chapters of the Rho Chi Society, and this is just another example of how we are moving towards our goal of becoming a top 25 school of pharmacy," Pezzuto told the group of about 75 students and faculty. "You should be proud of yourselves and be confident knowing the education you receive here is as good or better than any other college. We're counting on you and know you will contribute to the scholarship of the profession."

DKICP received a favorable vote to begin the chartering

process during the American Pharmacists Association (APhA) annual meeting in 2012 in New Orleans. Associate Dean for Academic Affairs Edward Fisher, co-advisor for the group, who petitioned to establish the nationally recognized chapter at UH Hilo, is a former Rho Chi National Secretary. A member since 1979, he has been a member of several committees throughout the years.

Supakit Wongwiwatthananut, associate professor in the Department of Pharmacy Practice and co-advisor for the chapter, introduced Prosecuting Attorney Mitch Roth, who told the students how impressed he was to see them and their faculty out at various community events such as recent Hilo Heart and Stroke Walk where he had his blood pressure taken by a student pharmacist and thanked them for building a great reputation.

"As a high school dropout who went on to become first an attorney, a prosecuting attorney, and the leader of the biggest law firm on the island, I want to show you that you can do anything," he said. "Whatever you do, don't let fear intimidate you from doing what you want to do. Remember to have a major definitive purpose."

Wongwiwatthananut then introduced the outgoing officers who presented the initiation of Chapter Members, which included a candle lighting ceremony unique to UH Hilo's chapter, as well as a recital of the pledge and passing



*Supakit Wongwiwatthananukit (right) presented a gift to Prosecuting Attorney Mitch Roth*

out the new member pins. He also presented 14 Rho Chi recognition certificates of achievement in honor of students who attained the highest scores in each didactic course and a certificate of appreciation in honor of a student who provided the outstanding contributions made towards the goals of the chapter for the calendar year 2014.

New members include faculty member, Mimi Pezzuto, who teaches several courses and is Pharmacist-in-Charge at UH Hilo's Student Medical Services, and 17 members of the Class of 2017: Sean Abreu, Trenton Aoki, Lena Asano, Nicole Chin, Christopher Diaz, Audrey Fung, Dann Hirayasu, David Khan, Shaun Lasky, Caleb Malinski, Sean Menda, Kelsea Mizusawa, Kim Roseman, Nadine So, Hoa Vo, Brenda Yuen and Zi Zhang. New officers are Christopher Diaz (President), Kelsea Mizusawa (Vice President), Trenton Aoki (Historian), Audrey Fung (Secretary), and Brenda Yuen (Treasurer).

Representing Walgreens at the event were Hawai'i District Supervisor Nancy Huang, and Erin Samura, pharmacy manager at Walgreens Hilo.



*Front Row: Mitch Roth, Mimi Pezzuto, Nancy Huang; Standing from left: Edward Fisher, Supakit Wongwiwatthananukit, New President Christopher Diaz, Outgoing President Eric Tsuji, Dean John Pezzuto*



*Rho Chi officers 2015-16: From left: Trenton Aoki (historian), Brenda Yuen (treasurer), Christopher Diaz (president), Kelsea Mizusawa (vice president), Audrey Fung (secretary).*





Student pharmacists (from left) Hannah Meerah Shin, Leilani Isozaki and Moani-Lehua C. Hagiwara joined Dean John Pezzuto at the Daniel K. Inouye College of Pharmacy when they presented a check for \$1089.23 that they raised to American Heart Association regional director Ann C. Oshiro-Kauwe.

## Student pharmacists come to aid of American Heart Association

DKICP student pharmacists recently collected \$1,089.23 on behalf of the local American Heart Association (AHA) using a “penny wars” fundraiser.

Students from the American Pharmacists Association – Academy of Student Pharmacists (APhA-ASP) organized the week-long event, which culminated with National Wear Red Day on Feb. 6.

“Congratulations and well done to the DKICP students for promoting awareness of cardiovascular disease and taking action to live longer, healthier lives and fight against this silent #1 killer,” said Ann C. Oshiro-Kauwe, AHA regional director. “I want to personally thank the students of DKICP for their fundraising efforts to further AHA’s mission year-after-year.”

The entire DKICP student body contributed to the cause, competing against their classmates to raise the most pennies and spare change. Co-chairs for APhA-ASP’s Operation Heart were Moani-Lehua C. Hagiwara (Class of 2016) and Hannah Meerah Shin (Class of 2017).

“This donation is just one of the ways we as student pharmacists fulfill our obligation to the community in raising awareness for health issues,” said Leilani Isozaki, APhA-ASP

president. “With guidance from our faculty, we appreciate the chance to meet many of our fellow citizens face-to-face. Even though we are still health professional students, this is a responsibility we take seriously.”

The students also complete internships, called rotations, at many health care facilities and pharmacies throughout the State, which gives them hands-on experience in their field, said Dean John M. Pezzuto.

“We can all take a lesson from our students, who contribute to their communities on each neighbor island and improve health care through applied learning internships and community projects,” Pezzuto said. “They’re not simply dusting over the top of the heads of our citizens, they are delving into the heart of many of our distinct populations who are underserved medically. We are very proud of the leadership demonstrated by our students. They can show us all how it’s done.”

Many of the student pharmacists joined AHA’s 18th Annual Hilo Heart & Stroke Walk on Saturday, March 7 at Liliuokalani Gardens as volunteers, helping with health screenings and other activities.

# National board continues full accreditation for College of Pharmacy

After a focused, on-site evaluation and separate review by the board of directors of the national agency that regulates pharmacy schools, the Daniel K. Inouye College of Pharmacy at the University of Hawai'i at Hilo has been granted continuation of full accreditation.

The status extends to June 30, 2017, but is contingent on continuous progress that is monitored by the Accreditation Council for Pharmacy Education (ACPE). DKICP had been accredited on a provisional basis until June 2015 but was in danger of being placed on probation before the legislature approved funding for a permanent building last year.

"Professional accreditation is an ongoing process for the entire life of the program. While the latest decision is good news, the onus is still on us to continue progress and submit a written report bringing them up-to-date by October 2015," said Dean John M. Pezzuto. "In addition, given the term of full accreditation, it will be necessary to start preparing a new self-study in 2016, which will be due sometime in 2017."

ACPE is recognized by the U.S. Department of Education as the national agency for the accreditation of all professional degree programs in pharmacy. Institutions must meet 30 standards having to do with issues such as curriculum and facilities or face sanctions that include probation and ultimately closure.

For example, this year, ACPE placed top-ranked University of California, San Francisco (UCSF) on probation and will consider continued status for several other colleges. All colleges in the country must undergo the same intensive review by ACPE that includes a self-study and site visit such as the one in Hawai'i in October.

"The College did an outstanding job of explaining their value to the state of Hawai'i in order to secure legislative funding, which was necessary to meet accreditation standards," said Matthew Platz, Vice Chancellor for Academic Affairs. "I am quite certain that the support of the legislature had a strong influence on the positive decision rendered by the evaluation team."

Before meeting with Platz in Hilo, the ACPE team met with DKICP representatives on Oahu the day before coming to UH Hilo campus. They spent several hours interviewing members of the executive committee and student affairs and clinical education offices, as well as the assessment and curriculum committees for the College. ACPE's Board of Directors met in Chicago Jan. 21-25 to analyze their findings.

"This College of Pharmacy is a treasure for the entire State of Hawai'i," Pezzuto said. "Continuation of full accreditation acknowledges the hard work and dedication of our tremendous team of faculty, staff, and students as well as the overwhelming community support we receive. With a new building on the horizon, we are confident the College will continue to grow and expand, and continue to make our citizens proud."

ACPE granted DKICP pre-candidate status in June, 2007 and attained full accreditation upon graduation of the inaugural class in 2011. During one site visit, the ACPE noted the lack of permanent facilities as an area of deficiency, and in October, then-Gov. Neil Abercrombie released the funds for the building.

"We are indebted to all those in the university, the community and the legislature who stood by us," Pezzuto said. "Clearly, the superb status we currently enjoy is a testament to the hard work and commitment of our outstanding faculty and staff."



# UPDATE on Inaugural PhD students

The following students are members of the first class of PhD students accepted at the Daniel K. Inouye College of Pharmacy. Each of them entered the program in 2011, after the Western Association of Schools and Colleges (WASC) Accrediting Commission first approved the program.

## Marites “Tess” Calibuso-Salazar

Tess was born in the Philippines and moved to the Big Island at 13 years old. She received a bachelor’s degree with a double major in chemistry and cell molecular biology from UH Hilo, where she was then hired to teach chemistry labs before returning to work on her PhD. Her major professor at DKICP is Gary R. Ten Eyck. She expects to defend her dissertation in Fall 2015, and would like to find a postdoctoral position.

### In Tess’s lab:

My project investigates the effect of antidepressants on the developing hypothalamic paraventricular organ, an area of the brain that is essential for many neuroendocrine and regulatory functions. This research will utilize embryos of the coquí frog, *Eleutherodactylus coqui*, an amphibian that undergoes direct development, eliminating the tadpole stage, which allows direct application of drugs into the developing embryo without the complications of the mammalian uterus and placenta.

The long-term goal of my research is to establish the intellectual foundation to understand the effects of antidepressant drugs on the developing hypothalamus, with particular focus on the paraventricular nucleus (PVN). This project will examine: 1) the abnormal morphological effects of antidepressants, 2) changes in 5-HT<sub>1A</sub> and 5-HT<sub>2B</sub> receptor expression (receptors that have been documented to be vital for normal development), 3) *c-Fos* expression (indicative of cellular metabolism), 4) glutamic acid decarboxylase 65/67 (GAD6; rate limiting enzyme for the conversion of glutamate to gamma-aminobutyric acid) expression, and 5) synaptophysin expression (a glycoprotein of presynaptic vesicles used as a biomarker in synaptic plasticity) during hypothalamic neurogenesis in embryos exposed to antidepressants (at different concentrations; 0.10, 0.20, 100, 250, 500, 750, and 1,000 μM). We hypothesize that the modulation of monoamines due to chronic exposure of antidepressants during embryonic developmental will alter neural processes that will promote and increase the probability of developmental malformations in newborn embryonic hypothalamic PVN.

## Micah David Kealaka’i Glasgow

Micah was born and raised in Hilo and earned a bachelor of arts degree in cell & molecular biology at UH Hilo in 2009. His major professors are Mahavir Chougule and Kenneth Morris. He plans to defend his dissertation in the summer of 2015, and hopes to be among the first to receive his PhD from DKICP in December this year. After graduation he plans to perform postdoctoral work at Genentech in San Francisco.

### In Micah’s lab:

Neuroblastoma (NB) is the most common extra-cranial solid cancer in childhood and infancy with patients having an average age of 17 months. Most are diagnosed with advanced stage NB when tumor progression is aggressive, making treatment of NB even more difficult. The long-term survival rate for these patients is low, despite the advances in standard treatments (chemotherapy, surgery, stem cell transplants, and antibody based therapy). Up to 45% of NB patients are in the

high-risk category with full form MYCN gene amplification being observed. Due to poor survival rates and adverse side effects of current chemotherapy, an effective and safe alternative drug delivery strategy should be developed.

FDA-approved trypanosome drug α-difluoromethylornithine (DFMO) exhibits strong anticancer activity against MYCN-amplified NB cells by activation of the polyamine-regulated p27/Rb signaling pathway that leads to G1 cell cycle arrest. DFMO is a suicide inhibitor of ornithine decarboxylase (ODC), a rate-limiting enzyme in the biosynthesis of polyamines, and has proven effective as a therapeutic agent. ODC gene expression is directly activated by MYCN which further suggests that MYCN gene amplification is connected to high ODC expression. The up-regulation of ODC subsequently produces high polyamine levels that contribute to the malignant phenotype and the maintenance of NB tumorigenesis. Based on this MYCN-ODC





connection it is suggested that ODC may be a suitable new target for the treatment of NB.

Etoposide, a topoisomerase inhibitor is often used in front-line therapy for NB. Both drugs have been shown to synergistically work together, increasing cytotoxic effects during in vitro studies. The use of DFMO/etoposide in vivo is currently limited due to their short half-life of 3.6 to 4 hours which may explain why the antitumor effects in vivo were not synergistic as observed in vitro.

The delivery of drugs directly to tumors while sparing normal cells is essential to improve the outcome of NB therapy and to reduce adverse effects. Disialoganglioside 2 (GD2) is highly over-expressed on NB tumors, making it ideal for targeted antitumor therapy. Currently, anti-GD2 antibodies alone are used in the detection, diagnosis, and treatment of NB. GD2 antibody-coupled liposomes of doxorubicin and siRNA loaded liposomes were found to be effective (via GD2 mediated endocytosis) against NB. The GD2 epitope-guided active delivery of DFMO/etoposide in nanoparticles to NB tumors is innovative and has not yet been explored. Because of the direct delivery of the drugs to the tumor site, we expect to greatly improve the overall effectiveness of synergistically acting DFMO and etoposide, reduce adverse side effects to other tissues, and overcome current limitations associated with high doses of DFMO/etoposide.

I hypothesize that the development of stable, GD2 epitope-guided pegylated nanoparticles will deliver etoposide and DFMO in a targeted fashion to NB tumors, resulting in a significant improvement of anticancer activity at lower doses, reduced adverse side effects and prolonged biological half-lives of both small molecule drugs. The route of administration will be intravenous injection.

### **Kehau Hagiwara**

Kehau is from Hilo, and has a bachelor's degree in marine science with a chemistry minor from UH Hilo. Her major professor at DKICP is Anthony D. Wright. She hopes to complete her PhD by May 2016 and is keeping her options open for post-graduation.

#### **In Kehau's lab:**

My project focuses on natural product discovery from Hawaiian macro- and micro-organisms, with the knowledge that Hawai'i's unique environment and physical isolation has produced novel chemistry. This novelty has become highly sought after as the prevalence of drug-resistant microbial pathogens and cancers has increased within recent years.

Hawai'i is regarded as the most isolated landmass on Earth and is characterized by a variety of climates and environments. High rates of endemic and native incidences are well documented for both terrestrial and aquatic habitats. Consequently, Hawai'i has served as a hotspot for bioprospecting and natural product discovery ventures leading to highly influential natural product chemistry research.

With this in mind, studies on the chemistry of fungal isolates, bacterial isolates, terrestrial plants, and marine invertebrates from Hawai'i, New Caledonia, and North Carolina were undertaken to assess the potential for discovery of novel therapeutic agents. Chemical investigations of these organisms led to the isolation of 20 compounds, three of which are new natural products. The known compounds include iridoid glycosides, terpenoids, and fatty acids.

Structures were elucidated employing modern spectroscopic techniques. In addition to new compounds, two new species of marine bacteria were isolated. These highly pigmented bacteria, identified as *Pseudomonas* sp. and *Brevibacterium* sp., based on 16S rRNA sequencing, are associated with shallow-water sponges found on the east coast of Hawai'i Island and have noteworthy antibacterial activity.

### **Mayuramas "Jan" Sang-ngern**

Originally from Thailand, Jan received a bachelor's degree in chemistry from Suratthani Rajabhat University and a master's degree in pharmaceutical chemistry and phytochemistry from Mahidol University. Her major professor at DKICP is Leng Chee Chang. Jan expects to complete her PhD in spring 2016. She received a full scholarship from The Office of the Civil Service Commission (OCSC) in the Thai Royal Government. After graduating, she will work as a lecturer at the School of Cosmetic Science, Mae Fah Luang University, Thailand.

#### **In Jan's lab:**

My research project is entitled "Evaluation of Natural Products Derived from *Physalis peruviana* (poha) and *Sterculia foetida* as Anticancer Agents." I regularly employ modern spectroscopic, chromatographic, and microbial culturing techniques to conduct my research.

*Physalis peruviana* (Pp) in the family of Solanaceae has been widely used as folk medicine in China and Asia for treating cancer and asthma. Pp cultivated for its edible fruits, and commonly known as poha berries in Hawai'i, has provided an abundant source of withanolides. *Sterculia foetida* L. (Sf) is a tropical plant belonging to the Malvaceae (also placed in



Sterculiaceae family) which is called Java-Olive. The roasted seeds are edible and can be used as an adulterant for cocoa. Oil from seeds has been used in local culinary and in traditional medicine. Seed oil also exhibits biological activities such as antifungal, insecticidal, antibiotic, antiviral, carcinogenic or antitumor.

In recent years, inhibition of NF- $\kappa$ B signaling has become a major target for drug discovery as anticancer agents. A variety of human tumors have misregulated NF- $\kappa$ B that is constitutively active. STAT (especially STAT3) represent a protein family that selectively induces and maintains a pro-carcinogenic inflammation microenvironment. Normal STAT3 activation is transient in keeping with cellular requirements for proliferation, development, apoptosis and inflammation. In contrast, aberrant STAT3 activity dysregulates growth and survival, promotes angiogenesis, migration and invasion of tumor cells, and induces tumor-immune tolerance. As mentioned the above, both NF- $\kappa$ B and STAT3 signaling pathways have integrated roles in inflammatory responses that promote cancer development and growth.

Bioassay-guided fractionation led to the isolation and purification of compounds (secondary metabolites) from Pp and Sf. These isolated compounds will be evaluated for anticancer potential based on their ability to inhibit nitric oxide (NO) production in lipopolysaccharide-activated murine macrophage RAW 264.7 cells and tumor necrosis factor (TNF- $\alpha$ )-induced NF- $\kappa$ B activity. Furthermore, all compounds will be evaluated for growth inhibitory activity with U251MG glioblastoma and MDA-MB-231 breast cancer cells harboring aberrantly active STAT3, compared with normal NIH3T3 mouse fibroblasts that show no evidence of activated STAT3.

The research goal is to identify the most active, specific, and non-toxic agents which will create the opportunity for further drug target to be identified and exploited in exhibited inhibitory activities on anti-inflammatory activities including NO, NF- $\kappa$ B assays and the STAT3 pathway. An understanding of the structures and numerous biological roles of these natural products are critical. The structure-activity relationships (SAR) of these natural products will be further studied and defined. This study might also provide structural insights into the natural products-protein interactions and will help us uncover STAT3- NF- $\kappa$ B dependent molecular events important for cancer.



### **Nalini V. S. Yadav**

Nalini is from Atlanta, Georgia. She earned a bachelor's degree in mathematics & a bachelor's degree in biology from Mercer University in Macon, Georgia, as well as a master's in biotechnology from Fort Valley State University in Fort Valley, Georgia. Her major professors at DKICP are Aaron Jacobs and Linda Connelly, and she plans to complete her degree in spring 2016. She hopes to continue investigating breast cancer by obtaining a research position with either a scientific corporation or a governmental institution, such as the CDC, or possibly a postdoctoral position with a university.

#### ***In Nalini's lab:***

My dissertation project involves investigating the mechanism behind the impact of obesity on breast cancer metastasis (spread). Obesity has been linked to increased development of breast cancer and is associated with increased mortality after the diagnosis of breast cancer. Although several theories exist to explain these relationships, the proposed mechanisms are still being investigated. We propose that the interaction between fat cells (adipocytes) and immune cells (macrophages) within the breast leads to the production of signaling molecules that promote spread of breast cancer. Our preliminary experiments revealed that co-culture with adipocytes enhances the expression of vascular endothelial growth factor A (VEGF-A) in macrophages.

One of the first steps in metastasis is angiogenesis, which is the recruitment of blood vessels to the primary tumor. Angiogenesis is a physiological process that is important in embryogenesis, skeletal growth, and reproduction. However, it is also vital in regard to tumor pathology. A key regulator of the angiogenic process is the secreted protein VEGF-A, which acts as a mitogen, or "stimulator of mitosis", on the endothelial cells that line the vessel walls. Promotion of angiogenesis is a potential outcome of the adipocyte-macrophage interaction. Our data show that adipocyte-exposed macrophages produce increased amounts of the proangiogenic factor VEGF-A. We hypothesize that increased expression of VEGF-A is a mechanism by which obesity promotes breast cancer metastasis.

Our investigations will identify key regulators of the increased production of VEGF-A by adipocyte-exposed macrophages. We will assess VEGF-A as a potential biomarker of disease progression and critical molecular mediator that can be targeted with anti-VEGF drugs on the market either alone or in combination with currently used chemotherapies in obese breast cancer patients. By identifying the tumor-promoting signaling molecules produced we can reveal therapeutic targets for obese women with breast cancer. These revelations will also potentially impact therapies for obese patients diagnosed with other forms of cancer.

### **Susanne R. Youngren-Ortiz**

Susanne is from Merrillville, Indiana, a town in the greater-Chicago area. She received a bachelor's degree in pharmaceutical sciences with specialization in Industrial and Physical Pharmacy and minors in both statistics and chemistry from Purdue University's College of Pharmacy. Her major professors are Mahavir Chougule, and Kenneth Morris. She hopes to have her PhD in spring of 2016, and would like to work as a research and development formulation scientist within the pharmaceutical industry. In addition, she hopes to gain more experience in the area of pharmaceutical inhalable aerosols and their FDA regulations.

#### ***In Susanne's lab:***

My dissertation research project is based on the formulation and evaluation of a STAT6 siRNA loaded gelatin nanocarriers for asthma therapy. Asthma is a chronic pulmonary disease affecting approximately 25 million people in the United States. Current asthma healthcare is suboptimal and the disease remains poorly controlled. Aside from immunoglobulin E (IgE) antibody, no major drugs that act on underlying causes of asthma have been introduced in the last 20 years. Current asthma therapies mainly target symptoms topically, or in severe cases, systemically, rather than addressing the underlying pathogenesis. Developments of new therapies that correct asthma pathophysiology are needed to better control the disease and improve quality of life for asthmatics.

Allergic (atopic) asthma is driven by differentiated T helper (Th) 2 cells and induction of inflammatory processes. Previous studies have identified the crucial role of signal transducer and activator of transcription 6 (STAT6) in Th2 differentiation, airway hyper-responsiveness, and increased mucus production in the lungs. Th2 cells secrete interleukins which further activate STAT6 expression in B cells to produce Immunoglobulin E (IgE) and in airway epithelial cells to increase mucus secretion. Currently, no STAT6 inhibitors are approved by the FDA, and the preclinical inhibitors have shown poor efficacy and adverse effects due to lack of specificity. Therefore, specifically acting STAT6 siRNA offers tremendous potential for asthma therapy.

My dissertation project approach involves the parenteral administration of STAT6 siRNA loaded gelatin based nanocarriers that deliver STAT6 siRNA to Th2 cells, B cells, and airway epithelial cells by means of a surface anchored binding peptide. This is not only expected to effectively treat asthma, but also to overcome the limitations associated with siRNA delivery. The project utilizes a multidisciplinary approach that integrates gene therapy, asthma pathophysiology, and nanotechnology to achieve targeted delivery of STAT6 siRNA. I have also published and am actively working on other projects dealing with selenium loaded nanoliposomes for asthma therapy, hybrid albumin-chitosan nanocarriers containing onconase for mesothelioma therapy, and inhalable aerosolized nanoliposomal and gelatin nanocarrier formulations.





# DKICP expands exchange programs, pharmacy research and education with two more Thai universities

DKICP has signed partnerships with two more universities in Thailand that promise to give aspiring pharmacists opportunities to gain international perspectives in their field and provide a mutually beneficial arrangement that can help pharmacy practitioners and researchers advance pharmaceutical knowledge and practice.

Faculty of Pharmacy at both Silpakorn University, west of Bangkok proper in the Nakhon Pathom province, and Siam University, in Bangkok, are involved in the new arrangement after memoranda of understanding (MOUs) were signed last October.

"These agreements help us broaden our reputation and allow us to give students in their fourth year of pharmacy school international exposure, both culturally and educationally," said DKICP Dean John M. Pezzuto. "We were pleased to join other top-ranked pharmacy schools as part of the US-Thai Consortium (see story in Kawili La`au page 4 at [http://pharmacy.uhh.hawaii.edu/news/newsletter/kawililaau/documents/kawili\\_laau\\_fall14.pdf](http://pharmacy.uhh.hawaii.edu/news/newsletter/kawililaau/documents/kawili_laau_fall14.pdf)), and this is another example of the opportunity for opening new doors."

Supakit Wongwiwatthananut, associate professor in the Department of Pharmacy Practice helped shape the existing agreements.

"The program also brings students to pursue advanced professional, graduate study, residency or postgraduate training in our college laboratory, and in many of our experiential sites throughout the Hawaiian Islands," Wongwiwatthananut said.

Meanwhile, faculty from the universities can collaborate on pharmaceutical research and work with our professional pharmacists on things like global healthcare, medication therapy management, and our pharmaceutical faculty in drug discovery.

"The outstanding product development programs in Thailand will give us opportunities for collaboration that we currently don't have, while giving us a chance to share our expertise in formulation development," said Ken Morris, professor and chair of pharmaceutical sciences.

The arrangement includes at least the following areas of study: (1) Advanced Pharmacy Practice Experiences (APPEs); (2) Pharmaceutical Care; (3) Pharmaceutical Sciences Research; and (4) Organization of joint research projects, including conferences and meetings. Other areas of study may be added upon mutual agreement.

"I believe that this new partnership gives our respective students a wider global perspective, multiple student and faculty exchanges, visiting lecturers, research collaboration projects, practice and innovation collaborations, and faculty and preceptor development programs will be seen as mutual benefits between the new Thai schools of pharmacy and the DKICP," said Wongwiwatthananut.

Dean Jurairat Nanthanid from the Faculty of Pharmacy at Silpakorn University and Dean Chalernsri Pummangura and Weerachai Chaijamorn of Academic Staff Pharmacy Practice at Siam University came to Hilo and met with Dean Pezzuto and discussed possibilities with other faculty.

The partnership marks DKICP's third and fourth agreement with Thai universities. Thai schools of pharmacy already with clinical site and research agreements with DKICP include Chulalongkorn University, signed in 2011 and Rangsit University, signed in 2013.



*At a meeting at Hilo Yacht Club were (from left) Supakit Wongwiwatthananut (DKICP), Dean Jurairat Nanthanid (Silpakorn), Dean Chalernsri Pummangura (Siam), Dean John Pezzuto (DKICP), Patricia Uber (DKICP), Ken Morris (DKICP) and Weerachai Chaijamorn (Siam).*



## DKICP welcomes visitors from Matsuyama University

Pharmacy students from Matsuyama University in Japan visited Hilo and toured DKICP the week of March 2 as part of the Hawaiian EDventure program, sponsored by the UH Hilo Conference Center. The week-long instruction gave the students many opportunities to interact with faculty and staff, and included a visit in the lab with Ingo Koomoa-Lange (far right), a postdoctoral associate. The students, who were accompanied by their faculty adviser Takumi Yamaguchi (in the rear) are (from left) Asaka Yamamoto, Risa Tanabe, Chihiro Kakihara, Soki Okuyama, Sayaka Uematsu. Observing were Linda Connelley, assistant professor in the Department of Pharmaceutical Sciences and Yuko Imaizumi, a Hawai'i Community College student working in the Connelley lab through the IDeA Network for Biomedical Research Excellence (INBRE), grant who also served as an interpreter for the tour.



## Wellness class hears common sense lecture from indigenous scholar

Dr. Manulani Meyer, Indigenous Scholar-Practitioner, spoke to Mrs. Mimi Pezzuto's Wellness Class on "Holographic Epistemology: Native Common Sense" on January 30. Dr. Meyer has been a practitioner of Hawaiian cultural pedagogy for over 30 years. Her work has been in the field of indigenous epistemology and its role in world-wide awakening. She has spoken world-wide and published extensively on the topic of native intelligence. Dr. Meyer spent the past five years living and teaching in New Zealand where she developed He Waka Hiringa, a Masters in Applied Indigenous Knowledge at Te Wānanga o Aotearoa, the largest Māori tertiary institution with 35,000+ students. Dr. Meyer earned her doctorate from Harvard in 1998 on the topic of Hawaiian epistemology. She is a former associate professor of education at UH Hilo, and has recently returned to Hilo to serve as the Kanilehua Scholar-in-Resident. She lives and works on Oahu but travels to Hilo to teach two special topic courses in the Kinesiology Exercise Sciences Program: Cultural Competencies and Hawaiian Health & Well-Being.





## DKICP participates in Honolulu health fair

DKICP student pharmacists offered “brown bag” medication reviews and joined with Lani Ladao of the Narcotics Enforcement Agency in a prescription take-back service at the Papakolea Ohana Health Fair on March 7.



Participants were (from left): Wes Sumida, assistant professor in the Department of Pharmacy Practice based on Oahu; fourth year student pharmacists Wei Lin, Krista Kido, Traci Kusaka, Darian Oshiro, and Lani Ladao from the Narcotic Enforcement Division.

The event, held at Lincoln Elementary School in Honolulu, was sponsored by Kula no na Po'e Hawai'i, Papakolea Community Development corporation and New

Hope Town Church.

The student pharmacists also worked alongside a medical student and Dr. Dee-Ann Carpenter from the JABSOM, Department of Native Hawaiian Health to conduct blood pressure and intake screening for lomilomi practitioners.

The event featured the Royal Hawaiian band, local entertainers and hula performers.



## Welcome Camlyn Masuda



Camlyn Masuda has joined DKICP as an assistant professor with the Department of Pharmacy Practice, and is based on Oahu. She is practicing at the Physician's Center at Mililani, a family practice clinic, staffed by JABSOM Family Practice Medical residents. Prior to joining DKICP, she was on staff at Kaiser Permanente in Honolulu as an ambulatory care clinical pharmacist and the residency and student programs coordinator. Professor Masuda received a bachelor's degree in liberal studies with an emphasis on psychobiology from UH-Manoa, and a PharmD degree from Oregon Health and Science University. A licensed pharmacist in Hawai'i, Professor Masuda is certified as a diabetes educator, ambulatory care clinical pharmacist, emergency contraception, APhA pharmacists immunization, CPR and First Aid, and completed a traineeship for American College of Clinical Pharmacy Anti-coagulation.

She enjoys spending time and training her dog Cocoa, a border collie-husky), travelling and trying new restaurants.

## Student pharmacists and faculty collaborate to improve health

DKICP joined with the Native Hawaiian Center of Excellence from the John A. Burns School of Medicine Department of Native Hawaiian Health at their first Makahiki Festival at the University of Hawai'i, West Oahu campus on Saturday, Feb. 28. A variety of interactive information booths included BMI screening and other health testing conducted by DKICP, Imi Ho'ola, NHCOE Center info and the Narcotics Enforcement Agency. The fun-filled day also included cultural demonstrations, games, live music and food.





# Faculty and students represent DKICP at annual pharmacists meeting

More than 100 pharmacists, students and other pharmacy professionals attended the annual meeting for the Hawai'i Pharmacists Association (HPHA) annual meeting in Honolulu March 7-8.

HPHA is a volunteer organization representing pharmacy practice in the State of Hawai'i and is comprised of pharmacists in various practice settings ranging from retail to hospital to industry, pharmacy students, pharmacy technicians and academia.

DKICP faculty, students and alumni participation were prominently represented. Outgoing past president Carolyn Ma, associate professor and chair of the Department of Pharmacy Practice and Camlyn Masuda (Assistant Professor) coordinated multiple continuing pharmacy education activities. Other DKICP faculty from the Department of Pharmacy Practice including Roy Goo, Sheri Tokumaru, Eryn Kishimoto and Michelle Zacchetti helped to coordinate resident presentations and the poster sessions.

Speakers included Cherie Chu, assistant professor in Pharmacy Practice, who spoke on "New oral anticoagulants and anticoagulation reversal" and Elizabeth Ackerman, also an assistant professor in Pharmacy Practice who is a new member of the board, who spoke on hepatitis C. DKICP residents who spoke included Lehua Kay, Barry Nakaoka, and Michelle Kim. The DKICP Pharm2Pharm project sponsored keynote speaker John Michael O'Brien, PharmD, MPH who is vice president, Public Policy, for CareFirst Blue Cross Blue Shield, Washington, D.C.

Original research during the poster session March 7 included:

"Evaluation of the appropriate use of intravenous acetaminophen at a rural community hospital" by student pharmacists Ericson C Ganotisi, Chi B Ngo, Stephanie M Gregorio, Trina M Tran, and faculty member Roy Goo.

"Impact of The A.L.O.H.A. (A Life of Health and Awareness) Project on knowledge, empathy, and confidence of students enrolled in the Doctor of Pharmacy Program" by student pharmacists Jairus N.K. Mahoe, Walter M. Domingo Thuy-Vi N. Le, supervised by faculty members

SupakitWongwiwatthananutit and Lara Gomez.

Presenting "Practice Insights" on March 8 included:

"Findings from multiple health screenings of Hawai'i Island community members by student pharmacists [The A.L.O.H.A. (A Life of Health and Awareness) Project]" by student pharmacists Yolette C. Quach, Samantha M. Hanabaga, Thuy-Vi N. Le, Hannah M. Shin and Carlo S. Tiano supervised by faculty member Lara Gomez.

"Herbal and non-herbal dietary supplement use trends among Hawai'i State residents" by student pharmacist Andrea L Brauer, and supervised by faculty member Forrest Batz.

"Increasing immunization rates in splenectomy patients utilizing telephone outreach" by Cam Au, Pharm.D, BCPS; Kelsy Hernandez-Saca, Pharm.D, BCPS; student pharmacists Taila Autele and Krista RD Kido; Ivie Kumura, Pharm.D, BCPS; Kimberly Legawa, Pharm.D, BCPS; and Terri Miyamoto, Pharm.D., BCACP

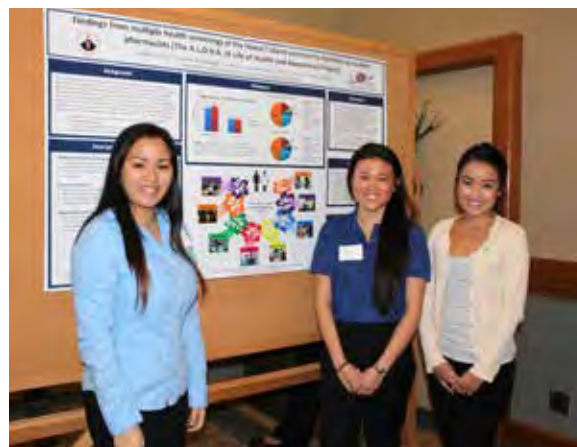
"Pharm2Pharm Pilot Program at Pali Momi Medical Center—a pharmacist driven transitional care program assisting patients from the hospital to the community": by Angela Li, PharmD, Lois Nash, RPh, MS, BS, and Shanele Shimabuku, PharmD, BCPS.

"Student-run interprofessional education project" by student pharmacists Samantha Hanabaga, Carlo Tiano, Kevin Wang and supervised by faculty member Patricia Juscak.

"Substituting non-formulary beta-blockers for patients undergoing non-cardiac surgery during perioperative period in a rural hospital" by student pharmacists Francine Amoa, LaTasha Riddick, Blanche Duarosan, and supervised by faculty member Roy Goo.



Incoming HPHA board: (from left) Student board members Ryan Shiroma, Dann Hirayasu (both from DKICP Class of 2017) and board directors Drs. Elizabeth Ackerman, Sheri Tokumaru and Jessica Toyama (DKICP Alumni, Class of 2011).



Student pharmacists who showed research done on the ALOHA project were (from left) Yolette Quach, Class of 2016, Hanna Shin, Class of 2017 and Thuy-Vi Le, Class of 2016.

# Hele on to Lana'i

By Jairus Mahoe (Class of 2016) and Micah Glasgow (PhD candidate)

Just ten days before the week most students dread -- finals week -- six students from the Daniel K Inouye College of Pharmacy set out on a two-day adventure to the beautiful island of Lana'i. Class of 2016 student pharmacists Shanon Makanui, Bert Matsuo, Kimberly Victorine, and Jairus Mahoe along with PhD students Micah Glasgow and Nathan Sunada joined forces with students from UH Hilo, UH Manoa and community professionals to present activities to Lana'i elementary, middle, and high school students.

On December 3, Lanai High & Elementary School hosted a parent-student night where students from kindergarten through fifth grade could come enjoy fun activities and free snacks. DKICP was represented at three booths, with the PharmD students at two, and the PhD Students at the other.

Makanui and Matsuo prepared a batch of lotion to show how compounding may occur in a pharmacy. Participants were then allowed to fill their own bottle of lotion, give it a fragrant scent, and create their own label for it. Many bottles of pikake and awapuhi lotion were given away that evening.

Victorine and Mahoe worked with wet and dry ingredients found in most kitchens to show children how to make their own homemade edible play-doh. Both parents and students sat down and measured out the appropriate parts before mixing them together and creating a fruit-punch flavored masterpiece.

Glasgow and Sunada discussed La'au Lapa'au (Hawaiian remedies) both with the keiki and their guardian. An interactive "wheel of fortune" game displayed many Native Hawaiian plants with medicinal or

nutritional properties. Students learned the importance of preserving the Native Hawaiian culture through preservation of the medicinal knowledge each plant offered. It is through the passing of knowledge from one generation to the next that any culture is able to perpetuate.

Day two consisted of an early morning back at the high school where, once again, the DKICP students split up into separate classrooms and cycled through classes of different grade levels every hour throughout the day.

The PharmD candidates spent their time discussing what a pharmacist is and their role as a health care

professional. Activities were then given to challenge the high school students mentally and physically. A scenario was played out where a physician calls in a prescription to a pharmacist and the high school students were asked to follow along and try to keep up with the acting pharmacist. Although no student was perfect, many came very close to taking down the most pertinent and correct information needed by a pharmacy. Another task was given where students had to correctly fill a prescription using proper technique. After stressing the importance of medication misuse, abuse and safety, students were given Skittles and M&Ms as "counters" so they could practice their prescription-filling skills. The activity was wrapped up with further questions about the pathway to become a pharmacist and the profession of pharmacy.

The PhD students also took a hands-on approach with the high school students. However, they first discussed the difference between a PhD candidate and a PharmD candidate, because many students did not know the difference between the two degrees. Also discussed were the numerous scholarship and grant opportunities offered to students that may help alleviate the financial burden of college and higher education. After their discussion, a mini natural products extraction activity showed the keiki the type of research work Sunada does on a daily basis. Using dried Native Hawaiian plants, students prepared crude extracts in various solvents to extract any medicinal molecules within the plant. They further discussed

the importance of this extraction and how modern day technology can help validate the true medicinal properties of Native Hawaiian plants.

At the conclusion of two fun-filled days of activities, the DKICP students returned to Hilo with a new brand new experience, and hopefully further inspiration to continually push the profession of pharmacy. Hopefully the knowledge of pharmacy will resonate with the keiki of Lana'i, allowing them to pursue higher education in any field their choice. Knowing that we may have played a role in getting them there makes our two-day trip a complete success.



Participating at the parent-student night at Lanai Elementary School were (from left) PhD student Nathan Sunada, PharmD. students Kimberly Victorine, Bert Matsuo, Jairus Mahoe and Shanon Makanui and PhD student Micah Glasgow.



# Legislators visit site of future permanent building



Members of the Committee on Higher Education for the Hawai'i House of Representatives met the Big Island House Representatives in Hilo on Dec. 30 to tour DKICP facilities. While here, they specifically stated they wanted to discuss the status and the financial plan for the new building. Shown at the project site are Rep. Isaac Choy (D-District 23), Professor and Chair of the Department of Pharmaceutical Sciences Ken Morris, Rep. Linda Ichiyama (D-District 32), Associate Dean of Academic Affairs Edward Fisher, and Rep. Mark Nakashima (D-District 1).

# UH Hilo Student Association helps student pharmacists stay hydrated

**By Tracey Niimi, Student Support Specialist, Student Services**

DKICP students returned to campus for classes in the spring semester to see a new BRITA Hydration Station installed in the lobby of the Academic Affairs Modular Building.

"The new Hydration Station provided by the UH Hilo Student Association (UH HSA) provides a quick and effective means of water delivery to reusable water containers and supports UH HSA's sustainability goals for the UH Hilo campus," said UH HSA DKICP Senator, Abraham Jose, Class of 2017.



*(Left to right) Abraham Jose (Class of 2017, UH Hilo Student Association Senator), Eric Rodrigues (UH Hilo Plumber) and Kirk Flores Jr. (UH Hilo Building and Grounds) (Photo by Tracey Niimi)*

The Hydration Station works by motion sensor to automatically start filling a reusable water container when placed under the filling spout.

"There are already many students at the College of Pharmacy that use hydration flasks, water bottles, and other reusable water containers at the drinking fountains. It was important for me to give back to the college in a tangible way and help the students here save time between classes to refill their water bottles in an effective, sanitary way," Jose says. "There are already other locations on

the UH Hilo main campus with hydration stations that are enjoyed by students there, so I wanted to bring this resource to the college."

The UH HSA bill proposed to supply DKICP with this hydration station also included that a hydration station be installed at the new Hawaiian Language building. Jose says there are many individuals to thank.

"The Hydration Station was made possible with the help of fellow UH HSA Senators, Director of Campus Center Ellen Kusano, Plumber Eric Rodrigues, and Custodian Kirk Flores. Much mahalo to all of you for making this possible!"





# Students participate in law-making process



From left: Student pharmacist Venus Ho provides her support while Leilani Isozaki, President of DKICP's American Pharmacists Association-Academy of Student Pharmacists, testified for a proposal to change the timing of intern licensing to occur during the first year of enrollment. The testimony was provided via polycom to the Hawai'i Board of Pharmacy

during Carolyn Ma's Law Class on Feb. 12. Professor Ma, who is a member of the pharmacy board, recused herself during deliberations. The board voted unanimously in favor to allow licensure "if enrolled in a college of pharmacy" and would apply to first-year students. See Leilani's testimony below.

## Hawai'i Intern Licensing Project Proposal Statement

by **Leilani Isozaki (Class of 2016), APhA-ASP President**

Good morning everyone, my name is Leilani Isozaki and I am the current President of the American Pharmacists Association Student Chapter at the Daniel K. Inouye College of Pharmacy. I just wanted to start off by thanking everyone for allowing us to be here and to make this proposal.

And now, I will refer to page 1 of Appendix A of your packet which is titled, The Proposed HAR 16-95 language, this includes the language as it currently exists:

The current law for pharmacy interns in Hawai'i states under HRS 461-9 that "No person shall practice as a pharmacy intern without having first obtained a permit from the board."

Under HAR 16-95-24 regarding "Pharmacy Assistant" permits, the current law states that "a copy of the applicant's diploma or official transcript showing the date of graduation or a letter from the dean or registrar that the applicant has completed the first year of school at a college of pharmacy shall be submitted with the application"

Page 2 contains the language we are proposing:

Our proposal is: changing the wording on HAR 16-95-24 from, "has completed the first year of school" to "is currently enrolled" at a college of pharmacy.

In addition, the wording that we are proposing also mirrors the language in HRS 461-91. This can be seen in changing the wording of pharmacy assistant to pharmacy intern in HAR 16-95-24.

On to Appendix B, which is titled, The Intern Licensing Data.

In our research, we found that there are only eight other states out of the 50 in addition to Hawai'i that require students to wait to receive their pharmacy intern licenses until the end of the first year. 80% of the states allow for pharmacy interns to receive their intern licenses either upon acceptance, upon enrollment in a college of pharmacy, or do not require pharmacy intern licenses or permits for student pharmacy interns.

The reason that we want to allow for this change is:

To allow student pharmacist to gain work experiences as pharmacy interns earlier on, which will allow them to develop their abilities and serve as competitive student pharmacists.

To allow student pharmacists to apply their didactic knowledge in the work-place setting which enhances students' learning and builds communication skills with patients.

To increase the ability of the community to benefit from health screenings. With student pharmacists attaining licenses earlier on, they can apply their training to community members in need. Overall this will allow for better and safer service to the community.

Just as an example, some of the health fairs we have been invited to and have been participating in for up to 7 years

include health fairs by the:

DKICP, American Heart Association, National Kidney Foundation, Veteran's Affairs, Hilo Medical Center, KTA Wellness Health Fair for Hawai'i County Employees, University of Hawai'i at Hilo, Local community health fairs, and more.

In addition, we have approached the pharmacy leadership of this state to ask their support of this.

In your packet you can see that letters of support have been submitted and they include:

Entire faculty of the DKICP, HPhA, The Dean's Advisory Council (which is composed of leaders in the pharmacy community) among others

Again, thank you for your time, we appreciate your consideration and hope that you will move to support us in this movement to enhance pharmacy practice.

## Faculty Seminar Series

Helen Turner (left), professor of Biology and Dean of Natural Sciences and Mathematics at Chaminade University and professor in the



Department of Cell and Molecular Biology, John A. Burns School of Medicine, University of Hawai'i, prepared for her seminar on Dec. 16 with Dana-Lynn Koomoa-Lange (right), assistant professor, and Ken Morris, professor and chair, Department of Pharmaceutical Sciences. The title of her talk was "Lipid bodies as novel calcium sinks and sites of pro inflammatory lipid remodeling in hyperinsulinemia."

### Student Organization News

## AAPS members tour industrial site on Big Island

By Nishant Gandhi (PhD candidate)

The American Association of Pharmaceutical Scientists (AAPS) chapter of the Daniel K. Inouye College of Pharmacy (DKICP) recently visited the Cyanotech Corporation, located in Kailua-Kona of Hawai'i island. Cyanotech Corporation is a world leader in microalgae technology, producing BioAstin® Natural Astaxanthin and Hawaiian Spirulina Pacifica. The tour was sponsored by AAPS, which is a professional scientific association of approximately 11,000 members employed in industry, academia, government, and other research institutes worldwide. The main purpose of the visit was to allow current graduate students and post-doctoral scientists to have exposure to industrial operations and help them better prepare for their future endeavors. The visit also provided the opportunity for future collaborations, which can be beneficial to the DKICP, Cyanotech Corporation, and also the community.

The day started with five PhD students, two post-doctoral scientists, and a visiting scholar driving down to visit the facilities located at Kailua-Kona. Upon arriving at the facilities, the students and the post-doctoral scientists received a warm welcome from Jen Johansen (Vice President of Quality & Regulatory Affairs). Jen was very kind to allow them to visit the Cyanotech Corporation manufacturing facility and give a tour of the facility. This tour included the ponds (growing algae) and the production facilities where algae is processed from the pond to the final tablet formulations ready to be dispatched. The visiting crew was



**From left: Erica Stein (visiting PhD student from Brazil), Susanne Youngren-Ortiz (PhD candidate), Marites Calibuso (PhD candidate), Micah Glasgow (PhD candidate), Dr. Laura Espana (Postdoctoral associate), Jen Johansen (Vice President, Regulatory and Quality affairs at Cyanotech), Kehau Hagiwara (PhD candidate), Nishant Gandhi (PhD candidate) and Dr. Rongbing Yang (Post-doctoral associate.)**

very inquisitive about the various operations of the facility which was spread over several acres and Jen was more than happy to answer the queries.

On completion of the tour, PhD student Kehau Hagiwara and post-doctoral associate Dr. Rongbing Yang gave presentations on current research and expertise of their laboratories to several employees of the corporation. The tour opens opportunities of potential collaboration between the DKICP and the Cyanotech Corporation.

# Student pharmacists meet Sen. Schatz to advocate for pharmacy provider status

By Leilani Isozaki, (Class of 2016) APhA-ASP President

At the Hawai'i Island Town Hall Meeting at Hilo High School on February 18, 2015 student pharmacists from the Daniel K. Inouye College of Pharmacy at the University of Hawai'i at Hilo joined U.S. Senator Brian Schatz to discuss supporting pharmacy provider status. The Senate Bill 314, which was introduced in January of this year alongside the House of Representatives Bill 592, aims to increase patient access to health care through pharmacists' patient care services. Titled, "The Pharmacy and Medically Underserved Areas Enhancement Act," the bill proposes to "amend title XVIII (Medicare) of the Social Security Act to cover pharmacist services." According to the U.S. Department of Health and Human Services and the Pharmacists Provide Care Campaign by the American Pharmacists Association, 4 out of 5 Hawai'i counties include areas designated as medically underserved. During the question and answer session of the meeting, Student Pharmacists from the American Pharmacists Association- Academy of student pharmacists, Leilani Isozaki and Fatemeh Kordkheili, approached the microphone to address this topic.

The question asked to the Senator is as follows, "Currently most Hawai'i residents on Medicare do not have access to important services provided by pharmacists, including chronic disease management such as diabetes and heart disease, drug therapy management, preventative screenings and related counseling and education. If H.R. 592 and S. 314 become law, pharmacists, a qualified and underutilized health care provider, can help address the needs of Hawai'i's medically underserved. We ask you to please support Senate Bill 314 to recognize pharmacists as healthcare providers under Medicare Part B."

The Senator started off by introducing his background in the healthcare field, stating: "My father is a physician so when I started as a policymaker I came from a physician's perspective in terms of jurisdiction."

Senator Brian Schatz continued by addressing the importance of the healthcare team: "As I learned, I started to understand that nurses, psychiatrics, other trained healthcare professionals, pharmacists included, can and should be part of the delivery of care and so I've grown in that area and now I know that both from a clinical standpoint, from a human



From left to right: Carlo Tiano, Gerald De Mello, Samantha Hanabaga, Fatemeh Kordkheili, Senator Brian Schatz, Leilani Isozaki

standpoint, and from a managing costs standpoint that whenever possible if you can have a trained professional capable to do the work but may not be paid at the MD level, that everybody wins. So this is something that I'd be strongly inclined to support."

In addition to advocating for pharmacy provider status, the American Pharmacists Association Daniel K. Inouye College of Pharmacy Student Chapter submitted literature from the American Pharmacists Association with further information regarding the bills. Policy postcards filled out at various health screening events held by APhA-ASP's Operation Heart, Operation Diabetes, and Operation Immunization, and include testimony by Hawai'i Island community members stating what their student pharmacists did to help improve their health care were also submitted to the Senator in support of the pharmacy provider status campaign.



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# Students become celebrities on local TV show

Students from American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) "Operation Heart" project helped bring some healthy heart tips during the holiday season when they filmed for the Derek Kurisu's cable TV show "Living in Paradise." Co-chairs of "Operation Heart" were Hannah Shin, Class of 2017 and Moani-Lehua C. Hagiwara, Class of 2016.

"This was a new filming opportunity sought out by the 'Operation Heart' committee chairs of this academic year in the hopes to spread heart health awareness and tips



*(From left): Local icon Derek Kurisu interviewed Moani-Lehua C. Hagiwara, Nancy Le (Class of 2016) and Dr. Matthew Sasaki (DKICP Class of 2013 now working for PharmERICA).*

more adjusted to the local community," Hagiwara said. "The show is a great resource to reach out to the elder population as this group is becoming increasingly large as the baby boomers age and their health is very important."

The group gave viewers tips to stay healthy, such as park a little further away from the entrance when you shop, use brown or at least "hapa" or white and brown rice instead of plain white, remember to take medications as scheduled and eat a little slower since it takes about 20 minutes for the feeling of fullness to "kick-in."

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# APhA-ASP student pharmacists team with KTA Waimea at Wellness Fair

**By Walter Domingo and Hannah Shin (Class of 2017)**

On Saturday November 8, five students, Lena Asano, Walter Domingo, Shaun Lasky, Hannah Shin, and Joyce Tapuro, gathered bright and early at 8 am in the parking lot of the Daniel K. Inouye College of Pharmacy (DKICP) and prepared to put on yet another mini-health fair for the residents of the Big Island. As students of the DKICP, community service is commonplace. For this event, the destination, 60 miles away, was the town of Waimea. On that particular Saturday, KTA Waimea was hosting the KTA Waimea Wellness Fair for its customers. The students from the DKICP were invited to participate in this event and host a booth. The college responded by joining the forces of various functions of the DKICP American Pharmacists Association (APhA) to offer a variety of health-related services. APhA-ASP Operation Heart, whose purpose revolves around cardiovascular screening and education, APhA Operation Diabetes, whose goals are to offer diabetes health screenings and education to community members, and Operation Immunization, whose main functions are to deliver various immunizations and to expand the public knowledge on immunizations, collaborated to put on a mini health fair at the KTA Wellness Fair that offered blood pressure screenings, A1c and blood glucose screenings, immunization education and health and lifestyle consultations.

Many booths, offering an array of goods and services, were scattered throughout the entire store during the wellness fair at KTA. The DKICP booth sat next to the pharmacy, close to the entrance. The supervising pharmacist,

Dr. Elissa (Kahahane) Brown, was a DKICP graduate of the class of 2013, the inaugural class of the DKICP. She was ecstatic

to have students from her former college participate in an event that she helped organize. For a total of four hours, the entirety of the KTA Wellness Fair event, students solicited and performed health services and shared their health knowledge to the many customers that both passed by for a glance and those that stopped and participated in the services. There was a steady flow of foot-traffic all throughout the event. All who

stopped by the booth showed their appreciation to the five students that travelled all the way from Hilo to offer them their time and services. Their gratitude was evident. From the students' perspective, they were more than happy to share their knowledge and skills to the community. By participating in this event, they gained much needed experience in patient interaction and patient care.

This event was one of many outreach events that the DKICP holds for the community. Community service is one principle that the DKICP holds in high regard. This desire to offer health-related services and to broaden the public knowledge of health and health-related issues originates in Hilo and spreads all throughout the Big Island and Hawai'i through the many outreach events that the DKICP organizes. Without a doubt, this won't be the last time the students from the DKICP will travel outside of Hilo to offer their time and knowledge to the community.





Student pharmacist Hannah Shin (Class of 2017) gives blood at the annual DKICP blood drive. (Photo by Nicole Chin, Class of 2017)

## NCPA's 2015 annual blood drive attracts record number of donors

By Samantha Hanabaga (Class of 2016)

Every two seconds, someone in the United States needs blood, with 5 million patients needing blood donations every year, reports the American Red Cross. A single blood donation takes about 45 minutes and requires one pint out of the ten pints in an average adult. Each pint of blood can save three lives. This simple act of giving can make a huge difference in the lives of others.

On Saturday, January 28, DKICP's National Community Pharmacists Association (NCPA) student chapter hosted this year's Annual Blood Drive. This event is a tradition to NCPA as they continue to work with the Blood Bank of Hawai'i and save lives for the past few years.

Preparation starts in early summer, as this is one of NCPA's biggest events each year. Many helping hands were involved not just from NCPA or the Blood Bank of Hawai'i staff, but as well as collaborative efforts made by other student organizations: Kappa Psi Pharmaceutical Fraternity, Inc. and American Pharmacists Association-Academy of Student Pharmacists.

On the day of the blood drive, student pharmacists oversaw the food/refreshment table and welcomed donors and walk-ins as they made their way to the entrance of the blood drive, while the Blood Bank of Hawai'i staff carried out pre-screening checks and collected blood from donors.

With the Blood Bank of Hawai'i staff and student pharmacists' hard work and dedication, it was another successful turnout breaking a new record of 112 donors for 2015. There was a diverse group of donors this year, ranging from the DKICP student pharmacists and staff, UH Hilo's student body and staff, and members from the Hilo community. Many Mahalos and Aloha filled the air that day.

NCPA is graciously thankful for the opportunity to work with the Blood Bank of Hawai'i and save lives. NCPA's student pharmacists continue to serve their community through providing valuable public service and improve Hawai'i's health through education, awareness and prevention, and making positive impacts among the local community.

## 2015 HFS FCU Annual Meeting – Health and Fitness Fair

By Lam Le (Class of 2018)

For the first time, DKICP's National Community Pharmacist Association (NCPA) Student Chapter participated in Hawai'i Island's HFS Federal Credit Union (HFA FCU) annual meeting, which was a health and fitness fair on Feb. 22.

The fair offered various activities, ranging from free health checks and screenings, informational and educational booths, prize giveaways, and get moving with live fitness classes. The activities and booths included financial fitness, a keiki obstacle course, game shows, and fitness demonstrations from Resolutions Gym (Cardio Kick) and Harriet Rocha (Zumba Gold). The event hosted 16 health/fitness organizations and 593 members.

Student pharmacists of NCPA managed two booths: Compounding for Kids and Medications Emergency Preparedness. The ALOHA Project from DKICP was also at the event and was participating on behalf of Walgreens.

The Medications Emergency Preparedness booth actively educated community members about its importance and how to be prepared in an emergency situation or natural disaster. The booth provided tips on how to prepare a medication emergency kit, medication storage, and develop a plan. Currently, there is very limited amount of information for the state of Hawai'i residents, therefore, the feedback we received from community members was very positive and they were greatly appreciative for the valuable information provided by student pharmacists. During our "Compounding for Kids" booth, NCPA had the opportunity to showcase on how to make a type of "Silly Putty" for the kids. The significance of this booth provided kids the opportunity to participate in a hands-on activity, while promoting the profession of pharmacy.

Overall, the 2015 HFS FCU Annual Meeting/Health and Fitness Fair was a huge success. Student pharmacists volunteering at the event enjoyed reaching out to the community and the positive feedback received from the community members has acknowledged our continuous efforts in serving the Hawai'i Island community. From this event, NCPA hopes to bring awareness regarding medication emergency preparedness and to better equip the Hawai'i community on how to be medication-ready.



From left, Katrina Kutter, Lam Le, Zachary Downs, and Karen Christian, all from the Class of 2018

## Faculty Briefs

**Julie Adrian**, DVM, assistant professor in veterinary pharmacy, Department of Pharmacy Practice, had an article accepted in *Journal of Empirical Economics*, entitled "Income effects on doctoral programs in pharmacy: estimation and prediction using U.S. data." Co-authors were Vu TB, Owusu Y and Hayashi K.



**Leng Chee Chang**, associate professor, Department of Pharmaceutical Sciences, received a grant from the University of Hawai'i Cancer Center to research "Evaluation of Hirsutinolides Derived from *Vernonia cinerea* in the Treatment of Cancer." Associate professors **Supakit Wongwiwatthananukit** from Pharmacy Practice and **Dianqing Sun** from Pharmaceutical Sciences are serving as co-investigators.

**Mahavir Chougule**, assistant professor, Department of Pharmaceutical Sciences, was selected to be a recipient of the 2015 American Association for Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research. The grant is primarily supported by a grant from the National Cancer Institute's Center to Reduce Cancer Health Disparities.



**Cherie Chu**, assistant professor, Department of Pharmacy Practice, was a co-author in an article entitled "Obesity increases risk of anticoagulation reversal failure with prothrombin complex concentrate in those with intracranial hemorrhage" in the *International Journal of Neuroscience*. Co-authors were Tokumaru S, Izumi K, and Nakagawa K.

**Deborah Juarez**, associate professor, Department of Pharmacy Practice, was lead or co-author on several peer-reviewed published manuscripts: 1) "The excess cost of inter-island transfer of intracerebral hemorrhage patients." In *American Journal of Emergency Medicine* (in press). Lead author was Kazuma Nakagawa, MD, from John A. Burns School of Medicine; 2) "Medicare Reimbursement to Ophthalmologists: A Comparison of Hawai'i to Other States." In *Hawai'i J Med Public Health* (in press). Co-authors included **Alex Guimaraes**



(student pharmacist); 3) Cost Burden of Potentially Preventable Hospitalizations for Cardiovascular Disease and Diabetes for Asian Americans, Pacific Islanders, and Whites in Hawai'i. In *Journal of Health Care for the Poor and Underserved*. Lead author was Tetine Sentell, Ph.D., from the Office of Public Health Studies. Dr. Juarez also was a co-author on several poster presentations at academic conferences.

**Dana-Lynn Koomoa-Lange**, assistant professor, Department of Pharmaceutical Sciences, published an article entitled "Differential Regulation of Calcium Signalling Pathways by Components of Piper methysticum ('Awa)" in *Phytotherapy Research*. Co-authors were Shimoda LM, Showman A, Baker JD, Lange I, Stokes AJ, Borris RP and Turner H.



**Carolyn Ma**, associate professor and chair, Department of Pharmacy Practice, had a study entitled "Impact of Utilizing Pharmacy Students as Workforce for Hawai'i Asthma Friendly Pharmacy Project" published in *Hawai'i Journal of Medicine & Public Health*. Co-authors were Nett B, Kishaba, G, Gomez, L.



**Dean John M. Pezzuto**, was a co-author with **Carolyn Ma** on a paper entitled "Academic Pharmacy Strikes Hawai'i (Part 2)" in *Hawai'i Journal of Medicine & Public Health*.



**Russell Molyneux**, affiliate faculty, co-authored two papers: "Pyrrolizidine alkaloids: Potential role in the etiology of cancers, pulmonary hypertension, congenital anomalies and liver disease" in *Chemical Research in Toxicology* and "Isolation and SAR studies of bicyclic iminosugars from *Castanospermum australe* as glycosidase inhibitors" in *Phytochemistry*.



**Ken Morris**, professor and chair, Department of Pharmaceutical Sciences, was the lead author in a study entitled "Relaxation Kinetic Study of Eudragit® NM30D Film Based on Complex Modulus Formalism" published in American Association of Pharmaceutical Scientists (AAPS) *PharmSciTech*. Co-authors were Penumetcha, S. and Byrn, S.





## Faculty Briefs, cont.

**Karen Pellegrin**, director of strategic planning and continuing education, was an invited panelist for the eHealth Initiative annual conference February 3-5, in Washington, DC. Her panel discussion topic was “Business and Clinical Motivators – Incentives for the Entire Care Continuum.”



**Mimi Pezzuto**, instructor, Department of Pharmacy Practice and Department of Pharmaceutical Sciences, and **Helen Wong Smith**, pharmacy & health sciences information resources coordinator, Department of Pharmacy Practice, presented a lecture on the history of medication and health practices in old Hilo town on Feb. 23 at the Lyman House Memorial Museum in Hilo.

**Helen Wong Smith** also has been appointed as one of three representatives of the Society of American Archivists, North America’s oldest and largest national archival professional association, to serve on the Coalition to Advance Learning in Archives, Libraries and Museums. The Coalition, funded



by the Bill and Melinda Gates Foundation and the Institute of Museum and Library Services, works in deliberate coordination across organizational boundaries to devise and strengthen sustainable Continuing Education and Professional Development (CE/PD) programs. She also presented a lecture on “Western Legislative Impacts on Traditional Medical Practice,” on campus March 18. She discussed the demands for laws that addressed cultural medical practices such as opium, la’au lapa’au, and lomilomi as well as federal recognition of aboriginal medical traditions.



**Dianqing Sun**, associate professor, Pharmaceutical Sciences, was invited to serve on two NIH/NIAID special emphasis panels for reviewing grant applications related to Development of Novel Therapeutics against Gram-negative Bacterial Pathogens and Influenza.

**Supakit Wongwiwatthanukit**, associate professor, Department of Pharmacy Practice, was issued a United States Patent (PCT/US14/043523) entitled “Novel Sesquiterpenoid STAT3 Inhibitors” on December 24, 2014. This was derived from the plant named *Vernonia cinerea*. The patent was initially filed through the University of Hawai’i Office of Technology Transfer and Economic Development (UH-OTED). Co-Inventors include **Leng Chee Chang** and **Dianqing Sun**, associate professors, Department of Pharmaceutical Sciences, Ui Jounng Youn, and James Turkson. The patent has been published in World Intellectual Property Organization (WIPO): International Bureau with International Publication Number WO2014/205416 A1.



## Student Awards

**Micah Glasgow**, Ph.D. student in Pharmaceutical Sciences, was awarded the UH Hilo Community Spirit award. The purpose of this fund is to assist students who demonstrate excellence in applied research, learning and innovation in their respective fields of study. Funds shall be used for costs for attendance at academic competitions and conferences, such as ground and air transportation, registration fees, lodging, and food.

**Joann Maithy Phan**, Class of 2018, received one of 15 grants nationally to attend the College of Psychiatrist and Neurologist Pharmacist (CPNP) annual meeting in Tampa, Florida.

**Mailani Puli**, a pre-pharmacy student who works in Dana-Lynn Koomoa-Lange’s lab, was one of 20 students nationally to win a Pediatric Oncology Student Training Program award from Alex’s Lemonade Stand Foundation. Previously, she won the best oral presentation award at last year’s DKICP research day.

**Hannah Shin**, Class of 2017, was featured in the American Pharmacists Association – Academy of Student Pharmacists (APhA-ASP) Region 8 Newsletter for being named Member Recognition Award. She was APhA-ASP’s Operation Heart Chair for DKICP this year.

## Celebrity in our midst



Dr. Lara Gomez, director of clinical education, made a good showing when the popular game show “Wheel of Fortune” visited Hawai’i. The show, which was taped last fall, was televised on Feb. 20. She had to win a qualification competition to be chosen, and on the show, she faced contestants from Kauai and Oahu.

# Community Outreach

Earlier this fall, Victoria Rupp and Elizabeth Ackerman from the Department of Pharmacy Practice were asked to develop and participate in a community outreach event at the Church of the Holy Cross. Each month, Church of the Holy Cross hosts a women's fellowship group and they ask various individuals from the community



Victoria Rupp

to come speak to them.

"We felt very fortunate to have been asked to such an event as it served as a wonderful opportunity to provide an educational session to those in attendance as well as strengthen our collegial bond to our local community," Ackerman said.

For this particular session, the two faculty members were asked to provide an information session on "Medication Use in the Elderly." In preparation for this session, they developed a four-page, patient-friendly, handout that highlights important things to know about prescription and over-the-counter medications as well as a variety of



Elizabeth Ackerman

miscellaneous tips on topics such as maximizing medication compliance and monitoring for signs and symptoms of a heart attack and stroke.

"Given the amount of interest and number of questions, we were only able to make it through half of our handout, which we viewed as a good problem considering all of the helpful discussion taking place," Rupp said. "The women in attendance had multiple questions, not only about their own medications, but also about medications that their spouses and parents were taking."

At the end of the afternoon, the DKICP faculty members said the women were very appreciative of their time and they, in turn, were also very grateful for the opportunity to be included and have the chance to talk with them. In anticipation of a future visit in the spring, KTA has generously donated pill box organizers to aid in the medication compliance discussion.

According to Ackerman: "A warm 'Mahalo' to the women of Church of the Holy Cross as well as to KTA for their support of the Daniel K. Inouye College of Pharmacy."

## Preceptor Spotlight:

# Dr. Stacie Sakauye-Doane, Straub Clinic & Hospital

Stacie Sakauye-Doane, PharmD, was born and raised in San Jose, CA. She completed her undergraduate studies at the University of California, Davis in 2006 and obtained her PharmD from the University of the Pacific, Stockton in 2009.



After finishing her PGY1 residency at The Queen's Medical Center in 2010, Sakauye-Doane began her career at Straub Hospital and Clinic, where today, she is a clinical

pharmacist at the Straub Anticoagulation clinic, which services approximately 500 patients spread across 4 clinic locations on the island of Oahu. Dr. Sakauye-Doane sees, on average, 25-30 patients a day (face to face visits). At the clinic, she (and student pharmacists) perform point of care (POC) testing, adjust warfarin therapy via a collaborative agreement with physicians, and provide in-depth education sessions her patients which help with diet planning to fit patients' lifestyle and warfarin requirements.

When asked what she most enjoys about precepting, her answer is: "Watching the students progress and become

confident providers; their excitement when they come up with a dosing regimen that works well for a patient." She states most students have inpatient experiences with the anticoagulant Warfarin where they are able to recommend dosage adjustments and see the international normalized ratio (INR) result until the next day. But, in the ambulatory care setting, the students are forced to make challenging decisions and are often nervous about placing patients on a dose and rechecking levels a week later. It is when the

patient comes back therapeutic and the student gets to see the result of their decision; the student's confidence boosts and for her, this is a very satisfying moment.

Yet, getting students to be more confident in their decisions happens to be the most challenging part about precepting, she says. She comments, "They have the tools and knowledge to make educated decisions, but getting them to make one and commit can be challenging. However, it is extremely rewarding to watch them succeed once they are able to overcome that initial fear and gain confidence."



# Rotation Report: Academic Elective

Meet the Block 6 academic rotation students—Alysia Osugi, Brienne Blakesley, Bryan Huynh, and Darian Oshiro. Working with different faculty members, they participated in various aspects of the pharmacy curriculum.

Brienne: On my rotation with Dr. Supakit, I saw many steps of the research and publication process—giving input to PhD and PharmD researchers, preparing a manuscript, helping peer-review an article, and facilitating journal club discussions.

Bryan and Darian: On our rotation with Dr. Batz, we were able to help prepare and participate in the OTC class and in the IPPE activities for the P2's and P3's. We also had the opportunity to implement new ideas in class,



which included a review Quiz Bowl and an introduction to drug information resources.

Alysia: Throughout my rotation with Dr. Gomez, not only have I had the opportunity to put together presentations, workshops, quizzes, and feedback in many classes, I also had an opportunity to review poster abstracts. The great gratification felt with teaching solidified my desire to go into academia.

According to Alysia: "We all had a humbling experience and gained a greater appreciation for faculty and staff for all the time and effort put into being effective teachers, mentors, and role models."

## Alumni Report: Dr. Marcus Kouma, Class of 2013

It has been just over 20 months since graduation, and I find myself precisely where I expected to be and doing precisely what I wanted to be doing. In the few short weeks between May 11 and July 1 of 2013, I packed and planned and studied and shipped and sold and bought and moved, from a quiet little island in the far-flung reaches of the Pacific Ocean to a city of 200,000, just 15 miles from the Washington–Idaho border. For the next 12 months, I would spend my days at the Mann–Grandstaff Veterans Affairs Medical Center in Spokane, Washington, completing my PGY1 Pharmacy Practice Residency.

During that time I developed my skills in the ambulatory care, inpatient, and outpatient settings, building upon my experiences during P4 year and putting what I'd learned into action. Only now, as a licensed pharmacist, the responsibility was far greater. While most first-year residents complete a year-long research project, I had something else in mind. Intending to pursue specialty training in infectious diseases, I sought a longitudinal project that would help me along that path. As a means to that end, I worked to establish a pharmacist-run hepatitis C clinic, a service that sought to deliver the newest treatments to the patients who needed them most, all while ensuring the safe and effective use of these medications.

In March of 2014, after months of preparation, applications, and interviews, I learned that I would be entering the PGY2 program in infectious diseases at the VA North Texas Healthcare System. It is here that I now find myself, working longer hours and sleeping shorter nights than ever before, becoming an expert in this vital area of medicine. I've spent weeks with the ID consult team, rounding on patients and



Dr. Marcus Kouma (Photo by Bruce Morris, Medical Media)

developing antibiotic treatment regimens, both for inpatients and outpatients receiving long-term home IV therapy. I answer pages and calls from physicians and pharmacists practicing in other areas, helping them to interpret laboratory data and choose the best antibiotic therapy for their patients. I review patients throughout the facility, looking for places to streamline and de-escalate therapy, in hopes that we can stave off resistance and save our few remaining tools for when we need them most. I work side-by-side with medical residents and fellows in the hepatitis C clinic, applying everything I learned last year and more, to help bring an ever-more-confusing array of medications to the people who needed. I've written policies and antibiograms and monographs, and I've held the line against treatment of asymptomatic bacteriuria.

I don't know what every day will hold or necessarily where I will find myself in the coming years, but right now, I couldn't imagine it any other way.





## Welcome Gerald De Mello

Gerald De Mello has been named Outreach Director for DKICP. Gerald has contributed to DKICP for many years, and his contributions were recognized as a recipient of the Advancement of Pharmacy Excellence (APEX) award (see story in our Fall 2012 Kawili La`au, [http://pharmacy.uhh.hawaii.edu/news/newsletter/kawililaau/documents/Kawili\\_Laau\\_Fall2012.pdf](http://pharmacy.uhh.hawaii.edu/news/newsletter/kawililaau/documents/Kawili_Laau_Fall2012.pdf)). In his current role, he will develop opportunities for pharmacy interactions with rural communities as well explore additional health care initiatives relevant to DKICP. De Mello also will serve as a liaison with DKICP's external advisory board and alumni, and interact with the Governor's health care leadership team. He is the former director of University Relations for UH Hilo.

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 Fall semester 2014. The Class of 2015 was performing clinical rotations and therefore this designation does not apply.



**Class of 2016:** Amy Anderson, Julianne Aquino, Allen Bagalso, Lance Cabanting, David Choe, Chau Dang, Yen Dao Barnes, Walter Domingo, Line Ornella Fassu Siankam, Bryce Fukunaga, Sisay Kenfe Girmay, Jerilyn Gudoy, Alexander Guimaraes, Samantha Hanabaga, Melissa Iida, Leilani Isozaki, Blake Johnson, Micah KimHan, Thao Le, Quynh Le, Uoc Le, Nancy Le, Tina Liu, Shanon Makanui, Bert Matsuo, Melissa Monette, Joseph Nguyen, Sarah Osellame, Joson Perreira, Yolette Quach, Kasia Quintal, Eric Sanders, Huong-Thy Ta, Mireya Talavera, Christopher Thai, Carlo Tiano, Eric Tsuji, Brandon Tuzon, Kimberly Victorine, Kevin Wang, Andy Wong

**Class of 2017:** Sean Abreu, Trenton Aoki, Lena Asano, Megan Calderwood, Rhea Castro, Nicole Chin, Terri Anne Corpuz, Christopher Diaz, Andy Diep, Audrey Fung, Ryan Higa, Dann Hirayasu, David Khan, Shaun Lasky, Jaclyn Lee, Lauren Levine, Caleb Malinski, Sean Menda, Kelsea Mizusawa, Lauryn Mow, Loc Ngo, Phuc Nguyen, Kimberlee Roseman, Nadine So, Lillian Tran, Hoa Vo, Brenda Yuen, Zi Zhang

**Class of 2018:** Chelsea Aipoalani, Matt Chen, Mathew Eng, Sara Evanko, Jennifer Fujio, Cierra Gauvin, XuanLam Le, Jin Yong Lee, Miyuki Miller, Christopher Nakagawa, Kerri Nakatsu, Vicky Nguyen, Carli Owan, Joann Phan, Lauren Sato, Andrew Skorheim, Lauren Skorheim, John James Taman, Michelle Taylor, Ha Tran, Paolo Vinh Tuan Truong, Quan Truong, Seungyeun Yoo

