

one who mixes ingredients, drugs or medications: a pharmacist

KĀWILI LĀ'AU

SPRING 2011



INTRODUCING THE FUTURE

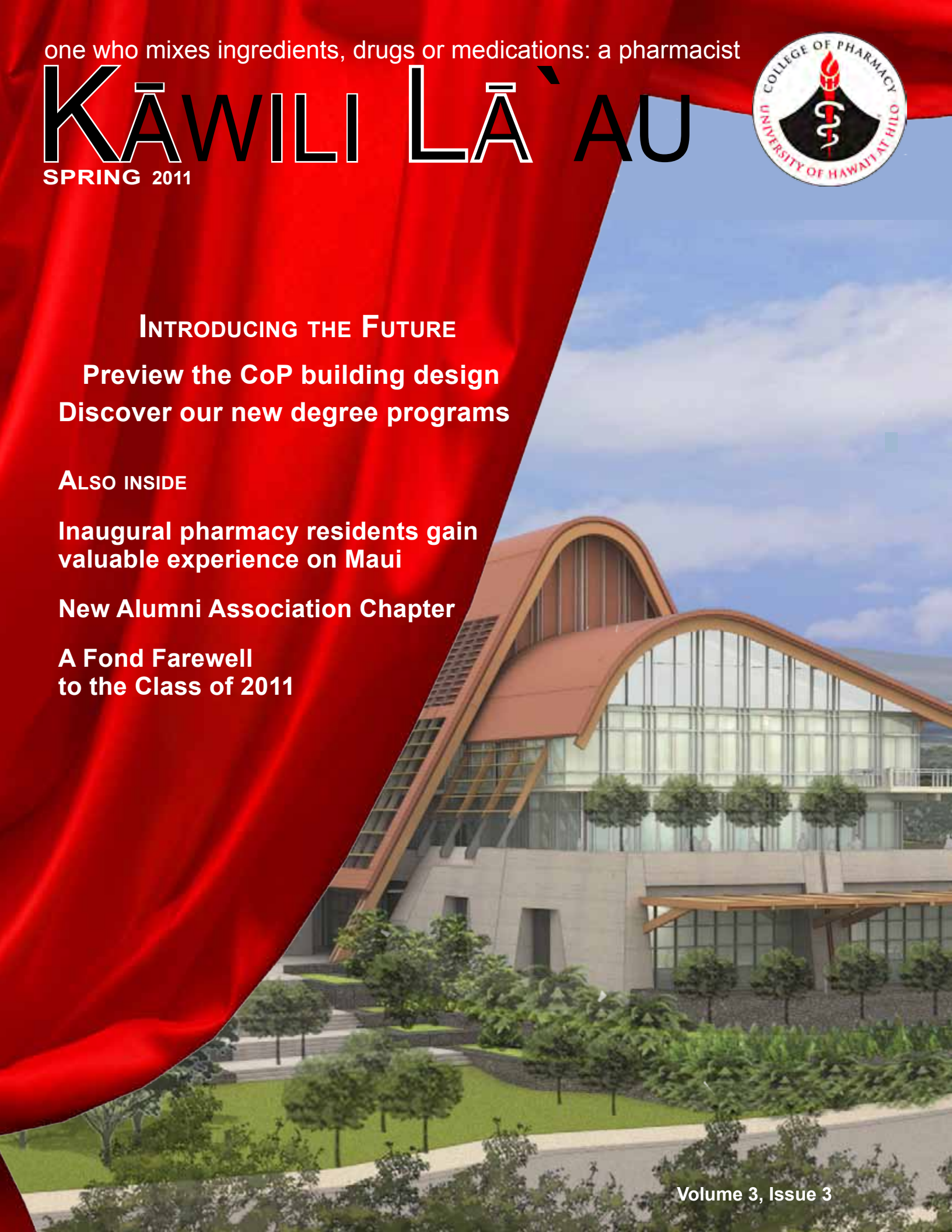
**Preview the CoP building design
Discover our new degree programs**

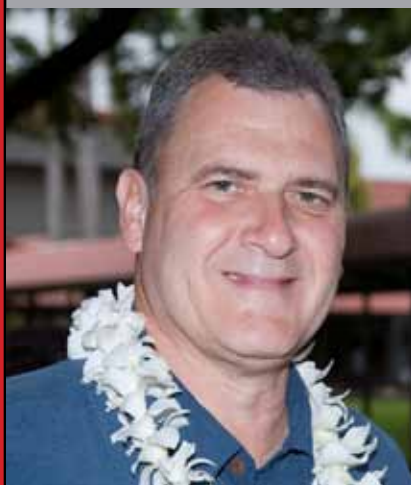
ALSO INSIDE

**Inaugural pharmacy residents gain
valuable experience on Maui**

New Alumni Association Chapter

**A Fond Farewell
to the Class of 2011**





Dean's Message

Something happens when you put down roots. The color of the sunrise seems brighter, the taste of the oranges seems sweeter, the feel of the tradewinds seems softer – that is if you are like our College of Pharmacy, and you put these roots down in Hawai'i.

With this issue you will see just how deeply we are rooted here, just how kama'aina* we have become. You will see for the first time our bold plans for the new College of Pharmacy building, a design that honors the sacred landscape from which it will rise, a design that is beautiful and practical.

Next, you'll read some first-hand faculty and staff accounts of our inaugural graduating class. Because we value their friendship as well as their education, we have established our new Alumni Association Chapter, hoping that they will keep in touch as we continue to expand our programs and pursue our goal of becoming a top twenty-five pharmacy school.

That our students are special will become even more obvious when you hear from one of our founding faculty members about her battle for life after a severe highway accident, how she looked to her students for strength, and how they generously offered it open-armed and without hesitation.

These students are not afraid of hard work. Although their academic studies require constant effort and attention, many of them participate in student organizations, and many volunteer in other ways. Learn inside these pages what happened on a single Saturday morning last February. Read what student columnist Lauren Ruffino writes about her time volunteering at UH Hilo Student Medical Services. Though numerous more examples could be cited, these stories will speak for many.

But that is how it is here, in the middle of the Pacific. You count on one another. But more than that, you lift each other up. Community means more than a place to live; it is a way to give. Those bonds are documented in this issue in our profile of a patient and admired preceptor, Dr. Nelson Nako, and in a feature about a very special relationship between our College and Hospice of Hilo.

Perhaps this sense of community is one reason why our stellar faculty and staff have accomplished so much in such a short time. And they have done this with our island in mind. Three CoP faculty members share their research projects in this issue. One takes a look at avian malaria, one examines smoking cessation, and another investigates the properties of Hawaiian tea. Other faculty are highlighted in Elizabeth Ryan's "Ohana Voices" column, "Research = Teamwork."

As we head toward our first graduation in May, and ACPE accreditation in June, we are brought even closer together. Just as a family works best when times are most challenging, so do our faculty, staff and students. In case I haven't said it plainly enough: I am proud of these individuals. I am proud to be Dean of this College of Pharmacy, in Hilo, on the Big Island, in Hawai'i, in the center of the Pacific basin.

There is no place I'd rather be. You'll see why. Just turn the page.

John M. Pezzuto
Professor and Dean

*Hawaiian for "child of the land," used loosely to describe a long-term resident, no longer a newcomer.

KAWILI LA`AU



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ADMINISTRATION

John M. Pezzuto

Founding Dean

Robert Borris

Associate Dean for Research

Edward Fisher

Associate Dean for Academic Affairs

André D. Bachmann

Chair, Pharmaceutical Sciences

Ron Taniguchi

Interim Chair, Pharmacy Practice and
Director, Community Partnerships

Liz Heffernan

Director, Student Services

Karen Pellegrin

Director, Strategic Planning and
Continuing Education

KAWILI LA`AU

EDITOR, DESIGNER

Shannon Amidon Castille

WRITERS

Shannon Amidon Castille

Maggie Morris

PHOTOGRAPHERS

Shannon Amidon Castille

Maggie Morris

Anthony D. Wright

PRODUCTION, PRINTING

UNIVERSITY GRAPHICS, UH HILO

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College of Pharmacy

University of Hawai'i at Hilo

200 W. Kawili St.

Hilo, Hawai'i 96720

Phone: 808-933-2909

Fax: 808-933-2974

<http://pharmacy.uhh.hawaii.edu>

Pharmacy@hawaii.edu

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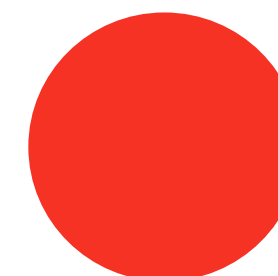
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The UH Hilo College of Pharmacy 'ohana extends our deepest sympathy to our fellow Pacific islanders in Japan. Our students, faculty, and staff have been simultaneously stunned and moved by the tragedy of the earthquake and tsunami as it continues to unfold. They have offered time and resources toward this cause.

We gather our families close, if only in spirit. Our hearts go out to the families and survivors as they rebuild their lives.

We ask that you please take a moment now to remember.



Beautiful & Practical

New Building Design Celebrates Hawaiian Culture

BY MAGGIE MORRIS

Participants at College of Pharmacy's retreat in February were treated to an unveiling of the schematic design for the College's future permanent home, courtesy of WCIT Architecture of Honolulu.

While many have already seen the drawings of the outside of the building, lead architect from WCIT and President Rob Iopa was on hand to explain the method behind the plan. Mark Kranz spoke on behalf of SmithGroup, the science and technology branch based in Phoenix that is working with WCIT to design the state-of-the-art, three-story building.

"After being dispersed in various locations throughout Hilo for the last five years, it's beyond exciting to

see tangible evidence of where we will all be able to work together in one place," said Dean John M. Pezzuto. "This building will be spectacular, and a grand testament to our host culture at one of the entrances to the university. It will be not only beautiful, but practical as we carry out our responsibility to be the hub of health care and discovery at UH Hilo."

Full accreditation by the Accreditation Council for Pharmacy Education (ACPE) requires the College to have a permanent building. The ACPE Board will vote on full accreditation in June, about a month after the inaugural class graduates.

"When we take this accelerated building plan to

accreditation, I feel confident we will pass," said Dean Pezzuto. "Now we have to rely on the Legislature and other fundraising to take us to the next step."

The design approach blends environment, place and architecture unique to the needs of the College of Pharmacy yet within the framework of other buildings on campus. According to the schematic design, "the vision for the campus and facilities of the University of Hawai'i at Hilo College of Pharmacy will combine its Pacific Island heritage with that of Western science, and Eastern customs."

The architecture firm paid respectful homage to many aspects of the host culture, largely confirmed by the origins of the firm itself. Born and raised in Hilo, Iopa opened his architecture firm in 2000 with three people working out of their home.

"We wanted to do the best architecture, not resort architecture, but architecture that reflects our culture," he recalled. In the process of establishing their business, the company accepted resorts anyway, and lists many recognizable names such as Ritz Carlton, Sheraton, Westin and Royal Hawaiian on their completed project list.

Now, finally, they are back to designing for their culture, having most recently won the American Institute of Architects (AIA) Honolulu award for the design of "Ka Haka Ula O Ke'elikolani" UH Hilo College of Hawaiian Language Building as part of its 2010 Design Awards. They have implemented many cultural elements in the plans for the future CoP building.

"We are contemporary builders, but at the same time there are references for inspiration that we

(continued p.6)



University of Hawai'i President M.R.C. Greenwood and Dean John M. Pezzuto look to the future on Dr. Greenwood's recent visit to UH Hilo.



(continued from p.5)

wanted to express,” Mr. Iopa said. “First and foremost, we needed to look at where we were putting the building so we could respond to the site with respect to things like climate, the frequent rain and overcast skies. We also felt it was important to add a ‘pico,’ or a center courtyard with traditional Hawaiian terracing.”

The structure will be built on the corner of Komohana and Nowelo Streets, in close proximity to CoP’s temporary headquarters on South `Aohoku Place. Iopa said the architects went to great lengths to assure a pleasing appearance from every perspective. Parking will be accessed through the Piko, and people will enter the building through a breezeway.

With input from CoP faculty, SmithGroup handled the components of the internal space. Their strategy was to create a state-of-the-art facility that would be conducive to research while handling a bustling student environment.

“Classrooms, breakout rooms, student services, all these need to be a place for student support front and center,” Mr. Kranz said. “This will be one of the greatest spaces in Hilo.”



Top: View of the new building’s courtyard, Middle: View from lecture hall, Bottom: Second floor exterior covered walkway

Recent Progress

Sections of the new temporary building space for the CoP were delivered to South Aohoku Street and at time of print are awaiting final permits. The new Modular A will include a second lecture hall and a student center. The new Modular C, which should be complete by May, includes eight offices, a simulation room, a pharmaceutical compounding laboratory and a mock pharmacy, and will be located next to the current building with the lecture hall.



Board of Regents on Board, Two New Pharmacy Degrees Gain System Approval

The University of Hawai`i at Hilo will offer a PhD in Pharmaceutical Sciences as well as a Bachelor of Arts degree in Pharmacy Studies beginning in the fall 2011 after the Board of Regents voted approval in Honolulu on Feb. 24.

The degree in pharmaceutical sciences is only the second PhD offering at UH Hilo. The bachelor’s degree, also called BAPS, is an undergraduate degree designed for students who are enrolled in the PharmD curriculum at the College of Pharmacy. Currently, the UH Hilo College of Pharmacy provides training and experience leading to the Doctor of Pharmacy (PharmD) degree.

“Each of these programs expands our ability to offer students more options in a changing world,” said Dean John M. Pezzuto. “The BAPS degree will enhance educational opportunities for our PharmD students and make them more competitive in the marketplace. The PhD in pharmaceutical sciences complements the PharmD program by exposing students to career prospects beyond the practice of pharmacy. We’ve been building these degree options since the founding of the college.”

The proposal for the PhD program was reinforced through the show of support on research from federally funded projects, such as the National Institute of Health’s (NIH) IDeA Networks of Biomedical Research Excellence (INBRE) program, Dean Pezzuto said.

“The INBRE program has significantly bolstered the research potential of our investigators, and allows the College of Pharmacy to continue expanding and improving biomedical research in Hawai`i,” he said. “The College will now have opportunities to include graduate students on these programs.”

The PhD in Pharmaceutical Sciences will prepare graduates to be scientists with extensive skills in research, design, techniques and methodologies. Graduates can serve as faculty members, and will be well qualified to excel in a broad range of industrial, governmental, clinical, retail, marketing and consultant settings.

“Not only will residents of Hawai`i be able to earn a PhD in pharmaceutical Sciences without leaving the state, we will be able to attract scholars

from the mainland and abroad with unparalleled opportunities,” Dean Pezzuto said. “The economic and intellectual benefits to the state reach far beyond our imagination at this point.”

Students with a PharmD, master’s or bachelor’s degree and those currently working in the field will be eligible to apply to the new PhD program.

“The curriculum and research proposals that come over my desk from the College of Pharmacy have impressed me in their capacity to influence the state of health care not only in Hawai`i but in the world,” said Kenith Simmons, UH Hilo Interim Vice Chancellor for Academic Affairs. “We are encouraged by this vote of confidence from the Board.”

Studies will culminate with the award of a PhD in Pharmaceutical Sciences, with an emphasis on natural products discovery and development.

“Hawai`i is ideally positioned to become part of the anticipated future growth in the western

use of Indian and Chinese Traditional Medicines,” said Anthony Wright, director-designate of the PhD program and associate professor of pharmaceutical sciences.

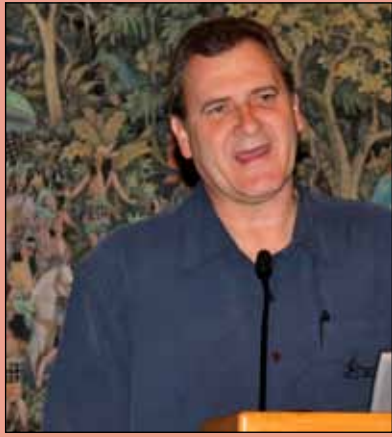
“This program will contribute to the development of young industries already taking root within the state.”

While the PhD represents the highest academic degree, the new BAPS program is a beginning. Only students enrolled in the PharmD program who have completed UH Hilo’s General Education and Integrative Requirements are eligible for the BAPS, which would be completed after two years of being in the rigorous four-year PharmD program.

“An undergraduate degree isn’t required to gain admission to a PharmD program, yet around 70% of our students typically have already earned their bachelor’s,” said Edward Fisher, Professor and Associate Dean for Academic Affairs for the College of Pharmacy. “The BAPS gives students the background they need and makes UH Hilo’s College of Pharmacy more attractive to applicants over other schools and colleges that don’t offer this type of degree.”

UH Hilo’s College of Pharmacy, which began in 2007, will graduate its inaugural class at UH Hilo commencement ceremonies on May 14. For more information about the new programs and other news from CoP, see <http://pharmacy.uhh.Hawai`i.edu/>

**“The economic and intellectual benefits to the state reach far beyond our imagination.”
Dean John M. Pezzuto**



One Step Closer to Accreditation: the CoP Accreditation and Education Conference

This year's College of Pharmacy Accreditation and Education Conference, held February 4-5 at the Hilton Waikoloa Hotel, was highlighted by the Accreditation Council for Pharmacy Education (ACPE) Self-Study Report review, and its adoption by the faculty and staff attending.

The next step, reaching accreditation of the College by crossing from candidate status to full status, is anticipated to occur after the graduation of the CoP's first class of pharmacists. The final vote on CoP's accreditation will be in June at the Accreditation Council for Pharmacy Education's annual meeting. ACPE is recognized by the U.S. Department of Education as the national agency for the accreditation of professional degree programs in pharmacy.

Led by Dr. Ed Fisher, Associate Dean for Academic Affairs, the report highlighted 30 standards, including concentrated efforts on mission planning and evaluation, organization and administration, curriculum, and facilities and resources.

Dean John M. Pezzuto reminded attendees that in 2006 there were only three employees in the College and that today there are nearly 100. He pointed to the College's milestones in education: the upcoming graduation of more than 80 students, a million dollars a year of Congressionally-directed funding from the Department of Education, and the new pharmacy practice residency program recently launched on Maui.

The conference was attended by faculty and staff, as well as 16 members of the Dean's Advisory Council. Dean's Advisory Council member Lois Nash, M.S., R.Ph., System Director of Pharmacy for Hawai'i Pacific Health, said attending the conference was a rewarding and renewing experience.

"I have a personal goal to live my life so that my patients, my profession, my family and my friends will be better off because I lived," she said. "Serving on the Dean's Advisory Council for the College of Pharmacy and interacting with faculty members and students at my practice site gives me opportunities to help achieve my goal."

She added that the ACPE report, learning about new grants and research by the College, and seeing the new College building plans were memorable segments of the conference for her.

The conference also included a presentation from Steve Abel, PharmD, on the rewards of "being a successful preceptor for student pharmacists," and a discussion led by Elwin Goo, PharmD, on the establishment of the College's Alumni Association Chapter.

Top to bottom: Dean John M. Pezzuto, Dr. Steven Abel, Associate Dean for Clinical Programs, Bucke Professor and Head of the Department of Pharmacy Practice, College of Pharmacy, Purdue University; Dr. Ed Fisher, Associate Dean for Academic Affairs; Liz Heffernan, Director of Student Services

Opposite page, clockwise: CoP faculty and staff take a break for lunch; Jean Cruz and Lily Pua Kaipo enjoy the sunshine, Janet Crosier and Chris Iha share a laugh; architects WCIT and President Rob Iopa and Mark Kranz of SmithGroup present new plans for the College building



Welcome to the CoP 'Ohana

Kristi Kaniho, Institutional Support. Kristi has a Bachelor of Science degree in Business from Western Oregon University and is currently working on a Master in education degree in Educational Technology from the University of Hawai'i at Manoa. Before joining the CoP, Kristi was the secretary to the Dean of Continuing Education and Community Service; she has also worked in the Human Resources Office at both the Hawaii Community College and the University of Hawai'i Hilo. Kristi's travel goal is to visit every country in Europe and she has already visited Spain, Italy and France.

Candace Tan, Assistant Professor, Pharmacy Practice. Dr. Tan earned her Bachelor of Science degree in Biological Sciences and a Doctor of Pharmacy from the University of Southern California. She also completed her PGY1 Pharmacy Practice residency at University of Southern California and can't wait to get out and start surfing in Hawai'i.

Daryl Masanda, Instructional and Student Support (Academic Advisement Specialist). Daryl has a Bachelor of Science degree from the University of Hawai'i at Manoa. Prior to joining the CoP he worked in the Admissions Office on campus. He was a catcher/outfielder for his college baseball team and today he is an instructor for the children's Brazilian Jiu Jitsu class at the BJ Penn.

Caitrin Vordtriede, Junior Specialist, Pharmacy Practice. Dr. Vordtriede received a Bachelor of Science degree in Biology from the University of Missouri-St. Louis, and her Doctor of Pharmacy degree from Auburn. She then completed her PGY1 Pharmacy Practice residency at the Tripler Army Medical Center in Honolulu. She is assigned to our Oahu satellite office. In her childhood she and her family had the opportunity to live abroad in Saudi Arabia and Switzerland.

UH Hilo's First Pharmacy Residents Set Up Shop on MAUI

BY MAGGIE MORRIS

The first pharmacy residents to get training through the UH Hilo's College of Pharmacy (CoP) are working with the staff in Maui Medical Center while helping to achieve national accreditation for the residency program.

Similar to physicians residencies that allow MD's to get postgraduate experience, the pharmacy residency gives pharmacists specific training in health care settings. In this case, the setting is Maui Clinic Pharmacy in Kahului, Maui.

"Many students who graduate with a PharmD go right to work in a pharmacy," CoP Dean John M. Pezzuto said. "But many look to enroll in pharmacy residency programs, which are often a requirement for employment in hospital pharmacy practice or as a faculty member at a pharmacy school. Our inaugural class will be graduating soon, and several will be looking for residency programs. This is something we can offer to them, but it's also an important statement to the greater pharmacy community: UH Hilo is ready to enhance the training of pharmacy graduates."

Although Maui is the first of the other Hawaiian islands to benefit from this pharmacy resident program, "Every effort is being made to include all of the neighbor islands in this type of project," said Dean Pezzuto.

Drs. Sheena Jolson and Amy

Baker both went to different states to earn their professional doctorate degrees in pharmacy, or PharmDs, but chose to come to Hawaii to get more training after graduation. In 2010, Dr. Jolson earned her PharmD from the University of Arizona in Tucson and Dr. Baker earned hers from the University of New Mexico.

And they are not just behind a counter counting pills. They work long days, often consulting with four or five patients a day, an hour at a time, conducting follow-up meetings and working with the physicians after the consult, making suggestions for cost saving alternatives, more appropriate therapy (according to national guidelines), addressing compliance issues and more. This is what the profession calls MTM, medication therapy management.

They also interact with the community by helping to conduct a USDA funded project that seeks to educate seniors on medication safety. They have themselves attended national conferences such as the American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting in December, in order to stay on top of new developments in pharmacy, and to help them network for their time after the one-year residency is over.

Dr. Anita Ciarleglio., Assistant Professor in CoP's Department of Pharmacy Practice, is their program director while they are living on Maui.

"These women are trail blazers. They are redefining community pharmacy," Dr. Ciarleglio said. "They primarily act as liaison between the community, the hospital and the physician, and provide a continuity of care that just wasn't there before."

Because they have established a relationship with the pharmacists -- many people ask for them by name -- patients may be more likely to tell them more, she said. By establishing such a relationship with the patients, the pharmacists can provide physicians and nurses with insight that will help in their overall care.

"We're not trying to do the job of doctors and nurses, but we can help educate them on what we discover about the patient," Dr. Ciarleglio said.

Because of the way insurance demands have changed, these young pharmacists are instrumental in providing outcomes for reimbursement. This is what helps to redefine their role, and gives the pharmacist avenues to better monitor patients.

"It's exciting because the system needs to change and we're helping make that happen," Dr. Jolson said. "Medication

management and tracking is the future of community pharmacy and, with modern technology, we have the tools to make it work."

Their stint on Maui is also helping CoP achieve accreditation for the residency program, which in a lot of ways mirrors the accreditation process for the College, Dr. Jolson said. Site visits and documentation have all been part of the rigorous proof needed to show the program qualifies to be accredited by the American Society of Health-System Pharmacists (ASHP) and the American Pharmacists Association (APhA).

"We are being guided through this accreditation process by Bill Jones, a pharmacist who was the Pharmacy Residency Director for 23 years at the Southern Arizona Veterans Affairs Health Care System in Tucson, Arizona, who has been their mentor through the residency process and is actually mentoring me," Dr. Ciarleglio said.

Mr. Jones said the standard for residency accreditation is very demanding. But he thinks the program can be ready for an accreditation site visit between the fall of 2011 and winter of 2012.

"The UH Hilo COP and Maui Clinic Pharmacy have made great progress in a short time to establish this new residency program," Mr. Jones said. "I foresee a lot of opportunities to work within

the community with patients and physicians that will give the residents immeasurable experience. The Maui Clinic Pharmacy owner, Les Krenk, is an innovator and is offering his pharmacy to this first of its kind program in Hawaii. The residency fits into the vision of expanding pharmacy clinical services into the more rural communities of Hawaii."

The experiential portion of residencies also gives the pharmacists exposure to communities in which they are not familiar. They gain a new level of cultural understanding. Dr. Baker, who enrolled her 12-year-old daughter in Lokelani Intermediate School, said it's about respect.

"We need to understand different cultures, otherwise we can't reach our patients," she said. "That means learning and accepting the local diet that might

include taro, spam, and rice and how we can work within their current lifestyle to better their health."

After completion of residencies, the pharmacist can either choose to practice, pursue an other residency, or a fellowship, which would train one to be an independent researcher. Drs. Baker and Jolson are still deciding on the best path for them after their one year on Maui is over.

"My goal in everything I do is to help others help themselves," Dr. Baker said. "I can't do that through inpatient pharmacy, but I can with the discharge counseling. I feel this is the way I need to go. It's entrepreneurial, cutting edge, multidisciplinary and collaborative, and there are many, many possibilities that are open."



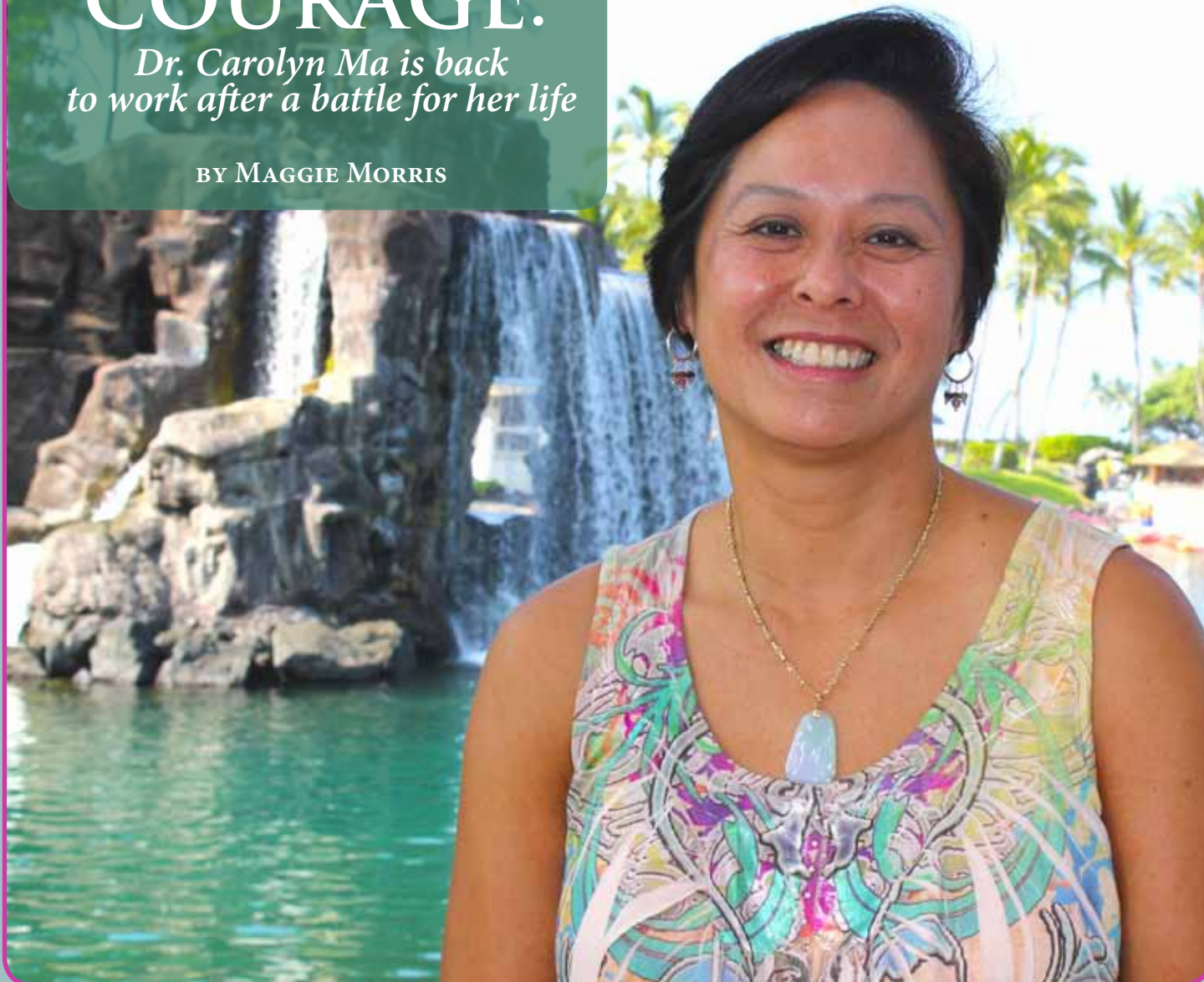
Trail blazers (left to right) Dr. Sheena Jolson, Dr. Anita E. Ciarleglio, assistant professor in the Department of Pharmacy Practice and Residency Program Director, and Dr. Amy Baker are the first to participate in CoP's new Residency Program.

Note on graphics: When conditions permit, the island of Hawai'i is visible across the channel from Maui's beautiful Mount Haleakala (pictured), the largest dormant volcano in the world.

The Face of **COURAGE:**

*Dr. Carolyn Ma is back
to work after a battle for her life*

BY MAGGIE MORRIS



Carolyn Ma was no weekend cyclist when she got hit by a truck while biking in the Kohala coast almost one year ago last March.

Once a bicycle tour guide for the international travel company, Backroads, Carolyn cycled regularly on the Big Island, where she lived while serving as Chair of the Department of Pharmacy Practice at University of Hawai'i Hilo's College of Pharmacy. Previously, she'd biked all over Europe, led tours and lived in Hong Kong as well as Tibet. During a long weekend off from work and just after an important meeting about accreditation, she sought release from the pressures of her job

in the way that was natural to her: tooling around the Kona region on her bike.

"I did everything right," she recalled. "I've been professionally trained, I wore a helmet, carried I.D. For three years at least I'd been riding in that area, and I was literally hit from behind. There was nothing I could have done. One minute I was on my bike and the next thing I knew, I was in ICU being told I was bleeding to death."

Carolyn doesn't remember the medivac trip, but was flown to Queen's Medical Center in Honolulu after an emergency surgery at North Hawai'i hospital. She was bleeding internally,

with both hips crushed, broken ribs and nose, both lungs collapsed and a broken leg with dislocated knee. Her left arm and hand was broken, her dominant hand not functional. Before being moved to a rehabilitation hospital, she spent three weeks at Queen's, learning how to roll from side to side so nurses could care for her and at first could barely talk.

"It was two or three days until it occurred to me that this was serious," she says. "Then I realized it was a question of whether or not I would walk and when that would ever be."

The former triathlete (she also was a runner and a swimmer) has persevered through one transition after another, but it was an act of tough love, she says. Her hips, knee and arm have plates and screws, and she will end up needing a hip and knee replacement. She's had four surgeries of which two were on her knee. But it's better than when I couldn't walk, she says, and she's optimistic and works with a new robotic leg in physical therapy that assists her in walking.

"With each new phase, there's a new transition to face, and I had to learn how to ask for help, while all the time I was experiencing a grief for the life I had," Carolyn explains. "It's been absolute chaos at times, not just physically but emotionally and mentally just to get through the day. It takes so much energy to do the simplest things."

After months in a wheelchair to let bones heal and relying on others to care for her, she could only stand up for seconds, then the longest was two minutes. When the doctor asked about walking, she thought it would be impossible, her legs would shake because all the muscles had atrophied so badly. One way to get patients to walk again is to start them in pool therapy where the body becomes weightless. The patient is lowered into the water with a chair, and the therapist encourages the patient to take their first steps.

"I'll never forget the first time I walked in water, it was like Christmas morning" she says. She walked in the pool for two months before she was able to try walking on land. Meanwhile, the nerves were growing back in her arm and hand, but she still couldn't hold on to anything with

her left hand. Being left handed, that left her at a distinct disadvantage.

But she was able to call on her expertise to understand what was going on. A clinical pharmacist in oncology at Queen's for 13 years, she specialized in pain management. She says it was interesting looking at it from a patient level and to be part of her care because of her knowledge.

She also credits her spiritual side for getting her through the tough parts of her recovery. Trauma is all encompassing, physically, mentally and emotionally, she says, and she feels lucky to have a wonderful healing community around her through Healing Touch, a holistic energy therapy program that she has been a part of for some time.

Now, more than a year after her world came to an abrupt halt, she is still in transition. She's back to work in Pharmacy Practice, and relies on a cane to help her walk with but is able to drive and basically get around on her own.

She shudders when a truck turns her way on the road. There are days when she says she feels "ugly, walking the way I do," though she grimaces when she uses the word. There are more days she feels grateful because in her rehab program she sees people with more disabilities than she has. "I see people every day who are a lot worse off than I am, and so I have to be thankful for what I have."

"Crippled really is a state of mind," she says. "You can be as handicapped as you think. It's your attitude that's going to be more potent and trying to see the positive in everything."

Carolyn knows her baseline personality is one that wants to do everything herself, but this experience has forced her to find out how to ask for help. She says she tries to concentrate on what's at hand and continues to learn patience.

"Even when I want to rush, I can't," she says laughing but with a sad look. "It sounds corny, but I'm grateful every day for the little things, like feeling sunshine on my face. You have to be open to anything because your path can change in a second."

Dr. Ma would like to thank the entire University of Hawai'i family for their support during her recovery.



Hawai'i 'amakihi, Photo by Michael Walther
Oahu Nature Tours

*** Both of these projects are funded by the National Institute of Health (NIH) National Center for Research Resources project called the IDeA Networks of Biomedical Research Excellence (INBRE) program.**

A Close Look at Avian Malaria*



In the nineteenth century it was mistakenly thought for a time that birds transmitted malaria to people. This speculation ended when it was shown in studies in birds that malaria is

transmitted by mosquitoes. In her current UH NIH-INBRE collaborative research project, Dr. Sue Jarvi (above) is using a Hawaiian bird disease model to take another look at avian malaria.

"I started researching the 'amakihi as a post-doc at the Smithsonian Institution in Washington," Dr. Jarvi said. "The Hawaiian avian malaria-Avipoxvirus disease system is an ideal natural system in which to study mechanisms of pathogen virulence, host resistance, and host tolerance". Dr. Jarvi and her collaborators are trying to understand the physiological mechanisms involved, and the underlying genetic basis for susceptibility to disease organisms. Such understanding is essential to develop new methods for treating and controlling infectious diseases that currently have no effective vaccines, such as malaria.

While many resistance mechanisms (those that limit parasite burden) are described in human

malaria, tolerance mechanisms (those that limit the harm caused by a given parasite burden with no negative effects on the parasite) are still not well understood. Understanding the physiological mechanisms involved is of epidemiological significance because they do not apply selective pressure on the parasites and drive selection for more virulent forms of the pathogen. Tolerance has been documented under experimental conditions in rodents, but there is no well-documented natural disease system in which emergence of this phenomenon has been thoroughly investigated.

The 'amakihi is the most common honeycreeper in Hawaii. This little yellow-green, nectivorous native bird with a down-curved bill is thriving at low elevation on the Island of Hawaii, unlike other honeycreepers. 'Amakihi populations have expanded within the last 20-30 years despite high rates of malaria infection while maintaining fitness, suggesting that these birds may be developing tolerance mechanisms, resistance mechanisms, or both, to avian malaria.

"With UH NIH-INBRE support, we are completing analysis of host genes by AFLP (amplified fragment length polymorphisms) and sequencing Mhc (major histocompatibility complex) alleles to begin to define mechanisms and identify potential genetic regions of interest for further study," Dr. Jarvi said. "We are using next generation pyrosequencing technologies to evaluate diversity of selected host and parasite genes."

Dr. Jarvi is a collaborator on a genome sequencing project being conducted by the Broad Institute of MIT and Harvard to sequence the genome of the species of Plasmodium causing malaria in native Hawaiian birds. Her research team also was recently awarded a pilot grant from the New Mexico INBRE Sequencing and Informatics Core, National Center for Genome Resources, to sequence the genomes of the two biologically distinct variants of Avipoxvirus detected in Hawaii.

"One variant is more virulent than the other, and genome sequencing may allow us to determine the genes responsible for this observed biological difference in virulence," she added. "We hope that information gained in our studies will allow us to develop testable hypotheses on how tolerance to pathogens may arise in diseases of medical or veterinary importance."



Search for New Compounds to Aid Smoking Cessation*

"When I was young, I was curious about nature," Dr. Leng Chee Chang, Assistant

Professor of Pharmaceutical Sciences in the College of Pharmacy, said. "I've always wanted to find medicines that would cure human disease and relieve suffering."

To what calling but science would a girl named "Leng Chee" be drawn?

"My first name has the Chinese character and pronunciation 'Lingzhi,'" she explained. "Lingzhi is also the word for *Ganoderma*, a woody mushroom which has held the highest ranking in traditional Chinese medicine for more than 2,000 years."

"So I have always wished to discover the nature of truth," she said, "as well as the truth of nature, particularly natural products."

Dr. Chang has combined her deep interest in nature with her current research on an INBRE-funded project that perhaps could change the way people successfully quit smoking. How? With a little help from transparent roundworms and a common wildflower of course!

"Nicotine exposure has distinct effects on the physiology of the nematode [roundworm] *C. elegans*," Dr. Chang said. "When they're exposed to it, we see increases in egg laying, movement, appetite, and the contractions of the worm's body wall muscles."

Where does the wildflower come in?

"The whole project resulted from research by Dr. Supakit Wongwiwatthanakul on a tea made from the plant," she said. "He found that using tea made from *Vernonia cinerea* [a wildflower with tiny purple flowers] while smokers are attempting to quit increased the success rate and decreased withdrawal symptoms."

Dr. Chang has added *C. elegans* to the mix by studying their behavior after they are treated with

Vernonia cinerea.

Because of its simple and well-defined nervous system, *C. elegans* have recently emerged as an excellent model for the study of genes that control behavior and drug addiction.

"We use *C. elegans* to consider this problem because they have homologs for 65 percent of the genes found to cause disease in humans," explained Dr. Chang. "They show distinct changes to both physiological and behavioral traits when exposed to nicotine just as humans do."

"*C. elegans* have a esophagus-like structure called a pharynx," she said. "When humans are exposed to nicotine their heart rate goes up. When *C. elegans* are exposed to nicotine their pharynx pumping increases."

If successful, Dr. Chang's collaborative research could serve as a model system for the evaluation of herbal remedies making smoking-cessation claims while also offering new therapeutic compounds for drug development to help people give up tobacco.

"*Vernonia cinerea* is commonly found in Thailand and in Hawai'i, and its low cost as a weed should increase access to its use as an alternative treatment for smoking cessation for both insured and uninsured Hawaiian smokers," Dr. Wongwiwatthanakul said.

And just maybe, you have some growing in your backyard.

Dr. Chang wishes to acknowledge the collaboration and generosity of the following researchers: CoP faculty member Dr. Daniela Guendisch, UH Hilo Biology faculty member Dr. David Montgomerie, Dr. Dr. Onoomar Toyama, Faculty of Pharmacy, Silpakorn University and Dr. Thanapat Songsak, Faculty of Pharmacy, Rangsit University, Thailand, her scientific mentor Dr. Anthony Otsuka of CoP, and her lab assistant Dwayne Tudor.





Fang Pacific Nursery Tea Plantation, Mountain View, Hawai`i



Mauna Kea Tea Plantation, Honokaa, Hawai`i

Photos (top) by Dr. Anthony D. Wright

For All the Tea in Hawai`i

BY SHANNON AMIDON CASTILLE

Drinking a daily cup of tea will surely starve the apothecary. ~Chinese Proverb

If you had a little money to invest, where should you put it? Dr. Anthony D. Wright has a suggestion: how about a tea farm?

Why? Green, First Flush, White, Oolong, Black, and hundreds of other varieties of tea all come from one plant: *Camellia sinensis*. And billions of people drink it.



Dr. Anthony D. Wright

A world leader in the study of natural products drugs discovery, this Associate Professor of Pharmaceutical Sciences says he may follow his own advice. “I’m seriously thinking about buying a piece of land to farm,” he said. “Hawai`i tea is an absolutely unique product, and

the potential is immense for high end quality teas.”

He recently shared the results of his pilot project, Investigation of Hawaiian Green Tea, at a University of Hawai`i Hilo Women’s Center and Center for Global Education and Exchange special program.

“We are interested in tea because it is a natural product that has a huge commercial value. In many ways it is more valuable than pharmaceuticals,” he said.

The study, conducted last summer at Mauna Kea Tea Plantation, examined the production of three compounds in the bud and first two leaves of tea plants.

Conducted in a bit less than three months, the pilot project group included CoP visiting

scholars Ran Song from Yale University and Kimberly Johns from Sheffield Hallam University, CoP Post Doc Dovi Kelman and Dr. Wright. The group sought a better understanding about the effect of shade on the tea plant. “We looked at the specific chemical components of tea all reported to have health enhancing pharmacological effects,” explained Dr. Wright, “an antioxidant (epigallocatechin gallate or EGCG), a stimulant (caffeine), and an amino-acid (theanine) reported to assist with improving memory.”

And what did the study reveal?

“That tea is good for you,” he said, and added, “in a more specific sense, our study showed that as leaves age in going from the bud to the first and second leaves, levels of caffeine and theanine decrease, while the level of EGCG increases -- but

in our study only when shade is considered as a variable.”

“People are not just drinking it (tea) either,” he pointed out. Tea is found in cosmetics and over-the-counter products. “I think there is an anti-viral cream available containing tea,” he added.

There is much more research to be done. “People are researching tea but the data are very scattered,” said Dr. Wright. “In fact what tweaked my interest was a colleague of mine Joe-Ann McCoy (Director, Bent Creek Medicinal Germplasm Repository in North Carolina) told me, ‘You should really have a look at this.’”

Dr. Wright hopes to offer assistance to Hawai`i tea farmers with future studies. He said, “We would like to help them with some sort of chemical validation to further add value to their products.”

'OHANA VOICES Research=Teamwork

BY ELIZABETH RYAN

When I went back to school in 1993 at the University of Illinois at Chicago, little did I know that my career path would lead me to working in academia and, in particular, basic science research. Through osmosis, I learned the ins and outs of how a research lab works, how to develop and submit a grant application, and how to manage a research program. I have had the good fortune of working with many esteemed researchers throughout the world and have attended research-related meetings over the years.

My tenure at the University of Hawaii at Hilo, College of Pharmacy (CoP), began in 2007. I moved here to assist our Founding Dean, Dr. John M. Pezzuto, to set up his lab with the help of Dr. Tamara Kondratyuk, and to establish his research program. I have been committed to Dr. Pezzuto's program project grant since I started working with him in 1995. I am in awe as to what

goes into the experimental process and the development of new lead compounds. My respect and passion for the research process stem from the many years I have had the good fortune to be a part of various research projects. Working at CoP has only fed my enthusiasm based on the great work that is being accomplished. These programs have been established and are thriving in only four short years.

CoP has many endeavors unfolding to achieve our goal to be one of the top 25 pharmacy schools in the nation. One of these endeavors is our mission to excel in research.

As discussed in CoP's Strategic Plan, the mission states "To serve as a catalyst for innovations and discoveries in pharmaceutical science and practice for the promotion of health and well-being." Over the last four years, CoP has recruited superb research faculty to carry out this mission. Laboratory facilities have been outfitted to accommodate the research faculty and ambitious research studies that are in planning or already underway.

Following are a few examples of some of these research projects:

Dr. Pezzuto has been studying cancer chemoprevention and natural product drug discovery for over 30 years. He is currently the principal investigator of a program project funded by the National Cancer Institute (NCI) at the National Institutes of Health that has been continually

funded since 1991 with an annual budget of ~\$1.5 million. This project has uncovered several compounds from plants and marine microorganisms that have been, or are being, studied for further development.

CoP is a participant in the IDeA Networks for Biomedical Research Excellence (INBRE) program funded by the National Center for Research Resources/NIH which was awarded to the University of Hawaii at Manoa. This grant is designed to support Hawaii's biomedical research contribution. Dr. Pezzuto (Core Director) and Karen Pellegrin (Co-Core Director) oversee UH Hilo College of Pharmacy Research Innovation projects. Along with administrative and renovation tasks, this core supports seven CoP faculty members: Dr. Leng Chee Chang, Dr. Daniela Guendisch, Dr. Aaron Jacobs, Dr. Sue Jarvi, Dr. Eugene Konorev, Dr. Dianqing Sun, Dr. Ghee Tan, and Dr. Supakit Wongwiwatthanakit. CoP has been awarded over \$1 million for the current budget period to support the projects.

Dr. Robert Borris, Associate Dean for Research, is a co-investigator on a grant funded through the National Science Foundation – Experimental Program to Stimulate Competitive Research (EPSCoR) program. This is a \$20 million grant designed to utilize multiple institutions and investigators to help develop research in areas of environmental science and technology research and education in the State of Hawaii. Dr. Borris will receive over \$600,000 during a 5-year period.

Dr. André Bachmann, Associate

Professor and Chair of the Department of Pharmaceutical Sciences, has transferred his research projects in Fall 2010 from the University of Hawaii Cancer Center to CoP. He has several grants, one of which is a R01 grant through NCI. Dr. Bachmann's research interests are in the areas of pediatric cancer, natural products drug discovery, and medicinal chemistry. He currently has over \$250,000 in funding.

There are other funded projects that are not basic science projects. CoP has received over \$3 million since July 2008 from the Department of Education. These funds are designed to kick-start important initiatives for CoP. Some of these initiatives include the development of Continuing Education, Pharmacy Residents, Pacific Pre-Pharmacy, and Physical Therapy programs. Additionally, funds have been allocated to purchase pedagogical simulation and undergraduate engineering equipment.

The Rural Health initiative is led by Dr. Karen Pellegrin. The U.S. Department of Health and Human Services, Office of the National Coordinator for Health Information Technology (ONC) – Beacon Community Cooperative Agreement Program has awarded more than \$16 million over a three-year period to improve health in Hawaii County. Also, more than \$300,000 in funding has been awarded during a two-year period by the National Institute of Food and Agriculture (NIFA), U.S. Department of Agriculture, for the Rural Health and Safety Education Competitive Grants Program to support the Medication Safety Education for Elderly in Rural Areas project.

It is clear that CoP is on its way to becoming a competitive force in research. New faculty are being supported by the University, and all faculty are encouraged to submit proposals to build our research program. Currently, there are over 30 postdoctoral fellows, visiting scholars and research technicians in place to carry out the in-lab tasks. However, it is important to note that there must be a team effort in supporting these faculty and research staff in pursuing their research goals.

The following CoP staff members are essential to supporting the research effort and ensuring that progress prevails: Jean Cruz, Nadine Hara, Chris Iha, Kristi Kaniho, Tammy Tanaka, Andrea Yugawa and myself. We work together to track budget and procurement, hire staff, write contracts, ensure funding agency compliance, handle travel and so on. Together with CoP and the UHH Business & RCUH offices, we work together to support our research mission.



Elizabeth Ryan, Research Grant Coordinator, College of Pharmacy

A New Chapter for a Special Class

BY SHANNON AMIDON CASTILLE



A Special Class

As the graduation of our first class of pharmacists nears and students prepare to turn the page to a new chapter in their lives, another kind of chapter begins at their alma mater: a College of Pharmacy chapter of the University of Hawai'i Alumni Association (UHAA). On March 30 the Board of Directors of the UHAA voted unanimously to officially recognize the CoP chapter.

Previously, at the College of Pharmacy (CoP) retreat in February, Alumni Chapter bylaws were passed, and 46 individuals were recruited for official membership. These 46 people will begin a new tradition for the CoP 'ohana.

These members form a vital pillar of this College. They are the inventors and architects of this Chapter. And most significantly, they are generous.

Jessica Toyama, President of the Class of 2011, and Secretary-

elect of the CoP Alumni Chapter, explained that her involvement goes beyond professional obligation. She says she is passionate about supporting her school.

"The College holds a very special place in my heart," she said. "I cannot over-emphasize how much Dean Pezzuto and the College have put our interests first over the years. As a result,

"These students required boundless spirit to take this journey." Dean John M. Pezzuto

despite the many challenges we faced as the inaugural class, we have nothing but humbling experiences and positive words to report about our College. The College is our 'ohana."

Dean John Pezzuto pointed out that the first graduating class had modest beginnings.

"These students required boundless spirit to take this

journey," he said. "But even more than that, they have the spirit of adventure, creation, and vision. Combine that with stamina and a solid work ethic, and you have the Class of 2011."

It takes a special kind of person to follow a dream literally from the ground up. Dr. Ed Fisher, CoP Associate Dean for Academic Affairs, recalls how challenging the beginnings were for the first class. "The first week of class there was a hurricane watch and an earthquake," he said.

He added, "UHH was closed for two days, and all of the students came back!"

"A few days later I was lecturing in Pharmaceutics in Wentworth and one of the students fell through his chair," he said. "The chairs were old wooden monstrosities, and some actually had yellow danger tape draped across them because they were broken."

This class was undaunted.

"The Class of 2011 has inspired a culture of leadership, advocacy,

and positive fun," said Liz Heffernan, Director of Student Services. "They created some fabulous traditions for future classes to follow and have been wonderfully involved in our community-at-large. From the Annual Health Fair to the Merrie Monarch Parade and everything that came in-between, these students left their mark."

Dr. Linda Connelly, Faculty Advisor for the Pre-Pharmacy Program, agrees. "I have witnessed the generosity of this class as they gave their time to contribute to the activities of the Pre-Pharmacy Program."

She recalled how each Spring Jessica Toyama and Keegan Sugimoto gave presentations to the Pre-Pharmacy Orientation class, how many Class of 2011 students participated in the mock interview process, and how this class included the Pre-Pharmacy students in PharmD student activities.

"For example, Jim Wassell invited us to help out with the first CoP Health Fair," she said, "and Jill Gelviro invited the Pre-Pharmacy students to help with a health fair that took place at the VA Facility last Spring."

Dean Pezzuto pointed out how an alumni chapter seemed like a natural bridge for this class. "For a group that has been so open to new ideas, so enthusiastic about the pharmacy program both in and out of the classroom, an alumni chapter is a logical next step."

A New Chapter is Born

Beginning in October 2010, the Dean's Advisory Council worked toward the development of this alumni chapter. A Steering

Committee was formed, and after much work and time, the official request for recognition was submitted to the University of Hawai'i Office of Alumni Relations.

This request included confirmation of officers-elect, names of 15 volunteers to serve on the Board of Directors, the promise of membership by 46 individuals, and approval of the Chapter Bylaws.

Elwin Goo, former Chief of Pharmacy Service at the U.S. Army Health Clinic for Schofield Barracks and Chief of Inpatient Pharmacy for Tripler Army Medical Center, has graciously volunteered his time and expertise to the College in this effort. In fact, Dr. Goo will serve as Founding President of the CoP chapter of the UHAA.

"I agreed to assist because I firmly believe that pharmacy alumni associations and pharmacy school support groups contribute significantly to the success of the pharmacy school, to the profession and to the community," he said.

"Alumni are carriers of the identity of the pharmacy school just as much as students or faculty," he added. "Having supported my pharmacy school for nearly 40 years, I am committed to helping to give something back to enrich the programs at my alma mater and to the profession. I would like UHH College of Pharmacy graduates to also be proud of their school and feel the same way about their chosen profession."

Dr. Goo explained that the alumni Chapter affiliate would strengthen the ties among alumni,

the pharmacy community, and the COP as well as serve as a great networking resource, "both professionally and socially."

"Alumni can serve as mentors and identify employment opportunities for fellow alumni as well as students," he said. "The Chapter is designed to promote pharmacy education and our profession in Hawai'i and everywhere else."

Membership

To join today, prospective members pay a modest, tax-deductible fee for the opportunity to stay in touch with fellow alumni. The Chapter will offer ongoing updates and invitations to special events. Membership fees support the College of Pharmacy and its students, strengthen the reputation of the College of Pharmacy, and enhance the value of the UH Hilo PharmD. degree and ultimately the entire profession.

Ms. Toyama said her classmates have a responsibility to their College. "As part of the inaugural class of the first College of Pharmacy in Hawai'i and the Pacific Basin, I see the importance of establishing a firm foundation for the College of Pharmacy Alumni Chapter."

She added, "We've embraced the importance of giving back to the community, and I hope to continue our legacy of community involvement."

COP Alumni Chapter membership applications are available online at: <http://uhalumni.org/s/1220/index.aspx?sid=1220&gid=1&pgid=295&expandNav=0>. Click "Upgrade or Renew membership." Under the Chapter Membership

Section, there is a “Primary Member Affiliation Chapter” drop-down window. Select “UHH College of Pharmacy.” Questions regarding membership may be directed to Ms. Roxanne Kam, Associate Director of Membership and Chapter Relations, UH Foundation Office of Alumni Relations at (808) 956-0469.

Steering Committee Members

The CoP Alumni Association Steering Committee includes CoP student class presidents Jessica Toyama (P4), Victor Lin (P2), and Marisa Kaluhiokalani (P3); Dean’s Advisory Council members Dr. Elwin Goo, Kathy Hirano, Valerie Matsunaga, Ron Okamura, and Roy Yamauchi; and the CoP Director of Community Partnerships, Dr. Ron Taniguchi.

CoP Alumni Association Officers-elect

Officers-elect: Elwin Goo, PharmD, President; Roy Goo, PharmD, Vice-President; Jessica Toyama, PharmD Candidate, Secretary; and Keegan Sugimoto, PharmD Candidate, Treasurer.

President-elect bio

Dr. Elwin Goo (photo, right) was born in Honolulu, graduated from Iolani School, and earned his PharmD from the University of Southern California. He also has a bachelor’s degree in Psychology from USC. He retired in 2008 from the U.S. Department of Defense, Federal Civil Service after 30 years of service. During this federal service, he served as Chief, Pharmacy Service, U.S. Army Health Clinic,



Schofield Pharmacy, Tripler Army Medical Center. Today he and his wife and enjoy travel and their grandchildren. He does occasional on-call assignments, and his golf game is a work in progress.

New Pharmacy Scholarship Announced

The College is very pleased to announce the establishment of a new permanently endowed scholarship, the Elwin and Valerie Goo Endowed Excellence Scholarship in Pharmacy. Beginning in the fall of 2011, this \$1,000 scholarship will be awarded annually to a student with a 3.5+ GPA who has completed two years of pharmacy education.

The new scholarship is made possible thanks to a generous \$18,000 pledge by Elwin and Valerie Goo. Dr. Elwin Goo, a member of the UH Hilo College of Pharmacy Dean’s Advisory Council, was born in Honolulu, graduated from Iolani School, and earned both a B.A. in Psychology and a PharmD from the University of Southern California. In 2008, he retired after a 30-year career with the U.S. Department of Defense, Federal Civil Service. He served as Chief, Pharmacy Service, U.S. Army Health Clinic, Schofield Barracks, and Chief, Inpatient Pharmacy, Tripler Army Medical Center. His wife, Valerie Goo, is a graduate of Punahou School. She attended the University of Hawai`i at Mānoa for two years before

transferring to the University of Southern California, where she earned a B.A. in Spanish and a teaching credential. She taught math and Spanish in Los Angeles for four years and then pursued a 26-year career as a U.S. Customs Inspector in Honolulu until her retirement in 2006.

Recipients must meet the following criteria:

- (1) Be full-time students enrolled at the University of Hawai`i at Hilo College of Pharmacy,
- (2) Have a cumulative grade point average of 3.5 or above, and
- (3) Have completed at least two years of pharmacy education.

As a result of a limited-time matching gift program made possible by a donation from an anonymous donor, UH Hilo is matching the Goos’ donation, effectively doubling its impact. The Endowed Excellence Scholarship is a recent campus-wide initiative aimed at attracting and retaining the highest caliber students.

Congratulations and Aloha to the Class of 2011

the first graduates from the
College of Pharmacy, University of Hawai`i Hilo

Edlynn Akana	Jenny Higa	Seul-ki Noh
Lindsey Aoki	Ashley Hori	Casey Ogata
Adrienne Au	Jenice Jacobs	Rochelle Oledzki
Jason Braithwaite	Madelina Jimenez	Tehane Ornellas
Dan Feng Cai	Elissa-Marie Kahahane	Ambrish Patel
Cherie Chu	Sarah Kaufman	Mark Reeves
Zoe Chun-Dela Cruz	Oh Young Kim	Enoch John Ronduen
Benjamin Cloud	Matthew Kirkland	Zachery Royer
Natalie Codianne	Ellen Loney	Ben Sabbah
Marcus Cressall	Daniel Lupi	Tiffany Santore
Benjamin Curry	Kela Mano	Marisa Schroeder
Quynh Dao	Annie Mar	Amber Schwarz
Krystin Duong	Michael Maradik	Euikyung Shin
Han Duong	Ryan Mashiyama	Meagan Solava
Robert Esteban	Mandy Medina	Curtis Start
Angelina Eustaquio	Holly Miracle	Keegan Sugimoto
Steven Evans	Erika Miyahira	Quinn Taira
Ken Everly	Bradley Miyashiro	Eugene Talatala
Ceslee Fukuhara	Ross Murakami	Jonathan Tam
Ashley Ann Fukumae	Nelson Nakatsu	Trenton Teruya
Rovigel Gelviro	Paul Narciso	Jessica Toyama
Yana Grinberg	Daniel Navas	Namrata Trivedi
Lisa Hagiwara	Hong Phuc Ngo	Ryan Trombley
Paul Haiola	Kaitlan Ngo	Veneta Tsonev
Garret Hand	Ngocyen Ngo	Cody Walker
Tess Hand	Cari Niimi	Nicole Warner
Eiko Harvey	Stan Nikitin	James Wassel
Danita Henley	Wilson Njinuwo	Jennifer Zbylski



Founding Faculty Member Says Farewell to First Graduates

BY CAROLYN MA

I have to admit being a bit stumped when I was asked to write about my memories of the inaugural class of 2011. It's kind of like asking parents which of their children is the favorite, or asking your spouse, "which dress do you like best?" How do you choose, or should you?

Responding to this request also seemed like one of those "don't go there" moments, because the answer might provide material for comedy. But looking back, I find that certain memories keep pushing their way up to the present. These recollections make me both laugh and beam with pride.

Here are just some of them: the first day of P1 experientials, when I took pictures of the students in the lobby of HMC in their white coats; the phone call I got from the nurse manager when a student fainted on the patient care floor; when a student went into labor at Pharmacare; and finally, as the years progressed, the amazing First Annual CoP Health Fair (planned in a whirlwind six weeks).

And, oh yes, there was the serious call from a hospital after a student was found unwisely checking the World Series score on one of the hospital computers. But there were funny times too, like when these students tried what every student loves: teaching the teacher. Their lessons in craps at the tables in Las Vegas were trying at best. They knew about my math skills, and my difficulties creating calculation problems in nutrition exams!

If I were to assign a descriptive

to this inaugural class, I would choose the word "trusting." From the experiential standpoint, these students trusted what we were setting up in the experiential courses. They would don their white coats and drive off to some previously unknown pharmacy in the middle of the Kau desert, or perhaps in Honokaa, and begin a rotation.

Most of the sites they walked into had never hosted a pharmacy student in this way. In fact, the majority of site managers weren't yet sure what they were supposed to do with a pharmacy student. I hope this class realizes how much I admire them for their courage and determination, and for their willingness to trust in a model where often the blind led the blind.

My accident happened in the middle of their third year. For the Class of 2011, this time was critical. They were completing their didactic coursework, and they would soon embark upon the all-important fourth year advanced experientials. This class took my accident extremely hard because we had been together from day one. Their visits to my hospital room always threw me for a loop.

Groggily, I would look up from my bed to see a concerned student with flowers. Somewhere in the recesses of my mind I knew this person, but it would take me a moment to place them. They would stoically assure me that things were going well – that they were okay. True to their empathetic character, the most common question these student

friends asked was regarding my pain. I usually showed them my pain medication button that I had taught them about in pain management lectures. Many times over tearful moments I promised I would walk with them at graduation.

During my home recovery these cherished emails and visits continued. Their visits were unlike those previously held in my office. In the early days our appointments concerned my urging them to rise to the level of their abilities, or a particular Target Management marketing project I inflicted upon them.

Afterward they visited because they cared, and because we could help each other through difficult situations: rotation for them, and recovery for me. I enjoyed these times immensely because it drew me back to a world that gave me function and some sense of

normalcy. I still keep an orchid plant given to me by several students in this class. For reasons that aren't simple to explain, it has always been essential that I keep that orchid plant alive.

Now when I sit in on the P4 experiential seminars with only a few months remaining until our commencement walk together, I hear these students rattle off medical terms, assessments, and drug recommendations. I am reminded of why I fell in love with this class and this profession. To take these holders of kind and caring hearts, and train them to become consummate health care professionals -- this is the ultimate reward.

Congratulations Class of 2011! I am filled with admiration and pride by your accomplishments. It is my honor to 'walk' with you during graduation and along the path of your careers.



Students Learn End-of-Life Care

BY SHANNON AMIDON CASTILLE

When patients need end-of-life care, how can compassionate pharmacists aid their treatment?

The College of Pharmacy (CoP) and Hospice of Hilo are helping the newest class of pharmacy students answer these questions.

"Hospice and the Hokamas," a play written by

former Hospice educator and volunteer Kathy Choi, dramatizes in part the stages of end-of-life care. In late January, half the Class of 2014 attended a three-hour seminar at Hospice of Hilo, which involved a performance of the play.

Dr. Lara Gomez, Director of Clinical Education for CoP, had previously become concerned when several of her students lost a patient during a rotation.

"They were caught off guard," she said. "Having been a pharmacist for ten years, I've personally experienced the loss of patients. We thought that if we introduced end-of-life care in the beginning of their pharmacy practice experiences, then students would be better prepared for the final stage of life."

In May 2010 an affiliation agreement with Hospice became final, and last August half

(continued on next page)



(continued from p.25)

of the Class of 2014 participated in the first interaction.

Brenda Ho, Executive Director of Hospice of Hilo, embraced the idea from its inception. “When I thought about the opportunity to bring pharmacy students into the hospice environment and remind them that there is a person behind every illness and a family behind every patient, I was very excited.”

Ms. Ho wants pharmacy students to think “beyond the cure.”

“We aim to provide patients with the least invasive treatments to manage their symptoms. The treatments for the symptoms are measured on ease of use for the patient and caregiver, least side effects, and least painful route of taking medications with the best outcomes to improve quality of life for the patient,” she said.

Pearl Lyman, Events, Education and Volunteer Manager of Hospice of Hilo, points out that even more than compassion, “a ray of hope is needed for a person at the end of life. That can come from any number of individuals – family members, nurses, pharmacists and others.”

Though Hospice volunteer actors have performed this play for Hospice volunteers since 2006, some scenes were revised to shift the focus toward pharmacists. “The end-of-life character was rewritten to require more pain management,” Ms. Lyman said. “The Hokamas (the family featured in the play) called the nurse, and the nurse called the family pharmacist.”

“Hospice and the Hokamas” illustrates key scenes leading to the end of life – from seeking hospice care when family members are in denial about the illness, to accepting and relying on such care, and finally to facing the moment when the patient succumbs to the illness.

For Dr. Gomez, the performance left quite an impression. “At the end of the play when the actors come out to take a bow, the actor who played the patient doesn’t return. You never see him again, reinforcing the finality of death. That is quite memorable.”

“I hope this play helps to reinforce why the students chose pharmacy,” she added, “to help their patients and offer empathy.”

Jed Sana, Class of 2014, attended the Hospice of Hilo seminar in January. Before this introduction he had no hospice experience.

“Now that I am more knowledgeable about hospice,” he said, “I am better able to talk about it and possibly recommend it as a medical treatment option.”

In fact, Mr. Sana acknowledges that this experience has taught him that “as a health care provider, I am part of an entire medical support team working to help patients.”

“While knowing drug information is very important, it is just as important to realize that behind every drug order is a person and a family,” he added.

That insight is just what both sides of this affiliation agreement wish for: that students gain a deeper understanding of the end-of-life phase.

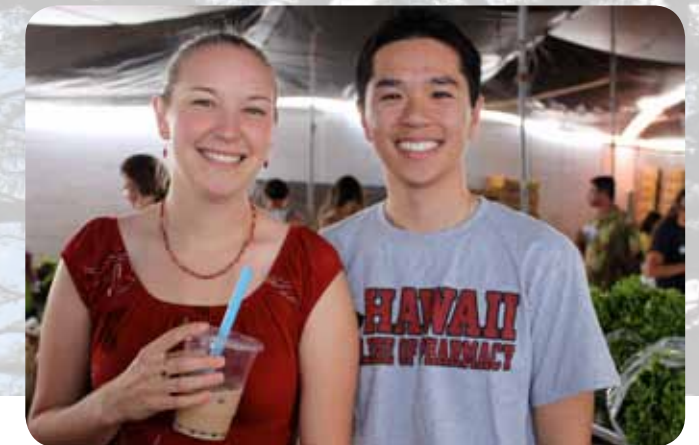
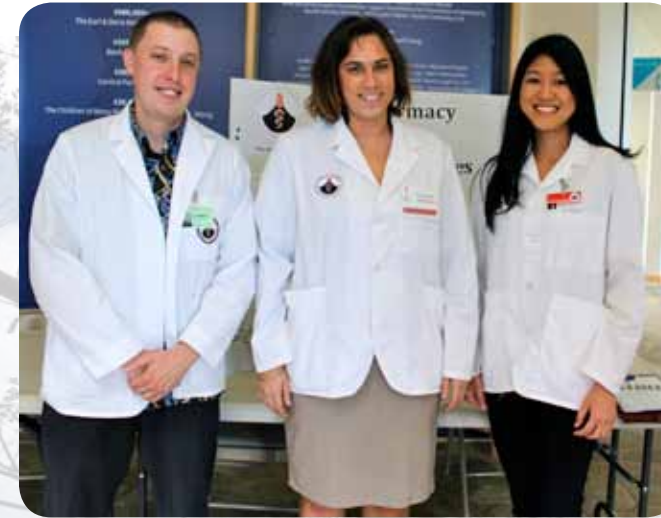


PRE-PHARMACY NEWS

Pre-Pharmacy currently has 41 in-class students and 45 online students (from the Big Island, Oahu, Maui, Guam, American Samoa & Saipan). The first five weeks of our IS 201 course introduce the students to different fields of pharmacy, by inviting guest speakers to lead interactive discussions about their own particular field (i.e.: academic, hospital, veterinary, clinical or retail pharmacy). This is the class with guest speaker Dr. Megan Arbles from KTA Pharmacy.

One Saturday Morning in Hilo

February 19, 2011



Top left: Chris Lai Hipp, Tina McDonald, and Shanele Shimabuku, all from the Class of 2013, represented HSSHP at the Hawai’i District Science and Engineering Fair booth. “It was a great experience to see how bright these students are on the Big Island as well as share with them the opportunity to advance their education right here at home,” said McDonald.

Top right: Twenty-eight Phi Delta Chi members worked a car-washing fundraiser until late afternoon when they had to start turning away cars. The group grossed just under \$1,000. Funds will go towards a health fair in an underserved community south of Kona in April, and a year-end celebration to honor the graduating class.

Bottom left: Alison Kobayashi, Stephanie Lam, Alexa Perez, and Irene Chaisri, all members from of APhA sold baked goods at their own fundraiser at the Hilo Farmers Market. Students raised nearly \$600 for patient care projects like Compounding for Kids as well as for the College of Pharmacy Annual Health Fair.

Bottom right: ASHP members RaeAnne Fuller and Anthony Thai made their mark that morning by selling Bubble Drinks at the Hilo Farmers Market. Originating in Tawain, bubble teas usually contain small tapioca balls or pearls called “boba.”

Nelson Nako: Patience is a Virtue

Hilo Medical Center has the only hospital pharmacy on the Big Island that touches each one of the students in our College. For some lucky apprentices, this essential pharmacy experience could happen twice: first, for four half-days as a first-year student, and later, for several fourth-year students as six-week rotations.

While these students spend time learning the delicate balance required to manage the technical inner-workings of a hospital pharmacy, they are in expert preceptor hands.

“Dr. Nelson Nako may be considered by some as an ‘unsung hero’ because he is the strong, silent type who is the glue that has held the HMC pharmacy department together for over two decades,” said Ron Taniguchi, Interim Chair of Pharmacy Practice and Director of Community Partnerships.

“His postgraduate residency training and early years at HMC as a staff pharmacist prepared him well to ascend to the director position. With that training and practice background,” he added, “Dr. Nako has collaborated successfully with the CoP since its inception in 2007 to provide a most vital site for student introductory pharmacy practice experiences.”

Dr. Nelson Nako, Director of Pharmacy at Hilo Medical Center, and College of Pharmacy Preceptor since 2007, leads by example. His patience and aloha spirit, his complex pharmacy experience, and his strong support of the College have made the Hilo Medical Center encounters a favorite of the CoP students.

Under Dr. Nako’s tutelage their knowledge of pharmacies grows to

include hospital-based skills from the heart of the action in a medical center pharmacy.

“A few of the students we see were former pharmacy technicians in retail so they usually haven’t been exposed to IV rooms or mixing,” said Dr. Nako. “Most have never used an automated dispensing cabinet or a robot to aid in filling prescriptions.”

Jackwayne Fernandez, class of 2011, recalled a moment of personal enlightenment under Dr. Nako’s wing. “He told us that our job as future pharmacists is not to memorize drug information, because that can easily be found in a drug handbook. Instead he taught us that our job entails knowing how to use information in a way to treat a patient’s disease and maximize her therapy.”

Dr. Nako’s pharmacy philosophy is simple.

“The bottom line is that you treat patients appropriately, get them well. You don’t want people coming back to the hospital,” he said. “You want them to take their medications correctly and have them get better and maintain wellness.”

And Dr. Nako’s enthusiasm for his profession is, well, contagious. “Everyone was very friendly and helpful at HMC, but espe-

cially such a patient mentor as Dr. Nako,” said Anqi Liu. “I am really glad to have someone like him in our community to help our pharmacy school grow.”

The feeling is mutual.

“Having the College of Pharmacy here is a real boost for the Hilo community,” said Dr. Nako. “The way the school is growing the benefits can only continue to increase.”

Originally from Kahului, Maui, Dr. Nelson Nako graduated in 1983 from the University of the Pacific. He then completed a one-year residency at the Tucson Veterans Hospital and stayed for a second year to continue his research (dose range studies) at the University of Arizona.

By 1985 he’d found his way home to Hawai’i as a Staff Pharmacist at Hilo Medical Center. Ten years later he became the Director. He and his wife have three very musical children, one in the eighth grade at Hilo Intermediate School, a freshman and a senior at Hilo High School. He was named CoP Preceptor of the Year in 2009.

Below: Bronston Lallier, Denise Kobashikawa, Dr. Nelson Nako, Marina Mehan-Sanchez, and John Fujita pause at Hilo Medical Center in front of the pharmacy robot. It is used to scan bar codes and fill the automated dispensing cabinet, a method that HMC Pharmacy has found to be 100 percent accurate.



CoP Interactive Video Conference Classroom

Building a new college of pharmacy from the ground up means that our College of Pharmacy faculty and staff are innovators. They are, in a true sense, pioneers.

The charge? Bring highly specialized classroom facility to the Big Island, and do it in four



Mr. Robert Summers

months! The answer: Sure, no problem.

When the project was first mentioned in February there was a blank slate where the classroom would be built. “We had to identify the equipment, order it, receive it in time and have it installed,” Robert Summers, Director of Innovation and Facilities Planning for the College, said.

In fact, not only was the challenging task completed by the deadline, the video conferencing room on UH Hilo’s South Aohoku Street campus is the largest such classroom in the state with 90 seats.

“We became the model for what the rest of the UH System will become,” said Summers.

How was this accomplished?

“Teamwork,” said Summers.

“This project is a truly collaborative project between our College, the University of Hawaii system, the University of Hawai’i at Hilo and Maui’s University Center. It took lots of thinking outside the box and many carefully orchestrat-

ed yeses to make it happen.”

“Technology of this type is important anywhere, but especially important on our island state Hawaii. It permits us to enrich our pedagogical mission by having easy access to talent pools off the island,” Dean John M. Pezzuto said.

“Royd Lui [UH System], Candace Wheeler [UH Hilo] and Karen Muraoko [Maui University Center] were instrumental in making this project happen,” he added.

“We finished in June, in July we did testing and were up and running by August,” Summers recalled. “We had faculty on Maui and Oahu ready to begin instruction.”

Royd Lui, Video Operations Manager for University of Hawaii System, was instrumental in system implementation. He built the bones of the CoP classroom.

“Royd’s ability and the fact that he had time to do the installation saved us tens of thousands of dollars,” said Summers.

As one good turn begets another, the CoP passed on this savings to other students across the System. How?

Not only did the classroom in Hilo require construction, but in order to make a connection work with the “receive” sites on Maui and Oahu, upgrades were required there as well. Through the leadership of Karen Muraoka, Director of the Maui University Center, a video conferencing room was identified in Kihei to be the site for a Pharmacy instructor, and the site was upgraded from just a “receive” site to one able to “send” as well.

On Oahu, “The College rented a suite in the Gold Bond Building at the John A. Burns School

of Medicine and we purchased a brand new polycom system for the space from which students from both campuses can benefit,” said Summers.

How does it work?

“This video conferencing equipment is the most advanced and state-of-the-art equipment that is out there,” said Lui. “The system transports high definition video and audio to the ‘receive’ sites. Overall visual quality and resolution are far greater than ever achieved over traditional video conferencing equipment.”

He added, “We knew that graphics in PPT or any computer generated pages needed to be transmitted as clearly as possible, and now it can be.”

There are “receive” sites on both Maui and Oahu. Students in the classroom in Hilo are taught by faculty off island. Both the students and faculty can see and hear each other. If students have a question, just like in a traditional classroom, they raise hands. The lectures taught in the video conferencing classroom are recorded for future review.

“That’s a valuable part of this technology -- having access to lectures 24/7,” said Candace Wheeler, Distance Learning Coordinator for the UHH College of Continuing Education and Community Service.

Now the College of Pharmacy has seamless communication with faculty and staff on Oahu and Maui, and soon, with faculty on Kauai.

We have liftoff! Welcome to the 21st century of higher education.

I coulda been a contender!



Top: CoP faculty Candance Tan; Eric Lum; Bryceon Tanaka; Miho Aoki; Rep. Jerry Chang; Daniel Kim; Earnest Bade, M.D.; Denise Kobashikawa; and Mrs. Earnest Bade

Bottom: CoP students help boxers ready themselves for their big moment in the ring.

With a helping hand from seven College of Pharmacy students, young boxers in the Big Island Amateur Boxing Association (BI-ABA) faced off on January 28 to determine contenders for the first boxing card of the year.

State Representative Jerry Chang, President of the BIABA, voiced his appreciation.

“Once again the College of Pharmacy has demonstrated how invested it is in the community by hands-on participation at this event,” he said. “I am deeply grateful for these students’ aloha. Though not all pharmacy students are from Hawai‘i, they all seem to have embraced our local culture,

and the Big Island is better for this.”

CoP students volunteered to assist local physician Dr. Ernest Bade in administering the physical examination required for participation. Students helped with the general health questionnaire prior to the examination and also handled blood pressure, temperature, and vision screening for each boxer.

Our newest CoP faculty member, Dr. Candace Tan, supervised the students.

“The students’ concern for the young boxers’ health and the desire to give back to Hilo were apparent from their energy and enthusiasm,” she said. “This event enabled our

pharmacy students to practice their skills while simultaneously supporting local athletes.”

Peter Jo, Class of 2012, enjoyed the event. “This experience was rewarding because the tournament was designed to keep our youth off the streets and keep the fighting inside the ring,” he said. “Moreover, we were able to show the parents of the participants that the CoP cares about the Big Island and our ‘ohana.”

Other CoP student participants included Class of 2014 students Miho Aoki, Denise Kobashikawa, Daniel Kim, and Class of 2012 students Bryceon Tanaka, and Erick Lum.

CoP Students Give Back with Blood and Oranges

Students from the College of Pharmacy’s Class of 2012 continued a tradition of sponsoring a day-long blood drive on Tuesday, January 18 on the University of Hawai‘i Hilo campus.

The College exceeded its goal of usable pints by nearly thirty percent when 136 pints of blood were collected. Also exciting for the event was the participation of 32 new donors.

Eric Lum, third-year student in the College, began organizing the blood drive last October. “Statistics from the Hawai‘i Blood Bank tell us nearly 60 percent of us will need blood sometime in our life, but only two percent of us donate,” he said. “We joined them to try to change those numbers.”

Lum recognizes the difficulty in a first-time blood donation. “I’ve given blood four times now, but the first two times I nearly passed out.”

However, Lum feels the personal sacrifice is a small one. “This blood drive is an important opportunity for the College to give back to the community that supports us,” he said.

Liz Heffernan, Director of Student Services, served as community liaison for the drive. She said, “I’m proud of our students’ commitment to our community, and to our island state. This is our second year hosting a blood drive and I think it is a tradition our students will continue.”

Laurie Chang, Director of Communications for the Blood Bank of Hawai‘i, said that relationships with “Lifesaver Clubs like the University of Hawai‘i at Hilo are instrumental to ensuring a stable blood supply for Hawaii’s community.”

Chang explained that such clubs serve as a valuable resource during times of emergency or low donor turnout. “We rely on our special community partners, their hard-working coordinators and the wonderful donors for helping us to save and improve the lives of Hawaii’s patients.”

Refreshments, including fresh local citrus fruits, and supplies for the day were contributed by KTA Superstores and students.



Chaz Barit, Gena Pini, Eric Lum, Stephen Wong, Kari Kurihara, Paige Kurosawa.

FACULTY BRIEFS



Julie Ann Luiz Adrian, DMV, Assistant Professor, Pharmacy Practice – Veterinary Pharmacy, has received acceptance of her manuscript, “Effect of High Forage Oxalate and Calcium Consumption on Goat Urine Characteristics,” by the International Journal of Livestock Production.



André Bachmann, PhD, Associate Professor and Chair, Pharmaceutical Sciences, has been invited to serve as keynote speaker for a Polyamines Gordon Research Seminar (GRS) to be held in June in Waterville Valley, N.H. His address will precede the Polyamines Gordon Research Conference (GRC), at which he also will make a

presentation about a nationwide clinical study with DFMO in pediatric neuroblastoma cancer patients and his role as a investigator and clinical committee member.



The Department of Pharmaceutical Sciences held their first retreat December 4 at Kalopa State Park. The peaceful, wooded area, located along the Hamakua Coast toward Waimea offered cabins for some hearty souls who spent the night, as well as a picnic lunch, donated by Dean Pezzuto.



Ben Chavez, PharmD, Assistant Professor, Pharmacy Practice, has been appointed a Clinical Assistant Professor in the Department of Family Medicine and Community Health at the John A Burns School of Medicine. In addition he wrote test questions for the National Association of Boards of Pharmacy at an Item Writing Workshop in Chicago in March.



Mok Chong, PharmD, PhD, MBA, Assistant Professor, Pharmacy Practice, made a poster presentation, “Impact of `Ohana Diabetes Education Program on Clinical Outcomes in a Marshallese Patient in Hawaii: A Six-Month evaluation,” at the American Pharmacists Association (APhA) Annual Meeting and

Exposition, March 25-28, 2011, in Seattle. The abstract will be published in the March/April 2011 issue of the Journal of the American Pharmacists Association (JAPhA). Dr. Chong has also been appointed as Editorial Member for the International Journal of Pharmacy and Pharmaceutical Sciences’ next newsletter.



Susan I. Jarvi, PhD, Associate Professor, Pharmaceutical Sciences, and Director of the Pre-Pharmacy Program, has been awarded a pilot grant from the National Center for Genome Resources NM-INBRE, Santa Fe, for her proposal, “Sequencing the genomes of two biologically distinct vari-

ants of Avipoxvirus.” Genetic evaluation reveals two clusters of variants in Hawaiian forest birds, and preliminary experimental infections suggest that they are biologically distinct. Comparative genomics will be used to identify these genetic differences. The award covers costs of sequencing and provides preliminary draft genome assemblies and bioinformatics support.



Dianqing Sun, PhD, Assistant Professor, Pharmaceutical Sciences, presented research entitled “Synthesis, optimization, and evaluation of piperidinol derivatives as novel antituberculosis agents” at the Pacificchem 2010 meeting held December 15-20 in Honolulu.



Ghee Tan, PhD, Assistant Professor, Pharmaceutical Sciences, served as co-advisor of Shalila de Bourmont, Hilo High School 11th grader, and winner of the Hawai`i District Science and Engineering Fair. The title of the winning project was “Anticancer properties of fungal endophytes derived from

Clermontia parviflora, a native Hawaiian plant.” The project has been selected for the International Science and Engineering Fair in Los Angeles in May.



Supakit Wongwiwatthananukit, PhD, Assistant Professor, Pharmacy Practice, received the Outstanding Poster Presentation Award for Pharmacy Practice, at the 27th Annual Research Conference in Pharmaceutical Sciences, December 2010, Bangkok, Thailand.

The title was “Development and Evaluation of Pharmacist-Based Smoking Cessation Programs for Youth Offenders.” He also had two papers, titled “Development of a Smoking Cessation Health-Related Quality of Life Scale” and “Comparison of Changes in Body Water Measured by Using Bioelectrical Impedance Analysis Between Lercanidipine and Amlodipine Therapy in Hypertensive Patients,” published respectively in the Silpakorn University Science and Technology Journal and the Journal of the Medical Association of Thailand.

Anthony D. Wright, PhD, Associate Professor, Pharmaceutical Sciences, shared the results of his pilot project entitled Investigation of Hawaiian Green Tea at a March 8 program sponsored by the University of Hawai`i Hilo Women’s Center and Center for Global Education and Exchange. The three-month study, conducted last summer at Mauna Kea Tea

Plantation, examined the production of three compounds in the bud and first two leaves of tea plants. The pilot project group included CoP visiting scholars Ran Song from Yale University and Kimberly Johns from Sheffield Hallam University, and CoP post-doctoral associate Dovi Kelman. The group sought a better understanding of the effect of shade on the tea plants.

STUDENT BRIEF



Chris Lai Hipp, Class of 2013, published his first article as first author in *Transfusions*, Volume 51, February 2011. The title is “Pooled peripheral blood mononuclear cells provide an optimized cellular substrate for human immunodeficiency virus Type 1 isolation during acute infection. Dr. Girish Vyas of the UCSF Department of Laboratory medicine was his mentor.

Fall 2010 *Dean's List** Classes of 2012, 2013 & 2014

Class of 2012	Narges Shansab	Shih-Chia Lu	Daniel Kim
Justin Arias	Amy Song	Christine Lucas	Audrey-Marie Kumasaka
Lauren Brunke	Roseann Svec	Tina Marrie McDonald	Kyle Kumashiro
Candic Carbaugh	Bryceson Tanaka	Mathew Mullahy	Romelynne Lamosao
Irene Chaisri	Anthony Thai	Ahmad Musheinessh	Andy-Long Le
Lawrence Chan	Henry Tran	Jason Okazaki	Yan Feng Lin
Bernie Cheng	Tammy Tran	Steven Osgood	Janine Masri
Megan Ching	Cindy Trinh	Kaylene Peric	Janelle Matsukawa
Derek Dominguez	Sally Van	Tyler Prescott	Tracy Nakama
Jenna Fujimoto	Megan Venegas	Rosa Quan	Kenneth Navarrete
Raeanne Fuller	Jessie Wong	Matthew Sasaki	Steven Nishimoto
Carol Lynn Goo	Wendy Yamasaki-Herring	Prabu Segaran	Shadi Obeidi
Richelle Hirata	Allison Yamashiro	Reece Uyeno	John Opoku-Ansah
Alice Hwang	Marina Yeh	Melissa Yoneda	Keri Oyadomari
Susan Kang	Class of 2013	Modaniet Young	Sidney Pham
Daralyn Kawamoto	Christopher Ayson	May Yu	Andrew Reinhart
Paul Kim	Gina Chan	Class of 2014	Behnam Rostami
Christine Knecht	William Engen	Paul Allen	Jed Sana
Kari Kurihara	Louis Huynh	Miho Aoki	Caroline Sousa
Amber Laird	Christopher Kamei	Maurina Bartlett	Stacie Takahashi
Linh Lieu	Todd Kitamori	Li Chen	Koon Ting
Angelina Lovell	Alison Kobayashi	Joanne Daproza	Hana Tran
Tanya Moore	Marcus Kouma	Jizan-Anne Evangelista	Christopher Tsue
Brian Niimi	Diem Le	John Fujita	Ann Txakeeyang
Alexandra Perez	Victor Lin	Hai Huang	Dayna Michelle Wong
Van-Quynh Phan	Cheryl Lopez	Jaymie Kanda	James Yi
Gena Pini		Mariko Katagiri	

NOTE: The above students attained a grade-point average of 3.50 or greater in full-time, didactic work.

Class of 2011 students with Dean's List honors for all didactic work



Dean John M. Pezzuto

"These students excelled from the beginning and they never lost focus during their time in the classroom. Their achievement demonstrates what a combination of hard work, determination and enthusiasm can accomplish. I offer them a special congratulations and heartfelt thank you. And of course, to them and all of our brilliant graduates, I wish you the very best of luck!"

NOTE: These students made the Dean's List (3.5 grade-point average or higher) every semester of their first three years.

Cherie Chu	Annie Mar	Enoch John Ronduen
Natalie Codianne	Ryan Mashiyama	Amber Schwarz
Ceslee Fukuhara	Nelson Nakatsu	Jonathan Tam
Ashley Hori	Casey Ogata	Jessica Toyama
Oh Young Kim	Rochelle Oledzki	Veneta Tsonev

Letters Home BY LAUREN RUFFINO, CLASS OF 2012



I've never been one to overwhelm myself with extracurricular activities. I'd describe myself as a selective participant, only choosing those that I was 100 percent confident about joining. But being a student of a budding pharmacy program gives me a unique opportunity to play a small role in how it evolves. In addition to the academic benefit, I am involved in extracurricular activities in our College because I see unlimited potential in this program's future. I think that student involvement beyond academics is essential to the maturation of the program, and I want to contribute.

Of course, I recognize the irony that I should be involved in an unusually large number of activities during the busiest time of my life. But I am excited to say that I have found my niche! Though I continue to be involved in multiple projects, the one I feel the closest to involves Student Medical Services at UH Hilo.

I started collaborating with Mrs. Mimi Pezzuto (CoP instructor) at the end of my first year when a few students convened to manage the medication inventory for Student Medical Services (SMS). SMS is a four-room clinic in the Campus Center that largely serves the medical needs of UH Hilo student body. Manager Heather

Hirata (APRN-RX, FNP-BC) has accomplished a great deal from that small space, but there aren't enough hours in a day for her to manage everything, so we hoped to do some logistical problem solving for her.

Initially we helped by counting medications, making labels, and taking inventory. With the time constraints that are indicative to student and faculty academic life, it was difficult for everyone to come together and push this project forward, so I volunteered to coordinate under Mrs. Pezzuto's supervision. But it was easy to get lost in the cause and I soon found myself being pulled in many directions. After some sleepless nights and long lapses between visits to the clinic, I recognized that if I were to coordinate successfully I needed some hands-on help. In January I recruited several second-year students and very soon we began to see marked progress!

Now, with the help of my recruits, we take inventory on a weekly basis. Eventually we'll utilize that information to create an ideal medication formulary that will cater to the specific needs of Student Medical Services. This activity enables pharmacy student volunteers to apply what they have learned in an effort to integrate what is best for the clinic with what is best for the patients. In addition, some of the student pharmacist volunteers are creating patient education pamphlets on topics

like smoking cessation and asthma control. Another pamphlet contains important information about some of the medications dispensed at SMS.

This project has been for me, and will be for future student pharmacists at UH Hilo, a wonderful opportunity to learn a little about management and interdisciplinary teams, and apply some of the skills we are taught in the classroom. We have established a mutually beneficial relationship with Heather and her staff, and I think this project is ideal for students who wish to practice their newly acquired skills and invest some creativity into the services they can offer to the UH Hilo community.

In May I will return to my hometown of New Orleans for my fourth-year rotations. Before this transition, I hope to pass my enthusiasm for this project to another student. I am proud to claim this as the mark I've left on the College of Pharmacy. My expectation is that future students involved in this important CoP/SMS relationship match my pride and enthusiasm – and my hope is that many will exceed it!



Lauren Ruffino, Class of 2012, and Heather Hirata, Manager of UHH Student Medical Services

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College of Pharmacy
University of Hawai`i at Hilo
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