

One who mixes ingredients, drugs or medications: a pharmacist



Kāwili Lā'au

Fall 2011 • Volume 4, Issue 1



INSIDE

- CoP strikes deal with Tripler on ground-breaking MSCP program
- Welcome new students
- Local teachers and students learn from CoP workshops

Dean's Message



Everyday day we hear about the economic downturn, dismal unemployment statistics, and the like. We too have experienced the consequences of this situation. But at the same time, we revel in the fact that our inaugural graduates have taken the workforce by storm. Beyond this, we have been fully accredited by the Accreditation Council of Pharmacy Education. Hallelujah. We continue down the path leading us to become a Top 25 college of pharmacy.

Nonetheless, I can safely say we are not yet done with "inaugural" events. This year, for the first time, some of our PharmD students will be receiving the BA in Pharmacy Studies. Our first PhD students have started this semester. The first classes have begun for our new Master's in Clinical Psychopharmacology. We are in the planning phase of other new programs. Our College of Pharmacy will always have "firsts" and I'm proud of the way everyone in our 'Ohana, from faculty to staff

to student, embraces change, creating innovative projects that have serious impact on real-world health issues.

I'm also proud of the activities we maintain that will eventually be considered as traditions. Our third annual health fair was held in October. Our fifth group of students will recite the pharmacist's oath in the White Coat Ceremony. We have expanded our existing temporary physical facilities to better serve our students. While we continue to search for adequate funding, the planning and design of our permanent building is nearly complete.

We are building momentum as we are building a world-wide reputation of excellence, becoming stronger, ever confident in our goal. While our physical facilities still need to catch up, we are fortunate to have acquired nuclear magnetic resonance spectrometers, mass spectrometers, and other state-of-the-art equipment, that will allow our researchers and students to reach their full potential and remain competitive. Our pedagogical base on O'ahu has expanded, and thanks to a collaborative arrangement with the JABSOM, physical facilities in Honolulu are superb. In December, we will serve as the local host for the 50th Annual Meeting of the Phytochemical Society of North America. This will attract hundreds of scientists to the Big Island who will have an opportunity to observe our rapid progress on a firsthand basis.

But it is energy and enthusiasm of our supporters that keeps me going, that keeps our faculty engaged, and that keeps our students excited about learning. Ever since serving on the external advisory board for the University of Hawai'i in the 90s, I have been impressed by the powerful crescendo every conversation takes when discussing our future. We know we have the talent, the abilities, and the eventual resources. But, to me, it's the people that make the difference. The individuals who say "why not" rather than "whatever."

We started with a dream and we have come a long way. And while we still don't have as much as some other top pharmacy schools, we keep plugging away. What we have are our remarkable students. They are our best supporters. Nothing comes close to the amount of energy they provide.

I meet many people who say they are surprised to learn of the strengths of our College, as if we were keeping it a secret. Yes, it will help when we have thousands of alumni and a hundred-year history. Yes, it will help when we publish our book on the creation of the College. But fortunately, right now we have this great magazine to help spread the word. Please enjoy, pass it along, or let us know what you think and who should be added to our mailing list.

A handwritten signature in black ink, appearing to read "John M. Pezzuto". The signature is stylized and fluid.

John M. Pezzuto
Professor and Dean



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the University of Hawai'i at Hilo



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of HAWAII
HILO

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ON THE COVER –

Dr. Edward Fisher (left), Associate Dean for Academic Affairs and Director of the Master's in Clinical Psychopharmacology (MSCP) program, shakes hands with Captain Rafael A. Salas, Chief of the Education and Training Branch and Deputy Chief in the Department of Psychology at Tripler Army Medical Center after entering an agreement to begin the program with psychologists at Tripler. (Photo by Judith L. Steinman)

UH Hilo College of Pharmacy creates program to aid mental health professionals



The University of Hawai'i at Hilo is the first in the nation to offer a Master of Science in Clinical Psychopharmacology (MSCP) degree solely within a College of Pharmacy. The University of Hawai'i Board of Regents approved the program at a meeting on Maui August 25.

Typically offered by schools of psychology, the degree gives clinical psychologists in the military, as well as in Guam and two states (New Mexico and Louisiana), the authority to write prescriptions once they pass a national board exam. Initially the program will be offered to students at the Tripler Army Medical Center in Honolulu, on the island of O'ahu.

"Senator Inouye has studied the need for psychologists to have prescriptive authority for decades," said Pat DeLeon, Chief of Staff to Daniel Inouye (D-Hawai'i) and past-president of the American Psychological Association (APA).



Pat DeLeon

"We're happy to see our College of Pharmacy take the lead in developing this program that helps our troops and their families while looking ahead to improving the way all clinical psychologists can do their jobs."

The MSCP program will provide

advanced professional development to working clinicians, with an initial focus on those practicing in the state of Hawai'i.

"Training clinical psychologists in the art and science of psychopharmacology will result in improved mental health treatment for our service men and women and their families, and we're honored to meet the needs of the military in Hawai'i,"

said John M. Pezzuto, Dean of the College of Pharmacy. "In addition, our long-term expectations are that we will be able to help improve patient care on a broader basis if legislation pending in several states, including Hawai'i, gives prescriptive authority to all MSCP graduates. In any case, clinical psychologists will be better positioned to

interact with physicians and care for their patients."

The program will begin this fall semester. Each successive group of students would start in the fall, and will require four semesters and one summer session to complete.

Most of the coursework will be offered via distance education through lectures posted on the Internet and biweekly hour-long meetings between instructors and students that will be recorded and provided to students for review.



Edward Fisher

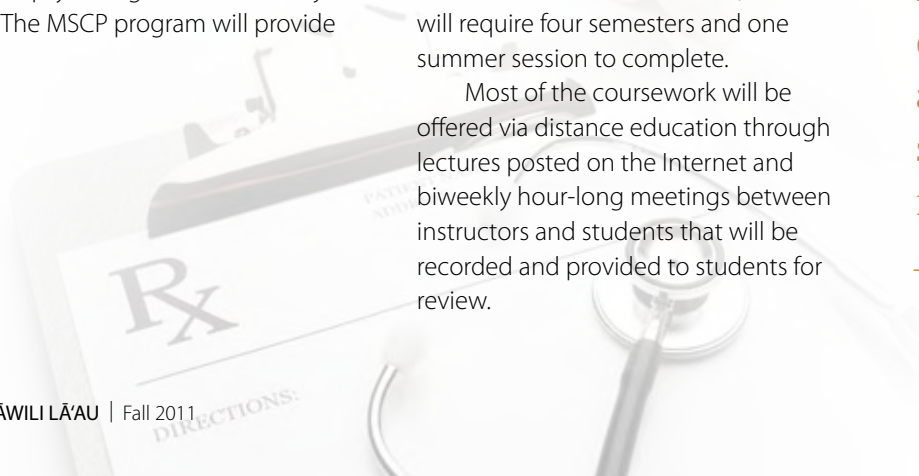
"The curriculum begins with a strong foundation in biochemistry and physiology," said Edward Fisher, associate dean of the College of Pharmacy and director of the MSCP program. "Our objective is to provide a rigorous,

advanced education in clinical psychopharmacology so licensed, doctoral-level, practicing psychologists can safely and effectively prescribe medications for their patients."

The first group of students is

“ Our objective is to provide a rigorous, advanced education in clinical psychopharmacology so licensed, doctoral-level, practicing psychologists can safely and effectively prescribe medications for their patients. ”

– Dr. Edward Fisher



“ UH Hilo is commended for the strong planning demonstrated in this new program with a well-articulated design of courses, a solid financial plan, and an admirable plan of faculty development ”

– WASC reviewers

expected to be between five and 10 and will be located at Tripler Army Medical Center, where pharmacy instructors will make live on-site visits between three and five times per course.

“With more than 40,000 active military personnel stationed in Hawai‘i, we are constantly striving to meet and improve on the pharmacologic treatment of mental health issues,” said Captain Rafael A. Salas, Chief of the Education and Training Branch and Deputy Chief in the Department of Psychology at Tripler Army Medical Center. “Our clinical psychologist staff has expressed a great deal of enthusiasm about learning about psychopharmacology from the experts at the College of Pharmacy. We are looking forward to making this program a success.”

The program includes a one-year practicum where students must complete a minimum of 400 hours

under the supervision of an individual with prescriptive authority, he said.

The MSCP program was given interim approval by the Western Association of Schools and Colleges (WASC) in June. WASC is the regional accrediting organization responsible for evaluating colleges and universities in the western part of the United States. In recommending the program for final approval, the reviewers said that “UH Hilo is commended for the strong planning demonstrated in this new program with a well-articulated design of courses, a solid financial plan, and an admirable plan of faculty development.”

In addition to the Doctor of

Pharmacy, the MSCP is the third new degree to be offered by the College of Pharmacy this year. In February, the Board approved a Ph.D. in Pharmaceutical Science as well as a Bachelor of Arts degree in Pharmacy Studies

Tripler Army Medical Center (TAMC), located in Honolulu, is the headquarters of the Pacific Regional Medical Command of the armed forces administered by the United States Army in the State of Hawai‘i. It is the largest military hospital in the Asian and Pacific Rim, providing a full range of services, including mental health services.



Top photo: Dr. Judith L. Steinman (third from right), Program Coordinator, instructs MSCP students at Tripler Medical Center (from right) Dr. Lavina Sanders (2011-2013 Health Fellow), Dr. Hana Kim (2011-2013 Health Fellow), CDR Amy Park (2011-2013 Health Fellow), MAJ Brian O’Leary (Psychologist), MAJ Paul White (2011-2013 Health Fellow). (Photo by Dr. Edward Fisher)

Bottom photo: Drs. Edward Fisher and Judith Steinman visited MSCP students at Tripler Medical Center (lower row from right) MAJ Matthew Bell (2010-2012 Health Fellow), MAJ Brian O’Leary (Psychologist), CDR Amy Park (2011-2013 Health Fellow) and MAJ Paul White (2011-2013 Health Fellow). (Photo by Dr. Kathleen Brown)



Hawai'i governing agency appoints pharmacy faculty member to board



From left to right: Senate President Shan S. Tsutsui; new Board of Pharmacy appointee Lydia Kumasaka (who also is the mother of second-year pharmacy student Audrey Kumasaka); Carolyn Ma; Governor Neil Abercrombie; Lieutenant Governor Brian Schatz; and Associate Justice McKenna attended a ceremony for new board members in Honolulu.



A member of the College of Pharmacy at the University of Hawai'i at Hilo joined the seven-member Hawai'i Board of Pharmacy effective July 1. Gov. Neil Abercrombie nominated Carolyn Ma of Honolulu, who was confirmed as a member.

The Board of Pharmacy is the state agency responsible for the licensure and discipline of Hawai'i pharmacists and pharmacies. They review all legislature bills, handle any disciplinary action for the profession, submit new legislation and define the scope of practice.

Carolyn Ma, Pharm.D., BCOP, CHTP, is an associate professor in the Department of Pharmacy Practice, based along with several other UH Hilo CoP faculty in Honolulu. She received her Doctor of Pharmacy degree from the

University of California at San Francisco and completed a Clinical Pharmacy Residency at Thomas Jefferson University Hospital and an Oncology Pharmacy Specialty Residency at The Hospital of the University of Pennsylvania.

Dr. Ma practiced as a Board Certified Oncology Pharmacist at the Queens Medical Center in Honolulu for 13 years. She subsequently became Vice President for Clinical Program Development for Am Med International in Hong Kong, a start up company that builds cancer clinics in Asia and most recently has been management consultant for Stanford Hospitals and Clinics with expertise in JCAHO Medication Management chapter, Pharmacy and clinic workflow change management. Dr. Ma is also a certified practitioner and instructor of Healing Touch, an energy based bioenergy field complementary modality.

Five members of the board are graduates of a school or college of pharmacy and are licensed as pharmacists and actively engaged in the practice of pharmacy for at least five years prior to their appointment; two are public members. Four members of the board need to be residents of the city and county of Honolulu and three need to be residents of counties other than the city and county of Honolulu.

CoP expands footprint in temporary headquarters

New modular facilities were delivered to the CoP campus this spring and summer. The buildings increase teaching options by adding a classroom as well as a large lab space, and allow several more faculty and staff to be closer to the students with additional office space.



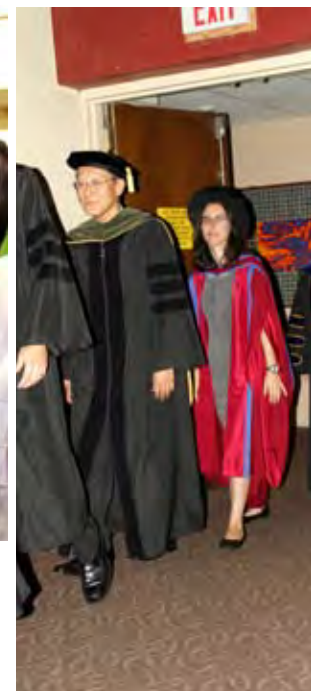
Welcome New Students!

Ninety-two first-year pharmacy students and seven PhD students in pharmaceutical sciences began fall semester at UH Hilo with a variety of events during orientation week beginning August 15.

Students filled Classroom 1 of the College of Pharmacy complex on Monday for an introductory session, presided over by Dean Pezzuto. They had a chance to hear about CoP and meet faculty from both Pharmaceutical Sciences and Pharmacy Practice. Safeway supplied coffee and donuts, and students got to know each other while mingling over the refreshments. Later that day, many participated on campus for orientation sessions and campus tours.

That evening, CVS Caremark sponsored a dinner in honor of the new students at the elegant Hilo Yacht Club, with striking views of the Pacific Ocean and plenty of food on several buffet stations. Students, parents and faculty all expressed appreciation to CVS for making the evening a memorable event.

Other events throughout the week included New Student Convocation in the UHH Performing Arts Center as well as lectures on pre-assessment, library resources, the student handbook, professionalism and time management. New students heard from student organizations, including UH Hilo Student Association (UHSA), Academy of Managed Care Pharmacy (AMCP), American Pharmacist Association – Hawai'i Student Chapter (APhA), Phi Delta Chi Professional Pharmacy Fraternity, National Community Pharmacy Association (NCPA), Hawai'i Student Society of Health-Systems Pharmacists (HSSHP) and officers of Rho Chi Pharmacy Honors Fraternity.



Class of 2015

College of Pharmacy to team with local teachers to help build Hawai'i



Front Row: Janice Harvey, Dr. Ken Morris, and Superintendent Valerie Takata led the session informing principals and administrators about the new workshops.

A collaboration between the Hawai'i Department of Education and UH Hilo's College of Pharmacy (CoP) should result in more students understanding engineering concepts and possibly choosing careers that will help build a better Hawai'i. The program will be funded through the National Science Foundation Engineering Research Center on Structured Organic Particulate Systems (NSF-ERC-SOPS), with UH Hilo as an outreach partner.

As a first step, CoP Dean John Pezzuto greeted 26 principals and administrators from the Hilo-Laupahoehoe-Waiakea Complex at the College of Pharmacy classroom on UH Hilo campus for a leadership session Friday, August 12.

Dr. Ken Morris, professor of pharmaceutical sciences, presented them with a plan for workshops to help their teachers by providing tools they need to inspire students to look into engineering careers. If successful, the plan is to offer the workshop to all Big Island school complexes.

"Engineering represents a huge

opportunity to address many issues on the Big Island from energy generation to the observatories, to roads and bridges," Dr. Morris said. "K-12 students could benefit from more exposure to these concepts so they can get excited about careers in these important developmental fields. Teachers who teach science, technology, engineering and math, also known as the STEM disciplines, are key to communicating that excitement."

Under the leadership of Complex Area Superintendent Valerie Takata, schools will be invited to nominate one or two STEM faculty members for a one-week STEM Training workshop to be offered on campus in December and January. The course will combine classroom instruction with hands-on laboratory exercises that focus on understanding engineering concepts and methods.

"I am confident that our educators will want to take advantage of this exciting chance to learn about an area that has the potential to strengthen the Hilo community," Ms. Takata said. "Partnerships are key, and I'm so

impressed with everything the UHH College of Pharmacy has done in such a short time."

A key partner that is connecting CoP with local school administrators is the Hawai'i "Journey through the Universe" project at the Gemini Observatory. Ms. Janice Harvey, Community Outreach and Education Programs Leader, is advising and linking the CoP driven effort with her network after 8 years of collaborative projects with the school system.

"We are very proud of the 'Journey through the Universe' project, which is one of only 10 in the nation and completely self sustaining," Ms. Harvey said. "That's what makes working with the UHH College of Pharmacy exciting. We're all working to help Hilo recharge. We know our success is based on STEM education. It's all about the kids."

Dr. Morris, who is a highly published researcher in pharmaceutical materials science, process modeling and control, and dosage form design, will be the instructor for the workshop. Dr. Anthony Wright, chair of the Ph.D. program for the College of Pharmacy and a highly published scientist in marine pharmaceutical natural products will also be involved. In addition, Dr. Raj Dave, Distinguished Professor of Engineering at New Jersey Institute of Technology (NJIT) will be both an instructor and advisor for the college on the engineering specific content of the workshop.

Professor Henrik Pedersen, the ERC-SOPS Education and Outreach director from Rutgers University, will be the ERC assessment lead and UH Hilo Interim Vice Chancellor for Research and Outreach. Dr. Dan Brown will be the coordinator for the project at UH Hilo.

High School students from Na Pua No'eau learn about pharmacy

Forty-one native Hawaiian children in grades nine through twelve had the opportunity to hear talks from College of Pharmacy faculty and participate in lab demonstrations July 14 on the UH Hilo campus. The visit was part of the two-week "Learning Opportunities in Medicine Institute" at the Na Pua No'eau Center for Gifted and Talented Hawaiian Children.

Dr. Susan Jarvi, Pre-Pharmacy Program Director, who helped establish the half-day event with Dr. David Sing, Director of Na Pua No'eau, said their intent was to give the youngsters a look at what it would be like to become a pharmacy student.

"We hope we can inspire them to study pharmacy, but our goal is primarily to give them an introduction to labs and encourage critical thinking about science and all STEM fields, which includes technology, engineering, and mathematics," Dr. Jarvi said. "In fact, a career in pharmacy encompasses all those areas. We can offer exposure that they can't get anywhere else in Hawai'i."

After an introductory lecture about research and natural medicines, the students were able to participate in hands-on demonstrations related to chemical extraction and medicinal uses of plants. They also studied cancer cells using fluorescent microscopy and learned how to make a lotion at College of Pharmacy laboratories.

"We split them into four groups of 10 so we could pack as much information into the time we had allotted as we could," said Dr. Linda Connelly, Assistant Professor in the College of Pharmacy who coordinated the visit along with Pre-Pharmacy Advisor Tina Phifer and STEP Project Specialist Hi'iaka Kahalewai. "These students were so receptive, asking lots of good questions. Their enthusiasm was contagious."

The high school students were chosen to participate in a variety of course offerings in the Na Pua No'eau program, which includes traditional academics, sciences, visual arts, leadership and Hawaiian culture. This is the second year that faculty, post-doctoral fellows and students from the College of Pharmacy have participated in the Na Pua No'eau summer program.

"Students come from different communities, backgrounds and schools within the State of Hawai'i as well as from out of state with one common factor - they are all Hawaiian," said Dr. Sing, also a native Hawaiian who has been on UH Hilo faculty since 1974 and was recently awarded Educator of the Year by the National

Indian Education Association (NIEA). "We're so happy to be able to partner with pharmacy faculty to give our keiki every chance at success that they deserve."

Na Pua No'eau is a center within the University of Hawai'i, with centers on all islands through the UH system with its headquarters at UH Hilo. The Institute is part of a health careers pathway initiative to increase the number of Hawaiian and local students to be better prepared, interested and become viable candidates for the UH Hilo College of Pharmacy, UH Hilo Nursing Program and UH School of Medicine.

UH Hilo's College of Pharmacy, launched in 2007, is the only school in the Pacific region to offer a doctorate in pharmacy degree, or a PharmD, as well as a PhD in Pharmaceutical Sciences. The College graduated its first group of pharmacists this year in May and was awarded full accreditation from the Accreditation Council of Pharmacy Education in June. With more than 75 faculty and staff, the College of Pharmacy combines experiential training with flourishing research and scholarship opportunities.



CoP postdocs assemble with friendly competition

After receiving a doctoral degree from an institution of higher education, postdoctoral experience is often necessary prior to accepting a permanent position. The population of postdoctoral associates, otherwise known as “postdocs,” within the College of Pharmacy has grown from zero five years ago to 10 a year ago to 17 now. To highlight that growth, the first “Postdoctoral Symposium” was held on the UH Hilo campus June 3.

“Along with our assemblage of incredible PharmD students, the new PhD and MSCP programs, and our achievement of full accreditation, this expansion of research illustrates our steady growth toward excellence,” said Dean John Pezzuto. “Postdocs are extremely valuable contributors to our research enterprise and, with this symposium, they are showing they have the Hawaiian spirit of ‘ohana as well.”

Twelve CoP post-docs presented 15-minute talks throughout the day. First place went to Marco Pieroni, who works in Ghee Tan’s lab. Christoph Eibl from Daniela Guendisch’s lab, took second place, while Amy Park, from Dean Pezzuto’s lab, won third place.

Dr. Helen Turner, Dean of the Division of Natural Sciences and Mathematics at Chaminade University on O’ahu, was the keynote speaker. Dr. Turner is an internationally regarded researcher in molecular immunology. She also is affiliated with the John A. Burns School of Medicine and Department of Microbiology at the University of Hawai’i.

André Bachmann, chair of Pharmaceutical Sciences, introduced the competition.

“It’s important to know how to present ideas,” Dr. Bachmann said.



Postdoctoral associates names, including associated CoP faculty and the name of the university where they received their PhD are:

Back row, left to right: Rohit Mulik (Mahavir Chougule), Poona College of Pharmacy, Bharati University, Pune, India, Christoph Eibl (Daniela Guendisch), University of Bonn, Germany, Matthias Wulf (Daniela Guendisch), PharmD student from the University of Kiel

2nd from back row, left to right: Swapan Pramanick (Bob Borris), Jadavpur University, Kolkata, India, Martin Pagac (André Bachmann), University of Fribourg, Department of Medicine, Switzerland, Li Shen (Dianqing Sun), East China University of Science and Technology, Shanghai, China, Isabelle Tomassoli (Daniela Guendisch), Université de Besancon, France

3rd from back row, left to right: Ben Clark (Bob Borris), The University of Queensland, Brisbane, Australia, Dovi Kelman (Tony Wright), Tel Aviv University, Israel, Ingo Lange (André Bachmann), Universität Erlangen-Nürnberg, Germany

Front row, left to right: Amy Park (John Pezzuto), Ewha Womans University, South Korea, Marco Pieroni (Ghee Tan), University of Perugia, Perugia, Italy, Dana Koomoa-Lange (André Bachmann), Brown University

“You might have the best research in the world, but nobody will hear you unless you know how to talk about it. This competition gives postdocs an opportunity to talk about their research while honing their communication skills.”

Linda Connelly, assistant professor in Pharmaceutical Sciences, organized the symposium along with then-post-doc Dana Koomoa-Lange, who is now an assistant professor in Pharmaceutical Sciences.

“Dr. Koomoa-Lange and I participated in similar presentation competitions while we were postdocs at other institutions,” said Dr. Connelly. “This was an important part of our research training and we wanted our CoP post-docs to benefit from a similar experience. In addition, we wanted to have the competition on the main

campus to introduce some of our research to our colleagues in other disciplines. We look forward to having our new PhD students participate in future symposiums alongside our postdocs.” Postdocs who have joined UH Hilo since the competition include: Kwang Jin Lee (Robert Borris) Inha University, South Korea; Buddhini Samarasinghe (Aaron Jacobs), the University of Glasgow, UK; Zuyue Sun (Eugene Konorev), Jilin University, Hong Kong, Michael Weichhaus (Linda Connelly), Robert Gordon University, Aberdeen, Scotland; Ui Joung Youn, (Leng Chee Chang), Chung Nam National University, Daejeon, Republic of Korea; Xufen Yu, (Dianqing Sun), Shanghai Institute of the Organic Chemistry, Chinese Academy of Sciences.



College of Pharmacy, Marine Science collaboration produces winning senior thesis

Research on Hawaiian macroalgae, or seaweed, conducted with faculty from the College of Pharmacy (CoP) and the Department of Marine Science (MARE), helped a UH Hilo student win a best senior thesis award.

Ellen Kromkowski Posner, from Suttons Bay, Michigan, was awarded the Michelle Hayes Outstanding Senior Thesis Research Award for 2011 from MARE. She graduated this year with a bachelor's degree in marine science, and this summer, she will be

leader at a children's nature camp in Waimea focusing on teaching basic science concepts, respect for the Earth, including native Hawaiian flora and fauna.

The winning thesis was entitled "In vitro antioxidant activities of 30 species of Hawaiian macroalgae using the FRAP assay." A final research paper is in production.

Kromkowski Posner conducted research with Karla McDermid Smith, professor in marine sciences, Dovi Kelman, post-doctoral research associate in pharmaceutical sciences and Anthony D. Wright, associate professor in pharmaceutical sciences.

"Students graduating from areas such as marine sciences are potential future PharmD students or applicants to our new PhD program, so we're pleased to give them the experience of working in our laboratories," Wright

said. "Many discoveries that come from the ocean have the potential for application in the pharmaceutical industry. It is a natural collaboration and we're excited to lead the effort."

Instructors for the MARE thesis course were Department Chair Marta deMaintenon and Assistant Professor Jason Adolf.

"Marine natural products, and the broader field of marine biotechnology, are important and growing fields of marine science in which many of our students are interested," Adolf said. "Collaborations between MARE and Pharmacy will give them flexibility to explore it."

Postdocs show community spirit in Kona Marathon

Four College of Pharmacy postdoctoral associates and visiting researchers ran in the Kona Marathon June 26, and all placed respectably in their age group/division.

Matthias Wulf won 6th place overall (in the full marathon) and 1st place in the Big Island category.

The runners were: Matthias Wulf (Daniela Guendisch's lab), Christoph Eibl (Daniela Guendisch's lab), Marco Pieroni (Ghee Tan's lab) and Martin Pagac (Andre Bachmann's lab).



Some of the runners from the Kona Marathon this summer were (from left) Kristin Chiboucas, Gemini Telescope researcher who ran the 10 K, Christoph Eible, who ran the half marathon, Oxana Eible, UH Hilo student who ran the 5 K, and Martin Pagac, CoP post doc, who ran the half marathon.

CoP welcomes new PhD students



Students who are working on their PhD in Pharmaceutical Sciences are: left to right, Nalini Yadav, Marites Calibuso, Micah Glasgow, Kehau Hagiwara, Susanne Youngren, Mayuramas "Jan" Sang-ngern, Talysa Ogas-Hoover

The first cadre of PhD students are quickly assimilating into the College of Pharmacy 'ohana this fall.

The doctorate in pharmaceutical sciences is the first program of this type to be offered by the University of Hawai'i, and the only program of this nature to be offered in the state of Hawai'i and the Pacific region. Out of 20 potential students, seven were accepted to become the inaugural PhD students at UH Hilo.

They are:

Marites Juan Calibuso, who was born in the Philippines but moved to the Big Island when she was 13 years old, received two bachelor's degrees from University of Hawai'i at Hilo, one in Cell Molecular Biology and the other in Chemistry. She was convinced to

come to UH Hilo because it is "closer to home and familiarity with the university."

Micah David Kealaka'i Glasgow, born and raised in Hilo, Hawai'i, received a bachelor's in biology with a cell and molecular track from UH Hilo. He said he chose to stay in Hilo "because of the atmosphere rich in diversity and knowledge that makes UH Hilo home."

Kehau Hagiwara, from Hilo, Hawai'i, received her bachelor's degree from UH Hilo in Marine Science with a minor in chemistry. She decided to stay at UH Hilo because "the UH Hilo CoP PhD program focus fit my interests the best."

Mayuramas Sang-ngern, from Thailand, with a bachelor's in chemistry from Rajabhat Suratthanee University, Thailand and a master's degree in pharmaceutical chemistry and phytochemistry from Mahidol University, Thailand. She said, "The PhD program in Pharmaceutical Science

convinced me to be here because that related to my field of work, cosmetic field."

Talysa Ogas Hoover, originally from Los Lunas, New Mexico, received a bachelor's degree from The New Mexico Institute of Mining and Technology with a major in biology and a minor in chemistry. She said she decided to come to UH Hilo "to pursue my dream of becoming a research-oriented scientist in a university that offers both experience and opportunity."

Nalini V. S. Yadav, originally from Warner Robins, Georgia, received a bachelors of science in biology and a bachelor of arts in mathematics from Mercer University in Macon, Georgia as well as a Master of Science degree in biotechnology from Fort Valley State University in Fort Valley, Georgia. She said, "I've always been very interested in medicines from natural sources."

Susanne Rose Youngren, from Merrillville, Indiana, received a bachelor's in pharmaceutical sciences with a specialization in industrial and physical pharmacy, with chemistry and statistics minors from Purdue University's College of Pharmacy. She chose UH Hilo for "the opportunity to be mentored by top-notch scientists on how to conduct quality research. Another reason: not having to deal with snow for at least four years!"

New Faculty and Staff

Jennifer Aguiar, Assistant Clinical Education Coordinator, maintains student health records and certifications for rotation requirements and student entry. She also assists Lara Gomez in setting up the experiential rotations for pharmacystudents, creating rotation schedules, and following up on site requirements. Born and raised in Hilo, Jennifer worked at KTA Super Stores for 10 years before joining CoP. When not at work, she enjoys spending time with her family and loves to be in the water, either ocean or pool.

Ana Sofia Barrenchea, Student Services Specialist provides support to student organizations and alumni. Prior to joining CoP, Ana worked as Assistant Director of Leadership Development Programs at Virginia Polytechnic Institute and State University (Virginia Tech). She likes to try out new restaurants and go to the beach.

Dana-Lynn Ko'omoa-Lange, Assistant Professor, Pharmaceutical Sciences, is the coordinator and lecturer for the Integrative Therapeutics III this fall and will coordinate and lecture the PhD section of Biochemistry in the spring semester. Dr. Ko'omoa-Lange is a mentor for an undergraduate UH Hilo pre-pharm student and is involved in the UH Hilo Na Pua No'eau Program. She is part of the UH Hilo Hawaiian Leaders group, and part of the UH Hilo Diversity committee serving the Chancellor regarding diversity issues. She serves on three different CoP committees and her main research

project involves integrating Biophysical, Molecular, Biochemical techniques in a Cancer research project elucidating the interplay between calcium signaling and signal transduction pathways in tumor progression. Before coming to CoP as a postdoctoral associate working with Dr. André Bachmann, she was at the Cancer Research Center of Hawai'i, now the UH Cancer Center. Originally from Honolulu, her interests include Hula, martial arts, camping, helping to mentor young Native Hawaiian students and increasing diversity in STEM fields.

Paula Zeszotarski, Assessment Coordinator, manages assessment activities such as course evaluations, assessment of student learning outcomes, and other activities related to accreditation. Paula worked in the Office of the President at the University of California in Oakland before coming to Hilo. Born in Pennsylvania, she lived in California for the past 20 years. Activities she enjoys are walking, hiking, cooking, knitting, embroidery and paper crafts.



John Pezzuto, dean of the College of Pharmacy (center) welcomes new CoP members (l-r): Paula Zeszotarski, Ana Barrenchea, Dana-Lynn Ko'omoa-Lange, and Jennifer Aguiar. (Photo by John Oshima)

Research on cardiovascular complications of anticancer therapy promising

By Eugene Konorev

One of the research directions in our lab is cardiovascular complications of anticancer therapy. The development of novel cancer treatment in the past decade has dramatically improved the prognosis of cancer patients. Certain types of cancers are or will become in the near future manageable diseases, similar to other chronic conditions. Patients with cancer live longer now, while the disease is controlled with modern medications. It especially applies to young cancer survivors since childhood cancers generally have much better outcomes. In many cases we start seeing the situation when complications of anticancer therapy, especially cardiovascular complications, might be of greater risk to patients than the malignancy itself. If cancer is effectively controlled, then prevention or treatment of associated cardiovascular complications will likely become a primary concern.



Dr. Eugene Konorev examines cardiac microvasculature in his lab.

For several years I have been involved in studies of cardiovascular complications of doxorubicin and other anthracycline antibiotics. It has been known for decades that doxorubicin causes the development of cardiomyopathy. Doxorubicin cardiomyopathy responds poorly to therapy and often progresses to fatal congestive heart failure. We and others focused on cardiomyocytes, the contractile cells in the heart, as primary targets of doxorubicin. In my INBRE project that was funded last year, I am testing the hypothesis that doxorubicin will have deleterious effects on cardiac microvasculature. Heart is a highly aerobic organ and may be vulnerable to microvascular defects caused by doxorubicin. We are studying therefore effects of doxorubicin on primary human cardiac microvascular cells and their ability to form vessels in the in vitro co-culture system. We will be also studying the role of microvascular changes

in the development of doxorubicin cardiomyopathy using in vivo mouse model.

We believe this project will help optimize cancer chemotherapy with doxorubicin. Additionally, we will obtain new information regarding the mechanisms of development of doxorubicin cardiomyopathy that will likely be applicable to other forms of dilated cardiomyopathies. Assays and approaches developed in these studies will be used to mechanistically evaluate angiogenic action of other natural products, to screen natural product libraries for potent pro- and antiangiogenic compounds, and to design novel agents and approaches to the treatment of cardiac and neoplastic conditions.

NIH grant will further TB research in Dianqing Sun's lab

By Dianqing Sun

Dr. Dianqing Sun, Assistant Professor of Pharmaceutical Sciences at UH Hilo College of Pharmacy, was awarded a three-year grant for \$406,257 from the National Institutes of Health (NIH) for his research entitled "Development of Piperidinols and Engelhardiones as Novel Antituberculosis Agents." This Academic Research Enhancement Award (AREA R15) grant was supported from the National Institute of Allergy and Infectious Diseases (NIAID).

Tuberculosis (TB) is a contagious airborne disease caused by a deadly bacterium pathogen called *Mycobacterium tuberculosis*. TB is the second leading infectious disease in the world and remains one of the biggest public health problems in the 21st century. According to the World Health Organization (WHO), it is estimated that about a third of



the world's population are latently infected with TB bacteria, almost 2 million people die from this deadly disease annually. Notably, no TB specific drugs have been discovered since the introduction of Rifampin 40 years ago. In particular, due to the emergence and evolution of drug resistant *Mycobacterium tuberculosis*, there is an urgent need to discover new chemotype TB drugs with novel mechanism of action and low toxic properties.

In this proposal, by employing high-throughput screening (HTS) hits guided and natural product inspired approaches, we aim to develop small molecule piperidinol and natural product Engelhardione based analogues as novel antituberculosis agents. From this study, I hope to identify promising candidates with potent in vitro activity and low toxicity for advanced in vivo efficacy and toxicity studies. Furthermore, development of these novel anti-TB agents may have the potential to overcome the cross resistance with current clinically used TB drugs. As I noted in the summary statement from the NIH study section:

"The significance of this application resides in its high potential to identify novel compounds that may be suitable for future development of ant-TB therapeutics. Enthusiasm is expressed with respect to the significance of the research, the high potential to train students, the strong publication record of the investigator and the excellent environment."

Our previous research, that was made possible through the INBRE grant, has allowed us to be successful in receiving this grant. We are fortunate and grateful to receive this award. It enables us to continue carrying out this anti-TB drug discovery mission to combat this deadly disease. And this funding will also provide opportunities for postdoctoral scholars, graduate students, and undergraduate students to participate in meritorious biomedical research.



Hawaii's History Impacts Future Health Care Practitioners

By Liz Heffernan

Rich in a profound and tragic history, breathtakingly beautiful and permeated with the inspiration of the resilient human spirit, Kalaupapa is a place unlike any other on the planet. For more than 100 years, Kalaupapa was the home of over 8000 Hansen disease patients living in forced exile, torn away from their families and communities. Today Kalaupapa is a national historic park with only 11 patients left in residence.

In March of 2011, an expedition comprised of 18 student pharmacists and two faculty members traveled to Kalaupapa, Moloka'i to visit the settlement. This excursion was made possible through a generous donation from Walgreens earmarked for a diversity initiative. Prior to departure, the students were required to invest a considerable amount of time preparing a well-researched paper discussing the effects Hansen disease had on the culture of Hawai'i. Upon their return, the students presented their insights to their classmates.

Studying the historical context of Hansen disease in Hawai'i was unforgettable and transformational. Students came away with a much deeper understanding of how the intricate panorama of political influences, economics, culture, disease, history and geography all interplay to contribute to health policy and the delivery of health care. The impact of Kalaupapa as a prison was tangible as they hiked three miles down some of the steepest sea cliffs in the world descending over 1700 feet. Reading the strikingly honest



patient testimonials reinforced for these student pharmacists the need to be sensitive towards others, intentional with their use of language, compassionate, empathetic and open-minded while interacting with patients. The trip itself allowed the student's knowledge and insights gained from their research to resonate on a sensate level as they walked in the footsteps of such a profound history.

(Editor's Note: Hansen's disease also is called leprosy.)

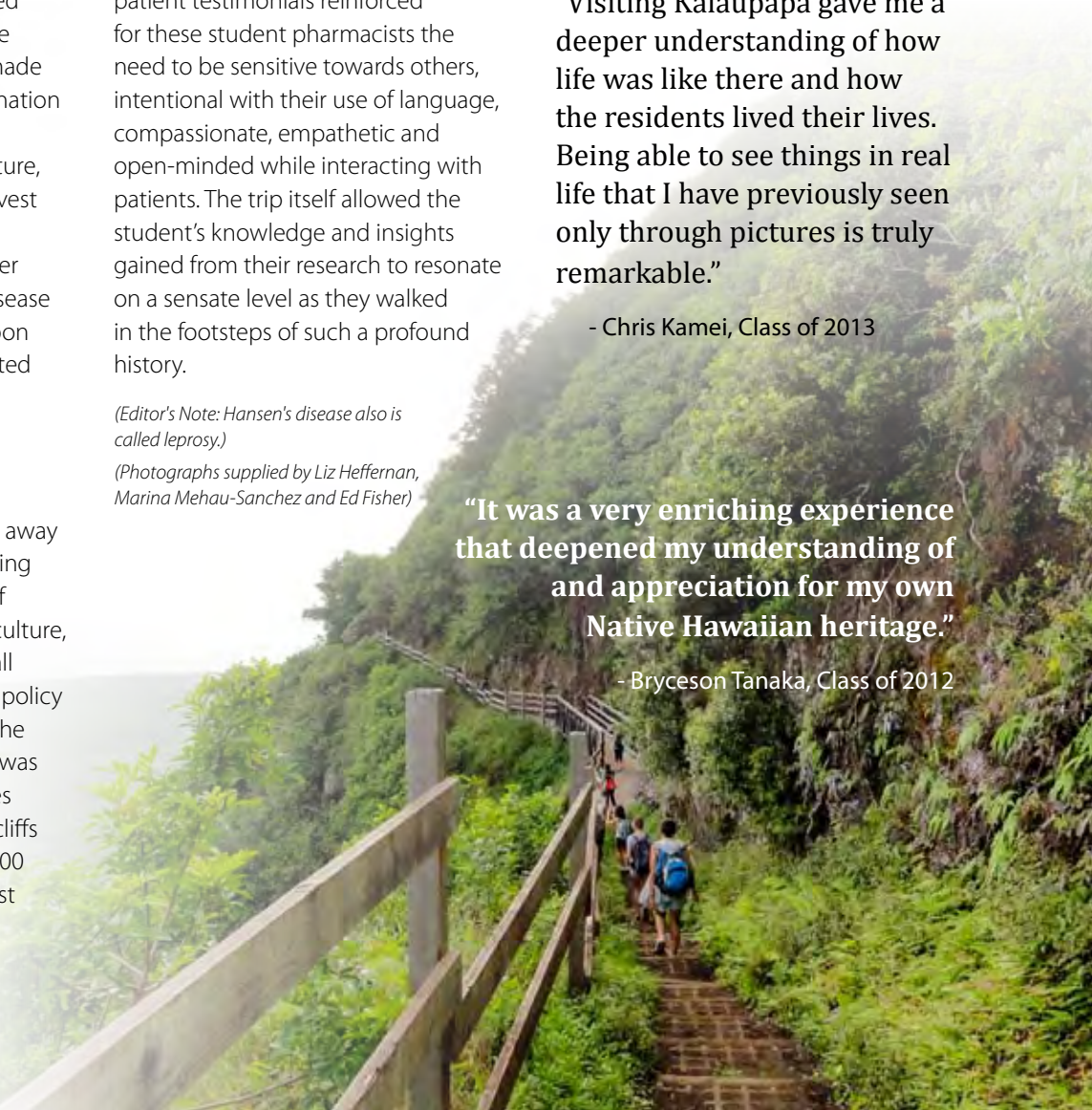
(Photographs supplied by Liz Heffernan, Marina Mehau-Sanchez and Ed Fisher)

"Visiting Kalaupapa gave me a deeper understanding of how life was like there and how the residents lived their lives. Being able to see things in real life that I have previously seen only through pictures is truly remarkable."

- Chris Kamei, Class of 2013

"It was a very enriching experience that deepened my understanding of and appreciation for my own Native Hawaiian heritage."

- Bryceson Tanaka, Class of 2012



“Learning the impact that disease had in Hawaii’s history is an inspiring motivation to play a strong role in Hawaii’s health care system today.”

– Dan Hu, Class of 2012



“Visiting the settlement has given me insight into a bit of Hawaiian history and the treatment of patients with Hansen’s disease. Through our visit, I was able to learn what life may have been like for individuals affected under these unique circumstances and the cultural implications of isolation of these patients. Understanding the cultural impact of treatment modalities is extremely important for a future pharmacist because we may encounter many diverse patient populations through the span of a career.”

– Tina Marrie McDonald, Class of 2013



“This trip to Kaluapapa provided me a new perspective about Leprosy and the injustices patients suffered and continue to endure due primarily because of lack of public education and awareness. In reflection, I have come to recognize that the travesty of Kalaupapa unfortunately mimics in many ways the treatment of patients inflicted with a number of different disease states such as HIV. Consequently, my time on Molokai has made me a more astute and compassionate healthcare provider.”

– Marisa Kaluhiokalani, Class of 2012



“An important lesson that I learned from Kalaupapa is to always remember that patients are people first and foremost and should be treated as such.”

William Engen, Class of 2013

Spring Fling 2011!!!

In April, 2011, the College of Pharmacy celebrated the season with a Spring Fling, held on the grounds of Hawai'i Community College, complete with dunk tank, booths manned by student organizations, refreshments, games and award announcements.

First Year students named Dr. Leng Chee Chang in Pharmaceutical Sciences and Dr. Forrest Batz in Pharmacy Practice their Teachers of the Year.

Second-year students voted their Teacher of the Year awards to be presented to Dr. Dianqing Sun in Pharmaceutical Science and Dr. Anita E. Ciarleglio in Pharmacy Practice.

Third-year students voted Dr. Daniela Guendisch in Pharmaceutical Science and Dr. Carolyn Ma in Pharmacy Practice as their Teachers of the Year.

Also awarded were the following preceptors:

IPPE Preceptors of the Year: Miles Nakatsu, RPh, Ululani Pharmacy and Charlotte Grimm, APRN, Bay Clinic Hilo

APPE Preceptors of the Year: Kara Parsons, PharmD, Queens Medical Center and Susan Eade-Parson, PharmD, Tripler Army Medical Center.

Dean Pezzuto provided the entertainment.



Photos by
Shannon Amidon Castille

Merrie Monarch Parade



On a bright, sunny day in April, dozens of College of Pharmacy students, pre-pharmacy students and several faculty showed their pride in their school and community by marching in the annual Merrie Monarch Royal Parade. It's all part of the annual Merrie Monarch Festival, Hilo's premier event that draws a crowd from all over the world to enjoy the art of ancient and modern hula and learn about Hawaiian culture. CoP has been represented in the parade since 2008.

Faculty Briefs

Mahavir Chougule, Assistant Professor, Pharmaceutical Sciences, was awarded a grant from the Hawai'i Community Foundation (HCF) entitled "Targeted Nanocarriers of siRNA for the Treatment of Asthma". The total award amount of this 18-months award is \$35,000. Dr. Chougule also published "Antitumor activity of noscapine in combination with Doxorubicin in triple negative breast cancer" in *PLoS One*. Co-authors were A. R. Patel, T. Jackson, and M Singh.



Linda Connelly, Assistant Professor in the Department of Pharmaceutical Sciences, was awarded a grant for \$50,000 for a year from the Robert C. Perry Fund from the Hawai'i Community Foundation to study "The role of endogenous osteoprotegerin expression in breast cancer metastasis."

Deborah Juarez, Associate Professor, Pharmacy Practice, published: 1) "Adherence With Lipid-Lowering, Antihypertensive, and Diabetes Medications" in *Am J Pharm Benefits*. Co-authors were Davis JW, Fujimoto RY, Chan H. 2) "Heart Failure Patients Receiving ACEIs/ARBs Were Less Likely To Be Hospitalized Or To Use Emergency Care In The Following Year" in *Journal for Health Care Quality*. Co-authors were Chen JY and Kang N. 3) "Does Pay-for-Performance improve cardiovascular care in a 'real world' setting?" in *Am J Med Qual*. Co-authors were Chen JY, Tian H, Yermilov I, Braithwaite RS, Hodges KA, Legorreta A, and Chung RS. Dr. Juarez also was an invited speaker at the NIH-sponsored Filipino Cardiovascular Disease Summit in Washington, D.C., July 7-8, 2011. Her talk was entitled "Antihypertensive Medication Adherence among Filipino and Asian Americans."



Patricia Juszczak, BPharm, RPh, Clinical Education Coordinator in Pharmacy Practice, was granted Pharmacy-Based Immunization Delivery Faculty Trainer Certification in August after successfully completing the American Pharmacists Association training program.

Eugene Konorev, Assistant Professor, Pharmaceutical Sciences, presented research entitled "Antiangiogenic effect of doxorubicin on human cardiac microvascular endothelial cells does not result from the reduced vascular endothelial factor production" at the American Heart Association Basic Cardiovascular Sciences 2011 Scientific Sessions, July 18-21 in New Orleans.



Ken Morris, Professor, Pharmaceutical Sciences, was the co-editor of a special issue of the *International Journal of Pharmaceutics*. The topic was "A-priori Performance Predictions in the Pharmaceutical Sciences" and he also co-authored the editorial in the June edition with co-



authors were Bruno C. Hancock from Pfizer Inc. and Peter Wildfong from Duquesne University. Dr. Morris and other UH Hilo collaborators authored one of the articles in the issue entitled "Anisotropic Crystal Deformation Measurements Determined using Powder X-Ray Diffraction and a new in

situ Compression Stage." Dr. Morris also spoke to the Hawai'i Island Economic Development Board at the 2011 Hawai'i Island Renewable Energy Solutions Summit August 11 at the Outrigger Keauhou Beach Resort. Dr. Morris talked about the renewable energy aspects of an undergraduate engineering program being explored at UH Hilo.

Dianqing Sun, Assistant Professor, Pharmaceutical Sciences, and his Postdoctoral Associate, Li Shen, published a paper entitled "Total Synthesis and Structural Revision of Engelhardione" in *Tetrahedron Letters* 2011. Dr. Sun also gave an invited talk, "Natural Product-inspired Novel Antimicrobial Agents" at the BIT's Second Annual International Conference of Medicchem (ICM-2011) held August 9-11, 2011 in Beijing, China. He served as Chair of Microbiology and Medicinal Chemistry Session at this meeting.



Ghee Tan, Assistant professor in Pharmaceutical Sciences, presented "The anticancer properties of the fungal endophytes of *Morinda citrifolia* Linn" at the 27th International Symposium on the Chemistry of Natural Products/7th International Conference on Biodiversity, Brisbane, Queensland, Australia, July

10-15, 2011. Co-authors were Sisay Girmay, Crispin Duncan Sesaazi, Chad Higa, and Brian Perry. She also presented "Synthesis and structure-activity relationships of unique lansine analogs as anti-malarial agents. 51st ICAAC" at the

Interscience Conference on Antimicrobial Agents and Chemotherapy in Chicago September 17-20, 2011. Co-authors were Marco Pieroni, Sisay Girmay and Dianqing Sun.



Ron Taniguchi, Interim Chair Pharmacy Practice and Director of Community Partnerships, was elected to the Board of Directors of the Hawai'i Health Information Exchange (HIE) on July 1, 2011 for a three-year term.

Supakit Wongwiwatthananukit has been promoted to Associate

Professor of Pharmacy Practice, effective August 1, and has been awarded full tenure at UH Hilo, effective July 1.

Anthony D. Wright, Associate Professor in Pharmaceutical Sciences and Director of the Ph.D program in Pharmaceutical Sciences, published "Comosusols A-D, and Comosone

A: Novel Cytotoxic Compounds from the Brown Algae *Sporochnus comosus*" in the *Journal of Natural Products* along with co-authors S. P. B. Ovenden, J. L. Nielson, C.



H. Liptrot, R. H. Willis, A.C. A. Motti, D. M. Tapiolas; "Metachromins U-W: Cytotoxic merosesquiterpenoids from an Australian specimen of the sponge *Thorecta reticulate*" in the *Journal of Natural Products* along with co-authors S. P. B. Ovenden, J. L. Nielson, C. H. Liptrot, R. H. Willis, D. M. Tapiolas, and

C. A. Motti; and "Hawaiian Tea: The relationship between chemical concentrations, tea leaf age, and levels of shade" in *Tropical Resources Bulletin*, a publication of Yale University's Tropical Resources Institute, along with co-authors R. Song, D. Kelman and K. Johns. Dr. Wright also presented a poster at the 241st American Chemical Society meeting in Anaheim, California March 27-31, as well as four posters and an oral presentation at the 52nd Annual Meeting of the American Society of Pharmacognosy in San Diego July 30 – August 4. His research also was presented in a poster at the 23rd International Conference of the World Association for the Advancement of Veterinary Parasitology, Buenos Aires, from August 21-25.

Julie Ann Luiz Adrian, D.V.M., Assistant Professor of Pharmacy Practice, co-authored "Pharmacy and Veterinary Pharmacy Education - Facts and Forecast" that was published in the *Journal of Global Business Development* in June. She presented this as a poster in San Antonio at the American Association of Colleges of Pharmacy (AACCP) meeting with a travel award. The abstract of this paper also won "Best Paper in Academic



Planning" at the Global Business Development Institute (GBDI) International Conference in Las Vegas in March. Dr. Adrian also won a travel award by the Phytochemical Society of North America to attend their conference in December, where she is scheduled to present a poster on "Analysis of Guava as a Forage - Organic Constituents."

Dean John Pezzuto published 1) "Inhibition of lipopolysaccharide-induced cyclooxygenase-2 expression and inducible nitric oxide synthase by 4-[(2'-O-acetyl- α -L-rhamnosyloxy)benzyl] isothiocyanate from *Moringa oleifera*" in *Nutrition Cancer*. Co-authors were Park, E-J., Cheenpracha, S., Chang, L.C., and Kondratyuk, T.P. 2) "Resveratrol derivatives as promising chemopreventive agents with improved potency and selectivity" in *Molecular Nutrition and Food Search*. Co-authors were Kondratyuk, T.P., Park, E-J., Marler, L.E., Ahn, S., Yuan, Y., Choi, Y., van Breemen, R.B., Sun, B., Hoshino, J., Cushman, M., Jermihov, K.C., Mesecar, A.D., and Grubbs, C.J. 3) "Induction of retinoid X receptor activity and consequent upregulation of p21WAF1/CIP1 by indenoisoquinolines in MCF7 cells" in *Cancer Prevention Research* (Phila). Co-authors were Park, E-J., Kondratyuk, T.P., Morrell, A., Kiselev, E., Conda-Sheridan, M., Cushman, M., Ahn, S., Choi, Y., White, J.J., and van Breemen, R.B. 4) "Xuehuanins A and B: Novel Diterpenoids from *Isodon rubescens*" in *Organic Letters* Co-authors were Zou, J., Pan, L., Li, Q., Zhao, J., Pu, J., Yao, P., Gong, N., Lu, Y., Kondratyuk, T.P., Fong, H.H.S., Hongjie Zhang, and Sun, H. 5) "What is new for an old molecule? Systematic review and recommendations on the use of resveratrol" in *PLoS One*. Co-authors were Vang O, Ahmad N, Baile CA, Baur JA, Brown K, Csiszar A, Das DK, Delmas D, Gottfried C, Lin HY, Ma QY, Mukhopadhyay P, Nalini N, Richard T, Shukla Y, Surh YJ, Szekeres T, Szkudelski T, Walle T, Wu JM. 6) "Suppression of Tumor Necrosis Factor- α -Induced Nuclear Factor κ B Activation and Aromatase Activity by Capsaicin and Its Analog Capsazepine" in *Journal of Medicinal Food*. Co-authors were Luqman S, Meena A, Marler LE, and Kondratyuk TP.



Rotation Report: Samoa Summit expands training experience

By Chaz Barit, Class of 2012

On 18-19 of August, 2011, I had the fortunate opportunity to be a participant in the 2nd Bilateral Health Summit of the Independent state of Samoa and American Samoa with focus on combating non-communicable diseases (NCDs). I just wanted to share what I learned and the experience I had along with an overview of the NCD situation in Samoa. Before I go on, I would like to extend to all those in attendance at the summit and those who made it possible for me to attend my greatest sincere appreciation and gratitude.

NCDs are the number one killer worldwide. In most places it is the leading cause of mortality, like here in Samoa. NCDs have become so severe that leaders of both the Independent state of Samoa and American Samoa have joined forces together to find solutions to the growing problem. People in Samoa are being significantly impacted from complications of the NCDs along with NCDs being a burden to the health systems and governments. For this reason, NCDs such as diabetes, heart disease, hypertension, cancer and stroke has become the top health priorities.

The cause of the rising development of NCDs in Samoa is multi-factorial. Underlying determinants play a big role in the development of NCDs. These determinants include the globalization, urbanization, and social development. In Samoa, common and intermediate risk factors such as diet, physical activity, tobacco use, and obesity are very high and also contribute to NCD development. Increased health expenditures and reduced productivity caused by NCDs, along with low education and economic deprivation creates an



Fourth-year CoP student Chaz Barit stands with Evelyn Ahhing-Faaiuasoa, PharmD, pharmacist preceptor at LBJ Tropical Medical Center in Samoa.

environment for a higher prevalence with greater severity of NCDs here in Samoa.

During the summit, presentations on the current issues and status of NCDs in Samoa were presented. Data presented from the STEPS survey done in American Samoa were alarming. From the survey, the average BMI in American Samoa participants was 34.9Kg/m² and 30% of adults reported that they smoke daily. The American Samoa survey also found 52.3% of males and 42.4% of females living with diabetes. In the Independent state of Samoa, the prevalence of obesity in males and females is >80% on the island of Savai'i. On the island of Upolu, the prevalence of obesity is 77% in males and 90% in females. Though the high percentage of obesity, diabetes was reported low at 22% in all surveyed participants from Savai'i and Upolu.

The troubling situation of NCDs has been ongoing and both Samoan governments have been working independently to handle it. Nutritional programs, physical activity programs, and health programs are just a few examples of what's being done. However, both Samoan governments have different approaches and methods in regards to the response to NCDs. This Summit provided a network opportunity of learning and sharing ideas from both governments while at the same time being exposed to the severity of NCDs in the islands.

A breakout session was done to analyze strengths and weaknesses of current responses by both governments. The sessions also developed plans and ideas for improving or implementing responses

and solutions. Some of the ideas mentioned that focused on primary prevention were creating more government support programs, increasing NCD awareness, improving health promotion in the schools/community, and promotion of physical activity and healthy dieting. Ideas for treatment and secondary prevention included providing support groups for patients, education of NCD complications, and increasing compliance through various means.

Through this summit, held August 18-19, 2011 in Apia, Samoa, a joint bilateral resolution was made. A declaration of an emergency crisis of NCDs in both American Samoa and Samoa has been resolved from all participants and signed by the Palanitina Tupuimatagi Toelupe (Director General of Health Samoa) and Seiuli Elisapeta Ponausua (Director of Health American Samoa). The resolution not only declares a crisis, but further resolves other issues pertinent to continuing the combat of NCDs in Samoa.

I hope for the best that this resolution will be recognized on a national level and worldwide so that funds and support can be directed to Samoa to ease the process and transition into the healing phase of the islands. Funding has been a major limitation in combating the NCDs. The Samoan people are innovative, creative, and strong willed. While they wait for support, they will be hard at work combating NCDs with the resources they have. It is going to

Summit – continued on page 21

New residents with UH Hilo College of Pharmacy begin work on Maui



New pharmacy residents include (left to right) Drs. Tehane Ornellas, Christina Mnatzaganian and Erika Miyahira.

(University of Arizona CoP 2011). Their first task has been to plan the opening of a Cardiovascular Risk Reduction clinic (CVRR) in Makawao, Maui at The Makawao Town Pharmacy.

The recent pharmacy graduates also are traveling to various locations across the state, including Molokai,

Kauai, the Big Island, and Maui, in order to give educational seminars. This project is funded through a grant from the United States Department of Agriculture (USDA,) which has focused funding on improving the health and safety of older adults in rural areas across America.

“Our goal of establishing and maintaining a CVRR clinic is to

prevent and reduce occurrences of cardiovascular events on Maui by working in collaboration with primary care providers,” said Dr. Ornellas. “This includes reduction in rates of myocardial infarction (MI), stroke, angina, and coronary heart disease.”

The residents will also be providing patient education for diabetes, asthma, hyperlipidemia, hypertension, and other chronic disease states.

“We are very enthusiastic and focused on continuing to be a positive influence within the community,” said Dr. Miyahira. “We are hoping to expand the program through residency opportunities across the state.”

This is the second year the College of Pharmacy has sponsored residents on the island of Maui. Pharmacists acquire specific training in health care settings at the UH Hilo residency program.

Three new pharmacy residents from the University of Hawai'i at Hilo College of Pharmacy have been making positive impacts within the community by working out of Maui Clinic Pharmacy.

Current residents are Tehane Ornellas (UH Hilo CoP Class of 2011), Erika Miyahira (UH Hilo Class of 2011) and Christina Mnatzaganian

Summit

– continued from page 20

take effort from all points of influence such as government leaders/officials, health care providers, public/private organizations, communities, and faith based organizations. The Samoan people have a rough road ahead of them but working together will make it all the easier to combat the NCDs. I am very humbled to have

had the opportunity to experience the cooperation between two governments in resolving a common issue through this summit. As best stated by the Governor of American Samoa and a prime example of the collaborative efforts being done, I quote, “though our governments differ, we are still one Samoa.”



Fourth-year student **Holly Svec** gave three presentations to youth at a 2011 Summer Youth Camp while on rotation in Saipan. The theme was “Promoting Health & Cultural Awareness in Our Youth.”

Photo by Rich Henderson

Mark your calendars

- **December 16-18:** CE class “Treatment of the Consequences of Substance Abuse and Addiction” with speaker Dr. Edward Fisher. Register at <http://uhhpharmace.uhhconferencecenter.com/>