

# Prescriptives

School of Pharmacy News

## School of Pharmacy Establishes Compounding Competition

By: Megan Zabilansky

On November 8, the School of Pharmacy held its first Compounding Competition which provided students with a great opportunity to become involved in the pharmacy compounding industry.

The event was sponsored by the University of Florida, Medisca, as well as Gene Gresh of Pioneer Health and Mike Roberge of Compounded Solutions in Pharmacy, LLC, both practicing pharmacists. Gresh and Roberge also judged the competition alongside Dr. Robin Bogner, associate professor in the Department of Pharmaceutical Sciences.

Thirty students, mostly P1-P3s, were divided into teams of three. They were required to complete three, sixty minute segments: regulatory compliance, clinical practice, and formula design.

"The hardest part of the event was the time constraint," said Karolina Prytulo, a P3 student. "Students had one hour to not only prepare three compounds but also document them. This was truly the 'iron chef' of compounding."

Prytulo coordinated the event with the help of the Pharmacy Leadership Society Phi Lambda Sigma. She remarked that she wanted to get involved in this competition "to make leaders of our students so that they may go on to be the future faces of pharmacy."



Doctor of Pharmacy students compete in the school's Compounding Competition held in the Boehringer Ingelheim Pharmaceuticals, Inc. Dosage Forms Laboratory.

"I think it is important to be involved in the pharmacy profession and particularly in my own school," said Prytulo. "I truly love community pharmacy and compounding is an integral part of it."

Advanced Compounding is offered at the School of Pharmacy as an elective for P2 and P3 students. Dr. Bogner, the course instructor, stated that this course encourages students to learn from their mistakes, to gain confidence with their techniques, and "to think creatively and improve patient care as they become active compounding pharmacists."

## A Message from the Dean



Dear Friends:

As the spring semester comes to a close, it is always a time for reflection. We bid goodbye to another class of graduates and wish them well as they take the first steps on their professional journey. Each year, before we rise to leave the Commencement Ceremony, I tell the graduating class the same thing, "We will do everything we can to prepare you to be a competent, caring pharmacist; we ask but three things of you. First, work hard, give us your full effort. Second, be honest in all you do. Third, care, about your profession, your school, your faculty, each other, and, most importantly, your patients. Hard work, honesty, caring...they are as important qualities for new graduates as they are for new students. I hope you will use them as the basis for your professional, and perhaps your personal, life. We are proud of you. I hope you will always be proud to be a graduate of the University of Connecticut School of Pharmacy."

As I pondered these words, this year, it occurred to me that they are worth repeating to our alumni. We, here at the UConn School of Pharmacy, are proud of you and your successes. Your professional and personal accomplishments reflect well upon us, just as our growing national reputation can make you proud to be a Husky Pharmacist. Everyday we hear stories of our alumni making us proud in a variety of pharmacy practice settings

# Focus on Faculty: Debra Kendall, Head of the Department of Pharmaceutical Sciences

Debra Kendall, Ph.D, always knew that she wanted to go into scientific research. “Even in elementary school I had a lot of science books available to me and I was always bringing them to school to show the teacher.”

Dr. Kendall pursued her keen interest in science at Smith College and received a Bachelor of Arts in biochemistry in 1977. She earned her Ph.D. in 1983 from Northwestern University and completed her postdoctoral training at Rockefeller University in 1986. She studied peptide synthesis, modeling, and protein structure and was promoted to the rank of assistant professor while she continued to do research in her lab.

In the fall of 1989, Dr. Kendall joined the University of Connecticut as assistant professor in molecular and cellular biology in the College of Liberal Arts and Sciences. “This university offered the opportunity for interdisciplinary work, and there was a great breadth in the combination of fields here, from geneticists to people interested in protein structure,” commented Dr. Kendall. Her research was awarded an individual NSF Career Advancement Award and the NIH grant that she transferred from Rockefeller has been continuously renewed.

While carrying out her research program she served as the elected chair of the University Senate Executive Committee. Recently she spent four and a half years as associate dean for Research and Graduate Education.

Now at the School of Pharmacy, Dr. Kendall is a professor of medicinal chemistry and head of the Department of Pharmaceutical Sciences. Her lab is

focusing on the structure and function of membrane-interactive proteins and peptides, including those involved in bacterial protein transport and in mammalian signal transduction via the cannabinoid receptor, a G protein coupled receptor.

Her research in these two systems includes developing the use of polymeric sequences to identify features of signal peptides critical for protein transport and exploring the interaction of signal peptides with key components of the protein translocation channel. She is also mapping the active site of the cannabinoid receptor, defining conformational changes in the transition between inactive and active forms of the receptor, and determining the consequences of receptor desensitization.

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## Dr. Kendall hopes to gain a deeper understanding of how systems work so they can be optimized in health and disease.

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Dr. Kendall explained that in both projects, she hopes to gain a deeper understanding of how the systems work so that they can be optimized in health and disease. “To probe these issues, we employ biochemical, spectroscopic, and cell biological approaches. The lab’s goals are to elucidate the molecular mechanisms of membrane protein folding, protein-protein interactions in a membrane environment and protein trafficking.”

Dr. Kendall has published over 75 papers describing her work and has given numerous invited seminars and lectures. This spring she was an invited speaker at the Delaware Membrane Protein Symposium.



Board of Trustees Distinguished Professor Dr. Debra Kendall brings her research expertise along with her strong University-wide reputation to lead the Department of Pharmaceutical Sciences.

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As part of her funding, Dr. Kendall has two National Institute of Health (NIH) grants, one of which she has had continuously renewed for over two decades. She has also obtained an American Recovery and Reinvestment Act (ARRA) supplement for her work. In addition to this funding, one of the postdoctoral fellows in her laboratory has a NIH National Research Service Award (NRSA), and Dr. Kendall is currently working with a graduate student and another postdoctoral fellow on applications for NIH NRSA awards as well. For more information on Dr. Kendall’s research, visit <http://web2.uconn.edu/kendalllab> ■



University of  
Connecticut

### Contributors:

Elizabeth Anderson, Marcy Balunas, Daniel Buttrey, Bodhi Chaudhuri, Rebecca DeSousa, Mary Ann Dolan, Kristina Kiley, Ellen Kospore, Daniel Leone, Robert McCarthy, Sara Muldoon, and Megan Zabilansky.

Prescriptives, the official newsletter for the University of Connecticut School of Pharmacy and the School of Pharmacy Alumni Association, is published semiannually. Please send comments, news and story ideas to: Elizabeth Anderson, Director of Marketing & Communications, at (860) 486-0847 or via e-mail: [liz.anderson@uconn.edu](mailto:liz.anderson@uconn.edu).

## Compounding

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"In compounding, the students use problem solving, chemistry, material science, and the physiology of the patient," explained Dr. Bogner. "They determine how to best make something for the particular needs of the patient when the manufactured product isn't working. It is very helpful to a lot of people and a very rewarding career as well."

The winning team included Daniel DiMeo, Kevin Keller, and Preston Noon. They traveled to Florida in March to compete with other universities at the national level. As P2 students with limited exposure to compounding, they were both surprised and excited to hear their names announced as winners.

"I thought my group did well but was unsure about the competition," said DiMeo. "The hardest part about the competition was the clinical case portion. I am still limited with the amount of education regarding medication treatment for specific disease states." Regardless, DiMeo noted that his team's "emphasis on procedure and accurate calculations proved to be the winning strategy."

"All three of us-especially Dan [DiMeo]-enjoy Dr. Bogner's

compounding lab and thought this would be fun chance to see how we would fare in a competition against our classmates," added Keller. "We didn't know much about it at first but as we learned more we figured it would be an interesting way to see how our skills and knowledge stacked up."

When asked if they would participate again next year, both DiMeo and Keller replied with a resounding "Yes". "We had a lot of fun, and we'll want to defend our title," said Keller.

As the winning team prepares for its next challenge in the spring, Dr. Bogner notes that "it is important for us to do well in the competition."

"It is a matter of pride for the University of Connecticut because compounding is a part of our rich history; Dr. Henry Palmer [a former clinical professor and associate dean in the School of Pharmacy] made sure compounding stayed in our curriculum at a time when it was diminished in other universities," said Dr. Bogner.

The compounding competition was a great success, providing School of Pharmacy students with the opportunity to apply their knowledge from previous courses, gain new laboratory experience, and become leaders in a field that is essential to community pharmacy practice. ■

## Dean's Message

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and in the pharmaceutical sciences. Many alumni have gone on to receive law degrees, medical degrees, and business degrees and are at the top of their profession.

Here at the University of Connecticut School of Pharmacy, we are preparing leaders in pharmacy and the pharmaceutical sciences. We want to hear your stories and we want you to stay connected to us. Alumni and friends throughout the country are involved with our school in a myriad of ways. Some act as preceptors to our students, some endow fellowships and scholarships, others volunteer in the classroom or attend our continuing education programs, and some join us at football games, receptions at professional conferences, or at the Annual Alumni Awards and Reunion Banquet. Whatever your preference, I encourage you to somehow stay involved with the school.

This year, as our football team celebrated their first appearance in a BCS Bowl Game, our Women's Basketball Team went to yet another Final Four, and our Men's Basketball Team brought home another national championship, it was great to be a Husky. Our students and alumni are also tops in their field.

It's my pleasure each day to represent you to the national and international pharmacy community. I take pride in recognizing the accomplishment our pharmacy family - students, faculty, and alumni. For me, it's easy to be a cheerleader for this wonderful school and its people.

I hope to see you all at the School of Pharmacy Alumni Association's Annual Awards & Reunion Luncheon at the New England Pharmacists Convention on September 15th. ■

## UConn Pharmacy Alumni Association Names Award Winners

The UConn Pharmacy Alumni Association is pleased to announce that, this year, the Annual Awards & Reunion Luncheon will be held at Foxwoods Resort in conjunction with the New England Pharmacists Convention. Join us on September 15, 2011 from 10:30 a.m. to 1:00 p.m. to meet with friends and to honor Richard Gagnon, BS '77, PharmD, Distinguished Alumnus in Pharmacy Practice; Shankar Musunuri, PhD '93, MBA, Distinguished Alumnus in Industry; David Taft, PhD '93, Distinguished Alumnus in Academia; and Diana C. Stanzione and Michael P. Starkowski, Honorary Alumni.

**Save the Date ~ September 15!**

**All alumni are invited to attend and we will  
be recognizing the reunion classes of**

**1951, 1961 (50th), 1971, 1981, 1986 (25th), 1991, and 2001**

# Kinray Helped to Make the Palmer Professorship a Reality

By: Rebecca DeSousa

Kinray, “the largest privately-held distributor of pharmaceutical, generic, health, and beauty products in the world,” donated \$25,000 to the University of Connecticut Dr. Henry A. Palmer Endowed Professorship in Community Pharmacy Practice. The gift was given at the request of Rick Carbray, owner of Apex Pharmacy, UConn School of Pharmacy alumnus, and former student and friend of Dr. Palmer.

“Dr. Palmer was without question ‘Mr. Pharmacy’ in Connecticut for the past 40 to 50 years. Besides academia, he reached out into the community to get people involved,” said Carbray. It was this kind of support, on Dr. Palmer’s behalf, that led to the creation of the professorship, which recognizes his extensive scholarship in community pharmacy and patient care.

Carbray’s relationship with Kinray has developed over the years, as Kinray is the primary wholesaler to Apex Pharmacy. Their focus is on independent pharmacies, and they daily receive a great number of requests for donations. Stuart Rahr, owner of Kinray and a philanthropist, was very receptive to Carbray’s request for a donation to the professorship, as its focus was in community pharmacy.

The \$25,000 donation was an unprecedented success, as donations for this professorships were mostly the result of private donors. “It was unheard of for a corporation to donate,” Carbray noted. In total, the fundraising campaign raised \$830,000 for the endowment, an impressive feat for those involved and a testament to the number of people Dr. Palmer influenced throughout his career.

Prior to his death, Dr. Palmer humbly noted, “More important than personal honor is what this chair means to the School of Pharmacy and how it will impact on pharmacy practice.”

Dr. Marie Smith was recently invested as the inaugural Henry A. Palmer Endowed Professor in Community Pharmacy Practice. Smith is the assistant dean for Practice & Public Policy Partnerships and recently ended her term as the head of the Department of Pharmacy Practice in order to devote more time to her research. Her professional interests include primary care medication safety & adherence, medication therapy management, and collaborative practice. Her continuing impact on community pharmacy practice, as well as her work with Medicaid and the pharmacist’s role in the medical home, were part of her appointment to this professorship.

In an appreciation for his efforts with the campaign, as well as his individual work in pharmacy, Carbray was recently awarded the University of Connecticut Alumni Association’s 2010 Alumni Association Service Award. According to the University of Connecticut website, the award is presented to an alumnus who has consistently provided exemplary service to the University community, enhancing the stature, success, and well-being of the University of Connecticut Alumni Association. “I always knew that I wanted to be a pharmacist,” Carbray said, and his impact on the UConn Pharmacy program has been a resonating one.

Dean McCarthy approached Carbray to help create the endowment in honor of Dr. Palmer, as Dr. Palmer and Carbray had developed a close relationship during Carbray’s time at the UConn School of Pharmacy. Dr. Palmer had been Carbray’s advisor on the UConn School of Pharmacy yearbook, his professor for both Compounding and Over-the-Counter Medications class, and his class advisor in 1975. As a result, Carbray and Dr. Palmer became very close, both as colleagues and as friends. “I was honored to have been asked to be a part of the campaign,” Carbray said, as his relationship with Dr. Palmer had only continued to grow over the years.

Dean McCarthy noted, “You just hear [Dr. Palmer’s] name again and again as someone who has had an effect on students and



Representatives from Kinray toured the School of Pharmacy with Alumnus Rick Carbray. Carbray said he “was honored to have been asked to be part of the campaign” to bring the professorship to fruition.

faculty.” Carbray agreed, as he was deeply saddened by the death of Dr. Palmer on May 23, 2009. The ceremony honoring Dr. Palmer was two weeks before he passed and friends and family were grateful that he was able to be there. “I miss being able to pick up the phone and talk pharmacy with him,” said Carbray. Dr. Palmer’s name, however, will continue to live on in his endowment and his influence will continue to affect the pharmacy

# Faculty & Staff News Briefs

**Dr. Brian Aneskievich** was one of 10 UConn faculty—and one of only two on the Storrs campus—to receive a Connecticut Stem Cell Research Grant. Dr. Aneskievich's project is entitled "Nuclear receptor control of human epidermal stem cells."

**Dr. Bill Baker** presented an invited talk entitled "Adverse Drug Events in the Elderly: An Evidence-Based Update on Preventive Strategies" as part of the UConn Health Center's Center on Aging "Update in Geriatric Medicine." In addition, this program was recorded by the Connecticut Network TV station and has broadcast a few times as well as has been archived on their website. He also presented "Association Between Helicobacter Pylori Infection and Pancreatic Cancer: A Meta-Analysis" at the American College of Gastroenterology's Annual Scientific Meeting in San Antonio, Texas.

**Dr. Marcy Balunas** has signed an academic collaborative agreement between the Smithsonian Tropical Research Institute and the University of Connecticut. This agreement allows for continued research, field work, and collaborations in Panama.

**Dr. Urs Boelsterli** has been invited to serve on the Editorial Board for the journal, *Toxicology*. He also presented an overview symposium talk at the Japanese Society of Toxicology Meeting in Okinawa, Japan.

**Dr. Bodhi Chaudhuri** became a reviewer for the *AICHE Journal* and *Advanced Powder Technology*. His lab and their collaborators of Epygen Inc. presented the a poster, "Protein scoring based kinetic predictability of cellulose for fuel biomass or fiber hydrolysis" at the World Congress on Industrial Biotechnology and Bioprocessing in Washington, DC. At the North American Mixing Conference XII, in Victoria, British Columbia, Canada, he presented "A Novel Mixer to Encounter Granular Segregation."

**Drs. Craig Coleman, Jennifer Giroto, and C. Michael White's** project on Human Growth Hormone received over 300 media hits including a front page story in the Hartford Courant, coverage on Fox 61, and the Los Angeles Times.

**Dr. Devra Dang** was selected as the CPA's Pharmacist of the Year.

**Dr. Megan Ehret** has been elected to the Board of Directors for the College of Psychiatric and Neurologic Pharmacists to serve as a member at large. She had a poster and a lecture accepted for presentation at the 4th Academic and Health Policy Conference on Correctional Health, "Prescribing Patterns in a Corrections Population with Bipolar Disorder" and "Medication Adherence in a Corrections Population with Bipolar Disorder," and a platform presentation accepted for presentation at the Annual American Psychiatric Association Annual Meeting, "Current Prescribing Practices: Antidepressant Use in Schizophrenia."

**Dr. Philip Hritcko** was elected second vice president of the Connecticut Pharmacists Association.

**Dr. Sean Jeffery** was elected vice president of the American Society of Consultant Pharmacists.

**Dr. José Manautou** has given several key lectures including, the "ABCs of the Liver Transport Protein ABCC4" at Montclair State University, the "Induction of Multidrug Resistance Protein 4 (MRP4; ABCC4) as a Compensatory Response to Acetaminophen-Induced Hepatotoxicity" at the University of Maryland, and "Hepatic Multidrug Resistance Proteins and Acetaminophen Hepatotoxicity: What is the Link?" at the University of New Mexico. "Katiria M. Flores, undergraduate student from the University of Puerto Rico in Mayaguez, a PNB/NEA summer student intern in Dr. Manautou's laboratory, was the recipient of the Student Poster Presentation Award in the category of Physiological Sciences for the work entitled: "Development of a Human In Vitro Model of Hepatoprotection by Peroxisome Proliferators in Preventing Acetaminophen Toxicity."

**Dr. Robert McCarthy** read, "Twas the Night Before Christmas" with the Boston Pops performance of "A Visit from St. Nicholas" at Jorgensen Auditorium.

**Dr. Stefanie Nigro** became certified as a tobacco treatment specialist (C-TTS) and as a nutrition and wellness consultant (CNWC).

**Dr. Michael Pikal** received an NIH grant (SBIR, phase I) "Mini Lyophilizer for Product Formulation and Process Development."

**Dr. Marie Smith** provided public comment on the Connecticut Statewide Health Information Technology and Exchange Strategic and Operation Plans. **Dr. Smith, with Drs. Devra Dang, Effi Kuti, and Tom Buckley, MPH** presented the study results of the Connecticut Medicaid Transformation Grant on E-Prescribing and Health Information Exchange to the commissioner of the Department of Social Services and key agency staff. Dr. Smith has been asked to serve on the *Annals of Pharmacotherapy* Editorial Board Health Policy Panel, was appointed as an AACP representative to the newly formed Pharmacy E-Health Information Technology Collaborative, was an invited speaker at the 2011 Academy of Managed Care Pharmacy Annual Meeting on the topic of "Why the Pharmacist Belongs on the Medical Home Clinical Team," and she was the inaugural speaker for the Dean's Distinguished Seminar Series at the University of Minnesota School of Pharmacy on the topic of "The Intersection of Practice-based Research, Public Policy, and Professional Advocacy."

**Dr. C. Michael White** was a finalist for the University of Connecticut Award for Public Engagement and was featured in the UConn Effective Health Care Program newsletter. ■

# Department of Pharmaceutical Sciences Researcher Engineers Cost-Saving Technique for Mixing Powders

By: Megan Zabilansky

Since the fall of 2007, researchers from the Departments of Pharmaceutical Sciences and Mechanical Engineering at the University of Connecticut made a significant breakthrough regarding a new technique of mixing powders that would greatly reduce the costs expended in pharmaceutical manufacturing. They engineered a method to blend powder or granular solids up to 90% more efficiently (quickly) than the conventional uniaxial mixer, with a potential of saving pharmaceutical companies valuable time and resources that would in turn lessen the final cost of the drug.

Mixing is an important but poorly understood aspect of many disciplines including pharmaceutical processing and manufacturing. In fact, 80% of the drugs prescribed by a doctor or dispensed by a pharmacist are tablets and capsules that are manufactured from powders. Because the success of the final product depends on the homogenous blending of the powders being processed, improper mixing can be detrimental to the cost and time utilized in manufacturing. "If the mixing is not right you can end up making a tablet with 100% of the drug, which could be fatal...or 0%, which will not work. Currently in the industry, huge amount of resources are wasted for discarded batches, delayed development and compromised validation," said Dr. Bodhisattwa Chaudhuri, assistant professor of pharmaceutical sciences. Because it is expensive to throw away unsuccessful batches of a drug, this cost is reflected in the final price of the product.

The new method, developed by a team of engineers and scientists including Dr. Chaudhuri, Dr. Theodore Bergman, Roshan Shah and Jason Tomei, utilizes a double cone mixer which simultaneously rotates around two orthogonal axes. This accomplishment overcomes a major challenge to pharmaceutical manufacturers known as axial segregation, which typically happens during the unit operation of



School of Pharmacy Professional Students Karol Lewkowicz and Yunfeng Zhu working with the mixer in the laboratory of Dr. Bodhi Chaudhuri.

powder mixing. The most common method of mixing, namely the tumbling blender, is essentially a hollow vessel horizontally attached to a rotating shaft, and it rotates around only one axis. The radial convection of powder is faster than the axial dispersion transport of the same, causing a slow dispersive process that hinders mixing performance in many blending, drying and coating applications and defeats the goal of cost and time efficient manufacturing. Dr. Chaudhuri and his team first tested their biaxial rotary mixer using glass beads (1 mm & 3 mm) and art sand (250  $\mu$ m) of different colors to represent the powder and granular solids used in pharmaceutical manufacturing. During each trial, samples were drawn at definite time intervals using a discrete pocket sampler (GlobalPharma, NJ) from the same area of the bed through the holes of the sampling template. The mixing states were then quantified in each batch run by counting the number of glass beads of different colors present by hand or by using a MATLAB based digital image analysis technique to characterize the mixing states of the art sand. Incorporation of dual axis rotation is found to be enhancing axial mixing by 60 to 90% in comparison to single axis rotation.

In their latest experiments, graduate students of Dr. Chaudhuri have begun using real pharmaceutical powders and observed similar trends to what was found with bigger sized particles. "We see the same thing happening. The powder is mixing a little faster than the glass beads, which we attribute to the little cohesive behavior of this powder. As

powder size goes down, other forces come into the picture," Dr. Chaudhuri explained.

Dr. Chaudhuri's team anticipates that this new method for mixing powders will greatly reduce companies' mixing time, utilization of energy in the mixing process, and the money lost in unsuccessful batches. Also, with the reduction of manufacturing costs, the financial strain on consumers who need to purchase medications but cannot afford them would diminish. "If you understand the science behind granular flow and mixing then you can save money and the drug cost will go down. In the current economy, when our savings are drying up and our health care is sky rocketing, this [drug manufacturing cost] is an important issue. Time is money. Less money, more productivity."

Dr. Chaudhuri and his group applied for an U.S. Patent and would ultimately like to market their mixer to companies who make blenders for pharmaceutical and other chemical manufacturers. Their work has been published in the prestigious *Journal of Powder Technology*. Dr. Chaudhuri has presented the team's findings at several industry conferences. ■

# Which Department Will Survive?

## 1st Annual USG Life Raft Debate

By: Megan Zabilansky

It is 2010, and the world as we know has been destroyed by a massive ice comet. The only survivors are the nine members of the Undergraduate Student Government (USG) Academic Affairs Committee (AAC), who managed to reach safety at the Hilltop area of the University of Connecticut Storrs campus.

But wait! A small, elite group of professors also lived through the apocalypse. The problem: there is only one spot available on the AAC's only life raft. Who will get the spot and help rebuild our civilization?

In the First Annual Life Raft Debate, held on October 25th in the Student Union, the professors battled it out, utilizing all of their knowledge, expertise, and even wit to prove that their academic discipline deserves to be on that boat.

Kevin Sullivan, the assistant director of First Year Programs, hosted the night's event. He began by praising the work of the nine faculty members sitting in the hot seats, stating that "there is a lot of fire power here at UConn." The professors included: Dr. Mary Caravella, a professor from the School of Business; Dr. Justin Good, a professor in the School of Fine Arts; Dr. Bryan Huey, a professor in the School of Engineering; Dr. Jeremy Teitelbaum, dean and professor of math in CLAS; Jeremy Paul, dean and Thomas F. Gallivan, Jr. Professor of Real Property Law in the School of Law; Dr. Carol Polifrani, a professor in the School of Nursing; Dr. Louise Simmons from the School of Social Work; Dr. John Volin, professor and head of the Department of Natural Resources and the Environment in the School of Agriculture; and Dr. C. Michael White from the School of Pharmacy.

The format of the debate allotted each professor five minutes to propose why they are "most worthy of the spot on the life raft." Each argument was then

followed by a brief period of questions from the audience. Once all professors presented, a vote was held by the panel of AAC judges to determine the sole survivor and the debate resulted in a tie: pharmacy's own Dr. White and Dr. Volin from agriculture. Each professor then had two minutes to restate their arguments and convince the judges.

Volin continued to argue that the Department of Natural Resources and the Environment is the "basis of our society." "Civilization came from [the field of agriculture's] ability to sequester natural resources and make it work," said Volin. He then proceeded to hand out condoms to the AAC panel of judges, explaining that they can be used to carry clean water, an important survival tactic in a post-apocalyptic world.

When it came time for Dr. White's final rebuttal, he reiterated his argument from earlier. He said that pharmacists know the dosages for important medication when anyone gets sick. He also referenced a text book that he always carries entitled *Applied Therapeutics*, which can come in handy as either a weapon or source of paper for warmth. All joking aside, Dr. White noted that "pharmacists are the most trusted health professionals." "In the winter, we will most likely have to resort to cannibalism. How will you know which injuries are not treatable? Who among you is the most nutritious? Who has the lowest procreation potential? You need someone you can trust," he said.

Pharmacy student Rosana Oliveira commented that she thought Dr. White was the most prepared. "In true pharmacist style he came prepared with a PowerPoint," she said. "He brought his sense of humor and told it how it is. He didn't sugar coat anything," agreed pharmacy students Mari Merced, Dan Baxter, and John Stiles.

AAC Chair Grace Collins stated, "I knew the pharmacy argument would be very popular, Dr. White sent me a tentative outline for his debate very early on and I actually read it out loud to the committee. I was that impressed!" While the AAC took another few minutes to deliberate, Dr. White remarked that he enjoyed the experience of the debate. "I think it went well," he said. "I think everybody had



Dr. C. Michael White demonstrates how to use his *Applied Therapeutics* textbook as both a weapon and source of warmth during the Life Raft Debate sponsored by the Undergraduate Student Government Academic Affairs Committee.

a really interesting take. I wasn't sure going in how people were going to present."

After taking into consideration both of the careful and witty arguments, the AAC named Dr. Volin the winner, and he received an oversized raft and symbolic position on the AAC's life raft to safety. Overall, the event was a success and provided students with both informative and entertaining pieces of knowledge about the various academic departments at the University of Connecticut.

"The best part of the debate was seeing the passion in each argument," said Collins. "Too often in undergraduate classes that fervor for the disciplines is lost, but the individuals who argued at the Life Raft Debate were undeniably passionate about their work. [The AAC] really wanted to do something geared toward first year and undecided undergraduates, and the Life Raft Debate seemed to be a hit." ■

Watch the Life Raft Debate  
[www.vimeo.com/16464368](http://www.vimeo.com/16464368)

## President's Message ~ Ellen Kinspore '79



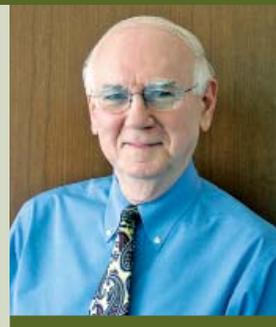
The practice of pharmacy in all its forms requires an incredible level of commitment and attention to detail. To honor this commitment, the UConn Pharmacy Alumni Association confers awards annually. Each year the accomplishments of the nominees make selection difficult and I am impressed by the varied paths my fellow graduates have followed. Whether in academia, research, or pharmacy practice these nominees and all of us have built upon the foundation the University of Connecticut School of Pharmacy has provided. This year we will celebrate the accomplishments of these alumni at the New England Pharmacists Convention in the fall.

The Board of Directors of the Pharmacy Alumni Association is a group that comes together to promote the interaction of the school, the students and the alumni. Their goals not only include projects involving post graduate education but also the involvement of alumni in the education of the current student body and the health of the community at large. Through interviews of student applicants, working as preceptors to train current students or as volunteers at health fairs/events throughout the state alumni respond to the needs of the School of Pharmacy and the community at large. The Pharmacy Alumni Association works to keep the alumni informed and involved in all of these efforts.

Since his graduation from pharmacy school in 1953, Dan Leone has shown the commitment and attention to detail that the University of Connecticut encouraged in its students. Now, as he retires from his position as executive secretary of the Pharmacy Alumni Association we should acknowledge and thank him for his hard work. Dan has shepherded the association board through alumni event planning, involvement with school functions, interactions with other pharmacy associations and the daily details of running our own alumni association. Through Dan's patient attention to detail, the Pharmacy Alumni Association has provided the school with support for the students and the faculty. Dan's retirement is well earned and his contributions to the Pharmacy Alumni Association will long be appreciated.

Commitment and attention to detail are vital to the practice of pharmacy in all its forms. The University of Connecticut School of Pharmacy has produced many shining examples of these qualities. It has been an honor to meet and work with each one of you during my term as president and, as I leave the office, I thank you for the opportunity. Please take the time to become involved in the Alumni Association, it is time well spent. ■

## From the Executive Secretary ~ Daniel C.



It is hard to believe that almost 14½ years have gone by since then Dean Mike Gerald asked me to take the position of executive secretary of the Pharmacy Alumni Association and director of alumni relations for the school. Since I had just retired as executive vice president of the Connecticut Pharmacists Association, I thought it would be a good chance for me to work part time for a couple of years and slide into complete retirement. Well, as they say, time flies when you are having fun and it has been fun. Sometimes frustrating, but mainly fun.

As I look back over these 14½ years, I am reminded of the strong affinity that graduates of the school have for the University of Connecticut and the School of Pharmacy. I am thankful for the many alumni who have given of their time to support the alumni association and the school – those who have served as officers and board members, those who have stepped forward to volunteer for projects, those who have donated to support students when asked, and those who have paid annual and life membership dues.

There have been disappointments; one is that although we have almost over 4000 alumni on the rolls, only 1000 are annual dues paying or life members. It has always been a concern to me that more alumni are not willing to pay \$25 for annual dues or to become life members. Another disappointment is that more alumni do not attend the annual awards and reunion event. It is really a great time and a special opportunity to meet fellow alumni.

Leone '53

A Message from Mary Ann Dolan, R.Ph. '86  
Newly-Appointed Director of Alumni  
Relations & Executive Secretary, UConn  
Pharmacy Alumni Association

It has been my pleasure to meet with Dean Robert McCarthy, Past-President Ellen Konspore, President Donald Zettervall, and a number of other members of the Alumni Board. All of us sincerely thank Dan Leone for his many efforts on behalf of UConn School of Pharmacy alumni over the past 14 years. We wish Dan well as he enjoys more time for family and travels.

This appointment is a wonderful opportunity for me, and I am looking forward to serving the UConn Pharmacy Alumni Association and the School of Pharmacy. Our alumni represent the face of pharmacy in Connecticut, and well beyond the borders of our state. It is my goal to highlight our professionalism and expertise, while celebrating our shared experience as UConn alumni. ■

## Thanks for Your Support!

Special appreciation is extended to the following alumni and friends who supported student travel to the APhA convention in Seattle, Washington.

José E. Manautou  
John A. Capuano '73  
Amit Mitra '81  
Mary Ann Dolan '86  
V. Michael Guertin '66  
Gerald Gianutsos  
Daniel C. Leone '53  
Janet L. Thomson '83  
Roland A. Patry '70  
Richard T. Carbray Jr. '75  
Allan D. Anderson '62  
Edward J. Sklanka '74  
Barbara H. Deptula '78  
Jacqueline M. Murphy '78  
Christopher R. Fortier '03  
Edward Schreiner Jr. '82  
Ellen S. Jennings '88  
George F. Kirkpatrick Jr. '71  
Robert L. Dana '63  
Karl A. Nieforth '82 (Hon)  
Cynthia E. Huge '75  
Edward N. Silver '49  
Michael T. Moore '94  
Angelo DeFazio '85  
Rachel S. Meyers '05  
David J. Cooper '75  
Mukhtar Shihabeddin '82 '84

As I leave this position, I want to thank Dean McCarthy for the support he has given to me and the pharmacy alumni association. Without his complete support and commitment, the pharmacy alumni association could not exist. There have been many members of the faculty and staff who have supported me and this office but I want to extend special thanks to Liz Anderson, director of marketing and communications who has been a rock of support to me. Liz has been the person to whom I could always go for help.

I know that there will be many more years of success for the association and alumni activities under the guidance of Mary Ann Dolan, the newly hired executive secretary and director of alumni relations. Please give her your complete support. I know that I will see many of you at pharmacy affairs so this is not a complete goodbye. It has been a pleasure working for you. Always keep the school foremost in your thoughts and Go Huskies!! ■

## University of Connecticut Pharmacy Alumni Association

### Officers 2011 -- 2013

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Karen B. Rubinfeld '87

#### Secretary

Martha L. Asarisi '81

#### Treasurer

Austin Bebyn '86

#### Executive Secretary

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Keith Lyke '92  
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#### Term Expires May 2013

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#### Student Representatives

Marian Merced '12  
John T. Stiles '13

**Thomas Buckley '82** received the 2010 American Society of Health-System Pharmacists and Association of Black-Health System Pharmacists Leadership Award at the 2010 ASHP Midyear Clinical Meeting. The award "recognizes individuals who have demonstrated exceptional leadership in efforts to reduce racial and ethnic disparities in health care". He was cited for his work with the Cambodian-American community through the Khmer Health Advocates and his service at a health clinic on the Thai-Burmese border.

**Barbara (Lane) Giacomelli '83** is the director of pharmacy and facilitator of Hospital Strategic Facility Plan at Shore Memorial Hospital in Somers Point NJ. She was selected to represent New Jersey as one of two hospital pharmacy voting members at the ASHP Pharmacy Practice Model Summit held in Dallas in November. One hundred and seven hospital pharmacists met to develop a practice model for the future hospital/health system pharmacy.

**Marc Caouette '85** has relocated to Hawaii. He is an active duty colonel in the U.S. Army and director of the Department of Pharmacy at Tripler Army Medical Center near Honolulu, and the pharmacy consultant for the Pacific Regional Medical Command. The center performs over 1.7 million dispensing procedures annually and has a robust clinical pharmacy team that conducts an ASHP accredited clinical pharmacy residency program and provides clinical rotations for Pacific area pharmacy students.

**Chinenye Anyanwu '09** is the President of the Black Public Health Student Network and a student at the George Washington University School of Public Health and Health Services. Her goal is to incorporate into her pharmacy practice "the social and cultural issues that impact how and why people take medicine." ■

## In Memoriam

It is with great sadness that we announce the passing of our alumni and friends.

**Nelson E. Whitbeck '57**  
December 19, 2009

**Ameen L. Haddad '42**  
December 28, 2009

**Vincent Spinelli '56**  
January 24, 2010

**Nelson W. Powell Jr. '58**  
February 18, 2010

**Marion E. Borriello '44**  
April 2, 2010

**Milton L. Axelrod '34**  
April 29, 2010

**N. Sidney Thrall '53**  
May 12, 2010

**Seymour G. Farber '46**  
June 8, 2010

**Sebastian Cannata Jr. '52**  
July 2, 2010

**Jonathan S. Gordon '72**  
April 7, 2011

**John F. Tourville '73**  
November 14, 2010

**Paula A. Aiksnoras '78**  
November 30, 2010

**Jamie G. Barnhill '86 PhD**  
January 30, 2011

**Joseph Israel '58**  
January 31, 2011

**Carl G. Kevorkian '48**  
February 23, 2011

**Arthur T. Smithwick '42**  
March 5, 2011

**Harry A. Vaughan '54**  
March 2, 2011

**Rex D. Iacurci '55**  
March 11, 2011

**Leonard W. Mecca '53**  
March 22, 2011

**Stanley L. Hem '65 Ph.D.**  
January 23, 2011

Dr. Stanley Lawrence Hem, 71, of West Lafayette, died unexpectedly at 3:53 p.m. Sunday, Jan. 23, 2011, at St. Elizabeth Central. He was born on Oct. 5, 1939, in Brooklyn, N.Y., and was the son of the late Lawrence William and Edna Marr Hem. On Aug. 3, 1963, he married Janet Clark in Hackensack, N.J., and she survives. Dr. Hem received his B.S. in pharmacy from Rutgers University in 1961 and his Ph.D. in pharmaceuticals from the University of Connecticut in 1965. After serving as a senior research pharmacist in research and development at Wyeth Laboratories, he took a position as assistant professor of physical pharmacy at Purdue University in 1969. In 1976, he became professor of physical pharmacy. He has served as assistant dean, Graduate School 1980-1983, and chairman of the University Senate. He was a member of the USP Revisions Committee from 1995-2000. He holds numerous patents and serves as a consultant to several pharmaceutical companies. Among the awards he has received are the American Association of Pharmaceutical Sciences Research Achievement Award 1993, AACP Outstanding Teacher Recognition Award 2002, Henry Heine Award for Excellence in Teaching and the Outstanding Research Publication Award, from the Journal of Pharmaceutical Sciences 1970. He has served as a major advisor for dozens of pre- and post-doctoral students.

# Dean Robert McCarthy Appointed Director of the Provost's Commission on Public Engagement

By: Megan Zabilansky

School of Pharmacy Dean Robert L. McCarthy exemplifies service and leadership, both in the pharmacy profession and the university community. He has been appointed director of the Provost's Commission on Public Engagement, an office that aims to foster engagement both inside and outside the university community. The office also provides "leadership and vision on public engagement, linking the university's academic plan to action," ultimately spreading its impact past the University of Connecticut campus. "The Provost's Commission serves as an umbrella for all public engagement activities," said the dean.

The new commission is developing a strategic plan for public engagement. This development of a plan includes SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, in which the regional campuses were used to bring in objective opinions to evaluate the status of the public engagement at the university. In an effort to gain further recognition, the new commission also applied to the Carnegie Foundation for the Advancement of Teaching for an Elective Classification for Community Engagement. The Foundation is "an independent policy and research center that supports needed transformations in American education." "As a public land grant university, a third of UConn's mission is service, outreach, and public engagement. It is an honor to be recognized for our efforts, which are substantial," says Dr. McCarthy. The designation, received in December 2010, serves to highlight parts of UConn's mission that are not represented in national data, garnering prestige.

The Office of Service-Learning, based on the Greater Hartford campus, advocates reciprocity and mutuality, through course work in which both the students and the community benefit. Currently, the Office of Public Engagement honors students, faculty, and staff, through a fall awards

program. An annual spring colloquium is also offered. "Community-university engagement through participatory action research" was presented this spring at the Greater Hartford campus.

McCarthy is also the chairman of the Board of Directors for NIPTE, the National Institute for Pharmaceutical Technology and Education. UConn is "one of the only institutions in the country with a strong emphasis in pharmaceutical technology and manufacturing science," and as such, McCarthy's involvement with NIPTE is critical. NIPTE is composed of 10 universities that have premier faculty in pharmaceutical sciences. NIPTE is "dedicated to fundamental research and education in pharmaceutical product development and manufacturing and to increased science and engineering based understanding." NIPTE generates the majority of its support through outside funding.

In an effort to procure funding, McCarthy has met with members of Congress several times with the goal of allocating part of the Federal Drug Administration's budget to NIPTE. "It is difficult to make headway because of the stigmas with earmarking money," McCarthy said. McCarthy also hopes NIPTE will receive funding from the National Institute of Health. With this funding, education and research would increase. "Additional funding will allow for greater progress in pharmaceutical technology research, particularly with UConn's emphasis on pharmaceutical

technology and manufacturing science," McCarthy stated.

UConn is unique in its research due to its level, quality, and internationally recognized pharmaceuticals faculty. For example, Dr. Burgess, with funding from the Department of Defense, is using nanotechnology to monitor blood chemistries of soldiers in the field. "This has direct applicability to real life and operates at a high level. Our research is cutting-edge," McCarthy commented.

McCarthy is currently the national president of the Rho Chi Society, an academic pharmacy honor society which accepts only the top pharmacy students. It distributes scholarships, advocates for post-doctoral education, and provides tutoring and other educational programs. His chief responsibilities include setting a vision and direction for the society on a national level. Now in the second year of his term, McCarthy is trying to remind chapters that Rho Chi activities should be that of an honor society. "Rho Chi celebrates scholarship," McCarthy said.

McCarthy is a tremendous asset to the University's programs, as he consistently maintains the School of Pharmacy ideals in all of his endeavors. His involvement with the Office of Public Engagement, NIPTE, and Rho Chi demonstrates his passion for UConn activities and continues to benefit the institution as a whole. ■

## What's New With You?

We want to hear from you! Please use this form to tell us about address changes, personal and professional honors, or everyday events that we can use for the Alumni Update column. Mail To: University of Connecticut, School of Pharmacy Alumni Association, 69 North Eagleville Road, Unit 3092 ~ Storrs, Connecticut 06269-3092, or e-mail us at: [mary.ann.dolan@uconn.edu](mailto:mary.ann.dolan@uconn.edu)

Dr.    Mr.    Mrs.    Ms.    Other \_\_\_\_\_

Name: \_\_\_\_\_ Class Year: \_\_\_\_\_

Maiden/Former Name: \_\_\_\_\_ Spouse Name: \_\_\_\_\_

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: (   ) \_\_\_\_\_ Work Phone: (   ) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_  Green Mel

Employer/Business Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

News: \_\_\_\_\_

## Researcher Awarded Prestigious Grant for Cancer Research

By: Megan Zabilansky

M. Kyle Hadden, assistant professor of medicinal chemistry and member of the Carole and Ray Neag Comprehensive Cancer Center at the UConn Health Center, has been awarded a prestigious V Scholar grant from the V Foundation for Cancer Research. "This is the first big award for the lab and it is an honor for me to be one of those chosen," says Hadden. "It puts me in good company with other young cancer investigators, and it is nice for the researchers in the lab to be recognized for all their hard work."

Since it awarded its first grant in 1994, The V Foundation has handed out just 400 V Scholar grants to the most exceptional physicians and scientists from around the country. This year, 17 outstanding young investigators were honored with a two-year, \$200,000 commitment. "It is our hope that these funding initiatives will bring us – step-by-step – closer to discovering the causes and developing the cures for the more than 100 diseases that are cancer," the V Foundation said in announcing the grant awards. Dr. Hadden, who works in the Department of Pharmaceutical Sciences was especially recognized for his work on "A Chemical Biology Approach to Understanding the Anti-Cancer Effects of Vitamin D3."

Since January 2009, Dr. Hadden's medicinal chemistry lab in the School of Pharmacy has focused on Vitamin D, how it operates, and both its preventative and therapeutic effects on cancer treatment. The laboratory synthesized compounds and inserted them into either breast or colon cancer cells to observe the specific ways in which they worked to prevent the cancer from growing. "We are trying to see if we can make new compounds to target different receptor systems that would not have the negative



Dr. Kyle Hadden, V Foundation Scholar, hopes to further research in the area of cancer therapeutics.

effects of the vitamin D receptor system," explains Hadden. "As an undergraduate, my interest in synthesis and biochemistry directed me to the field of pharmacy and how creating new compounds can lead to helping a lot of people."

The last 10 years have seen a marked increase in research aimed at the potential preventative and therapeutic anti-cancer effects of the vitamin D class of hormones, Hadden says. Most of this interest has focused on calcitriol, generally acknowledged as the hormonally active form of vitamin D. Administration of calcitriol or its analogues has resulted in significant anti-cancer effects when tested in animals with prostate, ovary, breast, and lung cancers.

These effects are primarily mediated through the vitamin D receptor (VDR), a protein that regulates normal and cancer cell growth by interacting with calcitriol, Hadden says. Unfortunately, the clinical usefulness of calcitriol and its analogues has been limited by toxic side effects associated with the VDR.

Recent studies in other research labs have demonstrated that vitamin D3, a hormonally inactive form of calcitriol, has anti-cancer potential through its ability to inhibit the hedgehog signaling pathway. The hedgehog signaling pathway plays a crucial

- Continued on Page 14 -

## Marine Natural Products Anti-Cancer and Anti-Par

By: Kristina Kiley

Marcy Balunas, Ph.D., assistant professor in medicinal chemistry in the Department of Pharmaceutical Sciences and a Smithsonian Tropical Research Institute (STRI) Research Associate, has spent the last three years in the Republic of Panama in Central America as part of an ongoing research project. Under the umbrella of the International Cooperative Biodiversity Groups (ICBG) based in Panama, a government-funded National Institutes of Health (NIH) program, Dr. Balunas focuses on selectivity-based anti-parasitic and anti-cancer drug discovery from marine microorganisms.

"Parasitic organisms such as the causative agents of malaria, leishmaniasis, and Chagas' disease exhibit numerous biological attributes that are considerably different from those of their human hosts. These differences can lead to exciting new targets for discovery of therapeutic agents directed specifically towards the disease-causing parasites," said Dr. Balunas.



Microbiology Research Assistant Ann-Chee Cheng works in the field.

In order to study these differences, she coordinates field expeditions in Panama that include collecting marine tunicates from the diverse Caribbean Sea and Pacific Ocean, culturing the tunicate-associated bacteria, and producing extracts and reduced complexity fractions for biological assay.

# Chemistry at UConn for Anticancer Drug Discovery

According to Dr. Balunas, Panama is the perfect spot for this research due to its unique oceanic landscape and geological features, which contribute to the country's rich diversity of organisms. These organisms have been shown to produce a large number of natural products. Dr. Balunas deems the country "one of the biodiversity hot spots in the world."

The multi-faceted goals of the Panama ICBG include drug discovery, biodiversity conservation, infrastructure development and training, and promoting sustainable economic activity. Conducting this research in Panama also brings great benefits to the host country itself. As part of Panama ICBG's goal of training and infrastructure development, ICBG scientists are providing Panamanian and US students with the training and technology necessary to perform drug discovery. The Panama ICBG has trained numerous students, both from Panama and the US and many of these students have gone on to pursue graduate studies. The Panama ICBG has also helped to create jobs and research opportunities within the country.

As a member of the ICBG, Dr. Balunas is also actively involved with mentoring students. Under the Conservation, Research, and Educational Opportunities program, directed in Panama by Dr. Balunas, US minority students are hosted at various Panamanian-based institutions to live and work alongside researchers and other scientists. Dr. Balunas cites one of the benefits of this program as "getting them excited about marine drug discovery research."

"It's an adventure every day. We go to places that are amazingly wonderful—some of which have been protected by the Panamanian government and therefore have really stayed in pristine condition—it's really an amazing experience," said Dr. Balunas in Scripps Explorations Magazine.



Diving to collect specimens for the lab.

Dr. Balunas received a KOI grant from the National Institute of Health (NIH) for her involvement with the Panamanian ICBG research project. The KOI grant, also known as the International Research Scientist Development Award, supports postdoctoral scientists from the United States early in their careers, which allows them to conduct research in developing countries. This grant allows for mentored research and experiences, leading to an independent research career. "The grant allowed me to continue my research in Panama and to finish several exciting projects before returning to the U.S. and beginning my independent position as a faculty member," said Dr. Balunas.

Now with her feet planted back on American soil, Dr. Balunas is continuing her anti-cancer and anti-parasitic drug discovery research off the coasts of Alaska, New England, and Panama. Her research involves the "chemistry and biological activity of marine microorganisms with a focus on the microbiology and natural products chemistry of psychrophilic marine and glacial bacteria." The Balunas lab also studies the "elicitation of silent biosynthetic pathways in cold-obligate bacteria," which are collected from glacial sediment cores and marine snow samples.

"The choice of these cold-obligate organisms lies in their unique and largely unstudied biological characteristics, including their ability to regulate membrane fluidity, continue transcription and translation processes, adapt to sudden temperature changes, inhibit intracellular ice crystal formation, continue enzymatic processes using cold-adapted enzymes, and maintain nutrient and waste transport," explained Dr. Balunas. Her work on anti-cancer and anti-parasitic drug discovery will continue to impact the pharmacy community for years to come. ■

## Alumni Association Dues Bill ~ 2011

Dr.    Mr.    Mrs.    Ms.    Other \_\_\_\_\_

Name: \_\_\_\_\_ Class Year: \_\_\_\_\_

Address: \_\_\_\_\_ Is this a new address? \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: (     ) \_\_\_\_\_ Work Phone: (     ) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

Employer/Business Name: \_\_\_\_\_

Annual Dues \$25.00

Life Membership \$250.00 [Certificate to Follow]

Please make checks payable to UCONN PHARMACY ALUMNI ASSOCIATION and send with this form to UConn Pharmacy Alumni Association · 69 North Eagleville Road, Unit 3092 Storrs, Connecticut 06269-3092

# Alumni Experience Helps Students Consider Employment Options

By: Rebecca DeSousa

Amelia Arnold, Pharm D., a clinical pharmacist, presented “Pharmacy Residencies: Expanding into the Community Setting,” a discussion of pharmacy residencies and their benefits at the School of Pharmacy’s annual interview day for P4 students.

During her clinical rotations as a P4 student, Arnold had eliminated the possibility of working in a hospital setting but was still unsure of what kind of residency she wanted. In an effort to secure a residency, she went to the ASHP Mid-Year meeting to evaluate her options. Different areas of pharmacy provide polar perspectives on pharmaceutical services. “Community pharmacy is a lot of forward thinking,” Dr. Arnold said, while a hospital setting provides less patient contact.

“I knew I was interested in a community pharmacy residency, but I also had to see if I was interested in education and perception,” she stated. Her residency at Hartzell’s Pharmacy/ Wilkes University allowed her to do just that by providing both an education and a health outreach component. She gained business experience including scheduling, pricing, and prescription analysis. She also taught both an osteoporosis class to P3 students and a care lab. “My residency taught me a lot of things I would have never known about,” Dr. Arnold said.

The presentation also included advice for students looking to pursue a pharmacy residency or fellowship. “Make a great impression at the showcase and be sure to map out what you want to do before you go. When negotiating the terms of a residency, be up front and honest, and mention if you are considering any other options,” Dr. Arnold advised students.

Following the presentation, students were given the opportunity to ask Dr. Arnold questions. The biggest concern among students was acquiring a residency, as there are far more pharmacy students than available residencies. Dr. Arnold suggested applying for a number of residencies, avoiding the ideal residency as a first interview, and always leaving a positive impression with employers. She advised, “Rotations are a huge factor; grades and transcripts are not nearly as important. When picking a presentation topic in your rotation, be sure to choose an interesting one, as companies want to listen to interesting ideas.”

The presentation was immediately followed by interviews with potential employers and residency opportunities for students. “I have an interest in ambulatory care and community pharmacy because I like to have direct interaction with my patients. I feel that customers receive the most personal and complete care when they are given one-on-one time with their pharmacist,” said Tiffany Battles, a student in attendance.

Employers from all aspects of pharmacy practice as well as some residency programs were on hand to interview students for open positions. This opportunity allowed students to interview with multiple companies with various pharmaceutical approaches in hopes of finding a good fit. “At Target, our service mantra is ‘Fast, fun, and friendly.’ We are looking for students who crave patient interaction rather than those seeking a business perspective,” said Renee LaRouche, a UConn alumnae and a pharmacist for Target.

Interview Day was successful in its portrayal of life after pharmacy school. Students were able to garner information that will allow them to successfully pursue their careers and positively impact the pharmacy community. Battles commented, “Dr. Arnold serves as a role model and her speech opened doors of opportunity for students who are interested in taking this career path.” ■

## Doctor of Pharmacy Students

**Aimee Dietle**, who has been a Pre-Pharmacy Learning Community resident assistant for four years, has been awarded the Jacqueline Seide Resident Assistant of the Year award. She received this singular honor for the empathy and dedication she shows toward pre-pharmacy students. Aimee is the second pharmacy student in recent years to win this award following in the footsteps of Amelia Arnold ‘09.

**Eric Gloede**, was selected into the University Scholar Program. Eric is working on “Regional Chemical Disposition in the Airways: A Focus on Diacetyl.” The members of his advisory committee are Drs. John Morris (Chair), Gerry Gianutsos and Andrea Hubbard. Eric is one of only 29 students university-wide who was awarded a place in this prestigious program.

**Eric Zaccaro** was selected as national student exchange officer-elect for APhA-ASP. He will serve as the officer-elect through October 2011 when he becomes a national student exchange officer until October 2012. Some of his duties will involve serving on the committee that chooses applicants for the exchange programs, promoting involvement in IPSF

## V Foundation

Continued from Page 13

role in human embryo development, but is largely inactive in adult tissues under normal conditions. There is accumulating evidence of overactive hedgehog signaling in the development of skin, brain, breast, prostate, colon, and lung cancers.

Finding ways to inhibit the pathway, Hadden says, represents an exciting new intervention strategy toward the development of cancer chemotherapeutics. Vitamin D3

## Buckley Receives ASHP-ABHP Leadership Award

By: Rebecca DeSousa and Sara Muldoon

Thomas Buckley, assistant clinical professor in the Department of Pharmacy Practice, is the recipient of the 2010 American Society of Health-System Pharmacists and the Association of Black Health-System Pharmacists Leadership Award. The award recognizes individuals who have demonstrated exceptional leadership in efforts to reduce racial and ethnic disparities in healthcare. Buckley's work with the Khmer Health Advocates (KHA), an organization which provides care for survivors of the Mahandorai, the Cambodian Holocaust, has been invaluable to the program and focuses on health disparities, access to care issues, and cultural competency.

In the early 1980s, over 300,000 Cambodians fled to the U.S. to escape a harsh dictatorship. Now, many are dealing with post traumatic stress disorder, diabetes, and heart disease, as they have been exposed to long-term trauma and torture. "The Cambodians are a unique population to work with," Buckley commented. Buckley's direct work with the Cambodian survivors is centered on medication therapy management and optimization of patient care.

The KHA has two primary functions, one locally and one nationally. Locally, the focus is to provide direct patient care, either through the use of clinics or through direct home visits. This direct approach is critical to developing cultural competency. As Buckley takes his P4 students on rotation with him in the West Hartford office, students are able to gain a better understanding of the complexities of the beliefs of those of other cultures. The local KHA also works with organizations, advocating for victim rights. Their focus is on immigration, housing, and sustenance issues.

Nationally, Buckley and his team work with other Cambodian organizations across the country. In a recent project using telemedicine services, video conferencing was used with community health workers in Long Beach, California, linked to pharmacists in Connecticut to provide medication therapy management services to isolated patients in this area, as both the health workers and the pharmacists were able to learn things from each other. "Looking at health disparities, we need to ask what pharmacists can do to address them," commented Buckley.



"We are so pleased to partner with ABHP to recognize Mr. Buckley," said ASHP President Diane B. Ginsburg, M.S., R.Ph., FASHP. "It is especially gratifying to know that he is training a corps of pharmacy students to expand on his important work."

As the clinical consultant and evaluator for KHA, Buckley helps consult with other pharmacists to assess patients and their risk levels due to the trauma and torture they faced, as well as to see if these patients are responsive to the medicines they have been prescribed. He also works with the KHA Torture Treatment Program, where he focuses on the medical competency of the program. This involves counseling and social work. "People exposed to trauma and tortures have deep-seeded mental issues, which leads to an increased suicide rate and chronic disease such as diabetes. We help folks to overcome these issues, but sometimes it is difficult to know how to treat them. This is not just unique to the Cambodians. People in Bosnia, Rwanda, and Sudan, anyone exposed to trauma and torture also deal with the same thing. This is why we are very involved with introducing the concept of trauma-informed care to other health professionals," said Buckley.

Buckley's work with the Cambodians has been extremely rewarding. "I see the value of students who are immersed with patients who had improper care. The students find joy through understanding disparities and solutions to overcome them," Buckley said. His work with KHA will continue to impact the world as he travels to Burma to work with refugees crossing the border. His devotion to cultural competency and to the care of these survivors, both in Burma and Cambodia, is highly valued by pharmacists across borders.

activities such as HIV/AIDS awareness and tobacco cessation programs, helping to coordinate students with host cites, and providing updates through the IPSF national bulletin and the APhA-ASP Executive Committee. With his own experiences through our local IPSF branch, the Egypt exchange program, and at the World Congress in Slovenia, he will do an outstanding job in this position.

**Dr. Soyon Lee**, a fellow of Dr. Michael White, has been selected to receive the prestigious 2011 Rho Chi Clinical Research Scholarship Award. This is a wonderful accomplishment for both Drs. Lee and White. Dean Robert McCarthy, Rho Chi Society national president, presented the award at the national meeting in March.

## Graduate Students

**Ekneet Sahni** presented a podium presentation, "Experimentally Validated Numerical Modeling of a Filter Dryer" at the Annual Meeting of American Institute of Chemical Engineers in Salt Lake City, Utah. She also presented a poster presentation, "Process Modeling-Based Optimization of a Filter Dryer" at the Annual Meeting of AAPS, in New Orleans, LA. ■

analogues that exert their anti-cancer effects through inhibition of hedgehog signaling would be less susceptible to the detrimental side-effects associated with calcitriol and represent an improved class of vitamin D-based anti-cancer chemotherapeutics.

With this new grant, Hadden hopes to hire a postdoctoral fellow to assist with research in the lab. "Ten years from now, I can still see my lab focusing in the area of cancer therapeutics, and I hope to continue my research at UConn doing synthesis and compound testing," he says. ■



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## Stop! Don't Flush That!



Flushing medications down the sink or toilet is harmful to both the environment and the water supply. Shamsul Arif, Rosana Oliveira, and Katelyn Parsons created a research poster entitled "Stop! Don't Flush That!" which discussed improper disposal methods and described proper and effective alternate methods to dispose drugs safely and efficiently.

In the past, people have been told the best way to dispose of medications is to flush them down either the sink or the toilet. Improper disposal of medications can cause harm to the environment, wildlife, pets, and people, and can contaminate the water supply. There are better ways to dispose of drugs. "The best way to dispose of drugs is through take-back days," said Parsons. These events, held at a variety of locations, including health centers, police departments, and hospitals, allow for the collection of both controlled and uncontrolled substances so they may be disposed of in an environmentally safe manner.

The alternate method to a take-back day is designed to be done at home. "Keep the drugs in the original container and block away all personal info using a marker," Oliveira advised. "Then, mix the medication with an undesirable substance, such as coffee grounds or kitty litter. Tape the container closed, place it in an opaque bag, and throw it away."

## AZO Sponsors Bank for the Panc



Alpha Zeta Omega sponsored Bank for the Panc, a charity 3 vs. 3 basketball tournament in December. The winners were Brian Calamari, Matt Papa, and Ian Booker. Thank you to everyone who participated, helped out and donated. AZO raised \$173 for the Lustgarten Pancreatic Cancer Foundation!