



University of Houston College of Pharmacy

INTERACTIONS

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IMPROVING HEALTH CARE DELIVERY

DRUG DISCOVERY



College Unveils
Vision 2020 Strategic Plan

DEAN'S MESSAGE



American advisor Anthony Robbins once said, “You are now at a crossroads. This is your opportunity to make the most important decision you will ever make. Forget your past. Who are you now? Who have you decided you really are now? Don’t think about who you have been. Who are you now? Who have you decided to become? Make this decision consciously. Make it carefully. Make it powerfully.” This quote has special meaning for our UH College of Pharmacy as we begin to set a new course established by our new “Vision 2020” strategic plan (*see next page*). Our new strategic plan will indeed take us beyond several important crossroads in the coming years. We will face many daunting challenges. Despite these challenges, this is truly an exciting time for our college.

Just as we face many new crossroads at the UHCOP, our beloved profession of pharmacy is indeed at a major crossroad. Our profession is being pressured financially and professionally. Examples include the recent exponential decreases in Texas Medicaid reimbursement to Texas pharmacies and the American Medical Association’s recent less-than-flattering definition of the scope of practice for our profession. Mr. Robbins’ question of “Who are we now?” is of paramount importance. Our profession needs to answer this question directly, rather than our payors and/or our associated health professions doing so for us.

Giberson et. al. published an impactful report in December of 2011 entitled “Improving Patient and Health System Outcomes through Advanced Pharmacy Practice: A Report to the U.S. Surgeon General.” The report focuses on four major goals:

- 1) Pharmacists Integrated as Health Care Providers – Pharmacists are already integrated into primary care as health care providers. Successful delivery of these services within an integrated healthcare system demonstrates existing interprofessional collaboration and support.
- 2) Recognition as Health Care Providers – Pharmacists that deliver patient care services, including management of disease through medication use, should be recognized as health care providers and practitioners as defined in the Social Security Act and other health legislation and policy.
- 3) Compensation Mechanisms – Current compensation mechanisms for pharmacists in advanced practice roles need to expand and reflect the level of patient care services provided. The lack of compensation mechanisms is a current barrier for optimal health system outcomes, and the expansion and sustainability of pharmacist involvement.
- 4) Evidence-Based Alignment with Health Reform – Through the delivery of patient care services, pharmacists improve outcomes, increase access to services for medically underserved and vulnerable populations, improve patient safety, shift time for physicians to focus on diagnosis and more critically ill patients, improve patient and provider satisfaction, enhance cost-effectiveness, and demonstrably improve the overall quality of health care through evidence-based practice.

Currently, 44 states have collaborative practice agreements in place. These agreements vary from state-to-state as well as the current federal models. Examples of these collaborative practices include immunization programs, medication therapy management and disease management with defined privileges, which sometimes include prescriptive and laboratory authority. Two progressive states using the latter model are New Mexico, which recognizes certified “Pharmacist Clinicians,” and North Carolina, which recognizes certified “Clinical Pharmacist Practitioners.” These new health care delivery models share an integrated approach to leverage the strengths of the many members of the health care team to improve the quality and access to care for our patients.

Pharmacists are currently at a critical crossroad that will define the future of our profession. The decision of which path to take should center upon the roles and responsibilities that we as pharmacists have decided to adopt. UHCOP remains totally committed to producing the highest quality professional pharmacists to meet the health care needs for our patients in the great state of Texas and beyond. This will provide a terrific foundation for our program as we embark upon our new “Vision 2020 journey.”

F. Lamar Pritchard, Ph.D.

Dean, College of Pharmacy



University of Houston College of Pharmacy

INTERACTIONS

On the Cover: Much like a lighthouse serves as a beacon of safe harbor for ships in a storm, the UHCOP Vision 2020 Strategic Plan seeks to pierce through the cloud of uncertainty looming on the horizon of health care for Texans by expanding the role of the college and its faculty, student and alumni pharmacists and researchers. Read more about the Vision 2020 Strategic Plan above and on the next page.

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Accreditation Renewal Paves Way for Strategic Plan Update

With the Accreditation Council for Pharmacy Education last year continuing UH College of Pharmacy's accreditation status through 2017, the college began work on charting the college's course for the next accreditation cycle and beyond.

The Vision 2020 Strategic Plan was crafted over several months of introspection and dialogue through brainstorming sessions, open forums and surveys among the college's leadership, faculty and staff, alumni and students. These groups, as well as teams of Bauer College MBA students, also provided critical analyses of the college's strengths, weaknesses, threats and opportunities.

Recent Dean's Advisory Council (DAC) appointee **Lisa Scholz**, Pharm.D. ('99), MBA, American Pharmacists Association Vice President and Senior Director of the Pharmacy Services Support Center, said the plan provides a foundation for taking advantage of opportunities in a new era of health care.

"UHCOP is in a unique environment to be able to partner with the community, state initiatives and federal

programs," she said. "The vision takes into account where the college needs to be active participants to prepare the next generation, retain high-quality faculty, and create sustainable funding. The future of the profession is hinged upon being prepared for practice model shifts, innovation and patient demand. Pharmacy educators must be prepared, and the UHCOP Vision 2020 is on target."

Pharm.D. candidate **Rusol Karralli**, who served as the student representative on the Strategic Planning Committee, said the transformation of health care in the coming years makes the college a core contributor to UH's future.

"I recognize that one of the biggest opportunities for our college is the university's recent achievement of Tier One status," she said. "It is vital that the college solidifies its place in the UH strategic plan and gains the support of the entire university in

order to strengthen the college's positioning among other health professional programs in Texas and nationwide."

Pharm.D. student **Bobby Clay**, a member of the Dean's Student Advisory Council, said the faculty and committee did an "outstanding job" in listening to student input.

"I am pleased to see that the college has a finite plan for growth and development," he said. "Although it has given our college goals to become the best in the nation, the real work begins. It is imperative that our student body and the faculty continue to develop and implement programs to bring the vision to life."

DAC Co-chair **Bruce Biundo**, R.Ph. ('61), PCCA consultant, said the ultimate success of the plan is inexorably tied to the engagement of fellow DAC members and college alumni.

"The future of the profession is hinged upon being prepared for practice model shifts, innovation and patient demand."

— Lisa Scholz, UHCOP Dean's Advisory Council

"One of our key goals should be helping expand and increase revenue, by our own gifts and by identifying other potential donors," Biundo said. "We have

to become more effective ambassadors and advocates for the college, especially in having key messages that we can deliver to people of influence. The DAC has moved more into that arena, but we have a long way to go to help the COP attain its goals."

Scholz echoed Biundo's assessment of alumni, DAC members and other partners being paramount to the plan's fate.

"Creating a vision is only the first step, the follow-through on developing tactics, key performance indicators, and environmental scans will be critical," she said. "A college without alumni support through mentorship, financial support or fellowship is compared to a person on an island by themselves. Instead, we are a community – a pharmacist community. The vision supports the profession and, in turn, continues to support what we all do each day: provide the best and most accessible care to the patients we serve."

The complete Vision 2020 Strategic Plan is posted online at www.uh.edu/pharmacy/_documents/admin/UHCOP_Vision2020_final.pdf. Following are the 10 Strategic Imperatives by which the college will preserve and enhance its strengths and leverage opportunities for revenue generation and competitive ascendancy:

1. Grow, Diversify and Expand the College's Revenue Base
2. Increase Research-Based Scholarly Activity and Collaboration
3. Strengthen College of Pharmacy political positioning relative to other health professional programs in Texas.
4. Develop and enhance the College of Pharmacy educational programs to the point where the graduates become leaders and agents of change.
5. Develop the University of Houston Center for Drug Discovery that will provide a foundation for bringing together the strengths of many

research disciplines across the UH campus and beyond.

6. Raise awareness of the value of pharmacy among consumers and patients, among elected officials and policymakers, among the media and among all healthcare partners and stakeholders.
7. Contribute significantly to the systematic improvement of health care delivery and the health of our communities.
8. Development of the University of Houston Center for International Pharmacy Leadership. The purpose of this Center will be to promote leadership opportunities for faculty and students at the national and international level.
9. Build a new state-of-the-art Pharmacy building that will provide all of the facility and technological resources that will be necessary to meet the extensive goals of a Tier One Pharmacy College.
10. Become innovators in the delivery of pharmacy education.

Walgreens Teams with College on PGY1 Community Residency

UH College of Pharmacy and Walgreens have teamed to develop a PGY1 Community Pharmacy Residency program, which will be launched in July.

The program's primary practice site will be at the Walgreens health-system pharmacy at the St. Luke's Medical Tower in the Texas Medical Center. The resident will develop health and wellness programs; disease state management programs in areas such as HIV/AIDS, oncology, transplant, asthma/COPD and Hepatitis C; Medication Therapy Management (MTM); pharmacist-administered immunizations; and community outreach programs. In addition, the resident will design and conduct a practice-based research project and precept Pharm.D. students.

Santhi Masilamani, Pharm.D., MBA, CDE, UHCOP clinical assistant professor and director of Ambulatory Based Advanced Pharmacy Practice Experiences, will serve as residency director.

"The community residency program provides an ideal opportunity to further demonstrate the impact of pharmacists in enhancing patient outcomes through MTM and the many other skills and knowledge unique to our profession," Masilamani said.

Judy Sommers Hanson, Pharm.D., FAPhA, senior manager of Health Testing Services and Clinical Education Retail Clinical Programs, Walgreens Pharmacy Services, said her company is

making a greater investment in residency training programs. The Texas program is one of 10 community residencies sponsored by Walgreens across the U.S.

"We see that with the completion of quality residency training, we have pharmacists that will be the future leaders of patient care services in our pharmacies," Hanson said. "Residency-trained pharmacists will continue to drive our efforts forward as we transform community pharmacy so that the community pharmacist is an integral partner in a patient's overall care.

"Residency-trained pharmacists will continue to drive our efforts forward as we transform community pharmacy..."

— **Judy Sommers Hanson, Walgreens**

"The overall goal for the resident's training is to develop the leadership and clinical skills of the pharmacist in order to prepare them for the delivery of patient care services in community practice in Walgreens pharmacies."

Walgreens District Supervisor **Carole Hardin-Oliver**, R.Ph. (B.S. '83), said the program took about a year to develop after she and Masilamani first discussed the idea.

"One of the reasons we felt confident and eager to put the program together to serve the unique patient populations of the TMC was the active participation by Dr. Santhi Masilamani and Dean Lamar Pritchard," Hardin-Oliver said. "Community residencies are becoming more defined, and this program aligns well with our overall goal of expanding Walgreens wellness services. I've always believed that we're all clinical pharmacists."



Cougars Spring into Action for College Picnic, TSHP Reception

UHCOP students, alumni, faculty, staff and Dean's Advisory Council members enjoyed fellowship and food at the Spring Picnic in UH's Lynn Eusan Park. Attendees included, counterclockwise, Pharm.D. candidates (left) Lauren Johnsen and Rusol Karralli (right) with faculty member Nancy Ordonez ('98); faculty member David Wallace ('98), and daughter Megan; Chili Cookoff competitors Dean Lamar Pritchard and Jerod Braschler, who captured his second consecutive crown; and Michael O'Neill ('62), Joe Ickes ('73), Paula and John J. ('62) Lovoi. The college's Alumni & Friends reception at the TSHP Annual Seminar in Dallas was visited by alumni Perry Flowers ('90), Sarah Lake-Wallace ('00) and Theresa West ('88); and (left) Kimberly Putney ('00), and (right) Craig Frost ('92) with TSHP President-elect Designate Larry Egle.



Pritchard Among Area Leaders Connecting Providers, Patients in Health Information Exchange

UH College of Pharmacy Dean **F. Lamar Pritchard**, Ph.D., and fellow board members of the Greater Houston Healthconnect recently announced that the regional electronic health information exchange (HIE) system continues to expand after achieving “operational” status.

Greater Houston Healthconnect is an independent, community supported organization responsible for enabling information sharing among healthcare providers, including pharmacies.

Healthconnect is tasked with mobilizing healthcare information electronically across organizations to enhance the safety, quality and efficiency of care and improve information access throughout the region. Key stakeholders include healthcare providers, payers, employers and the community as a whole.

The Galveston County Health Information Exchange and the Health Information Exchange of Southeast Texas recently merged into the Greater Houston Healthconnect. Representing the largest HIE market area in Texas, Healthconnect now covers a 26-county region with a total of 133 hospitals, more than 14,000 physicians and a population of nearly 7 million.

The exchange of patient information between GHH healthcare providers began in December 2011 via the Office of the National Coordinator for Health Information Technology’s Direct Project Protocol service. A member of Healthconnect’s Board of Directors since August 2011, Pritchard was appointed Chair of the Technology Selection Committee in October.



Pritchard

With the stewardship of a diverse governing board, contributions from a broad stakeholder group and a dynamic management team, Healthconnect became operational in less than a year – a rapid progression as compared with the long start-up times associated with many other HIEs around the country.

Founded through the collaboration of the Center for Houston’s Future and the Harris County Healthcare Alliance, the Healthconnect received support from a federal grant administered through the Texas Health Services Authority (THSA) and by contributions from area organizations in the early stages of planning and development.

Pritchard will be a panelist for the “Connectivity for a New Healthcare Future” session during the 2012 Healthcare Executive Summit in Houston June 20.

For more information on GHH, visit <http://ghhconnect.org/HomePage.html>.



Rajender Aparasu, Ph.D., professor, has been appointed Executive Editor of the *International Journal of Pharmaceutical Sciences and Nanotechnology*.



Jessica Cottreau, Pharm.D., clinical assistant professor, was elected 2011-12 Chair of the American College of Clinical Pharmacy’s Infectious Diseases Practice and Research Network. Cottreau also has been appointed Director for the UHCOP PGY2 Infectious Diseases Pharmacotherapy Residency Program with Cardinal Health and St. Luke’s Episcopal Hospital.



Joydip Das, Ph.D., assistant professor, was named as the 2011 recipient of the UHCOP Faculty Excellence Award in Research.



Aditi Marwaha, Ph.D. ('05), lecturer, was named as the 2011 recipient of the UHCOP Faculty Excellence Award in Teaching.



Santhi Masilamani, Pharm.D., CDE, MBA, clinical assistant professor, has been appointed Patient Safety Officer for the HOPE Clinic, a nonprofit community health clinic in southwest Houston.



Randall A. Prince, Pharm.D., BCPS, professor, was one of four founding members recognized with the 2011 Distinguished Service Award from the Society of Infectious Diseases Pharmacists.

Lamar Pritchard, Ph.D., professor, has been appointed to the editorial board of the *Journal of Pharmaceutical Technology and Drug Research*.



Samina Salim, Ph.D., assistant professor, was invited to serve on her fourth American Heart Association review panel study section. She also was invited to serve as a judge at the 53rd Science Engineering Fair of Houston.



Lindsay Schwarz, Ph.D., instructional assistant professor, was named as the 2011 recipient of the UHCOP Faculty Excellence Award in Service.



Jeff Sherer, Pharm.D., M.P.H., clinical associate professor, was recognized with the 2011 UH Rho Chi Society Teaching Excellence Award.



Vincent H. Tam, Pharm.D., BCPS, associate professor, has been reappointed to a new three-year term on the editorial board of *Antimicrobial Agents and Chemotherapy*.



Meghna Trivedi, Pharm.D. ('03), Ph.D. ('04), assistant professor, has earned the designation of Board Certified Oncology Pharmacist (BCOP) by the Board of Pharmacy Specialties.



Louis Williams, Ph.D., associate professor and advisor for UH’s Kappa Psi chapter, was a recipient of the 2011 Grand Council Delegate Certificate of Excellence from the national fraternity. He also was recognized with 2011 UH Rho Chi Society Teaching Excellence Award.

Aparasu Earns 2012 Fellow Designation from APhA Academy

UHCOP Professor **Rajender R. Aparasu**, Ph.D., recently received one of the highest honors in the pharmacy community by being named a 2012 Fellow of the American Pharmacists Association.

Aparasu was one of only six individuals nationwide to be selected by the APhA's Academy of Pharmaceutical Research and Science for the honor at the APhA Annual Meeting in New Orleans in March.

"It is an honor and a privilege to receive this prestigious recognition from the APhA, and I am grateful to the University and the college for providing a Tier-One platform to contribute at the national level," Aparasu said.

Aparasu earned his Ph.D. from the University of Louisiana at Monroe and bachelor's and master's degrees in pharmacy from India. He has received several federal and non-federal grants to address a variety of issues in pharmaceutical practice and policy, and served on Federal Patient Safety and APhA Medication Therapy Management task forces.

Aparasu became the Division Head of Pharmacy Administration shortly after joining UHCOP in 2006. He was instrumental in the growth of college's Pharmacy Administration graduate training programs as well spearheading the creation of one of the largest M.S./Residency programs in the country in collaboration with six Texas Medical Center institutions.

He has published more than 50 peer-reviewed papers, delivered



Robb D. Cohen Photography /courtesy of APhA

APhA Immediate Past President Marialice Bennett congratulates UHCOP Professor Rajender Aparasu on his selection as an APhA Fellow at the organization's annual meeting in March.

more than 100 international and national presentations and recently edited a book entitled "Research Methods for Pharmaceutical Practice and Policy."

An editorial board member of several pharmacy and healthcare journals, including serving as associate editor of BMC Geriatrics, Aparasu has been recognized as an exceptional peer reviewer.

"He is a great example to fellow APhA members on how to be involved in the profession at many levels," wrote **William Doucette**, Ph.D., R.Ph., FAPhA, professor at the University of Iowa College of

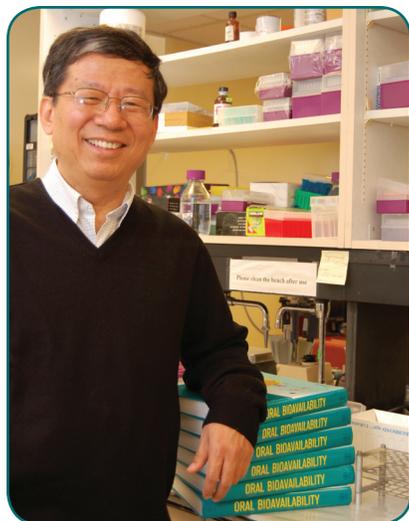
Pharmacy, in support of Aparasu's selection. "His commitment to APhA and the safe use of medications by older adults is reflected in his high performance as a pharmacy scientist and leader."

Shane Desselle, R.Ph., Ph.D., FAPhA, professor at the University of Oklahoma Health Sciences Center's College of Pharmacy, also praised Aparasu's research excellence and service commitment.

"Dr. Aparasu is one of the discipline's preeminent scholars," Desselle wrote of Aparasu. "Raj's research is of the utmost importance for the pharmacy profession and patients we serve. His work has helped to elevate pharmacoepidemiology and medication safety into our collective stream of consciousness.

"He is the consummate educator, researcher, professional, and giver."

Hu Publishes Book on Oral Bioavailability with Help of UH Alumni



Professor Ming Hu recruited several of his former students to contribute chapters for his new book on oral bioavailability.

UHCOP Professor Ming Hu, Ph.D., served as primary editor and a contributor on a new book exploring current knowledge and challenges of oral bioavailability, a key issue in the drug development and delivery processes.

Published by John Wiley & Sons, "Oral Bioavailability: Basic Principles, Advanced Concepts and Applications" features contributions from several UHCOP alumni: **Kaustubh Kulkarni**, Ph.D. ('10), **Rashim Singh**, Ph.D. ('10), **Stephen Wang**, Ph.D. ('07), and **Wei Zhu**, Ph.D. ('08).

The book is intended to serve as a practical guide and resource to help Pharm.D. students, graduate students in the pharmaceutical sciences and scientists trained outside of the field understand the

complexities of oral bioavailability as well as discussions of state-of-the-art methods for studying and optimizing it.

"One of the reasons I pursued this project was to bring together many concepts and developments into one volume, which I felt had not been done before," Hu said.

The book was co-edited/coauthored by **Xiaoling Li**, Ph.D., Hu's colleague at the University of the Pacific and undergraduate classmate from China. It also features a foreword by **Gordon Amidon**, Ph.D., Hu's former mentor at the University of Michigan who is credited with developing the fundamental basis for the Biopharmaceutics Classification System used as a guide by the FDA to predict intestinal drug absorption.

Medicinal Chemistry, Clinical Research Faculty Join College

University of Houston Vice Chancellor/Vice President for Research and Technology Transfer **Rathindra N. Bose**, who joined UH in August 2011, has accepted a joint faculty appointment in UH College of Pharmacy. Before joining UH, Bose served as vice president for research and dean of the Graduate College at Ohio University. Bose received his Ph.D. in chemistry from Georgetown University.



Bose

He has published more than 90 refereed articles and 73 abstracts and proceedings. Bose's research has been supported through several grants from the National Science Foundation, National Institutes of Health, the Ohio Board of Regents and the U.S. Department of Education. Bose has one issued patent and three patent applications on cancer drugs and fuel cell electrocatalysts pending at the U.S. Patent and Trademark office.

Gregory Cuny, Ph.D., has joined the UH College of Pharmacy faculty as an assistant professor of medicinal chemistry. He previously served as an assistant professor and postdoctoral research advisor at Brigham & Women's Hospital and Harvard Medical School in Cambridge, Mass.; co-director of the Laboratory for Drug Discovery in Neurodegeneration at the Harvard NeuroDiscovery Center; and undergraduate research advisor at Harvard University's Department of Chemistry.



Cuny

Cuny earned his doctorate in organic chemistry from the Massachusetts Institute of Technology (MIT). Cuny has published more than 75 journal articles and delivered more than 40 presentations. He has been issued or has applications of file for more than 30 patents with the U.S. Patent Office. Cuny's current areas of research interest include the screening of natural and non-natural analogs as potential therapeutic applications in oncology and other diseases as well as the design of selective inhibitors for *Cryptosporidium* species parasites and other pathogenic microorganisms.

UHCOP alumna **Dhara N. Shah**, Pharm.D. ('08), has joined the college as a Research Assistant Professor after completing the two-year UHCOP/St. Luke's Episcopal Hospital Infectious Diseases Pharmacy Fellowship program. After graduating summa cum laude from the college, Shah completed a PGY1 pharmacy practice residency at Memorial Hermann-TMC.



Shah

She was a recipient of the Best Resident/Fellow Poster Award from the American College of Clinical Pharmacy in 2010, as well as an Infectious Diseases Fellows Grant from the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) in 2011 and 2010. Shah will continue to focus her research on infections associated with *Clostridium difficile* and *Candida* species and related antimicrobial stewardship projects in collaboration with her infectious diseases fellowship program mentor Kevin W. Garey, M.S., Pharm.D., associate professor.

4 Faculty Members Earn Academic, Staff Leadership Promotions



Asghar

Mohammad Asghar, Ph.D., has been promoted to assistant professor of pharmacology. Asghar had served in research assistant professor and research associate positions since joining the college in 1999. With primary research interests in the role and mechanisms of receptor function in the kidney in response to age-related oxidative stress in hypertension,

Asghar recently was awarded a five-year, \$1.5 million grant from the National Institutes of Health (*see next page*).

Hua Chen, Ph.D., M.D., has been promoted to associate professor of pharmacy administration. A faculty member since 2005, Chen has received research support from the American Association of Colleges of Pharmacy, Agency for Healthcare Research and Quality, and the Pharma Foundation. Her primary research interest is in psychotropic polypharmacy in adolescents, adults and seniors.



Chen



Coyle

Elizabeth A. Coyle, Pharm.D., BCPS, clinical associate professor, has been appointed Assistant Dean of Assessment. A UHCOP faculty member since 2000, Coyle served on the Pharm.D. Curriculum Committee since 2004 and chaired the committee for the past five years as well as the Curriculum section of the college's 2011 Accreditation Self-Study. Coyle will

continue to teach in the Pharm.D. program and precept residents at her M.D. Anderson Cancer Center practice site.

Samina Salim, Ph.D., has been promoted to assistant professor of pharmacology. Salim had served as a research assistant professor since 2004. Salim's primary research interests are in the role and mechanisms of oxidative stress in anxiety and anxiety-like behavior. She recently received a three-year, \$443,000 grant from the National Institutes of Health for her investigation into the mechanisms of anxiety (*see page 9*).



Salim

NIH Awards \$1.5M Grant to Asghar for Investigation into Mechanisms of Hypertension

The associative observation between salt intake and high blood pressure, often called hypertension, is thousands of years old. Sometime during third century B.C., the Yellow Emperor's Classic of Medicine, *The Huang Ti Nei Ching*, described the “hard pulse” or “hypertension” resulting from high salt intake. Since then, researchers have been trying to define the relationship between high salt and hypertension.

The kidney is a vital organ that maintains body's sodium (salt) homeostasis and regulates blood pressure. Recent research by UH College of Pharmacy investigators linking oxidative and inflammatory stress to the function of two key kidney receptor systems has yielded new insights into their role in managing sodium balance and blood pressure. Their ongoing work could lead to new treatments for millions of hypertensive Americans at risk for stroke, heart failure and a range of other cardiovascular diseases due to high blood pressure, which is a major risk factor for these ailments.

According to a February 2011 report by the Centers for Disease Control and Prevention, about 68 million Americans— or 1 in 3 U.S. adults – have hypertension and more than half of all Americans age 60 and older have high blood pressure. As the 60-plus population continues to expand and only modest gains in hypertension diagnosis and control have been achieved in recent decades, the associated cardiovascular diseases in this age group are likely to pose a huge burden on health care costs.

Funded by a new five-year, \$1.5 million grant from the National Institute on Aging, UHCOP Assistant Professor **Mohammad Asghar**, Ph.D., is exploring the mechanisms by which oxidative and inflammatory stressors – considered hallmarks of the aging process – alter the function of two critical receptor systems in the kidney that are involved in sodium metabolism and blood pressure.

Although there are different hormonal systems in the body that aid in sodium balance, but the dopamine and angiotensin II receptor systems – the focus of Asghar's research – play pivotal roles in fine-tuning sodium homeostasis and maintaining normal blood pressure.

“When the function of these two receptor systems is defective, sodium homeostasis is disturbed, causing an increase in blood pressure,” Asghar said. “Yet, it remains unclear as to what triggers the dysfunction of the receptors and their delicate balancing act.”

In research conducted by Asghar and his UHCOP collaborators and published in peer-reviewed journals such as the *American Journal of Physiology–Renal Physiology*, *Hypertension*, *FEBS Letters* and *Behavioral Brain Research*, two leading culprits – age-related oxidative stress and inflammatory stress – have



Jerry Powers photo

Assistant Professor Mohammad Asghar is investigating the mechanisms of age-related oxidative and inflammatory stress in hypertension as well as how exercise and antioxidant/anti-inflammatory therapeutic agents may restore the function of two key receptors and reduce hypertension.

been identified. The results of his previous NIH-funded project showed that exercise training in rats builds up strong anti-inflammatory and antioxidant environments and improves kidney functions during aging.

“In our new phase, we are attempting to determine the mechanisms by which oxidative stress and inflammatory stress exert their actions upon these receptors and contribute to increased blood pressure,” Asghar said. “We are currently investigating if exercise training has beneficial effects in improving dopamine and angiotensin II receptor functions, sodium balance and control of blood pressure during aging.”

Asghar is a strong proponent of moderate, regular exercise and better dietary habits – such as eating more whole grains and fresh vegetables and fruits and fewer processed or other foods high in sodium – as numerous studies have linked both practices to reducing oxidative and inflammatory stress (although an increase in inflammatory stress typically is associated with acute exercise).

Asghar believes that his research may identify future therapeutic targets to control blood pressure, especially in “resistant hypertensive patients.”

“Resistant hypertension, which is typical of aging phenomenon, requires a combination of drugs for blood pressure control,” he said. “Currently available medications are not effective to treat resistant hypertensive patients.”

Asghar also believes that his exercise research could yield potential therapeutic targets that are exercise mimetics, which might prove to be greatly beneficial in personalized therapy specifically for those individuals who are unable to exercise due to physical or other disabilities.

“My research is focused on aging, but the outcomes may benefit hypertensive patients, adult and older individuals alike,” he said.

Salim Secures NIH Support for Oxidative Stress, Anxiety Study

With new funding from the National Institute of Mental Health, UH College of Pharmacy Assistant Professor **Samina Salim**, Ph.D., is examining the role and mechanisms of oxidative stress in the interaction of a key signaling protein and two antioxidant enzymes, which could identify a potential novel target for the treatment of anxiety.

“Anxiety is a very normal human emotion; it’s good to have a certain level of anxiety because it makes you want to be prepared,” Salim said. “When it’s persistent and chronic, then it becomes a problem. Unfortunately, our current treatments typically are inadequate and can lead to tolerance, dependence or sedation, and can take weeks to work.”

Based on NIMH estimates, about 40 million adult Americans (or 18 percent of the U.S. population) are affected by anxiety disorders in a given year, with about 22 percent of those cases (or 4 percent of the total population) experiencing “severe” anxiety. Encompassing a broad range of subtypes, such as panic disorders, post-traumatic stress disorder, phobias and obsessive compulsive disorders, anxiety disorders last at least six months and can get worse if left untreated.

Salim believes she may have found a “perfect storm” linking the Regulator of G-protein signaling protein (RGS), the antioxidant enzymes glutathione reductase (Gsr)-1 and glyoxalase (Glo)-1, oxidative stress and anxiety.

In separate studies published in the journals *FEBS Letters*,



Assistant Professor Samina Salim, pictured in the college’s Confocal Imaging Lab, is exploring the mechanisms and role of oxidative stress in anxiety.

Hippocampus, Brain Research and *Behavioral Brain Research* over the past two years, Salim and her collaborators have conducted experiments in which anxiety-like behavior was observed and an increase in the chemical markers of anxiety and oxidative stress was produced along with reduced levels of the RGS2 protein and Glo1 and Gsr1 enzymes.

“When we pharmacologically induce oxidative stress sub-chronically in a rat or use psychological stress to induce oxidative stress in rats, we observe anxiety-like behavior,” Salim said. “Yet, when you give an anti-oxidant to the same animals, the anxiety-like behavior is prevented.”

“These results indicate a causal role of oxidative stress through diminished antioxidant protection in anxiety.”

Supported by a three-year, \$443,414 grant awarded by NIMH in April 2012, the next phase of Salim’s research involves studying specific signaling pathways in brain-derived cell culture models of acute and sub-chronic oxidative stress as well as assessing those pathways in behavior observational studies of their rat model of anxiety, using both pharmacological as well as psychological induction of oxidative stress.

“We are trying to determine which pathways are activated, which proteins are down-regulated or up-regulated, and if one protein is blocked, what is the effect on the rest of the pathway or pathways,” she said.

BENCH NOTES



Diana S-L. Chow, Ph.D., professor, has received a \$31,500 award through a NASA Johnson Space Center grant to the Wyle Science, Technology and Engineering Group for a project entitled, “Clinical Pharmacokinetics of Intranasal Scopolamine (INSCOP).”



Kevin W. Garey, Pharm.D., M.S., assistant professor, has received an \$87,750 grant from Astellas Pharma US Inc., for his project, “Incidence and risk factors for breakthrough candidemia in hospitalized patients: Focus on optimization of antifungal therapy.”



Romi Ghose, Ph.D., assistant professor, has received a \$16,000 grant from Zone Labs Inc. for her project, “Anti-inflammatory role of Sesamol.”



Randall Prince, Pharm.D., BCPS, professor, has received a \$6,500 grant from Henry Ford Hospital for his project, “Study of intraocular penetration of systemic antibiotics in eyes with penetrating injury.”



Ke-He Ruan, Ph.D., M.D., professor, has received a \$20,000 award through a U.S. Army Medical Research Acquisition Activity to The Methodist Hospital Research Institute for his project, entitled “Imaging and treatment of atheroma by transplantation of vascular stem cells labeled with echogenic immunoliposomes.”



Meghna Trivedi, Pharm.D. (’03), Ph.D. (’04), clinical assistant professor, has received a \$20,062 award through a National Cancer Institute grant to Baylor College of Medicine for a project entitled “Circulating Breast Cancer Cells: A personalized model to study biology of tumor initiating cells.”



Faculty members Kevin Garey and Jessica Cottreau are pictured with City of Houston personnel Katherine Ngo, Raouf Arafat, Salma Khuwaja and Kirstin Short.

UH, City Collaborate on CDC Antimicrobial Reporting Project

As part of local and nationwide efforts to prevent and reduce healthcare-associated infections (HAIs), researchers with UH College of Pharmacy and City of Houston Department of Health and Human Services (HDHHS) are collaborating on a pilot project to facilitate health system reporting of antimicrobial use through a secure, Internet-based national surveillance system.

Supported by a recent \$342,000 grant from the Centers for Disease Control and Prevention (CDC), Houston is one of four pilot sites around the country working to integrate usage data from health systems' electronic medication administration records (eMAR) and Bar Code Medication Administration records (BCMA) into the CDC's National Healthcare Safety Network. Similar efforts are under way in Detroit, Mich.; Salt Lake City, Utah; and Chicago, Ill.

Inappropriate use of antimicrobials and the rise of resistant infections, specifically in the healthcare setting, are major public health concerns not only in terms of patient safety and outcomes, but also in economic costs to hospitals and the overall U.S. economy. According to the CDC, HAIs impact 1.7 million Americans each year, resulting in longer hospitalizations, approximately 99,000 deaths, and healthcare costs ranging from \$4.5 billion to \$5.7 billion. In addition, the CDC estimates that approximately 50 percent of antibiotic use in hospitals is unnecessary or inappropriate.

"The goal of the new surveillance system being developed through the vendors will offer real-time collection and reporting of antimicrobial use," said UHCOP principal investigator **Jessica M. Cottreau**, Pharm.D., clinical assistant professor. "This initiative will help create a national database where institutions can compare themselves to similar institutions and national benchmarks, then pursue or improve their existing antimicrobial stewardship efforts.

"Although most institutions evaluate their own data retrospectively, say over a year, no one uses standard metrics for collecting and reporting data across the board. Dose, number of doses, length of therapy and routes of administration are a few examples of the patient metrics that will be captured in standardized format for more than 70 antibacterial, antifungal and antiviral drugs."

Raouf Arafat, M.D., M.P.H., assistant director of HDHHS and division director of the Office of Surveillance and Public Health Preparedness, said city personnel will be working with CDC and their health department counterparts at other sites to ensure that data coming out of this project can be meaningful to drive health department actions and inform policy makers.

"The goal of the new surveillance system being developed through the vendors will offer real-time collection and reporting of antimicrobial use."

— **Jessica Cottreau**, Principal Investigator

"Previous efforts relating to HAIs and antimicrobial stewardship have utilized the time and expertise of infection control practitioners and direct care

personnel, such as physicians and nurses," Arafat said. "This project takes a novel approach by tapping into a different group, pharmacists, who also have a role in these activities.

"Beyond the novel approach of pharmacist involvement, the use of eMAR and BCMA software to offer real-time collection of data on antimicrobial use aligns with broader efforts by HDHHS to increase the ability for medical institutions and health departments to electronically exchange data."

In addition to serving as a liaison between the software vendors and health systems, Cottreau and co-investigator **Kevin W. Garey**, Pharm.D., M.S., associate professor, will be performing validation of data by medical chart reviews for each institution.

"The increasing use of technology and the importance of antibiotic stewardship has made this project of utmost importance," Garey said. "This pilot should pave the way for other hospitals to be incorporated into the project."

On the Road Again: Graduate Students Garner Travel Awards

The high quality of research by UHCOP graduate students has been rewarded with several external funding opportunities to attend regional, national and international scientific meetings and educational seminars during the 2011-12 academic year.

Four UHCOP pharmacology doctoral students received travel awards to present their research at the 2012 Experimental Biology meeting April 21-25 in San Diego, Calif.

Nour Al-Sawalha received a travel award from the **American Society for Pharmacology and Experimental Therapeutics** to present her project, "Role of β 2-adrenoceptor signaling and mitogen activated protein kinases in IL-13 induced mucus production in human airway epithelial cells." The study was coauthored by **Indira Pokkunuri**, Ph.D., UHCOP postdoctoral fellow; **Ozozoma Omoluabi**, Ph.D., senior project research associate with PRA International; and UHCOP faculty members **Richard Bond**, Ph.D. ('88), B.S. ('83), and **Brian Knoll**, Ph.D. The poster was part of the Systems Pharmacology/Toxicology–Asthma and COPD session.



Al-Sawalha

Doctoral student **Ashley Guillory** received a travel award from the **ASPET-Federation of American Societies for Experimental Biology (FASEB) Program** to present her project, entitled "Gravin-dependent multi-kinase signaling modulates cardiac function." Collaborators on the project for the CAMP Signaling and Compartmentation session were undergraduate biology students **Paul**



Guillory

Tran, a recipient of the Provost's Undergraduate Research Scholarship, and **Khadijah Bilal**, an Honors College student; UHCOP research assistants **Cori Wijaya** and **Andrea Diaz**; and **Bradley McConnell**, Ph.D., UHCOP assistant professor.

Last fall, **Ashley Guillory** earned a travel award from the **FASEB-Minority Access to Research Careers (MARC) Program** to attend a two-day **Leadership Development and Grant Writing Seminar Program for Graduate Students and Postdocs** in Virginia Beach, Va.



Bongmba

Ph.D. candidate Odelia Y.N. Bongmba and doctoral student **Luis Martinez** each received travel awards – their second such awards during the 2011-12 academic year – from the **FASEB-MARC Program** to present their research posters in the Central Nervous System session at Experimental Biology 2012. Bongmba's project, entitled "Rac1-dependent actin remodeling as a molecular mechanism shaping spine density," was coauthored by UHCOP assistant professor **Maria V. Tejada-Simon**, Ph.D., M.Ed. ('07). Martinez's project, entitled "In vivo ablation of promyelocytic leukemia (PMLP) tumor suppressor protein leads to behavioral changes in mice," was coauthored by **Tejada-Simon**.

Last fall, Bongmba and Martinez each received **FASEB-MARC** travel awards to present their research at the **2011 Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference** in San Jose, Calif. Bongmba's invitation included the honor of delivering an oral presentation of her project, "Spine abnormalities and altered plasticity associated to cognitive impairment involve Rac1 signaling." The project was coauthored by fellow doctoral student **Luis Martinez** and **Tejada-Simon**. Martinez presented a poster entitled "A critical role for the small GTPase Rac1 in long-term plasticity," which was coauthored by Tejada-Simon.



Martinez



Chatterjee

Pharmacy Administration doctoral student and alumna **Satabdi Chatterjee**, M.S. ('10), received a 2011 **International Society for Pharmacoeconomics and Outcomes Research Student Travel Grant** to present her research at the **14th Annual ISPOR European Congress** in Madrid, Spain, in November. Chatterjee's study was entitled "Comparing multiple propensity score adjustment and traditional regression analysis to assess the exposure-outcome association using retrospective claims data." The project was coauthored by UHCOP faculty members **Rajender Aparasu**, Ph.D., **Hua Chen**, Ph.D., M.D., and **Michael Johnson**, Ph.D.

Pharmacy Administration doctoral student and alumnus **Hemalkumar Mehta**, M.S. ('10), received a **SCSUG Junior Professional Scholarship Award** to attend the **2011 South Central SAS Users Group Education Forum**, which was held Nov. 6-9 in Fort Worth. (UH will serve as the host site for the 2012 SCSUG Education Forum in November.)



Mehta



Rahman

Pharmaceutics doctoral candidate **Ghazi Rahman** received a **Graduate/Postdoctoral** travel award from the **American Society for Biochemistry and Molecular Biology** to present a poster at the society's 2012 Annual Meeting, which was held in conjunction with the Experimental Biology 2012 meeting in San Diego, Calif., in April. Rahman presented a poster entitled, "Identification of the activator binding residues of PKC theta." The project was coauthored by **Sreejesh Shanker**, senior staff scientist at Baylor College of Medicine (BCM); **Nancy Lewin**, senior research assistant at the National Cancer Institute's Center for Cancer Research (CCR) in Bethesda, Md.; **B.V.V. Prasad**, Ph.D., professor at BCM; **Peter M. Blumberg**, Ph.D., senior investigator and head of the Molecular Mechanisms of Tumor Promotion Section at the CCR; and **Joydip Das**, Ph.D., UHCOP assistant professor.

Das Earns NIH Grant for Probe of Presynaptic Alcohol Target

A National Institutes of Health-funded collaboration between two UH researchers is exploring the activity of alcohol on a key neurotransmitter protein common to fruit flies, roundworms and humans as a potential new drug target for treating alcoholism.

Principal investigator (PI) **Joydip Das**, Ph.D., UHCOP assistant professor, and co-PI **Gregg Roman**, Ph.D., associate professor in UH College of Natural Sciences and Mathematics, are attempting to define the molecular mechanism by which alcohol (ethanol) effects the presynaptic protein called Munc 13-1, which is an essential protein for neurotransmitter release in the brain.

As part of the project, the researchers will study the behavioral and physiological responses to alcohol of a fruit fly model organism (*Drosophila melanogaster*) in which the activity of the Dunc13 protein – homologous to the Munc13.1 protein in mammals – has been altered after genetic manipulation.

“In our previous studies of ethanol and the protein kinase C (PKC) family, we found that there is alcohol binding on a specific area – known as the C1 domain – of PKC epsilon enzyme, which also regulates behavioral effects of alcohol,” Das said. “The C1 domain is also present in the Munc13-1 protein, so it’s possible that alcohol also binds in the C1



Assistant Professor Joydip Das and postdoctoral research associate Satyabrata Pany are studying the mechanisms of a presynaptic neuroprotein to determine its potential as a novel drug target for treating alcoholism and alcohol abuse.

domain of this protein and, consequently, modifies synaptic activity and overall nervous system function. If this hypothesis is confirmed, it could provide a novel target for pharmacologically modifying undesirable effects resulting from ethanol molecules binding to the protein.”

Das said the next phase would be to characterize the mechanisms in terms of identifying the site(s) of interaction between the alcohol molecule and the protein as well as the role of these sites on the protein’s function.

According to a study published last year in the *American Journal of Preventive Medicine*, the estimated U.S. economic cost of excessive alcohol consumption was \$223.5 billion in 2006.

“The problem of alcoholism and alcohol abuse has far-reaching and significant impacts on society, especially in terms of the physical and psychological effects on families and individuals,” Das said. “The effectiveness of currently available therapies has been very limited, partly because the molecular mechanisms of alcohol activity in the brain are not well understood.”

The collaborative project is being funded by a two-year, \$393,750 grant from the National Institute of Alcoholism and Alcohol Abuse.

Project Aims to Pinpoint True Costs of Recurrent C-diff Infections

A multi-institutional investigation lead by UHCOP Associate Professor **Kevin W. Garey**, Pharm.D., M.S., is aimed at developing a more accurate picture of the total cost of *Clostridium difficile* infection (CDI), the most common cause of infectious diarrhea in the healthcare setting.

According to Centers for Disease Control and Prevention estimates, more than 250,000 hospitalized cases of CDI occur in the U.S. each year. With health effects range from mild diarrhea to life-threatening colitis, CDI is frequently implicated in recurrent infections and extended or repeat hospitalizations, as well as increased patient mortality.

With the support of a \$190,757 grant from Merck & Co., **Garey** and a team of investigators at UHCOP, the University of Texas School of Public Health, Baylor College of Medicine, The Methodist Hospital and St. Luke’s Episcopal Hospital are working to determine the direct medical and nonmedical costs associated with CDI.

Previous estimates of the annual cost of CDI recurrence to the U.S. economy range from \$750 million to more than \$3 billion,

but even the study authors noted their cost assessment likely was a gross underestimate.

Available literature also has failed to capture both medical and nonmedical costs, as well as costs associated with the hypervirulent “BI/NAP” strain responsible for severe outbreaks in North America and Europe.

“The scarcity of data on CDI costs prevents decision-makers from accurately evaluating the potential cost-effectiveness of novel or high-cost therapies and more extensive infection control procedures,” Garey said. “Capturing the true costs of CDI is especially critical with the limited resources of the current economy.”



Garey

Garey’s project involves tracking the incidence, progression and outcomes of *C. diff.*-associated diarrhea (CDAD) in approximately 300 patients during their hospitalization and for up to six months following discharge, depending on recurrence of symptoms.

College, Healix Explore Avenues for Research Collaborations

UH College of Pharmacy and Healix Inc., a national leader in the field of parenteral services to medical facilities, recently entered into formal discussions to explore a range of opportunities for research and clinical collaboration.

“Through cooperation with UH College of Pharmacy representatives, we identified several collaborative areas of interest and believe that the college is uniquely positioned to offer strong infectious disease clinical research expertise in conjunction with Healix’s medical and pharmacy practice research,” said **Lucinda Van Anglen**, Pharm.D., M.S., Healix vice president of Pharmacy Services. “Our strategic partnership will allow both organizations to pursue innovative research in comparative effectiveness for outpatient infectious disease services, hospital avoidance, adverse-effect reduction, and even new product innovations.”

Healix began as a home infusion services business in 1989 by **Mort Baharloo**, a former pharmacist who serves as the company’s Chairman of the Board and Chief Clinical Officer, and **Alan B. Chaveleh**, President and Chief Executive Officer.

In 1995, the Sugar Land-based company launched an integrated infusion center program that combines patient care, human resources, business office services, and financial management for physicians and health systems. The company also operates a state-of-the-art compounding facility in Sugar Land.

“This initiative with Healix is a natural fit of their expertise in

pharmacy practice and patient-care delivery and our faculty’s expertise in the creation of novel drug formulations to optimize patient care,” said **Douglas Eikenburg**, Ph.D., chair of the college’s Department of Pharmacological and Pharmaceutical Sciences. “As the demand for more translational research in the biomedical sciences increases, I anticipate that our collaborations will provide mutually beneficial opportunities both in basic research and product development.”

Kevin Garey, Pharm.D., M.S., chair of the college’s Department of Clinical Sciences and Administration, echoed Eikenburg’s assessment.

“Healix’s unique positioning as an outpatient provider of antimicrobials, coupled with the college’s strength in infectious diseases, has the potential for synergy in our efforts to improve clinical care and answer important research questions,” he said.



Lucinda Van Anglen, Healix Vice President of Pharmacy Services, and John Antel, UH Vice President of Academic Affairs & Provost, sign the Memorandum of Understanding between Healix and UHCOP.

Presentations Secure Awards at Houston Research Conferences

UHCOP faculty members and students took home a total of five first- and second-place awards from Houston-based research conferences sponsored by the **Kelsey Research Foundation** and **The Methodist Hospital**.

At Kelsey’s **12th Annual Health Services and Outcomes Research Conference** in November 2011, **Susan Abughosh**, Ph.D., UHCOP assistant professor, won first place in the “Safety” category for her project entitled, “Waterpipe smoking among U.S. university students: The effect of Middle Eastern ethnicity.” The study was coauthored by **I-Hsuan Wu**, M.S. (’11), Pharmacy Administration doctoral student; **Rustin Crutchley**, Pharm.D., UHCOP clinical assistant professor; **Ronald J. Peters**, Dr.P.H., University of Texas Health Science Center at Houston School of Public Health associate professor; and **E. James Essien**, Ph.D., Dr.P.H., UHCOP professor.



Abughosh



Wu

Wu took second place in the “Safety” category for her project, “Predictors of intention to quit cigarette smoking among Jordanian adults.” Coauthors of the study were **Feras Hawari**, M.D., director of the Cancer Control Office and Pulmonary/Critical Care Chief at King Hussein Cancer Center in Amman, Jordan; **Peters**; **Crutchley**; **Essien**; and **Abughosh**.

Digvijay Yeola, MBA, Pharmacy Administration graduate student, and coauthor **Sujit Sangsiry**, Ph.D., UHCOP associate professor, received a second-place award in the “Effectiveness” category. Their study was entitled, “Thoracoscopic Talcage (TT) vs. Thoracoscopic Pleural



Yeola



Yeung

Abrasion (TPA) as treatment choice for pneumothorax in patients with cystic fibrosis (CF): A cost effectiveness study.” Pharm.D. student **Denise Yeung** was the second-place award recipient in the “Patient-centered Care” category for her project entitled, “Fidaxomicin for the treatment of *Clostridium difficile*.”

At the 2011 Gulf Coast Women’s Health Research Forum at The Methodist Hospital, Pharm.D. candidate **Achshah Philip** won first place in the Social/Applied Sciences category. Philip’s project, entitled “Knowledge regarding issues in women’s health in a professional pharmacy program,” was coauthored by UHCOP faculty members **Cathy Hatfield**, Pharm.D., and **David Wallace**, Pharm.D. (’98).



Philip

Cervical Cancer Prevention Study Earns Poster Award at TSHP

A UH College of Pharmacy student-led research project indicating that 68 percent of the cervical cancer patients at Harris County's primary community hospital had no screening prior to their diagnosis was selected as the 2012 Best Student Research Poster by the TSHP Research & Education Foundation.

Pharm.D. student **Jessica Stover** won the award for a 10-year retrospective study of the incidence of cervical cancer among patients undergoing treatment in the Gynecologic Oncology Clinic at Ben Taub General Hospital in the Harris County Hospital District (HCHD). Coauthors on the project were Pharm.D. candidates **Natalie Lee**, **Robert McCoy** and **Pratikumar Patel**; **June Hanke**, R.N., M.S.N., M.P.H., strategic analyst/planner at HCHD; UHCOP Assistant Professor **Claire Mach**, Pharm.D. ('06), who also maintains a clinical research site at the Ben Taub clinic; and Baylor College of Medicine Assistant Professor **Matthew Anderson**, M.D., Ph.D.

The study also found that those who had not received screening prior to diagnosis were more likely to be diagnosed at Stage IB2 (visible without a microscope) or higher, which generally require regimens of chemotherapy and radiation costing in excess of \$50,000.

The investigators said the results of their preliminary analysis are significant in light of data from the Centers for Disease Control and Prevention and other research that indicates both the incidence rate and mortality rate for cervical cancer in African-American, Hispanic and Caucasian women is higher in Harris County than the statewide and national rates.



Pharm.D. student **Jessica Stover** is congratulated by UHCOP alumni and TSHP Research & Education Foundation representatives **Sarah Lake-Wallace** and **Craig Frost**.

Stover said the study suggests underserved/underinsured women may benefit from earlier diagnosis or increased education and awareness – both for and from – pharmacists and other health professionals about human papillomavirus (HPV), cervical cancer, regular screenings and the availability of preventive measures such as HPV vaccination.

The authors also noted that although HPV vaccinations do not replace the need for recommended screening and current HPV vaccines do not cover all types of HPV known to lead to cervical cancer, vaccination may be effective in reducing the occurrence of the disease among the underserved/underinsured who lack access to screening.

Undergraduate Researchers Thrive in UHCOP Pharmacology Labs

Based on research conducted at UH College of Pharmacy and a German university, UH undergraduate student **Annie Pally** won a highly competitive poster award last fall at one of the largest conferences for biomedical and behavioral students in the U.S.

The Honors College biochemistry major won one of 20 poster awards in the neuroscience category at the November 2011 Annual Biomedical Research Conference for Minority Students (ABRCMS), which drew nearly 1,500 student presenters. Pally's project, entitled "Regulation of the Central Cholesterol Pathway in an Animal Model of Autism," was the result of her work in the lab of UHCOP Assistant Professor **Maria V. Tejada-Simon**, Ph.D., M.Ed., and Tejada-Simon's collaborator at Goethe-University of Frankfurt am Main in Frankfurt, Germany. Tejada-Simon's lab is exploring the mechanisms of Fragile X Syndrome, a genetic condition that is the most common form of inherited mental retardation in boys.

After first working in Tejada-Simon's lab as a volunteer in spring 2011, Pally received research support from competitive local, national and international programs. Her work overseas



Biochemistry student **Annie Pally's** research into **Fragile X Syndrome** earned her a poster award at the 2011 ABRCMS meeting.

was backed by the DAAD-RISE (Deutscher Akademischer Austauschdienst-Research Internship in Science and Engineering) Fellowship, a jointly sponsored program of the German government and several of that nation's top research institutions, and a \$2,500 Summer Research Fellowship award from the National Fragile X Foundation's William & Enid Rosen Research Fund and the NFXF Research Fund. Pally resumed her work at UHCOP in the fall under the Provost's Undergraduate Research Scholarship (PURS) program.

Yet, Pally wasn't the only undergraduate student to recently earn recognition for her work with UHCOP faculty.

UH Human Nutrition and Food major and 2011 Summer Undergraduate Research Fellowship participant **Farida Allam** was earned one of 10 awards from a field of nearly 100 presentations at the UH Undergraduate Research Day in October. Allam's project, which was conducted under the supervision of UHCOP Assistant Professor **Samina Salim**, Ph.D., examined the protective effect of antioxidant grape extract on anxiety-like behavior, hypertension, learning and memory in a rodent model of oxidative stress.

Third Consecutive UHCOP Student Elected to NCPA Council

For the third consecutive year, a UH College of Pharmacy Pharm.D. student has been elected to the National Student Leadership Council (SLC) of the National Community Pharmacists Association.

Bobby Clay recently began the first year of his two-year term on the SLC, joining fellow UHCOP student and newly installed National President **Ezequiel “Zeke” Medina** on the council. Clay and Medina were preceded by UHCOP **Heath Goins**, who served on the SLC from 2010 to 2012.

The Winnie, Texas, native said pharmacy wasn't part of his original game plan to teach history, but the experience of working in a community pharmacy steered him toward the profession. As he was completing his undergraduate degree at Lamar University, Clay served as president of Lamar's pre-pharmacy student organization and came into contact with UHCOP recruiters.

“Even though my undergrad major was in history, I'd always had a strong interest in science,” Clay said. Being from a small town, interacting with people and getting to know their entire family are normal for me. Pharmacy seemed to fit me.”

NCPA also seemed a good match for Clay, who served as 2011-12 president of the UH chapter and was honored among about 30 other students nationwide as an “Outstanding Chapter Member” at the NCPA national meeting last fall. Clay was recognized for his public relations activities, such as developing and launching the chapter's Facebook page and website as well as drafting the end-of-year report for the national competition.

Since 2009, the UH chapter has quadrupled its membership (from about 15 to more than 60), organized an annual “Meet and Greet” networking event and road trips for member to interact with independent pharmacists from across the state, and initiated letter-writing campaigns to legislators in members' home districts. In 2011, the UH chapter advanced to sixth place in the nation for NCPA's Chapter of the Year Award.

“We're committed to promoting the organization to professionals as well as students; NCPA promotes the concept that we can all learn from each other,” Clay said. “Community pharmacy is not dead, but alive and thriving.”



Ezequiel Medina, left, who now serves as SLC National President; Heath Goins, center, who recently completed his two-year term; and newly installed SLC member Bobby Clay may be the first students in NCPA history to be elected from the same college three years in a row.

According to a 2010 NCPA report, independent pharmacies in Texas still outnumbered pharmacies respectively categorized as chain, mass merchant and grocery-based across the state.

Medina, who was elected President-elect during the first year of his two-year term on the SLC, said one of NCPA's key strengths lies in the resources and preparation available to members who have specific goals in mind for patient care while operating a successful enterprise.

“It's true that chain pharmacies are buying many independents, but a lot are also being bought or built by other independents,” Medina said. “It's critical to establish or find your niche and market your services to patients. But regardless of where your career takes you, I believe that the experience in the business part of pharmacy offered by NCPA – everything from inventory

and financial management to developing your business and marketing plans – is invaluable in preparing you to be successful in any pharmacy.”

Medina said the SLC has been experimenting with new tools such as the Skype web conferencing platform to ensure productive, regular communications with members in each region as well as seeking sponsors for an “ownership boot camp” for students.

A Class of 2012 Pharm.D. candidate, Goins said serving on the SLC was a tough, but rewarding experience to learn from – and share the UHCOP story with – students and independent pharmacists from around the country.

“I consider many of these pharmacists to be my mentors and am still in contact with them,” Goins said. “Many of them continue to give me advice as I work toward owning a pharmacy.”

Goins said he has the utmost confidence that Medina and Clay will serve as outstanding national representatives of the college and community pharmacy.

“Both of them are extremely passionate about their positions,” Goins said. “It really shows that we have strong leaders in our college who are willing and able to step up to challenges and do our part to better the profession.”

Coast-to-Coast Sites Expand Horizons of Pharmacy's Impact, Role in Health Care

From federal, regional and state government and regulatory agencies to underserved patient populations, Pharm.D. candidates in the Class of 2012 benefited from an expansive range of functions, settings and geographical sites for their advanced pharmacy practice experientials (APPEs).

The fourth year students not only were afforded an insider's look at the diverse career options available with their degree, but they also were given the opportunity to see -- and demonstrate in their own right -- the contributions pharmacists can and do make to improving patient outcomes and ensuring safe, effective pharmacotherapeutic practices.

Family/Internal Medicine

Nine students completed a total of 12 APPEs in Family or Internal Medicine among four sites serving the Native American population: Northern Navajo Medical Center in Shiprock, N.M.; Phoenix Indian Medical Center in Phoenix, Ariz.; U.S. Public Health Service Whiteriver Indian Hospital in Whiteriver, Ariz.; and the Southeast Alaska Regional Health Consortium's Mt. Edgcombe Hospital in Sitka, Alaska.

Assigned to the Phoenix site, **Vi (Jennifer)**

Doan said she pursued an APPE with the Indian Health Service because of its unique patient population and the availability of diverse clinical and

administrative experiences she believes are essential to every pharmacist's training.

"With inpatient care being my main focus, I provided a wide spectrum of



Doan



Adam Metcalf, Rusol Karralli, Jennifer Doan, Angel Trieu and Amin Esmaily-Fard were among the Pharm.D. candidates who completed advanced pharmacy practice experiences with federal agencies at sites from Alaska to Washington, D.C.

care from the patient's admission to their discharge by doing their initial medication reconciliation, immunization review, venous thromboembolism prophylaxis assessments, vancomycin and anticoagulation therapy management, and discharge medication counseling," she said. "I followed and managed my patients' medication therapies daily, in addition to participating on rounds."

The APPE offered a learning experience of a non-clinical nature as well, Doan said.

"The biggest aspect of this rotation is that it taught me the importance of being culturally aware of my patients," she said. "I have seen how cultural awareness has built trust between the patient and the healthcare professional at IHS."

At the Shiprock site, **Amin Esmaily-Fard** performed duties ranged from rounding and making recommendations on recently admitted patients as well as adult and pediatric ICU patients; preparing IVs or reviewing IVs made by technicians; counseling patients in the asthma clinic; and occasionally attending on a "code blue" emergency.



Esmaily-Fard

Citing his strong passion of pushing the boundaries of pharmacy to seek new frontiers for the profession, Esmaily-Fard said he was intrigued by the integrated pharmacy practice/pharmacist clinician

model used in IHS facilities.

"Undoubtedly, witnessing how integrated the practice of pharmacy is at IHS had the greatest impact on me," he said. "At many of my other rotation sites, there was clearly a distinction between clinical pharmacists and staff pharmacists. At IHS, each pharmacist has both staff and clinical responsibilities throughout their day; no distinction exists.

"Pharmacists were heavily involved in the care of patients, working alongside physicians and nurses to optimize care. So it was really great to see such an integrated pharmacy practice model. I strongly believe that this type of model is the future of our profession."

Legal & Regulatory Affairs

One of two students who worked at the Centers for Medicare & Medicaid Services regional office in Dallas, **Jessica Carreño** said she wanted to learn more about government health benefit programs such as Medicare Part D. Her duties including weekly meeting with staff in other areas, such as Clinical Laboratory Improvement Amendments (CLIA), Medicaid, and Program of All-Inclusive Care for the Elderly (PACE), as well as writing a brief for multiple pharmacy organization to communicate the new Open Enrollment Period.



Carreño

“I was in charge of coming up with ways of notifying the change to pharmacies in Texas, Arkansas, New Mexico, Oklahoma and Louisiana to educate their patients,” she said. “The feeling of independence is what I liked the most and knowing that pharmacists have a large scope of opportunities. Another aspect that I enjoyed was being able to spend time with individuals who had no clinical background, so being able to teach staff – who were very receptive – made this rotation a valuable experience.”

During her APPE at the Texas State Board of Pharmacy in Austin, **Jana Downing** assisted in TSBP investigations of complaints against pharmacists by interviewing both sides and adding her reports to the file for further review, investigation or action. Downing also fielded telephone queries from pharmacists about pharmacy law, observed informal conferences between TSBP personnel and pharmacists, and accompanied TSBP inspectors on visits to each class of pharmacy.



Downing

“The informal conferences were an eye-opening experience in terms of how strictly the laws are enforced; it was astounding to me that some pharmacists made very poor decisions that was detrimental to their pharmacy license,” she said. “It was important for me to gain a better understanding of how our profession is regulated so that I could identify ways I can be involved in the processes that govern it.”

“I think every Texas licensed pharmacist should be required to attend at least one board meeting within a five-year timespan. This will help keep pharmacists connected to the rule/law-making process and hopefully encourage more pharmacists to be politically involved with the profession.”

Before she began her assignment with the U.S. Food and Drug Administration’s Department of Oncology in the Office of Clinical Pharmacology based in Silver Spring, Md., **Rusol Karralli** admits she wasn’t aware of the numerous and varied roles in regulatory affairs performed by pharmacists at the agency. Her activities included attending several weekly Oncology meetings during which new drug applications would be discussed thoroughly with the multi-disciplinary group of reviewers.



Karralli

“I would also attend briefings for New Drug Applications, Scientific Rounds, meetings with industry sponsors during their drug development phase, and Genomics Scientific Meetings to discuss drug applications that have a pharmacogenomic component,” Karralli said. “My projects included a protocol review and preparation for a Scientific Round hosted by my department concerning Oncology Drugs and Food-Effect.”

As one of three Pharm.D. candidates in the American Pharmacists Association’s Washington, D.C. office, **Thu Truong** said she gained an in-depth view of the Pharmacy Services Support Center public-private partnership between the APhA and the Health Resources and Services Administration. Each week, Truong rotated to a different



Truong



Thu Truong, second from left, is pictured at the Pharmacy Services Support Center booth she designed at the 2012 APhA Annual Meeting with Jimmy Mitchell, former director of HRSA’s Office of Pharmacy Affairs, UHCOP’s Santhi Masilamani, and alumna Lisa Scholz, APhA vice president and PSSC director.

department, such as the marketing, finance, education and the call center, to learn their daily operations and complete assigned projects.

“Much of my experience was involved with organization management, overseeing the government contract involved with the 340B Drug Pricing Program, employee and team development, and engagement in strategic and tactical meetings to maintain PSSC’s relationship with their partners and associations,” Truong said. “It was an amazing experience to learn of the non-traditional opportunities for pharmacists: project managers, executives in leading organization positions, and government association management.”

Oncology

Natalie Lee had the privilege of being invited to work at the National Institutes of Health’s Clinical Center in Bethesda, Md., after winning a travel award to present a poster from her Oncology elective at a national conference. Lee was assigned to work in the National Cancer Institute’s Experimental Transplantation and Immunology Branch, where she collaborated with physicians, nurse practitioners, social workers, dietitians and pharmacists caring for patients undergoing bone marrow stem-cell transplantation.



Lee

“I participated in daily bedside rounds with the team and made recommendations for changes in patients’ drug therapy as necessary,” she said. “Throughout the day, I counseled patients before their discharge, helped medical fellows enter chemotherapy order sets, and followed up with the patients’ therapy. Another responsibility I had was to educate healthcare professionals in various roles about the new drugs being used in protocols.”

The APPE was the ideal fit for Lee, who plans to specialize in cancer care after completing practice and oncology residencies.

“The most beneficial part was the independence and autonomy given to me, yet I was monitored, so I knew my actions were still evaluated,” Lee said. “My career goal is to improve quality care for cancer patients by being a compassionate and thorough clinical practitioner and helping them understand their care plans.”

UH Students Earn APhA-ASP National, Regional Appointments

UH College of Pharmacy students **Rachael Bedard** and **Daniel Nguyen** recently earned national and regional appointments within the American Pharmacists Association-Academy of Student Pharmacists.

Appointed to the national APhA-ASP Communications Standing Committee, Bedard said she sought a national office after leading the UH chapter and attending APhA-ASP's 2011 Summer Leadership Institute in Washington, D.C.

"I kept in touch with many of the student leaders I met at the conference and saw the impact they made for our organization as they went on to hold regional and national leadership positions," said Bedard, an Austin native with a B.S. in biology from Southwestern University.

Use of Social media and online videos factor heavily into the committee's plans to spread the word about APhA-ASP benefits and events to students as well as raise awareness of pharmacists and pharmacy students among the general public.

"Social media platforms also give us a chance to encourage communication and idea-sharing amongst schools," she said.

"One way we will inform patients about pharmacy is promoting PharmFlix, an annual competition in which colleges create PSA-style videos based on the year's selected theme. I hope to see participation from schools across the nation, with the videos made available on YouTube and beyond, to promote the role of a pharmacist on the healthcare team."



Bedard

Nguyen was appointed as a regional representative on the

national APhA-ASP New Business Review Committee, which reviews and makes recommendations on policy submissions to the annual APhA House of Delegates.

"With the excellent education UH provides, and my own background in business, I felt I could provide different insights and perspectives to new policies being developed to ensure progression of our profession," said Nguyen, a licensed CPA with bachelor's and master's degrees in accounting from The University of Texas at Austin.



Nguyen

In his other role as Regional Member-at-large for Region 6, Nguyen said he wants to facilitate improvement and best practices between the schools in his region to ultimately further patient-care projects.

"The stronger each school chapter, the stronger the national APhA, and the more leverage this pharmacy organization can have in advocating for our profession," he said. "I hope to help all the schools in our region to achieve their own personal goals, while stimulating new ideas."

Nguyen said he entered pharmacy because he saw a highly skilled and competent profession that was not operating to its fullest potential, which translates into abundant opportunities.

"The business mindset teaches us to innovate and improve, and I intend to use these goals to enhance operating processes and internal controls with a keen eye on financial analysis," he said. "On a higher level, I want to revolutionize the healthcare infrastructure for optimum patient care."

SSHP Promotes Adherence Among Seniors at 'Brown Bag' Reviews

Inspired by national and state initiatives, the UH chapter of the Student Society of Health-System Pharmacists (SSHP) recently targeted medication adherence among seniors during two brown bag medication reviews at a Houston retirement community.

"Script Your Future" (SYF) is a national campaign led by the National Consumers League with support from a range of partners in the pharmaceutical industry, foundations, government entities and professional associations, including ASHP, APhA and NACDS. TSHP also has developed antibiotic and medication safety projects that emphasize adherence.

"Many patients do not understand the importance of taking their medication correctly, often stopping treatment due to side effects, cutting back for financial reasons or simply forgetting," said SSHP President **Sunaina Rao**. "Such decisions contribute to unfavorable therapeutic outcomes, lead to complications and, eventually, increased health-care costs."

At the brown bag sessions, students counseled non-compliant patients on the need to follow their prescribed regimen, especially for hypertension, hyperlipidemia and diabetes. The students then performed screenings, such as foot exams for patients on diabetes medications and blood pressure checks for patients on anti-



Pharm.D. students Sunaina Rao and Amanda Moyer counsel a senior on medications at a retirement community in west Houston.

hypertensive drugs, as a measure of compliance.

"The students then helped residents compile a list of their medications on SYF wallet cards that stated 'I Will Take My Meds' as a testimony of their pledge to take their medications as directed," Rao said. "It was an eye-opening experience for students, who saw the effects of non-compliance, and the residents who learned valuable lessons on adhering to their medications as prescribed by their provider."

SNPhA Mission Inspires Perez, Smith to Serve at National Level

Following their election to national offices of the Student National Pharmaceutical Association (SNPhA), Pharm.D. candidates **Leshawn Smith** and **Cindy Perez** have been engaging their constituencies to further the organization's mission and goals.

With the support of her fellow SNPhA members and faculty advisor Louis Williams, Smith sought and won the President-elect position in 2010 and was installed as President in 2011. Smith said she is proud to have helped SNPhA's leaders and sponsors welcome new or reactivated chapters around the nation during her terms

"This role has allowed me to meet and network with so many people that I probably would not have had the opportunity to interact with otherwise," Smith said. "It's broadened my perspective on organizations, why they exist and the inspirational impact they can have on the profession and our patients."

Smith said she is determined to stay active as she transitions into her career in community pharmacy.

"I'm excited about the prospect of establishing an NPhA professional chapter in the Houston area," she said.

For Perez, her interest in serving as National Project Chair for the Chronic Kidney Disease (CKD) and Diabetes initiatives was



Despite the demands of their final year of pharmacy education, students Cindy Perez and Leshawn Smith were compelled to serve at the national level.

both personal and professional.

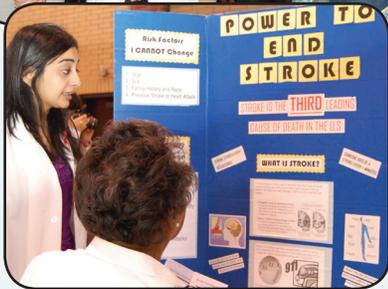
"As a pharmacy student, I feel we are socially responsible to educate our community about disease states, and there are many underserved populations that can benefit from the hundreds of health fairs SNPhA conducts nationally," Perez said. "I have participated in Diabetes and CKD health fairs since I began pharmacy school because of my family members."

Perez said pharmacists have a special responsibility to not only raise awareness of diabetes and CKD, but also be proactive in diagnosing patients at an early stage and providing clear guidance, motivation and monitoring of their disease state.

"Many patients do not receive proper screening for diabetes," she said. "For example, foot exams are a quick and easy way to screen for diabetic neuropathy, but many times this screening tool is not conducted."

Perez noted that patients are given numbers such as their A1C or plasma blood glucose, but many do not understand the correlation between their numbers and their disease.

"There are many patients who do not take their medications or try to control their disease with exercise and diet because they may not be experiencing symptoms in the early stages of the disease," she said. "As a result, the disease progresses and they end up with major and sometimes irreversible complications."



SNPhA, Target Team for Wellness

For the second consecutive year, Target Pharmacy awarded a \$2,500 grant to help the UH Student National Pharmaceutical Association offer wellness screenings and health awareness to residents in south-central Houston. Pictured clockwise from top left are Target pharmacist and UHCOP alumna Sana Memon ('08), Pharm.D. students and project chairs Tony Ohonba, Yun (Jenny) Choi and Amy Kelleh, Lily Grove Baptist Church volunteers, and SNPhA faculty advisor Louis Williams; and students Henry Cao; McKinsey Ford; Diana Garcia; and Habeeba Nizamdin.

Students Scale Language, Cultural Barriers to Improve Outcomes

One of the cornerstones of the pharmacy profession is effective communication to ensure the safe, effective use of pharmaceutical therapies. Yet, language and cultural barriers arising from the ever-changing U.S. patient population continue to hinder the effectiveness of health care by pharmacists and other health professionals.

In many ways, UH College of Pharmacy students are bucking the trend, with the number of languages spoken within the college exceeding a dozen in any given year (many individual students also are proficient, if not fluent, in three or more languages).

During two recent wellness events at Houston's VN Teamwork social service center, members of the college's Vietnamese-American Pharmacy Student Society (VAPSS) counseled patients in Vietnamese while conducting various screenings. VAPSS and APhA-ASP members also recently utilized their Vietnamese, Mandarin/Cantonese Chinese and Korean fluency in translating health information and participating in other activities for Houston's HOPE Clinic, whose client base is mostly first-generation Asian-Americans.

"We realize how important it is to maintain our communication skills in order to accurately and effectively convey the message back to patients and achieve the best results for them," said Pharm.D. student **Trang Tran**, VAPSS Patient Initiative Chair and APhA-ASP vice president.



The college also has been encouraging students to spread their linguistic wings. For several years, the college has offered a Spanish for Pharmacists summer elective for novices that



Above, *Monica Lee uses her Spanish language skills to counsel a patient about her medication use.* Left, *Trang Tran discusses the results of a bone-density scan with a patient in Vietnamese.*

focuses on vocabulary and grammar related to the provider/patient relationship, such as explaining clinical procedures and collecting basic health information. For more advanced students, the college recently co-developed a 6-hour Spanish for the Professions in the Global World certificate program. In addition to intensive linguistic practice, the certificate track includes a field trip to see a Mexican herbalist (or "yerbera") to become familiar with some of the traditional herbal remedies that potentially could interact with pharmaceutical therapies.

Student **Habeeba Nizamdin**, who took Spanish in high school and college, said she was motivated to pursue the certificate program after taking part in a wellness event with the UH Mexican American Pharmacy Student Association.

"When I started speaking Spanish to a patient during a diabetic foot exam, I immediately saw her demeanor change and she became more comfortable in telling me about her health issues," said Nizamdin, who also speaks several dialects of Hindi/Urdu. "Many Spanish-speakers understand English, but are not comfortable speaking it. The language barrier can be scary, and it's harder to ensure your patient understands medication use."

Monica Lee employed her fluency in Mandarin Chinese, which she learned at home, and Spanish, which she obtained through Advanced Placement courses in high school, during a brown bag medication review for a diverse group of seniors at a Houston retirement community.

"I didn't counsel a single patient in English," Lee said. "One of the patients I counseled in Mandarin was complaining of regular nausea and vomiting, which I found out was likely caused by the fact that she was taking four different calcium supplements – basically a mega-dose – every day. It really shocked me to think about, 'What if I wasn't there that day?' As soon as I got home, I called my parents to learn more medical terms in Mandarin."

STUDENT ACCOLADES

Pharm.D. candidate **SueAnn Wang** won her second consecutive UH Patient Counseling Competition, which is organized by the UH APhA-ASP chapter and sponsored by Kroger. At right, Kroger's **Debbie Veselka**, Dean **Lamar Pritchard**, and APhA-ASP Chapter Advisor **Lynn Simpson** congratulate Wang (second from left) and the 2012 competition finalists **Melanie Laine** (3rd place), **Leah Rickert** (2nd place) and **Lauren Williams** (5th place).

Four UH College of Pharmacy students secured honorable mentions at the Texas Society of Health-System Pharmacists 2012 Annual Seminar. **Heather Schoeneberg** received an Honorable Mention in the Disease State Management Competition, and the teams of **Schoeneberg** and **Lea Garcia** and **Saroosh Lodhi** and **Shiva Zangeneh** earned Honorable Mentions in the Clinical Skills Competition.



Lions Camp Offers Intensive Training in Diabetes Management

One of the more unique training experiences available to UH College of Pharmacy students offers an intensive training and patient care opportunity in diabetes disease state management.

The majority of the experiential is at the Memorial Hermann-affiliated Physicians at Sugar Creek (PSC), a family medicine practice in Sugar Land that not only is certified by the National Center for Quality Assurance but also has been recognized by the organization for Excellence in Diabetes Management. The PSC offers patients a weekly diabetes management clinic and various interdisciplinary one-on-one services, including medication/insulin management by an on-staff pharmacist.

“Pharmacists have a major role in diabetes management; at the clinic, it was amazing to see how much you can make a direct impact on patients,” said Pharm.D. candidate **Ghazeleh Ranjbar**, who completed the rotation in summer 2011.

The student’s responsibilities intensify during a two-week summer camp in Kerrville for children age 8 to 15 with Type 1 diabetes sponsored entirely by the Texas Lions Camp and its benefactors. In charge of about six campers each, the students’ duties include monitoring and recording glucose levels, managing medication regimen, administering insulin, and ensuring adequate hydration – all according to a strict schedule.

“When the kids arrived, we had to check in their medications,



Pharm.D. candidate Yen Phan administers an insulin injection to a camper at the Texas Lions Camp for Children with Diabetes, which combines a medical education program with a more traditional summer camp experience for insulin-dependent 8- to 15-year-olds.

establish a medical record and find out if there are any other conditions, which ranged from thyroid disorders, allergies and celiac disease to incontinence and ADHD,” said Pharm.D. candidate **Yen Phan** and Ranjbar’s camp cohort. “At the end of the session, you go over the logs with the parents, explain any adjustments and often encourage them to take the logs to their primary care provider and discuss setting a new regimen.”

In true camp fashion, the students also had an opportunity to use their creativity by developing an educational “match game” using

homemade cards with which campers had to match specific diabetic symptoms with causes.

“The parents were very appreciative of how the staff teaches kids to take charge of their disease, either because their kids don’t listen – they’re kids, after all – or because some parents may not have been educated on certain aspects of it,” Ranjbar said. “I wish every pharmacy student could do this rotation because you learn so much.”

Yen said the experience far exceeded her expectations.

“On the next rotation, I felt like a diabetes expert because I had learned so much about insulin pumps, glucometers, the different diabetes medications, dosages, and side effects,” Yen said. “We went in only knowing each other, but left with a lot of friends. Many of the kids even said they wanted to come back as camp counselors or diabetes counselors.”



Students Administer 400 Immunizations, Wellness Screenings at Senior Health Fair

UHCOP students delivered more than 400 seasonal flu immunizations and performed wellness checks ranging from diabetic foot exams to cholesterol and blood glucose screenings at the annual Humble 55+ Senior Health Fair sponsored by Memorial Hermann Northeast Hospital. Among the students participating in the event were Jessica Preston, Dan Morpurgo, Tung Nguyen, Allan Barizo (with 1962 alumnus Bill Watson and his wife Reba), Linh Pham and Uduak Isong. The college has participated in the event for more than a decade.



Students Rise to Dean's Challenge to Create Coat of Arms, Video

To assist in the college's marketing and branding efforts, Dean Lamar Pritchard challenged UHCOP Pharm.D. students to develop a coat of arms for the college as well as create a video for the college's YouTube channel.

Not only at stake were travel awards to assist the winners and finalists in attending the professional meeting of their choice, but pride in putting their creativity toward a great cause.

Five students – **Gia Castorina, Diane Doan, Nancy Mai, Tung Nguyen** and **Sara Thorsell-Pollard** – submitted designs for the coat of arms project, with Castorina's design selected as the winner (at center).

"I wanted to display our professionalism, expertise, and involvement in the pharmacy community and to relate those values into the coat of arms," Castorina said. "Traditionally, the coat of arms represents the history and values of a school, but I think I was able to incorporate not only our history, but our future as a leader in pharmacy. I hope that when pharmacy students and others see my design, they will realize how important UH is to the pharmacy community and be proud to be associated with our college."

The project itself was a perfect mix of Castorina's passions: pharmacy, art/graphic design and all things medieval.

"As a child, I loved drawing and painting; I even had my own easel and 120-count box of Crayolas," said Castorina, a self-described "medieval geek" who attends the Renaissance Festival north of Houston each year. "As I got older, I became interested



in Photoshop and the computer side of graphic design.

"My interest grew as an editor of the yearbook staff in middle and high school, and it's still growing. It's unbelievable how vast and exciting the world of graphic design has become, and I'm glad I got to use my love of art and interest in Photoshop as a pharmacy student."

Students **Linh Nguyen** and **Tony Ohonba** combined their respective talents – with Nguyen handling most of editing and technical details, and Ohonba leading the conceptual side – to create their video spotlighting life at the college and UH as well as the many benefits of living in a major city

such as Houston. The video, which features commentary from students, faculty, alumni and staff mixed with images of campus and the city, can be viewed on the college's YouTube channel at www.youtube.com/watch?v=5EjhtmTKHn8.

"We wanted to highlight all facets of the college – from the social aspect and active student organizations to the academic side – and show how we're tight-knit family," Nguyen said.

Ohonba, who previously worked as the PR director for the UH Student Video Network and played on the 2008-10 Houston Cougars football teams as a defensive back during his pre-pharmacy education, said the project was a labor of love.

"I'm the epitome of Cougar Pride, and it was a great opportunity to showcase why this is such an amazing university, college and city," said Ohonba, who also is getting time in front of the camera this year as part of a campaign for the on-campus Calhoun Lofts.



Students Help Collect, Log 462 Pounds of Unwanted, Expired Medications at Event

UH College of Pharmacy students recently assisted in the collection and logging of 462 pounds of unwanted or expired medications ranging from vitamins and OTC products to controlled substances as part of a 'Medication Take Back' event at UTMB Specialty Care Center at Victory Lakes in League City. The initiative was organized by the Southeast Texas Poison Center and the Prescription Drug Advisory Committee of the Bay Area Alliance for Youth and Families in cooperation with the U.S. Drug Enforcement Administration.

Mohr Takes Stewardship Advocacy, Education Roles Worldwide

Alumnus **John Mohr**, Pharm.D. ('98), admits his career path from pharmacy student to global antimicrobial steward was neither direct nor planned. Yet, he credits his innate adaptability and resolve in taking advantage of new opportunities – not unlike the pathogens he's spent his career fighting – in helping prepare him for his current position as Director of Global Medical Affairs Strategy for Cubist Pharmaceuticals.

Mohr said the position is in many ways an extension of his work as Cubist's Houston-area medical liaison for five years: educating and consulting with practitioners and clinicians on how to best utilize the company's products in their practices while discouraging inappropriate use, which could lead to resistance and reduced efficacy.

"It's what I loved about my clinical days, but instead of influencing patients and their outcomes at only one institution, the potential number of patients whom I have an opportunity to impact has expanded exponentially to 70 countries around the world," Mohr said.

Founded in 1992, the Massachusetts-based Cubist developed, tested and brought to market Cubicin (daptomycin for injection) as the first-in-class cyclic lipopeptide antibiotic drug candidate. The company has expanded its product offerings and development pipeline for such emerging infectious disease priorities as *Clostridium difficile* associated diarrhea and multi-drug resistant Gram-negative pathogens.

"Cubist has been one of the few companies focused on the continuous need to replenish the antibiotic pipeline, which I believe is the most pressing issue in health care," he said. "Antibiotics are the only drugs that lose efficacy over time, not because you've found better ones – as with other drugs



UHCOP alumnus John Mohr has taken his experience and knowledge in antimicrobial stewardship worldwide as Cubist Pharmaceuticals' Director of Global Medical Affairs Strategy.

like anti-hypertensives or cholesterol-lowering agents – but because you have resistance develop."

Mohr confesses he didn't know much about pharmacy before a UHCOP student and fellow Texas A&M University graduate encouraged him to look into it. After graduating with UHCOP's second Pharm.D. class, Mohr completed pharmacy practice and infectious diseases residencies at Memorial Hermann. He then managed the hospital's antimicrobial stewardship activities for five years before becoming a clinical researcher at The University of Texas Health Science Center.

"I was writing research grants, conducting clinical research and running a laboratory to help understand how to better use the antibiotics we had and help buy time so that new ones could be developed," Mohr said. "Then,

many pharmaceutical companies began moving away from developing antibiotics, and most of the financial support for my research went with it."

Although his foray into academia began to lose steam as industry funding waned, his passion for infectious diseases pharmacotherapy never wavered. When the position at Cubist opened, Mohr saw it as a unique opportunity to advocate for better antimicrobial stewardship among a broader audience.

"I'm concerned that over the next 10 to 20 years, we're going to be back in the pre-antibiotic era when drugs like penicillin didn't even exist and people are dying because there aren't drugs to manage their infections," he said. "Recently, I heard my grandmother's physician wanted to put her on a 'rotating antibiotic schedule' with the intention of preventing infections related to her chronic lung issues. Unless we change this kind of mindset, we're going to be in big trouble."

PLS Leadership Event Assembles Alumni National Past Presidents

At its Leadership Challenge event, the UH Omicron chapter of Phi Lambda Sigma assembled five UHCOP alumni who have served as National PLS Presidents share their insights on leadership. The featured panelists were, pictured at right, 1974 alumna Shara Zatopek (PLS President 1996), 1991 alumnus Keith Lewis (1993), 1997 alumna Lynn Simpson (2001), 1991 alumna May Woo (2009) and 1952 alumnus James T. "Jim" McCarty (1992).



Veselka Nets APhA Grant to Expand Travel Clinics for Kroger

Kroger Pharmacy is expanding its travel vaccine clinic services in Texas, thanks to an Incentive Grant for Innovation in Immunization Practices awarded to UH College of Pharmacy alumna **Debbie Veselka**, R.Ph. (B.S. '94) by the American Pharmacists Association Foundation.

Veselka, who serves as Clinical Care Coordinator for Kroger Pharmacy's Southwest Division, is spearheading the effort to expand the company's travel clinic services at six locations in the Greater Houston and Dallas/Fort Worth Metroplex areas.

At its nearly 200 pharmacies in Texas and Louisiana, Kroger already offers more than a dozen other routine and recommended immunizations for international travel – such as typhoid, meningitis, polio and hepatitis A and B. However, the select expansion sites also will offer specialized and highly regulated services, including those requiring authorization by the Centers for Disease Control and Prevention (CDC).

“We’ve added yellow fever, Japanese encephalitis, and rabies preventative vaccines, which are some of the key services that set apart a travel vaccine clinic from a regular pharmacy, along with having both prescriptive and OTC products that may be needed by travelers on international trips,” Veselka said. “We’re also implementing a software program at these locations to help pharmacists provide a comprehensive consultation for the patient to have a rewarding trip by being better prepared.



Alumna Debbie Veselka, clinical care manager for Kroger's Southwest Division, said the six pharmacy travel clinics will begin serving patients this summer.

Patients will leave the pharmacy with information covering everything from vaccines and preventive medicines to the location and contact details for the U.S. embassy in every country on their travel itinerary.”

Veselka said research has indicated that patients are willing to travel up to two hours for travel clinic services when they need specific immunizations. By adding pharmacy travel clinics in strategic marketing areas, Kroger will enable more customers to access these specialty services near their home or workplace.

“Many vaccines are no longer carried by physicians for a variety of reasons, such as price, storage requirements or lack of coverage by the insurance companies they work with,” she said.

Veselka said the expansion of the vaccinations and other travel health services at the six locations is envisioned as a pilot project, with growth into additional stores and geographic markets linked to the success of the initial phase.

“I’m optimistic this concept will meet or exceed our expectations,” Veselka said. “As we’ve seen when you expand patient-centered healthcare services at any of our locations, you see their sales increase, prescription volume increase, and customers coming back for those services. It made sense to pursue this initiative, both from the standpoint of addressing the needs of our customers and in utilizing our pharmacists’ extensive experience in providing immunizations.”

Xu Draws Critical Care Honors for Study on Cardiac Post-op Screens

UH College of Pharmacy alumna **Ran Xu**, Ph.D., Pharm.D. ('09), BCPS, recently received national and state recognition for her prospective study of the outcomes associated with implementation of a screening and treatment program to help identify post-operative cardiac patients at risk for complications.



Xu

A clinical pharmacy manager at St. Luke's The Woodlands Hospital, Xu received a Research Citation at the Society of Critical Care Medicine (SCCM) 2012 Critical Care Congress and the 2012 Alan I. Fields Award in the category for practitioners with less than two years' experience from the Texas chapter of SCCM. The Fields Award honors chapter members for their outstanding multidisciplinary contribution toward the advancement in critical care excellence through scholarly research.

The project assessed the efficacy of using central venous oxygen

saturation and lactate levels – instead of the more routinely monitored, but potentially less reliable parameters of blood pressure and heart rate – to detect hypoperfusion and identify patients who may be at risk for complications.

The prospective study found that the implementation of the hypoperfusion treatment pathway (OHTP) was associated with significantly shorter hospital length of stay and lower ICU readmission rates, as well as a trend toward ICU shorter length of stay and a lower complication rate. Among patients managed by the OHTP, achieving the 18 hour postoperative lactate goal was associated with a significantly lower complication rate and a trend toward shorter stays in the ICU/hospital and shorter length of mechanical ventilation.

Xu's abstract was coauthored by her collaborators at St. Luke's Episcopal Hospital: **Gregory Laine**, M.S. ('87), R.Ph., **BeeBee Hu**, Pharm.D., **R. Thomas Solis**, M.D., **Arthur Bracey**, M.D., **James Wilson**, M.D., **Amy Mclat**, M.S., R.N., **Susan Baimbridge**, M.S., R.N., and **George Reul**, M.D.

Alumni Practice, Research Excellence Generate TSHP Awards

Several UH College of Pharmacy alumni were recognized by the Texas Society of Health-System Pharmacists and the TSHP Research & Education Foundation at the 2012 TSHP Annual Seminar.

Andrew “Andy” Laegeler, Pharm.D. ('08), M.S., who recently became manager of pharmacy informatics at the Harris County Hospital District, was honored with the New Pharmacist Award for his role in establishing and serving as chair of TSHP's New Practitioners Section.

“I'm grateful we started the section because it's important to have a support structure for those first few years, which may mean moving three times from your first residency to your first full-time position at the same time that you're starting a family and finding your place in the profession,” said Laegeler, who received a TSHP award during his St. Luke's Episcopal Hospital (SLEH) residency as well as TSHP and ASHP awards while at UHCOP.

The PGY1 Pharmacy Practice Residency Program at SLEH – Managed by alumni **Kimberly Putney**, Pharm.D. ('00), clinical pharmacy manager and residency program director, and **Craig Frost**, R.Ph. ('92), MBA, administrative director of pharmacy – received TSHP's Residency Program Award.

The program has graduated 46 residents, including many UHCOP alumni, since earning accreditation in 1991. It includes a six-week orientation period with close monitoring and mentorship; a week of didactic lectures by 14 Clinical Pharmacist Coordinators; a system of “weaning” residents into full on-call duties; and a variety of activities for residents to hone their research and presentation skills and develop their projects.

According to Putney, “Although we have a rigorous program, we also know that our residents are learning to adapt to stressful



Surrounded by St. Luke's Episcopal Hospital PGY1 residents, preceptors and administrators (many of whom are UHCOP alumni), Residency Program Director and alumna Kimberly Putney, center, displays TSHP's 2012 Residency Program Award.

situations, create a work-life balance, finding their ‘rhythm’ to practice pharmacy, and still have time to spend with friends. We share our experiences with them and provide advice as to how to approach a situation. Most of all, we want them to gain independence and assertiveness.”

Jodie Gee, Pharm.D. ('09), clinical assistant professor at The University of Texas at Austin College of Pharmacy and UT

Health Science Center San Antonio, and **Jacinto Villarreal**, M.S., Pharm.D. ('01), clinical coordinator for Adult Pharmacy Services at Christus Santa Rosa Health Care-City Centre in San Antonio and UT PGY-1 Residency Program Director, captured Best Poster awards in the Clinical and Administrative categories, respectively.

In addition to teaching and precepting students, Gee serves in a jointly funded clinical position between UT and the MedFirst Northeast clinic of Baptist Health System, a private for-profit healthcare system.

Gee's poster, entitled “Development and Implementation of a Pharmacotherapy Clinic within a Private Hospital System,” was coauthored by Abe Rodriguez, M.D. It detailed her experiences developing a collaborative practice agreement, referral process, billing method, and an efficient clinic visit workflow for the introduction of clinical pharmacy services ranging from medication review, counseling and management to disease state and nutrition/lifestyle education.



Gee

“There's so little literature on how to start a pharmacotherapy practice from scratch, especially in a private practice setting, I hope relating my experience can help another practitioner through the process,” Gee said.

Villarreal's poster, entitled “The outcome of restricted access to topical thrombin in the surgery department,” was coauthored by University of the Incarnate Word Feik School of Pharmacy Pharm.D. intern Maribeth Tecson. Villarreal said the positive results have encouraged him to examine other supply-management opportunities where pharmacy operations can generate cost savings for the hospital.



Villarreal

“Gathering data, sharing data, and working together with focus, determination and perseverance are the items of utility that I hope other practitioners will utilize in their precepting endeavors,” Villarreal said.



Alumnus Andy Laegeler, manager of pharmacy informatics at the Harris County Hospital District, was honored with TSHP's New Pharmacist Award.

ALUMNI MAILBOX

Nancy Brahm, Pharm.D., B.S. ('75), M.S., BCPP, CGP, clinical professor in the Department of Pharmacy: Clinical and Administrative Sciences at the University of Oklahoma College of Pharmacy's Tulsa campus, was a recipient of the 2011 OU Tulsa President Leadership Award.

Sarah Lake-Wallace, M.S., Pharm.D. ('00), director of Patient Safety and Performance Improvement at TIRR Memorial Hermann, has been installed as the 2012-13 President of the TSHP Research & Education Foundation. In addition, several UHCOP alumni are serving on the TSHP Board of Directors as presidents/presidents-elect of TSHP's regional chapters: **Rodney Cox**, M.S. ('10), Pharm.D., and **Brian Fase**, Pharm.D., M.S. ('10) – Gulf Coast SHP; **Molly (Graham) Minze**, Pharm.D. ('05) – West Texas SHP; **Ladan (Mohebbi) Panahi**, Pharm.D. ('08) – Austin Area SHP; and **David Romero**, R.Ph. (B.S. '91) – El Paso Area SHP.

Gloria Davis-Brackins, R.Ph. (B.S. '92), FASCP, owner-operator of Gloria's Medication Therapy Management Services, PLLC, in Missouri City, Texas, has completed the Delivering Medication Therapy Management Services in the Community certificate program from the American Pharmacists Association and the University of Florida College of Pharmacy.

W. Benjamin Fry, R.Ph. (B.S. '72), FIACP, FACA, who is serving in his second term on the Texas State Board of Pharmacy, has been appointed to the National Association of Boards of Pharmacy Task Force to Review and Recommend Revisions to the Controlled Substances Act.

Jodie Gee, Pharm.D. ('09), has joined The University of Texas at Austin College of Pharmacy as a clinical assistant professor after completing a PGY2 Ambulatory Care residency at Parkland Hospital in Dallas and a PGY1 Pharmacy Practice residency at the Harris County Hospital District. In addition to her teaching and precepting duties, Gee runs the outpatient clinical pharmacy services for the Baptist Hospital System-affiliated MedFirst Northeast Clinic in San Antonio.

Andrew P. "Andy" Laegeler, Pharm.D., M.S., has joined the Harris County Hospital District as Manager of Pharmacoinformatics.

Jeff Loesch, Pharm.D. ('02), has been promoted to Pharmacy Procurement Manager with Kroger in Cincinnati, Ohio.

Jason Lovero, Pharm.D. ('08), M.S., MHA, has joined The Ohio

State University Medical Center as Assistant Director of Pharmacy after completing a one-year fellowship and a two-year Health System Pharmacy Administration M.S./residency program at OSUMC.

Michael Napoli, M.S., R.Ph. (B.S. '81), a member of the UHCOP Dean's Advisory Council, has been promoted to Clinical Care Manager at Clear Lake Regional Medical Center in Clear Lake City, Texas.

Mohamed I. Nounou, Ph.D. ('11), has joined Texas Tech University Health Sciences Center as a Postdoctoral Research Associate in the School of Pharmacy's Department of Pharmaceutical Sciences in Amarillo.

Gary K. Rice, R.Ph., M.S. ('84), MBA, has been promoted to Vice President of Clinical Services for Diplomat Specialty Pharmacy in Flint, Mich.

Lisa Scholz, Pharm.D. ('99), MBA, vice president of APhA Pharmacy Services Support Center/IQ Institute and new member of the UHCOP Dean's Advisory Council, had a "special escort" during her recent return to campus: Brother **Craig Kivela** and father **Anthony Kivela**, both of whom serve in the Houston Police Department.



Julie Spier, R.Ph. (B.S. '80), Texas director of pharmacy operations for Safeway, welcomed the birth of her first grandchild, **Julia Michelle Spier**, on Dec. 13, 2011. Julia's parents are Derek Ryan and Loni Spier.

Jeanne Ann Stasny, R.Ph. ('92), has joined Diplomat Specialty Pharmacy in Flint, Mich., as Vice President of Pharmacy Services.



Alex Varkey, Pharm.D. (05), M.S., pharmacy operations manager at The Methodist Hospital, and his wife, **Divya Varkey**, Pharm.D., M.S., celebrated the birth of their first child, Annika Sara, on Nov. 11.

McClaughertys Mark Completion, Dedication of 'Playground for All' in Memory of Their Late Son Neal

Thanks to the support of friends, family and community members, alumnus **Larry McClagherty**, R.Ph. (B.S. '72), FASHP, and his wife, Kathy, recently marked the completion and dedication of the Neil McClagherty Memorial Playground in Friendswood.

The "playground for all" features accessible ramps, slides and other specially designed ADA-compliant equipment. The project was conceived as a way to honor the memory of Neal, a nonverbal quadriplegic who nonetheless inspired and cheered those around him before passing in 2010 at the age of 27, by providing fun, yet safe, play spaces for other children with



physical challenges. Above, a memorial bench installed at the playground will introduce countless special needs children to Neal's remarkable story.

Please e-mail interactions@uh.edu to contribute to the alumni mailbox! Photos are also welcome and appreciated!

Raymond Benski, Class of 1954



Benski

Dr. Raymond Benski, 80, died Sept. 25, 2011, in Nederland, Texas. The only pharmacy student ever to complete the Army's Reserve Officer Training Course at UH, he was commissioned

a second lieutenant in the U.S. Army, served two years active duty in the 4th Infantry Division, and eventually attained the rank of Captain in the Reserves. Following his honorable discharge, Benski earned a medical degree from University of Texas Medical Branch in Galveston in 1962. He then went into private practice in Nederland and became Board Certified in both Family and Geriatric Medicine. With interests in nursing homes and long-term care, Benski was the medical director of several local nursing homes and served as the Chief of Staff of Mid-Jefferson Hospital twice and was on the staff of all but one hospital in Jefferson County. He was active in such civic organizations, his alma maters and governing boards, including the Scottish Rite Hospital for Children in Dallas. He was a delegate to the 1980 and 1984 Republican National Conventions, served 10 years on the State Republican Executive Committee, and worked closely with the staff of former Sen. Phil Gramm. Dr. Benski is survived by his wife, Sandra; a son, a daughter and a son-in-law; and three grandchildren.

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The Port Arthur News

Charles Randall Hardee, Class of 1982

Charles "Randy" Hardee, age 59, left this earth on July 16, 2011. He served in U.S. Army, graduated from the University of Houston and worked at M.D. Anderson Cancer Institute. In 1983, he and his wife, Ann, a registered nurse, moved to San Antonio and opened a specialized infusion pharmacy, Sun Belt Pharmacare. They also started Advance Hi-Tech Nursing to provide in-home nursing care for patients needing infusions and CTRC Pharmacy, the first pharmacy in the Cancer Therapy and Research Center. In 1988, they started an international trade medical business, Rann Med International, with a branch office in Tokyo. He supported many charities with time and resources, but always felt that the best way to help patients was to give directly, and provided free medications and nursing services to patients without money or insurance. His greatest professional joy was to assist and educate patients about their treatments and prescriptions. In 2002, he sold the businesses, retired and enjoyed traveling and other outdoor activities. Hardee is survived by his wife and two children, and was preceded in death by one child.

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Marvin G. Levy, Class of 1965

Marvin G. Levy, 58, passed away Oct. 31, 2011, after a valiant and hard fought battle against multiple myeloma. After graduating from UH College of Pharmacy in 1965, he followed in his father's footsteps to become a pharmacist and

worked in the family-owned business, Interurban Pharmacy, until he retired in 1992. He moved to Lago Vista, Texas, in 1994, where he resided with this wife, Marilyn, until his death. To those who knew him, he was generous, intelligent, successful, and witty. He took great personal interest in each family member's accomplishments and was always quick to offer genuine advice. He beamed with pride every time he mentioned his daughters and grandchildren. His words said it best, "All of you are my reason for being." Levy is survived by his wife, two daughters, two sons-in-law and three grandchildren.

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Salvador M. Marcello, Class of 1950

Salvador M. Marcello, 90, died Dec. 21, 2011.

During World War II, he served in the U.S. Army in the China-Burma-India campaign. Marcello completed his pharmacy degree at UH in 1950. He retired from Eli Lilly in 1985 after 35 years of service. Marcello received the college's Distinguished Alumnus Award in 1979 and the Volunteer of the Year Award in 1995. Marcello also was honored among UHCOP's 50 Outstanding Alumni during the college's 50th anniversary celebrations in 1997. Marcello is survived by his wife, Sophie, three daughters, two sons-in-law, five grandchildren, and seven great-grandchildren.



Marcello

Alumni Passages in 2011

The College of Pharmacy and the University of Houston express our sincere condolences to the family and friends of alumni who passed in 2011.

Mr. Robert A. Doerfler, B.S. 1952, March 11, 2011

Mr. Robert B. Holtan, B.S. 1972, Jan. 14, 2011

Mr. Lary C. Johnson, B.S. 1971, Oct. 3, 2011

Mr. Michael Harold Keisling, B.S. 1970, Oct. 20, 2011

Mr. Reginald P. Lands, B.S. 1961, Feb. 7, 2011

Mr. Windel Barry Marshall, B.S. 1964, Nov. 1, 2011

Mr. Ronald Clifton Matthews, B.S. 1964, Jan. 20, 2011

Mr. John B. Menard, Jr., B.S. 1965, Jan. 12, 2011

Mr. Louis Daniel Muniza, B.S. 1958, July 22, 2011

Mr. Raymond A. Nastoupil, B.S. 1951, June 22, 2011

Mr. Arthur John Nebgen, Jr., B.S. 1951, Aug. 20, 2011

Mr. Earl Wayne Templeton, B.S. 1963, Jan. 7, 2011

Mrs. Julia Vasquez, B.S. 1966, Feb. 8, 2011

Mr. Bertram Albert Wilson, B.S. 1951, Aug. 22, 2011

Healix Gift Boosts Branding of Faculty, Student Research with New Poster Production Center

UH College of Pharmacy's efforts to showcase the high caliber of its student and faculty research received a welcome boost of financial support with a generous gift from Healix Inc., a national leader in the delivery of parenteral services.

The Sugar Land-based company, which offers customizable, turn-key solutions to help healthcare providers offer streamlined infusion therapy and related care, provided a gift of \$10,000 in start-up and operational funding for the college's new Research Poster Production Center.

The college recently adopted a standardized poster template to ensure faculty and student research posters conform to the branding efforts of the university and college. Developed by an ad-hoc committee of faculty, staff and students, the poster template incorporates "Cougar red" color scheme as well as the official UHCOP logo and the college's long-standing mortar and pestle icon.

"Healix has benefited from providing clinical rotation sites for UH College of Pharmacy students for over 15 years and wanted an opportunity to support the students and faculty," said **Lucinda Van Anglen**, B.S., Pharm.D., Healix Vice



UH Provost John Antel and UHCOP Dean Lamar Pritchard accept a \$10,000 gift from Healix Pharmaceuticals Vice President of Pharmacy Services Lucinda Van Anglen and Healix Director of Pharmacy Angie Wagner.

President of Pharmacy Services. "In considering potential avenues of support for the college, we were drawn toward the new Research Poster Production Center because of our recent experience producing research posters for national meetings. This research participation increased our awareness of the value of high-quality, branded poster productions in maintaining our company image.

"We hope that Healix's support of the center will allow the faculty and students to likewise present consistent, well-branded research posters."

Graduating Pharm.D. Students Continue Class-based Pledge Drives

Months before walking across the stage at graduation, more than half of UH College of Pharmacy's 2012 Pharm.D. class had taken a stand to give back to the college within their first year as alumni.

After launching a successful class-based pledge drive before he and his classmates graduated last year, **Dominic Vu**, Pharm.D. ('11), recruited volunteers from this year's class to mount a similar campaign in support of the Student Leadership and Professional Development Fund. With recent budget reductions, the college is relying exclusively on donors to help students attend leadership and professional development meetings and programs.



Vu

"My goal is to ensure continuity in each graduating class giving back to the college," said Vu, who is completing a PGY1 managed care pharmacy residency with Kelsey Seybold Clinic. "I realize what got me where I am today was the support from others and the many networking opportunities I was afforded by attending professional meetings."

Classmates **Vi (Jennifer) Doan**, **Leshawn Smith** and **Angel Trieu** – all of whom have served in national or regional leadership offices – eagerly accepted the challenge to champion the cause.

"We hope that having this fund available will foster a greater sense of 'ownership' in the profession, and allow a student to represent UH with less strain in travel and registration costs," Doan said. "It's an opportunity to give back to the college and future colleagues as well as continue to be involved in developing leadership and professionalism."



Doan



Smith

Smith said she and her classmates are believers in the concept of "paying it forward."

"After four years, you realize how much the college helped you," Smith said. "Even with the economy still struggling and everyone just starting out in the next stage in their lives, we felt it was the right thing to do."

Trieu said the size of a school's representation at meetings is noticed by students and professionals alike.

"We've noticed a lot of people couldn't attend some of the recent meetings because of the cost, which is unfortunate with so many UH students in high-profile positions," Trieu said. "Active participation at meetings is an important part of fostering leadership."



Trieu

Golf Classic Sponsors, Players Bolster Student Leadership Fund

UH College of Pharmacy welcomed nearly 60 golfers and more than two dozen sponsors to the college's new annual golf tournament – the UHCOP Golf Classic – on June 4 at Houston's Wildcat Golf Club.

The tournament raised approximately \$5,000 in proceeds designated for Pharm.D. student educational assistance and travel awards.

The college thanks its sponsors for making the inaugural event a success:

- **Gold – Walgreens;**
- **Silver – Brookshire Brothers, Marshall Clouser ('66), Marc and Lena Malacoff, and Shara Zatopek ('74);**
- **Red & White – Briargrove Pharmacy, Kip Lackey/Pitney Bowes, Javier Manzano ('01), Memorial Hermann**

Healthcare System, Tho Nguyen and Lananh ('98) Nguyen, and Texas Children's Health Plan;

- **Cougar – Tom Adams ('75), Robert Dean Brown ('85), Chi Ngo-Chen ('02), Jeena ('06) and Todd ('07) Connor, Consulting Matters Inc., Kristen ('11) and Aaron ('09) Edwards, Fred Emmite ('77), Porter Everts, W.C. Grier, Bamrom Jonathan ('02), Denise M. Jonathan ('05), Taeyeong Kim ('11), Latosha Mitchell ('03), Harold Pieratt ('61) and R. Louis Rumsey ('79); and**

- **In-kind Donor – Darren Johnson/Chemtura Corp.**

The top teams are pictured at right; the individual winners were **Chad Readinger** and **Liz Coyle** – Closest to the Pin, and **Forrest Eikenburg** and **Coyle** – Longest Drive.



Fred Emmite ('77), Dick Schneider, Rick Schneider ('04) and Chad Readinger won the Low Gross Score (55), and Grady Burris, Danny Rich ('83), Adam Ott and Mark Sullivan won the Low Net Score (53.5).



UHCOP Students Earn 106 Scholarships During 2011-12 Academic Year

Robert L. Boblitt Scholarship Endowment – Ashton Stinnette, Timothy Virene

Frank Bove Scholarship Endowment – Timothy Virene

Joseph P. Buckley Endowed Scholarship – Benny Hwang

Kai-King and Cheng-Yok Chow Scholarship Endowment – Kamilia Abdelraouf, Dong Dong, Tao Niu, Zhen Yang

CVS Pharmacy – William Hsu, Wenya Lu, Angeline Ngo, Niti Patel, Ghazaleh Ranjbar

Dean's Advisory Council Endowed Scholarship – Melanie Laine, Natalie Lee, Sarah Ortega, Cristina Villamor

Dean's Executive Council Endowed Scholarship – Shih-Yi Chu, Benny Hwang

Doyle Endowed Scholarship Fund – Shao-Yu Chiu, Ashton Stinnette

Johnnie Fadal Scholarship Endowment – Abhishek Chitnis

Yoginder Nath & Swaran Lata Goel Academic Achievement Award Endowment – Adarsh Gandhi, Tanay Samant, Baojian Wu

Golf Annual Awards – Ngozi Ahawie, Rabia Ahmed, Quintin Broussard, Calandre Carr, Catherine Carey, Jessica Carreno, Vi Doan, Joshua

Garrison, Heath Goins, Stacey Gordon, Tam Ha, Aimme Hang, Danny Harper, Chris Henges, Sarah Lazenby, Khanh Le, Yeun Ju Lee, Wenya Lu, Martin Newton, Nhi-Quynh Nguyen, Otsanya Ochogbu, Leshawn Smith, Marisa Smith, Sara Thorsell-Pollard, Stuart Van Deldon, Denise Yeung, Jonathan Zoha

Veronica, Elena and Johnny Guerra Endowed Scholarship – Thuy Nguyen

Dr. Bhagavan Jandhyala Endowed Scholarship – An Dao, Sumit Basu

Leadership Passport Endowed Scholarship – Rachael Bedard

B.T. Lewis Annual Scholarship – Jimmy Do

Perin F. Lokhandwala Endowment – Ashley Guillory

Cora and Webb Mading Fund Endowment – Ngozi Ahawie, Catherine Carey, Shih-Yi Chu, Benny Hwang, Courtney Jackson, Irma Johnston, Robert McCoy, Otsanya Ochogbu, Pratikumar Patel, Twisha Patel, Anjolie Pham, Kady Phe, Michael Richmond, Heather Schoenberg, Christina Tan, Cristina Villamor, Sara Wattari

National Association of Chain Drug Stores Foundation Pharmacy Partners Scholarship – Sarish Khawaja, Ashley Little, Jade Manansala, Jason Ng, Nhi-Quynh Nguyen, Mariane Pham, Sharifah Nurshazwani Syed Zanuuddin

Pharmacy Fund (General Endowment) – Abhishek Chitnis, Nora Nassri, Kylee Richard, Timothy Virene

Pharmacists Mutual Insurance – Shih-Yi Chu

Safeway (Randall's) Annual Scholarship – Aaron Cook, Linda Ehling, Omar Leon

Secundum Artum by Dave Sparks – Brandon Bailey, Ana Kit

Lynn & Bill Simpson Endowed Scholarship – Sarah Ortega

David Sparks Annual Scholarship – Saroosh Lodhi, Shiva Zanganeh

John Paul Torres Annual Scholarship – Lauren Williams

TSHP Research & Education Foundation Sandra Evans Webb Scholarship – Cristina Villamor

Golf Tournament Endowed Scholarship – Andrew Lok, Adrian Mata

Walgreens Diversity Annual Scholarship – Christy Su

Dr. M. George and Cecilia Webber Endowed Scholarship – Amin Esmaily-Fard

Louis Williams Award Endowment – Benny Hwang

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 Mrs. Christine Lee Yep
 Dr. Lydia Hsi-Yuan Yin
 Mr. Po Kwong Yuen

Note: Donors in red are Cougar Pacesetters (5 consecutive years of giving)

Top 25 Classes in Total Gifts*	
1971	\$22,180
1979	\$11,420
1965	\$11,015
1998	\$6,700
1980	\$6,350
1962	\$4,770
1974	\$4,755
1968	\$4,094
1966	\$2,750
1963	\$2,350
1992	\$2,350
1961	\$2,150
1978	\$1,925
2001	\$1,725
1982	\$1,651
1990	\$1,575
2003	\$1,575
1981	\$1,550
1989	\$1,490
2011	\$1,442
1987	\$1,370
1973	\$1,200
2006	\$1,200
1972	\$1,195
1984	\$1,150

Top 25 Classes by Percentage of Member Participation*	
1960	18%
1950	17%
1966	16%
1952	14%
1962	13%
2011	11%
1964	10%
1953	10%
1979	10%
1961	9%
1969	9%
1971	8%
1963	8%
1954	8%
1975	7%
1998	7%
1978	6%
1994	6%
1958	6%
1977	6%
1987	6%
1984	6%
1974	6%
1993	6%
1985	5%

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CALENDAR OF EVENTS

Thursday, July 26

UH Pharmacy Alumni & Friends Reception at TPA

8-9 p.m., *Venue TBA*
The Woodlands, Texas
Contact/RSVP: Mary Reed, 713-743-1252 or
mandress@uh.edu

Friday, Aug. 24

Pharm.D. Class of 2016 White Coat Ceremony

2 p.m., Cullen Performance Hall
Contact/RSVP: Betty Hassell, 713-743-1651 or
ehassell@uh.edu

Thursday, Nov. 8 - Friday, Nov. 9

Dean's Advisory Council Dinner and Meeting,

Time/venue TBA
Contact/RSVP: Mary Reed, 713-743-1252 or
mandress@uh.edu

Saturday, Nov. 10

Homecoming Game & Pharmacy Tailgate,

Time/location TBA
Contact: Mary Reed, 713-743-1252 or
mandress@uh.edu



Top left, Pharm.D. student Vu Ta counsels a senior at a brown bag medication review; student Janoo Shah administers a flu immunization at a senior health fair; bottom left, faculty member Paige Pitman ('94), center, catches up with 2011 alumni Lori Krustchinsky, Wai-Ying Lam, Elizabeth Engel, Brian Dinh, Bernadette Asias and Daniel Ortiz; and, bottom right, Dean Lamar Pritchard accepts a \$10,000 gift for Pharm.D. program support and the Walgreens Diversity Scholarship from Walgreens district supervisors Carole Hardin-Oliver ('83) and Ziad Ghanem ('04).

