

INTERACTIONS

UNIVERSITY OF HOUSTON COLLEGE OF PHARMACY | VOLUME 11

A NEW CHAPTER BEGINS



A message from DEAN PRITCHARD



American writer Laura Ingalls Wilder once said, “Home is the nicest word there is.” I definitely agree with Ms. Wilder’s point of view! When construction of the new home for the University of Houston College of Pharmacy began in July 2015, it was a historic moment because the need for a new state-of-the-art pharmacy facility had been discussed for many years. While it has taken a long time to become a reality, it will be well worth the wait and will be a fabulous addition to the UH Health Science Center and our regional healthcare initiatives.

We already have phenomenal researchers in our college who are working on new discoveries to combat today’s illnesses. However, these new first-rate facilities and expanded core research laboratories with new specialized research equipment will enable us to expand that important research and enable our researchers to better explore new frontiers in drug discovery and development.

Our new state-of-the-art classrooms will allow our faculty to utilize the latest and most effective teaching pedagogies, such as team-based/active learning approaches, that will also allow us to offer new and unique educational programs which will ultimately enhance our practice of pharmacy throughout the region, nation and world. We will be able to better meet the ever-changing needs of our healthcare system and our communities.

A key centerpiece of the new building will be a new expanded state-of-the-art Pharmacy Care Laboratory that will allow students to begin pragmatic “hands-on” training immediately upon entry into the professional program. This new approach will allow students to begin to assimilate knowledge and principles, in a pragmatic and applied manner, much earlier in the curriculum. Simulations will also be used to a greater degree which will better prepare our students before more advanced “live-patient” rotations begin.

The workstation capacity in our Pharmacy Care Laboratory will greatly increase. We will have an enhanced simulated community pharmacy that will allow our students to design and operationalize such important principles as workflow design, patient counseling methodologies, inventory control, personnel management, enhanced OTC counseling, etc. We will also have a patient assessment/education area, hospital IV admixture/sterile products room, an objective structured clinical examination (OSCE) suite complete with mock hospital and ambulatory care rooms featuring computerized mannequins and simulated patients, and a group demonstration area.

We truly expect that these curricular and facility improvements will continue to enhance “our UHCOP home” and the abilities of our students upon graduation. This will translate into enhanced pharmaceutical care for the citizens of the great state of Texas and beyond.

Best wishes,

F. Lamar Pritchard, Ph.D., R.Ph.

Interactions

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TAKING CARE OF BUSINESS, PATIENTS

UHCOP, BAUER COLLEGE OF BUSINESS DUAL PHARM.D./MBA OFFERS OPTION TO SUPERCHARGE ENTERPRISE READINESS

With the ever-increasing importance of business acumen in all pharmacy settings, UH College of Pharmacy and the UH C.T. Bauer College of Business are partnering to offer a Pharm.D./Master of Business Administration dual degree program that prepares students to effectively alternate between the examination room and the board room.

The program will allow students to complete the requirements of both programs in less time than it would by pursuing them separately. Program eligibility is open to both applicants to the UHCOP Pharm.D. degree program as well as currently enrolled Pharm.D. students before the end of their P1 year.

“Our Pharm.D. curriculum already provides a solid, high-quality foundation in such areas as pharmacy management and operations, but the Pharm.D./MBA dual degree offers students the opportunity to take that knowledge to the next level,” said **F. Lamar Pritchard, Ph.D., R.Ph.** “As organizations, pharmacy departments and pharmacists themselves are becoming more accountable for measurable outcomes — not only for the health of our patients — but also for the overall health of the enterprise, regardless if it’s a for- or non-profit organization.

“The Bauer MBA program’s robust curriculum in such areas as entrepreneurship, project management and marketing will undoubtedly position our dual degree graduates for success,

whether they’re starting an independent pharmacy, helping identify and implement operational efficiencies in virtually any practice setting, or seeking an executive C-suite position in a healthcare organization.”

The dual degree option builds on the strengths of two programs ranked in the top 50 nationwide among their respective disciplines by *U.S. News & World Report*.

“The tremendous scientific advances happening in healthcare present challenges to the resource allocation and delivery mechanisms in pharmaceutical therapies and in medicine,” said Bauer College of Business Dean **Latha Ramchand, Ph.D.** “Addressing those challenges will require leaders whose competence in business is as deep as their scientific expertise. Bauer College is pleased to partner with the College of Pharmacy to offer this program to the next generation of healthcare leaders in pharmacy.”

As common with dual degree programs, a limited number of credit hours within the component programs will count toward fulfillment of the academic requirements of the other program. Under the current plan, 12 Pharm.D. credit hours will count as elective hours in the 48-hour MBA program and six hours of the MBA program will count as elective hours in the 146-hour Pharm.D. program.



PREMINENT PRECEPTORS

COLLEGE HONORS EXPERIENTIAL TRAINING EXCELLENCE IN COMMUNITY, HOSPITAL AND AMBULATORY CARE SETTINGS

UH College of Pharmacy honored several health-system, clinical and community pharmacy preceptors for excellence in experiential education at the Class of 2016 Awards Reception.

The 2015-16 academic year honorees, who were selected by a committee of faculty and students, were:

Ambulatory Care Preceptor Award — **Sylvester Agbahiwe**, Pharm.D., BCPS, pharmacist at Harris Health System’s Settegast Health Center;

Community Preceptor Award — **Tina Marek**, R.Ph. (B.S. '90), pharmacy manager at Randalls (Katy);

Hospital Pharmacy Preceptor Award — **Cody Meuth**, Pharm.D. ('11), M.S. ('11), Memorial Hermann Sugar Land pharmacy director;

Health Systems Pharmacy of the Year Award — **Michael E. DeBakey** Veterans Affairs Medical Center;

Institutional Patient Care Preceptor Award — **Kathryn N. Pidcock**, Pharm.D. ('06), BCPS, clinical specialist-Internal Medicine at Houston Methodist Hospital; and

Faculty Preceptor Award — **Dhara (Shah) Surati**, Pharm.D. ('08), BCPS, clinical assistant professor at UHCOP and clinical pharmacy specialist at CHI St. Luke’s Health-Baylor St. Luke’s Medical Center.

“Our college’s preceptors and adjunct faculty members continuously demonstrate their outstanding commitment to not only helping the college provide the highest quality clinical pharmacy training, guidance and experiential education to students, but also deliver the highest quality care to patients in our communities,” said **Dean F. Lamar Pritchard**, Ph.D., R.Ph.



Among the UHCOP preceptor award recipients were, top, the Michael E. DeBakey Veterans Affairs Medical Center Pharmacy Department; above, Dhara (Shah) Surati, Sylvester Agbahiwe, and Kathryn Pidcock, with Dean Pritchard; and, below, Cody Meuth, with UHCOP’s Nancy Ordonez and Kimberly Nguyen.



College Honors Zatopek Upon Retirement After 26 Years of Loyal Service

A fixture at UH College of Pharmacy since 1992 — and in the pharmacy world at-large since graduating from the college in 1974 — **Shara Zatopek** was recognized with the college's Meritorious Achievement Award upon her retirement earlier this year.

Zatopek's career spanned independent and chain community pharmacy, health-system pharmacy, ambulatory care clinical pharmacy, consulting and pharmacy academia. In addition to teaching thousands of students in the B.S. and Pharm.D. curricula and pharmacists in continuing education programs, Zatopek served in several leadership roles during her tenure at the college, including oversight of admissions, academic and student affairs, and administration/operations.

She served the profession in a range of leadership roles, including National President of the Phi Lambda Sigma (PLS) Pharmacy Leadership Society; Texas Pharmacy Foundation trustee; Texas Pharmacy Association director; Harris County Pharmacy Association director, chair and president; and UH Pharmacy Alumni Association director and president.

Zatopek's résumé reads like a "Who's Who" in pharmacy. Her many accolades include the American Pharmacists Association-Academy of Student Pharmacists National Advisor of the Year Award and the Outstanding Pharmacist Service Award; PLS's National Faculty Leadership Award, Merck National Achievement Award, and 3M National Brown Bag Award; the Texas Pharmacy Association's Pharmacist-Educator of the Year; and the Harris County Pharmacy Association's Pharmacist of the Year Award.

Closer to her second home, Zatopek also was honored with the UH Outstanding Faculty Service Award and as one of UHCOP's "50 Outstanding Alumni" during the college's 50th anniversary celebrations.

A charter member of the college's Mading Society and a member of the UH "In Tempore" Society for planned giving,



Dena F. Lamar Pritchard, Ph.D., R.Ph., presents the 2016 Meritorious Achievement Award to Shara Zatopek, R.Ph. (B.S. '74), M.A., upon her retirement.

Zatopek has established three endowed scholarships and contributed to countless other funds as well as being a long-running sponsor and volunteer at the college's Scholarship Golf Tournament.

In addition to her UH pharmacy degree and induction into PLS, Zatopek earned an M.A. in Psychology from Houston Baptist University and was inducted into the Rho Chi Honor Society, Omicron Delta Kappa National Leadership Honor Society and the Kappa Delta Pi International Honor Society in Education.

"The thing I'll miss most about the college are the people — from the faculty and staff to the students and alumni," Zatopek said. "The laughs, the debates, the teamwork and the tears are all part of the amazing journey I've had with the college and the university."



Among the well-wishers at Shara Zatopek's retirement party were, from left, fellow alumni Barbara Lewis ('74) and May Woo ('91), Lynn Simpson ('97), and Craig Frost ('92).



Blythe



Brown



Halfin



Houston

UHCOP Alumni, Friends Among New Members of Dean's Advisory Council

UH College of Pharmacy Dean **F. Lamar Pritchard**, Ph.D., R.Ph., has welcomed several new members to the Dean's Advisory Council to help advance the college through their leadership, experience and commitment to excellence in pharmacy education.

The new members are:

Vicki S. Blythe, R.Ph. (B.S. '78), who recently retired from the University of Texas Medical Branch at Galveston;

Seth Brown, Pharm.D. ('05), a pharmacy supervisor for CVS Caremark in north Texas;

Timothy Halfin, R.Ph., Houston regional pharmacy director for HEB;

Jeffrey B. Harrison, Pharm.D. ('06), pharmacy manager for CVS/ pharmacy in Schertz, Texas;

Jennifer Harrison, Pharm.D. ('06), pharmacy manager for HEB in San Antonio; and

Edna G. Houston, R.Ph. (B.S. '67), who recently retired from HEB Pharmacy in Houston.

At the Fall 2016 DAC meeting, the torch was passed from co-chairs **Lisa M. Scholz**, Pharm.D. ('99), MBA, senior vice president, Market Strategy, for Sentry Data Systems, and **Julie Spier**, R.Ph. (B.S. '86), director of Pharmacy Operations-Houston/Southern



Division for Randalls/Tom Thumb/Albertsons, to **F. Paul Lott**, R.Ph. (B.S. '84), CGP, owner of LLW Consulting Inc., and **Alex C. Varkey**, Pharm.D. ('05), M.S., pharmacy director at Houston Methodist Hospital.

"As they always have done in their careers and their work behind the scenes, Lisa and



Harrisons



Dean Pritchard presents plaques to outgoing co-chairs Lisa Scholz, Pharm.D. ('99), MBA, and Julie Spier, R.Ph. ('86), at the Fall DAC 2016 meeting.

Julie led the DAC with distinction to help propel their College of Pharmacy forward," Pritchard said.

DAC members in attendance also were treated to a visit from **Robert L. Boblitt Jr.**, pictured at left, who swapped stories with former students of his late father, the beloved longtime UHCOP faculty member **Robert L. Boblitt Sr.**

Self-Study Paves Way for ACPE Site Visit

National accreditation is the cornerstone for all Pharm.D. programs in the U.S., and UH College of Pharmacy is proud to have maintained continuous accreditation by the Accreditation Council for Pharmacy Education (ACPE) since 1950 — only days before the college's first graduates were to sit for their board exams.

The college's administration, faculty, staff, students and alumni have been hard at work on the Self-Study Report in preparation of the ACPE evaluation team's site visit in March 2017. The college will be among the first programs evaluated under the ACPE's Standards 2016, which went into effect in July 2016.

According to ACPE, "Standards 2016 are employed for quality assurance so graduates of pharmacy education programs are practice-ready and team-ready and therefore, prepared to directly provide patient care in collaboration with other healthcare providers. Standards 2016 articulate the expectations of ACPE, the academy, the practice community, and the U.S. Department of Education and are solidly based on evidence and experience."

ACPE Standards 2016 has three major domains: Educational Outcomes, Structure and Process, and Assessment.

- Educational Outcomes include objectives for foundational knowledge, essentials for practice and care, approach to practice and care, and personal and professional development.
- Structure and Process comprises the college's planning and organization, integration of the education program (didactic, interprofessional education, IPPE, and APPE),



Countdown to Re-accreditation

January 2015	ACPE Releases Final Accreditation Standards 2016
July 2016	ACPE Accreditation Standards 2016 Become Effective
December 2016	UHCOP Ratification of Self-study Report
January 2017	Self-study Submitted to ACPE
March 2017	ACPE Team Site Visit to UHCOP

students, and resources (preceptors).

- The Assessment component allows for the college to review and evaluate set goals as it relates to the other domains.

The UHCOP Self-Study Report is posted to the college's website at <http://tinyurl.com/uhcop-acpe>.

College Joins AACP Collaborative on Opioid Abuse

UH College of Pharmacy is among more than 90 colleges and schools of pharmacy across the U.S. to commit to enhancing the education and training of students and practitioners to reverse the nationwide epidemic of opioid abuse and dependence.

The new initiative is being spearheaded by the American Association of Colleges of Pharmacy of which UHCOP is a member. The AACP-led effort stresses the important role pharmacy faculty play in reducing this critical public health threat by educating and training student pharmacists about life-saving overdose interventions.

"AACP member institutions educate all their student pharmacists to counsel patients about important public health issues, including opioid abuse and heroin use," said AACP Executive Vice President and CEO **Lucinda L. Maine**, Ph.D., R.Ph.



UHCOP Dean **F. Lamar Pritchard**, Ph.D., R.Ph., said pharmacists are in a unique position as medication experts to help combat drug abuse and addiction.

"As part of our education and service missions, we are wholeheartedly behind the effort to not only bring these issues to the forefront of the national conversation, but also to expand and implement programs to better prepare our students in fulfilling their duty in improving health in our communities," Pritchard said. "Whether it's including drug dependency scenarios in our patient counseling simulation exercises or training them on the use of overdose-intervention medications, we will continue to explore opportunities to give students and practitioners the tools and knowledge to help reverse this disturbing trend of addiction and substance abuse."

Graduation 2016



Spring-Summer 2016

Doctor of Pharmacy

Michael Bach
Melissa Bailey
Michael Bailey³
Rene S. Banzuelo
Sunny B. Bhakta¹
Annie Quynhanh Bui³
Nghii Bui²
Lawrence Chan
Wan Ton Wendy Chen
Ryan J. Daussat
Meghann Louise Davis³
Alyssa M. Demassey³
Raymond Dong
Andrea Fetea³
Brittany Nicole Greensage
Tiffany N. Han
Heather Marie Harrison
Ryan Lee Humphrey
Jensen Idicula²
Jasmeet Kauri
Adin Khan
Tyler Marie Kiles
Nimisha Kizhkkethara
Sherin Korah²
Michelle Lam³
Diem Phuong Minh Le
Ron Le

Soyoon Lee
Yuanli Vivian Li²
Pei Jen Lin³
Grace Liu
Macy Lopez
An Tieu Ma
Trang Duc Mai
Melkamu Ergano Markos
Paige Nicole Mata²
Ashley Ann Mathew²
Ryan May²
Marie-Ange Babomazamu Mbu
Jonathan Statham Merrill
Minhhang Quy Mui
Andrew Mulder
Scarlett Nicolette Najera³
Van M. Ngo
Amanda M. Nguyen
Courtney Phuong Nguyen
Khiet Nguyen
Lang Nguyen
Long Quoc Nguyen
Nguyen Nguyen
Phuc Ngoc Thien Nguyen
Stephanie Diep Nguyen
Tam Hoang Nhu Nguyen
Tooanh T. Nguyen
Vincente Nguyen

Eilaf Osman
Feniikumar Prafulbhai Patel
Janki Vijay Patel
Emily Rapesak
Sumanth Muchintala Reddy³
Yun Christine Roh
Bianca Francine Romero
James Adolf Roperes
Faizan A. Sattar
Daniel J. Schwartz
Christina Sera Senny
Jacqueline N. Shiao
Gurvinder Singh³
Sarah Louise Locsin Suerte
Lizzy Chebe Suh
Elisabeth Mae Sulaica
Adam Joshua Tanner
Allyson Michele Thrall
Tram Ho Tran
Stuart Hanh Tran
Ashley Rene Trojck
Jennifer Thanhlan Truong
Stefanie Rae Underwood³
Christine Verduzco
Clarissa Topacio Vivares
An Minh Vu
Catherine Vu
Jun Wang

Brittany Jannise Weldon
Ciara Nicole Will
Amber Elizabeth Williams
Katherine Lynn Shake Williams¹
Tianrui Yang²
Weston Anthony Yanta
Nicholas Yarbrough³
Kathaleya Kay Yindeemark
Quratulain Zulfiqar³

Ph.D. Pharmaceutical Health Outcomes & Policy

Yasser Saleh A. Almogbel
Mark David Hatfield

Ph.D. Pharmaceutics

Pankajini Mallick

Ph.D. Pharmacology

Hironari Akasaka
Naimesh Natawarlal Solanki

M.S., Pharmacy Leadership & Administration

Sarah R. Cox
Brandi A. Hamilton
Gurbinder S. Jassar
Abhay S. Patel
Joseph W. Rogers
Roya Tran

Fall 2016

Doctor of Pharmacy

Salman Farooqui

Ph.D. Pharmaceutical Health Outcomes & Policy

Nipun Atreja
Rohan Arun Medhekar
Aylin Yucel

Ph.D. Pharmaceutics

Pooja Manchandani

Ph.D. Pharmacology

Mohammed Saleem

Summer-Fall 2015

Doctor of Pharmacy

Jawad Awan
Audrey Dao-Anh Nguyen
Christina Nhu-Thuy Vo

Ph.D. Pharmaceutical Health Outcomes & Policy

Erin A. Ferries
Shivani K. Mhatre
Ayush Vijay Patel
Jeetvan Gautam Patel

Ph.D. Pharmaceutics

Sumit Basu
Tao Niu

Ph.D. Pharmacology

Odochi Iquo Nwoko
Sonal Singh

¹ Summa Cum Laude

² Magna Cum Laude

³ Cum Laude



HEALTH AND BIOMEDICAL SCIENCES



BUILDING 2



OUR BLUEPRINT FOR A HEALTHIER FUTURE

Marking the 70th anniversary of its founding, the University of Houston College of Pharmacy is poised to leap forward into a bold, transformative phase in its evolution with the completion of its new home in Health and Biomedical Sciences Building 2 in June 2017.

For the first time in its history, UHCOP will have all of its academic and research programs based in one facility centered in the university's Biomedical District. The college will be housed in approximately 157,000 gross square feet across five floors in the nine-story, 300,00-square-foot HBSB2.

HBSB2 will not only relieve the college's shortage of space in its current facilities in Science & Research Building 2 and the Texas Medical Center Campus, but also provide space to allow its academic, research and patient care programs to advance and grow to their full potential. The college spaces were meticulously planned to provide learning, practice and research facilities that not only reflect current trends and standards of practice and discovery, but also offer flexibility to deftly adapt to changes in the profession, scientific knowledge and technology.

While UHCOP will completely vacate its space in Science & Research Building 2 on the UH Campus, the college's Texas Medical Center Campus will be updated for new UHCOP research and clinical initiatives.

The \$145 million facility was designed by Shepley Bulfinch and is being built by Tellepsen Builders LP, with oversight by UH Facilities Planning and Construction. Planning and programming for the college space was the result of countless hours of work by UHCOP's leadership, faculty, students, alumni and staff members as well as internal and external consultants.

"Realization of this dream would not have been possible without the foresight, support and leadership of the University of Houston System Board of Regents, UH President Renu Khator and other members of the UH executive administration, and the college's many donors, alumni and friends, not to mention the patience and fortitude of our faculty, staff and students," said UHCOP Dean F. Lamar Pritchard, Ph.D., R.Ph.

*Aerial photos by Aero Photo; courtesy of Tellepsen Builders
Floor plans courtesy of Shepley Bulfinch*

Third Floor

The main entrance to the college will be through a grand staircase leading from the Second Floor to the Third Floor, which will feature display spaces for artifacts and acknowledgments to the history of the college and those who contributed to its development and reputation as a leader in patient care and drug discovery and development.

The third floor primarily comprises traditional classroom/lecture spaces, small group study and learning/meeting spaces, and the majority of the college's leadership and administrative offices. WiFi connectivity and abundant electrical outlets/device-charging stations are available throughout the instructional and common areas.

The largest of the instructional/learning areas are two large stadium-style, tiered lecture halls each with a seating capacity for nearly 200. Both lecture halls feature flexible seating to allow students to easily and comfortably break into smaller study/discussion groups and a networked A/V conferencing/presentation system that can be further linked to other areas with the building.

The third floor also features a medium-sized tiered classroom with seating for up to 72 and three smaller classrooms with flexible tables and seating to accommodate approximately 24-30 each.

In addition, there are two "skills" lab spaces with flexible tables and seating to create pod-style classrooms to promote new teaching styles and active learning for approximately 64 each. Each pod will feature a monitor for connecting laptops and sharing work within each pod and across all pods as well as a camera for interacting with faculty or other health professionals off-site. Separated by a retractable partition, the two areas can be merged to create a large, multipurpose event space for social, career/professional development and other college events.

The other dominant spaces on the third floor are the Student Resource Center, which offers expansive open areas for study and student interaction and access to an outdoor terrace, open and enclosed spaces serving as student breakrooms/lounges, and a



catering/kitchen area for student and college events. Scattered throughout the third floor are multiple enclosed computer/study carrels spaces for individual study, numerous common-area study nooks, and eight small enclosed group study rooms. Students also are afforded an organization meeting/storage space and an information technology support area staffed by IT personnel.

The third floor also will house the college's leadership and administrative support staff, including the Office of the Dean, Assessment, Experiential Programs, Academic Affairs, Student & Professional Affairs/Student Services, centralized business operations, information services, classroom technology, development, and communications.



AUGUST 2014



JANUARY 2015

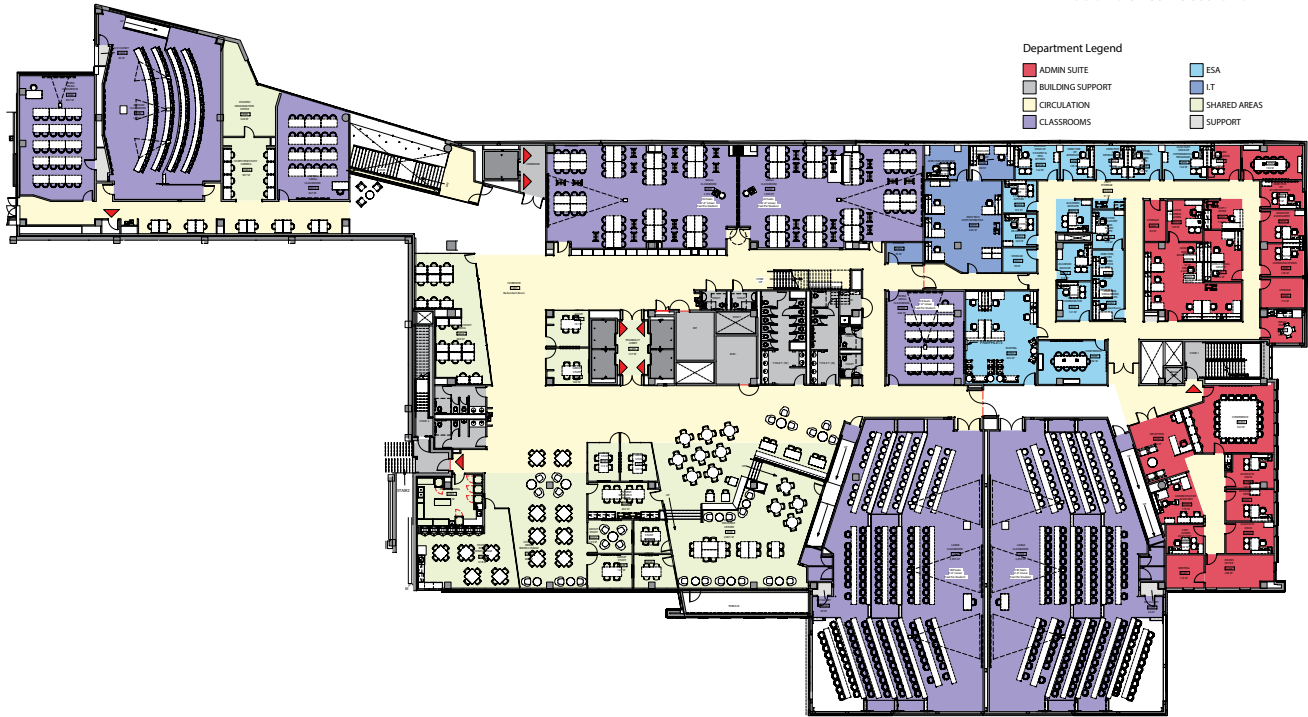


JULY 2015

THIRD FLOOR

UNIVERSITY OF HOUSTON

HEALTH AND BIOMEDICAL SCIENCES BUILDING 2



Among the Third Floor spaces illustrated in architectural renderings are, left page, one of the two large stadium-style lecture halls with dual monitors connected via a networked A/V conferencing/lecture recording system; top right, one of the two pod-style skills classrooms with flexible tables and seating that can be connected via a retractable partition to create a large multipurpose teaching and event space; and views of the Student Resource Center, bottom right, and the open section of the Student Breakroom/Lounge.

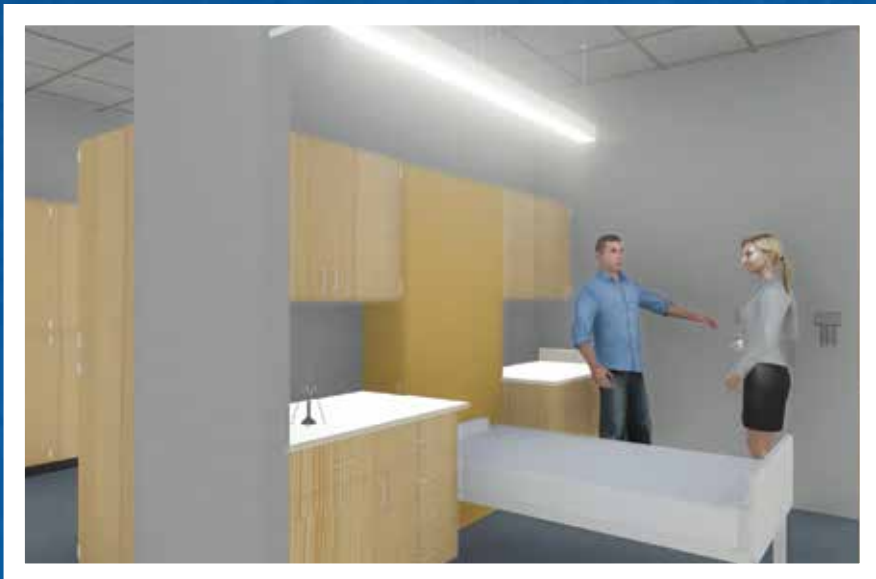


Fourth Floor

The largest spaces on the Fourth Floor are dedicated to skills teaching and practice in the Pharm.D. curriculum and the Infectious Diseases Research Core.

Thanks to a generous gift from the college's longtime educational partner, the PCCA Compounding and Sterile Products Laboratory comprises three components:

- The Pharmacy Care & Compounding Teaching Lab featuring 16 alcoves — each equipped with sinks and other essential equipment for non-sterile compounding, as well as computer workstations and retractable examination tables — and shared benches for compounding instruction/demonstration space;
- A state-of-the-art Sterile Products Laboratory comprising one room with 12 biological safety cabinets/hoods for students to learn and practice the sterile products techniques to develop core competencies and a second separate clean room with four hood stations for assessment of their skills and techniques; and
- A U.S. Pharmacopoeia 800 Standards-compliant antechamber where students will learn the proper techniques for scrubbing, gloving and gowning before entering the clean room areas.



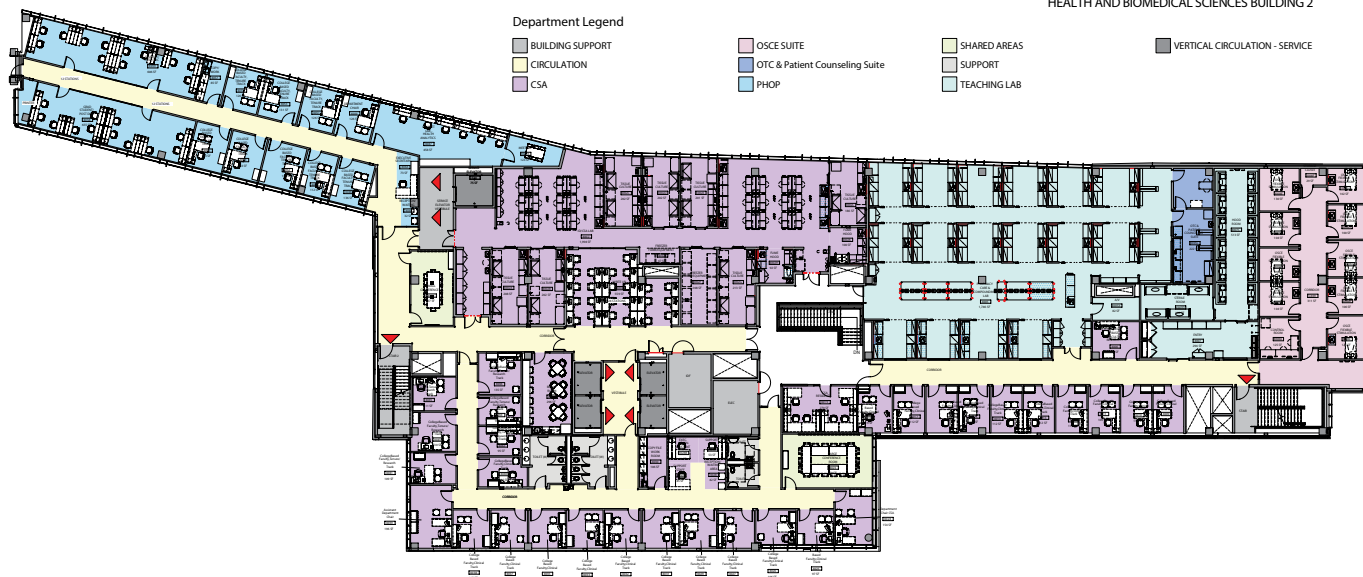
The Dr. Michelle Edwards Hamilton Simulated OTC & Patient Counseling Suite will preserve the memory and legacy of professionalism and dedication to patient counseling of the Pharm.D. Class of 2004's Michelle Edwards Hamilton, who not only brought the college its first National Patient Counseling Competition title but also is remembered by her colleagues, friends and family members as a relentless advocate for patient care.

The suite will feature a simulated community pharmacy with a drive-through window, where students will learn the basic functions of pharmacy practice in a traditional ambulatory care

FOURTH FLOOR

UNIVERSITY OF HOUSTON

HEALTH AND BIOMEDICAL SCIENCES BUILDING 2





NOVEMBER 2015



DECEMBER 2015



JANUARY 2016

setting, including dispensing, prescription verification, and electronic prescribing.

The area also will feature a private counseling room, where students will receive instruction and engage in practical exercises in a variety of evidence-supported patient counseling techniques, such as motivational interviewing, and broader-scope pharmacy services, including but not limited to disease state management and medication therapy management.

Both areas will be equipped with audio-visual (A/V) recording systems to capture student performance for review and evaluation by instructors and fellow students.

The Objective Structured Clinical Examination (OSCE) Suites consists of a staging area, an A/V control room and nine standardized patient care rooms, each of which will be equipped with a bed and a sink. Each patient care room also will feature A/V technology to record high-stakes, standardized-patient encounters, which can be played back, reviewed and shared

through the network for skills instruction and assessment.

The Fourth Floor also houses the Infectious Diseases Research Laboratory, which features eight tissue-culture labs with state-of-the-art biohazard containment and control systems, a freezer room, shared laboratory spaces and a separate experiment write-up area for research staff, postdoctoral fellows/residents and students.

Individual offices for faculty and communal office space for fellows/residents in the Department of Pharmacy Practice and Translational Research will be adjacent to the ID research and pharmacy skills/compounding labs and suites.

Also housed on this floor will be the Pharmaceutical Health Outcomes and Policy faculty offices and administrative areas, Ph.D. program student and postdoctoral researcher workstations, and an access-controlled, high-performance Health Analytics server room to support the department's advanced computing programs and databases.



FIFTH FLOOR

UNIVERSITY OF HOUSTON
HEALTH AND BIOMEDICAL SCIENCES BUILDING 2



Fifth, Sixth and Seventh Floors

The Fifth, Sixth and Seventh floors will house the research laboratories, faculty offices and graduate student/postdoctoral areas of the college's Department of Pharmacological and Pharmaceutical Sciences.

Spread across all three floors will be numerous specialized core and bench laboratory facilities. The bench laboratories were planned on an open-concept design, with flexible workspaces to both foster collaboration and student-faculty synergy and to allow for allocation of laboratory space based on changes in the scope and size of research projects.

The three floors also will house several specialized core facilities featuring cutting-edge analytical instrumentation, equipment and technologies for a range of drug development activities as well as providing the foundation for the planned UH Center for Therapeutics and Diagnostic Innovation. The new center will serve as a hub for the discovery and development of new chemical and biological agents to improve the diagnostic capabilities and treatment alternatives for many of today's most deadly and debilitating diseases.

The Fifth Floor primarily provides research and administrative spaces for the college's Pharmacology faculty, research and administrative staff, and doctoral students.

Although faculty will be provided individual offices, graduate students, postdoctoral fellows and research staff will make use of open-concept laboratory write-up spaces with individual cubicles when not actively conducting experiments in the labs. The write-up space will be located directly across from the floor's primary laboratory area, which features abundant windows for monitoring experiments.



Multiple separate core lab spaces dedicated to specialized equipment and experimental procedures utilized by Pharmacology- and Medicinal Chemistry-based research will be housed on the Fifth Floor. Examples of these dedicated areas include rooms for autoclaves, centrifuges, film development, crystallography, histology and tissue culturing as well as experimentation focused on specific biological systems such as cardiovascular hemodynamics, renal function, neuro-electrophysiology.

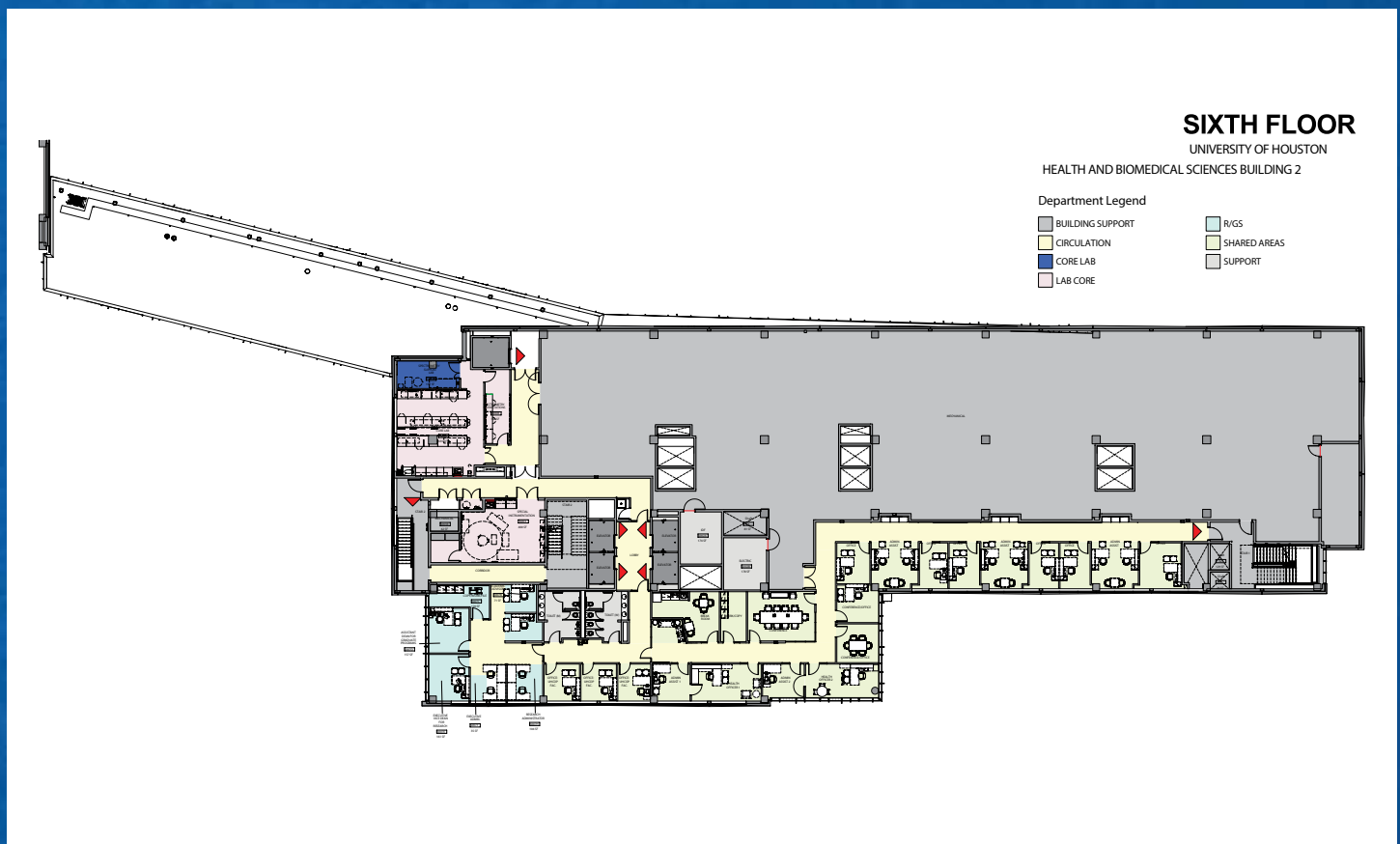
Thanks to a \$1 million gift from longtime UHCOP supporters, several core facilities comprising the Paul and Manmeet Likhari Pharmaceutical Core Research Laboratory will be housed throughout the three floors. Among the Likhari Laboratory components located on the Fifth Floor are:

- Microscopic Imaging Core with capabilities in Fluorescence and Confocal Microscopy;
- Flow Cytometry – 7 Laser flow cytometer;
- Ultrasound Cardiac, Vascular and Tumor Imaging – High Frequency Ultrasound;



- High Throughput Screening – robotic high-throughput optical screening instrument;
- Molecular Modeling – computing and software for structure/activity modeling; and
- Whole Animal Imaging – IVIS® X-Ray, Fluorescence and Chemiluminescence imaging.

In addition, the Polymerase Chain Reaction (PCR) Core Lab will be housed on the Fifth Floor.



The Fifth Floor will provide controlled access between HBSB2 and HBSB1, where recently constructed state-of-the-art animal care facilities will support researchers in both buildings.

Although total square footage on the Sixth Floor is limited by the mechanical systems that support the entire building, the floor will provide offices and administrative space for the leadership and support personnel of UHCOP's Office of Research and Office of Graduate Programs. In addition, the Sixth Floor will be home to the leadership and support personnel for the UH Health initiative.

In addition, the Nuclear Magnetic Resonance Core Lab and Spectroscopy Core Lab for advanced Liquid Chromatography Mass Spectroscopy/Mass Spectroscopy (LC-MS/MS) and Maldi-Time of Flight (Maldi-TOF) analyses — both components of the Likhari Pharmaceutical Core components — will be housed on the Sixth Floor.

The Seventh Floor will serve as the home for the college's Pharmaceuticals and Medicinal Chemistry research laboratories as well as faculty, graduate students, postdoctoral fellows and research staff.



As with the other floors, the primary bench-lab spaces utilize an open concept to accommodate changes in the size and scope of research projects as needed as well as open-concept write-up spaces to stimulate collaboration and teamwork among students, postdoctoral associates and research staff.

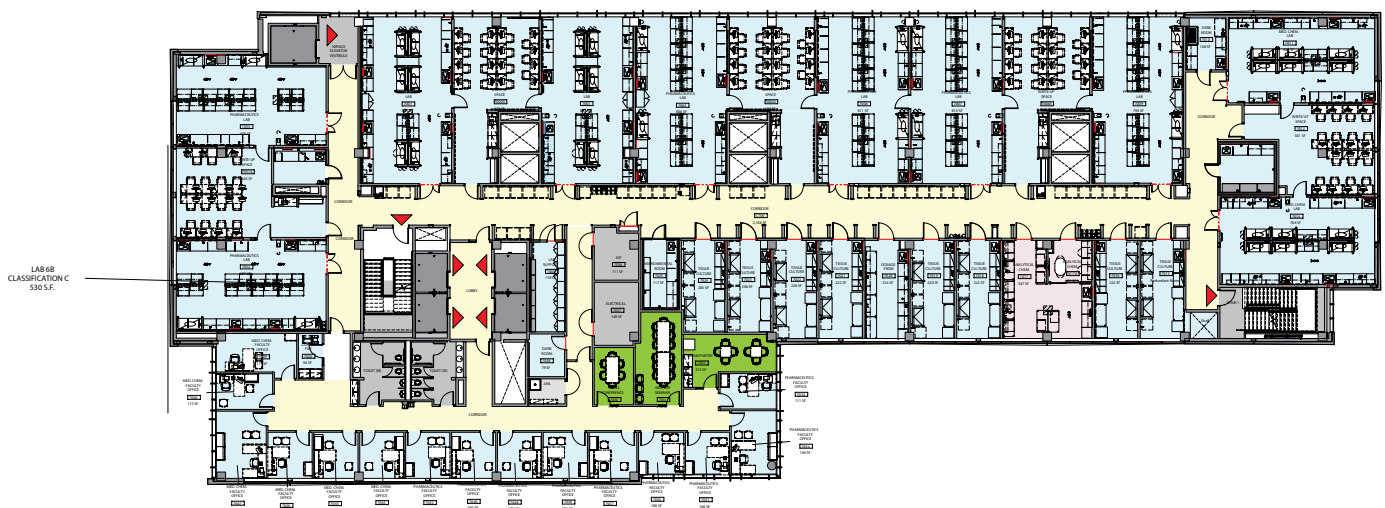
The Seventh Floor also will house multiple tissue sample labs and the Dosage Form Core Lab for conducting dissolution, formulation characterization and stability studies.

SEVENTH FLOOR

UNIVERSITY OF HOUSTON
HEALTH AND BIOMEDICAL SCIENCES BUILDING 2

Department Legend

BUILDING SUPPORT	PPS
CIRCULATION	SHARED SPACE
LAB CORE	SUPPORT
LAB SUPPORT	





Completion June 28, 2017

Opening Fall 2017



JULY 2016

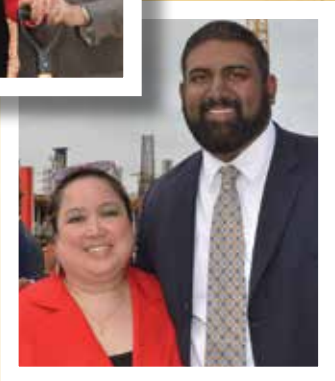


SEPTEMBER 2016



OCTOBER 2016

GROUND BREAKING



Joining UHCOP and UH at the groundbreaking ceremony for Health and Biomedical Sciences Building 2 were, top, Harris County Tax Assessor-Collector Mike Sullivan, Texas State Rep. Rick Miller of Sugar Land, UH Interim Vice President of Research & Technology Transfer Ramanan Krishnamoorti, UHCOP Dean F. Lamar Pritchard, UH System Regent Paula M. Mendoza, PCCA Chief Executive Officer L. David Sparks, UH Senior Vice President & Provost Paula Myrick Short, Texas State Sen. Paul Bettencourt, Celso Cuellar Jr. ('65), UHS Regent Durga D. Agrawal. Other participants included, above from left, UH Foundation President Terrylin Neale and Trustee Alvin L. Zimmerman; May Woo ('91) and Alex Varkey ('05); John J. Lovoi Jr. ('62) and Doug Eikenburg; former UH Regent Welcome Wilson Sr. (Bauer '49) and Short Julie Spier ('86).

& KICKOFF PARTY



In celebration of the start of construction and the capital campaign in support of Health and Biomedical Sciences Building 2, longtime college supporters and Mading Society members Paul and Manmeet Likhari graciously opened up their home to the UH and UHCOP family and friends for the HBSB2 campaign kickoff event. Attendees included, clockwise from top left, Mary Espinoza ('80), Bill Morgan ('63), Dean F. Lamar Pritchard and John Espinoza (Technology '77); Kanchan Sarao ('10), UH President Renu Khator and Manmeet Likhari; Andrea Smesny ('97), Joe Smesny and former UH Regent Welcome Wilson Sr. (Bauer '49). Pritchard and Khator; Roy Armstrong ('84) and Bruce Biundo ('61); Kevin Garey and Ryan Roux ('99); and Roger Anderson and Sunny Bhakta ('16).



**A message from the
HBSB2 Campaign Chair**

Bruce Biundo

Fellow UH College of Pharmacy alumni and friends,

If you could, would you give to the Capital Campaign? If you knew that your gift could make a difference, would that cause to think about it a little more deeply? What about the students who are in the college now – if you knew one of them personally – would it affect the way you looked at the question? What about the end-product: the graduates of the college? Are you not filled with pride when you see and hear how gifted they are, and how high they score on the licensure exams? If you can, would you consider supporting your college in this campaign?

Personally, I did not always give to the college. No special reason, I just really didn't think much about it. For sure, there were times when, even if I had thought about it, I would not have been able to give very much. For me, the decision to make a gift the first time was in response to being asked, at a time when I was able to say yes. At that time, I did have some connection to the college by serving as a preceptor, but deciding to give made me feel a little closer and more connected.

UH and the College of Pharmacy have made great strides over the years, and continue to do so. Only a few years ago, UHCOP ranked 54th out of about 140 pharmacy schools in terms of research funding. Today, UH is ranked 31st among all of the colleges of pharmacy, which is amazing considering the cramped quarters in which the researchers conduct their great work. A Top 10 ranking is a very attainable goal in the next few years, given the talent we have and will draw with our new facilities. How well do our students perform on the licensing exams? Our graduates held a 99 percent first-time pass rate on the NAPLEX and a 100 percent first-time pass rate on the MPJE from 2013-2015.

Our goal for the Capital Campaign is \$5 million, an amount way higher than any previous goals. We are about 80 percent there, with approximately \$4 million given or pledged so far. So, it is very doable – but we need to do this to ensure that when the building is completed, everything will be in place. We want to have the very best environment and supplies for our students, and improved research facilities for the gifted researchers. And, as many of you know, our TMC building still is in dire need of improvements and upgrade. If we exceed \$5 million, the college will be able to get more in place so that our students and alumni will have facilities that we can proudly talk about and show.

This campaign is very personal for me, and I hope it will be for you, too. I have known many students over the years, worked closely with a number of them, and memories of them will always be with me. I am in awe of our dedicated faculty who have given their all in absolute dedication to our students and our profession, often in lecture rooms, office spaces and research labs that would turn the less dedicated away. Please join me in supporting all of them, the students, the faculty, the dean through a donation to this campaign.

If you can, will you please give to the Capital Campaign? The amount that you choose to give is less important than your choosing to be a part of the campaign. Certainly, large gifts will be greatly appreciated, but so will more modest gifts. Your participation will make a large difference to the next generation of pharmacists. More importantly, it will make a difference to you by choosing to be a part of something great, something enduring.

— Bruce Biundo, R.Ph., UHCOP Class of 1961

HBSB2 DONORS

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PAUL & MANMEET LIKHARI PHARMACEUTICAL CORE RESEARCH LABORATORY

Eager to help the University of Houston College of Pharmacy reach its true potential as an indisputable leader in the research, **Paul and Manmeet Likhari** have provided the lead gift of \$1 million to the campaign for UH College of Pharmacy's new home in Health and Biomedical Sciences Building 2.

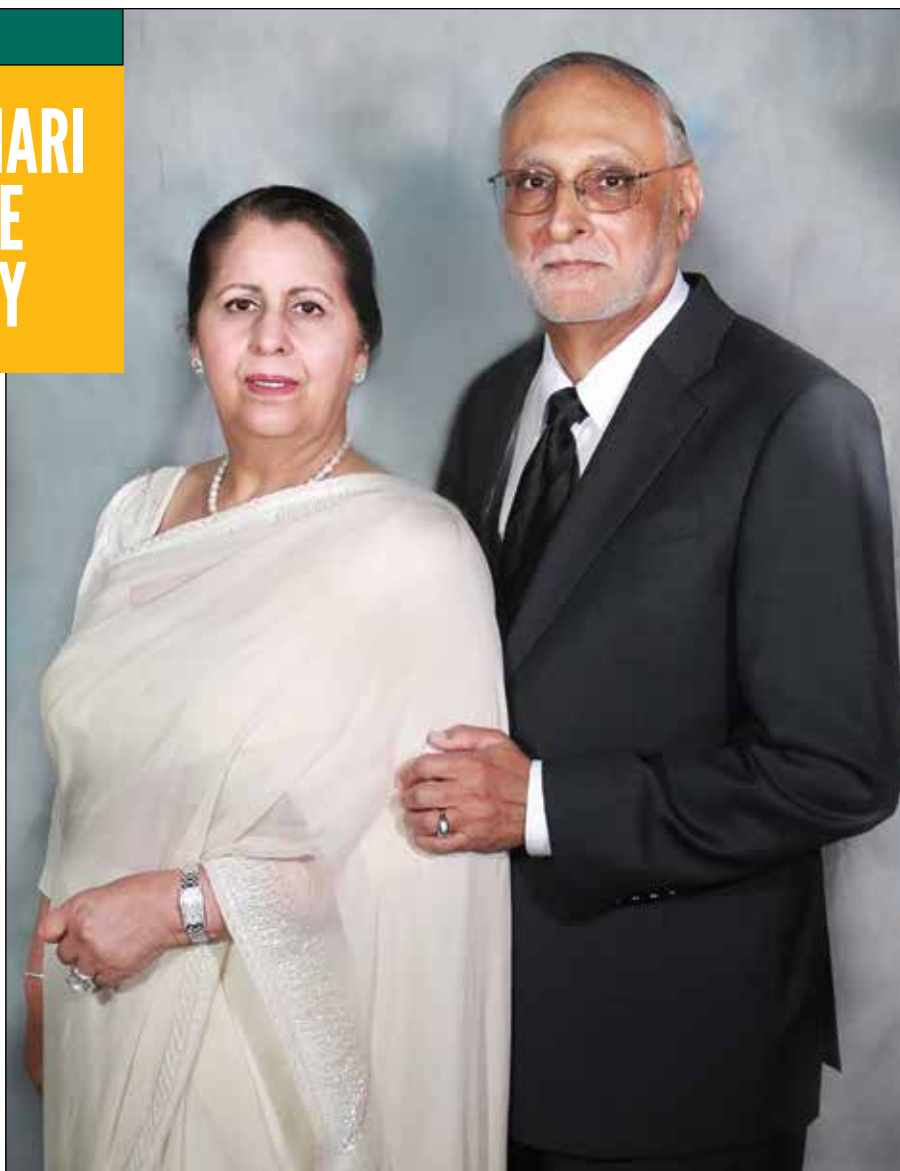
Their generous gift for the Likhari Pharmaceutical Core Laboratory aims to transform the college's research capabilities with the advanced technology and state-of-the-art analytical systems the likes of which the college has never seen in its 70-year history.

"Our hope is that this gift to the new building will help the college become more successful in drug development and educating students in everything from basic research to patient care as well as improve its national rankings," said Paul Likhari, a longtime member of the Dean's Advisory Council and former adjunct faculty member.

"In spite of the college being split across two campuses and lacking the proper space for research, I've been very impressed in the last few years of how the college has done so well in collaborating with the world-renowned clinicians in the Texas Medical Center and the good work being done with other TMC institutions such as the H.O.M.E.S. Clinic with Baylor College of Medicine and UTHealth.

"Dean Pritchard has a vision for the college and how it can help the university; he has brought in a number of good scientists and faculty. We also were really impressed how UH President Renu Khator has taken the University of Houston to Tier One in such a short time."

The Likhari's association with the University of Houston and the College of Pharmacy spans more than two decades: UHCOP doctoral program students were provided the opportunity to work



on their research projects at Bioassay Laboratories, the Houston-based pharmaceutical contract research laboratory the Likhari's acquired with another business partner in 1990. Later renamed BA Research International, the company grew to a staff of more than 100 and claimed about 20 percent of the U.S.-based studies for generic drug manufacturers.

Serving as CEO of the company until retiring in March 2008, Likhari is recognized as a leader in drug analysis, particularly in bioavailability and bioequivalence studies. Likhari is credited with developing more than 150 analytical procedures for drugs in biological fluids, conducting more than 1,600 studies and coauthoring several journal articles.

"Pharmacy has been very good to us; this profession has brought us great pleasure because we worked on a number of new and generic drugs and helped in their approval process," Likhari said.

With more than 30 years' experience in the lab, Likhari is keenly aware of the necessity of adequate equipment and tools to conduct viable, legitimate research.

"In the past, because the college didn't have that many

resources, I even gave some of the surplus instruments from our lab to the college or, when they needed HPLC columns, we would order some from our supplier and donate them to the college,” said Likhari, who was recognized as the 2005 Entrepreneur of the Year by the Indo American Chamber of Commerce of Greater Houston. “I can understand to do better research, you need good instrumentation and current technology because without these two important elements, you will go nowhere.”

In addition to their first-hand experience in the pharmaceutical industry and health care, the Likharis are proud parents of healthcare professionals: son **Gauruv Likhari**, M.D., graduated from Baylor College of Medicine and is a Diagnostic Radiology specialist at CHI St. Luke’s Health-Baylor St. Luke’s Medical Center and daughter **Kanchan Sarao** is a 2010 UHCOP Pharm.D. graduate and pharmacy manager at Southside Pharmacy in Katy.

Longtime members of the college’s Mading Society, the Likharis previously established two scholarships for Pharm.D. students at UH: the Prithvipal and Manmeet Likhari “Inspiring Excellence” Scholarship Endowment and the Randhir Singh & Gurcharan Kaur Likhari Presidential Endowed Scholarship.

The Likharis’ belief in the power of education and supporting the community extends well beyond the laboratory and health care. One or both of the Likharis have served or are currently serving on various boards, including the Sugar Land Legacy Foundation, Children’s Museum of Houston (Fort Bend), Asian Art Society of MFAH, Fort Bend Education Foundation, Child Advocates of Fort Bend, Indo American Chamber of Commerce of Greater Houston, Pratham, India House, Sugar Land Memorial Hermann Hospital Advisory Committee, Gurdwara Sahib of SW Houston, the Indo-American Charity Foundation of Houston, and the Fort Bend Chapter of the American Heart Association.

“Our motto always has been, ‘You give where you live,’” Paul Likhari said.

About the Likhari Lab

The Likhari Pharmaceutical Core Research Laboratory will provide cutting-edge analytical instruments and equipment for a range of drug development activities as well as a foundation for the planned UH Center for Drug Discovery. Individual specialty cores housed within the Likhari Pharmaceutical Core Laboratory include:

- Microscopic Imaging – Fluorescence and Confocal Microscopy;
- Spectrometry – LC/MS/MS and Maldi-TOF MS;
- Ultrasound Cardiac, Vascular and Tumor Imaging – High Frequency Ultrasound;
- Nuclear Magnetic Resonance spectroscopy;
- Flow Cytometry – 7 Laser flow cytometer;
- High Throughput Screening – robotic high-throughput optical screening instrument;
- Molecular Modeling – computing and software for structure/activity modeling;
- Whole Animal Imaging – IVIS® X-Ray, Fluorescence and Chemiluminescence imaging; and
- Dosage Form Characterization – dissolution, particle size and stability studies.



Paul and Manmeet Likhari with UH President Renu Khator at the Health and Biomedical Sciences Building 2 campaign kick-off event at the Likharis’ home.

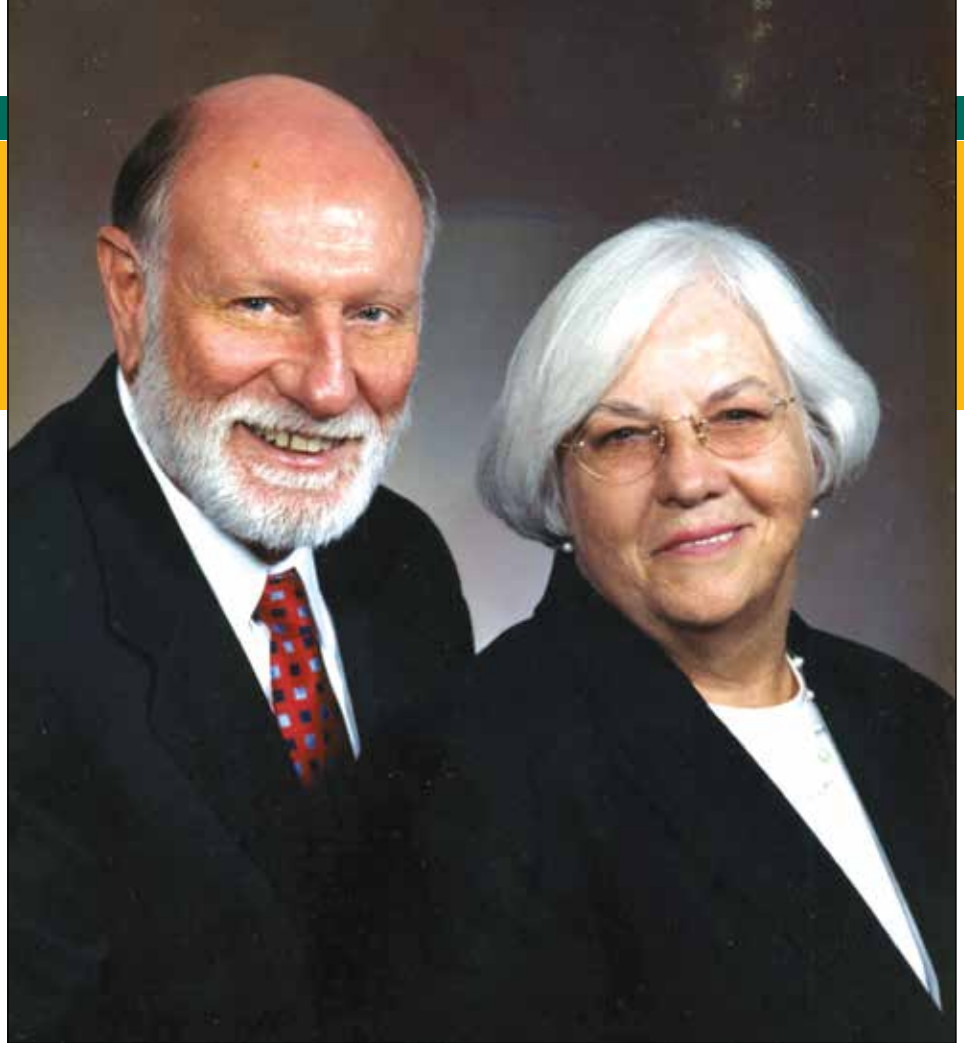
PCCA COMPOUNDING & STERILE PRODUCTS LABORATORY

With a relationship stretching back more than two decades, UH College of Pharmacy and PCCA have joined in their most ambitious collaboration yet: the creation of the PCCA Compounding and Sterile Products Laboratory in the college's new home in Health and Biomedical Sciences Building 2.

The PCCA Compounding and Sterile Products Laboratory will allow the college to present the didactic knowledge and hands-on practice and ensure the core competencies of students in performing sterile and non-sterile compounding and patient physical assessments.

While the new laboratory space will allow the college to bring all of its core-curricular training in compounding in-house, students will still have the opportunity to work alongside PCCA preceptors and staff members through various Advanced Pharmacy Practice Experiences (such as Drug Information, Veterinary Pharmaceutical Care and Consulting).

In addition, the college will no longer



David Sparks and his late wife, Kay Sparks, were among the earliest inductees to the college's Mading Society of benefactors in recognition of their gifts to the college and student scholarships.

need to rent space in the sterile products lab operated by Houston Community College's Pharmacy Technician program, where UHCOP students have gone to perform skills assessment for Pharmacy Skills modules.

Housed on the Fourth Floor of HBSB2,

the PCCA complex comprises three key areas:

- The Pharmacy Care & Compounding Teaching Lab featuring 16 stations — each equipped with sinks and other essential equipment for non-sterile compounding and retractable examination tables — as well as a row of benches for compounding instructional/demonstration space;
- A state-of-the-art Sterile Products Laboratory comprising one room with 12 biological safety cabinets/hoods for students to learn and practice the sterile products techniques to develop core competencies and a second separate clean room with four hood stations for assessment of their skills and techniques; and
- A U.S. Pharmacopoeia 800 Standards-compliant antechamber with surgical sinks for scrubbing and gowning.



Dean F. Lamar Pritchard is joined by PCCA representatives Renee Prescott, Pharm.D. ('02), Lizzie Harbin, L. David Sparks and Bruce Biundo, R.Ph. ('62) at the Dean's Advisory Council luncheon.

An additional room off of the Pharmacy Care & Compounding Laboratory will serve as the audio-visual “mission control” center for the server network of recording equipment through the three teaching/laboratory spaces. The system will provide vastly enhanced instructional opportunities by allowing students and faculty members to review and assess students’ techniques.

PCCA’s gift comes as the company celebrates 35 years of operations this year. Originally founded as Professional Compounding Centers of America in 1981 by several pharmacists who saw a need to serve their fellow professionals amidst a rise in patient and physician interest in compounded medications, PCCA’s membership now numbers nearly 4,000 independent community pharmacists in the United States, Canada, Australia and other countries around the world.

PCCA serves as a complete resource for pharmacists working with patients and prescribers to provide personalized, compounded medications. The company’s products and services include chemical component sales, devices and equipment, training and drug information consulting and support, as well as facility design and compliance assistance.

More recently, the company also greatly expanded its quality-assurance testing services by launching Eagle Analytical Services in 2004 to offer clients an external resource for ensuring the safety of their compounded medications. Eagle’s service platform includes high-quality sterility, bacterial endotoxin, microbial detection, beyond-use dating (BUD) determination and active-ingredient potency analysis.

PCCA Chief Executive Officer **L. David Sparks**, who joined the company in 1989 as a consultant, said the new state-of-the-art facility will provide students with the foundational training that can be expanded with advanced training from PCCA preceptors and staff later in the curriculum or after entering the workforce.

“This new laboratory is a testament to the productive partnership we have had with the University and the College of Pharmacy for more than 20 of our company’s 35 years,” said Sparks, who previously served on the college’s adjunct faculty and Dean’s Advisory Council. “Our unique partnership has provided thousands of UH pharmacy students with the opportunity to learn the most advanced techniques for preparing sterile and non-sterile compounded preparations.

“This gift also is a tribute to the many current and past staff members — as well as many of our client members — who are proud UH alumni and played such an important role in making PCCA a leader in our industry.”

David Sparks and his late wife **Kay Sparks**, who passed in 2012, had been longtime supporters of the college beyond the classroom and lab. Through their gifts in support of college programs as well as student scholarships, the Sparks were among the earliest inductees of the college’s Mading Society of benefactors.

It’s an understatement to say that David and Kay Sparks carved out a reputation as indisputable experts in the field of compounding under their leadership roles at PCCA. Both Sparks were recognized as Fellows of the International Academy of Compounding Pharmacists and the American College of Apothecaries. Graduates of Southwest Oklahoma State University, both David and Kay were recognized with the institution’s Distinguished Alumni Awards.

David Sparks also was recognized with the National Community Pharmacists Association’s John W. Dargavel Medal in 2006 and UHCOP’s Meritorious Achievement Award in 2013.

In 1997, Kay Sparks was awarded the PCCA Eagle, which is the company’s highest honor and is presented to those individuals who have dedicated themselves to the company, their colleagues and to pharmacy compounding. In 2006, IACP named its new headquarters the Kay Sparks Building in honor of her contributions to compounding pharmacy. One year later, PCCA renamed its Employee of the Year award in her honor.

“We are extremely grateful and excited about the opportunities that this cutting-edge facility will afford our students and faculty in the time-honored art and science of compounding through the delivery of didactic knowledge and demonstration of practical techniques for safe, effective compounded medications and sterile products,” said Dean F. Lamar Pritchard, Ph.D., R.Ph. “We are very excited and privileged to enhance our outstanding partnership with PCCA — and provide a real-world training facility for our future professionals — through this generous gift.”



With the new Compounding & Sterile Products Laboratory in HBSB2, UHCOP will no longer need to rent space at Houston Community College’s space for training pharmacy technicians.



Mark Lacy photo

DR. MICHELLE HAMILTON OTC & PATIENT COUNSELING SIMULATED PHARMACY



photo courtesy of Jasmine Chen Photography

Michelle Edwards Hamilton, Pharm.D. ('04) was an advocate for patients, a dedicated work colleague, generous friend, and loving mother and wife. Her untimely passing in 2015, left a gap that will never be filled, but her impact will never be lost.

The legacy she left for improved medication safety through patient engagement inspired a fundraising campaign to create the Dr. Michelle Hamilton OTC & Patient Counseling Simulated Pharmacy in Health and Biomedical Sciences Building 2 (HBSB2), the College of Pharmacy's new home scheduled for completion in summer 2017.

The facility will foster education in the art and science to prepare students for the pharmacists' essential role as unparalleled experts in ensuring safe, effective pharmaceutical care for patients.

Students will receive instruction and engage in practical exercises in a variety of evidence-supported patient counseling techniques, such as motivational interviewing, and broader-scope pharmacy services, including but not limited to disease state management and medication therapy management.

The suite will include a simulated community pharmacy with a private patient counseling room and a simulated drive-through window. Both areas will be equipped with audio-visual recording systems to capture student performance for review and evaluation by instructors and fellow students.

Given her gift for counseling, it's not surprising that Michelle earned a bachelor's degree in communication from Tarleton State

University in Stephenville, Texas. Undecided about the direction of her career, Michelle worked as a pharmacy technician for Kroger for several years before one of her supervisors encouraged her to pursue a pharmacy degree.

"She had the passion for it, but she wasn't sure she had the confidence for it," husband **Brian Hamilton** recalled. "After she started the program, she made the most of the opportunities and was focused on being the best pharmacist she could be."

Michelle's passion and skill for patient counseling was showcased when she became the first UHCOP student to win the American Pharmacists Association-Academy of Student Pharmacists National Patient Counseling Competition in 2004 after finishing in the top 10 in the prior year.

"She intuitively understood the importance of patient counseling to ensure that every patient would leave the pharmacy with a good understanding of how to take their medication and that they could trust their pharmacist to give them the information needed to improve their health," said mentor and friend **Lynn Simpson**, Pharm.D. ('97), clinical associate professor.

Yet, Michelle's commitment to giving back did not stop there: She followed up on her own success by mentoring fellow Cougar Dana Hausmann Hill to a victory the very next year. It would be the first and only time to date that the national title has been won by the same school two years running.

Michelle's time at UH also showcased her leadership abilities, as she served as president of her Pharm.D. class, president of the Phi Lambda Sigma Pharmacy Leadership Society and vice president

HEB, Kroger Commit \$35K to Hamilton Suite

Moved by her commitment to her patients, former employers of the late Michelle Edwards Hamilton — HEB and Kroger — are supporting the creation of the Hamilton OTC & Patient Counseling Simulated Pharmacy in Health and Biomedical Sciences Building 2 with gifts totaling \$35,000.

Hamilton made such an impression on the HEB community and its patients, the San Antonio-based chain provided a gift of \$25,000 to the campaign.

“The compassion that Michelle had for people and her passion for helping them epitomizes what makes a community pharmacist great,” said **Tim Halfin**, R.Ph., regional pharmacy director for H-E-B Houston Division. “It is a privilege for H-E-B to support the educational opportunities that the Michelle Hamilton OTC and Patient Counseling Simulated Pharmacy will provide for students who, like Michelle, strive to be the best they can be.”

The Kroger Co. Foundation also has committed its support to the suite with a \$10,000 gift in memory of Hamilton, whose career started as a Kroger pharmacy technician and continued as



UHCOP's Andrea Smesny, Pharm.D. ('98), MPH, and Lynn Simpson, Pharm.D. ('97), accept a \$10,000 gift from the Kroger Co. in support of the Hamilton OTC & Patient Counseling Suite presented by Kroger Southwest Division representatives Marla Fielder, Pharm.D., pharmacy merchandiser; Debbie Veselka, R.Ph. (B.S. '94), director of clinical sales; and Bonnie Richardson, pharmacy sales manager.

a pharmacy manager with the company after graduation.

“I am so glad Kroger was able to be part of such an amazing undertaking to honor one of our beloved and dearly missed associates,” said **Marla Fielder**, Pharm.D., pharmacy merchandiser for Kroger's Southwest Division. “Michelle touched so many lives and left a legacy to cherish for years to come. Honoring Michelle in such a special way speaks volumes to the alumni, faculty and staff of UH and their commitment to excellence.”



of the college's Kappa Epsilon chapter. In addition to her national title, Michelle also was recognized with UHCOP's Distinguished Student Award in her final year at the college.

After graduation, Michelle worked in an environment which she felt would best support her patients: As a community pharmacist, first with Kroger, then with HEB. She grew her reputation as a skilled, caring counselor, innovator, and problem-solver.

“Michelle would tell me stories on how she counseled every patient on their new prescriptions, no matter how busy it was in the pharmacy,” Simpson said. “I used her stories as examples to our incoming students who would tell me that they never witnessed their pharmacist counseling patients because it was ‘impossible’ to do in a busy chain setting.”

Brian Hamilton said Michelle's commitment to her patients was a source of great joy and, at times, grief for her.

“She cared most about spending time with her patients,” Brian said. “Michelle was so happy and excited when she was able to help her patients get better; when she lost patients, she wrote letters to the family — those were difficult days for her.”

Michelle also continued her leadership development after graduation, serving as director and president-elect/president of the Houston Area Pharmacy Association. The college recognized Michelle again in 2007 by presenting her with the UHCOP Outstanding Young Alumnus Award.

As a pharmacy manager for HEB, Michelle was preparing to help launch a new store when she received her cancer diagnosis. Michelle lost her hard-fought battle to cancer in February 2015. In addition to her husband, Brian, Michelle is survived by their three children, **Caitlyn**, 9, **Brady**, 7, and **Dustin**, 5. She is also missed by patients, classmates and friends who were blessed by her presence in their lives.

As loved ones, friends and colleagues considered ways to honor her life and legacy, the college's new home in HBSB2 offered an appropriate opportunity to create a memorial to her.

“I think everyone responded to the idea of creating a place where students can go and not only remember her, but also share in her passion for counseling by not only becoming more comfortable with patients but also be able to comfort patients,” said classmate and friend **Susan Loughlin**, Pharm.D. ('04), BCPS, clinical pharmacy specialist at TIRR Memorial Hermann.

Alex C. Varkey, Pharm.D. ('05), Houston Methodist Hospital director of pharmacy operations, had the honor of being on stage with Michelle for her National Patient Counseling Competition win as he was being installed as APHA-ASP national president.

“She was truly a special person and pharmacist,” Varkey said. “She had an amazing influence on my life, in the way she carried herself, the way she practiced, the way she promoted the profession.”



Women in Pharmacy Conference Room

photo courtesy of the UH Library's Digital Archives Collection

In recognition of the immeasurable impact made by women in the practice of pharmacy, an initiative is under way to establish The Women in Pharmacy Conference Room within UH College of Pharmacy's new home in Health and Biomedical Sciences Building 2.

Dean's Advisory Council members **Carole Hardin-Oliver**, R.Ph. ('83), healthcare supervisor for Walgreens' Houston-Northeast region, and **May J. Woo**, R.Ph., ('91), regional pharmacist for Emerus Health, are spearheading the UHCOP initiative to create a landmark in dedication to the essential role of women in advancing the profession and delivering exceptional patient care.

Hardin-Oliver and Woo are leaders in their own right: In addition to their service on the Texas Pharmacy Foundation Board of Trustees, Hardin-Oliver is a past president of both the Texas Pharmacy Association and the Lake Houston Pharmacy Association, while Woo is a past national president of Phi Lambda Sigma Pharmacy Leadership Society and the Houston Area Pharmacy Association.

"When you stop and look around the room at DAC, then look around the health systems in the Texas Medical Center and the

Levels of Support

- \$500 to \$999 – Bronze Level
- \$1,000 to \$2,499 - Ruby Circle
- \$2,500 to \$4,999 – Silver Level
- \$5,000 to \$7,499 – Diamond Circle
- \$7,500 to \$9,999 – Gold Level
- \$10,000 and up – Dean's Circle

community pharmacies across the Houston area and the state, you realize what an amazing impact that women — especially College of Pharmacy alumnae — have made and are continuing to make not only in the pharmacy world, but in health care overall," Woo said.

Hardin-Oliver and Woo said they were inspired by the success of The Women in Pharmacy Exhibit and Conference Room that they helped establish at the American Pharmacists Association

headquarters in Washington, D.C.

"When you walk in the conference room at APhA, you can't help but be awe-struck by the accomplishments of so many great women leaders and get excited to be part of helping to preserve their legacy by providing a source of inspiration and confirmation for future generations of women pharmacists," Hardin-Oliver said.

For gifts of \$500 or more, the names of all donors or those in whose name the gift is made will be on permanent display on the interior or exterior of the conference room. To make a gift online, visit <https://giving.uh.edu/pharmacy>. For more information, please contact Matt Perkins, UHCOP Director of Development, at 713-743-6545 or mrperkins@uh.edu.



Celso Cuellar & Lourdes M. Cuéllar Dean's Conference Room

In appreciation of the work by and under current UHCOP Dean F. Lamar Pritchard, Ph.D., R.Ph., in advancing their alma mater, Golden Cougar **Celso Cuellar Jr.**, R.Ph. ('65), and **Lourdes M. Cuéllar**, M.S. ('79), R.Ph. ('73), FASHP, have underwritten the creation of the Celso Cuellar & Lourdes M. Cuéllar Dean's Conference Room in Health & Biomedical Sciences Building 2.

A lifelong community pharmacist and one-time independent pharmacy owner, Celso continues to work relief at an independent community pharmacy in his native San Antonio after retiring from full-time practice in 2014. Lourdes is administrative director of Pharmacy and Medical Outpatient Clinics and Clinical Support Services at TIRR Memorial Hermann and a UHCOP adjunct faculty member.

They are proud members of the UHCOP family, with each serving on the UHCOP Dean's Advisory Council during their careers. The siblings also have been active in pharmacy organizations: Celso is a past president of the Bexar County Pharmacy Association, and Lourdes is a past president of the Texas Society of Health-System Pharmacists and the Gulf Coast Society of Health-System Pharmacists as well as a past president/chair of the TSHP Research & Education Foundation.

Lourdes also has served on the National Quality Forum and the Texas Statewide Health Coordinating Council as well as numerous committees and task forces of the American Society of Health-System Pharmacists, which recently published a third edition of her *Preceptors Handbook for Pharmacists* in collaboration with fellow alumna Diane B. Ginsburg, Ph.D., M.S. ('90), R.Ph.

The siblings grew up in a San Antonio pharmacy owned by their father, with Celso reflecting that he likely "took his first steps in the drug store."

The family has established two endowments for UH Pharmacy students: a Presidential Endowed Scholarship in memory of the siblings' late parents, Celso Cuellar Sr. & Matiana Cuellar, and a Presidential Endowed Fellowship in honor of Lourdes and younger sister, **Nicanora Cuellar**, MSW, LCSW, DCSW, a social worker at Memorial Hermann Southwest Hospital.

"I've always had a soft spot for what students have to go through in terms of the costs of going to school," Celso said. "I always remember when I was in school, working part-time and still looking for bargains wherever we could — like when the Daily Cougar would print coupons to get three burgers for something like 25 cents, that'd be your meals for the entire day."

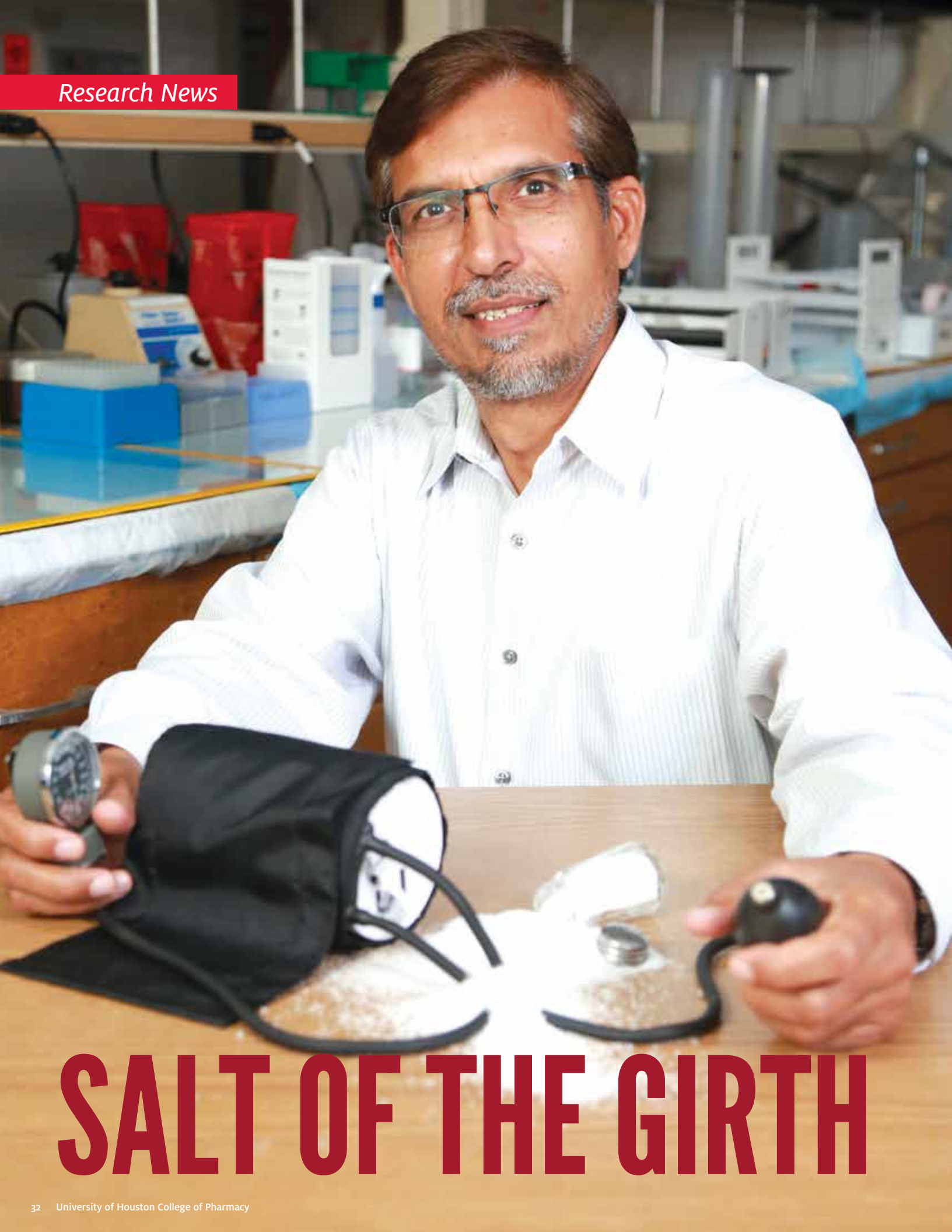
Celso said sharing one's good fortune and success — along with having a strong work ethic, faith and educational aspirations — were among the life lessons passed down from his parents.

"Our parents pointed us in the right direction," he said. "Giving back was just something they always stressed, so we grew up not having to think about it much — it's just something you do because it's the right thing to do."

"Our family has been very blessed with opportunities to get a good education for careers that allow us to help people, both physically and financially, so we feel it's our obligation to do that."

Our family has been very blessed with opportunities to get a good education for careers that allow us to help people...

— Celso Cuellar



SALT OF THE GIRTH

HUSSAIN AIMS TO REDEFINE ROLE OF RECEPTORS' LINK IN OBESITY, HYPERTENSION WITH \$1.7M NIH RENEWAL

Despite intensive public health education efforts over the years, the U.S. to halt and reverse the continuing rise in U.S. obesity rates, researchers such as UH College of Pharmacy Professor **Tahir Hussain, Ph.D.**, are delving deeper into the mechanisms and impact of obesity-associated comorbidities — such as hypertension — to identify potential new therapeutic targets.

Due to a complex series of biochemical and physiological changes that occur in obesity (especially in association with a high-sodium diet), hypertension is approximately two times as prevalent in obese patients. Hypertension is part of an interrelated family of comorbidities, including cardiovascular disease and heart failure, diabetes and kidney failure, that commonly develop when left untreated (and often, in spite of treatment).

Hussain's work is focused on the functional relationship between two receptors of the hormone angiotensin II (Ang II), which plays a major role in regulating blood pressure through vasoconstriction/vasodilation and extracellular fluid through water and sodium retention/secretion.

Ang II has two primary receptors: the highly expressed AT₁ subtype is associated with the deleterious effects of vasoconstriction and sodium retention, while the lower-expressing AT₂ subtype has an oppositional function to AT₁ and only recently has become a target of interest for researchers.

With the long-held view that AT₁ was the prime suspect in hypertension, two of the most prescribed anti-hypertension drugs on the market today are angiotensin converting enzyme (ACE) inhibitors, which inhibit production of Ang II by blocking an essential enzyme, and angiotensin II receptor blockers (ARBs), which block the activity of the AT₁ receptor (but not AT₂) and consequently reduce the levels of Ang II.

With most of the research over the past five decades focused on the harmful effects of AT₁, less is known about the roles and

mechanisms of other renin-angiotensin system components.

"What we have learned in the past 10 years of research is that some components, including AT₂, have beneficial effects in increasing sodium excretion and lowering blood pressure," Hussain said. "Because AT₂ expression is low, simply leaving it alone — in the case of ARBs — isn't sufficient to realize AT₂'s full benefits, which also includes anti-oxidant and anti-inflammation effects that further protect the kidney from injury.

"The goal of our research is to determine how to activate AT₂ expression pharmacologically with an agonist. As hypertension is commonly treated with more than one drug, we're specifically looking to see if we can use ARBs to inhibit the deleterious component — AT₁ — along with an activator to stimulate the beneficial component of AT₂."

With the support of a new five-year, \$1.7 million RO1 renewal grant from the National Institute of Kidney Disease and Digestive Disorders awarded earlier this year, Hussain is focusing his attention on the possible interdependency of AT₂ with a relatively recently discovered biochemical pathway in the renin-angiotensin system: the biologically active Ang₁₋₇ produced by angiotensin converting enzyme 2 (ACE2) at the Mas receptor site.

"Independently, what we found is that if we activate AT₂ or we activate the Mas receptor, they both increase sodium excretion from the body," Hussain said. "But we also found that if you stimulated AT₂, but blocked the Mas receptor, the effect goes away. Both receptors are physically interacting and influence each other's function."

Hussain's work in the development of new therapeutics is not only important to manage the ongoing rise of obesity-related hypertension, but also due to the fact that segments of the population are resistant — or developing resistance — to ACE and ARB therapies.

AHA Kidney Council Honors Postdoc for Research on AT₂, Mas Receptors

Hussain's postdoctoral research associate **Sanket Patel, Ph.D.**, was recognized with a New Investigator Award to present their latest findings at Hypertension 2016, the American Heart Association's Council on Hypertension Scientific Sessions Sept. 14-17. Patel's presentation, "Co-localization and Natriuretic Interdependence of Angiotensin AT₂R and MasR in Obese Rat Kidney," highlighted further evidence for a relationship between the angiotensin AT₂ receptor and the Mas receptor as a potential new avenue for treating hypertension and even diabetes related to obesity. In the study, both urine flow and urinary sodium excretion increased in obese rats following infusion of either AT₂R or MasR agonists, but flow and excretion decreased following infusion of either AT₂R or MasR antagonists.



WHAT LURKS BELOW

CUNY EARNs LARGEST NIH GRANT IN UHCOP HISTORY TO DEVELOP NOVEL DRUGS TO FIGHT HARDY PARASITE IN WATER, SOIL



With the support of a five-year, \$3.8 million R01 grant from the National Institute of Allergy and Infectious Diseases awarded last summer — the largest single National Institutes of Health award in UH College of Pharmacy’s history — Assistant Professor **Gregory D. Cuny**, Ph.D., and his collaborators are taking on one of the world’s most common sources of waterborne infectious disease: the protozoan parasite *Cryptosporidium*.

Cryptosporidiosis — infections caused primarily by the *C. parvum* and *C. hominis* species — is considered an emerging threat among infectious diseases by the U.S. Centers for Diseases Control and Prevention. With no vaccine currently available, no therapeutic deemed totally effective and infection possible after ingesting only a handful or so of the parasites, *Cryptosporidium* also has been identified as a potential bioterrorism agent.

Infection triggers acute, and often chronic, diarrhea, weight loss, dehydration, nausea, vomiting, fever, and stomach cramps, with symptoms lasting one to two weeks.

The parasite’s oocyst stage of its life cycle has a tough outer wall that makes it not only resistant to common water treatment techniques such as chlorination, but also long-lived in the environment after shedding by the infected host.

“Although cryptosporidiosis is generally non-lethal in immunocompetent populations, it’s capable of being widely and easily distributed and difficult to eradicate — it could cause a lot of havoc,” Cuny said.

Segments of the population most at risk for infection, which can be fatal, are infants, the elderly and those with compromised immune systems. Epidemiological studies in developing regions have identified Crypto among the leading causes of prolonged, persistent diarrhea in children under 2, which combined with malnutrition and dehydration is linked to increased risk of mortality as well as unrecoverable growth and cognitive deficits.

Although there are no reliable estimates on the global scale of the number of people infected or killed as a result of infection by cryptosporidiosis each year, it is of greatest concern in developing nations where the potential for transmission and severity of symptoms tend to be exacerbated by endemic malnutrition, scarcity of clean food and water, and limited healthcare resources.

Yet, the developed world is by no means safe from cryptosporidiosis: According to the CDC, it is the leading cause of waterborne illness in humans in the U.S., with an estimated 748,000 cases occurring each year.



Ph.D.; **Lizbeth Hedstrom**, Ph.D., Brandeis University; **Jan Mead**, Ph.D., Emory University; and **Boris Striepen**, Ph.D., University of Georgia. The co-crystal structures of the compounds under investigation were developed at Argonne National Laboratory.

“While we’re continuing our work with the initial class of compounds we previously identified and synthesized, we’re also looking to several new areas,” said Cuny, whose prior Crypto work was supported by a \$697,000 NIH grant in 2014. “We’re exploring new structure classes, compounds with different binding modes, compounds with tissue-specific vs. systemic distribution, and the effects of these compounds on the gastrointestinal microbiome.

“Those last two points are very important because infection is generally localized in the lower intestine so we don’t want to tip the scale in favor of bad bacteria present in the gut. However, infection can involve other organs in immunocompromised patients, which is another reason we are looking at compounds in which systemic distribution could be beneficial.”

Their work is not without challenges unique to Crypto: Although the parasite is extremely hardy and long-lived in nature, it cannot be cultured continuously in the lab (unlike bacteria) and neither tissue-culture models nor most animal models accurately reflect the complex environment of the human gastrointestinal tract. In addition, the pathogenesis of cryptosporidiosis still is not well understood more than 100 years after its discovery.

“Even if we’re unsuccessful with our current compounds, our work is allowing us to develop a pharmacophore model — a structural blueprint — that can help guide exploration of other IMPDH-inhibitors,” Cuny said.

In the largest documented U.S. Crypto outbreak, more than 400,000 people were infected — about 25 percent of the state’s population at the time — and nearly 70 died after contamination of a water-treatment plant in Milwaukee, Wis., in 1993. In addition, a CDC report estimated the Milwaukee outbreak also resulted in more than \$96 million in combined healthcare costs and productivity losses. More recently, more than 100 people were infected with Crypto-associated gastroenteritis after using swimming pools in Maricopa County, Ariz., only last summer.

Cuny and his collaborators at UHCOP and elsewhere are aiming to change the equation in humans’ favor. The researchers have identified and synthesized several compounds that inhibit a key enzyme involved in nucleotide synthesis called iosine 5'-monophosphate dehydrogenase (IMPDH), which is responsible for cell growth and proliferation, to effectively starve the parasite of biochemical fuel necessary for its survival.

As the *Cryptosporidium* IMPDH gene (CpIMPDH) appears to have been obtained from bacteria via lateral transfer, it is structurally different from host IMPDH orthologs and consequently not likely to interfere with host IMPDH activity.

Cuny’s collaborators include fellow UHCOP researcher **Ming Hu**,

ON THE TRAIL OF TUMORIGENESIS

Recent discoveries in the areas of circulating tumor cells as well as mechanisms of drug resistance in breast cancer by UH College of Pharmacy's Meghna V. Trivedi, Pharm.D. ('03), Ph.D. ('04), BCOP, have garnered national recognition from fellow cancer researchers at the Hematology-Oncology Pharmacy Association (HOPA) and the American Association for Cancer Research (AACR).

Trivedi's work on the first-ever detection of two elusive types of cancer cells in patient-derived xenograft (PDX)-bearing mouse models – a discovery that could increase understanding of how the cancer spreads to other parts of the body – was honored with the HOPA's 2016 Basic Science and Clinical Research Literature Award in March.

The award recognized her 2015 Breast Cancer Research journal publication entitled "Circulating and Disseminated Tumor Cells from Breast Cancer Patient-derived Xenograft-bearing Mice as a Novel Model to Study Metastasis." The project involved a multi-institutional team from UHCOP, Baylor College of Medicine (BCM), University Federico II in Naples, Italy, and the Dana-Farber Cancer Institute at Harvard Medical School in Boston.

Trivedi and her colleagues have been investigating experimental models that could provide a renewable, continual source of two types of cancer cells – circulating tumor cells (CTCs) in blood and disseminated tumor cells in bone marrow (BM-DTCs) – that have been associated with breast cancer metastases.

"We found an association between the presence of CTCs and BM DTCs in the mice bearing the patient-derived xenografts, which is also observed in patients, further validating the utility of these models," Trivedi said. "More importantly, we found a correlation between the presence of CTC clusters and lung metastasis. This was quite interesting as CTC clusters are also observed in some patients, and now it is thought that they may have more metastatic power."

With this discovery, Trivedi and her collaborators are continuing to explore the possibility that CTCs could serve as a valuable biomarker to help guide therapeutic decisions. To date, the utility of CTCs and BM-DTCs have been impractical due to the biophysical limitations: CTCs are generally not present in sufficient quantities in a typical blood sample, and fluid extracted from bone marrow not only fails to yield sufficient quantities of DTCs but also is hindered by accessibility challenges and potential complications in the patient.

"The tumors are continuously changing, so CTCs are the surrogate to monitor what's going on in the tumor of patients at a particular time," she said. "Collection of blood is much easier for patients than getting another biopsy of tumors."

The team also conducted gene expression analysis to identify a gene signature of the primary PDX tumor predictive for both CTC clusters and lung metastases in these models. A four-gene signature overlap was identified and compared against public datasets of breast cancer patients, which indicated the gene signature predicted worse distant



Research collaborations between the labs of UHCOP's Meghna Trivedi and BCM's Rachel Schiff have garnered recognition from the Hematology-Oncology Pharmacy Association and the American Association for Cancer Research.

metastases-free survival in breast cancer patients. The development offers a new investigative and preclinical model for evaluating prospective therapies, Trivedi said.

“These transplanted tumor cells and their multi-generational successor tumor cells retain the molecular and biological characteristics of the parental tumor cells, which gives us confidence that these models represent a clinically relevant tool for studying CTCs and their role in tumor progression and metastases and their utility in making treatment decisions,” she said.

Trivedi's BCM study collaborators were co-corresponding author **Rachel Schiff, Ph.D., C. Kent Osborne, M.D., Mothaffar F. Rimawi, M.D., Michael T. Lewis, Ph.D., Chad Shaw, Ph.D., Chad J. Creighton, Ph.D., Alejandro Contreras, M.D., Ph.D., Carolina Gutierrez, M.D., Xiang H-F Zhang, Ph.D., Susan G. Hilsenbeck, Ph.D., Sabrina Herrera, M.D., Xioamei Zhang, Ph.D., Lacey E. Dobrolecki, M.S., Fengju Chen, M.S., Sufeng Mao, B.S., and Tamika Mitchell, B.S.**

Other members of the research team were members of Trivedi's lab: **Raksha R. Bhat, M.S., Pavel Christiny, M.S., and Ahmed Al-rawi, B.S.; Mario Giuliano and Bianca M. Veneziani, M.D.,** of University Federico II; and **Rinath M. Jeselsohn, M.D.,** of Harvard Medical School.

In a subsequent study, Trivedi and her collaborators found dynamic and differential effects of chemotherapy regimens on single CTCs and CTC clusters, potentially reflecting the genetic characteristics of tumors and their unique response to selected chemotherapy agents.

The project offered further evidence of using CTCs and CTC clusters to assess the presence of tumor-specific mutations as well as the adaptation of an existing commercial technology by Seattle, Wash.-based biotechnology company RareCyte Inc. to analyze smaller blood volume available from the model.

A collaborative study between UHCOP, BCM and Rarecyte, coauthors included current and former UHCOP lab members **Raksha Bhat, M.S. and Debashish Sahay, Ph.D.,** respectively; the BCM team of **Rachel Schiff, Ph.D., C. Kent Osborne, M.D., Mothaffar Rimawi, M.D., Mike Lewis, Ph.D., Lacey Dobrolecki, M.S., and Agostina Nardone, Ph.D.;** and RareCyte's **Eric P. Kaldjian, M.D., Jackie L. Stilwell, Ph.D., and Arturo Rodriguez, Ph.D.**

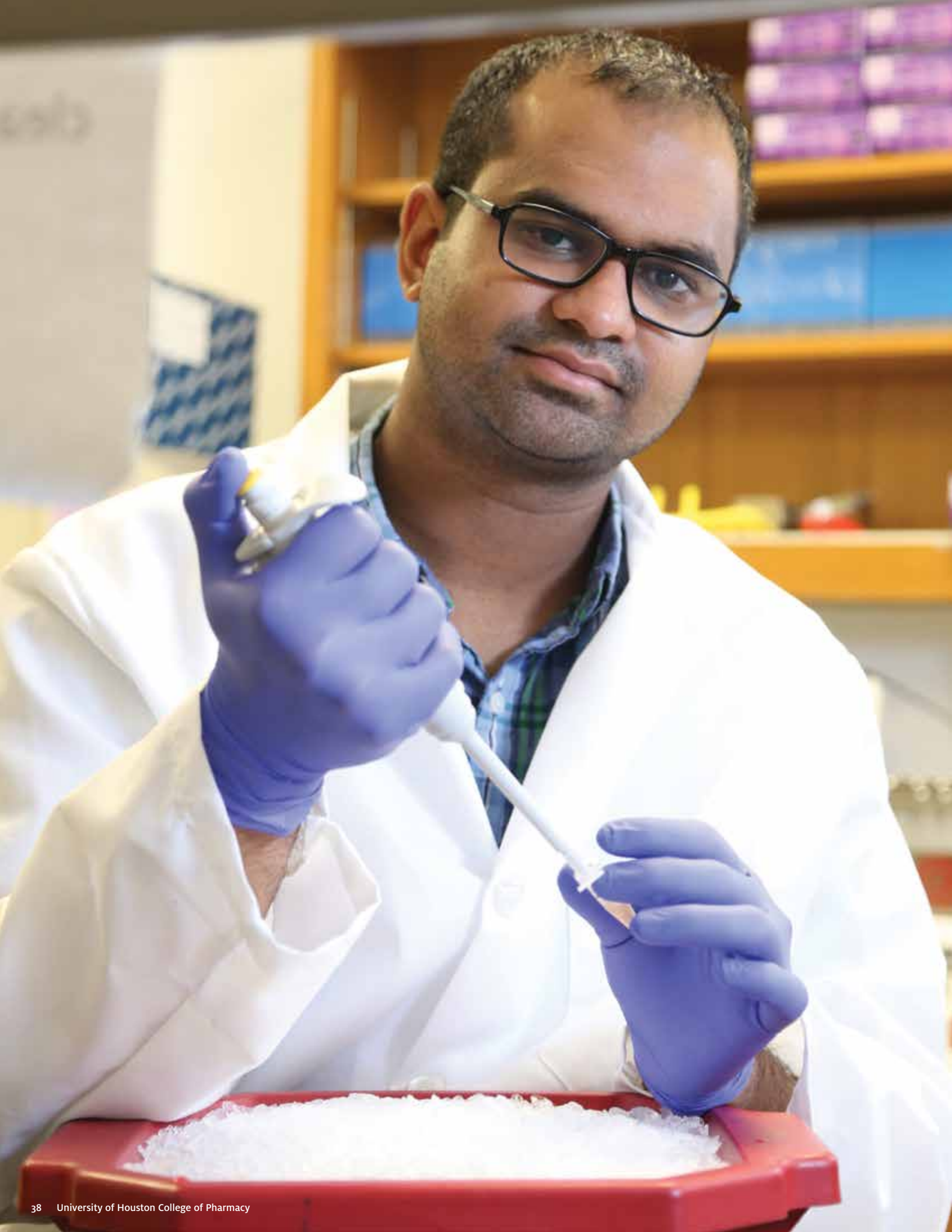
Trivedi also was among a handful of investigators to receive a Minority-serving Institution Faculty Scholar in Cancer Research Award in support of their presentations at the 2016 American Association for Cancer Research Annual Meeting. At the meeting, Trivedi not only presented the Rarecyte project, but also her work to identify novel drug targets for overcoming resistance in breast cancer therapy.

In the latter project, Trivedi described targeting of a specific protein receptor — GPR110 — that is part of a G protein-coupled receptor family, whose members are the target of more than 30 percent of U.S. Food and Drug Administration-approved drugs with well-known, long-established safety profiles, and thus provide a less toxic alternative therapy.

This study was focused in a subgroup of breast cancer called HER2-positive breast cancer, where the biggest clinical challenge is drug resistance to anti-HER2 drug regimens.

“Our studies suggest a role of GPR110 in tumorigenesis, specifically in the context of anti-HER2 drug resistance and in metastatic processes,” Trivedi said.

The GPR110 study coauthors were former Trivedi lab members **Debashish Sahay, Ph.D., Puja Yadav, Ph.D., and Pavel Christiny, M.S.;** current lab member **Raksha Bhat, M.S.;** and BCM's **Rachel Schiff, Ph.D., C. Kent Osborne, M.D., and Mothaffar Rimawi, M.D.**



ASPIRING INVESTIGATORS

RECOGNITION OF CUTTING-EDGE RESEARCH SHOWCASES QUALITY AND IMPACT OF STUDENTS, FACULTY MENTORS

With the vastly upgraded research facilities and capabilities expected to be brought online with the college's move to its new home in Health and Biomedical Sciences Building 2 in 2017, the potential advancements in the discovery and development of novel drugs and drug targets are virtually unimaginable.

No further proof of the enormous strides the college will make in its research productivity almost instantaneously and well into the coming decades is what faculty, student and staff researchers have been able to accomplish working with what amounts to "rock and flint" in the scientific community.

ASPET, Medical World Americas

Pharmacology doctoral candidate **Santosh Suryavanshi** secured two finalist positions in international competitions for his presentations on his work with UHCOP Associate Professor **Bradley McConnell**, Ph.D., FAPS, FAHA, on potential new drug targets for heart failure.

At his first conference of 2016, Suryavanshi took a third-place finish in the Graduate Student Best Presentation competition of the Cardiovascular Pharmacology Division at the American Society of Pharmacology & Experimental Therapeutics (ASPET) 2016 Annual Meeting in San Diego, Calif. Suryavanshi followed up his ASPET performance with a Top 10 finalist spot at the 2016 Medical World Americas meeting in Houston.

Suryavanshi's presentations discussed the work by McConnell's lab in how the absence of a specific protein called Gravin affects regulation on beta-adrenergic signaling, which is one of the biochemical processes essential for cardiac contractility and overall normal heart function. An A-kinase anchoring protein (AKAP), gravin scaffolds essential cardiac proteins in the heart and regulates complex intracellular signaling pathways.

"With the help of latest technology in the lab, we measured

intracellular calcium changes and cardiac cell contractility from heart cells and muscles isolated from wild-type and gravin knock-out mice," Suryavanshi said. "To mimic heart failure in humans, we induced heart failure in these mice by chronic isoproterenol (a beta adrenergic agonist) administration.

"Interestingly, we found that the gravin knock-out mice had significantly lower intracellular calcium transients, but higher corresponding contractility as compared to the wild-type mice. This is an indication of higher cardiac sensitivity to calcium, which is significantly depressed in heart failure patients."

Improvements in calcium cycling or sensitivity may prove useful targets for the treatment of heart failure and disruption of gravin may be exploited further as a potential target to increase cardiac sensitivity to calcium.

Evidence of Excellence

Third Place, Cardiovascular Graduate Student Division,

FASEB-MARC and ASPET Travel Awards, ASPET 2016 Annual Meeting

2 Student Research Awards, ACCP 2016 Annual Meeting

JOGUE Junior Scientist Award in Nutrition Award, ASIOA Annual Meeting 2016

4 Finalists, Student Research Poster Competition, ISPOR International Meeting

Top 10 Finalist, Medical World Americas 2016 Meeting

Honorable Mention, TSHP Research & Education Foundation Student Research Poster

Fewer than a dozen graduate students were invited to participate in the ASPET's Cardiovascular Pharmacology competition. Suryavanshi also received an ASPET Travel Award to present his poster in the general poster session of the meeting, which was part of the 2016 Experimental Biology conference.

Coauthors of the ASPET-presented project were UHCOP alumna **Sonal Singh**, Ph.D. ('15), postdoctoral fellow at the University of Florida College of Pharmacy; **Wei Dong Gao**, M.D., Ph.D., associate professor at Johns Hopkins University School of Medicine; and **Bradley K. McConnell**, Ph.D., FAPS, FAHA, UHCOP associate professor whose National

Institutes of Health grant supported the project. In addition to coauthorship by Singh, Gao and McConnell, the Medical World Americas presented-project was coauthored by former research scholar **Faisal Fa'ak**, Ph.D., and current research staff member **Andrea Diaz Diaz**.

continued next page

JOGUE Junior Scientist Award in Nutrition

Prior to graduating from the Pharmacology doctoral program in August, **Naimesh Solanki, M.S.**, received the JOGUE Junior Scientist Award in Nutrition for his research examining behavioral and biochemical outcomes of psychological stress in rodents and the role of natural antioxidants of nutritional value, such as grape seeds, in preventing and rescuing some of these deficits.

“This project has shed light on the non-traditional concept — involvement of oxidative stress — in the pathophysiology of stress-associated conditions, including anxiety, depression and cognitive impairment,” Solanki said. “Daily intake of natural antioxidants in stressful conditions could be suggested as a supportive therapy along with current pharmacotherapy.

“It would be interesting to know which molecules of the oxidative stress pathway are regulated by natural antioxidants. When extrapolated, this research is expected to contribute to a deeper understanding of the comorbid prevalence of anxiety and other psychological disorders.”

ACCP Student Research Awards

Pharmaceutics doctoral candidates **Mahua Sarkar** and **Asma El-Zailik** received Student Research Awards from the American College of Clinical Pharmacology to present their research at the ACCP 2016 Annual Meeting in September 2016, marking the sixth consecutive year in which current students or recent graduates of Professor **Diana S-L. Chow, Ph.D.**, have received ACCP awards.

El-Zailik’s project was based on an assessment of the pharmacokinetics and pharmacodynamics of statins following gastric bypass surgery to achieve effective weight loss in obese patients. As this patient population typically suffers from and receives treatment for hyperlipidemia, the researchers sought to determine how post-surgery absorption, distribution, metabolism and excretion (ADME) of the drugs might be affected by anatomical changes from the procedure.



Pharmaceutics doctoral candidates Mahua Sarkar and Asma El-Zailik were recognized with Student Research Awards by the American College of Clinical Pharmacology.

The study indicated changes in concentrations of the drugs following surgery, noting initial decrease followed by an increase in drug concentrations but with large inter-individual variations. The authors suggested dose modifications and concentration monitoring to mitigate and manage post-surgery adverse effects. In addition to Chow, coauthors on El-Zailik’s project were Houston Methodist Hospital’s **Vadium Sherman, M.D., FACS, FRCSC**, and Texas Southern University’s **Lily K. Cheung, Pharm.D.**

Sarkar’s project was based on Chow’s ongoing collaboration with Houston Methodist Hospital Professor of Neurosurgery **Robert Grossman, M.D.**, on the drug riluzole as a potential therapeutic for acute spinal cord injury. Currently in a phase II trial for SCI, the researchers investigated the potential co-administration of an inhibitory drug to increase the availability of riluzole in the brain and spinal cord.

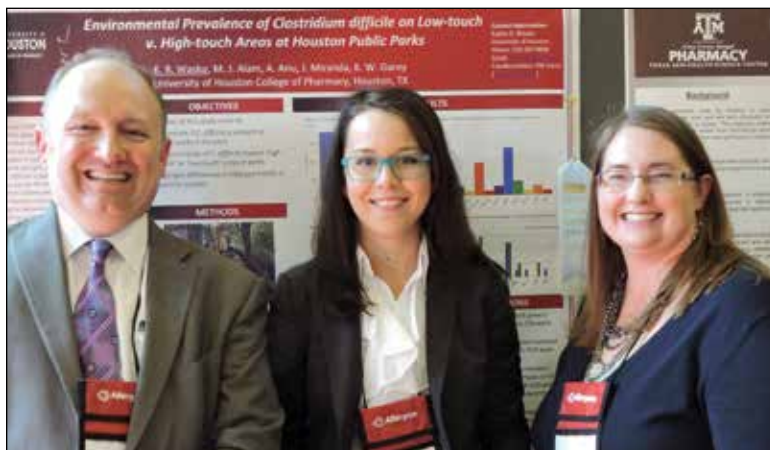
The team found co-administration of the drugs did not alter plasma pharmacokinetics of riluzole but brain- and spinal cord-to-plasma ratios did increase in an animal model. The results suggested the possibility of additive or synergistic effect on treatment efficacy with the coadministered drug, but indicated the need for further study. Contributing to the study was The University of Mississippi Medical Center’s **Raymond Grill, Ph.D.**

TSHP R&E Foundation Honorable Mention

Pharm.D. candidate **Kaitlin Wasko** brought home an “Honorable Mention” certificate from the TSHP Research & Education Foundation-sponsored Student Research Poster Competition at the 2016 TSHP Annual Seminar.

As part of ongoing research at UHCOP on *Clostridium difficile* infections, Wasko took more than 200 samples from 22 randomly selected parks in the Greater Houston area — specifically from “high-touch” and “low-touch” locations within the parks — and cultured the samples.

Subsequent analysis revealed that 31 percent grew *C.diff*, with almost 70 percent of the colonies testing positive



Student Poster Competition Honorable Mention recipient Kaitlin Wasko is congratulated by TSHP Research & Education Foundation representatives Craig Frost, R.Ph. (B.S. '92), MBA, FACHE, and Bradi Frei, Pharm.D., BCPS, BCOP.

for the life-threatening toxins that wreak havoc on the infected patient's gastrointestinal system. The results indicate the ubiquitous presence of C.diff in parks, which lends support to the idea of developing more robust infection control strategies that start at the hospital's front door.

Coauthors of the study were UHCOP faculty members **M. Jahangir Alam, Ph.D.**, and **Kevin W. Garey, Pharm.D., M.S., FASHP**; University of Texas at Austin undergraduate **Anana Anu**; and UHCOP staff member **Julie Miranda, B.S. (Biology '14)**.

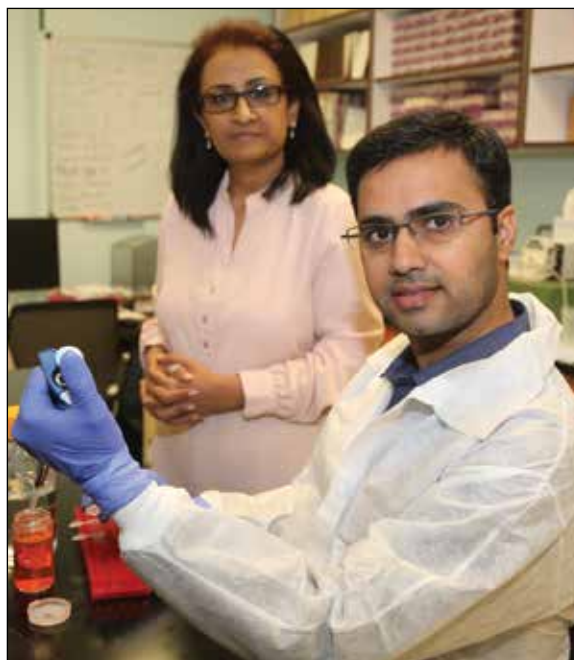
ISPOR Poster Finalists

Four projects from the Pharmaceutical Health Outcomes and Policy program were recognized as finalists in the Research Poster Competition at the International Society of Pharmacoeconomics and Outcomes Research's 21st Annual International Meeting. The UHCOP project finalists were:

Mark Hatfield, Ph.D. ('16) – "Rescheduling Hydrocodone Combination Products: Assessing the Impact on Opioid Utilization," with coauthor **Marc Fleming, Ph.D., MPH, R.Ph.**;

Ya-Huei Li – "Modeling Ecodevelopmental Context of STDs/HIV Risk and Protective Behaviors Among African American Adolescents," with UHCOP adjunct faculty member **Osaro Mgbere, Ph.D., M.S., MPH**; UTHealth School of Public Health's (UTHSPH) **Paula Cuccaro, Ph.D.**; and UHCOP faculty members **Susan Abughosh, Ph.D.**, **Hua Chen, M.D., Ph.D.**, and **E. James Essien, M.D., DrPH**;

Ayush Patel, Ph.D. ('15) – "Effect of Psychopharmacotherapy



Working under Assistant Professor Samina Salim, Naimesh Solanki received the 2016 JOGUE Junior Scientist Award from the Association of Scientists of Indian Origin in America.

Discontinuation on Body Mass Index Among Bipolar Children and Adolescents," with coauthors UTHSPH's **Wenyaw Chan, Ph.D.**, Legacy Community Health's **Melissa Ochoa-Perez, M.D.**, and UHCOP faculty members **Chen, Jeffrey Sherer, Pharm.D., BCPS, CGP**, and **Rajender Aparasu, Ph.D., FAPhA**; and

Xin Wang – "Comparison of Cardiovascular Risks Following Smoking Cessation Treatments Using Varenicline vs. NRT Among Schizophrenic Smokers," with coauthors Pfizer's **I-Hsuan Wu, Ph.D. ('14)**, UH Graduate College of Social Work's **Patrick Bordnick, MPH, MSW, Ph.D., LCSW**, UTHSPH's **R.J. Peters Jr., DrPH**, and UHCOP faculty members **Chen, Essien, Abughosh, Sherer, and Michael Johnson, Ph.D.**

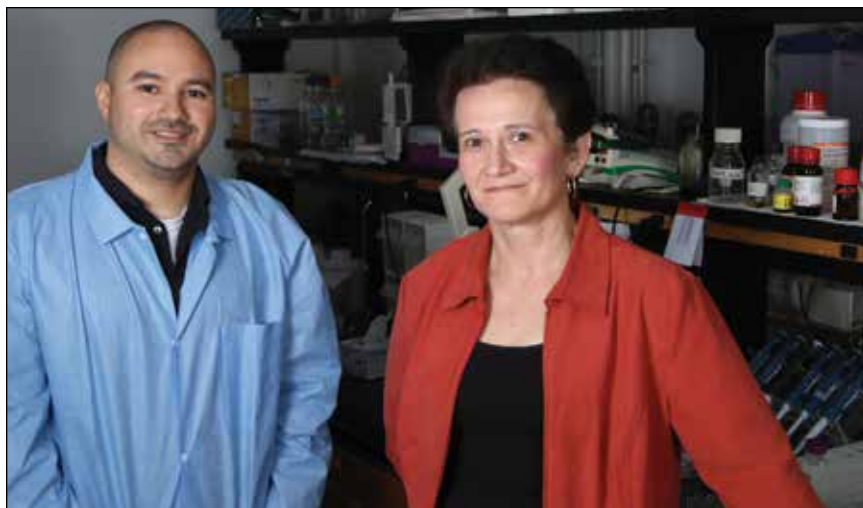
FASEB-MARC Award

Prior to his graduation in August, **Luis Martinez** received a Federation of American Societies for Experimental Biology Maximizing Access to Research Careers (FASEB-MARC) Program Travel Award to present his research into Fragile X Syndrome (FXS) at the 2016 ASPET meeting. An inherited cause of intellectual disability, especially among boys, Fragile X Syndrome results in a spectrum of intellectual disabilities ranging from mild to severe as well as physical and behavioral characteristics.

Cognitive impairment in neurodevelopmental disorders like FXS is thought to be due to abnormal neuroplasticity (the developmental changes in the brain), which alters synaptic connections. Work by the lab of his UHCOP advisor **Maria V. Tejada-Simon, Ph.D., M.Ed. ('07)**, and others has found that the Rho family protein Rac1 plays an important role in synapse formation, with an abnormally high number of synapses found in FXS mouse models following the newborn-to-juvenile developmental stages.

"During their developmental aging and growth into juvenile stage, the FXS mouse model — in which Rac1 expression is up-regulated — fail to undergo 'pruning' of the surplus of synapse neural connections," Martinez said. "Yet, we found that by pharmacologically inhibiting Rac1 to prevent its activation and membrane translocation, we were able to rescue cognitive function to improve their learning and memory skills."

Following peer review of Martinez's abstract, he also was invited for an oral presentation at the Julius Axelrod Symposium: New Vistas on Drug and Gene Therapies.



While working under Associate Professor Maria V. Tejada-Simon, M.Ed., Ph.D., recent Pharmacology graduate Luis Martinez earned a FASEB-MARC Travel Award and an invitation to present their latest findings at the ASPET International Meeting.

DISCOVERY ON DISPLAY

UHCOP BECOMES NEXUS FOR RESEARCH MEETINGS ACROSS MULTIPLE FIELDS

“If I have seen further than others, it is by standing upon the shoulders of giants.” — Sir Isaac Newton

Scientific collaboration and the sharing of knowledge are hallmarks of academia-based science, and UH College of Pharmacy has been a strong proponent of this philosophy since its founding. This rich tradition was never more apparent as three separate research symposia — the 43rd Annual MALTO Medicinal Chemistry-Pharmacognosy Meeting-in-Miniature, the 4th Annual PPS Research Symposium, and a special Pharmacokinetics Symposium — were hosted by the college during 2016.

As host of the 43rd Annual MALTO meeting in May, UH College of Pharmacy welcomed more than 70 attendees from five states to share their latest research in the discovery and design of synthetic compounds and natural products for the treatment of cancer, inflammation, oxidative stress, and cardiovascular and neurodegenerative diseases.

MALTO's roots date back to 1974 when UHCOP Professor Emeritus Thomas Lemke and fellow founders put together the first meeting for institutions from Arkansas, Louisiana, Texas and Oklahoma (lending to the original name of “ALTO”), with the organization's name revised with the addition of Mississippi.



Satyabrata Pany, a postdoctoral fellow in the lab of UHCOP Associate Professor Joydip Das, explains the findings from their work on the mechanisms of alcohol binding in the presynaptic zone in the search for novel drug targets for treating alcoholism at the 43rd Annual MALTO Meeting hosted by UHCOP.

Nearly 50 poster and podium presentations undergraduate students, graduate students and postdoctoral fellows were made at the meeting, with three awards for the top presentations:

- The Ronald F. Borne Outstanding Postdoctoral Poster Presentation Award — **Satya Prakash Shukla, Ph.D.**, a lab member of UHCOP Associate Professor **D. Gomika Udugamasooriya, Ph.D.** Shukla's poster, entitled “Homo- and Hetero-Multimerizations of Peptoids to Target Cancer,” was coauthored by fellow UHCOP postdoctoral researchers **Joseph Manarang, Ph.D.**, and **Jaspal Singh, Ph.D.**, and Udugamasooriya's former colleagues at the University of



The 2016 PPS Research Symposium presentation winners and finalists were, front row, Santosh Suryavanshi; Aaron Raymond, Ph.D.; Pooja Manchandani; Ankita Salvi; and Chalada Suebsuwong. Pictured with the honorees are, back row, Organizing Committee Chair Tahir Hussain, Ph.D., PPS Department Chair Doug Eikenburg, Ph.D., UH Graduate School Dean Dmitri Litvinov, Ph.D., and Organizing Committee members Romi Ghose, Ph.D., and Jason Eriksen, Ph.D.



Presenters and special guests at the Pharmacokinetics Symposium included Mohammad Tabrizifard, K. Sandy Pang, Diana S-L. Chow, Girish Putcha, Stuart Feldman, Mallik Putcha, Richard Brundage, and Jitesh D. Kawedia.

PK Symposium Pays Tribute to Legacy of Late Lakshmi Putcha

In a fitting tribute to their loved one and colleague, Peers, mentors and mentees of **Lakshmi Putcha**, Ph.D. ('81), M.S. ('75), assembled for a special Pharmacokinetics Symposium Sept. 28, the one-year anniversary of her passing.

Co-organized by Putcha's husband and son, **Mallik and Girish**, and longtime collaborator and friend UHCOP Professor **Diana S-L. Chow**, Ph.D., the symposium featured not only scientific presentations but reflections on Putcha's spirit.

"The theme of the symposium is to showcase the significant role of pharmacokinetics in the entire spectrum of drug discovery and delivery for the ultimate goal of providing the effective and optimal therapy to patients," Chow said.

Among the scientific session presenters were **Richard Brundage**, Pharm.D., Ph.D., of the University of Minnesota; **Jitesh D. Kawedia**, BSPHarm., Ph.D., R.Ph., of The University

of Texas-MD Anderson Cancer Center; **K. Sandy Pang**, Ph.D., of the University of Toronto; and UHCOP alumnus **Mohammad Tabrizifard**, Ph.D., B.S. ('91), of Merck.

Putcha's NASA Johnson Space Center colleague **Vernie R. Coleman Daniels**, M.S., R.Ph., and former UH graduate advisor **Stuart Feldman**, Ph.D., of the University of Georgia also shared stories of her innovations and zest for life.

The event also included remarks by Consul General of India **Anupam Ray**, UHCOP Dean **F. Lamar Pritchard**, Ph.D., R.Ph., and UH Interim Vice President of Research & Technology Transfer **Ramanan Krishnamoorti**, Ph.D.

During the symposium, Mallik Putcha announced the creation of four scholarship endowments at UH and UH-Clear Lake, including the Dr. Lakshmi Putcha Endowment in Pharmaceutics.

Texas Southwestern Medical Center **Philip E. Thorpe**, Ph.D. (deceased), and **Rolf A. Brekken**, Ph.D.

- The Robert A. Magarian Outstanding Podium Presentation Award — **Qinghui Wang**, University of Tennessee Health Science Center graduate student, who presented "Structural Optimization of ABI-231 Targeting the Colchicine Site in Tubulin for Advanced Melanoma."
- The Thomas L. Lemke Outstanding Poster Presentation Award — **Abu Bakar Siddique**, University of Louisiana at Monroe graduate student, for his project, "Extra-Virgin Olive Oil Based Oleocanthal: A Promising Lead for the Control of C-Met-Dependent Breast Maligancies."

At the 4th Annual Department of Pharmacological and Pharmaceutical Sciences' Research Symposium in August, a total of 43 poster presentations and 25 podium presentations were made by UHCOP graduate students, postdoctoral researchers and undergraduate students working in UHCOP labs. Among the

presentation honorees were first-place award recipients in the following categories:

- Graduate Student Oral Presentation — Pharmacology Ph.D. candidate **Ankita Salvi** with advisor **Samina Salim**, Ph.D., for their project entitled "Effect of Simulated Vehicle Exhaust Exposure (SVEE) on Behavioral and Cognitive Parameters In Rats";
- Graduate Student Poster Presentation — Pharmacology Ph.D. candidate **Santosh Suryavanshi** with advisor **Bradley McConnell**, Ph.D., FAPS, FAHA, for their project entitled "Key Insights into Cardiac Calcium Handling and Contractility in the Absence of Gravin's Scaffolding in Mice"; and
- Postdoctoral Oral Presentation — **Aaron Raymond**, Ph.D., with **Udugamasooriya** for their project entitled "Activity Validation of Cancer Stem Cell-specific Peptidomimetic Antagonists."



FIXATED ON SUCCESS

Pharmacology Ph.D. candidate Craig Vollert serves as CEO of Teomics, which is gearing up to market its antigen-retrieval protocol for improved diagnostic imaging.

UHCOP FACULTY, STUDENT CO-FOUNDED STARTUP GAINS STEAM WITH REVOLUTIONARY COMPOUNDS FOR DIAGNOSTIC IMAGING

A new technology co-developed by a UH College of Pharmacy faculty member and a Pharmacology doctoral student may revolutionize the accuracy and accessibility of diagnostic screenings for a variety of cancers through a process that reverses the “masking” effect of commonly used tissue-preservation processes that can impair the detection of cancer cells and biomarkers of other diseases.

Teomics is a startup biotechnology company co-founded in 2015 by UHCOP Associate Professor **Jason Eriksen**, Ph.D., and Pharmacology Ph.D. candidate **Craig Vollert**, along with **Willy Moree**, Ph.D., a former UH research staff member.

The Teomics team has developed a new “antigen retrieval protocol” for reversing the chemical modifications by the commonly used solutions to preserve biopsy tissue samples before undergoing diagnostic imaging and analyses.

The platform aims to provide more accurate detection of diseases, particularly with certain types of cancers that may be more prone to “false negative” results due to such factors as lower-expressing biomarker proteins and the chemical “masking” of proteins with the use of one of the most common chemicals for “fixing” or preserving tissue samples: formaldehyde.

While working on a National Institutes of Health-funded project related to Alzheimer’s disease, Eriksen was unsuccessful in staining blood vessels using conventional antibodies in order to visualize protein targets.

“I got the idea that perhaps it was the tissue pre-treatment process with formaldehyde that might make the difference,” Eriksen said. “The antigen-retrieval process is a surprisingly common lab technique, but it’s very poorly understood and we discovered lots of gaps in detailed explanations of the processes.

“After we closely examined what was really happening throughout the process, we realized there might be an opportunity to reverse the chemical modifications from the fixative. As we started looking into compounds to achieve antigen retrieval, we found a whole class of compounds of varying scavenging strengths.”

Although the company is initially focused on the cancer diagnostics market, the co-founders believe their formaldehyde-scavenging compounds have broader application to advance disease detection and research using current diagnostic probes but also salvage untapped probes deemed ineffective. Eriksen and Vollert pointed to a 2015 survey by *The Scientist* that indicated

over 75 percent of researchers are replacing failed antibodies on a routine basis within a global marketplace generating revenue of \$1.6 billion and growing.

With one U.S. patent pending and additional patent applications through the University of Houston in progress, the startup recently earned funding from the highly competitive National Science Foundation's I-CORPS Program as well as a highly coveted spot among the Rice Alliance's "10 Most Promising Life Science Companies" at the Houston-based 2016 Texas Life Science Venture Forum in May.

Teomics previously received support from the UH Technology Gap Fund through the Office of the Vice President for Research and Technology Transfer, and Vollert has taken advantage of various entrepreneurial training and lab-to-marketplace preparatory programs at UH and Houston, including RED Labs and the Cougar Venture Fund at Bauer College of Business.

The latest round of funding — a \$50,000 grant from the NSF's highly competitive Innovation Corps (I-CORPS) Program — included an intensive three-day workshop in Austin along with assistance in conducting direct-outreach research on prospective customers to support or challenge assumptions and initial needs analyses on the product's potential demand in the marketplace.

"The Rice Alliance award provides further validation and support for the Teomics platform and our technology's market potential," said Vollert, who serves as CEO of Teomics. "We're



Stymied in his attempts to stain preserved blood vessels, faculty researcher Jason Eriksen discovered a novel solution to reverse the preservative's masking of protein markers through the use of formaldehyde-scavenging compounds.

moving forward on several fronts to prepare for the start of production and deployment, including continued discussions with prospective investors, conducting additional market research, and setting up our office and lab space."

Billed as one of the largest life science venture capital conferences in the Southwest, the Texas Life Science Venture Forum at Rice University's BioScience Research Collaborative is hosted by the Rice Alliance for Technology and Entrepreneurship, BioHouston, and the Texas Healthcare and BioScience Institute.

Alzheimer's Detection Nanoparticle Co-invented by UHCOP's Eriksen Shines in Published Preclinical Study

A recently published journal article on the preclinical experiments of a novel nanoparticle co-invented by UHCOP Associate Professor Jason Eriksen, Ph.D., reveal promising results of the technology for the early detection of Alzheimer's disease.

The nanoparticle platform – ADx – was developed by Eriksen and his co-inventor Ananth Annappagada, Ph.D., professor of Radiology and director of Basic Research in the Edward B. Singleton Department of Pediatric Radiology at Texas Children's Hospital.

The ADx technology utilizes a liposomal nanoparticle that can cross the blood-brain barrier and bind to amyloid plaques in the brain, which is one of two primary biomarkers that have been identified in the onset and progression of Alzheimer's disease.

One of the most unique aspects of the technology is its capability to provide high-resolution magnetic resonance imaging (MRI) in the 1-3 Tesla field strengths, which is

within the parameters of MRI devices commonly used in small and large healthcare settings today.

In a paper published in the peer-reviewed *Journal of Alzheimer's Disease*, the investigators reported the detection of amyloid-bound nanoparticles in amyloid-positive mice — and no signal detection in amyloid-negative mice — using MRI and near-infrared microscopy.

The imaging results were confirmed by immunohistochemical and fluorescent microscopic examination, which found colocalization of the fluorescent tags and amyloid deposits.

With two U.S. patent applications filed, commercial development of their high-resolution nanotechnology imaging platform is being pursued by Houston-based biotechnology startup Alzeca Biosciences LLC. Eriksen chairs Alzeca's Scientific Advisory Board, which also includes Annappagada. Alzeca has announced its goal of initiating human clinical trials of ADx in 2018.

ORBITAL DECAY



ALUMNA EARNS NASA POST-DOC FELLOWSHIP TO STUDY IMPACT OF SPACEFLIGHT ON CREW MEDICATIONS FROM ISS MISSIONS

While it's standard practice for medication warning labels to advise patients to "Store in a Cool, Dry Place," manufacturers probably didn't mean in the frigid, irradiated vacuum of space.

Although crews arrive to the International Space Station (ISS) in peak physical condition, they nonetheless require medications for various ailments and injuries ranging from backaches and sinus congestion to microgravity-induced motion sickness during missions. With a manned mission to Mars among NASA's top goals, in-depth study of the efficacy and stability of medications is critical to ensure the health of crews during long-term spaceflights.

UH College of Pharmacy postdoctoral researcher and alumna **Lei Wu**, Ph.D. ('14), and Professor **Diana S-L. Chow**, Ph.D., are among a select group of investigators analyzing the contents of medication kits sent back to earth following resupply missions to the ISS. Supported by a \$50,000 First Award Fellowship grant from the National Space Biomedical Research Institute, Wu is analyzing the concentrations of four medications from ISS medical kits flown on five missions of the Space X aerospace cargo-transportation system.

"We're trying to not only determine if any degradation of the drugs has occurred — which could be due to a variety of physical and environmental factors, such as vibration, radiation and

humidity — but also characterize the degradation and perform comparative analysis to ground-based controls, so we can develop predictive models for drug stability, bioavailability and toxicity," Wu said. "We're also generating bioequivalence estimates using control and the Space X formulations in an animal model."



The work holds special meaning for Chow and Wu as the project was proposed by their late colleague and friend, UHCOP/UH alumna and adjunct faculty member **Lakshmi Putcha**, Ph.D. ('81), M.S. ('75), who served as NASA's chief pharmacologist before her untimely passing in 2015 and had led early medication-degradation studies of experimental payloads aboard the ISS

and a space shuttle flight in the late 2000s.

The trio most recently worked together to evaluate the efficacy of intranasal gel formulations of scopolamine (INSCOP) for space motion sickness, which served as the basis of Wu's doctoral dissertation. The project involved administering the investigational new drug formulation of INSCOP to human clinical trial subjects in a simulated microgravity environment. The study found use of INSCOP provided rapid absorption, quicker onset, required a lower dose for efficacy, and a reduction in side effects commonly experienced with oral and transdermal formulations.

Sofjan's AACP, SIDP Projects Span Houston to Dhaka

UH College of Pharmacy's **Amelia K. Sofjan**, Pharm.D., BCPS, clinical assistant professor, has received grants from the American Association of Colleges of Pharmacy and the Society of Infectious Diseases Pharmacists for respective studies on a potential U.S. epidemiological shift in a serious complication associated with cirrhotic patients and the prevalence of *Clostridium difficile* infection in Bangladesh.

Supported by a \$10,000 AACP New Investigator Award, Sofjan is conducting a retrospective epidemiological study to determine if there has been a change in the types of bacteria that cause spontaneous bacterial peritonitis (SBP) in patients with end-stage liver disease. The complication is diagnosed in 1 in 4 cirrhotic patients hospitalized with bacterial infections, with 30-day mortality rates ranging from one-quarter to one-half of patients.

The American Association for the Study of Liver Disease (AASLD) now recommends the use of the third-generation cephalosporins as first-line therapy only for those patients with community-acquired SBP who were not previously exposed to broad-spectrum beta-lactam antibiotics. Yet, the AASLD has made not specific recommendations for hospital-associated or -acquired SBP and suggests that empirical therapy is based on local epidemiology.

Although relatively modest sample size, Sofjan's study to provide the local epidemiological data needed to appropriately select alternative empirical therapy is believed to be the largest of its kind in the U.S.

"Our project will not only identify the ceftriaxone-resistant pathogens, but also the risk factors for developing SBP from these resistant organisms and predictors of patient outcomes," she said. "The goal is to develop a prediction score model for ceftriaxone-resistant organisms in cirrhotic patients with SBP and to create an

empirical treatment algorithm for these patients."

With a \$10,000 grant awarded by SIDP and funded by rapid diagnostic testing company Alere, Sofjan and her UHCOP and Bangladesh-based collaborators are attempting to determine whether *Clostridium difficile* infection (CDI) is an emerging, yet underreported, threat in the developing nation.

While CDI constitutes a major concern in the U.S. and in Europe, it is considered "nonexistent" and rarely diagnosed in developing nations such as Bangladesh. However, backed by recent studies indicating the rise of CDI in hospitalized patients in Southeast Asia, the widespread use of broad-spectrum antibiotics in Bangladesh and preliminary data identifying toxigenic strains of the bacteria in environmental samples from Bangladesh, Sofjan suggests that diagnosis of CDI is likely an area of urgent, unmet need in the country.

"Data from this study should represent the only epidemiological study of CDI in Bangladesh," Sofjan said. "An accurate diagnosis of CDI is essential to alert clinicians to implement infection control measures, re-evaluate the need for antimicrobials and implement effective therapy."

The project will utilize a U.S.-developed rapid diagnostic tool during the initial sample collection and identification from patients at a large tertiary care hospital in Dhaka, Bangladesh. The positive samples will be sent to UHCOP to be cultured and strain typed, as well as compared to biobanked samples from Houston patients with positive CDI.



Bench Notes

Richard A. Bond, Ph.D. ('88), B.S. ('83), professor, has received a \$159,959 subcontract award from Duke University under a National Institutes of Health R01 grant, "Optimizing β -adrenoreceptor signaling bias in asthma."

Kevin W. Garey, Pharm.D., M.S., FASHP, professor, has received a one-year, \$72,974 grant from Cidara Therapeutics for his project, "Defining the Unmet Medical Need of Novel Echinocandins: A Real-World Study"; and a one-year, \$124,073 grant from Merck & Co. for his project, "How Does Fidaxomicin Inhibit Spore and Toxin Production: A Mechanistic Study."

Kimberly A. Nguyen, Pharm.D., clinical assistant professor, has received a \$4,700 UH New Faculty Research Program grant for her project, "Defining new methods to collect pertinent student feedback to preceptors."

Vincent H. Tam, Pharm.D., BCPS (AQ-ID), professor, has received a one-year, \$130,200 grant from Merck & Co. for his project, "A Retrospective Cohort Study to Compare the Outcomes of Patients with Pseudomonas Bacteremia Given Empiric Aminoglycoside Therapy"; a one-year, \$15,000 grant from The Medicines Company for his project, "In vivo activity of Minocycline against *A. Baumannii*"; and a one-year, \$53,335 grant from Allergan for his project, "Prevalence and mechanisms of Beta-lactam resistance in *Klebsiella pneumoniae*."

Maria V. Tejada-Simon, Ph.D., M.Ed. ('07), associate professor, has been invited to join the National Research Mentoring Network, and has received a \$3,000 UH Small Grants Program award for her project, "Targeting synaptic plasticity to rescue memory deficits in Alzheimer's disease."

Abughosh, Fleming Target Statin Adherence by Patients, Awareness Among Prescribers

Pharmaceutical Health Outcomes and Policy faculty members **Susan Abughosh**, Ph.D., and **Marc L. Fleming**, Ph.D., MPH, R.Ph., have initiated separate projects aimed at different targets — patients vs. prescribers — but with the ultimate shared goal of improving statin adherence and patient health outcomes.

Supported by a two-year, \$184,587 grant from Regeneron Pharmaceuticals Inc., Abughosh's study involves identifying different patterns for low adherence, associated indicators and patients who fit within the parameters, then providing interventional counseling through motivational interviewing to boost adherence through patients' behavioral change.

Abughosh's team applying a relatively new statistical method — called group-based trajectory models — to identify similar 12-month medication-filling behaviors among statin users aged 65 and older who are enrolled in a Texas-based Medicare Advantage plan. The second phase is a randomized trial to demonstrate the intervention benefit among 500 non-adherent health plan members contacted by Pharm.D. students trained in motivational interviewing. Adherence during the six months post-intervention will be evaluated for the intervention and control groups.

Members of the study team include Fleming and fellow



Abughosh

faculty members **E. James Essien**, M.D., DrPH, and **Michael L. Johnson**, Ph.D., as well as Medicare Advantage provider Cigna HealthSpring's **Omar Serna**, Pharm.D. ('08), BCACP, and **Tara Esse**, Pharm.D. ('09), BCACP.

Backed by a one-year, \$98,314 grant from Sanofi US, Fleming's project is exploring the factors resulting in sub-optimal prescribing of statin therapy in order to improve prescriber implementation of the clinical guidelines and ultimately medication adherence.

"Simple awareness of new guidelines — published roughly every 10 years — does not always lead to adoption," Fleming said. "Guideline adoption requires the acquisition of specific knowledge and skills as well as procedures to facilitate the incorporation of these recommendations into daily practice. In addition, physicians' beliefs and attitudes prevent them from incorporating the recommendations."

The study's specific objective is to assess the impact of an educational webinar on statin prescribing as a means to ultimately improve patient adherence among patients enrolled in a Texas Medicare Advantage plan. Assisting in the project are Abughosh, **Mark Hatfield**, PHOP Ph.D. ('16), Cigna HealthSpring, and **Michael W. Bungo**, M.D., a UTHealth cardiologist.



Fleming

TEAM STRIKES GOLD IN 'DONUT HOLE' STUDY

A collaborative project by researchers from academia, a Medicare Prescription Drug Plan provider and the pharmaceutical industry to identify "coverage gap" characteristics among Medicare-enrolled Chronic Obstructive Pulmonary Disease (COPD) patients received a Gold Medal from the Academy of Managed Care Pharmacy.

Members of the study team were from UH College of Pharmacy, Cigna HealthSpring and GlaxoSmithKline (GSK), which partially supported the project honored at the 2016 AMCP & Specialty Pharmacy Annual Meeting. Using retrospective data of more than 3,000 COPD patients, the researchers identified patient age, Centers for Medicare Services risk score, and ER visits as predictors of entering the gap while low income subsidy level as an additional predictor of time to coverage.



*Project team members included, back row, UHCOP faculty members **Sujit S. Sansgiry**, Ph.D., and **Marc L. Fleming**, Ph.D., MPH, R.Ph.; Cigna Health Spring's **Omar Serna**, Pharm.D. ('08), BCACP; and, front row, PHOP faculty member **Susan Abughosh**, Ph.D., and PHOP Ph.D. candidate **Archita Bhansali**, M.S. ('13). Not pictured are GSK study coauthors **Michelle Kamdar**, Pharm.D., and **Richard Stanford**, Pharm.D.*

Vishnu D. Gupta

UHCOP Mourns Passing of Longtime Researcher, Teacher and Supporter

The UHCOP community has lost one of its longest-serving faculty members, Professor Emeritus Vishnu D. Gupta, Ph.D., who passed in August 2016.

A cherished faculty member for nearly 50 years, Gupta will be remembered as a dedicated pharmaceutical researcher, educator and philanthropist. A UHCOP faculty member from 1967 to his retirement in 2015 almost one year to the day of passing, Gupta taught Pharmaceutics and Physical Pharmacy to thousands of professional pharmacy and graduate students over the course of his career at the college.

Gupta earned his Ph.D. in Pharmaceutical Analysis and Physical Pharmacy from the University of Georgia and his M.S. in Manufacturing Pharmacy from The University of Texas. A Fellow of the Academy of Pharmaceutical Sciences and the American Association of Pharmaceutical Scientists, Gupta authored or co-authored hundreds of articles and chapters in peer-reviewed journals and books. His expertise in the areas of pharmaceutical analyses and stability studies made him a highly sought-after consultant and researcher to the pharmaceutical industry on a national and international level.

Along with his wife, Mrs. Kanta K. Gupta, Vishnu Gupta was a longtime member of the college's Mading Society and the university's In Tempore Society. The Guptas generously supported the college and university, including creating four endowments for Pharm.D. and graduate students: for Pharm.D. and graduate students: the Anant Ram Gupta Presidential Endowed Scholarship, Dean Joseph P. Buckley Pharmacy Leadership Award, Yoginder Nath Goel & Swaran Lata Goel Academic Achievement Award, and the Vishnu D. & Kanta K. Gupta Scholarship.

An avid international traveler, Gupta also was an ardent supporter of providing students the opportunity to expand their horizons by participating in professional and scientific meetings. In addition to providing assistance for student pharmacist mission trips, a planned gift made by the Guptas several years ago will support a future endowed travel fund.

Gupta will be remembered as a kind, generous and modest man who sought to follow the teachings and examples set by the great Indian leader Mahatma Gandhi and his father, Anant Ram Gupta.

"I'm thankful to God for my success and good fortune, which has allowed me to put both of my children through higher



Pictured above, the late Professor Emeritus Vishnu D. Gupta is shown with his wife, Kanta K. Gupta. Below and bottom, Pharmacology & Pharmaceutics Ph.D. students and Professor Emeritus Bhagavan Jandhyala congratulate Gupta at his retirement party in June 2016.



education, create four endowments and support many worthwhile projects," Gupta said in an interview about one of his major gifts to the college. "I certainly don't compare myself to Gandhi, but I've always followed his advice of reducing my wants, instead of increasing my wants."

Per Gupta's wishes, no public service was held.



MCCONNELL, WANAT HONORED AMONG UH'S TOP FACULTY



Faculty members **Bradley K. McConnell, Ph.D., FAPS, FAHA**, and **Matthew A. Wanat, Pharm.D., BCPS, BCCCP**, were honored as 2016 UH Faculty Excellence Award recipients for Undergraduate Research Mentoring and Teaching-Instructional/Clinical, respectively.

An associate professor of Pharmacology, McConnell is a National Institutes of Health-funded researcher focusing on the cardiac and skeletal muscle function in normal and disease conditions. He is the second consecutive UHCOP faculty member — and the third since first being awarded four year ago — to receive the Early Career Award, which is presented by the UH Office of Undergraduate Research.

A Fellow of the American Heart Association and the American Physiological Society, McConnell has mentored 30 undergraduate students since he joined the college in 2008. Two of his mentees, one of whom is now a Pharm.D. student, each received the “Audience Choice Poster Award” at the Undergraduate Research Day in recent years. Many of his mentees are in post-graduate academic programs, planning on applying to post-graduate programs, or are employed in science/technology-related jobs.

McConnell also has hosted a UH Research Day for high school students of a Houston college preparatory academy as well as participated in the Pharmacy Summer Camp for junior and senior high schools students and the annual Pharm.D. Research Convocation to encourage students to undertake a research project before completing their degree or explore research as a career path.



McConnell is shown with several of recent undergraduate mentees in his lab.

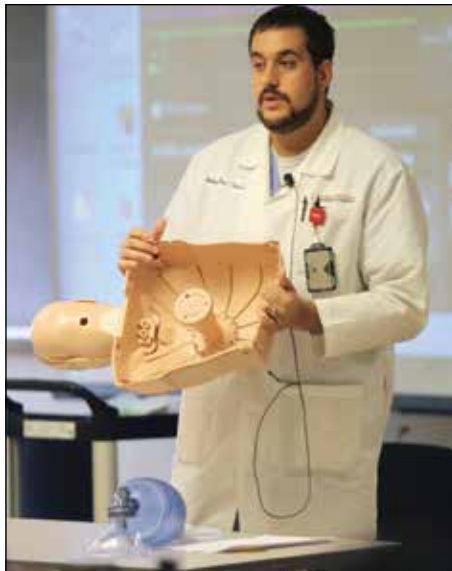
“Opportunities for undergraduate research in my laboratory expose students to basic science research and, along with their interactions with other student-scientists, strengthens the UH College of Pharmacy research environment,” McConnell said. “I have developed an educational curriculum that engages student’s curiosity in order to propel their scientific career goals.

“This has been achieved by incorporating various teaching tools, including hands-on experimental applications as well as personalized mentoring, to enhance student ability and learning styles and create an effective instructional and mentoring environment.”

A clinical assistant professor, Wanat was recognized in the Instructional/Clinical division of the Teaching Excellence Awards bestowed by the Office of Senior Vice President for Academic Affairs and Provost Paula Myrick-Short, Ph.D.

In addition to his primary faculty appointment at UHCOP, Wanat maintains a critical care practice site at the Michael E. DeBakey Veterans Affairs Medical Center and a clinical instructor appointment at Baylor College of Medicine. Over the past four years, Wanat has precepted/mentored 50 pharmacy residents and Pharm.D. students.

Wanat has implemented a variety of new teaching pedagogies, including a postgraduate training track to better prepare students for success in residency and fellowship programs following completion of their Pharm.D. education as well as converting the Critical Care elective to a “flipped classroom” hybrid online course in which lectures are delivered via video recordings between in-class skills labs and review sessions.



Wanat introduced a “Code Blue” cardiac arrest simulation exercise to help students better understand the Therapeutics course module on Cardiopulmonary Arrest/Advanced Cardiovascular Life Support.

“My philosophy of teaching centers on passion in your career and interest in your students,” he said. “I felt a strong desire and motivation as a student to learn from my preceptors that genuinely seemed interested in me and were excited to have me around as a mentee.

“I remember being much more interested in what they were teaching because they enjoyed what they were doing and enjoyed seeing my growth. I felt a need to make them proud of my work. I continue to feel that the passion and energy an educator gives off to their students can be just as strong as the knowledge they teach.”

Wanat previously was recognized by the Phi Lambda Sigma Pharmacy Leadership Society, the Rho Chi Honor Society, the college’s Faculty Advisory Council, and the Society of Critical Care Medicine-Texas Chapter (for which he currently serves as President-elect). He also serves as co-advisor for the college chapter of the Student Society of Health-System Pharmacists and is a member of the Texas Society of Health-System Pharmacists’ student mentoring program.

Faculty Accolades

Susan M. Abughosh, Ph.D., **Kimberly K. Birtcher**, Pharm.D., M.S., BCPS, CDE, CLS, and **Aditi Marwaha**, Ph.D. (‘05), were recognized with the Rho Chi Society Beta Omicron Chapter’s 2015-16 Teaching Excellence Awards in September 2016.

Kimberly K. Birtcher, Pharm.D., M.S., BCPS, CDE, CLS, clinical professor, has been appointed to a three-year term as a director on the Pharmacist Clinical Council of the Accreditation Council for Clinical Lipidology’s Board of Governors.

Greg D. Cuny, Ph.D., assistant professor, has been appointed to a three-year term through 2018 on the Long Range Planning Committee for the American Chemical Society’s Medicinal Chemistry Division.

Joydip Das, Ph.D., associate professor, has been appointed editor-in-chief of the *Journal of Addiction and Dependence*.

Romi Ghose, Ph.D., and **Bradley K. McConnell**, Ph.D., FAHA, FAPS, associate professors, graduated from the UH Cougar Chairs Leadership Academy’s Class of 2015. A yearlong program of the UH Provost’s Office, the academy is designed to cultivate leadership talent in a select cohort of university faculty.

Samina Salim, Ph.D., assistant professor, has been installed on the Association of Scientists of Indian Origin in America’s Executive Committee. Salim also was invited to present her research to

the UH community as part of the TEDTalks-inspired Assistant Professor Excellence (APeX) Speaker Series.

Sujit S. Sansgiry, Ph.D., has been promoted to full professor and **Meghna Trivedi**, Pharm.D. (‘03), Ph.D. (‘04), has been promoted to associate professor.

Julianna S. Szilagyi, Ph.D., who retired from the college in September 2014 after nearly 30 years of service, has been awarded Professor Emeritus status at the University of Houston. Szilagyi continues to pursue her passions in photography and finding “forever” homes for retired racing greyhounds.

The UHCOP Faculty Advisory Council bestowed its Faculty Excellence Awards in Teaching, Research and Service to **Maria V. Tejada-Simon**, Ph.D., M.Ed. (‘07), **Gregory D. Cuny**, Ph.D., and **Lynn Simpson**, Pharm.D. (‘97), respectively.

Maria V. Tejada-Simon, M.Ed. (‘07), Ph.D., associate professor, has been appointed to the National Institutes of Health-affiliated National Research Mentoring Network.

Matthew Wanat, Pharm.D., BCPS, BCCCP, clinical assistant professor, has been appointed 2016-17 Education Committee Chair for the Texas Society of Health-System Pharmacists’ 2017 Annual Seminar, which will be held in Galveston.

Wanat Draws Education Award, Leadership Post

UH College of Pharmacy's Matthew A. Wanat, Pharm.D., BCPS, BCCCP, was honored twice by the Society of Critical Care Medicine (SCCM) Texas Chapter in 2016. Not only was Wanat recognized with the chapter's 2015 Excellence in Service Award for Education, but he has been installed as its president-elect.

A clinical assistant professor at the college, Wanat also serves as a clinical pharmacy specialist in the Cardiac Intensive Care Unit at the Michael E. DeBakey Veterans Affairs Medical Center and as a clinical instructor at Baylor College of Medicine.

At UHCOP, Wanat teaches Cardiology/Critical Care topics, drug information and literature evaluation and serves as instructor and coordinator of the Critical Care Pharmacotherapy elective. He also is a faculty co-advisor for the UHCOP chapter of the Student Society of Health-System Pharmacists. At DeBakey, Wanat precepts pharmacy students and residents on Cardiac ICU rotations.

After joining the college in 2012, Wanat was instrumental in restructuring the Pharm.D. Critical Care elective course into a



UHCOP's Matthew Wanat receives the Society of Critical Care Medicine Texas Chapter's Excellence in Service Award for Education by 2015-16 Chapter President Michael Sirimaturos.

flipped classroom approach with online lecture and in-class active learning. The retooled approach won praise from students, and was the basis of a paper recently accepted for publication in the American Journal of Pharmacy Education.

In addition to his most recent honors, Wanat has earned numerous accolades in a very short time: He has received the Rho Chi Teaching Excellence Award twice, the UHCOP Teaching Excellence Award, the SCCM Texas Chapter's Excellence in Leadership Award and the national SCCM organization's Presidential Citation as well as being inducted to the Phi Lambda Sigma Pharmacy Leadership Society.

"I was very lucky to have trained under some excellent faculty and clinical pharmacists that shaped the educator that I am today," Wanat said. "My teaching philosophy is guided by two main principles: A balanced responsibility for learning between the educator and learner, and a passion for what you teach or do that sparks the energy and motivation in students to do great things."

Aparasu Recruited for Fulbright Specialist Roster

Rajender R. Aparasu, Ph.D., FAPhA, professor and chair of UH College of Pharmacy's the Department of Pharmaceutical Health Outcomes and Policy, has been selected for the Fulbright Specialist Roster.

The Fulbright program, which is funded by the U.S. Department of State's Bureau of Educational and Cultural Affairs, serves to promote the international engagement of academic scholarship and build linkages between U.S. and overseas eligible institutions on curriculum, assessment, faculty development, research training, and other program development activities.

Aparasu is the first UHCOP faculty member added to the candidate roster of the Fulbright program.

"There are very few Fulbright Specialists in pharmacy; I am really honored to be selected for Fulbright Specialist Roster," said Aparasu, whose five-year term runs through 2021.

Aparasu's primary areas of expertise include pharmaco-epidemiology, geriatrics, psychopharmacology and evidence-based medicine. His current research project, supported by an Ro1 grant from the Agency for Healthcare Research and



Quality (AHRQ), is evaluating safety profiles of anticholinergic medications in the elderly nursing home residents.

"Dr. Aparasu's selection as a Fulbright Specialist validates his professional accomplishments and enhances the institutional profile of UH and the College of Pharmacy," said Jaime Ortiz, Ph.D., UH vice provost for Global Strategies and Studies.

Professor Emeritus Lemke Earns Wynn Award from AACP Chemistry Section

UH College of Pharmacy Professor Emeritus Thomas L. Lemke, Ph.D., recently was honored with the James E. Wynn Memorial Award from the American Association of Colleges of Pharmacy's Chemistry Section at the AACP Annual Meeting July 23-27 in Anaheim, Calif.

The award is presented in the memory of the late respected pharmacy educator and scientist James E. Wynn, an accomplished researcher, innovative teacher and national leader in pharmacy education who passed in 2012.

"I feel very honored to have received this recognition in that Dr. Wynn was not only an outstanding educator, but also represented the type of person that we all would like to emulate as a teacher, leader, and role model to our students and future pharmacists," he said. "I can only hope to have contributed to the development of individual pharmacists and to the profession as a whole through my 36 years of service to the college. I truly miss the excitement of being in the lecture room with young and energetic students."

Although Lemke retired from the college in 2006, he continues to be active in pharmacy education — including recently serving as the 2016 UH Rho Chi Society Robert L. Boblitt Lecturer — and within his field of medicinal chemistry.

"I continue to attend AACP meetings because of friendships I have developed over my lifetime in pharmacy education," he said. "Involvement with AACP also allows me to remain aware of changes occurring in pharmacy education and the profession. The meetings have always served as an energizer and stimulator of ideas."

Lemke has served as author and editor of some of the most highly regarded tomes in medicinal chemistry, including five editions of *Review of Organic Function Groups: Introduction to Organic Medicinal Chemistry* and four editions of *Foye's Principles of Medicinal Chemistry* (with an eighth edition under way). His most recent effort, *Essentials of Foye's Principles of Medicinal Chemistry*, was published in June.



AACP Chemistry Section James E. Wynn Memorial Award recipient Thomas Lemke, second from left, is congratulated by, from left, past award recipients Andrew Coop, Ph.D., and Victoria Roche, Ph.D., along with Wynn's son, William P. Wynn III, Pharm.D.



Hussain Receives ASIOA Award for Support, Service

UHCOP Professor Tahir Hussain, Ph.D., was honored with the Association of Scientists of Indian Origin in America's Service Award at the organization's 34th Annual Meeting.

Hussain has served as the association's secretary, a member of the annual awards committee and a member of the nomination/election committee for the association president in addition to other support roles.

As the first recipient of ASIOA's Young Scientist Award in 1994, Hussain said he's been inspired by the organization's commitment to developing the next generation of investigators.

"Serving the association in various capacities over the years has been satisfying; it gives a sense of giving back like earlier generations worked for us," Hussain said. "During my tenure as secretary, we were able to initiate ASIOA's new tradition of annual scientific meeting during the Martin Luther King Jr. weekend, with the first meeting held in San Antonio. I hope the tradition of new initiatives continues."



ABUZZ IN VICTORY

KNOWLEDGE, CONFIDENCE AND STRATEGY WINS THE DAY AT 'QUIZ-BOWL' ISPOR STUDENT RESEARCH COMPETITION

UH College of Pharmacy's team of doctoral program students clinched the Student Research Competition title at the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) 21st Annual International Meeting in Washington, D.C.

It was a combination of knowledge, confidence, preparation and strategy that won the day for UHCOP Pharmaceutical Health Outcomes and Policy students Archita Bhansali, Ruta Sawant, Navneet Upadhyay and Aisha Vadhariya.

The competition features an academic "quiz-bowl" style format in which questions from the official ISPOR Book of Terms and ISPOR Good Research Practices for Outcomes Research are posed to two teams in head-to-head competition. The first team to hit the buzzer and provide the correct answer receives points, but wrong answers — or even attempting to answer before being recognized — results in deduction of points.

Open to any teams advancing from an initial qualifying round from the nearly 90 ISPOR student chapters around the world, the 11th annual Student Research Competition saw the UHCOP team climbing its way to the top in five-round bracket of 20 total teams.

Not only did the team proudly sport UH Cougar Red polos, nearly two dozen fellow students, faculty members and alumni — many of whom were also decked out in UH's signature color — created a vocal and spirited cheering section in the crowd.

"We knew all the terms from our studies and research we do at the college, but it involved a lot of confidence and strategy — including when to let the other team answer first on the more difficult or complex questions and potentially lose points — to advance and win it," Upadhyay said.

Another strategy the team employed was to play to the strengths of individual members.

"It really was a team effort; everyone answered questions, but we each had specific areas that we focused on during our practice sessions and in the competition itself," Sawant said.

Team members also credited the advice and encouragement of their team coaches, fellow student and past competitor Nandita Kachru and Assistant Professor Marc L. Fleming, Ph.D., MPH, R.Ph., who was a member of a winning team during his doctoral degree studies.

Kachru and other students helped the team prepare with mock

quizzes employing timers and even a glass and spoon to simulate the response buzzer and paying close attention to following the rules of the competition. All four team members also had participated in at least one competition in previous years.

"The final round was very relaxed, and we even stop answering the questions because we were so far ahead in points that we could only hurt ourselves if we happened to get a question wrong or accidentally answered without being recognized by the moderator," said Upadhyay, the most experienced member of the team with two previous appearances.

Winning the 2016 competition was extra rewarding for the UHCOP team, as the win not only came with a cash prize for the college's ISPOR student chapter but also taking out the competing team that eliminated UHCOP in the first round of last year's competition. The 2016 win is a first for the college, with previous teams finishing second in 2010 and third in 2014.

"It's great recognition for the program and the students individually; I was really proud to see their elation at winning," Fleming said. "The judges are leaders in the industry, so it's a big deal when you win it."

The final round was very relaxed, and we even stop answering the questions because we were so far ahead in points that we could only hurt ourselves...

— Navneet Upadhyay, PHOP Ph.D. Candidate and ISPOR Student Research Competition Team Member



At left, members of the ISPOR championship team from UHCOP were Ruta Sawant, Archita Bhansali, Navneet Upadhyay and Aisha Vadhariya; and, above, team coaches Marc Fleming, assistant professor, and student Nandita Kachru were credited for their hard work preparing the team for victory.



CLINICALLY COMPETITIVE

FIRST- AND FOURTH-YEAR STUDENTS BRING HOME TITLES FROM STATE, NATIONAL CLINICAL SKILLS COMPETITIONS

UH College of Pharmacy Pharm.D. students continue to uphold the college's reputation as a leader in producing exceptional pharmacy practitioners in the area of clinical skills and patient care — and 2016 was no exception.

Leading the way at the national level were Pharm.D. candidates **Natalie Chu** and **David Pham**, who won the Division 2 (P3-P4 years) of the SNPhA/Kroger National Clinical Skills Competition at the Student National Pharmaceutical Association's 2016 National Convention July 29-31 in Atlanta. Chu and Pham were among 64 teams competing from pharmacy colleges/schools across the U.S.

Unlike other events of its kind, the SNPhA format is an integrated clinical skills and patient counseling competition: Competitors not only must prepare and present the patient case — including identifying the primary, secondary and tertiary problems, recommended goals of therapy, and monitoring parameters — but also interact with a standardized patient for a medication counseling session.

A first-time competitor in any live clinical skills competition aside from taking part in the preliminary online rounds of the American College of Clinical Pharmacy's competition, Chu said she nonetheless felt prepared for the SNPhA event.

"I didn't know what to expect, so I relied on David to coach me in what to expect," Chu said. "However, we had just completed our P3 year. Every Monday for an entire year in Therapeutics class, we had to work up and present SOAP (Subjective,

Objective, Assessment, and Plan) notes, which are basically the same format and elements as what was required in the clinical skills competition."

"I think the combined format was interesting and challenging because during the case presentation and panel Q&A, you had to be very professional and speak in scientific terms to justify your recommendations, then do a 180-degree turn and remove all medical jargon and talk with the patient using terms they can understand," Pham said.

Even though the pairing of the team was a bit unplanned — Chu's original teammate had to back out due to her rotation schedule — Chu and Pham said they were able to capitalize on each other's strengths to advance and triumph.

"I think our ability to think quickly and on our feet in those situations is attributable to how involved we've been in the college's curriculum," Pham said. "UHCOP has this culture of being involved and you know that immediately as a P1. Through our involvement in student organizations and leadership positions, you have the opportunity to refine your communication and public-speaking skills that I think really helped us in the presentation phase.

"After the competition, I've had the opportunity to reflect on what we've gone through from P1 to P4 and realize how UHCOP has prepared us clinically to handle these types of competitions and situations with people skills and critical thinking skills. It's

kind of funny to think back and see that we really were prepared, but we just didn't realize it."

In addition to individual awards, Chu and Pham's national title also secured a \$1,000 prize for the UHCOP chapter, which they hope to see used to develop a local version of the competition.

Following up on UHCOP wins in the P2 and P4 divisions at the 2015 event, **Stephanie Crowley** and **Diane Dreucean** claimed the P1 division title at the Texas Society of Health-System Pharmacists' 2016 Clinical Skills Competition.

In the TSHP competition, the two-person teams are required to develop a therapeutic plan and recommendations based on a review of the patient's medical chart and consulting appropriate clinical/pharmaceutical references. Teams are scored based on their documentation, presentation and aptitude during a follow-up question-and-answer session.

"The case was definitely tough this year based on what we knew about past cases; our patient had multiple serious problems and complications, and her medication list was quite long," Dreucean said. "It was challenging to put together a plan with minimal drug-drug interactions that covered all of her disease states.



Stephanie Crowley and Diane Dreucean captured first place in the P1 Division of the 2016 TSHP Clinical Skills Competition.

"I couldn't have done it without Stephanie. We each have areas of pharmacotherapy that we are more familiar with, and split our cases so that we could maximize our time and effectiveness. Overall, it is a great experience and really strengthened our knowledge of drug therapy."

UH SNPhA AMONG NATIONAL CHAPTER FINALISTS

Although UH College of Pharmacy's chapter of the Student National Pharmaceutical Association wasn't able to retain its title as Chauncey I. Cooper National Chapter of the Year in 2016, it did climb into the top three among chapters competing in the Large Category at the SNPhA National Convention July 29-31 in Atlanta.

During the 2015-16 year, the chapter participated in nearly 140 events and impacted more than 4,400 patients through a range of wellness screenings and educational outreach activities.

Other highlights of the chapter's initiatives during the 2015-16 year included:

- Establishing a shadowing program with a kidney transplant pharmacy specialist and facilitating member training as certified Kidney Health Educators through the American Kidney Fund;
- Providing smoking cessation for residents at Houston's Angela House, a transitional facility for women released from incarceration for nonviolent offenses; and
- Working with SMART Cougars, a UH organization that offers free HIV testing, to provide the screenings at a health fair hosted by a Houston church.



SNPhA Chapter members celebrate their success at the 2016 National Convention.

In addition, the chapter's Remember the Ribbon Initiative took third place in the nation for its activities during the 2015-16 academic year and a presentation at the meeting. Highlights of the chapter's Remember the Ribbon activities included participating in more than 30 events with an impact of nearly 300 patients and community members, providing more than 180 service hours at the Bering Omega House HIV/AIDS hospice facility, and raising nearly \$1,500 in cash and food donations for Omega House and the AIDS Foundation.

The chapter also was successful in securing passage of its resolution to establish a collaboration between SNPhA and the American Lung Association in which SNPhA members can be trained as facilitators to present asthma education programs at underserved primary schools.

SNPHA NATIONAL CHAIRS

Two third-year Pharm.D. students – Shutian Ju and Brian Nwokorie – were appointed to National Initiative Chair leadership positions in the Student National Pharmaceutical Association at the 2016 SNPhA National Convention July 29-31. Ju will serve as the 2016-17 Chair of the National Remember the Ribbon Initiative, which is “dedicated to improve health, education, and social environment of minority communities, with respect to HIV/AIDS awareness, education, and prevention.” Nwokorie was appointed 2016-17 Chair of the Bridging the Gap program, which helps members in student-to-professional organization transition, as well as nominated for the SNPhA/Rite Aid Community Leader Award.

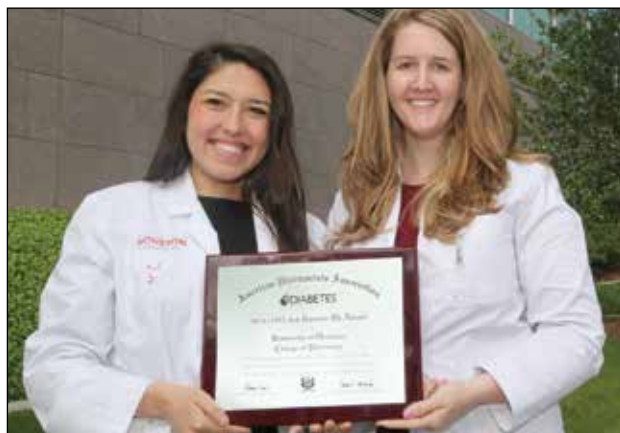


KAPPA PHI KAPPA INDUCTEE

Pharmaceutical Health Outcomes and Policy Ph.D. candidate Archita Bhansali, M.S. ('13), was among the 2016 inductees of Phi Kappa Phi, the world's oldest multidisciplinary honor society. Election to Phi Kappa Phi membership is by invitation only. Bhansali has had three manuscripts published in the peer-reviewed journals, with another 10 submitted or in development. The goal-oriented, focused Bhansali completed her master's degree in only one year plus one semester and is on course to complete her Ph.D. at 25 years old, all while maintaining a cumulative grade point average of 3.99.

APHA-ASP OPERATION DIABETES

The UHCOP Chapter of the American Pharmacists Association-Academy of Student Pharmacists was honored as the 2014-15 Second Runner-up for its Operation Diabetes initiative at the 2016 APhA Annual Meeting & Exposition. The 2014-15 Operation Diabetes initiative was led by senior chairs Scarlett Najera and Stephanie Underwood (pictured at right) and Tam Nguyen, along with junior chairs Caitlin Le, Chelsea Wong and Reshma Mathew. The APhA-ASP chapter collaborated with nonprofit organizations and private entities to provide wellness screenings and diabetes awareness and prevention education at 19 events throughout greater Houston during the year.



TPA STUDENT PRESIDENT-ELECT

Third-year Pharm.D. student Shawn Ahmad was elected President-elect of the Texas Pharmacy Association's Student Leadership Group at the 2016 TPA Annual Meeting & Expo in July. Ahmad has been passionate about pharmacy advocacy since his P1 year: After attending the UHCOP-student organized Legislative Forum and attending the TPA Day at the Dome, Ahmad was motivated to join the SLG and secured his appointment as Education Chair. Ahmad also has been working to establish a student-focused Professional Recovery Network among Texas pharmacy colleges/schools and increasing awareness among students of pharmacists' role in addressing substance abuse/addiction.

BEST IN THE SOUTHWEST FOR DELTA DELTA CHAPTER

The Kappa Psi (KY) Pharmaceutical Fraternity's Delta Delta Chapter at UH College of Pharmacy secured the Chapter of the Year and Best Presentation awards at the organization's Southwest Province 2016 Spring Assembly, which was held in Houston this year.

The regional chapter award recognizes the affiliate with the highest point tally in such categories as leadership, activities, service and scholastic achievements in the 12 months prior to the spring meeting of each year.

Service participation is a high priority in the national co-ed fraternity. Through community health fairs in collaboration with nonprofit and corporate entities across greater Houston, chapter members provided hundreds of seasonal flu immunizations and cholesterol, blood glucose and blood pressure screenings as well as counseling on medication adherence and lifestyle modifications for better health.

The chapter also combined social and service activities through its long-running Mr. Pharmacy Pageant, an annual event pitting student organization and class representatives in such friendly



competition as displays of talent and public speaking. The 2015 event resulted in a \$1,000 gift to the American Red Cross of Greater Houston.

For the Best Presentation Award competition, chapter members produced a 5-minute video with student testimonials and footage from their events and activities over the prior year. The chapter's winning video can be viewed on YouTube here: <https://tinyurl.com/kp-deltadelta-swvid2016>.

Student Accolades

Pharm.D. students **Shawn Ahmad**, **Stephanie Crowley** and **Chelsea Jose**, along with Assistant Dean of Student & Professional Affairs **Paige Pitman**, Pharm.D., MBA (Bauer '03), R.Ph. (B.S. '94), attended the 2016 American Pharmacists Association Institute on Alcoholism and Drug Dependencies June 3-6 in Salt Lake City, Utah.

Pharm.D. student **Marissa Blumenthal** was among the 2016 AACP Walmart Scholars Program recipients, which provides support to attend 2016 AACP Annual Meeting and Teachers Seminar July 23-27 in Anaheim, Calif.

Pharm.D. students and American Pharmacists Association-Academy of Student Pharmacists UHCOP Chapter officers **Hannah Chan**, **Amy Kiley** and **Katrina Watson** attended the 2016 APhA Summer Leadership Institute July 15-17 in Washington, D.C.

Four Ph.D. students — three in Pharmaceutical Health Outcomes and Policy (PHOP) and one in Pharmaceutics — completed internships during summer 2016. PHOP's **Farid Chekani**, M.D., **Ruta Sawant**, M.S. ('14), and **Nanveet Upadhyay**, M.S. ('14), were awarded positions at IHS in Washington, D.C., Biogen in Cambridge, Mass., and Amgen in Thousand Oaks, Calif., respectively. Pharmaceutics' **Guncha Taneja** worked at Vertex Pharmaceuticals in Boston, Mass.

Pharm.D. students **Ibrahim Chowdhury** and **Julie Le Pham** were selected for the three-year Houston Methodist Hospital Student Internship Program, joining fellow interns from UHCOP **Grace**

Hwan, **Lena Rakouki**, **David Pham** and **Lydia Solis**.

Pharm.D. students **Dozie Dike**, **Manal El-Khalil** and **Lena Rakouki** were installed on the Texas Society of Health-System Pharmacists' Student Section Executive Committee at the 2016.

Pharm.D. student **Lauren Goldberg** was selected to participate in the Houston Methodist Hospital's summer 2016 Pharmacy Observership Program, which is designed to give students early exposure to health-system pharmacy.

Four UHCOP graduate students were selected for the 2016-17 UH Future Faculty Fellowship Program, a competitive program of the UH Graduate School and the UH Office of the Provost with support from a National Science Foundation-funded network. The F3 participants are **Manvi Sharma** (Pharmaceutical Health Outcomes and Policy) and **Fatin Atrooz**, **Hesong Liu** and **Santosh Suryavanshi** (Pharmacology).

Pharm.D. candidate **Tracey Thomas** earned an Honorable Mention in the Disease State Management Competition at the Texas Society of Health-System Pharmacists 2016 Annual Seminar.

Pharm.D. student **Katrina Watson** was selected for the 2016 Cardinal Health Student Leadership Conference in Houston.

The Delta Delta Chapter of the Kappa Psi Pharmaceutical Fraternity presented a \$1,000 donation to the American Red Cross Texas Gulf Coast Division from proceeds of its annual Mr. Pharmacy Pageant.

A Perfect Blend for Roux

Clinical Pharmacy, Leadership Mix Earns ASHP Fellow Status, Career Success for Alumnus

UH College of Pharmacy alumnus **Ryan Roux**, Pharm.D., M.S., is one of those unique stories of someone entering the profession somewhat by happenstance but whose aptitude and receptivity to both new ideas and prudent advice have catapulted him into the upper echelons of leaders in health-system pharmacy.

The Louisiana native first became aware of pharmacy as a career while pursuing a double-major in chemistry and biology at Stephen F. Austin State University. Roux got to know East Texas community pharmacist **Monte Ethington**, R.Ph. ('91), an alumnus of both UHCOP and SFA. The more Roux learned about the profession from Ethington and others, the more the stars seemed to align.

As a UHCOP Pharm.D. student, Roux's involvement in organizations gave him some of his earliest exposure to leadership. Although originally set on a clinical pharmacy track, he followed the recommendation of a mentor and former UHCOP faculty member, **Dana Fitzsimmons**, and pursued the M.S./health-system pharmacy administration residency program at The Ohio State University/The Ohio State University Medical Center.

"That was the hardest two years of my life, but it got me to where I am today because of how the program is designed to provide you with a foundation to handle difficult situations, manage negotiations, and overcome various challenges in your career," he said.

Roux said his experiences in pharmacy school and the M.S./residency program gave him the opportunity to build and cultivate over the subsequent years his most valued asset: a network of mentors populated by respected leaders in the profession.

"**Roger Anderson, Joyce Tipton, Lourdes Cuellar, Todd Karpinski, Brian Cohen**, my leadership team and colleagues at my institution — these are just a few people who have made, and still make, an impact in my career," he said. "Throughout my career and continuing today, I've had the opportunity to work with amazing managers who make it easy to dream big and help



materialize those dreams into reality."

After returning to Houston, Roux began a 12-year career ascension from operations manager to chief pharmacy officer at Harris Health System. Roux is now director of Pharmacy Operations at The University of Texas-MD Anderson Cancer.

His leadership positions have been marked by successfully developing and implementing an array of quality, performance, cost-reduction and clinical service expansion initiatives. His work has encompassed everything from revising policies and procedures in line with regulatory standards/best practices, improving pharmacist-patient and pharmacist-nursing staff relationships to migrating to an electronic health record, selecting and upgrading carousels and dispensing cabinets, and creating and monitoring discharge counseling/transitions of care programs.

A UHCOP adjunct faculty member, Roux also was instrumental in the launch of the two-year concurrent M.S.-PGY1/PGY2 Houston Program in Pharmacy Leadership and Administration in 2009 (as well as bringing in MD Anderson two years later).

Previously recognized as a Fellow of the Texas Society of Health-System Pharmacists, Roux was honored at the national level this summer as a Fellow of the American Society of Health-System Pharmacists.

"It was very humbling to be among such an accomplished group; the significance of it really didn't sink in until I saw those who'd come before me — as well as those in my own class — and started getting congratulatory emails from some very influential leaders in health care."



UHCOP Honors Cuellar as Alumnus of the Year

With his genuinely friendly and gracious demeanor and soft-spoken kindness, it's easy to see how UH College of Pharmacy alumnus Celso Cuellar Jr. is the epitome of the pharmacist who places special emphasis on the "care" in "patient care." In recognition of serving his community's health needs for more than 50 years and his generosity in support of his alma mater, Dean F. Lamar Pritchard proudly bestowed the UHCOP's 2016 Alumnus Pharmacist of the Year Award to Cuellar.

"Like myself, Celso grew up in a pharmacy, so we have a shared connection in how the neighborhood or town pharmacist is viewed in the community," said Dean F. Lamar Pritchard, Ph.D., R.Ph. "As our profession continues to advance, we should nonetheless strive to hold dear the timeless values and character of pharmacists such as Celso by always keeping our patient's well-being foremost in mind. Celso truly has Cougar Red blood pumping through a heart of gold."

Cuellar, who continues to work relief in his native San Antonio at the Hill's Drug Store No. 1 owned by UHCOP classmate Arthur Jamie Siller, R.Ph., said he was "overwhelmed and very humbled by the honor and the number of people who congratulated me."

Although not a pharmacist himself, Cuellar's late father and namesake owned a pharmacy in San Antonio where the younger Celso and his siblings grew up.

"I remember starting as a delivery boy riding my bicycle to

make deliveries, then I moved up to flipping burgers and making floats at the soda fountain — so customer service was always very natural for me," Cuellar said.

Cuellar fondly called back to the early days of his career working for Mading Drugs in Clear Lake, near the entrance to the NASA Johnson Space Center.

"It was such an exciting time; we'd have astronauts come into the pharmacy, and although they were 'down to earth,' they really were celebrities," he said. "At the time, transmissions between the astronauts and Mission Control were broadcast on public radio and, if you drove down the street with your windows open, you could practically listen to the broadcasts the whole way because everybody up and down the street were tuned in."

Bringing a humble humanitarianism with him wherever he went, Cuellar's career included pharmacist and management positions with Kmart and Target, as well as an independent pharmacy owner for 16 years.

"What always brought me great satisfaction is the one-on-one interaction with the patients and being humbled by the great trust they have in you, especially when you're working in communities who may not have the financial resources that others have. They would seek your advice and opinion about investments and other things outside of my area of expertise, which says a lot about how much trust and respect they had in the family pharmacist."

What always brought me great satisfaction is the one-on-one interaction with the patients...

— Celso Cuellar

UHCOP Class of 1966 Golden Cougars



1960s



Several members of the UHCOP Class of 1966 participated in the Golden Cougar Walk during the May 2016 Graduation Commencement ceremony. Pictured above, first row from left, are **Marshall Clouser**, **Jacqueline Hammer Caldcleugh** and **F. Kathleen Boulte**; and, back row, **Earl Bradley**, **Robert W. Dolman**, **Gary Patrick** and **Reed Brooks**. Also celebrating her 50 years in pharmacy was **Sandra Evans Webb**, still hard at

work at San Jacinto Methodist Hospital in Baytown, Texas.

1970s

Ed L. Hunter, R.Ph. (B.S. '74), retired from his position as a compliance officer with the Arizona State Board of Pharmacy (ASBP), where he had worked since 1998. He previously served as a compliance officer in West Texas for the Texas State Board of Pharmacy for 16 years. Prior to his TSBP post, Hunter worked

as Houston-area regional pharmacist for the Texas Department of Human Resources as well as a community pharmacist in the Houston and East Texas areas. Hunter's wife, **Cynthia**, B.A. ('73), M.A. ('76), currently serves as the manager of the Arizona Controlled Substances Prescription Monitoring Program with the ASBP. They currently reside in Goodyear, Ariz.



LaRue Pavia, R.Ph. (B.S. '73), couldn't help stopping by her alma mater to show her granddaughter **Ada Whatley**, 7, her old stomping grounds on their way to a family vacation in Galveston.

1990s



Gloria Davis-Brackins, R.Ph. (B.S. '92), FASCP, recently retired from the Department of Veterans Affairs, after 23 years of dedicated service as a pharmacist to the U.S. Armed Veteran Forces, and her private consulting business, Gloria's Medication Therapy Management Services, PLLC. Davis-Brackins said she intends to continue missionary work with her church, where she serves in the Life Services Ministry and the Deacon Caring Ministry.

Craig R. Frost, MBA, R.Ph. (B.S. '92), formerly Texas division director of Pharmacy for CHI St. Luke's Health, has been promoted to system vice president of Pharmacy Operations for Catholic Health Initiatives based in Englewood, Colo.

2000s

James Plimper, Pharm.D. ('08), and **Timothy Potts, Pharm.D.** ('11), recently co-founded Assure Rx Consulting LLC, a long-term care consultancy based in Houston.



Yousif Rojeab, Ph.D. Pharmaceutics ('07), associate professor at Ohio Northern University Rudolph H. Raabe College of Pharmacy, has been honored with his second consecutive Pharmaceutical and Biomedical Sciences Outstanding Professor of the Year Award. Rojeab is pictured with daughter Zeena and wife Alaa.

Dhara (Shah) Surati, Pharm.D. ('08), BCPS, UHCOP clinical assistant professor and CHI St. Luke's Health-Baylor St. Luke's Medical Center clinical specialist, and husband Divyang Surati welcomed Arjun Surati to the world in June 2016.



2010s

Mary Beth Brinkman, Pharm.D. ('11), Ph.D., has joined HCA TriStar Health's Centennial Medical Center in Nashville, Tenn., as an infectious disease clinical pharmacy specialist.

Alumni Earn Poster Props at TSHP Annual Seminar

Several UHCOP alumni were among the top honorees in the Texas Society of Health-System Pharmacists Research & Education Foundation Poster Competition at the TSHP 2016 Annual Seminar in Frisco, Texas.



A clinical specialist at TIRR Memorial Hermann, **Carolyn Alessi, Pharm.D.** ('01), won first place in the Clinical category for her project, "Creating A Synergist Model: Innovative Pharmacy Practice in A Long-Term Care and Skilled Nursing Facility." The project was coauthored by fellow alumna **Lourdes M. Cuéllar, M.S.** ('79), R.Ph. (B.S. '73), FASHP, TIRR

administrative director of Pharmacy, Medical Outpatient Clinics and Clinical Support Services.

Phuoc Anne Nguyen, Pharm.D., M.S. ('15), PPMI/ Transitions of Care clinical pharmacy specialist at The University of Texas-MD Anderson Cancer Center, was a coauthor on the poster entitled "The Implementation of

Discharge Follow-up Phone Calls at a Comprehensive Cancer Center," which received an Honorable Mention in the Resident-PGY1 category.



Patti J. Romeril, Pharm.D. ('97), who serves as system director of Clinical Pharmacy Services for Memorial Hermann Health System, earned an Honorable Mention in the Practitioner-Administrative category for her project, "Utilizing Clinical Decision Support to Improve Medication Management in the Elderly."

In addition, **Sarah Lake-Wallace, M.S., Pharm.D.** ('00), TIRR Memorial Hermann pharmacy manager, coauthored the poster "Technician Leadership and ADC Management - Improving Efficiency and Nurse Satisfaction While Decreasing Costs," which received an Honorable Mention in the Technician Category. Lake-Wallace also was installed as chair of TSHP's Professional Affairs Council at the meeting.

Alumni Mailbox

Quintin Broussard, Pharm.D. ('15), has joined California Health Sciences University in Fresno, Calif., as an assistant professor of Critical Care.

Abhishek Chitnis, Ph.D. Pharmaceutical Health Outcomes and Policy ('12), M.S. ('09), has joined Johnson & Johnson as associate director of Real World Analytics and Research.

Rodney Cox, Pharm.D., M.S. ('11), has been promoted to director of Pharmacy for Memorial Hermann-The Woodlands Hospital in The Woodlands, Texas.

Laura Edmundson, Pharm.D. ('10), has been promoted to director of Clinical Pharmacy Programs for Lufkin, Texas-based Brookshire Brothers Inc.



Trey Fisher, Pharm.D. ('14), pharmacy manager at Costco in Humble, and wife, Dorothy, welcomed Amara Jade Fisher into the world in February 2016. *(photo courtesy of Designs by Karinda Photography)*

Timothy Potts, Pharm.D. ('11), co-founded Assure Rx Consulting LLC, a long-term care consultancy based in Houston, with fellow alumnus James Plimper, Pharm.D. ('08).



'Future Pharmacists' Going Through Growth Spurt

Pharmacy's future is in good hands — albeit tiny ones, for now — as UHCOP alumni, faculty, staff and students are showing their pride and joy decked out in free "Future Pharmacist" from their other pride and joy: UHCOP. Pictured are, from top left, 2016 Pharm.D. grad Ryan May and daughter Vera; Alexander Abifaker, son of Fay

Abilmouna-Abifaker, Pharm.D. ('04); Amara Jade Fisher, daughter of Trey Fisher, Pharm.D. ('14); Cora Whatley, granddaughter of LaRue Pavia, R.Ph. (B.S. '73); Molly Ann Ressler, daughter of Erin Ressler, Pharm.D. ('10); and Dianne and Daniel Wanat, wife and son of UHCOP faculty member Matthew Wanat.



Greetings fellow alumni and friends,



I am honored to serve as the University of Houston College of Pharmacy Alumni Board President for the 2016-2017 academic year. With more than 18,000 UH alumni members, your Pharmacy Alumni Board represents the interests of our alumni body to the college. Together with our college's administration, we will address opportunities and challenges that will help the University of Houston College of Pharmacy to advance the profession of pharmacy and help to meet the 2020 Vision Strategic Plan.

We all have great memories of our student days, and our current students are making their own memories each year. Our goal this year is to foster the shared connection between alumni and students, from the initial opportunity at admission events, interviewing, and social events throughout the year.

No matter where you work and live, you can stay involved with the student-to-alumni experience. Invite a local student to attend a pharmacy conference, make time to sit and develop that mentor-mentee relationship, listen and learn about new advancements through a student pharmacist perspective, and challenge yourself to adapt and excel the profession together.

We recognize that each of you may be in a different stage of life, whether you just graduated, are newly employed, advancing your career or starting a family, making a move into a second career, or merging into retirement. Whichever stage you are in, you share that important common thread: The University of Houston College of Pharmacy. You are an integral part of a network that spans generations and that lasts a lifetime.

Please join me in making this a rewarding year.

Sincerely,

Denise Martinez Jonathan, Pharm.D., R.Ph.

Director of Pharmacy, Health Plan Services at Kelsey-Seybold Clinic
Residency Program Director for Kelsey-Seybold Clinic PGY-1 Managed Care Residency Program
UHCOP Class of 2005

Fall 2016 Back to School Social



Renee Prescott ('02), Alex Varkey ('05) and Lynn Simpson ('97)



Minh Hong ('16) and Andrew Nguyen ('15)



Bruce Biundo ('61), student Carolyn Schardt and Faizan Sattar ('16)



Students Joann Sorn, Katrina Watson and Amy Kiley



Bamrom Jonathan ('02), Kirti Ghandi ('09), and Candace Bailey ('08)

RECONNECTING COUGARS



San Antonio Reunion



The annual reunion of the early 1960s classes continued into 2016, with Golden Coogs joined by Dean Lamar Pritchard during their weekend of sight-seeing on San Antonio's RiverWalk and at Hemisphere Park as well as enjoying Alamo City's array of fine dining. Attendees included, clockwise from top left, Jean Anne and Charles Anselmo ('62), and Ree and Robert Mere ('62); top right, Leighton Stallones ('62), Jolie Alker ('63), and Michael O'Neill ('62); bottom left, Betty and Eddie Talley ('62); and left, Linda and Richard Schultz ('63).

Meet the Dean: Wimberley

UHCOP Dean Lamar Pritchard, back row far left, and Development Director Matt Perkins, back row far right, were welcomed to a "Meet the Dean Reception" at the riverfront home of John Espinoza (Technology '77) and Dean's Advisory Council member Mary Espinoza (Pharmacy '80) in Wimberley, Texas. At the event were, back row, Celso Cuellar (Pharmacy '65), Larry Alvarado, Keith Hughey and Ron Thompson; and, front row, Vernon King, John Espinoza (kneeling), Mary Espinoza, Bill Morgan (Pharmacy '63), Margie Morgan, Sandy Hughey, Ron Nielson and Howard Wiatrek.



Houston Reunion



Top, alumni and their family, as well as UHCOP faculty and staff, enjoyed food, fun and games at Dave & Busters during the June 4-5 Houston Reunion were, back row, Sean Yarbrough ('05), Alex Barboza ('06), Omar Sakkal ('05), Frank Torres ('06), Jeena Connor ('06), Todd Connor ('07) and, front row, Matt Perkins, college development director, Julianna Fernandez ('06), clinical assistant professor, Liz Coyle, assistant dean and clinical professor, Nancy Ordonez ('98), assistant dean and clinical associate professor, and Lynn Simpson ('97), clinical associate professor.

Left, hitting the town during the Houston Reunion were, front row, Athena (Huang) Janak ('11), Chase Janak ('09), Anuja Parikh ('06), Frank Torres ('06), and Jeena Connor ('06), and, back row, Todd Connor ('07), and Isaac Lopez ('06).



Houston Alumni Social

UH Pharm.D. alumni organized a recent after-work social at a Houston hotspot to catch up with classmates and other fellow Cougars. In attendance were, seated first row, Renee Prescott ('02), Andrea Mora Luce ('07) and Lisa Mathew ('05); standing middle row, Brice Labruzzo Mohundro ('05), Mark Casal ('02), Briget Martinez ('07), Sean Yarbrough (Pharm.D. '05), Lena Vennookkaran James ('05), Thuy (Lisa) Tran ('05), Denise Jonathan ('05), Bamrom Jonathan ('02); and, standing back row, Bindhu Batra ('98), Faizan Sattar ('16), Omar Sakkal ('05), and Alex Varkey ('05).

PK/PD PIONEER

FAMILY CREATES ENDOWMENT IN MEMORY OF LATE ALUMNA, NASA CHIEF PHARMACOLOGIST

With the passing of alumna **Lakshmi Putcha** in September 2015, her family, friends and neighbors not only lost an individual described as a “force of nature,” but the world lost a true pioneer and innovator whose vast impact in the exploration of space — and the role of women in science — may never be fully measured.

Innovators in their own right, her husband, **Mallik Putcha**, and their son, **Girish Putcha**, M.D., Ph.D., have established the Dr. Lakshmi Putcha Endowment in Pharmaceutics to assist aspiring young scientists with their education.

Putcha served as chief pharmacologist at NASA-Johnson Space Center and technical manager of the Pharmacotherapeutics Laboratories at JSC. She earned two master’s degrees, including an M.S. in Pharmacy, and a doctorate in Biopharmaceutics and Clinical Pharmacokinetics from UH. Putcha started her NASA career as a post-doctoral fellow in 1982 and went on to develop cutting-edge applications for astronaut health care operations in space and on Earth.

As the only clinical pharmacologist at NASA, she was responsible for directing and conducting the research and development

program for optimizing pharmacotherapeutics in space. Her contributions to the field of pharmacotherapeutics include significantly expanding knowledge of the wide-ranging effects of spaceflight on humans, as well as resolving critical human health and safety issues for future missions, including ones to Mars.

Her contributions to NASA research were studies on the bioavailability and performance effects of promethazine during spaceflight and bioavailability and pharmacodynamics of promethazine in human subjects; bioavailability of scopolamine dosage forms and combination dosage form with dextroamphetamine after oral administration in human subjects; pharmacokinetics (PK) and contributing physiological changes



during spaceflight; a methods-validation protocol for estimating gastrointestinal (GI) motility and drug-induced motility changes; and the effects of simulated microgravity on PK and GI function.

A sampling of the technologies and drug systems she pioneered at NASA include novel technology proof-of-concept studies on a patented biological same preservative technology; portable microfluidic chemical detection system; bioinformatics; endoscopic diagnostic technology, including Pillcam® and SmartPill®; Lab-on-a-Chip technology; an investigational new drug intranasal scopolamine formulation; intranasal formulation of promethazine; and microencapsulated promethazine via spinning-disk atomization.

A Fellow of the American College of Clinical Pharmacology, Dr. Putcha held adjunct faculty appointments at several institutions, including UHCOP. Putcha was the recipient of numerous honors and awards at NASA, including the Special Space Flight Achievement Award, Certificate of Commendation and Space Act Award, as well as research support from such entities as the National Institutes of Health and the National Space Biomedical Research Institute.

Vasanta Lakshmi Putcha

Dr. Putcha was driven by an insatiable curiosity and an uncompromising pursuit for excellence. In her own words, the guiding principle of her life was, “if you can dream it, you can achieve it.”

This passion infused all aspects of her personality — she was a rasika (musical connoisseur) in the truest sense of the word; a gardener and botanist extraordinaire; a gifted writer; and a fount of wisdom and experience.

Mading Welcomes Society Inductees, Bestows Red Coats

The Mading Society recently welcomed five new members and bestowed red coats to three current members for milestone giving to UH College of Pharmacy.

The 2016 inductees were:

Roy K. Armstrong, R.Ph. (B.S. '84), currently serving as Houston-area regional healthcare director, has been with Walgreens for more than 30 years. A member of the UHCOP Dean's Advisory Council, Armstrong has provided gifts in support of the Health and Biomedical Sciences Building 2 campaign and the Student National Pharmaceutical Association as well as being a regular player in the annual UHCOP Scholarship Golf Tournament.

Barbara Lewis, MA, LPC, R.Ph. (B.S. '74), former UHCOP assistant dean of Student & Professional Affairs and clinical assistant professor, is currently enjoying retirement following her departure from the college in 2014 after 20 years of service. In addition to her past scholarship support for students experiencing a financial or life-event crisis, Lewis recently provided a major gift in support of the college's Pharm.D. Student Services Office.

Mallik Putcha, M.S. (Clear Lake '00), MBA (Bauer '79), MSEE ('79), is an independent consultant in systems engineering and husband of late alumna and NASA Chief Pharmacologist **Lakshmi Putcha**, Ph.D. ('81), M.S. ('75). The Putcha family has established four endowments for students in several disciplines at UH and UH-Clear Lake. In addition to the Dr. Lakshmi Putcha Endowment in Pharmaceuticals, the family has created endowments in Electrical

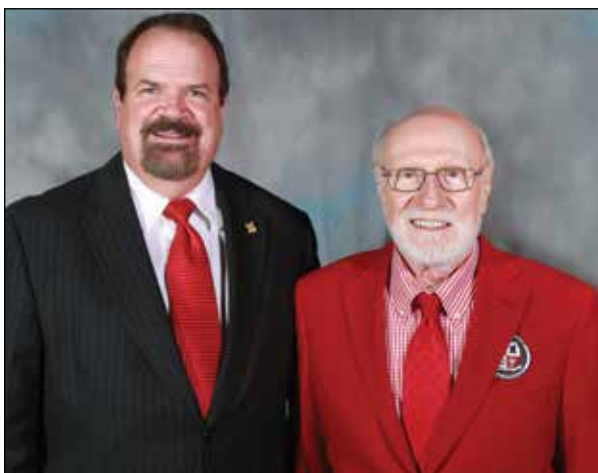


UHCOP alumnus Roy Armstrong, UH/UH-Clear Lake alumnus Mallik Putcha and UHCOP alumna Barbara Lewis were among the Mading Society's 2016 inductees.

and Computer Engineering, Industrial Engineering and Bauer College of Business, and Software Engineering.

Jesus Saenz, R.Ph., and **Elvia Saenz**, R.Ph. (B.S. '74), are celebrating three decades of ownership of the Saenz Medical Pharmacy group, a chain of seven Rio Grande Valley independent pharmacies offering a range of services, including compounding and durable medical equipment. Their support for the college also Five of the seven pharmacists/pharmacy managers on staff are UHCOP alumni. The Saenzes and Elvia's brother, Alonso Canto, also have endowed a scholarship for UHCOP Pharm.D. students.

The Mading Society also recognized three longtime members whose support for the college has exceeded the milestone of \$100,000 in lifetime giving. In addition to their past support, this year's "Red Coat" recipients provided the leading gifts to the college's new home in Health and Biomedical Sciences Building 2. **Manmeet and Paul Likhari** have created the Likhari Pharmaceutical Research Core Laboratory, and PCCA and Chief Executive Officer **David Sparks** has established the PCCA Compounding & Sterile Products Laboratory.



Dean Lamar Pritchard presents red coats for milestone giving to, above, David Sparks and, right, Manmeet Likhari and Paul Likhari.



Golf Classic Raises \$11K for Students

Alumni and friends of UH College of Pharmacy drove the “pharmacy fairway” to raise nearly \$11,400 for Pharm.D. students at the 2016 UHCOP Golf Classic June 4 at Wildcat Golf Club.

This year’s event drew 50 players to take on Wildcat’s challenging Lakes course. The tournament — traditionally held on the first Monday in June — benefits UHCOP Pharm.D. students through direct scholarship and travel awards as well as supporting areas of greatest need not supported by state funds.

UHCOP and the Golf Tournament Committee extend their sincere appreciation for the 2016 Golf Classic sponsors:

Gold — Jeffrey B. Harrison (Pharm.D. '05) and Jennifer Harrison (Pharm.D. '05);

Silver — Brookshire Brothers, Katherine Clouser Hunt (Pharm.D. '12), Chi Ngo-Chen (Pharm.D. '02) and RSM US LLP, and Walgreens;

Red & White — Doug Eikenburg, Melchor Garza (B.S. '92), Don Lackey (B.S. '81), Kip Lackey & Pitney Bowes Foundation, Magnolia Pharmacy, and David (Pharm.D. '98) and Sarah (Pharm.D. '00) Wallace; and

Cougar — Joe Ickes (B.S. '73) and Marsha Ickes (Bauer '80), and Jim Rutan (B.S. '92).

In addition, the following businesses and individuals provided in-kind gifts to help thank tournament participants: ClubCorp Golf Clubs (Lake Windcrest Golf Club/Panther Trail Golf Club), Doug Eikenburg, FastSigns/truecolorGRAPHICS/University Copy Center, Golfsmith, Greenpark Compounding Pharmacy, Kendra Scott Jewelry, Chip Lambert, Luby’s Fuddrucker’s Restaurants, Laura Sampson & UH Mens Basketball, Smith & Wollensky, Smoothie King, and UH Sports Equipment & UH Football.

The top teams at this year’s tournament were:

First Place, Low Gross Score — Melchor Garza (B.S. '92), Johnny Hargroue, Chuck Kneip (B.S. '92) and Jim Rutan (B.S. '92);

Second Place, Low Gross Score — Steve Barnett, Fred Emmite (B.S. '77), Dick Schneider and Rick Schneider (Pharm.D. '04);

First Place, Low Net Score — Paul Lott (B.S. '84), Denis Rottler, Jeff Ewing and Clayton Boyd (Pharm.D. '10); and

Second Place, Low Net Score — Chuck Posterick (B.S. '77),



Above, the team of Chuck Kneip, Jim Rutan, Melchor Garza and Johnny Hargroue captured the First Place Low Gross trophy. Below, the team of Jeff Ewing, Paul Lott, Clayton Boyd and Denis Rottler took home the First Place Low Net title.



Leslie Myers (B.S. '94), Terrence Kennedy and Phil Erdmann.

Winners of the individual competitions were student Sarah Theriault — Closest to the Pin, and Andy Haeggquist (Pharm.D. '13) — Longest Drive.

The 2017 event will be held Monday, June 5, at Wildcat Golf Club’s Highlands course. For more information, please visit the UHCOP Golf Classic webpage at <http://tinyurl.com/uhcop-golf>. Anyone interested in helping the UHCOP Golf Committee host an even bigger and better tournament in 2017 is encouraged to contact committee co-chairs Doug Eikenburg at deikenburg@uh.edu or Liz Coyle ecoyle@uh.edu about volunteer opportunities or suggestions.

SAVE THE DATE: Monday, June 5 • 2017 UHCOP Golf Classic

CAESARS SEEK TO LEAD BY EXAMPLE WITH SCHOLARSHIP



Although they come from different worlds — she is a critical care pharmacist and he is a chemical engineer — Linda Vu Caesar and Greg Caesar share a commitment to paying it forward to future generations on the front line of patient care.

The Caesars recently established the Greg and Linda Vu Caesar Endowed Scholarship to assist UH students in the professional pharmacy or nursing programs. In recognition of their gift, the Caesars were among the college's 2015 Mading Society inductees.

Linda Vu Caesar was a member of the second UHCOP Pharm.D. graduating class in 1998, drawn to the profession's foundation in biology and chemistry. The Houston native fondly remembers the program — and profession — searching for its new identity in a rapidly evolving health care environment.

"There were a lot of similarities to a medical program when we went through, but I don't know if anyone did what we did — a lot of gross anatomy, and even observing an autopsy," Linda said. "But, it was a tremendous experience that gave many of us a sense of being part of something that was progressive and cutting-edge."

"The idea of reinventing yourself and your profession is something that I continually try to stress to our students: You have to go out every day with the mindset of serving not just one — the patients — but also the physicians, the nurses, your fellow pharmacists, and the entire organization."

After graduation, Linda completed a PGY1 residency at South

Texas Methodist Hospital in San Antonio before returning to Houston. She recently marked 13 years with Memorial Hermann Health System, including a decade at The Woodlands Hospital where she is an internal medicine/ICU pharmacist and preceptor.

"I love it; you're on the floor, doing interventions, medication-use evaluations, working on a multidisciplinary team," Linda said.

Originally from the Carolinas, Greg graduated from Virginia Tech with a chemical engineering degree in 1998 and moved to Houston to work at the Exxon (now ExxonMobil) Refinery in Baytown as a project/process engineer. He now works as a commercial manager at ExxonMobil's headquarters in The Woodlands.

"We're at a position in our careers to give back and help the younger generation see how they can make a difference," Greg said. "We were blessed to come to the realization where you're a dual career family, you've recovered from college debts, bought a home, etc., and look for opportunities to give back."

In setting up their endowment, the Caesars took advantage of a three-to-one matching program at ExxonMobil. The Caesars said they hoped their gift would not only help students achieve their education and career goals, but also illustrate the importance of education to their 10- and 7-year-old boys and potentially encourage others to make an investment in the future.

"We want to encourage the perspective of not looking at your job simply as what it can give you, but what you can give to the profession, whatever that may be," Linda said.

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HBSB2 Groundbreaking



Members of the UHCOP Dean's Advisory Council, Dean Lamar Pritchard, and UH Vice Chancellor for Academic Affairs and Provost Paula Myrick-Short at the Health and Biomedical Sciences Building 2 groundbreaking ceremony this spring. Construction of the college's new home is on track for a June 2017 completion.