INTERACTIONS

UNIVERSITY OF HOUSTON COLLEGE OF PHARMACY | VOLUME 12



A message from



As Ralph Waldo Emerson wrote, "The purpose of life is not to be happy. It is to be useful, to be honorable, to be compassionate, to have it make some difference that you have lived and lived well." Those words are possibly more important today than ever before, as our nation — our world — navigate through a viral pandemic and the economic fallout the likes of which most of us have never experienced. We must also work to address health disparities and inequities in our underserved communities amid the greatest social upheaval of the past half-century.

Yet, we must not forget the other epidemic — officially designated as a public health emergency in October 2017 — that continues to plague our communities: misuse of opioids and other controlled substances. In 2016, our college answered the American Association of Colleges of Pharmacy's call for members to educate students on life-saving interventions, including opioid-reversal medications and counseling to patients and others close to those at-risk of misuse. Our commitment to reducing further tragedies from overdose deaths and hospitalizations as well as the emotional and psychological toll on all those affected by prescription drug misuse has gone a step further with the creation of The Prescription Drug Misuse Education and Research (PREMIER) Center. Capably led by faculty members Rajender Aparasu, Doug Thornton and Matthew Wanat, the center aims to be the primary resource in Texas for leading research on controlled substance prescription medications, educating key stakeholders involved in the prescribing and dispensing of prescription medications, and developing educational opportunities for practitioners and professional students.

Since the last issue, we've unfortunately lost several beloved members of the UHCOP family: former Professor Bhagavan "Baggie" Jandhyala, alumnus and former professor James T. McCarty, alumnus and Dean's Advisory Council member John J. Lovoi Sr. They will certainly be missed, and our hearts go out to their families, colleagues and friends. At this same time, we have had to say farewell and happy retirement to three phenomenal team members — Doug Eikenburg, Lindsay Schwarz and Andrea Smesny — who played major roles in making the college a national force in teaching and research. However, we are fortunate to have tremendous successors such as Paige Pitman, Kimberly Nguyen, Ashok Kumar, and MariVi Tejada-Simon to continue building upon our legacy of excellence.

This legacy is being nurtured and protected today through the ongoing successes our students, faculty, and alumni. Our students continue to make us proud while also making history — the APhA-ASP National Patient Counseling Competition's top 10 and our chapter capturing the first back-to-back national Student College of Clinical Pharmacy 'best' chapter awards, not to mention several national awards and officer elections or appointments for our UHCOP Phi Lambda Sigma and the Student National Pharmaceutical Association chapters and members. With new college records being set for research and a third consecutive year of state-best first-time NAPLEX pass rates, our college is now ranked 31st in the nation among 134 pharmacy ranked institutions by US News & World Report. Our faculty are making impressive progress in the discovery and development of life-saving novel therapeutics and targets in everything from cancer to cardiovascular disease to diabetes and infectious diseases, and our alumni continue to distinguish themselves in service to their patients and leadership in their profession.

It is indeed an honor and privilege to serve as your dean, and I thank you for your loyal support of our mission. Our UHCOP is definitely "living well."

Longue vie et prospérité.,

F. Lamar Pritchard, Ph.D., R.Ph. Dean, College of Pharmacy



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Pritchard Promotes Pitman, Nguyen

With the retirement of UHCOP Executive Association Dean Andrea Smesny, Pharm.D. ('98), MPH, in January 2020, Dean F. Lamar Pritchard, Ph.D., R.Ph., announced the promotion of two administrators, faculty members and alumni of the college: Paige Pitman, Pharm.D., MBA ('03), B.S. Pharmacy ('94), and Kimberly Nguyen, Pharm.D. ('02).

Pitman has been appointed as Smesny's successor in the role of executive associate dean. Pitman most recently served as assistant dean of Student and Professional Affairs since 2014, and previously served as director of Pharm.D. Admissions and Recruiting.

A clinical assistant professor in the college, Pitman previously worked as a pharmacy manager, clinical coordinator and clinical pharmacist at the University of Texas Medical Branch in Galveston and CHI





Baylor St. Luke's Medical Center.

Nguyen, a clinical assistant professor, has been promoted to succeed Pitman as assistant dean of Student and Professional Affairs. Nguyen joined the college from Houston Methodist Hospital, where she had served in clinical specialist positions in Cardiology and Internal Medicine beginning in 2004.

Nguyen also developed and coordinated the Methodist Observership Program, which offered P1 and P2 pharmacy students early exposure to clinical/health-system pharmacy practice and environment.

Nguyen earned several citations during her time at HMH, including the Recognition of Excellence in Clinical Intervention Documentation; Recognition of Integrity and Versatility; ICARE Hospital Award nomination; and Certificate of Excellence-Speaker in the Grand Nursing Rounds.

After graduating from UHCOP, Nguyen completed a PGY1 pharmacy practice residency at Dallas Veterans Affairs Medical Center and a PGY2 Infectious Diseases residency at the University of Texas-M.D. Anderson Cancer Center.

Her teaching experience includes faculty appointments at Texas Southern University College of Pharmacy & Health Sciences and Texas Tech University Health Sciences Center School of Pharmacy as well as a student/resident preceptor and mentor since 2003.





Homecoming Tailgate 2019





UHCOP and the Pharmacy Alumni Association had another great turnout for the 2019 UH Homecoming Game Tailgate in November. Among the attendees were Dean Lamar Pritchard, Beth Borck (CLASS '03), Bruce Biundo ('61), George Harris ('63), Nick Martino ('64), and Alton Kanak ('69); students Rudy Saenz, Mario Gutierrez, Alex Cherian and Julian Garza with UH President Renu Khator (center); students Nancy Aldape, Briana Reyna (back), Gutierrez, and Greissy Jerezano; Borck, Angela Andries-Lott ('84), Paul Lott ('84) and Pritchard; Sean (UHCL MBA '04), Michael, James and Maureen ('93) Powers; Rusol Karralli ('12, '14), Gutierrez, and Paige Pitman ('94, Akinwale and Milan Fisher; Kathy and Doug Eikenburg, and David and Meagan Wallace.







Research Record

UHCOP 5 YEAR SPONSORED FUNDS RECEIVED

FY 2018 \$10,874,164
FY 2017 \$9,380,426
FY 2016 \$9,313,119
FY 2015 \$5,709,560
FY 2014 \$4,485,695

Source: American Association of Colleges of Pharmacy

College Sets Record \$10.87 Million in Grant Funding, Advances to 23rd in AACP National Research Rankings

UH College of Pharmacy has climbed to 23rd in research funding from all sources and 25th in grants from the National Institutes of Health and other federal sources in Fiscal Year 2018 among peer institutions across the nation, according to data released in 2019 by the American Association of Colleges of Pharmacy (AACP).

According to the AACP data, UHCOP recorded \$10.87 million in research funding

from all sources, which includes \$9.02 million in research funding from NIH and other federal sources.

The AACP's Funded Grant Institutional Rankings report for FY2018, which spans the period from Oct. 1, 2017, to Sept. 30, 2018, captures institutional direct and indirect (subcontracted) research support from NIH and other federal agencies, state agencies, foundations and associations, the pharmaceutical

industry and other extramural sources.

"This is an outstanding achievement by our highly productive faculty members who are advancing the college forward while seeking innovative solutions and therapies to many life-threatening and debilitating illnesses and other challenges to the wellbeing of our communities and patients across the state, the U.S. and the world," said UHCOP Dean F. Lamar Pritchard, Ph.D., R.Ph.

Full Steam Ahead

College Continues Upward Trajectory Thanks to Solid Alumni Performance on NAPLEX, Rise in Reputational Rankings

Of course, UH College of Pharmacy's place as one of the best institutions in the country is no surprise to alumni, faculty and students, but its strong and steady performance on national licensure exams and reputational ratings from fellow pharmacy schools and colleges is removing any question of the college's standing as a top tier institution.

In the 2019 results from the National Association of Boards of Pharmacy (NABP) released in February 2020, UHCOP Pharm.D. graduates achieved the highest pass rate in Texas for the third consecutive year — and a top 10 place in the nation — on the national licensure exam to practice professional pharmacy in the U.S.

According the NABP report, UHCOP graduates achieved a 97.58% firsttime pass rate on the North American Pharmacy Licensure Examination (NAPLEX) for the reported period in 2019. The national pass rate for the same period was 88.34% among all 117 Pharm.D. programs accredited by the Accreditation Council for Pharmacy Education. Among the top 10 Pharm.D. programs with 100 or more test-takers in 2019, UHCOP ranked second in the nation.

UHCOP graduates achieved first-time NAPLEX pass rates of 97.39% in 2018 (vs. the national average of 89.46%) and 99.05% in 2017 (vs. the national average of 86.28%), as reported by the NABP. In addition to ranking the highest in the state, the college's pass rate in 2017 was the third highest in the nation.

In addition, according to a statistical analysis of NABP data by the website ClinCALC.com, UHCOP achieved the fifth highest national 11-year mean for NAPLEX first-time pass rates among accredited U.S. peer institutions. The mean of the college's first-time pass rate from 2009 to 2019 is 98.2%, only one-tenth of a percentage point behind the next highest institution and only 1 percentage point behind the highest institution overall.

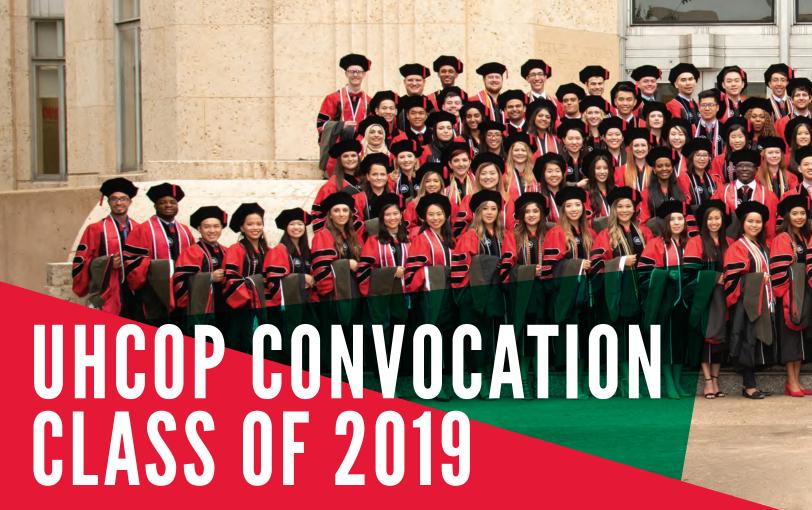
In the US News & World Report's "2021 Best Pharmacy Schools" rankings released in March 2020, UHCOP climbed to 31st in the nation among the 134 ranked programs. USNWR updates its rankings every four years. UHCOP was ranked 44th place in the 2017 rankings, 48th in the 2013 rankings, and 51st in the 2009 rankings.

According to the USNWR website, the ranking methodology is based on survey responses of academics at peer institutions, with respondents rating "the academic quality of programs on a scale of 1 (marginal) to 5 (outstanding)." Pritchard cited several factors that likely accounted for the college's steady rise in the rankings. Among these factors are:

- · Consistently high NAPLEX first-time pass rates;
- Completion of the college's 138,000-square-foot, state-of-the-art academic and research facility in Health 2;

U.S. 11-year NAPLEX Mean Texas NAPLEX 3 Years in Row #31 **USNWR Best Pharmacy School**

- Increased research funding, including a 217% increase from Fiscal Year 2013 to Fiscal Year 2018 (ranking 23rd in the nation by the American Association of Colleges of Pharmacy);
- · Recruitment of innovative translational researchers to further strengthen the college's existing highly productive faculty; and
- An array of national awards, honors and leadership positions to students and faculty members.



Spring 2019

DOCTOR OF PHARMACY Rafael David Andujar Angelica Asadi Agata Bachleda 1 Sean Mikel Badal 1 Hadi N. Barghouti Kyle Khuong Bui Alfonso Miguel Bulseco Take Donell Burkhalter 3 Anna Elizabeth Cantwell 2 Hannah Yan Chan Jaykumar V. Chauhan Ibrahim Ahmed Chowdhury Hannah Marie Christian Stephanie Mercedes Leos Crowley 3 Allina S. Dawoowa 3 Kortney Rhae Dennis Thien-Song Thi Diep ³ An Tri Dieu² Kenny Dinh Diane Dreucean 1 Minh Alexander Duong² Rohan Dwivedi Hoda J. El-Haj 1 Francis Chukwuemezie Emelogu Cristina Annalee Enders 2 Bradley Thomas Endres 2 Jordan David Geissinger Jewel Ann George Lauren Greer Goldberg 3 Ervin James Goodrum 3 Serenity L. Gracia 3 Cassie I. Hidalgo

Emily Weimy Hinh Johnny M. Hoang 1 James Holmes Nathan Robert Holub ³ Ngoc T. Huynh Donald Uchenna Iriele Chimaobi O. Iroegbu Tommy Yu Jiang Elizabeth Ashley Johnson Simerjit Kaur Kavya Kolavasi² Ashley G. Kwan Hong Thu Le 1 Laura Le 2 Thanh Nguyen Thanh Le 1 Tot Thi Thanh Le Tuong Vinh Le Julie Le Pham 2 Bryan C. Lee Da Eun Lee Eunii Lee Yung Heather Leung 3 Lumeng Li Sean Liang 1 Sheng Liang Yi Liu 3 Lucas E. Mann Demi Danielle Martinez 3 Olga Tande Meboka Milen Efrem Melles Lucas Anthony Merten 1 Iustin David Miller 3 Sara Miriamali 3 Erica Lisbeth Morales 1

Michael A. Mouton Kelsey Lynn Mullikin Brittany Melissa Musselman Diana Nemry Eric Tat Chun Ng An Hong Ngo Willy Ngo Bao T. Nguyen 2 Chelsea Tuong Vy Nguyen 1 Dan T. Nguyen Jasmine Do Nguyen Kristina Do Nguyen Larry Nguyen 3 Michael Thanh Nguyen Ngan Bao Nguyen 1 Pauline Hao Hanh Nguyen Sheryl Chinelo Nwankwo 1 Jacob Ernst Oberrender Kehinde Modupe Oresusi³ Lorenzo Louis Q. Paglicawan Parmida Parvaz 3 Meet Manaswikumar Patel 3 Amy Phuong-Khanh Pham Jessica Rochelle Pollock Maria Graziela Putnam² Kristofer Allen Rice Stephen Thomas Roeder Julia Yeondam Roh 3 Sannya Salim Samantha Zenat Sangabi Dain Song Joann Volark Sorn Mattie Ruth Wheat Talley Sarah Gates Theriault 2

Arlene Thomas Tommy Lee Tieu ³ Maria Nu Ton Brian T. Tran 3 Doan Tran Thi Tran Ngoc-Linh Thi Tran Nils Cong Tran Taylor N. Troxlar 3 Jane Quynh Giao Truong 3 Shannon Varghese Christine Thanh Vo² Chien Dinh Vu³ Craig Ray Whitaker Melissa Faith Wilcox Ryan Nichole Wozniewicz Maryam Zabeeh 1 Noor F. Zaidan ³ Florentino Zuniga

PHARMACY CERTIFICATE IN HISPANIC HEALTHCARE Demi Danielle Martinez

M.S., PHARMACY LEADERSHIP & ADMINISTRATION Akeem Olayinka Bale Stella Mihae Kim Megan McGugan Alan Paul Moyer Illiana Rangel Sarah Elizabeth Redmond Elizabeth Mary Villanueva



photos by Eddy Matchette and Kris Kehe

Summer-Fall 2018

DOCTOR OF PHARMACY Richard Nzubechukwu Ajumobi Matt Edrick C. Bactad Thomas Tran Julie Vu

PH.D., PHARMACEUTICAL HEALTH OUTCOMES & POLICY Navneet Upadhyay

PH.D., PHARMACEUTICS Henrietta Dzigbordi Abodakpi Changhong Yun
Manas Pravin Gupte

PH.D., PHARMACOLOGY Suchi Raghunathan Fatin Atrooz Sameer Shivnath Nikhar

² Magna Cum Laude Honors

EXCEPTIONAL EDUCATORS

UHCOP Honors Practitioners, Site for Role in Preparing Future Professional Pharmacists

At its Class of 2019 Graduation Awards Reception, UH College of Pharmacy honored several pharmacy practitioners and an institutional site for excellence in experiential education during the 2018-19 academic year.

"We are indeed fortunate to have such outstanding role models, mentors, educators and practitioners within our preceptor network," said UHCOP Dean and Professor F. Lamar Pritchard, Ph.D., R.Ph. "We are immensely grateful for our preceptor partnerships from across the patient care continuum and the special role that preceptors serve in the evolution of a professional student to a practice-ready clinical pharmacist."

Health System Pharmacy of the Year Award

DHR Health (formerly Doctors Hospital at Renaissance) in Edinburgh;

Hospital Pharmacy Preceptor of the Year Award

Rebecca Koch, Pharm.D., BCCCP, pharmacy clinical specialist in Emergency Medicine, CHI St. Luke's Health - Sugar Land Hospital;

Institutional Patient Care Preceptor of the Year

Scott Ferren, Pharm.D. ('15), clinical practice specialist -Infectious Diseases, University of Texas Medical Branch;

Community Preceptor Award

Reyo Ordanza, Pharm.D. ('08), pharmacy manager, Walgreens;

Ambulatory Care Preceptor of the Year Award

Bernadette Asias-Dinh, Pharm.D. ('11), BCACP, BCPS, CDE, clinical assistant professor and ambulatory care clinical pharmacist, Vecino Health Centers' Denver Harbor Clinic; and

Faculty Preceptor of the Year Award

Kim K. Birtcher, Pharm.D., M.S., BCPS (AQ Cardiology), CDE, FNLA, clinical professor at UHCOP and clinical pharmacist at Kelsey-Seybold Clinic's Cardiology Clinic.







Dean Lamar Pritchard present the Hospital Pharmacy Preceptor of the Year Award to CHI St. Luke's Health - Sugar Land Hospital's Rebecca Koch (top). Kim Birtcher (middle) receives the Faculty Preceptor of the Year Award, and Reyo Odanza (bottom), Walgreens Pharmacy Manager, receives the Community Preceptor Award.

UHCOP Launches PharMentor Program to Link Students, Practitioners

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In order to help current UHCOP Pharm.D. students in their professional development and career networking, the office of UHCOP Student Services has created the PharMentor Program.

For this program, the college is compiling a Pharmacy Mentor database of contact and career information from its alumni, preceptors and friends with the intent of making it available to current UHCOP students via the Blackboard Learn website (an internal, password-protected database) for students to seek guidance and mentorship in their chosen area of practice.

The PharMentor program will be a student-driven program based upon career focus areas. The level of involvement/ frequency of interactions can vary with mentors' availability.

Those interested in serving as a PharMentor are asked to complete the form at https://tinyurl.com/uhcop-mentor-register. Volunteer mentors also are asked to provide a photo via email to Kimberly Nguyen, assistant dean of Professional & Students Services, at kanguyen18@uh.edu.

Harrison, Lovoi Earn Top College Honors

Two UH College of Pharmacy alumni separated by five decades were recognized with the college's top awards at the 2019 Mading Society Dinner & Induction in October.

John J. "Johnny" Lovoi, B.S. ('62), who subsequently passed in February 2020, was recognized at the October event with the 2019 UHCOP Meritorious Achievement Award. Lovoi had served as president and co-owner of Lovoi & Sons Pharmacy Inc. in Beaumont for 53 years before his retirement in 2015.

In addition to his longtime service to the UHCOP Dean's Advisory Council, Lovoi and wife, Paula, have been members of the Mading Society - and recent "Red Coat" level honorees for their generous support of pharmacy education through their scholarship endowment and named gift for the college's Health 2 building.

In introducing Lovoi at the event, Dean F. Lamar Pritchard, Ph.D., R.Ph., noted that "Johnny epitomizes the special character that we as pharmacists and health practitioners all strive to emulate and that we hopefully are passing on to the next generation.

"Johnny has truly been a friend of the college and a role model for all of us — not only to those of us in the pharmacy profession, but through his life in service to others, born of a strong sense of community, faith and family."

Jeff B. Harrison, Pharm.D., pharmacy manager for CVS pharmacy in Schertz, Texas, was recognized as the college's 2019 Alumnus Pharmacist of the Year. Pritchard thanked Harrison for his loyal support of the annual UHCOP Golf Classic scholarship event since shortly after graduation. In recent years, Harrison has been a top



Dean Lamar Pritchard presents the UHCOP Meritorious Achievement Award to the late John J. Lovoi Sr., accompanied by his wife Paula Lovoi, at the 2019 Mading Society Induction & Dinner.

sponsor of the event, saving spots on his team to interact with and share his love of pharmacy and golf.

Although Harrison was unable to attend the event, he nonetheless expressed his gratitude in being recognized.

"I sincerely appreciate the University of Houston College of Pharmacy and those of you who chose to bestow such an unbelievable honor unto me," Harrison said. This is very, very special and something I will always cherish."

In Memoriam: John J. Lovoi (1938-2020)

John Jasper Lovoi was born on 1938 in Beaumont, Texas, where he dedicated to his life to serving his community in and outside of his pharmacy, raised a family with the love of his life, Paula, and supported local educational,

Johnny grew up at his family's drugstore surrounded by a large Italian family. During high school, he served the captain and quarterback of the 1955 St. Anthony State Championship Football Team.

After graduating from UHCOP in 1962, Lovoi returned to Beaumont where he began his career as a pharmacist. Together with his parents and two brothers, a second pharmacy was opened the same year, officially creating the businesses today known as Lovoi and Sons Pharmacies, Inc. and Lovoi and Sons Realty Co., Inc. In 1965, he married Paula Russian, with whom he would raise three daughters, JoEllyn, Amy and Elizabeth, and a son, John.

He served in numerous civic and volunteer positions that included nineteen years of service on the Monsignor Kelly Catholic High School Board and nearly two decades of on the UHCOP Dean's Advisory Council.

John and Paula established scholarships at UHCOP, Lamar University and Monsignor Kelly Catholic High School as well as supporting area arts and speech/ hearing assistance organizations.

Lovoi was a founding member of St. Jude Thaddeus Catholic Church and a member of the Equestrian Order of the Holy Sepulchre of Jerusalem. He was a lifelong Houston Cougar Football ticket-holder, a recipient of the 1998 Monsignor Kelly Catholic High School Distinguished Alumni Award and the 2006 UHCOP Society Distinguished Alumni Award.

His personal mission was to bestow honest, compassionate and uncompromised assistance to those in need. Lovoi believed that pharmacy was more than just a profession, it was a gift that came with great responsibility.



The Amazing Mirjamalis

lear, effective communication with patients is an art and a science, and the Mirjamali siblings are in an elite class of practitioners who've proven their skills, techniques and knowledge against their peers on the national stage.

In what may be a history-making first for the American Pharmacists Association-Academy of Student Pharmacists' National Patient Counseling Competition and, unquestionably a first for UH College of Pharmacy, two sisters — Sara and Melissa **Mirjamali** — finished among the top 10 finalists in the competition.

Sara — who earned her Pharm.D. in 2019 — placed 1st runnerup in the 2019 competition in her second trip to nationals, while Melissa — who graduated in May — finished in the top 10 in this year's virtual competition, with a standing field of well over hundreds of competitors each year. Although the sisters competed in the UHCOP-level event each of their four years in the program, they knew the stakes were higher at nationals, albeit the "curve ball" each faced were for somewhat different reasons.

For Sara, it was the standardized patient breaking down over her cancer diagnosis in the middle of the final round's session.

"I realized that the judges weren't going to compare me to others based solely on my drug knowledge, but how I would handle this dramatic change," Sara said. "It's a situation where you have to put yourself in your patient's shoes and be as empathetic and supportive as you can, while still making sure you communicate - and they understand - the important information about the medication."

In Melissa's case, it was the upended format of the competition as all of the APhA/APhA-ASP meeting's programs were moved to virtual presentation due to the COVID-19 pandemic. Although disappointed at not being able to attend and compete in-person, Melissa said she was grateful it wasn't canceled entirely and saw a silver lining in it.

"I wasn't sure about the format going into it, but I could see the patient and the patient could see me, so I thought it went very smoothly," she said. "Telehealth is becoming such a huge thing in health care these days anyway, so I felt like virtually counseling that patient gave me a little taste of what telehealth is like."

The siblings said they've always shared a love and aptitude for



Pharmacy school put me in uncomfortable situations and brought me out of my shell.

— Melissa Mirjamali, Pharm.D. ('20)





It's not just about the competition, but learning the techniques for interaction with patients and responding in different types of situations.

— Sara Mirjamali, Pharm.D. ('19)

mathematics and the sciences, with a common goal of eventually working in health care. Although they had initially considered other professions, the Houston natives said there wasn't a question of where they would go: UHCOP. About two years apart in age, Sara entered the program one year before Melissa.

Despite their shared background and interests, Sara and Melissa have embarked on different career paths. Sara recently transitioned to her second and final year as a UHCOP graduate student and PGY1/PGY2 resident at Harris Health System as part of the multi-institutional Houston Program in Health-System Pharmacy Administration and Leadership. After completing her licensure requirements and registration, Melissa plans on staying in the community pharmacy setting where she has worked for the past five years as a technician and an intern.

The sisters said they are true believers in the lessons and insights that come from learning to be exceptional patient counselors, regardless of practice area.

"Patient counseling is such an important component of being a pharmacist because you have to focus on ensuring the patient clearly understands their medication and thoroughly addressing any of their questions or concerns," Sara said. "I'd advise all pharmacy students to participate in the local competition, starting with their first year. It's not just about the competition, but learning the techniques for interaction with patients and responding in different types of situations."

A self-described people person, Melissa said patient counseling — one of the major draws to choosing a pharmacy career — has been more challenging since the pandemic began.

"Counseling is not only verbal, but it involves body language, so communication is not as efficient with a mask," she said.

Melissa credited both coaching from Sara, classmates and faculty members for her high ranking in the counseling competition and throughout her education.

"I was not as confident before going through the competitions and this program," Melissa said. "Pharmacy school put me in uncomfortable situations and brought me out of my shell. I now understand the purpose and benefits of the activities in school that may not have seemed as important at the time."

APhA2019 Moving Pharmacy Forward 9 2019 APhA Award Recipients



BIG SHOTS IN IMMUNIZATION COUNTRY



 $Pharm.D.\ student\ Maryam\ Zabeeh\ provides\ a\ seasonal\ flu\ immunization\ to\ a\ patient\ during\ the\ 2017\ Pharmacists\ Month\ Extravaganza\ at\ UH.$

UHCOP Chapter Wins APhA-ASP National Operation Immunization Award for Hurricane Harvey Response, Over 300 Percent Increase in Delivery

Thanks in part to setting a new chapter record number of immunizations during 2017-18, the UH College of Pharmacy Chapter of the American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) was honored with the National Operation Immunization Award during the 2019 APhA-ASP Annual Meeting & Exposition in Seattle, Wash.

Operation Immunization is one of several health initiatives – such as Operation Heart and Operation Diabetes – on which

the national organization and its local constituent chapters focus much of their education and service outreach efforts during the year.

Member chapters are encouraged to submit reports at the regional and national offices to remain in good standing as well as consideration for recognition. The UHCOP chapter's Operation Immunization projects were led by then-Pharm.D. candidate **Diane Dreucean** and third-year Pharm.D. student **Maryam Ali**, who served as initiative co-chairs.

"The UHCOP APhA-ASP chapter works so hard to serve the Houston community every year and to continue to grow our initiatives," said 2018-19 UHCOP APhA-ASP Chapter President and Pharm.D. candidate **Kaycie Rathburn**. "It feels amazing to have all of our hard work being recognized at the national level. We are so proud of Diane and Maryam for leading our chapter to such great success and all the hard work all of our officers and members put into the chapter."

UHCOP APhA-ASP Chapter members

directly provided more than 2,300 immunizations, including more than 600 seasonal influenza immunizations, during the 2017-18 academic year.

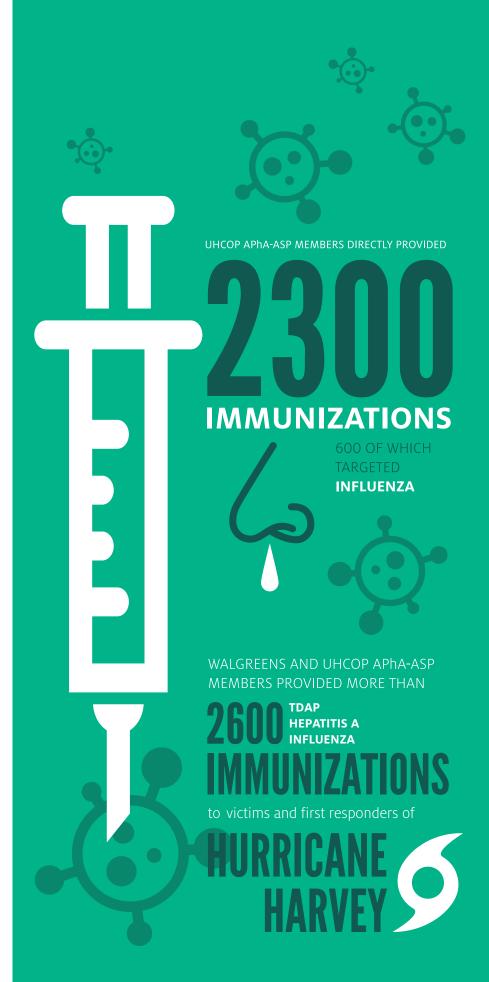
In collaboration with Walgreens, Pharm.D. student members of the chapter either directly or indirectly provided more than 2,600 Tdap (Tetanus, Diphtheria, Pertussis), hepatitis A and seasonal influenza immunizations to Hurricane Harvey victims and first responders. Overall, the chapter's immunizations represented an increase of 330 percent over the prior year.

Other activities among Operation Immunization's 26 events involving nearly 200 members included:

- · Creation of an educational video titled "Jimmy's Journey" with child-friendly cartoon-style visuals to explain the science behind vaccines and how they protect against infections;
- · Educating high school students on required immunizations for meningitis before college admission as well as college students pursuing study abroad opportunities on travel immunization recommendations and disease prevention;
- · Dispelling fallacies and misconceptions about vaccines through one-on-one engagements and educational presentations, such as a "Fact vs. Fiction" display and at health fairs; and
- An interactive game called "Bob's Ball Toss" that teaches children the concept of vaccine specificity and the importance of getting immunizations by throwing colored "vaccine" balls through correlating colored bacteria holes to protect "Bob."



APhA-ASP chapter members Susan Dembny, left, and Jorge Campuzano, right, and preceptor and alumna SueAnn Wang, Pharm.D. ('12), review immunization records of students at the 2018 Mayor's Back 2 School Fest.





Patients reached through education and wellness screenings

82,191

Members of the community reached through public relations and various media platforms











UHCOP Among Chapters Honored at Nationals for Women's Health Campaign

The UHCOP Chapter of the American Pharmacists Association-Academy of Student Pharmacists was recognized as one of four honorees Women's Health Campaign projects and activities at the 2019 APhA Annual Meeting & Exposition.

The campaign encouraged chapters to promote the importance of the human papillomavirus (HPV) vaccine in preventing cancer, promote the pharmacist's role in reproductive health, and organize an event focused on a women's health topic.

The UHCOP chapter's activities included a pink lemonade stand fundraiser and breast cancer awareness display for a local women's cancer nonprofit, seminars for pharmacy students on such topics as pregnancy complications and OTC medications during pregnancy and breastfeeding, talks by breast cancer survivors and the role of medications in treatment and recovery, and hosting an HPV education booth on campus.

Through these programs, the chapter reached 475 patients through education and wellness screenings and 82,191 members of the community through public relations and various media platforms, including on the chapter's social media channels as well as through the campus newspaper and radio station.

The impact of their work was powerfully reinforced while ASP members were conducting wellness screenings at a women's health conference.

"One of the patients came to get her blood pressure reading and the machine read 220/105," said Kaycie Rathburn, chapter president. "I tried to stay calm, even though in my head I was freaking out. I asked her if I could take it again on her other arm and had another student check the cuff with me to ensure everything was properly fitting. The machine again read 220/105, so I immediately called over my preceptor."

The patient informed them that she recently stopped taking her blood pressure medication due to the side effects, even though her sister had recently died after suffering a stroke.

"She was also mourning her sister and hadn't seen her doctor in a year," Rathburn said. "We offered to call 911, but her family was there and took her to the ER. It was an eye-opening experience and showed how important it is that we do these screenings for patients. The ending could've been very different, and I am so proud to be part of an organization that provides care to our community."

With support from Merck, the national APhA-ASP campaign was in collaboration with the American Sexual Health Association.

High Marks for APhA-ASP Chapter, OTC Initiative at Nationals

UHCOP's American Pharmacists Association-Academy of Student Pharmacists Chapter experienced one of its most successful years in national award recognition during the APhA 2020 Virtual Meeting April 26-May 1.

The chapter secured a 2nd Runner-up Award in the Division AA Overall Chapter category, the highest in its history. Among



photo courtesy of UHCOP APhA-ASP

The "Nicotine Knockout" bowling game provided an interactive way to discourage children from smoking.

the chapter's highlights during the 2018-19 academic year were:

- · Providing more than 7,000 direct patient interactions in wellness screenings and education;
- Organizing the first Heart Hustle 5K run/walk event at UH, which raised nearly \$2500 for the American Heart Association and offered wellness screenings, education and child-friendly exercise activities to the nearly 140 event participants;
- · Participating in pharmacy and patient care advocacy activities surrounding the 86th Texas Legislature and the Texas Pharmacy Association-sponsored Texas Pharmacy Day at the Capitol, including voter registration drives, writing letters and meeting with legislators, and reviewing Robert's Rules of Order; and
- · Hosting a comprehensive Women's Health Project campaign that incorporated almost all of its other initiatives to educate members and the public on such topics as HPV awareness, cancer and reproductive health through 27 events with an impact of 95,000 patients through these events and social media.

For the Women's Health Project campaign, the chapter was also recognized for a second consecutive time as a "Top 4"

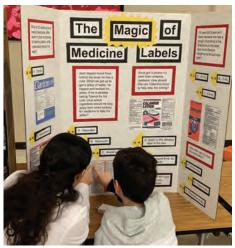


photo courtesy of UHCOP APhA-ASP

A new interactive game, "The Magic of Medicine Labels," was created to promote health literacy and medication safety among children at health fairs.

project in a separate campaign category.

Other project activities of the chapter included partnering with the college's Kappa Epsilon Breast Cancer Awareness Silk Rose Jubilee, which featured survivors sharing their stories and the impact pharmacist made in their care, as well as seminars with health care professionals on the importance of well-woman exams, pregnancy complications and treatments, and the use and risks of OTC medications during pregnancy and lactation.

College Welcomes RGV Students in 2nd Summer Camp Offering to Meet Demand









Extravaganza







Encompassed about 40 events and activities reaching more than 2,100 adults and schoolchildren, the chapter also was recognized with a 2nd Runner-up Award in the OTC Medication Safety category. Among the activities offered by initiative leaders and members were:

• A new interactive game for health fairs and school presentations called "The Magic of Medicine Labels," which involved participants reading a medication label and matching the medication to its corresponding aliment with a "magic wand" that lights up for correct answers to stress the importance of reading labels, identifying uses and active ingredients, and understanding directions for use based on the patient's age;

· Added content on vitamins and other supplements for the chapter's annual OTC Workshop and health fair handbook to help students prepare for educational outreach at events:

- · Updated materials for the popular "Candy vs. Medicine" interactive game that teaches children how to avoid accidental poisonings; and
- Promotion of the Drug Enforcement Administration's annual nationwide Drug Take-back Day events.

Beading Class Promotes Life Skills, Health Education Among Formerly Homeless

How can the simple hobby of beading teach formerly homeless individuals about life skills such as patience and concentration as well as healthy lifestyle choices?

As a member of the 2019-20 Houston-Galveston Albert Schweitzer Fellowship Program, Pharm.D. student Erin Montejo used the popular pastime to engage residents of the New Hope Housing Inc., a Houston-based nonprofit permanent housing community, in physical and mental health awareness during a creative, relaxing and supportive activity.

"I wanted the classes and the discussion among the residents to be as natural as possible," Montejo said. "As the weeks went by, I found my opportunity to insert applicable healthy tips and advice. For example, as the residents were talking, one of them mentioned that they should quit smoking, so I gave a few quick tips of how to successfully initiate smoking cessation."

Montejo was introduced to the project by UHCOP and Schweitzer program alumni Graziela Putnam, Pharm.D. ('19), and Stephanie Crowley, Pharm.D. ('19), who launched the beading initiative. With Montejo's continuation of the project, the beading class has become the longest-sustained project within the Schweitzer program.

"The project has been truly rewarding, especially when the residents are beaming with pride about the pieces that they have made," Montejo said. "The residents inspired me with their resilience and positivity."

With interprofessional interaction with other Schweitzer fellows in a range of disciplines was an important part of the program's emphasis on reducing health disparities, Montejo said the project has solidified her desire to work with vulnerable populations in the future.

"As a veteran, I have seen my friends and fellow veterans fall prey to homelessness," Montejo said. "I felt this project would be a great way to assist that vulnerable population within our community. The fellowship provides pharmacy students with an opportunity to explore the impact pharmacists can make in the public health arena."

ONE FOR THE HISTORY BOOKS



UHCOP Chapter Becomes First to Repeat SCCP Titles

The UHCOP chapter of the Student College of Clinical Pharmacy (SCCP) secured its place in the history books as the first ever to win back-to-back Outstanding Student Chapter awards from the American College of Clinical Pharmacy at the 2019 ACCP Annual Meeting in New York, N.Y.

Patient Care

The chapter participated in 10 health fairs - half of which were geared toward medically underserved patients which collectively served more than 1,000 patients and involved nearly 500 volunteer hours.



photo courtesy of UHCOP SCCP

The UHCOP SCCP Chapter, whose officers and faculty co-advisor Jeffrey Sherer are pictured above, won the national Outstanding Chapter Award in 2018 and 2019.

Among the services provided at these events were blood glucose and blood pressure screenings, body mass index (BMI) readings, and diabetic foot exams; seasonal flu immunizations; and medication reviews and counseling on topics ranging from diabetes to smoking cessation. Event venues included Lighthouse of Houston, which assists blind and visually impaired people, and multiple "back-to-school" health fairs.

Naloxone Education

Another focus for the chapter was continuing its efforts on naloxone education to raise awareness of the opioid misuse epidemic as well as use of the opioid overdose reversal medication. More than 60 UHCOP students successfully completed naloxone "trainthe-trainer" sessions and became certified presenters.

During 2018-19, chapter members provided nearly 50 presentations and training sessions to more than 1,500 fellow students from a range of organizations and majors, including medical, dental and pharmacy students, at UH and other Houston-area universities. Members also made presentations at social service organizations, substance misuse treatment centers and shelters, and high schools, including nearly 900 students at a Pearland high school and 140 students at a Houston college preparatory school, on the opioid crisis, how opioids work, what to look for during an overdose, and how to respond to an overdose.

Clinical Practice and Research

The chapter's workshops and seminars covered such topics as clinical skills development, LGBTQIA patients, infectious diseases, and organ donation. The chapter also hosted a workshop

on research poster best practices and a research mentorship program to match faculty members with students interested in pursuing a research project. In addition, SCCP held local clinical pharmacy and clinical research competitions that drew dozens of participants as well as fielded teams at the national level.

Interprofessionalism

Interprofessionalism activities included hosting an Interprofessional Field Day for pharmacy, medical, dental, optometry and physical therapy students, featuring such competitions as an IV bag toss, speed sterile-garbing challenge, and an "Escape Room"style patient case involving depression.

Members also participated in shadowing interdisciplinary health system patient care teams comprising physicians, nurses, respiratory therapists and pharmacists on rounds.

In addition, members took part in Interprofessional Standardized Patient Simulations with teams of medicine, dentistry, nursing, bioinformatics, and public health students. Designed improve communication among the professions, the scenario involved reviewing a simulated patient's profile and conducting a root-cause analysis to determine what led to a medication error.

SSHP Vision of Future Brings Advanced Practice Initiative Honors

The UHCOP Chapter of the Society of Health-System Pharmacists (SSHP) racked up two national honors in support of the American Society of Health-System Pharmacists (ASHP) Practice Advancement Initiative, which is a national campaign that advocates for advancing the role of pharmacists on the health care team.

Considered vital to the profession's future, the Practice Advancement Initiative's five pillars — care team integration, technology, leadership in medication use, leveraging pharmacy technicians, and pharmacist credentialing and training empower pharmacists to take greater responsibility for patient outcomes.

A sampling of the UHCOP chapter's PAI Week activities included:

- Conducting social media outreach on how pharmacists can play a larger role in medication use for patients in such areas as medication reconciliation and safe medication use;
- · Participating in a multidisciplinary event and reflections to demonstrate the integrated care team;
- Hosting practitioner presentations on pharmacist credentialing and training in cardiology specialization as well as a



photo courtesy of UHCOP SSHP

SSHP members run through a "tech-check-tech" crash cart simulation to as part of its Practice Advancement Initiative Week activities.

presentation by the non-profit organization, the Cameron Juniel Project, on common preventable heart disorders, such as sudden cardiac arrest.

The chapter also held a mock crash cart simulation requiring students place correct medications and check for expiration dates as other students supervised to simulate the "tech-check-tech" practice.

The chapter also was recognized as one of two national finalists in the 2019 ASHP PAI Video Competition.

The chapter's video, which debuted at the ASHP Midyear Clinical Meeting in December 2019 in New Orleans, highlighted the five pillars of the PAI. It can be viewed on YouTube at https://tinyurl.com/sshppai19.

Student Accolades

Jonathan Diaz, Pharm.D. candidate, was awarded a Wolff-Family Foundation Scholarship from the Out for Education organization.

Truong (Anthony) N. Do, Pharm.D. candidate, earned a 2019 AMCP Nexus Conference Scholarship Award from the Academy of Managed Care Pharmacy Southwest Affiliate Chapter.

Alyza King, Pharm.D. student, received a travel award from the Academy of Managed Care Pharmacy Southwest Affiliate Chapter to attend the 2019 AMCP Managed Care & Specialty Pharmacy Annual Meeting.

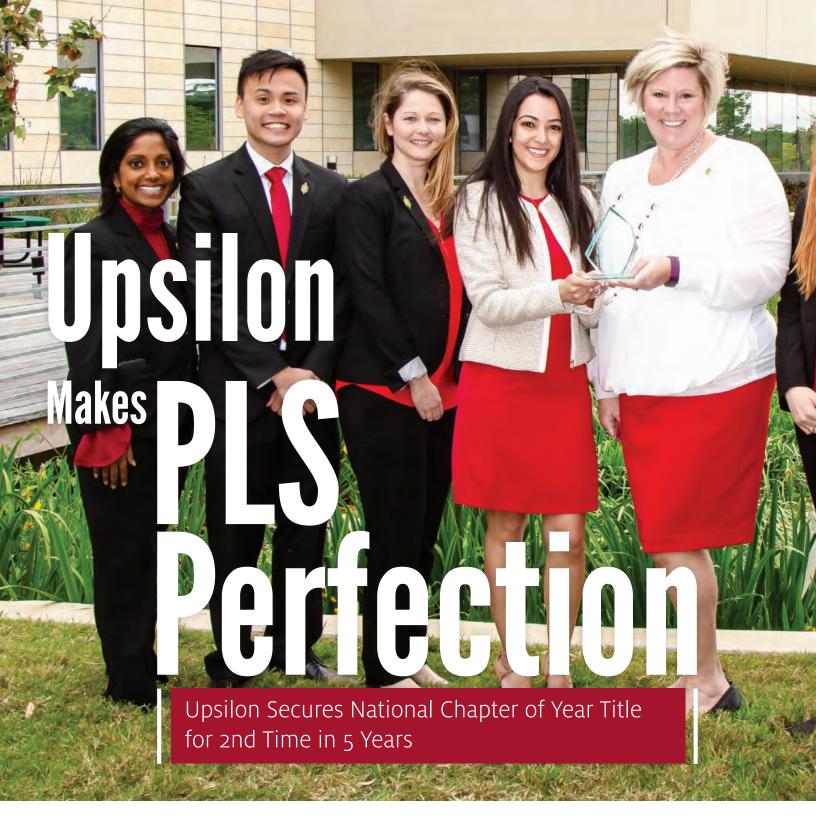
Jason Levy, Pharm.D. candidate, wrote an "Advocacy Perspectives" column, " Advocating for Our Profession: An Inside Look at Pharmacy Legislation at the State Level," in the TSHP Journal published in December 2019.

Jingwen Liu and Li Li, Pharmaceutics Ph.D. students, completed summer internships at the FDA and Boehringer Pharmaceuticals, respectively. Soumya Chikermane, Shweta Bapat and Abhishek Nair, Pharmaceutical Health Outcomes and Policy Ph.D. students, completed internships at Gilead, Amgen and Express Scripts, respectively.

EeVien Low, Pharmaceutical Health Outcomes and Policy Ph.D. student, has received a second \$10,000 scholarship from the P.E.O. International Peace Scholarship.

Aimen Naveed, Pharm.D. candidate, was awarded the Gulf Coast Society of Health-System Pharmacists Leadership Scholarship from the TSHP Research & Education Foundation and the consecutive Eakman Family Scholarships from the West Texas Pharmacy Association for 2019 and 2020.

Kaitlin Rascon and Abigail Wright, Pharm.D. candidates, were awarded the Larry "Neal" McClaugherty Scholarship and a Texas Pharmacy Foundation General Scholarship, respectively, at the 2019 Texas Pharmacy Association Conference & Expo in Irving.



UH College of Pharmacy's Upsilon Chapter of the Phi Lambda Sigma Pharmacy Leadership Society brought home the National Chapter of the Year Award - its second national title in less than five years – from the 2019 PLS Annual Meeting in Seattle, Wash.

The award was presented for the chapter's activities during the 2017-18 year, which included multiple workshops and presentations focused on such topics as public speaking, postgraduation financial planning/management, curricula vitae (CV) development and review, mock interviews and officer candidacy preparation.

The chapter also hosted a leaders' retreat for representatives from each of the college's 17 student organizations as well as several other events and activities aimed at helping member and non-member pharmacy students identify and develop their strengths, weaknesses and skills in leadership, communication and team-building.

"I think a big part of why we had such a successful year was the fact that we had such dedicated members and a dynamic leadership team in which we all knew each other's strengths and weaknesses," said Sara Mirjamali, Pharm.D. ('19), who served as



2017-18 chapter president and 2018-19 Region 4 Liaison at the national level. "Most of our officers have been leaders in other organizations, so we were able to take what we learned from those experiences and see how we could be a resource to students without duplicating or being in competition with what other organizations were doing. I also give a lot of credit to our chapter secretary, Anna Cantwell, who put her heart and soul into putting together an awesome annual report that I think impressed the judges."

Chartered by UHCOP in 1988, the Upsilon Chapter of PLS has a record of success: It previously won the national title in 2015, and five UHCOP alumni have served as national president of the organization.



Leaders Among Leaders: Reyna, Pham Earn Seats on National Committee

UHCOP's Phi Lambda Sigma chapter capped its remarkable year of success with two of its members earning national posts.

Pharm.D. candidate **Briana Reyna** was elected 2019-20 National Speaker of the House of PLS at the 2019 national meeting. As a member of the Executive Committee, Reyna presides over and develops the meeting agenda for the PLS House of Delegates.

"During my (chapter) presidency, I was always very interested in learning about the activities, projects and practices of other chapters.," Reyna said. "My goal is to promote the power of networking between chapters and provide a platform to share ideas, building a strong foundation for chapters to grow."

Fellow Pharm.D. candidate **Grace Pham** secured national honors with her appointment to Region VII Liaison, which coordinates activities among the region's seven chapters and the National Executive Committee. Pham also was honored as the Chapter Member of the Year by the Upsilon Chapter.





UNSTOPPABLE SNPhA

Student National Pharmaceutical Association Secures 3rd Consecutive Top Chapter Title

With more than 6,500 patients served during the prior year, the UHCOP Chapter of the Student National Pharmaceutical Association (SNPhA) snapped up a record-breaking third consecutive year – and its fourth win in five years – for the national Chauncey I. Cooper Chapter of the Year in the "Large Chapter" category for 2018-19.

In addition, the UHCOP chapter won the Mental Health Initiative of the Year and the Power to End Stroke Initiative of the Year also won first place at the 2019 SNPhA National Conference in Houston. The chapter's Mental Health Initiative spanned nearly 30 events with a total impact on more than 850 patients, as well as dozens of members undertaking the "Question, Persuade, Refer (QPR) Gatekeeper" suicide prevention certification training. The chapter's Power to End Stroke projects included 16 events, such as health fairs with a local aphasia recovery organization, that engaged nearly 300 patients as well as social media campaigns to raise awareness of stroke risk factors and symptoms.

The efforts of several other chapter health awareness and outreach initiatives - Operation Immunization (vaccine-preventable diseases), Project Keepsake (Chronic Kidney Disease), Fighting Diabetes (diabetes/pre-diabetes) and Remember the Ribbon (AIDS/ HIV awareness) - received honorable mentions at the meeting.

Chapter president Emily Cooper said the installation of past chapter president and Pharm.D. candidate Darian Allen as 2019-20 National President of SNPhA was the "perfect end" to the conference. Allen also was awarded a NPhA Foundation Endowed

Scholarship (the National Pharmaceutical Association is the parent professional organization of SNPhA).

"She spoke powerfully about SNPhA's mission and motivated everyone to begin their own L.E.G.A.C.Y. (or "Lead. Empower. Generate. Advocate. Community. Youth."), her theme for the year," Cooper said. "This conference was a tremendous success and we were humbled by how everything turned out. I am excited to bring home these awards and continue on with this amazing legacy next year."



photos by Hung Nguyen

Associate Professor Louis Williams, who has served as a faculty advisor for the UHCOP SNPhA Chapter since its inception in 1972, proudly displays the chapter's national awards.



Intramural Team Earns Top Award, HQ Invite in 1st LEAP at Lilly™ Business Plan Competition

LEAP at Lilly™ Asks Teams to Develop Proposal for Expanding Pharmacists' Role in Industry, Improving Care in Underserved Communities

A deep interest in industry pharmacy careers and a focused vision for a new role for pharmacists in the drug development/ marketing life cycle established the winning formula for a team of Pharm.D. students from UH College of Pharmacy and Texas Tech University Health Sciences Center School of Pharmacy.

UHCOP Pharm.D. students Hafeez Adewusi, Andre Obimah and Kelvin Obimah and Texas Tech Pharm.D. student Ike Emesih secured a first-place win in the first annual Leverage, Engage, and Advance Pharmacists (LEAP) at Lilly™ Business Competition, which was held at the Student National Pharmaceutical Association (SNPhA) 2019 National Convention in Houston.

According to the call for submissions, the competition gives students "an opportunity to apply their clinical and experience and problem-solving skills to address real-world business challenges faced by the pharmaceutical industry" as well as "combine Lilly's mission of improving diversity and inclusion to drive innovation with SNPhA's mission of serving the underserved."

The competition consisted of a first-round written proposal of how to leverage and engage pharmacists of the company and a second round live presentation at the SNPhA meeting by invited finalists on how to better serve patients with diabetes through pharmacist advancement.

"We looked at the different stages of the drug development pipeline, and while the first three stages are fairly well established, we saw a lot of different ways that pharmacists could be utilized in

the fourth phase — post-marketing — of a drug's lifespan," Hafeez Adewusi said.

"We used pre-existing models and combined them to optimize the way real-world evidence is collected in outcomes data and also optimize the way post-marketing surveillance required by the FDA is done with the new role," Kelvin Obimah said.

"We found a way where everyone could benefit from not only leveraging pharmacists, but advancing the whole profession in an innovative way that ultimately improves care for patients," Andre Obimah said.

The judges were so impressed by the team's presentation that the cash prize was increased to \$5,000, along with an all-expense paid trip to Lilly's corporate headquarters in Indianapolis, Ind., where the team presented their proposal to company executives and others. The LEAP at Lilly™ team was supportive of the proposal and provided coaching for refinement. After 2 weeks of extensive training and preparation, the winners learned how to reframe their proposal to be more specific to Lilly's diabetes pipeline and business needs.

"The idea is to not focus on products per se, but on screenings and disease state management," Andre said. "However, if the patient has questions on a given product that Lilly offers, we'd be informed enough to discuss it with patients, like dispelling myths or alleviating fears about insulin injections or cost-appropriate dose administration in which the patient could benefit from the company's savings card programs."

Pictured above are LEAP at LillyTM winning team members Ike Emesih of Texas Tech University and Kelvin Obimah, Hafeez Adewusi and Andre Obimah of UHCOP. Photo courtesy of Hung Nguyen.

INDUSTRIAL **STRENGTH**

IPhO Jumps to 2nd in Nation, Takes 3rd in Competition to **Bring New Drug to Market**

Despite its distance from the pharmaceutical industry's traditional East Coast nexus, the UHCOP Industry Pharmacists Organization (IPhO) continues to make its presence known by ranking 2nd in the nation — and its second consecutive year in the "Top 5" — among more than 70 student chapters across the country.

The rankings for 2018-19 were announced at the inaugural IPhO National Student Meeting in September 2019 in Florham Park, N.J. The rankings are based on the evaluations of chapter annual reports, which cover such areas as recruitment methods, industrial education and scholarly activities, leadership transition plan, fundraising, and upcoming year goals.

Chapter activities included touring the Alcon Pharmaceuticals campus in Fort Worth, participating in the Industry Day simulcast at the Houston JLABS facility in collaboration with the Johnson & Johnson Pharmacist Network Group, and co-hosting a roundtable event with industry and managed care pharmacists.

"We are incredibly humbled by the recognition of our work to educate, connect, and prepare our members for a career in the pharmaceutical industry," said 2019-20 Chapter President Jennifer Nguyen, who also served as a National Student Officer over Chapter Network Management.

The chapter also came in 3rd place among 40 other chapter submissions in the national 2019-20 IPhO Value in Pharmacists (VIP) Case Competition.

The competition involves teams covering "bench-to-market" development from many perspectives in which pharmacists most frequently contribute., including clinical sciences, regulatory affairs, commercial/marketing, and medical affairs.

Each participating team is given the same case and drug, which for the 2019-20 competition was a new molecular entity, loraparib, a poly ADP-ribose polymerase inhibitor



aimed at triple-negative breast cancer with germline mutations in BRCA 1/2.

Preclinical studies conducted in rodents and non-rodents demonstrated preclinical safety that is comparable with similar medications currently on the market, so the teams were tasked with developing the human clinical study protocol and file an investigation new drug application with the U.S. Food and Drug Administration.

"One of the ideas that really made us stand out was that we proposed our drug also has prophylaxis abilities at a certain dose," said Pharm.D. student Joseph Nguyen, who served as competition coordinator for the UHCOP team.

In addition to Nguyen, the UHCOP team comprised IPhO members Lina To, Jason Le, Ban Vu, Karishma Thakkar, Azzam Yazji and Sally Wang, clinical development; Jennifer Nguyen, Jennifer Lim, Vu Do, Uyen Tran, and Grace Prathusha Bethala, medical affairs; Theresa Nguyen, Jenny Chang, Lauren Eichinger, Gagan Deep Singh, Kathy Vo and Judy Chen, regulatory affairs; and Joshua Wu, Izuh Ikpeama, Hafeez Ayomide Adewusi, Kelvin Obimah and Andre Obimah, marketing.



photos courtesy of UHCOP IPhO

Top, IPhO's 2018-19 Executive Board members were, front row, Merisha Biju, Trang Pham and Jennifer Nguyen; and, back row, Lauren Eichinger, Kelvin Obimah, Truong N. (Anthony) Do, Andre Obimah, and Ada Onyugwu-Anugo. Chapter members partnered with the Johnson & Johnson Pharmacist Network Group to host an Industry Day at the JLABS @ TMC facility in Houston's Texas Medical Center.



Aldape Aims to Educate, Empower At-Risk Teens in RGV

As a native of the Rio Grande Valley region of South Texas. Pharm.D. student Nancy Aldape saw her share of teenage girls their lives and dreams upended by unplanned pregnancy and failure to take advantage of free or low-cost preventive health services.

Now, as a member of the Association for Prevention Teaching and Research's Paul Ambrose Scholars Program 2020-21 class, Aldape is preparing to launch a "Latina Health Project" to ensure the next generation of RGV teens is not only better informed about family planning and health care resources, but also have college educated mentors to help them realize their education and career aspirations.

Aldape will put her plan into action over the 40-plus weeks of her fourth-year advanced pharmacy practice experiential rotations starting in summer 2020.

With the Ambrose Scholars Program's focus on interdisciplinary approaches to addressing public health challenges, Aldape plans to recruit pharmacy and medical students and residents at other institutions in the region to serve as fellow educators and mentors.

Her project aims to provide both classroom-based and individualized sexual education to female middle and high

school students in the 13- to 19-year age range.

"Through my involvement with student organizations at UHCOP, I've learned a lot about planning and coordinating health-related events in the community and in area schools," Aldape said. "After implementing a Women's Health Series, it was obvious that there was both a lack of sexual education among the teenagers at our health fairs, but also a genuine interest in learning more about sexual health."

Aldape said not only is teen pregnancy an issue in the region, but the prevalence of teenagers whose families lack health insurance and economic resources in the underserved region puts their health, development and career potential at risk.

"This project will enable me to connect with community teenagers in hopes to convey the message that they do not have to fall within a statistic; they have an equal opportunity to succeed academically and professionally," Aldape said. "The ultimate goal is to help students make wise decisions by providing them with the appropriate knowledge to do so."

Aldape will work under the mentorship of UHCOP alumna Briget Martinez, Pharm.D., the college's first Ambrose Scholar who is now a clinical assistant professor in the Rio Grande Valley Pharm.D. Satellite Program and pediatric clinical pharmacist at DHR Health in Edinburg. Martinez's project was centered around awareness and prevention of diabetes among older adults in the Hispanic community.

The APTR organization's program honors Paul Ambrose, M.D., MPH, who was on board American Airlines flight 77 that was hijacked on September 11, 2001.



The team of Van Nguyen, Amilda Medina, and Eileell Alin Nguyen are congratulated for winning the Leadership Challenge by TSHP staffer Leah Cody.

FIRSTS IN **FRISCO**

UHCOP Pharm.D. students captured several team-based competition titles as well as individual honors at the 2019 Texas Society of Health-System Pharmacists Annual Seminar.

The team of first-year Pharm.D. students Duc Huynh and Ricky Huynh-Phan won the P1 Category of the Clinical Skills Competition, which requires each team to develop and present a therapeutic plan based on information in the patient's chart to a panel of judges.

The plan should identify and assess all acute and chronic medical problems, drug-related problems, and health care needs of the patient, and team members must be prepared to explain and defend their assessments and recommendations live to the panel.

Also bringing home a first-place win in the Leadership Challenge competition was the UHCOP team of Amilda Medina, Eileell Nguyen and Van Nguyen.

"Designed to help students further

explore their roles as leaders in the healthcare field," the competition requires teams to submit an action plan for responding to a case scenario involving a hospital-based controlled-substance diversion incident.

Specific components of the plan were to include defining and prioritizing the key problems, identifying specific personnel or units who need to be involved in the resolution, and presenting three strategies for preventing the problem from recurring, with a final course selected and presented to judges. Two of the three teams participating in the live competition at the TSHP meeting were from UHCOP.

Jennifer Dela Pena received an Honorable Mention in the Disease State Management Competition, which requires individual students to review presenting case information, interact with a standardized patient, assess and evaluate the patient's response and adherence to the therapy, and draft a progress report on the session and any changes to the medication regimen. The competition is a live event, with one of the three judges in the patient role.

In addition, Pharm.D. candidate Niha **Zafar** was elected and installed as chair of the Student Section Executive Committee, which assists in planning the student programming for the TSHP meeting and serves as a link between the state organization and its affiliated student chapters. A section member during the prior year, Zafar also served as the 2018-19 president of the UHCOP Chapter of the Student Society of Health-System Pharmacists.











Two consecutive teams from the UH Chapter of the Academy of Managed Care Pharmacists have been recognized with "Honorable Mentions" for their work on the AMCP Foundation National Student Pharmacist Pharmacy & Therapeutics (P&T) Competition.

After winning the local competition, the team of Angie Asadi, Pharm.D. ('19), Kim Dinh, Duc Huynh, Jennifer Nguyen and Grace Pham was recognized as one of only 10 teams to earn the designation from the starting field of 67 teams in 2019.

With the addition of Irene Huang, teammates Dinh, Huynh, Nguyen and Pham secured their second Honorable Mention at the 20th Annual P&T Competition in April.

Originally slated to be held during the AMCP Annual Meeting

in Houston, the semifinal and final rounds of the competition along with the meeting were moved to virtual format due to the coronavirus pandemic. Teams narrated their presentations for virtual review by the managed care decisions makers on the judging panel.

The P&T Competition replicates the process that health care decision makers take in examining a new pharmaceutical product for place-

ment on a formulary. Competition teams examine a dossier in the AMCP Format for Formulary Submissions to evaluate evidence on the study drug as they develop a monograph and presentation for defending their recommendations.

Pharmacists on P&T committees "must understand how to evaluate the best available scientific, clinical, and economic evidence on medication use" and "determine the impact of medication use on patient population outcomes, conduct cost/benefit analyses, and relate drug therapy choices to current practice guidelines," according to the AMCP Foundation website.

"We are honored to receive this recognition among many great schools who have a strong focus and background in managed care," said Pham, who served as the 2018-19 chapter president. "For

> most of us on this team, this is not our first time competing and it shows that perseverance and practice pays off. The experience gained from participating in previous P&T competitions was a major advantage when putting together a strong submission.

> "Another major role in our success was our great team dynamic. We worked together and supported each other throughout the whole competition."



Top, the 2020 UHCOP P&T Competition team comprised Kim Dinh, Jennifer Nguyen, Grace Pham, Irene Huang and Duc Huynh. Above, the 2019 UHCOP P&T Competition team comprised Huynh, Nguyen, Pham, Angelica Asadi (Pharm.D. '19), and Dinh.

DELTA DELTA CHAPTER SNARES 4TH CHAPTER OF YEAR TITLE IN KAPPA PSI SOUTHWEST REGION

The UHCOP Delta Delta Chapter of the Kappa Psi Pharmaceutical Fraternity clinched its fourth consecutive Southwest Province Chapter of the Year title in 2019.

The Chapter of the Year Award criteria encompassed such activities as professionalism, scholarship, inter-fraternity engagement, brotherhood/social events, fundraising, communications, and previous awards and involvement, as well as the oral presentation of the chapter's activities at the meeting. Examples of member activities included packaging meals at the Houston Food Bank; participating in mock interviews with pre-pharmacy students; providing wellness screenings and education to more than 1,300 patients at community health fairs; and

The chapter's long-running annual Mr. Pharmacy Pageant, a talent/fashion/ open to representative contestants from all of the college's pharmacy student organizations and classes, resulted in more than \$1,200 from ticket sales donated to a nonprofit literacy organization.



photo courtesy of Hung Nguyen/KY

Kappa Psi Delta Delta Chapter members and faculty advisor Louis Williams display their Southwest Province Chapter of the Year and 99 Hands awards.

In addition to the top chapter award at the Spring Meeting in Denver, Colo., Delta Delta also won the "99 Hands" Award for its philanthropy project presentation by member Philip Ngo. Member Sabrina Ali was elected 2019-20 Southwest Province Vice Satrap (Vice President), which marked at least eight consecutive years in which at least one Delta Delta member has served in a province leadership position.

To cap the year's success for the chapter, member Adrian Bisnar was honored with the "One for All" Award at the province's Fall Meeting in Albuquerque, N.M.

AACP Names Waldron-Young Express Scripts Scholar

The American Association of Colleges of Pharmacy named UH College of Pharmacy Pharm.D./Ph.D. dual-degree candidate Elise M. Waldron-Young as a 2019 Express Scripts Scholar.

The program provides four \$10,000 scholarships to enrolled dual-degree students to help offset tuition, fees, books or cost of attendance.

"I had a professor say, 'The fight against resistant pathogens is a war, and not a battle.' One way we fight this war is in the lab - developing unique, potent, safer anti-infectants," Waldron-Young said. "Over the last half-decade, I have pursued my Pharm.D./Ph.D., to play my role in this war. With my Ph.D. in pharmacology with an emphasis in medicinal chemistry, I am learning multiple levels of drug development, from chemistry to pharmaceutics to pharmacology.

"With this diverse training, I intend to apply my clinical and preclinical knowledge into a consulting role and develop more efficacious medicinal products."

Waldron-Young's dissertation project is "Synthesizing selective compounds to target Cryptosporidium," under the supervision of Greg D. Cuny, Ph.D., UHCOP associate professor of Medicinal Chemistry.

"AACP received a record number of applications for the program this year, which is indicative of the growing popularity of dual-degree programs as more student pharmacists seek to align their education with their professional goals and interests," said Libby J. Ross, senior director of student affairs with AACP.





ASHP HONORS TAM FOR CLINICAL LIT CONTRIBUTIONS

UHCOP Professor Vincent H. Tam, Pharm.D., BCPS (AQ-ID), FIDSA, has been recognized with the 2019 American Society of Health-System Pharmacists (ASHP) Foundation Literature Award for Sustained Contributions.

Presented to Tam during the ASHP Midyear Clinical Meeting in Las Vegas, Nev., in December, the award "recognizes a pharmacist with a 20-year record of publishing high quality and impactful peer-reviewed biomedical literature."

"This is a great honor to be able to be recognized for the work that I've put in, but I also see this as a team award; this is a recognition of my institutional environment, my collaborators, my research staff, my trainees, and my students," Tam said.

Tam is a highly respected researcher and clinical pharmacy specialist in infectious diseases, especially multidrug resistant infections, and pharmacokinetics/pharmacodynamics.

Since 2001, he has authored/coauthored more than 160 papers in peer-reviewed journals. His May 2014 paper published in the journal Antimicrobial Agents and Chemotherapy, "In Vitro Assessment and Multicenter Cohort Study of Comparative Nephrotoxicity Rates Associated with Colistimethate versus Polymyxin B Therapy," was recognized as the Pharmacotherapy Paper of the Year Award by the Society of Infectious Diseases Pharmacists (SIDP).

He also served as coauthor of the recently published "International Consensus Guidelines for the Optimal Use of the Polymyxins" in the journal Pharmacotherapy, with the endorse-

ment of the American College of Clinical Pharmacy, European Society of Clinical Microbiology and Infectious Diseases, Infectious Diseases Society of America, International Society for Antiinfective Pharmacology, Society of Critical Care Medicine and Society of Infectious Diseases Pharmacists.

Over the course of his career, Tam has received research support from the National Institutes of Health, the National Science Foundation, nonprofit associations and foundations, and companies within the pharmaceutical industry. Tam also is co-inventor on U.S. patents for novel formulations for the last-resort drug polymyxin B and a novel rapid diagnostic system to help guide rational dosing of antimicrobials at the bedside.

A past member of the SIDP Board of Directors, Tam also was the first pharmacist elected to serve on the National Foundation for Infectious Diseases' Board of Directors.

He also earned the University of Houston Excellence in Research and Scholarship Award in 2008 and is a team member of the Center for Antimicrobial Stewardship and Epidemiology at St. Luke's Episcopal Hospital (now CHI St. Luke's Baylor Medical Center), which was recognized with an ASHP Best Practices Award in 2010. Tam was inducted as a Fellow of the Infectious Diseases Society of America in 2018.

In nominating Tam, his colleague and department chair Kevin W. Garey, Pharm.D., M.S., FASHP, wrote, "Dr. Tam is arguably one of the ten best researchers in the world in the area of PK/PD and therapeutics against multidrug resistant Gram-negative bacterial infections."

TEACHING TITANS PASS THE TORCH



Over the past year, a trio of longtime University of Houston College of Pharmacy educators and administrators have said their goodbyes to colleagues and students as they enjoy the fruits of their labors in happy retirement. Through

Doug Eikenburg

Douglas C. Eikenburg joined the college in 1979 as a postdoctoral research associate, fresh from completing his Ph.D. at Michigan State University. He joined the college's Pharmacology faculty two years later, at which time he received his first research grant. In 1995, he was promoted to associate professor and appointed chair of the Department of Pharmacological and Pharmaceutical Sciences, serving until 2005. Five years later, Eikenburg was appointed interim chair of the department, then served in the permanent role from 2011 until his retirement.

Eikenburg's research into the receptor signaling mechanisms of the cardiovascular and neurological systems was supported by such organizations as the National Institutes of Health, American Heart Association (AHA) and the Brain & Behavior Research Foundation and published in such journals as the British Journal of Pharmacology (BIP), Hypertension, and the Journal of Pharmacology and Experimental Therapeutics or presented at dozens of national and international scientific meetings.

During his career, Eikenburg served as faculty advisor or supervisor for nearly a dozen graduate students or postdoctoral researchers. He was instrumental in the development of several courses, including drug literature review, scientific writing and pharmacodynamics, and taught numerous courses in the college's doctoral and professional degree programs.

Eikenburg served on or chaired a variety of committees and councils within the college and across the university, tasked with

such duties as faculty searches, graduate education, graduate and professional studies, curriculum, environmental/physical safety and the scholarship golf tournament. In particular, Eikenburg played a major role in not only the design and planning for the Health 2 building, but also coordinated the move of his department's laboratory equipment, faculty, staff and students into the new building.

Among the honors bestowed on Eikenburg during his career were the UH Teaching Excellence Award, UH Alumni Association Outstanding Faculty Award, Rho Chi Society UHCOP Beta Omicron Chapter Teaching Excellence Award (and Honorable Mention), and UHCOP Faculty Teaching Excellence Award. A member of the UHCOP Mading Society of benefactors, he also was elected fellow of the AHA High Blood Pressure Council and a past president of the Sigma Xi scientific research honor society at UH. His professional service outside of the college included appointments as editorial board member of the journal Clinical and Experimental Hypertension and editor of the BJP.

"I was very lucky to have a job I loved, working with great people who became part of my family, and interacting with very bright and creative students for 40 years," said Eikenburg, who has been awarded professor emeritus status by the UH Board of Regents. I believe that many people in the city of Houston and in Texas still do not appreciate what an excellent institution UH has become and what a good steward the institution is with the support it receives, especially in comparison to the PUF (Permanent University Fund) schools."

Lindsay Schwarz

Regarded as a champion of integrating new technology in teaching and adapting to changing student learning styles, Lindsay Schwarz, Ph.D., retired after more than two decades at the college. With a Ph.D. from the University of Texas Medical



Branch at Galveston, Schwarz joined UHCOP in 1995 as a research assistant professor. At the time of her retirement, she served as instructional associate professor and director of Faculty Development with the mission of promoting and facilitating enhancement of teaching, assessment, peer/self-evaluation, and instructional technology.

Before leaving the laboratory research environment, Schwarz authored or co-authored research papers in such journals as BJP, Neuroscience and Cancer Research and was awarded a patent in the U.S. and overseas for "Glucocorticoid enhancement of gene transfection and expression."

As co-chair of the Pharm.D. Curriculum Committee, Schwarz played a major role in the overhaul of the curriculum that was implemented in fall 2018. She also is credited for contributing to the design/planning of the academic and skills laboratory spaces in Health 2 as well as many years of service on such committees as Assessment, Admissions & Progression, and Student Affairs.

During her time at the college, Schwarz was honored with awards for excellence in teaching from UH in 2011 and from UHCOP in 2009 and 2006. Schwarz was inducted into the Rho Chi Society by the UHCOP Beta Omicron Chapter, which presented her with its Teaching Excellence Award in 2012 and its Certificate of Recognition in 2007. She also received the UHCOP Faculty Excellence Award for Service in 2012.

"I feel blessed to have had a job that was fun and provided the opportunity of discovery every day," Schwarz said. "It's rare to see how cohesive, committed and generous our faculty are, and I can't say enough about how our students continued to impress me year after year. I'm proud of whatever part I've been able to play in shaping an environment that values and fosters a passion for learning."

Andrea Smesny

Andrea L. Smesny, Pharm.D. ('97), B.S. (Biology '78), MPH, joined the college from Northeast Medical Center Hospital in 1999 as a clinical faculty member and coordinator of the college's community wellness and pharmacy skills programs. Smesny was instrumental in launching the Humble Health Fair at which dozens of UHCOP students and preceptors provided free seasonal flu immunizations and wellness screenings to hundreds of senior citizens in the community each year for nearly 20 years.

Her distinguished career at the college included being promoted to assistant dean for Student Affairs in 2004, associate dean for Academic Affairs in 2009, and executive associate dean in 2014. As the second-in-command in the college, Smesny is credited with her administrative leadership in coordinating the design and planning of the college's Health 2 building, as well as the furnishing, moving and settling-in processes. She also was responsible for overseeing the college's national accreditation review processes and the recent curriculum overhaul of the Pharm.D. curriculum.

Smesny earned the UH Distinguished Young Alumni Award in 2000, the Texas Pharmacy Foundation's Healthcare Pathfinder Award in 2002, Rho Chi Society Beta Omicron Chapter's Teaching Excellence Award in 2002, UH Faculty Excellence Award in 2003, and the college's Outstanding Faculty Leadership Award in 2005. A member of the Mading Society, Smesny established an endowed scholarship for Pharm.D. students at the college.

A graduate of the American Association of Colleges of Pharmacy's Academic Leadership Fellows Program and an inductee of PLS, Smesny has coauthored research published in such journals as HIV/AIDS and the American Journal for Pharmaceutical Education.



UH College of Pharmacy has welcomed several new clinical, translational and basic sciences faculty to its ranks, including several alumni of the college, in continuation of its mission of excellence in patient care, discovering and developing life-saving and improving therapeutics, and education of future pharmacy practitioners and scientists.



Shantera Rayford Davis Pharm.D.

PGY1 Pharmacy Practice Residency at Harris Health System following graduation from UHCOP. She then worked as a clinical pharmacist at the University of Pittsburgh Medical Center in Pittsburgh, Pa., and later as a clinical pharmacy specialist at Memorial Hermann The Woodlands Medical Center. While maintaining a practice site at Memorial Hermann The Woodlands, Davis became an assistant professor and experiential program director for Texas Southern University College of Pharmacy & Health Sciences in Houston. She then joined CHI St. Luke's Health-Baylor St. Luke's Medical Center and internal medicine (drug information clinical pharmacy and associated pharmacy management). riential program development, Davis also has helped to establish and manage a variety of clinical initiatives - such as a discharge medication counseling service and an antimicrobial stewardship program – during her career. Davis also has earned the board certified pharmacotherapy specialist



Karina Garza Pharm.D.

Karina Garza, Pharm.D., clinical assistant professor, is a member of the Rio Grande Valley Pharm.D. Satellite Program and a clinical pharmacist with program partner DHR Health in Edinburg, Garza is a graduate of The University of Texas College of Pharmacy/UT-Pan American (now UT Rio Grande Valley). Following graduation, Garza joined Knapp Regional Medical Center in Weslaco as a clinical pharmacist, where her activities included creating an IV pump drug library and helping implement electronic Medication Adherence Record, bedside scanning, and pharmacy automation. While in this position, Garza was honored as a "Knapp Star" for her dedication and hard work. Two years later, creating and/or reinitiating a renal dosing program, IV-to-PO conversion program, and medication laboratory monitoring; coordinating the antimicrobial stewardship program; and building and maintaining the electronic health record. She is a past president-elect/president of the Rio Grande Valley Society of Health-System Pharmacists.



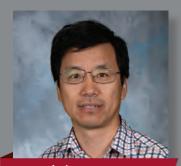
Iodie Gee Pharm.D.

where she served as an ambulatory care pharmacist at its Smith Clinic. After graduating from UHCOP, Gee completed a PGY1 residency at Harris Health and a PGY2 ambulatory care specialty residency at Parkland Health and Hospital System in Dallas. She then held faculty appointments with The Center-San Antonio School of Medicine's Pharmacotherapy Education and Research Center, with a clinical practice site at MedFirst Northeast Clinic in San Antonio. A board certified ambulatory care pharmacist and certified diabetes educator, Gee has earned research presentation honors at meetings of the Texas Society of Health-System Pharmacists and the American Diabetes Association. She also has been honored for preceptorship excellence by UHCOP, Baptist Health System and UT College of Pharmacy as well as with the "Pharmacist of the Quarter" award and twice as a "Sonice First Health".



Anne Gonzales-Luna Pharm.D.

distinction. After graduation, Gonzales-Luna completed a PGY1 residency at the Michael E. DeBakey European Congress of Clinical Microbiology and Infectious Diseases, IDWeek, and the Texas Medical Center Antimicrobial Resistance and Stewardship Conference. Gonzales-Luna has presented lectures in the college's Advanced Therapeutics I/II and Infectious Diseases Pharmacotherapy courses as well



Jiukuan Hao M.D., Ph.D.

Jiukuan Hao, Ph.D., M.D., associate professor, earned his M.D. from China Medical University in China and his Ph.D. in Pharmaceutical Sciences from Texas Tech University. He joins the college from versity's Faculty Excellence Award.

Hao currently is working on a \$1.76 million project, "Targeting the Hippo signaling at the Blood-Brain Barrier for Therapy of Ischemic Stroke," supported by the National Institutes of Health through 2023. In this current project, Hao is investigating the component activators of a signaling pathway as Michael J. Fox Foundation for Parkinson's Research, and published in such journals as Neuroscience,



Ashok Kumar Ph.D.

Professor of Pharmacology and PPS Department Chair. Kumar joins the college from the University of Louisville in Louisville, Ky. He earned his Ph.D. in Biochemistry from the University of Delhi in India and a M.S. in Computer Science from the University of Houston-Clear Lake. Kumar's research is focused on the understanding the signaling mechanisms that regulate skeletal muscle development, and the \$1.68 million "MYD88 Signaling in Mammalian Myoblast Fusion." Kumar has authored or co-Journal of Cell Biology, FASEB Journal, Molecular and Cellular Biology, Journal of Biological Chemistry, and Autophagy. He serves as an associate editor for Frontiers in Cell and Development Biology and as an



Briget R. Martinez Pharm.D.

atrics and pediatric/neonatal intensive care, including transitions of care, at DHR Health. A UHCOP preceptor since 2008, Martinez also will serve as residency program director for a new ambulatory care-focused DHR Health/UHCOP postgraduate pharmacy practice residency (PGY1) program.

Martinez's previous clinical and community practice experience includes positions at Kelsey Cancer Center. Martinez also holds a B.S. in biology from Southwestern University in Georgetown, Texas, and a Health Informatics Certificate from the University of Illinois.



Alumna Mabel Truong, Pharm.D. ('11), BCPS, has been appointed clinical assistant professor in the Department of Pharmacy Practice and Translational Research and director of Institutional Based

has presented research posters at meetings and symposia hosted by the American Society of Health Clinicians.



community pharmacy for Walmart for four years, during which time he was recognized by his alma

as the college implemented a new Pharm.D. curriculum. Wollen's fellowship project, "Empathy and Confidence in Pharmacy Students in a Skills-Based Learning Environment Regarding Opioid Overdose," was presented at the 2019 American Association of Colleges of Pharmacy PharmEd



Pharmacological & Pharmaceutical Sciences, received her appointment after five years as a postdoctoral fellow under mentor and graduate advisor Professor Diana S-L. Chow, Ph.D., FNAI. Her doctoral work with Chow and their late colleague and UHCOP alumna Lakshmi Putcha, Ph.D., involved a NASA

Institute of Texas and led by fellow UHCOP alumnus and Chow mentee, Dong Liang, Ph.D. ('95).

Chow, Hu Awarded New Professorships

Two of UH College of Pharmacy's most respected and prolific Pharmaceutics research faculty members — Diana S-L. Chow, Ph.D., FNAI, and Ming Hu, Ph.D. - have been awarded newly established endowed professorships.

Chow has been appointed as the Paula & John J. Lovoi Sr. Endowed Professor of Drug Discovery and Development, which was established in honor of the late alumnus and longtime member of the UHCOP Dean's Advisory Council and Mading Society.

A UHCOP faculty member since 1981, Chow also has served as director of the Institute for Drug Education and Research since 1991. Chow is co-inventor of several U.S. and international patented formulations, including the FDA-approved transplantation preconditioning agent IV Busulfex® (Busulfan), which greatly





improved the life expectancy of patients and generated more than \$30 million in patent royalties for UH. In 2017, she was named a Fellow of the National Academy of Inventors. A Mading Society member, Chow has established two endowed scholarships at the college and helped endow countless others.

Hu has been appointed as the Diana S-L. Chow Endowed Professor of Drug Discovery and Development in honor of his longtime UHCOP colleague. Hu is a recognized expert in the field of pharmacokinetics and the bioavailability of drugs, nutrients and micronutrients as well as ultra performance liquid chromatographytandem mass spectrometry analyses.

A UHCOP faculty member since 2004, Hu has been awarded or served as a collaborator on multiple National Institutes of Health grants, authored or coauthored more than 150 peer-reviewed articles, and co-edited the book, "Oral Bioavailability: Basic Principles, Advanced Concepts and Applications," which included chapter contributions from three UHCOP Ph.D. alumni.

"Drs. Chow and Hu have made an incredible impact on the lives and health of countless patients with their research, as well as mentoring students who are now successful scientists in industry and academia," said Dean F. Lamar Pritchard, Ph.D., R.Ph.

Faculty Accolades

Faculty members Susan Abughosh, Ph.D., Kim Birtcher, Pharm.D., M.S., BCPS (AQ Cardiology), CDE, FNLA, and Samina Salim, Ph.D., were honored with the Rho Chi Society Beta Omicron Chapter's 2018-19 Teaching Excellence Awards.

Rajender R. Aparasu, Ph.D., FAPhA, professor, served as co-editor and co-author on the second edition of "Principles of Research Design and Drug Literature Evaluation," published McGraw-Hill Education. UHCOP faculty members Catherine Hatfield, Pharm.D., and Jeffrey Sherer, Pharm.D., MPH, BCPS, CGP, as well as alumna Satabdi Chatterjee, Ph.D. ('13), were among the chapter contributors. Aparasu also has been invited to serve on the National Ambulatory Medical Care Survey Workgroup under the Board of Scientific Counselors of the Centers for Disease Control and Prevention's National Center for Health Statistics.

Faculty members Richard A. Bond, Ph.D. ('88), B.S. ('83), Aditi Marwaha, Ph.D. ('05), and Douglas Thornton, Ph.D., Pharm.D., BCPS, earned the 2019 UHCOP Faculty Excellence Awards in Service, Teaching and Research, respectively.

Jason Eriksen, Ph.D., associate professor, has been elected Senior Member of the National Academy of Inventors.

Julianna Fernandez, Pharm.D. ('06), BCPS, BCGP, was elected Chair-elect of the American College of Clinical Pharmacy Geriatrics Practice and Research Network.

Catherine Hatfield, Pharm.D., clinical associate professor, has been appointed to the American Interprofessional Health Collaborative (AIHC) Programming Committee for the 2019-2022 term.

Randall Prince, Pharm.D., Ph.D. (Hon.), FCCP, FCP, professor emeritus, was elected 2019 Fellow of the Society of Infectious Diseases Pharmacists.

Samina Salim, Ph.D., associate professor, was honored by the Houston Metropolitan Transit Authority during its 2019 Asian Pacific American Heritage Month celebrations.

Jeff Sherer, Pharm.D., MPH, BCPS, CGP, has been promoted to Clinical Professor, and **Dhara N. Surati**, Pharm.D. ('08), BCPS, has been promoted to Clinical Associate Professor.

Elisabeth Sulaica, Pharm.D. ('16), earned the Board Certified Cardiology Pharmacist credential from the Board of Pharmacy Specialties.

MariVi Tejada-Simon, Ph.D., associate professor, has been appointed Director of Faculty Development for the college.

Douglas Thornton, Ph.D., Pharm.D., assistant professor, has been appointed 2019-20 Chair of the American Association of Colleges of Pharmacy's Social & Administrative Sciences (SAS) Section Graduate Programs Committee.

Matthew Wanat, Pharm.D., BCPS, BCCCP, FCCM, clinical associate professor, has been appointed to the American Association of Colleges of Pharmacy's American Journal of Pharmaceutical Education editorial board and to a three-year term as chair-elect, chair and immediate past chair of the Undergraduate Education Committee of the Society of Critical Care Medicine. He also received his fifth consecutive Presidential Citation from SCCM in 2019.



New Center Focused on Education, Prevention of Prescription Drug Misuse

In 2019, the National Safety Council reported that for first time in American history a person in the United States is more likely to die from an accidental opioid overdose than from a car accident.

FFor the first time in American history, a person is more likely to die from an accidental opioid overdose than from a car accident. As reported by the National Safety Council in 2019, the odds of dying accidentally from an opioid overdose is 1 in 96, eclipsing the odds of dying in a motor vehicle crash (1 in 103).

Against the background of this tragic statistic, the recently launched Prescription Drug Misuse Education and Research (PREMIER) Center at UH College of Pharmacy aims to educate providers and patients on safe and effective controlled substance prescription use and to serve as a catalyst for collaborative research efforts to optimize pharmacotherapy used to manage pain and substance use disorders.

The center's leadership team is comprised of Co-Directors Douglas Thornton, Ph.D., Pharm.D., BCPS, assistant professor, and Rajender Aparasu, Ph.D., FAPhA, professor and department chair, and Assistant Director Matthew Wanat, Pharm.D., BCCCP, BCPS, FCCM, clinical associate professor.

"We want to be the center for prescription drug misuse research and evaluation and community engagement for the state of Texas," Thornton said. "We want to keep patients healthy, especially those who use controlled substance medications, and that starts with prescribers and pharmacists, making sure they have the best training possible and the most appropriate treatment options available."

Thornton, Wanat, and their PREMIER Center team have worked closely with public health officials and leadership at the Texas Health and Human Services Commission in developing and implementing the state's Strategic Prevention Framework for Prescription Drugs (SPF-Rx) and the Safe Drug Disposal and Community Awareness Project of the Texas Targeted Opioid Response (TTOR) Program, which are being funded by the Substance Abuse and Mental Health Services Administration for what has now been designated as a national public health emergency.

The first initiatives of center include distributing single-use disposal systems across the state; providing continuing education to pharmacists on a variety of topics such as controlled substancespecific counseling and patient referral resources; and training to Pharm.D. students to conduct outreach to pharmacies on safe disposal and storage practices for unused medications.

In addition, center members and their colleagues already have produced numerous peer-reviewed research articles and presentations in such areas as utilization of prescription drug monitoring programs, prescribing, counseling and intervention practices, and patient health outcomes and costs related to opioid and non-opioid pain management therapeutic regimens.

Center leaders also are working with colleagues throughout the Texas Medical Center under a recently formed pain management collaborative to discuss innovative strategies and practices, such

as linking emergency room prescribing data to prevent potential misuse of controlled substances by patients in the setting.

The center will address currently unmet needs by examining the role of health providers and current regulations in the prescribing, dispensing and monitoring of controlled substances and developing educational opportunities for both health care professionals and patients alike.

"The education component will be aimed at training and educating health professionals and students on issues of prescription drug misuse, addiction, dependence and options for pain management," Thornton said.

Thornton also is engaged in efforts to provide stakeholders —

including patients, providers, payers and employers — with a more complete picture of the societal and economic impacts of opioids in pain management. With the support of a \$170,000 National Institute of Drug Abuse grant, Thornton is working to quantify the chronic opioid therapy-associated productivity losses in U.S. working older adults.

"Overdose deaths and hospitalizations are certainly the most immediate and tragic consequences of the epidemic," Thornton said. "We also need to determine the longer-term impacts, including the toll on the employee's endocrine, cardiovascular and renal systems, quality of life, and ultimately workplace productivity and safety."

— UH's Laurie Fickman contributed to this story.

Out of the wrong hands

PREMIER Center Co-director Douglas Thornton's \$3.34 million Texas grant supports purchase, distribution and evaluation of safe disposal kits to reduce potential misuse.

drug monitoring programs, law enforcement opioid misuse, the risks of intentional misuse or accidental poisoning remain high due to unused and unwanted controlled substances legitimate, medically appropriate purpose.

as help reduce environmental impacts from

drug take-back events, widely available.

and PREMIER Center Co-director Doug Thornton, Ph.D., Pharm.D., BCPS, is leading directly to patients: a single-use safe disposal system (SUD) for medications that are mailed to a designated facility for incineration.

Part of a broader Substance Abuse and funding program to states nationwide, Commission awarded a \$3.34 million grant for the Texas Improved Dissemination and (TIDES) project to Thornton under the its

Implementing a project the size of TIDES Project Manager Danielle Campbell, RCP, Matthew Wanat, Pharm.D., BCCCP, BCPS,

We'd like to see a time when single-use disposal systems are given out at the pharmacy along with the prescription, which prompts a discussion between the patient and pharmacist, covering the need to safely use and dispose of all unused medications.

graduate students.

Thornton and his team have worked with prevention organizations, law enforcement 32,000 Texans.

not want to go to the police station with systems are given out at the pharmacy along with the prescription, which prompts pharmacist, covering the need to safely use,

published in the Journal of the American

61% of the 400 survey only about 21% of that counseling came from a

of a medication in the prior year, the most responses — of disposal was flushing the discouraged by government, health care and

our patients," Thornton said.



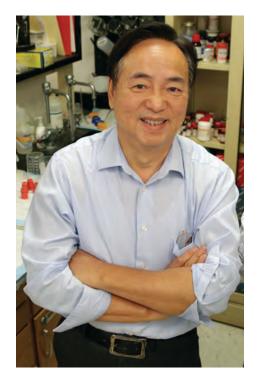


SINGLE-CHAIN INSULIN LOWER COSTS, EXTEND INTERVAL

New Formulation Could Address Key Concerns about Rising Costs of the Life-saving Drug

UHCOP Professor of Pharmacology and Medicinal Chemistry Ke-He Ruan, Ph.D., M.D., has created a form of recombinant insulin that could potentially address some of the biggest concerns about the lifesaving drug, including its price.

Ruan said his single polypeptide chain



insulin or SPC-insulin, appears to stabilize glucose levels up to three times as long as conventional wild-type human insulin (insulin grown to mimic that produced in humans).

Ruan, who also serves as director of the college-based Center for Experimental Therapeutics and Pharmacoinformatics, said the single peptide chain insulin could be manufactured using simpler production methods.

Such a major shift in production could potentially cut the cost of the medication - the price of the most commonly used types of insulin have tripled over the past decade - as well as allow patients with Type 1 diabetes to go longer between injections, he said.

People with Type 1 diabetes produce little or no insulin, a hormone produced in the pancreas, and rely on insulin to regulate blood sugar. Some people with Type 2 diabetes, which occurs when people can't efficiently use the insulin their bodies produce, also require insulin injections.

Ruan used 3D computer modeling to determine how to link the two polypeptide chains used to produce current commercially available human insulins, creating a single polypeptide chain that could be inserted into yeast or bacteria to grow the insulin. He recently filed for a provisional U.S. patent for the discovery.

He said the new formulation is better able to maintain its configuration, compared with the conventional two-chain configuration, linked by disulfide bonds which quickly reduce to inactive a- and b- chains once they reach the circulatory system.

The single polypeptide chain configuration remains active longer, lengthening the time patients can go between injections.

It also can be produced more quickly, with a one-step process rather than the three or four steps required for current recombinant-protein methods, Ruan said.

As with conventional production of recombinant human insulin, SPC-insulin can be produced in either yeast or bacteria.

- Jennie Keaver, UH



UH College of Pharmacy alumna and inaugural Academic Pharmacy Fellow Tyler M. Kiles, Pharm.D., BC-ADM, won a Best Poster award at the American Association of Colleges of Pharmacy's 2019 Pharmacy Education meeting.

Kiles won in the Resident, Fellow or Postdoc category of the Trainee Poster Competition for her project, "Comparison of Knowledge Gained in a Community Pharmacy Lab Course Between Students with and Without Prior Community Pharmacy Technician Work Experience."

The project based on self-perception sur-

vevs and knowledge assessments of more than 200 first- and second-year Pharm.D. in a community dispensing lab.

Administered at the pre- and post-course phases, the surveys captured technician work experience and self-perceptions of drug card knowledge, workflow comfort, and community practice confidence. Knowledge assessments, which also were administered at the pre- and post-course phases, evaluated understanding of community pharmacy law, workflow, inventory, insurance, and prescription verification.

Based on the results, Kiles noted the ex-

istence of "a baseline knowledge and confidence gap between students with technician experience and those without in a community pharmacy simulation lab."

Kiles and her collaborators indicated the results support investigation into "testing out" or separate tracks for experienced and non-experienced students.

Coauthors on the project were UH-COP faculty members Alexa V. Zhao, Pharm.D., AAHIVP; Matthew A. Wanat, Pharm.D, BCPS, BCCCP, FCCM; Kevin Garey, Pharm.D., MS, FASHP; and Catherine L. Hatfield, Pharm.D.

Graduate Student, Postdoc Research Shine at UH Showcases

UHCOP graduate students and postdoctoral associates continue to impress peers and faculty researchers across campus in recent research showcases hosted by the UH Graduate School and the UH Postdoctoral Fellows Association.

At the 2019 Graduate Research Showcase in October, three students ranked high in the 3-Minute Thesis (3MT®) presentations aimed at enhancing budding researchers' ability to communicate complex scientific concepts in a concise, but engaging, format to a lay audience. The top UHCOP presentations were:

"Discovering New Treatments for Breast Cancer with a Focus on Safety" by Pharmacology Ph.D. student Noor Abdulkareem (finalist); "Killer Walls: From Death to Life or Freedom" by Pharmaceutics Ph.D. student Victor Lincha (2nd Place); and "The Anchoring Protein Gravin as a Potential Target for Heart Failure Treatment" by Pharmacology Ph.D. student Hanan Qasim (finalist); and "Improving Prediction of Microvascular Complications in Patients" by Pharmaceutical Health Outcomes and Policy Ph.D. candidate Oingging Xu (finalist). The 3MT® presentations can be viewed at www.uh.edu/graduate-school/events/research-day/index.php

In the showcase's Research Poster Competition, Pharmacology Ph.D. student Razia Sultana Mohammed earned an Honorable Mention for her presentation, "Role of Transcription Factor Nrf2 in Regulation of Age-associated Decline in Kidney Function."

At the UH Postdoctoral Research Symposium in December, Satya Shukla, Ph.D., postdoctoral research associate under Associate Professor Gomika Udugamasooriya, Ph.D., won first place for his oral presentation, "Structural diversification of lipid-phosphatidylserine (PS) targeting peptide-peptoid hybrid compound PPS1."



With obesity rates jumping nearly 12% — and severe obesity up 5% — in just two decades, Pharmacology Ph.D. candidate Elizabeth Gray has secured a coveted federal pre-doctoral fellowship in support of her work to develop a novel therapeutic that protects the heart and kidneys from the debilitating and deadly nexus of obesity, hypertension and diabetes.

Working under Tahir Hussain, Ph.D., Joseph P. and Shirley Shipman Buckley Endowed Professor of Drug Discovery, Gray is the college's first recipient of a three-year, \$102,458 Ruth L. Kirschstein Predoctoral Individual National Research Service Award from the National Institute of Diabetes and Digestive and Kidney Diseases.

Hussain and Gray are investigating their novel combination of a synthetic angiotensin 2 receptor agonist Compound 21 (C21) with a neprilysin (NEP) inhibitor as a better alternative to an FDA-approved combinatorial AT1 receptor blocker (ARB) and NEP inhibitor, which has been endorsed as a more effective therapeutic agent than the traditional single-agent ARBs and angiotensin converting enzyme (ACE) inhibitors used to treat heart failure and protecting the kidney.

Of concern to Hussain and Gray is that while the newer drug was shown to improve cardiovascular function in clinical trials, an increase in albuminuria — an indicator of kidney injury - also was observed.

"Neprilysin inhibition offers significant benefits by preventing the breakdown of reno-protective atrial natriuretic peptides (ANP) that improve vasodilation and sodium excretion, two factors that are reduced or impaired in obesity and hypertension," Gray said. "However, neprilysin inhibition may also decrease the levels of Ang1-7, which is known to have reno-protective benefits."

Previous studies by Hussain's lab and others have shown that use of the AT2 receptor agonist increases the levels of beneficial Ang1-7 and decreases deleterious angiotensin II, a vasoconstrictor that increases blood pressure and volume and triggers thirst or salt cravings.

"That's where we believe our approach will have cardio- and reno-protective effects," Gray said. "We don't lose the benefits on the heart because of the increasing ANP, but we don't damage the kidney because we can compensate for the detrimental effects of neprilysin."

A Different Kind of Love Story

While teaching anatomy and physiology undergraduate and master's degrees in biology from St. John's University in Jamaica, N.Y., Gray discovered her calling.

"I fell in love with the entire urinary system, learning about the kidneys, learning the complexities of it, and how many spe-

Gray said it was the focused research of

"I wanted to get into a program where it's more direct, applied science, and within students willing to collaborate," Gray said. "I'm so happy to be here and learning all of the techniques to become a successful that hopefully can benefit so many people."

New Graduate Fellowship in Population Health Outcomes Launched by Humana, PHOP

The Department of Pharmaceutical Health Outcomes and Policy (PHOP) has partnered with Humana, a leading health and well-being company, and Humana Pharmacy Solutions, Humana's benefits manager arm, to establish a research-focused fellowship program for PHOP Ph.D. students.

The Humana Graduate Research Assistant Fellow in Health Outcomes will gain a comprehensive overview of key areas within clinical care provision and population health outcomes; promote the role and value of team-based care to improve population health; and actively participate in research areas of integrated care through direct involvement in projects and assignments with

Working under PHOP faculty members Rajender R. Aparasu, Ph.D., FAPhA, and Hua Chen, Ph.D., M.D., the fellow will be provided research training and experience needed to successfully complete the projects based on medical records and claims data. PHOP Ph.D. candidate Swarnava Sanyal has been selected as the inaugural fellow.

"This is an exciting opportunity for the department and our students to collaborate directly with an industry leader such as Hu-



PHOP doctoral candidate Swarnava Sanyal, right, will serve as the inaugural Humana Graduate Research Assistant Fellow in Health Outcomes under faculty members Rajender Aparasu, left, and Hua Chen.

mana on real-world, evidence-based solutions to current health care challenges," Aparasu said.

"We are always looking for ways to innovate and deliver improved clinical outcomes through population health, especially as it relates to our Medicare members," said Michael Taday, Pharm.D., vice president, Pharmacy Clinical Strategies and Operations at Humana. "This new program allows us to engage the next generation of researchers to work on the evolving role of the pharmacist in population health and how pharmacists can have evidence-based, clinical impact on our members to improve their lives."

Co-funded Research Program Aims to Foster UH, BCM Collaboration

The University of Houston and Baylor College of Medicine have launched a new co-funded research initiative aimed at capitalizing on the research expertise and capabilities of each institution to foster innovation and collaboration, with UH College of Pharmacy researchers among the awardees on four of the nine pilot projects.

"Baylor College of Medicine and the University of Houston have unique strengths and resources that can contribute to an outstanding platform for population health and precision medicine," said Ashok Balasubramanyam, M.D., vice president for academic integration at Baylor. "This joint research collaboration will greatly enhance scientific innovation and discovery that will benefit both our institutions and the city of Houston."

The grants provide awardees \$60,000

over 18 months, with each of the Texas Medical Center member institutions responsible for half of the funding.

"The impact of the synergy between the clinical research depth of Baylor and the fundamental and technological biomedical research of the University of Houston will be transformative," said Amr Elnashai, Ph.D., UH vice president for research and technology transfer. "I cannot think of a better, more collaborative and capable research partner than Baylor."

The UHCOP-involved projects and investigators are:

"Reprogrammed Cardiac Progenitor Cells into Cardiac Conduction Cells for Heart Repair" — Na Li, Baylor assistant professor of medicine - cardiovascular research, and Bradley K. McConnell, UHCOP associate professor of pharmacology;

"Role of Trimethylamine-N-Oxide in renal aging" - Nagireddy Putluri, associate professor of molecular and cellular biology and director of the metabolics core at Baylor, and Krishna M. Boini, assistant professor of pharmacology at UH;

"Structural Basis for Munc13-1's Regulation by Bryostatin 1" - V. Prasad, Baylor professor and Alvin Romansky Chair in biochemistry and molecular biology, and Joydip Das, UHCOP professor of medicinal chemistry; and

Plant-Based Exosome-Like "Dietary Nanoparticles' Impact the Human Gut Microbiome" — Kendal Hirschi, Baylor professor of pediatrics - nutrition and molecular and human genetics, and Xinli Liu, UHCOP associate professor of pharmaceutics.

COAXING FAT STEM CELLS INTO **BIOLOGICAL PACEMAKERS**

Organic Approach Offers Maintenance-free, Adaptable Solution to Arrhythmias

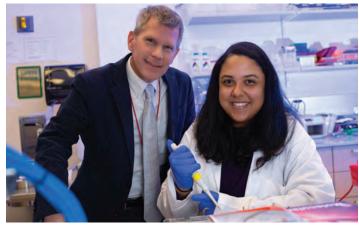
Associate Professor Bradley McConnell, Ph.D., FCVS, FAHA, is helping usher in a new age of cardiac pacemakers by using stem cells found in fat, converting them to heart cells, and reprogramming those to act as biologic pacemaker cells. The new biologic pacemaker-like cell will be useful as an alternative treatment for conduction system disorders, cardiac repair after a heart attack and to bridge the limitations of the electronic pacemaker.

"We are reprogramming the cardiac progenitor cell and guiding it to become a conducting cell of the heart to conduct electrical current," McConnell said.

More than 600,000 electronic pacemakers are implanted in patients annually to help control arrhythmia. In addition to having the device regularly examined by a physician, an electronic pacemaker can stop working properly over time.

"Batteries will die - just look at your smartphone," McConnell said. "This biologic pacemaker is better able to adapt to the body and would not have to be maintained by a physician. It is not a foreign object. It would be able to grow with the body and become much more responsive to what the body is doing."

One of his collaborators — Hugh Roy and Lillian Cranz Cullen Distinguished Professor of Biology and Biochemistry Robert J. Schwartz, Ph.D. — previously reported work on turning the adipogenic mesenchymal stem cells that reside in fat cells into cardiac progenitor cells. The same cardiac progenitor cells are being programmed to keep hearts beating as a sinoatrial node (SAN), part of the electrical cardiac conduction system (CCS). Native cardiac pacemaker cells are confined within the SAN, a small structure comprised of a few thousand specialized pacemaker cells. Failure



McConnell checks in on Camila Kochi, pharmacology Ph.D. candidate, in the lab.

of the SAN or a block at any point in the CCS results in arrhythmias.

To convert the cardiac progenitor cells, McConnell infused the cells with a unique cocktail of three transcription factors and a plasma membrane channel protein to reprogram the cells in vitro.

"In our study, we observed that the SHOX2, HCN2, and TBX5 (SHT5) cocktail of transcription factors and channel protein reprogrammed the cells into pacemaker-like cells. The combination will facilitate the development of cell-based therapies for various cardiac conduction diseases," he reported.

Pharmacology alumna Suchi Raghunathan, Ph.D. ('18), who now serves as scientist at VL50 Inc., is credited as first author on the Journal of Molecular and Cellular Cardiology paper about the work.

- Laurie Fickman/UH



PROTEIN MAY HOLD KEY TO **RESTORING CONTRACTILITY** OF DESENSITIZED RECEPTORS

UHCOP Associate Professor Bradley K. McConnell, Ph.D., FCVS, FAHA, is working to characterize a potential therapeutic target to increase heart function following a heart attack, helping alleviate the symptoms of heart failure.

"The release of catecholamines is a normal and acute occurrence if you're needing to run a marathon or escape an attack, for instance, but in heart failure, it is no longer acute, it becomes a chronic response," McConnell said. "Every day for the rest of your life, those hormones will be elevated above normal levels. Once this happens, this elevated response desensitizes receptors on the cells of the heart."

Catecholamines bind to the β -adrenergic receptor (β -AR) whose signaling is the primary mechanism of heart contractility, but chronic β-AR stimulation results in reduced contractility due to desensitization of these receptors. Once able to bind to the hormones, the receptors respond to the overstimulation by desensitizing, or retracting into the cell itself. If the receptor is absent, it cannot help respond to the heart's demands.

"I want to try to identify how to get those receptors to stay on the membrane longer so that, even during heart failure, we can get those receptors to increase heart function," he said.

The key is a protein called gravin, or AKAP12, an A-kinase anchoring protein that fine-tunes cellular responses and interacts with the β -AR subtype, β 2-AR, to regulate the expression of this receptor on the cells of the heart, allowing it to bind and respond to the catecholamine's actions.

"We are working to identify the role of gravin on regulating the expression of receptors on membranes," McConnell said. "We have preliminary data that without gravin we see a much larger increase of the receptor on the membrane, and the overexpression brings the opposite effect."

Garey: Cdiff. in Biofilm Resists Eradication by Hospital Disinfectants

The notoriously stubborn superbug Clostridioides difficile (C. diff) is putting up a winning fight against hospital-grade disinfectants meant to kill it, according to results of a December 2019 study published in the Antimicrobial Agents and Chemotherapy journal.

No previous studies have investigated chemical disinfection of C. diff spores embedded in biofilms. For the project, five unique C. diff strains — embedded in three different biofilm types grown for 72 or 120 hours — were exposed to different hospital disinfectants.

"We found no disinfectant was able to completely eliminate C. difficile embedded within biofilms, although we did note differences among disinfectants," said project leader Kevin Garey, Pharm.D., M.S., FASHP, UHCOP professor and chair of the Department of Pharmacy Practice and Translational Research.

Overall, Clorox®, Cidex OPA®, and Virex® were most effective at killing C. diff spores. Clorox® and OPA® were also effective at killing total vegetative cell growth, the cellular stage responsible for causing infections. Virex® was found to be ineffective against vegetative cell growth in biofilms. Clorox® and Virex® were most effective in reducing biomass followed by Nixall®, Cidex OPA® and Vital Oxide®.

"This study helps explain why C. diff is so hard to eradicate from the environment and demonstrates the ability of these spores to be so omnipresent and self-propagate in the environment," Garey said.

UHCOP Research Assistant Professor Jahangir Alam, Ph.D., was among the coauthors on the paper.



Chen Probes Acute Asthma Risks in Pediatric Opioid Use

With scant empirical evidence driving FDA warning labels in opioid prescribing for pediatric asthma patients, UHCOP Associate Professor Hua Chen, M.D., Ph.D., is working to demystify opioid use in children with acute asthma.

Supported by a two-year, \$99,783 research grant from the Agency for Healthcare Research and Quality, Chen is conducting a retrospective study of approximately 70,000 pediatric asthma patients with at least one short-term opioid prescription in the Texas Children's Health Plan database.

Although opioids are contraindicated by the FDA in pediatric patients with asthma, they are still being prescribed.

"Even a pediatric pulmonologist I spoke with didn't know about the contraindica-

tions, while others may be disregarding the warnings based on the lack of evidence," Chen said. "Pediatric labeling of drugs is often based on very limited evidence, so we want to make sure that when an opioid is prescribed, it's based on an informed decision instead of leaving physicians and other prescribers wondering what to do."



The project includes identifying provider and patient characteristics.

"We want to look at how those medications are used in asthmatic children, including the setting, the prescriber type and what conditions the opioids are intended to treat, such as after an emergency room visit for some type of trauma like a broken arm, a surgical procedure or a dental procedure," Chen said. "Often, the prescriptions can vary significantly — from a single dose to two weeks or longer — for the same treatment scenario. Why?"

Chen also will identify whether asthma symptoms were exacerbated during treatment and quantify the risks based on the opioid type.

"Although we do know that opioids suppress the respiratory system, there's little

supporting evidence-based data against their use for pediatric asthma patients," Chen said. "Part of what we want to do with this study is provide evidence, instead of relying on anecdotal case reports of deaths due to respiratory failure. If an opioid must be used, we need to be informed as to which one is safer compared to others."

Bench Notes

Rajender R. Aparasu, Ph.D., FAPhA, professor, has been awarded a one-year, \$260,100 grant from Astellas Pharma Inc. for the project, "Anticholinergic burden among overactive bladder patients in nursing homes."

Fatin Atrooz, Ph.D. (18), postdoctoral research associate working under Associate Professor Samina Salim, Ph.D., was recognized with a "Paper Excellence Award" for her project, "Assessment of sleep and wakefulness pattern in an animal model of early-life sleep deprivation," at the 755th International Conference on Science, Technology and Management in December 2019 in Dubai, U.A.E.

Shweta Bapat, Soumya Chikermane and Abhishek Nair, Pharmaceutical Health Outcomes and Policy Ph.D. students, completed internships at Amgen, Gilead and Express Scripts, respectively, in summer 2019. Li Li and Jingwen Liu, Pharmaceutics Ph.D. students, completed summer internships at Boehringer Pharmaceuticals and the U.S. Food and Drug Administration, respectively.

Nicholas D. Beyda, Pharm.D., BCPS, assistant professor, received a \$86,450 grant from Cidara Therapeutics Inc. for his project, "Barriers to Hospital Discharge in Patients Receiving Echinocandins,

An Epidemiologic and Root Cause Analysis."

"Munc13 is a Molecular Target of Bryostatin 1," a paper authored by 2017 UH Biochemical and Biophysical Sciences B.S. graduate Francisco Blanco under the mentorship of coauthor Professor Joydip Das, Ph.D., was selected as an Editor's Choice manuscript in the June 2019 issue of Biochemistry. UHCOP Pharmacology/Medicinal Chemistry Ph.D. student Youngki You was among the coauthors on the paper.

Greg D. Cuny, Ph.D., associate professor, has received a \$154,530 subcontract award from Tufts University as part of the National Institute of Neurological Disorders and Stroke grant project, "Targeting RIPK1 and RIPK2 Kinases in Mouse Experimental Autoimmune Encephalomyelitis," and a \$879,284 subcontract award from the Fox Chase Cancer Center as part of the National Institute of Allergy and Infectious Diseases grant project, "Targeting RIPK3 in Flu-Associated Lung Injury."

Jagadesh Rao Earla, Pharm.D., MBA, a Pharmaceutical Health Outcomes and Policy Ph.D. candidate working under Professor Rajender Aparasu, Ph.D., FAPhA, was invited to present his research during the "Cool Science: Published Research Findings Using Re-

Student Lauded for Work on Patient Oncology Drug Sheets

Pharm.D. student Kristen Underbrink has earned national recognition for her project with a Houston pediatric oncology center to improve communication with patients and caregivers about potential side effects from chemotherapeutics and other treatment plan drugs.

Underbrink, who volunteered to work on the project with clinical staff at Texas Children's Cancer and Hematology Centers (TXCH) and faculty members in the Baylor College of Medicine (BCM) Department of Pediatrics, won the

Best Pharmacy Abstract in Pediatric Oncology from the Children's Oncology Group (COG) at its 2019 Annual Meeting in Atlanta, Ga.

COG is a National Cancer Institute (NCI)-supported clinical trials group devoted exclusively to childhood and adolescent cancer research. She was one of two finalists invited to present their projects as part of a continuing education session at the meeting, with Underbrink's project being selected for the award.

Underbrink contacted Brooke Bernhardt, Pharm.D., M.S. ('13), assistant professor of pediatrics-hematology/oncology at Baylor



College of Medicine and pharmacy director of the Texas Children's Global Hematology Oncology Pediatric Excellence (HOPE) Program, while seeking exposure to pediatric clinical research.

Bernhardt offered Underbrink an opportunity to join a workgroup revamping the reference sheets - about 50 by project's end - for pediatric patients and their caregivers before and during treatment. The sheets are based on a Cancer Therapy Evaluation Program (CTEP) template of the National Cancer Institute.

"Participating in a project that will directly impact patients and their caregivers — and see people recognize and appreciate that effort — was an amazing feeling," Underbrink said.

Coauthors of the project were Quinn Franklin, M.S., CCLS, assistant director of the Psychosocial Division at TXCH; Pat Wills Bagnato, MSN, APRN, CPNP, CPHON®, assistant professor of Pediatric Hematology-Oncology at BCM and TXCH; and Karen R. Rabin, M.D., Ph.D., associate professor of Pediatric Hematology-Oncology at BCM and TXCH.

al-World Evidence" panel session at the TriNetX Summer 2019 Sept. 24-25 in Boston, Mass. Earla's presentation, "Factors Associated with Prescribing of Oral Disease Modifying Agents in Multiple Sclerosis," was conducted with the TriNetX data/analytics platform and was recognized with a Best Student Podium Presentation Award at the ISPOR 2019 International Meeting.

Jason Eriksen, Ph.D., PMP, associate professor, received a 2019 Chancellor's Bridging Technology Fund for \$75,000 from the UH Division of Research to support further development of Eriksen's "Fast Multiplex Microscopy Using Serial Ablation Lathe Tomography (SALT)," a state-of-the-art automated microscope system designed to yield high-resolution images at lower costs and shorter production time. The technology was developed in collaboration with UH Cullen College of Engineering Assistant Professor David Mayerich, Ph.D.

Kevin W. Garey, Pharm.D., M.S., FASHP, professor, has received a \$278,829 award from Acurx Pharmaceuticals for "Phase I Microbiome Studies of ACX-362E, a DNA polymerase inhibitor with a novel mechanism of action for oral treatment of Clostridium difficile infections."

Victor Lincha, Pharmaceutics Ph.D. candidate working under Professor Diana S-L. Chow, Ph.D., FNAI, received a UH Cullen Fellowship Travel Grant to present his project, "Pharmacokinetics of Novel Experimental Combination Therapy of Paclitaxel and Calcipotriol for the Treatment of Pancreatic Ductal Adenocarcinoma," at the 12th American Association for Cancer Research Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved in San Francisco, Calif.

Hanan Qasim, Pharmacology Ph.D. student working under Associate Professor Bradley K. McConnell, Ph.D., FAHA, FCVS, received a travel award from the American Society of Pharmacology and Experimental Therapeutics to present her project, "Cardiac AKAP12 Signalosome Overexpression Exacerbates Isoproterenol Induced Heart Failure," at the Experimental Biology 2020 in San Diego, Calif. (the meeting was later canceled due to concerns about the COVID-19 pandemic).

Youngki You, a Pharmacology/Medicinal Chemistry Ph.D. student working under Professor Joydip Das, Ph.D., received a Biophysical Society (BPS) travel award to present his project, "Lipid Membrane Influences Interaction Between the C1 Domain of Munc13-1 and the Activator," at the BPS19 63rd Annual Meeting in Baltimore, Md.

Discovery Exposes Biomarker, Drug Lead for Stem Cell Cancer

D. Gomika Udugamasooriya, Ph.D., UHCOP associate professor of medicinal chemistry, has identified a novel biomarker for stem cell cancer along with a promising drug lead for arresting the ability of the cells to multiply and proliferate.

Udugamasooriya revealed his discovery of the protein plectin on cancer stem cells in the journal Nature Scientific Reports.

"We believe plectin may be a more common biomarker that could lead to broadly applicable

drug development," reports Gomika Udugamasooriya in Nature Scientific Reports. "Plectin is a structural protein, predominantly expressed intracellularly, but whose translocation onto the cell surface is linked to tumor invasion and metastasis."

All cancerous tumors contain a small subset of drug-resisting, self-renewing, and highly metastatic cells called tumor-initiating cells, or cancer stem cells, responsible for 90% of cancer deaths.

Udugamasooriya's process of discovering the biomarker and a drug-lead is different than conventional two-step discoveries, where researchers first find a biomarker and then develop a drug. He



did both at once - developing 400,000 potential synthetic chemical compounds (peptoids) and used them to capture the specific biomarker performing his unique, but simple two-color cell screen.

From almost half a million, only three peptoids targeted cancer stem cells and not the remaining cancer cells from the same patient. When those peptoids were used to pull down their targets, one of them was identified as plectin, proving that it is a unique biomarker for cancer stem cells.

"Our studies show both genotypic and phenotypic correlations between plectin and lung cancer stem cells, as well as association of high plectin expression with poor patient survival in lung adenocarcinoma, potentially identifying plectin as a biomarker for lung cancer stem cells," reported Udugamasooriya.

Because plectin assists in shaping cells, it is pivotal to the spread of cancer, helping cancer stem cells wend their way through the body.

"Scientists are desperately trying to find ways to handle these stubborn cancer stem cells to wipe out tumors. We predict this will be a more com-

mon drug target than current ones, because all tumors want to spread," he said.

The discovery is part of a long-running collaboration with John D. Minna, Ph.D., a colleague at Udugamasooriya's former institution, the University of Texas Southwestern Medical Center. Funding for their research has been supported by Udugamasooriya's previous NIH-Career Development Award and University of Houston grants. Udugamasooriya said the team is now exploring the peptoid chemical compound that targets plectin as a potential drug-lead and drug delivery agent.

Laurie Fickman/UH

UHCOP, **DHR** Health Explore Outcomes, Cancer Projects in RGV

Along with DHR Health's role as the primary institutional partner of UHCOP's Rio Grande Valley Pharm.D. Satellite Program, the leadership of both institutions envision another major area for substantive collaboration: research.

The initial projects in development represent expansions of UH-COP faculty members' ongoing projects. Among these projects are:

- Medication adherence in breast cancer patients;
- · Statin metabolism pharmacokinetics in gastric bypass surgery patients;
- · Community outreach to recruit under-represented minorities to cancer research; and
- Collection of cancer tumor samples for a physical and virtual biobank for oncology drug discovery and development.



From left, DHR Health Director of Pharmacy Gabby Garza, R.Ph. (B.S.), and UHCOP RGV Pharm.D. Satellite Program staff member Selena Martinez and, far right, Assistant Dean Ron Ozuna hosted UHCOP faculty researchers, third from left, Susan Abughosh, Diana S-L. Chow and Meghna Trivedi during their trip to discuss research collaborations with DHR Health

BEYOND CHOLESTEROL: HEART RISKS OF RED MEAT, EGGS

Koka Digs into Role of Microbiome Metabolites in Cardiovascular Disease

Despite decades of research, the potential deleterious impact from consumption of some protein sources remains a matter of considerable debate and scrutiny in scientific circles. Yet, a UHCOP researcher is looking beyond the usual culprit of cholesterol as the potential new pathway in the development and progression of cardiovascular disease and atherosclerosis.

Sai S. Koka, Ph.D., R.Ph., research assistant professor, is investigating the molecular mechanisms by which the intestinal microbe-derived metabolites such as trimethylamine N-oxide (TMAO) — produced by the breakdown of foods rich in choline, phosphatidylcholine/carnitine, such as red meat and eggs - activates a pro-inflammatory process that damages the endothelial barrier. The damaged layer then forms

"traps" for plaque, which causes the walls of the arteries to harden and narrow. Atherosclerosis progression leads to restricted blood flow and/or the development of clots and increased risk of stroke or heart attack.

"Elevated TMAO has been identified as a risk factor for cardiovascular disease and atherosclerosis, but the exact relationship with the microbiome and TMAO's mechanisms of action on the



endothelial cells are not fully understood," Koka said.

Based on her research published in the journal Cellular Physiology and Biochemistry, Koka has identified at least two novel pathways for TMAO activation to induce hyper-permeability of the endothelium and its subsequent dysfunction.

Her recent work also suggests the inflammatory mediator high-mobility group box protein 1 (HMGB1) destroys cell-cell junctions, resulting in vascular endothelial hyper-permeability. Koka observed that HMGB1 is expressed with TMAO activation, while prior treatment with the HMGB1-binding compound glycyrrhizin abolished the TMAO-induced HMGB1 production. Her research also revealed a significant decrease

in the expression of cell-cell junction proteins in TMAO-treated endothelial cells.

Funded by a \$382,500 National Heart, Lung, and Blood Institute grant, Koka is investigating conducting in-vitro experiments on endothelial cells as well as developing a novel endothelial specific NLRP3 knock-out mouse model to elucidate the molecular mechanisms at work.

ASIOA Bestows Research Excellence Awards on Koka, Patel

A UHCOP faculty member and postdoctoral fellow were honored at the 8th National Meeting of the Association for Scientists of

assistant professor and a member of ASIOA's governing council, earned the Sudhir Gupta Young Scientist Award for excellence in pharmacological and pharmaceutical sciences.

book chapters and 47 peer-reviewed articles in peer-reviewed journals, as well as having doctoral Association, and the Institute of Cardiovascular Sciences of the International Academy of Cardiovascular Sciences.

Group Box1 Mediates Trimethylamine-N-Oxide Induced Endothelial Dysfunction," which was coauthored by UHCOP's Gurinder Bir na M. Boini, Ph.D., assistant professor.

search fellow in the lab of Buckley Endowed Professor Tahir Hussain, Ph.D., was recognized with the Biotex Laboratories Junior Sci-"Prevention of Lipopolysaccharide-Induced study were alumni Isha S. Dhande, Ph.D. ('14) and Quaisar Ali, Ph.D. ('11), Pharmacology

tensin II (AT2) in preventing acute kidney in-

Patel's research indicates that activation of AT2 via pre-treatment, but not concurinfiltration of leukocytes and an increase in circulating and renal cytokines and markers of renal dysfunction. C21 pre-treatment also preserved anti-inflammatory interleukin 10





Deprescribing in Older Adults, **Enhanced Opioid Monitoring** Keys to Medication Safety for At-risk Patient Populations

Focused on the theme of "Improving Care with Deprescribing and Drug Monitoring Programs," the 2019 Houston Medication Safety Symposium shed new light on the challenges and opportunities in reducing the medication burden in the older adult/geriatric patient population as well as strategies for reversing course on the opioid epidemic.

The symposium brought together a diverse group of researchers, healthcare practitioners, students, residents, and postdoctoral fellows, with continuing education credits provided for dental, pharmacy, medical, and nursing professionals.

The event featured plenary session presentations by Emily Reeve, BPharm(Hons), Ph.D., University of South Australia; Cara Tannenbaum, M.D., MSc., Canadian Institutes of Health Research, Canadian Deprescribing Network and Université de Montréal; Allison Vordenbaumen Benz, R.Ph., M.S., Texas State Board of Pharmacy; and Michael Sprintz, D.O., FASAM, Cellarian, Inc. and Sprintz Center for Pain and Recovery.

The symposium brought together a diverse group of researchers, healthcare practitioners, students, residents, and postdoctoral fellows, with continuing education credits provided for dental, pharmacy, medical, and nursing professionals.

Among the 20 submitted poster presentations, the recipients of the Best Poster awards were UHCOP Pharm.D. student Kelvin Lu for "Medication Adherence of Oral Endocrine Therapy in Breast Cancer Patients in a Large Academic Medical Center" and UHCOP Pharmaceutical Health Outcomes and Policy (PHOP) Ph.D. candidate Jagadesh Earla, Pharm.D., MBA, for "Factors Associated With Prescribing of Oral Disease Modifying Agents In Multiple Sclerosis."

Among the four oral presentations, "Comparison of Data Mining Methods for Detection of Adverse Events Associated with Use of Herceptin" by University of Texas Medical Branch at Galveston graduate student Effie Polychronopolou and "Anticholinergic Exposure and Cognitive Decline Among Older Nursing Home Residents With Depression" by UH PHOP alumna Satabdi Chatterjee, Ph.D. ('13), were recognized with Best Podium Presentation awards.

All of the submitted abstracts were published in the journal Research in Social and Administrative Pharmacy (Elsevier). The symposium was co-hosted by UHCOP's Department of Pharmaceutical Health Outcomes and Policy and the UTHealth McGovern Medical School and sponsored by the Phyllis Gough Huffington Endowed Lectureship, UTHealth Consortium on Aging and The PREMIER Center at UHCOP.

Top photo: PHOP Ph.D. candidate Swarnava Sanyal discusses his medication adherence project with a symposium attendee. Inset photo: Organizing committee members congratulate the top presenters Effie Polychronopolou (UTMB), Jagadesh Earla (UHCOP), Satabdi Chatterjee (UHCOP) and Kelvin Lu (UHCOP).



MS Dosage Form Study Generates ISPOR Honor

A UHCOP Ph.D. candidate's study into the prescribing factors associated with the choice of dosage form for multiple sclerosis patients drew one of three Best Podium – Student Poster Research Presentation awards at the ISPOR 2019 International Meeting.

Three oral disease modifying agents (DMAs) have been approved by the FDA for management of MS symptoms since 2010, but little is known about the determining factors in clinicians' choice to prescribe oral DMAs in favor of, or in conjunction with, other dosage forms, such as injectable agents. Patient preferences toward specific dosage forms may affect their adherence to the prescribed medication and ultimately their health outcomes.

Using the TriNetX electronic health records network of more than 25 million patients, Pharmaceutical Health Outcomes and Policy Ph.D. candidate Jagadesh Rao Earla, Pharm.D., MBA, identified a study group of approximately 20,000 MS patients based on MS diagnostic code or MS-specific DMA prescription. Earla's analyses revealed that the largest patient segments were age 45-64, female and Caucasian, and more than 75 percent of MS patients had at least one additional chronic disease or condition present. Only about one quarter of MS patients were prescribed oral DMAs vs. injectable DMAs, with men and African-Americans more likely to receive oral DMAs.

The study identified both clinical and demographic factors associated with oral DMA prescriptions, but the authors indicated further research was needed to determine the decision-making rationale used and the associated outcomes of DMA prescribing patterns.

Study coauthors were Baylor College of Medicine neurologist George J. Hutton, M.D., and UHCOP faculty members Douglas Thornton, Ph.D., Pharm.D., BCPS, and Rajender R. Aparasu, Ph.D.,

External Travel Awards Affirm Research Caliber of PHOP Ph.D. Students

From winning championships in international research competitions to securing successive industry internships in recent years, UHCOP's Pharmaceutical Health Outcomes and Policy (PHOP) doctoral program students continue to carve out their own leadership niche, as they posted another successful year of earning travel awards based on their high-impact research projects.

Four PHOP students earned travel awards — the most of any other institution — to present at the 2019 ISPOR Meeting in New Orleans, La.:

Soumya Chikermane — "Stage Distribution at Diagnosis of Non-Small Cell Lung Cancer and Geographic Variation in Survival" (poster) and "Examining the Association Between Provider Outreach and Patients' Statin Refill Behavior for Patients within a Medicare Advantage with Prescription Drug Coverage Population" (podium);"

Jagadesh Rao Earla, Pharm.D., MBA — "Factors Associated with Prescribing of Oral Disease Modifying Agents in Multiple Sclerosis" (podium), "Healthcare Expenditure Burden in Multiple Sclerosis-Marginal Costs Based on National Level Data" (poster), and "Comparison of Cost-Effectiveness Between Sacubitril/Valsartan and Valsartan with Enalapril in Heart Failure" (poster);

Benjamin Lewing - "Comparing Expenditure and Absenteeism for Extensive Users of Chiropractic Services Versus Non-Users-A Propensity Score-Matched Analysis" (poster); and

Abhishek Nair — "Opioid Prescription Drug Utilization in Children and Adolescents with Asthma" (poster).

Earla also earned a scholarship from the International Society for Pharmacoepidemiology to present his project, "Racioethnic and Provider Specialty Differences in Adherence Trajectories Among Medicaid Insured Children with Attention Deficit Hyperactivity Disorder (ADHD)," at the 35th International Conference on Pharmacoepidemiology & Therapeutic Risk Management Aug. 24-28 in Philadelphia, Pa.

In addition, Rutugandha Paranjpe received an Early Career Cancer Health Disparities Research Travel Scholarship to present her project, "Evaluating Medication Adherence of Oral Endocrine Therapy among Breast Cancer Survivors in a Large Academic Medical Center," at the 12th AACR Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved Sept. 20-23 in San Francisco, Calif. The scholarship was awarded by the Geographic Management of Cancer Health Disparities Program, an initiative of the National Cancer Institute.

7TH ANNUAL PPS SYMPOSIUM



Above, faculty and student members of the symposium organizing committee are pictured with Scholar-in-Residence and UHCOP alumna Kathy Giacomini.

Event Provides Venue for Polishing Presentation Skills, Cultivating Research Synergy

UH College of Pharmacy graduate students and postdoctoral fellows, as well as a handful of Pharm.D. students, presented their latest projects in the discovery and development of novel therapeutics and targets - from alcoholism and cardiovascular and infectious diseases to cancer and neurological disorders — at the 7th Annual PPS Research Symposium.

More than 50 oral and poster presentations were delivered by the students and postdoctoral fellows, with an expanded number of first- and second-place awards bestowed for research and presentation excellence.

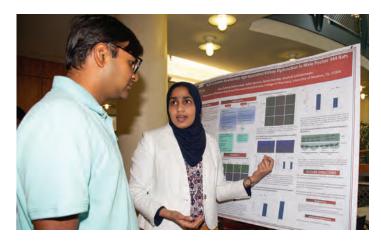
Below, Symposium Organizing Committee member and Hargrove Endowed Professor Tahir Hussain, far left, and Buckley Professor Mustafa Lokhandwala congratulate first- and second-place post-doctoral and graduate student presentation awardees Youngki You, Patrick

Highlights of the symposium included interaction with, and presentations by, award-winning UHCOP 1973 B.S. Pharmacy alumna and pharmacogenomics expert Kathy M. Giacomini, Ph.D., who served as the symposium's Scholar-in-Residence.

Giacomini discussed the ground-breaking work of her lab and fellow researchers around the globe in her scientific talk, "Pharmacogenomic Studies in Ethnically Diverse Populations," and offered advice to current and future researchers about attaining a healthy fit between life and work obligations in her talk, "Finding Balance on a Roller Coaster."

Chuong, Satya Prakash Shukla, Katrina Chan, Camila Kochi, and Fatin Atrooz, are flanked by UHCOP Organizing Committee Chair Tahir Hussain and then-Vice Dean for Research and Graduate Programs Mustafa Lokhandwala.







Among the winners and finalists of the research presentations were:

Postdoctoral Oral Presentation — First place, **Satya Prakash Shukla**, Ph.D., "Structural diversification of lipid-phosphatidylserine (PS) targeting peptide-peptoid hybrid compound PPS1," and second place, **Fatin Atrooz**, Ph.D. ('18), "Early life sleep deprivation induces differential behavioral profile across development in rats";

Graduate Student Oral Presentation — First place, Youngki You, Pharmaceutics Ph.D. candidate, "Molecular Dynamics Simulation Study of Alcohol Binding to the C1 domain of Presynaptic Munc13-1," and second place, Camila Kochi, Pharmacology Ph.D. candidate, "Simulated Vehicle Exhaust Exposure Induces Sex-dependent Cognitive Deficits in Rodents"; and

Graduate Student Poster Presentation — First place, Patrick Chuong, Pharmacology Ph.D. candidate, "Design and Discovery of Smurf1 Inhibitors via UbFluor Assay," and second place, Katrina Chan, Pharmaceutics Ph.D. candidate, "Amikacin Dose-Dependent Onset of Nephrotoxicity in Rats."

UHCOP Ph.D. students Razia Sultana Mohammad (top) and Gabriel Tao (bottom) discuss their research projects with symposium attendees.

Pharmacogenomic Giant Giacomini Returns to Roots as Scholar-in-Residence

Kathy Giacomini, Ph.D., B.S. ('73), Scholar-in-Residence for the 2019 PPS Research Symposium, is a world-renowned pharmacologist with many years of research experience focused on transporter biology and pharmacogenomics. Her research is particularly focused on the role of influx transporters involved in drug disposition and targeting. In addition, she is widely recognized in the field of human genetic studies focused on the anti-diabetic drug metformin.

In the early 2000s, Giacomini and her research group began a comprehensive research program focused on the pharmacogenomics of membrane transporters.

Her NIH-funded Center – the Pharmacogenomics of Membrane Transporters Center, part of the NIH Pharmacogenomics Research Network (PGRN) – was widely recognized as the leading research unit in the world for the discovery, functional characterization and clinical relevance of polymorphisms in drug transporters from 2000 to 2015. She remains a leader in the PGRN, as co-principal investigator of the PGRN-Hub.

Finally, she is the co-principal investigator of the UCSF-Stanford Center of Excellence in Regulatory Sciences and Innovation (CERSI), a major center funded by the FDA with the goal of advancing scientific issues related to the safe and effective use of medical products.

Giacomini is the recipient of several mentoring awards, including most recently, the Outstanding Mentor of the Year Award from the American Foundation for Pharmaceutical Education.



In addition, her research has been recognized with the International Society for the Study of Xenobiotics' North American Scientific Achievement Award in 2017; the American Association of Colleges of Pharmacy's Volwiler Research Achievement Award in 2018; and UCSF's Faculty Research Lecture Award in Translational Science in 2019.

A recipient of an honorary doctoral degree from Uppsala University, Giacomini is an elected member of the National Academy of Medicine.



By some estimates, adverse drug events (ADEs) in the U.S. each year are responsible for more than 1 million emergency room visits, more than 2 million hospitalizations, billions of dollars in health care costs, and hundreds of thousands of deaths.

The fact that ADEs — which encompass adverse drug reactions (ADRs) - are one of the leading causes of death, but are largely preventable, was both an eye-opening revelation and a new calling for UH College of Pharmacy alumna Sara Rogers, Pharm.D. ('12), BCPS.

"While working on another project, my co-founder Ben Brown and I created an algorithm to identify patients who might be good candidates for genetic testing," Rogers said. "As we were conducting our research, this huge, deep-seated problem of ADRs/ADEs became overwhelmingly apparent. Even as a pharmacist, I don't think I truly appreciated the scope of it."

Thus, the idea for a new multidisciplinary nonprofit organization focused on preventing ADEs was born.

"It was an opportunity to do something

important and something that no one else was doing," said Rogers, who serves as co-founder and director of Clinical Affairs for the nascent nonprofit American Society for Pharmacovigilance. "I also saw it as a way to help pivot the profession of pharmacy and initiate changes in how we practice now to make a greater impact with the knowledge and skills from our education and experience."

A priority for the organization has been development of an annual "The State of ADEs in America" to collate and summarize the latest data in an effort to educate policy- and decision-makers, other health care stakeholders and the public.

"Our first goal is to raise awareness, then we want to look at what resources can we provide to help reduce the high rate of ADRs," Rogers said. "There's definitely a lack of reporting, and it's not cohesive or even mandatory."

Rogers said ASP has been actively forming relationships with like-minded organizations and individuals to bring about change to tackle ADEs from several fronts. For example, the Pharmacogenomics Access & Reimbursement Coalition was formed to address payer issues and the barriers posed for widespread implementation of pharmacogenetic testing, which is believed to be a significant player in proactively addressing ADEs.

The organization also has partnered with the Personalized Medicine Coalition to lay the foundation for the Standardizing Laboratory Practices in Pharmacogenomics (STRIPE) Initiative, a public-private multidisciplinary collaborative community to accelerate the development of precision medicine practices as a standard of care.

Rogers, who also is a member of the National Human Genome Research Institute's Inter-Society Coordinating Committee for Practitioner Education in Genomics, said ASP is working to launch an open-access journal focused on research specific to ADRs/ADEs, pharmacogenomics/pharmacogenetics and personalized medicine.

In addition to Rogers, the UHCOP connection includes Professor Rajender R. Aparasu, Ph.D., FAPhA, who serves on ASP's Scientific Advisory Board. For more information on ASP, visit www.stopadr.org.

COMPOUNDING PHARMACIST OF YEAR

Jasper Lovoi III Wins PCCA's Webber Award, Inaugural Formulation Challenge

The proud Lovoi family legacy of exemplary pharmacists remains as strong as ever, with PCCA bestowing its 2019 M. George Webber, PhD, Compounding Pharmacist of the Year Award on Jasper J. Lovoi III, Pharm.D. ('02), in recognition of his "commitment to meeting patient needs and upholding the highest quality and ethical standards in pharmacy compounding."

Lovoi is owner and pharmacist-in-charge of independent compounding-only pharmacy, The Woodlands Compounding Pharmacy, where the Lovoi legacy also runs deep with fellow Cougars, wife Keisha Lovoi, R.Ph. ('97), serving as manager, and sister Nicole Hunt Lovoi, Pharm.D. ('09), serving as staff pharmacist. Jasper also founded Bimini Cosmetics, which offers pharmaceutical grade anti-aging formulations to the public.

"Jasper is committed to being a resource for his colleagues and other compounding pharmacy industry professionals, especially in the sterile compounding realm," said PCCA President Jim Smith. "His new, state-of-the-art sterile and non-sterile compounding labs are testaments to his high level of quality standards. He is well known and respected by his patients within his community and among fellow pharmacists within his PCCA colleague community."

In addition to earning the Webber award (named for the late UHCOP faculty member who was a major contributor to PCCA's early growth), Lovoi and staff pharmacist Madison Peach-Keen, Pharm.D., won the inaugural PCCA Formulation Challenge held during the PCCA International Seminar 2019 in Houston. Eligibility for the competition was determined by applicants' creative problem-solving abilities by submitting innovative formulas that their



photo courtesy of PCCA

Jasper J. Lovoi III, center, accepts the M. George Webber, Ph.D., 2019 Compounding Pharmacist of the Year Award from PCCA's Chief Executive Officer David Sparks and President Jim Smith.

pharmacies had developed and successfully used to help patients.

Competing as "The Cocky Cougars," Lovoi and Peach-Keen beat out four other two-person teams from around the nation with their top scores in "formulation design, creativity and originality of ideas, overall formula aesthetics and stability, presentation, and teamwork" to earn the titles of "Master Formulators."

Prior to opening his compounding pharmacy in 2010, Lovoi learned the trade alongside his father, Jasper J. Lovoi II, R.Ph., and late uncle, John J. Lovoi, B.S. ('62), at the family's Lovoi & Sons Pharmacy in Beaumont.

Biundo Locks 4th Testosterone HRT Patent in 4 Years

A pioneer in the field of men's health, alumnus Bruce Biundo, R.Ph. ('61), FACA, turned a journey of intellectual curiosity into four U.S. patents for pharmaceutical compounds and related dosage formulations developed to improve testosterone levels in patients with hypogonadism or infertility.

"In the late 1990s, hormone replacement therapy (HRT) was beginning to take off in compounding, and we started doing our first educational presentations on HRT and women's health," Biundo said. "But, at the time, no one was doing much of anything in men's health.

"Someone mentioned a book that had come into PCCA, and there was a single passage — about how you can boost the testosterone if you can control the estrogen levels — that really stuck with me."

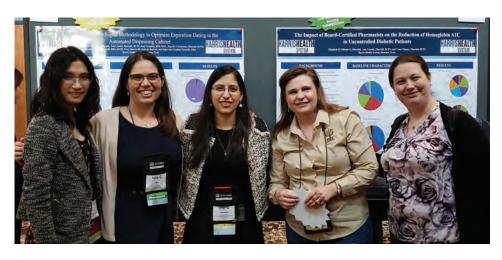
Biundo turned to a fellow UHCOP alumna, Tsu-I (Catherine) Wang, Ph.D. (Pharmaceutics '91), who worked with him as a senior formulation scientist at PCCA before her passing in 2016, to help develop the novel formulations.

The first two patents, issued in 2016 and 2017, were for transdermal and oral transmucosal of a clomiphene-like selective estrogen receptor modulator (C-SERM) with and without low dose testosterone. The C-SERM effectively blocks the action of estrogen (estradiol), with the added benefit of direct absorption into the bloodstream for higher bioavailability.

Two patents were issued in 2019 for compositions utilizing aromatase inhibitors, which binds to the aromatase enzyme and inhibits the conversion of testosterone into estrogen and, by blocking the production of estrogen, shifts the balance in favor of testosterone. The patented formulations were for transmucosal dosage forms in combination with low testosterone and transdermal testosterone cypionate booster injection solutions with the aromatase inhibitor anastrozole.

"It's my hope that pharmacists continue learning about alternative therapies and be of service to their patients who might benefit from them," Biundo said.

UHCOP alumna Elizabeth Villanueva, Pharm.D. ('17), M.S. ('19), center, is congratulated on her research poster honors by TSHP Research & Education Foundation Research Poster Competition Chair Ran Xu. Pharm.D. ('09), Ph.D., Villanueva's coauthor/preceptor Ana Couriel, Pharm.D.; Foundation President Rebecca Sleeper-Irons, Pharm.D., FCCP, FASCP, BCPS; and TSHP Executive Director Stacey Mather, CAE.



COOGS **FLOURISH** IN FRISCO

TSHP Annual Seminar **Brings Research Awards** for UHCOP Alumni

UHCOP alumna Rebecca Kessinger, Pharm.D. ('18), right, is congratulated by TSHP Research & Education Foundation President Rebecca Sleeper Irons, Pharm.D., FCCP, FASCP, BCPS, on winning the Resident/Fellow -PGY1 Research Poster Competition category.

Several UH College of Pharmacy alumni were honored for their research activities during the Texas Society of Health-System Pharmacists 2019 Annual Seminar in Frisco, Texas.

Highlights from the TSHP Research & Education Foundation-sponsored Research Poster Competition included:

Alumna Elizabeth M. Villanueva, Pharm.D. ('17), M.S. ('19), was recognized twice in the Resident/Fellow/Post-Graduate - PGY2 category for her projects undertaken while a completing The Houston Program at UHCOP and Harris Health System.

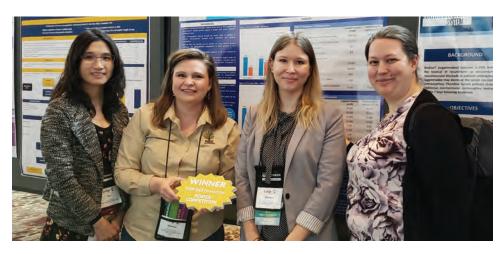
Villanueva won first place for the project, "The Use of Lean, Six Sigma Methodology to Optimize Expiration Dating in the Automated Dispensing Cabinet." Her Harris Health coauthors were Ana Couriel, Pharm.D., BCPS; Shaji Varghese, R.Ph. (B.S. '94), MBA; Ogechi O. Eshleman, Pharm.D., BCPS; David E. Wilson, Pharm.D., MBA, BCPS; Tracy Huerta, B.S.; Estevan Barrera; and Ogbevoen Oriakhi, Pharm.D., MBA.

In addition, Villanueva received an Honorable Mention for her project, "The Impact of Board-Certified Pharmacists on the Reduction of Hemoglobin A1C in Uncontrolled Diabetic Patients," which was coauthored by Couriel and Cesar Munoz, Pharm.D., BCPS.

Rebecca Kessinger, Pharm.D. ('18), won the Resident/Fellow/Post-Graduate-PGY1 category for her project, "Heparin Requirements in Patients with Impella® and TandemHeart® Support Devices." Completed while Kessinger was a PGY1 resident at CHI St. Luke's Health-Baylor St. Luke's Medical Center, the project was coauthored by Mariam C. Mousavi, Pharm.D., and Ellen Yin, Pharm.D., BCCP, BCPS.

Fellow alumna and CHI Baylor St. Luke's resident Carolyn M. Schardt, Pharm.D. ('18), received an Honorable Mention in the Resident/Fellow/Post-Graduate-PGY1 category. Her project, "Medication Use Evaluation of Sugammadex at a Large Academic Medical Center," was coauthored by UHCOP alumna Kimberly Putney, Pharm.D. ('00), MPH, and Steven E. Michaud, Pharm.D., BCCCP.

Three Houston Program alumni were among the coauthors of the winning poster in the Technician category authored by Memorial Hermann Memorial City Medical Center technician Steven Cooper, CPhT. The project, "A Journey Towards Zero Pyxis Stock Outs: A Patient Centered Approach," was coauthored by Daniel Nyakundi, CPhT; Shreya Parekh, Pharm.D., M.S. ('13), BCPS; Martha Ouma, MSc., PMP; Thomas Roduta, Pharm.D., M.S. ('18); and Rodney Cox, R.Ph., M.S. ('11).





HOUSTON PROGRAM, TSHP HONOR TIPTON'S IMPACT ON PROFESSION

Pharmacy Leader Earns Inaugural Roger Anderson Award from Houston Program, Named Lecture from TSHP

Alumna Joyce Tipton, R.Ph. (B.S. '79), MBA, FASHP, center, receives the Roger W. Anderson Leadership Award from the honor's namesake, left, and nominator and fellow UHCOP alumna Rusol Karralli, Pharm.D. ('12), M.S. ('14).

UHCOP alumna and now-retired pharmacy leader Joyce A. Tipton, MBA, R.Ph. (B.S. '79), FASHP, was honored for her career-long commitment to advancing health-system pharmacy and mentoring countless current and future leaders of the profession at The Houston Program's 10th Anniversary Celebration.

Tipton, who was among the co-founders of The Houston Program, was recognized with the program's inaugural Roger W. Anderson Leadership Award and presented the award's first lecture.

Addressing more than 70 Houston Program alumni, current residents, residency program directors and coordinators, Tipton recounted the history of The Houston Program and how her career path led to a passion for health-system pharmacy training as well as sharing her confidence in the ability of program alumni to transform the profession.

The award honors the continued legacy of health-system pharmacy pioneer Roger W. Anderson, Dr.P.H., FASHP, to promote pharmacy leadership through recognition of program alumni who have made unique contributions to the future of pharmacy through leadership, research, and dedication to the growth of future pharmacy leaders and the profession.

Earlier in the year, Tipton delivered the inaugural Joyce A. Tipton Leadership Lecture and continuing education presentation, entitled "LIFE, Tennis Balls, and Electric Cars — What is your path, your mission, and your legacy?" at the Texas Society of Health-System Pharmacists 2019 Annual Seminar.

TSHP Honors Nguyen with Pharmacy Mentor Award

The Houston Program alumna Phuoc (Anne) Nguyen, Pharm.D., M.S. ('15), BCPS, pharmacy manager at Houston Methodist West Hospital, was honored with the Texas Society of Health-System

Nguyen said she realized the power of mentorship during her Pharm.D. education, and her experiences throughout The Houston Program and into her career have magnified her passion for pharmacy practice. In 2018, she began producing a video-blog series called "Coaching Coins" in which she shares her own insights as well as interviewing other professionals — on a variety of topics, ranging from financial planning to finding and succeeding in a residency — aimed at students and recent graduates.

"I'd like to give a great 'shout out' to all the wonderful mentors who have helped me to become who I am today and my mentees who help me to grow through the mentorship journey," Nguyen said. "One of my greatest passions is to continue to pay it forward

and develop others to be the best leader that they can be and to inspire others.

"This is one of the reasons I created the 'Coaching Coins' organization and interview thoughtful professionals to reach their full

An inaugural member of the

also previously served on the organization's New Practitioners Gulf Coast Society of Health-System Pharmacists.



Cuéllar Retires After 4 Decades of Service, Leadership

From serving in local, state and national pharmacy leadership posts to literally writing the book on preceptorship, Lourdes M. Cuéllar, M.S. ('79), R.Ph. (B.S. '73), FTSHP, FASHP, embodied the concept of "servant leadership" with an unwavering commitment to putting the patient first during her 45-year career.

A member of the college's Mading Society, Cuéllar served several years as a member and chair of the UHCOP Dean's Advisory Council. She also served as president of both the Gulf Coast Society of Health-System Pharmacists and the Texas Society of Health-System Pharmacists (TSHP); president and chair of the TSHP Research & Education Foundation; and a delegate to the American Society of Health-System Pharmacists.

She has been recognized as a Fellow of both ASHP and TSHP; a recipient of the TSHP Distinguished Service Award; and among the college's 50th anniversary "50 Outstanding Alumni" honorees.

Following her retirement as administrative director of pharmacy at TIRR Memorial Hermann in 2019, Cuéllar was asked to offer advice to future pharmacists as well



as reflections on her legacy in patient care.

"We became pharmacists to provide the best health care for all our patients through our unique training, knowledge and skills, and by working with other disciplines of the healthcare team for the betterment of our patients," Cuéllar said. "I have always considered it a blessing to have been able to provide both direct patient care as a pediatric practitioner and to lead a progressive and exceptional pharmacy team in a hospital work environment.

"Maintain a practice that is always actively aligned with the standards of medication and patient safety. Provide employees with the resources to augment their knowledge. Encourage them to publish, conduct research, develop new programs for patient care, such as a pharmacogenetics service, transitions of care, and provide patient care services in outpatient settings under collaborative physician agreements allowing pharmacists to practice at the top of their license."

A longtime UHCOP preceptor and adjunct faculty member, Cuéllar coauthored and coedited the ASHP Preceptor's Handbook for Pharmacists, now in its 4th edition. Her zeal for excellence in precepting earned her department the TSHP Collaborative Practice Award and the UHCOP Health-System Preceptor Site of the Year Award.

Cuéllar also served nearly a decade on the Texas Statewide Health Coordinating Council and represented the pharmacy profession on the National Quality Forum's Steering Committee on Health Disparities and Cultural Competency.

"Practice social consciousness with an active knowledge of socioeconomics, health literacy, cultural competency, and awareness that language, cultural customs and religion all impact our ability to truly provide optimal care," she said. "Health disparities are real, and pharmacists are in key positions to help alleviate this injustice."

Alumni Mailbox

Lourdes M. Cuéllar, M.S. ('79), R.Ph. (B.S. '73), FTSHP, FASHP, and Diane Ginsburg, Ph.D., M.S. ('90), R.Ph., FASHP, co-edited their 4th edition of the ASHP Preceptor's Handbook for Pharmacists, published by the American Society of Health System Pharmacists. Among the UHCOP alumni contributors on the new edition are Sunny Bhakta, Pharm.D. ('16), M.S. ('18), BCPS; Avani Desai, Pharm.D. (12), M.S. (14), BCPS; Rusol Karralli, Pharm.D. ('12), M.S. ('14); Sarah Lake-Wallace, Pharm.D. ('00), M.S., FT-SHP; Claire Latiolais, Pharm.D., M.S. ('17); Kimberly Nguyen, Pharm.D. ('02); Phuoc Anne Nguyen, Pharm.D., M.S. ('15), BCPS; Nancy Ordonez, Pharm.D. ('98), BCPS; Alex C. Varkey, Pharm.D. ('05), M.S., FAPhA; and David Wallace, Pharm.D. ('98).

Nilanjana Dwibedi, Ph.D. Pharmaceutical Health Outcomes and Policy ('12), has been promoted to associate professor with tenure at West Virginia University School of Pharmacy.

Mallory Gessner-Wharton, Pharm.D. ('11), M.S. ('13), BCPS, director of Pharmacy at Kingwood Medical Center, was elected 2019-20 Secretary-elect of Texas Society of Health-System Pharmacists.

Kathy Giacomini, Ph.D., B.S. ('73), was recognized with the 2020 Bernard B. Brodie Award for Drug Metabolism Award from the American Society of Experimental Pharmacology and Therapeutics' Division of Drug Metabolism and Disposition.

Thani Gossai, Pharm.D. ('08), director of pharmacy at Houston Methodist Clear Lake and director of the PGY1 resident program at Houston Methodist Hospital, served as the Phi Lambda Sigma Upsilon Chapter's 2019 James T. McCarty Leadership Lecturer.

Claire Latiolais, Pharm.D., M.S. ('17), clinical assistant professor at The University of Texas at Austin College of Pharmacy, was appointed to the 2019-20 American Society of Health-System Pharmacists' New Practitioner Forum Executive Committee.

Donald "Donnie" Lewis, R.Ph. (B.S. '79), was reappointed to the Texas State Board of Pharmacy by Texas Gov. Greg Abbott in October 2019 for a term set to expire in 2025.

Molly Graham Minze, Pharm.D. ('05), FCCP, BCACP, associate

Successive Coogs Helm Drug Store Federation

Two Cougar Pharmacists — Ken Breda, R.Ph. (B.S. '82), and Jeff Loesch, Pharm.D. ('02) - are utilizing their many years of community pharmacy practice and management in top leadership positions in the Texas Federation of Drug Stores (TFDS).

A member of the Texas Retailers Association and the Texas Pharmacy Congress, the TFDS is focused on pharma-

cy-specific legislative and regulatory issues, including the administration of state and federal drug programs; Texas State Board of Pharmacy activities; scope of practice issues; and professional practice issues. Elected leadership positions in TFDS require a significant time commitment, with consecutive two-year terms as Secretary/Treasurer, President and Vice President.

As director of Pharmacy for Brookshire Brothers Pharmacy, Breda oversees 72 grocery store-based pharmacies across East and Central Texas. Breda's nearly 40-year career has been roughly split between Kroger and Brookshire Brothers, taking progressively larger roles in each organization.

"I enjoy traveling to different stores, interacting with pharmacists to help enhance their professional abilities and thus help them help our patients," Breda said. "There's a lot of challenges in the pharmacy industry today that I've seen from the business and operational side. We can't just do it (effect change or protect the profession's interests) in the pharmacy, we have to get out and make our positions known to make the profession better for pharmacists and better for our patients."



Loesch, who serves as director of Pharmacy for Kroger's Dallas Division over 110 in-store pharmacies across East Texas and Louisiana, recently began his term as TFDS Secretary/Treasurer.

Loesch has been with Kroger for his entire career, which has taken him from pharmacy manager of a single site all the way to the company's headquarters in

Ohio as manager of regulatory compliance and government relations/HIPAA privacy coordinator before his return to Texas.

"My interest over the last few years has been for greater advocacy for the profession of pharmacy, and it's important to make sure pharmacy's voice is heard in the conversations at the state and national level because there's still a lack of understanding of what we do and what we're capable of doing," said Loesch, who also recently was installed as president of the Dallas Area Pharmacy Association.

Loesch said he's especially proud of his organization's commitment to pharmacy and its role in tackling the opioid epidemic.

"I'm very proud that we rolled out naloxone to all of our pharmacies under the standing order with the Texas Pharmacy Association," he said. "Retail pharmacy has undergone a significant change over the past few years, with pharmacists increasingly involved in driving better patient adherence and outcomes through our clinical programs. It's rewarding to be a part of shaping the future of pharmacy."

professor and regional director of Student Affairs and Admissions for Texas Tech University Hodge School of Pharmacy in Abilene, graduated from the American College of Clinical Pharmacy ACCP Leadership and Management Academy.

Janki Patel, Pharm.D. ('16), staff pharmacist at Houston Methodist Hospital, has been elected as one of two University of Houston representatives in the NAFSA: Association of International Educators, which has more than 3,500 member institutions in over 150 countries.

Lisa M. Scholz, Pharm.D. ('99), MBA, head of industry relations at Sentry Data Systems, has earned the designation of Fellow of the American College of Healthcare Executives (FACHE).

Julie Spier, R.Ph. (B.S. '86), director of Pharmacy Operations-Southern and Houston Divisions at Randalls-Tom Thumb-Albertsons, was named Chair of the Texas State Board of Pharmacy by Texas Gov. Gregg Abbott in October 2019. Spier's term on the board runs through September 2023. Spier also was recognized as

a "Commitment to Care Award" winner in the 2019 Top Women in Health, Wellness and Beauty Awards by Drug Store News.

Laura Stokes, Pharm.D. ('15), M.S. ('17), assistant director - Pharmacy Inpatient Operations at Texas Children's Hospital, was appointed to Texas Society of Health System Pharmacists' Pharmacy Management Section Executive Committee.

Erik Tosh, R.Ph. (B.S. '91), FACA, FIACP, vice president of Professional Services for Letco Medical LLC, was elected Region 6 Director of the American College of Apothecaries. Tosh's position, which represents members in Colorado, Montana, New Mexico, Utah, Wyoming and Texas, runs through 2023.

Alex C. Varkey, Pharm.D. ('05), M.S., FAPhA, director of Pharmacy at Houston Methodist Hospital, was elected to a three-year term from 2020 to 2023 on the American Pharmacists Association Board of Trustees. Varkey previously served on the board by appointment to fill a unexpired term vacancy and in 2004-05 as national president of the APhA-Academy of Student Pharmacists.

Carpe Diem!

College Community Mourns UHCOP Icon James McCarty

The University of Houston College of Pharmacy community is mourning the passing of beloved alumnus and former faculty member James T. McCarty, who died at the age of 92 surrounded by family members on May 10 in La Porte, Texas.

A 1952 graduate of the college, McCarty was a highly respected educator, pharmacist and inspirational speaker, whose enthusiastic shouts of "Carpe Diem" and impassioned reading of Dr. Seuss's book, "Oh, the Places You'll Go," became cherished memories of the thousands of students he taught over his career.

A longtime preceptor, McCarty joined UHCOP as an instructor in 1982 and was later promoted to director of alumni affairs and clinical assistant professor along with representing the college in state and national organizations. After retiring in 1993, he continued to lecture as an adjunct faculty member and continuing education presenter. McCarty's career also included community and hospital pharmacy practice, independent pharmacy ownership and management, and pharmaceutical manufacturing.

McCarty was honored with the 1997 Harris County Pharmacist of the Year Award (for which he also served as president in 1970), the 1991 UHCOP Distinguished Alumni Award, the 1992 Texas Pharmacy Association Pharmacist of the Year Award, and the American College of Apothecaries' 1992 Albert Rosica, Jr. Memorial Award. McCarty also was named among the college's "50 Outstanding Alumni" as part of the yearlong UHCOP 50th Anniversary celebration in 1996-97.

He was also a member of the Rho Chi Society and Phi Lambda Sigma, for which he also served as national president in 1992. In fact, McCarty was the first of five UHCOP alumni to have led PLS as national president, the only college to hold such distinction. As its longtime faculty adviser, the college's PLS chapter hosts the annual James T. McCarty Leadership Lecture Series, which is supported (along with other PLS activities) by the Leadership Passport Endowment Fund.

In addition, the James T. McCarty Community Pharmacy Internship Award is presented annually by the college to a graduating Pharm.D. student "who demonstrates evidence of excellent disease state management skills and patient care activities during their ambulatory care rotations."

McCarty and his late wife, MaryLou, were longtime residents of



Galveston, Texas.

Fellow UHCOP alumna and former faculty member Sandra Webb, R.Ph. (B.S. '66), M.S. ('71), met McCarty in 1968 when they began working together at Houston's Kelsey Seybold Clinic.

"I've known Jim for over 50 years, and I can't quite believe that he is gone from this life," Webb said. "Jim was an exceptionally warm and caring person; you could laugh with Jim and you could cry with Jim. He was both down-to-earth and bigger-than-life: A pragmatist and an idealist.

"In both subtle and overt ways, he used his amazing talent to encourage and assist others to achieve at their highest level. He was a cherished and beloved friend; I will miss his warm hugs and his big grin. And, of course, 'Carpe Diem!'"

Fellow alumna and past national president of PLS Lynn Simpson, Pharm.D. ('97), credited McCarty's mentorship and passion as playing an instrumental role in her pursuing a pharmacy career and education at UHCOP, competing in the national patient counseling competition, and eventually becoming an educator.

"During Pharmacy communications class in the first year after I was admitted to UHCOP, he taught us about the importance of communicating with patients and how this 'soft science' was every bit as important, if not more important, then knowing the medications," Simpson said. "I emulated my teaching style and course content after what he had taught us. Communication and how to best communicate with patients was my passion throughout my years of teaching.

"As I think back about Jim I will always remember his enthusiasm, his passion for the profession and his standing on the table yelling Carpe Diem!"

Those who would like to make a gift in McCarty's memory to the Leadership Passport Endowment Fund may contact UHCOP Development Director Beth Borck at bkborck@uh.edu.

Mading Class of 2019 Honors 11 Inductees. 2 Red Coat Members

UH College of Pharmacy's Mading Society of benefactors welcomed 11 new members into its ranks, as well as honoring two individuals for milestone giving, at its 2019 Dinner & Induction.

The 2019 inductees were:

- · Brian Hamilton, B.S. Education ('95), husband of late UHCOP alumna Michelle Edwards Hamilton, Pharm.D. ('05);
- · Carole Hardin-Oliver, R.Ph. (B.S. '83);
- Humana;
- · Gail and Richard J. Kruzynski;
- · Chiu-Wing Lam and Kwai-Woon Lai, parents of late UHCOP alumna Wai-Ying Lam, Pharm.D. ('11), BCPS;
- Stacey Nguyen, Pharm.D. ('02);
- Renee Prescott, Pharm.D. ('02), and Bryan Prescott, Pharm.D. ('01), MBA; and
- · Samina Salim, Ph.D., UHCOP associate professor and wife of late faculty member Mohammad Asghar.

In addition, Pritchard recognized two members for their lifetime milestone giving of \$100,000 and up by bestowing the "Cougar Red Coat" of honor. The 2019 "Red Coat" honorees were Diana S-L. Chow, Ph.D., FNAI, and John J. Lovoi Sr., B.S. ('62), who subsequently passed in February 2020.

"The loyal support of our alumni, faculty and friends is a testament to the confidence and pride they have in our legacy of excellence in teaching, research and service to patients today and tomorrow," Pritchard said. "The college has experienced tremendous growth in our facilities and our academic, patient care and research programs, and we applaud our generous donors for their commitment to contributing to the health and well-being of our communities across Texas and beyond."



FAMILY, COLLEAGUES HONOR TEACHING, MENTORSHIP OF LATE JANDHYALA WITH LAB

An unapologetically opinionated, but gifted teacher and sincere mentor, a beloved departed UH College of Pharmacy faculty member and researcher has been honored by his former students, colleagues and family members with a named laboratory at the college.

The Dr. Bhagavan S. Jandhyala Cardiac Hemodynamic Laboratory in UHCOP's Health 2 building was dedicated in late 2019 in remembrance of the impact made by the late professor emeritus on the college's reputational growth in research, the education of countless graduate and professional students, and the lives of those close to him.

During his 33-year tenure of teaching and research at the college, Jandhyala also served as co-director of the Pharm.D./ Ph.D. program and director of the Heart & Kidney Institute, which is now run by his colleague, former student and dean Mustafa F. Lokhandwala, Ph.D. ('75).

Affectionately known by most as "Baggie," Jandhyala received his pharmacy undergraduate degree from Andhra University in India, and his Pharmacology master's and doctoral degrees from the University of Pittsburgh.

During his career, Jandhyala authored or co-authored more than 200 peer-reviewed journal articles, abstracts and book chapters; supervised more than a dozen graduate students and post-doctoral fellows; and secured grant funding for his hypertension, diabetes and obesity research from the National Institutes of Health and AstraZeneca among others. Jandhyala passed in March 2017 in Houston at the age of 78.

"Baggie was the best cardiovascular pharmacologist as far as research, but also the best teacher of cardiovascular pharmacology to pharmacy students," Lokhandwala said. "It was unbelievable how he could translate what he was doing in the lab to the students, in terms of what it means to the pharmacy world.

"Baggie was one of the best human beings that I had the privilege to work with, not only as my mentor, but as my friend."



Although this memory is being honored with the named laboratory, his true legacy lives on through those he mentored.

"He was proud of his career, but he once told me what he was most proud of was the success of his graduate students," said Baggie's son, Moody Jandhyala, Ph.D. (NSM '02), who now serves as core laboratory manager at UHCOP.

Jandhyala's former student Pharmacology alumna Juhi Shah, Ph.D. ('93), was among those who joined to create an endowed scholarship in his name for UHCOP Ph.D. and Pharm.D./Ph.D. students upon his retirement in 2006.

"For me, graduate school was about growing up, as a person and for my career, and he was a major part of that," she said.

Pharmacology alumnus Sharath Hegde, Ph.D. ('90), said although Jandhyala wasn't his advisor, they still became close.

Dr. Bhagavan S. Jandhyala Cardiac Hemodynamic Laboratory Donors

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"(I remember having) tons of discussions with him, from pharmacology and science to politics and philosophy," Hegde said. "The thing I admired most about Baggie was not his science, incredible as it was, but his authenticity. He never claimed or tried to be someone else; he didn't care. That takes a lot of courage in a human being."

Fellow Professor Emeritus Doug Eikenburg, Ph.D., humorously recalled Jandhyala's propensity for "unvarnished truth."

"I wasn't - and I was - a student of Baggie, because he'd often tell me how much I had to learn, especially about cardiovascular pharmacology," Eikenburg said. "Baggie and I had many conversations about science — he always told me exactly what he thought about what I was thinking and doing, including several times when he told me he didn't think much of it. But, I always knew I'd get an honest answer and opinion from him. "

Pharmacology alumnus Madhu Chintala, Ph.D. ('91), said Jandhyala's mentorship in small, but meaningful ways made a major impact on his students.

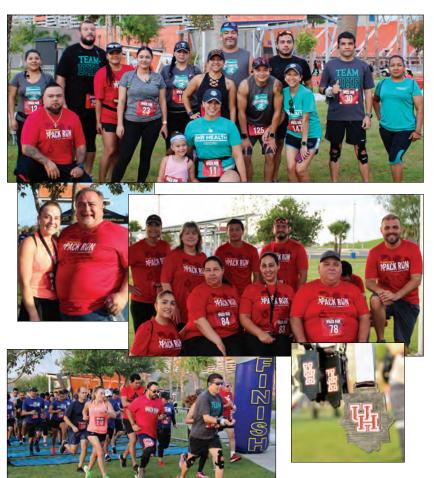
"Every afternoon, he'd spend 20-30 minutes talking with his students about the experiments, papers and publications," Chintala said. "That's where I learned a lot from him; the quality of the conversations that I had with him literally set me up for my career."



The dedication of the Dr. Bhagavan Jandhyala Cardiac Hemodynamic Lab in Health 2 brought gathered family members (above) and former students and UHCOP Dean Lamar Pritchard (below) to celebrate his memory.



1st RGV Pack Run Helps Students Along Way to Finish Line



Alumni of the University of Houston and UH College of Pharmacy and friends from the Rio Grande Valley put their best feet forward to raise more than \$5,500 at the first RGV Pack Run in October.

Proceeds from the event — which drew 185 runners and nearly two dozen volunteers - will be used to assist UHCOP Pharm.D. students from the region, as well as initiatives of the college's RGV Pharm.D. Satellite Program.

UHCOP and the RGV UH Alumni Association thank the event's sponsors for their support, including:

Gold Sponsors: Saenz Medical Pharmacy/Jesus and Elvia (B.S. '74) Saenz, Cantu Construction/Alonzo Cantu (BBA '78), Saenz Medical Center/Dr. Javier Saenz, US Capital Advisors LLC, Maria E. Falcon (B.S. '74);

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Gift-in-Kind Sponsor: Karen Blanco, Pharm.D. ('05).

Several organizations sponsored runners or volunteers, including Saenz Medical Pharmacy, DHR Running Club, Lone Star National Bank and Laser Surgical Solutions.



Marking its 40th year of operation — making it one of the longest-running scholarship golf tournaments in Houston — the 2019 UHCOP Golf Classic brought loyal players and sponsors

The 2019 tournament raised nearly \$3,100 from sponsorships as well as individual player and team registrations, with a total of 33 golfers taking on the challenging Lakes course at Wildcat Golf Club in south Houston. In addition to supporting Pharm.D. education, the event remains a great opportunity for networking between students and practitioners and other friends of the college.

While participants enjoyed a barbecue lunch complete with some good-natured ribbing amongst the teams, the top-scoring teams were announced as:

Below left, Chuck Kneip, Jim Rutan, Melchor Garza and John Hargroue celebrate winning the Low Gross Score with Pharm.D. student Milan Fisher, Below right, the team of Alex

Low Gross Score: 1st place — Melchor Garza ('92), John Hargroue, Chuck Kneip ('92) and Jim Rutan ('92), and 2nd place — William "Bill" Health (MBA '81), Don Lackey ('81), Kip Lackey and Dean Lamar Pritchard:

Low Net Score: 1st place — Alex Varkey (Pharm.D. '05), Jimmy Washburn, Dan Metzen (MBA '07) and Brian Parrish, and 2nd place - Jeff Harrison ('05) and students Lauren Eichinger and Kaycie Rathburn.

In the individual competitions, Eichinger and Rick Goins claimed the Longest Drive, while Kathy Ryan and Washburn snagged the Closest to the Pin title.

Varkey, Jimmy Washburn and Dan Metzen are congratulated by Pharm.D. student Greissy Jerezano for winning the Low Net Score (teammate Brian Parrish not pictured).



2020 Tournament Canceled; 2021 Date Set

Due to the COVID-19 pandemic and its associated academic and economic impacts, the 2020 UHCOP Golf Classic has been canceled, but planning is now under way for the tournament's return in 2021.

Next year's event will be Monday, June 7, at Sweetwater

Country Club in Sugar Land, where the 2020 was to be held.

Are you interested in helping the UHCOP Golf Committee plan a bigger and better tournament? Please contact committee co-chair Liz Coyle for volunteer opportunities or suggestions.

'ONE OF US'

Infectious Diseases Travel Award Endowed by Friends, Colleagues of Late Alumna Wai-Ying Lam

In remembrance of an exceptional clinical pharmacist and researcher, family, friends and former colleagues have established an endowed travel award for early career infectious diseases pharmacists.

A native Houstonian, Wai-Ying Lam, Pharm.D. ('11), BCPS, was an exemplary student throughout her primary school and university education. She was recognized as a "Superintendent's Scholar" every year of high school.

Lam's love of science resulted in her winning multiple awards at the school, district and city level science fairs in which she competed from kindergarten to 12th grade, and acceptance into the Welch Summer Scholar Program to work on a chemistry research project at the University of Texas at Arlington.

She also excelled in performing arts, taking up piano, violin and zither (Chinese traditional stringed instrument) in elementary school and winning several first-place awards in local music competitions as well as being selected as a violinist to regional orchestras. in each of her intermediate/high school years.

After two years pursuing the Plan II Honors Program majoring in biochemistry at The University of Texas at Austin that included three summer internships at a NASA toxicology laboratory and microbiology laboratory, Lam changed the direction of her education and career aspirations and was accepted into the UHCOP Pharm.D. program. During pharmacy school, she was active in several student organizations and earned a spot in a summer research program to work on infectious diseases projects at the college.

After graduating magna cum laude from UHCOP with a Doctorate of Pharmacy degree, Lam completed a PGY1 pharmacy practice residency at the University of Texas Medical Branch (UTMB) and PGY2 infectious disease pharmacy practice specialty residency at New York Presbyterian Hospital-Columbia/Cornell Medical Center. She then worked as an internal medicine/ID clinical pharmacy manager at Presbyterian's Manhattan Hospital before returning to Texas to work as a clinical infectious disease pharmacist at UTMB.

As a core member and lead pharmacist of the Antimicrobial Stewardship Program at UTMB, Lam worked diligently to promote the appropriate use of antimicrobials, improve patient out-



Before embarking on a career in infectious diseases clinical pharmacy, Wai-Ying Lam graduated magna cum laude from UHCOP's Pharm.D. program in 2011.

comes and reduce resistance of bacteria. The stewardship team offered valuable advice daily to medical personnel in infectious disease management and the effective use of antimicrobials. A Board Certified Pharmacotherapy Specialist and member of the multidisciplinary Houston Infectious Disease Network, she contributed research findings to advance patient care.

Lam also mentored residents and was recognized for her great dedication, earning a pharmacist mentor of year award in 2015.

Her research contributions included coauthoring papers/ reviews published in the American Journal of Health-System Pharmacy, Journal of Antimicrobial Chemotherapy, and the International Journal of Antimicrobial Agents.

In her free time, Lam had a variety of interests. She enjoyed running and had worked her way up to completing a half-marathon. She also enjoyed playing tennis with her sister and friends, as well as cooking and trying new foods. A "Harry Potter" fan, Lam was able to fulfill her wish of visiting Disney's Harry Potter World and seeing a play based on the books. She planned to return as a volunteer adviser to the Chinese Youth Camp, where she spent many summers as a youth.

She is survived by her parents, Chiu-Wing Lam and Kwai-Woon Lai, and her sister, May-Ying Lam.

Annual income from the endowment will be used to support travel of a UHCOP infectious diseases trainee (e.g., Pharm.D./ Ph.D. student, resident or fellow) to attend a ID-related scientific meeting, with preference given to applicants submitting papers, abstracts, or presentations to the meeting.

"Wai-Ying was one of us," said UHCOP Professor Vincent H. Tam, Pharm.D., BCPS (AQ-ID), one of Lam's former mentors and colleagues who spearheaded the endowment campaign. "I hope the trainees receiving the awards will have better training exposure, so that they can advance care for our patients."

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