PHOP DEPARTMENT SETS RECORD $1M+ IN RESEARCH FUNDING, MOVES TO NEW COLLEGE HQ

UH College of Pharmacy’s Department of Pharmaceutical Health Outcomes and Policy had a monumental year in 2017, setting a new departmental record for research awards in excess of $1 million and moving all of its faculty, students, research and administrative staff into the college’s new home in a nine-story, 300,000-square-foot facility.

The department’s record-setting year of $1.02 million in research awards comprised $444,242 (43 percent) from federal agencies, $421,596 (41 percent) from pharmaceutical companies, and $159,106 (16 percent) from state entities. Among the awarded projects were studies of asthma medication management and guideline adherence, prescription drug misuse prevention and education, safety profile/risk assessment related to anti-arrhythmic and antimuscarinics, and disparity gap reduction in patient-centered medical home settings.

The department moved into the college’s new Health Building 2 on the UH campus in December 2017. In addition to being equipped with state-of-the-art instructional technology, the new facility is expected to expand research opportunities for collaboration among the college’s clinical/community pharmacy and health outcomes faculty and students. Faculty offices feature views of the UH campus and downtown Houston skyline, while Ph.D. student workstations feature skyline views of the world-renowned Texas Medical Center.

BOSTON BRINGS SWEET REPEAT: UH CLAIMS HISTORIC BACK-TO-BACK TEAM WINS AT ISPOR

A UH College of Pharmacy team of doctoral program students secured a place in history with the first-ever back-to-back titles in the quiz-bowl style international research competition during the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) 22nd Annual International Meeting May 20-24 in Boston, Mass.

The UHCOP team comprised Carmine Colavecchia, Pharm.D., M.S., BCPS, who completed the Ph.D. program only a couple of months later; Navneet Upadhyay, M.S.; Aisha Vadhariya; and Qingqing Xu, M.S. Upadhyay and Vadhariya were teammates on the college’s first competition-winning team in 2016.

In its 12th year in 2017, the competition was open to teams advancing from an initial qualifying round from the nearly 90 ISPOR student chapters around the world.

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

In other ISPOR news, UHCOP Ph.D. students and recent graduates made a total of 26 poster and podium presentations at the 22nd annual meeting (see more on page 7).
OPIOID RESEARCHER THORNTON JOINS PHOP FACULTY

The Department of Pharmaceutical Health Outcomes and Policy welcomed its newest faculty member – J. Douglas Thornton, PharmD, PhD, BCPS – to the college as assistant professor, effective Sept. 1, 2017.

Thornton earned a Ph.D. in Health Services and Outcomes Research from the West Virginia University School of Pharmacy in Morgantown, W.Va., and a certificate of Advanced Study in Healthcare Administration from the West Virginia University John D. Rockefeller IV School of Policy & Politics. After graduating Magna Cum Laude from the West Virginia School of Pharmacy and the WVU Honors College, Thornton completed a PGY1 pharmacy practice residency at Saint Mary's Medical Center in Huntington, W.Va.

"Through my various opioid-related research projects using primary and secondary data collection and analysis, I have worked with patients, pharmacists, law enforcement officers, and faculty as well as undergraduate, professional, and graduate students," Thornton said. “My dissertation research focused on the transitions within chronic opioid therapy including risks for continued use of opioids, health care costs and use evaluation, and patient access to opioid use disorder medications through community pharmacies.”

Thornton’s research focuses on using medications safely and effectively in addition to reducing morbidity and mortality associated with chronic opioid therapy and opioid use disorders.

Thornton’s research has been published or accepted for publication in such journals as Expert Review of Pharmacoeconomics & Outcomes Research, Aging and Mental Health, the Journal of the American Pharmacists Association, Maternal and Child Health Journal, Value in Health and the Journal of Managed Care Pharmacy. He was selected as a Merit Reviewer for the Patient-Centered Outcomes Research Institute in fall 2017.

He is a past recipient of a National Institutes of Health T32 Training Grant, WVUSP Outstanding Graduate Student Award for combined scholarship and service, and a Bronze Medal from the Academy of Managed Care Pharmacy’s 2016 Nexus meeting for his abstract, “Stocking and Dispensing of Opioids and Related Medications: A Survey of Community Pharmacists in a High Abuse Region.”

During his presidency of the West Virginia University ISPOR, the chapter won the ISPOR Outstanding Student Chapter Award at the ISPOR 21st Annual International Meeting in Washington, D.C., in 2016. At the same meeting, Thornton received a Distinguished Service Award for his service to the society – including as 2015-16 Student Newsletter Chair – and a Student Travel Grant.

Susan M. Abughosh, Ph.D., was promoted to Associate Professor of Pharmaceutical Health Outcomes and Policy in September 2017. Abughosh also was appointed in 2017 to serve on the Fellowship Outcomes Population Grant Review Committee for the American Heart Association for January 2018.

Hua Chen, M.D., Ph.D., assistant professor, was appointed to a four-year term on the Healthcare Safety and Quality Improvement Research (HSQR) Study Section of the U.S. Department of Health & Human Services’ Agency for Healthcare Research and Quality (AHRQ).

E. James Essien, DrPH, M.D., professor, served on the National Institute of Health Center for Scientific Review Special Emphasis Panel on Mobile Health: Technology and Outcomes in Low and Middle Income Countries in January 2017 and the National Institute of Allergy and Infectious Diseases Special Emphasis Panel on Clinical Research and Pediatric Research in April 2017.

Marc L. Fleming, Ph.D., MPH, R.Ph., assistant professor, received UH College of Pharmacy’s 2016-17 Faculty Excellence Award for Service in May 2017 and the 2016-17 Rho Chi Society Beta Omicron Chapter Teaching Excellence Award in April 2017.
**OAB IN DEMENTIA PATIENTS: NIH BACKS STUDY OF SAFETY, TOLERABILITY PROFILES OF ANTIMUSCARINICS**

UHCOP Professor and Department Chair Rajender R. Aparasu, Ph.D., FAPhA, is studying whether use of a medication for overactive bladder (OAB) may pose a greater risk of adverse drug events (ADEs), such as falls, hospitalization and death, in dementia patients.

Backed by a three-year, $384,000 R15 grant from the National Institutes of Aging, Aparasu and his co-investigators are analyzing several years of medication and outcomes data from more than 4 million Medicare beneficiaries to develop the first known safety profile for selective and non-selective antimuscarinic agents in older adults with dementia. Aparasu’s team is working to identify adverse health outcomes associated with the use of selective antimuscarinics (such as darifenacin and solifenacin) vs. non-selective antimuscarinics (such as oxybutynin, tolterodine, trospium, and fesoterodine) in elderly dementia patients being treated for OAB.

“The non-selective agents inhibit all muscarinic receptors, which play an important role in memory, whereas the selective agents target muscarinic receptors responsible for bladder contraction,” Aparasu said. “As dementia patients already are in a state of progressive cognitive decline due to damage to the cholinergic neurons system, our hypothesis is that nonselective antimuscarinics will exacerbate their dementia and put them at increased risk for ADEs. "It’s important to understand comparative safety of these two classes of antimuscarinic medications to provide information to clinicians and patients to enable them to make informed decisions regarding antimuscarinic use in dementia.”

Aparasu’s previously study of anticholinergic use in elderly dementia patients revealed that more than 40 percent of the 2.18 million outpatient visits by older adults in 2009-10 were for OAB (Drugs & Aging, 2016). In addition, Aparasu and his collaborators reported in a 2016 issue of the Journal of the American Geriatrics Society that use of anticholinergics in elderly nursing home residents with depression was associated with a 14 percent greater risk of falls and fractures vs. residents who had not taken the drugs within a prior 30-day period based on the research funded by the Agency for Healthcare Research and Quality (AHRQ).

**CAN PATIENT-CENTERED MEDICAL HOMES REDUCE DISPARITIES IN PEDIATRIC MENTAL HEALTH CARE?**

One segment of the U.S. healthcare system in which racial and ethnic disparities are most pronounced is in pediatric/adolescent mental health care, partly due to a severe shortage of child and adolescent psychiatrists.

Today, a large share of pediatric mental health care occurs in the primary care setting. The patient-centered medical home (PCMH) is a primary care delivery model whereby patient treatment is coordinated through their primary care physician to ensure they receive the necessary care when and where they need it, in a manner they can understand.

The PCMH model is being championed by some as the most effective pathway for achieving higher quality of care and reducing racial/ethnic health disparities among other benefits. Yet, it’s not clear whether PCMH-recognized organizations with integrated behavioral services (either through colocation or telepsychiatry) lead to reduced disparities in pediatric mental health care versus the traditional primary care.

“PCMHs are being advocated as not only more convenient for patients, which can have a significant impact on their adherence to therapy and even the most basic factor of maintaining follow-up appointments, but also as a means of improving care efficiencies for the organization and patients through shared electronic medical records and other areas across the service continuum,” said UH College of Pharmacy Associate Professor Hua Chen, M.D., Ph.D.

With the support of a two-year, $100,000 grant from the Agency for Health Care Research and Quality (AHRQ), Chen is examining whether PCMH-recognized healthcare organizations are more effective than the traditional primary care setting in reducing racial/ethnic disparities in the diagnosis, treatment, and outcomes of major depressive disorders within the pediatric/adolescent population. Chen will utilize the PCMH recognition data from the National Committee for Quality Assurance, and the Medicaid claims and provider/practice characteristics from the largest pediatric Medicaid managed care plan in Texas – with a pediatric enrollment in excess of 400,000 patients.

In a separate project supported by a $30,000 grant from the UH Division of Research’s Grants to Enhance and Advance Research (GEAR) program, Chen is collecting de-identified data from three large, geographically diverse pediatric Medicaid Managed Care health plans operating in Texas. Expected to yield health service billing, provider characteristics and patient surveys for approximately 1 million patients, the project will provide a rich springboard of warehoused data that enables future investigations on whether racial disparity in pediatric mental health care could be addressed by improved care delivery.
STATE TAPS UHCOP TO HELP DEVELOP PLAN TO PREVENT, REDUCE PRESCRIPTION DRUG AND OPIOID MISUSE

As communities across the country struggle to find effective, lasting resolution to the opioid crisis, UH College of Pharmacy researchers are helping to plot a new course of engagement for Texas pharmacists to prevent continued misuse of controlled substance prescriptions.

UHCOP Assistant Professor Marc Fleming, Ph.D., MPH, R.Ph., and his co-investigator, Assistant Professor Doug Thornton, Ph.D., Pharm.D., BCPS, have been awarded funding from the Texas Health and Human Services Commission via a federal Substance Abuse and Mental Health Services Administration (SAMHSA) grant program. The UHCOP investigators’ work is expected to total approximately $365,000 in 2018 and at least $857,000 over the subsequent three fiscal years.

SAMHSA’s chief goals for the Strategic Prevention Framework for Prescription Drugs (SPF-Rx) program include enhancing utilization of prescription drug monitoring programs (PDMPs) and analyzing PDMP data to understand the epidemiology trends in state prescribing and dispensing of controlled substance prescriptions. In addition, Fleming and Thornton are forming an education plan to address counseling on all controlled substance prescription drugs, but with an emphasis on prescription opioids.

“Elements of the education plan include encouraging greater use of the Texas PDMP by pharmacists; best practices in safe use of opioids and controlled substances; safe storage and disposal of these substances, such as the dissolution packs that render the active ingredients inert; and, perhaps what may be the most challenging aspect, a referral component based on local resources for treatment and recovery,” Fleming said.

In developing their plan, the investigators will solicit pharmacists’ input to better understand such aspects as barriers to counseling and the logistics of delivering the educational content. With a solid education plan in place and a process for delivering it, Fleming said the program will be rolled out in the Harris County/Houston area, then expanded to other major metropolitan areas and finally smaller regions across the state.

Leading up to the project’s current phase, Fleming took part in the first Texas Drug Abuse Summit in February 2017 and was among the presenters at a Houston town-hall meeting – one of a dozen such events organized by HHSC across the state in 2017 – to engage stakeholders on the challenges, resources and needs of communities from a prevention and treatment perspective.

CROSS-DEPARTMENTAL TEAM STUDIES SAFETY, EFFICACY OF ANTIMOAGULANT, ANTIARRHYTHMIC THERAPIES IN AFIB PATIENTS

A collaboration of clinical and health outcomes researchers at UH College of Pharmacy is conducting a retrospective study on the efficacy and safety of anticoagulant therapy in conjunction with antiarrhythmic therapy in patients with non-valvular atrial fibrillation (NVAF).

The only anticoagulant available for decades was warfarin, but several new agents – such as apixaban – have entered the market in recent years. While the newer agents are more popular due to greater predictability in absorption and patient response, no real-world studies have addressed the efficacy and safety outcomes of Afib patients on both anticoagulant and anti-arrhythmic therapies.

The project is being led by Matthew A. Wanat, Pharm.D., BCPS, BCCCP, UHCOP Department of Pharmacy Practice and Translational Research clinical assistant professor and critical care pharmacy specialist.

Other team members include Department of Pharmaceutical Health Outcomes and Policy faculty members Susan A. Abughosh, Ph.D., Hua Chen, M.D., Ph.D., Marc L. Fleming, Ph.D., MPH, R.Ph., and Michael L. Johnson, Ph.D. Bristol-Myers Squibb and Pfizer are co-funding the $207,000 project grant.

“Our study will look at those who are on either warfarin or apixaban and an AAD and identify the associated outcomes, including events such as stroke, other bleeding outcomes and mortality,” Wanat said.

The team will use the GE Centricity Electronic Medical Record, a database of 2.7 million patients from a range of practice settings, to extract de-identified records of relevance to the study criteria. Wanat estimates that the database will yield approximately 90,000 patients on concomitant therapies from a three-year time span.
High-risk Medications and Prescription Abuse

Inaugural Medication Safety Symposium Draws Professionals, Researchers and Students from 15 Houston Institutions

Houston-area health care providers and researchers launched a new effort to explore options for reversing America’s addiction to painkillers, but also addressing growing concerns about the use of high-risk medications in the vulnerable geriatric population.

The inaugural Houston Medication Safety Symposium on April 28, 2017, brought together more than 130 health care professionals, including physicians, nurses, pharmacists and dentists as well as fellows, residents, health care policy researchers and students from more than 15 institutions to gain new perspectives from experts in academia, the pharmaceutical industry and the regulatory arena.

Plenary session speakers were Grant Baldwin, Ph.D., MPH, of U.S. Centers for Disease Control and Prevention; Zachary Marcum, PharmD, Ph.D., of the University of Washington; Steven Passik, Ph.D., of Collegium Pharmaceutical, Inc.; and Michael Steinman, M.D., of the University of California-San Francisco.

The event also featured poster and podium presentation sessions, with awards bestowed for the top presenters (see box at right).

Held in the world-renowned Texas Medical Center, the symposium was hosted by UH College of Pharmacy’s Department of Pharmaceutical Health Outcomes and Policy and the UTHealth McGovern Medical School’s Department of Geriatric and Palliative Care, and sponsored by the Phyllis Gough Huffington Endowed Lectureship and the UTHealth Consortium on Aging.

More than 50 percent of the attendees received continuing education credit in their respective disciplines. Comments from post-symposium attendee surveys included, “This was a fantastic program … would never have guessed that this was the first year!”, “Enjoyed the interprofessional nature …”, and “Well organized, great venues, great speakers!”

With a survey response rate of more than 30 percent, 88 percent indicated they would recommend a future symposium to colleagues and 77 percent strongly agreed that the speakers helped the attendee understand more about providing safe and effective medication therapy.

Clockwise from top right, Hemalkumar Mehta of The University of Texas Medical Branch at Galveston discusses his research findings with an attendee; and UHCOP faculty member Marc Fleming is interviewed by a Houston TV reporter about the symposium; and event co-chairs Rajender Aparasu of UH College of Pharmacy and Holly Holmes of UTHealth McGovern Medical School present the Best Poster Presentation Award to UHCOP Ph.D. candidate Nandita Kachru.
My fascination with medicine and pharmacy started early. I pursued a B.Pharm at the University of Mumbai and M.S. in Biological sciences at Georgia State University. To gain additional research experience, I worked as a research associate at the Medical College of Wisconsin. While visiting Mumbai to spend time with my family before starting my doctoral studies, I was diagnosed with a very rare type of cancer. I took a year off for treatment and, upon recovery, returned to the U.S. to pursue my studies.

It was during my treatment that I started writing to better express myself and ease the pain. My battle against cancer left a huge impact on me and, upon successful completion of my treatment, I knew that I had to share my experience, not only to spread awareness of cancer, but also instill hope and help those battling this disease. Once I was ready both mentally and physically, I penned my thoughts and my story in the form of a blog.

What interested you about the field of Pharmaceutical Health Outcomes and Policy?

While working in 2014, I realized there were several factors – such as health policies, increasing cost of drugs, and medication noncompliance – that could obstruct the translation of experimental discoveries into clinical practice. The idea of comparing different therapies for effectiveness and cost fascinated me. However, the urge to be a part of this program grew stronger after my diagnosis, and the hope of being a part of it was a huge factor in keeping me going. And, it has provided me a great platform to improve healthcare outcomes.

What motivated you to pursue your education at the University of Houston?

There is a lot of diversity in the research conducted at UH, with emphasis on both qualitative and quantitative approaches, providing opportunities to gain expertise in both survey based as well as retrospective studies. The faculty is dynamic and their collaboration with various departments has provided additional resources to conduct innovative research.

What are your career goals and research focus area?

I am interested in improving medication adherence to ensure effectiveness of various clinical therapies, thereby improving patient outcomes. Years of research and resources are wasted if patients fail to adhere to their medications. Trying to understand the reasons behind it, then designing novel interventions to help improve their compliance, is something I would like to pursue. I am also interested in conducting pharmacoeconomic evaluations to manage increasing costs, thereby enhancing the delivery of health care. I am inclined towards working in oncology, as this is something that I deeply care for. I have always wanted to work for the pharmaceutical industry and I hope to accomplish it in the future.

**STUDENT SPOTLIGHT:**

Rutugandha Paranjpe

Could you tell us a bit more about your educational background and why you chose to pursue a dual degree in Pharmaceutical Health Outcomes and Policy and Applied Economics?

I pursued a B.Pharm at the University of Mumbai and M.S. in Biological sciences at Georgia State University. Pursuing a dual degree was the only such program of its kind in the nation.

What are your career goals and research focus area?

I am interested in improving medication adherence to ensure effectiveness of various clinical therapies, thereby improving patient outcomes. Years of research and resources are wasted if patients fail to adhere to their medications. Trying to understand the reasons behind it, then designing novel interventions to help improve their compliance, is something I would like to pursue. I am also interested in conducting pharmacoeconomic evaluations to manage increasing costs, thereby enhancing the delivery of health care. I am inclined towards working in oncology, as this is something that I deeply care for. I have always wanted to work for the pharmaceutical industry and I hope to accomplish it in the future.
Pharmaceutical Health Outcomes and Policy alumna Erin Ferries, Ph.D. (’15), MPH, research scientist at Humana, received high praise from her employer, the Academy of Managed Care Pharmacy, the AMCP Foundation and the Journal for Managed Care & Specialty Pharmacy (JMCP) during 2017.

In January, Ferries received Humana Inc.’s Jim Bloem Achievement Award for her “dedication to the Humana Values.” Named after a former executive at the company, the award was introduced in 2015 to recognize the valuable contributions of Humana associates in the finance department.

Ferries also picked up a Platinum Medal for her project abstract, “Medication Therapy Management Services and the Impact to Healthcare Utilization,” at the AMCP Nexus 2017 meeting in October in Dallas. In addition, her project was honored with a new award in “Value-Based Health Care” jointly presented by the AMCP Foundation and JMCP at the 7th Annual AMCP Foundation Research Symposium, which was held in conjunction with the Nexus meeting. Ferries also was invited to deliver a podium presentation of her project at the symposium.

Two UH College of Pharmacy alumni were among the best research poster award recipients at the International Society of Pharmacoeconomics and Outcomes Research 22nd Annual International Meeting May 20–24 in Boston.

Pratik Rane, MBA, Ph.D. (’16), Global Health Economics manager at Amgen, earned a Best Student Poster Research Presentation awards at the meeting. Rane’s project, “Risk of Clostridium difficile Infection Associated with Proton Pump Inhibitor Use Among Community Dwelling Adults with Gastroesophageal Reflux Disease,” was one of three student posters to be recognized at the meeting.

Sandipan Bhattacharjee, Ph.D., M.S. (’10), who is a graduate of the college’s predecessor Pharmacy Administration master’s degree program (now the Ph.D. in Pharmaceutical Health Outcomes and Policy), was one of three recipients of the Best New Investigator Poster Research Presentation award. Now an assistant professor at the University of Arizona, Bhattacharjee was honored for his project, “Healthcare Expenditures Among Community-Dwelling Adults with Thyroid Cancer in the United States: A Propensity Score Matched Analysis.”
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