



College of Pharmacy
UNIVERSITY OF HOUSTON

Report to the
Texas Pharmacy Congress
Feb. 9-10, 2023

College Establishes Formal Ties with Jordan University

With the recent signing of a memorandum of understanding (MOU), UHCOP and the Jordan University of Science & Technology (JUST) have established formal ties to cultivate collaboration in the areas of academic and research scholarship, grant funding, faculty development, student/faculty exchange and mentorship opportunities.

The agreement is an extension of research and outreach activities focused on refugee mental health by UHCOP Associate Professor Samina Salim, Ph.D., who completed a Fulbright Specialist assignment at JUST last summer.



UH/UHCOP faculty and administrators, including then-Interim UH Provost Robert McPherson (far left), UHCOP Executive Associate Dean Paige Pitman (second from left) and Samina Salim (far right), attended the MOU signing event with JUST Vice President & Professor Suhad Al-Jundi (third from left).



Bin Guo, left, and Gomika Udugamasooriya, right, coach Aloe Blacc on pipetting during a recent visit to UHCOP laboratories.

Grammy Nominee Backs COVID Research

Research by UHCOP faculty members Gomika Udugamasooriya, Ph.D., and Bin Guo, Ph.D., into a novel process for identifying compounds to block cell entry to COVID-19/SARS viruses has garnered the attention of Grammy-nominated recording artist Aloe Blacc.

After his own bout with COVID-19, Blacc discovered a journal article by Guo and Udugamasooriya on “molecular mask” and provided support for their pre-clinical/toxicological studies on two candidate compounds identified by the UHCOP researcher using Udugamasooriya’s unique on-bead two-color (OBTC) cell screening process. The compounds offer high selectivity to the specific ACE2 receptor domain, which blocks virus entry to the cell without affecting the receptor’s expression, stability or function.

Call for Abstracts: Geriatric Medication Safety Symposium April 13-14

Organizers of the 2023 Geriatric Medication Safety Symposium have issued a call for abstracts to be submitted by March 3 for consideration as poster or podium presentation during the hybrid event April 13-14 at the Texas Medical Center in Houston.

There is no cost to submit abstracts. Awards will be given to the best poster and best podium presentations, and accepted abstracts of original research are eligible for publication in the journal *Research in Social and Administrative Pharmacy (RSAP)*.

A National Institute on Aging-funded collaboration of UHCOP and McGovern Medical School at UTHealth Houston, the symposium is aimed at practitioners, researchers, students and residents/fellows in pharmacy, medicine, nursing and dentistry. The event also will feature plenary sessions and workshops led by nationally recognized speakers. For more information, visit <https://tinyurl.com/gmss-houston>.

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The Geriatric Medication Safety Symposium is supported by the National Institutes on Aging of the National Institutes of Health under award number #R13AG071364.

Call for Abstracts due March 3, 2023 <https://tinyurl.com/gmss23-abstracts>

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UTHealth Houston
McGovern Medical School

Upsilon Chapter Aiming to Repeat Phi Lambda Sigma Title Win

The UHCOP Upsilon Chapter of the Phi Lambda Sigma Pharmacy Leadership Society has been designated as one of three finalists for the national organization's 2021-22 Chapter of the Year. The chapter's win in 2022 marked its third title in the past seven years.

Among the chapter's activities during the 2021-22 academic year were workshops on candidacy, personal branding, leading from behind, resilience and grit, mock interviews, conflict resolution/crucial conversations, and a leadership retreat with representatives from four other PLS student chapters for officers of all of UHCOP's student organizations.

In addition, APhA National President-elect Designee and UH-



COP alumnus Alex Varkey served as the James McCarty Leadership Lecturer for a talk on well-being and resilience.

Among the chapter's community outreach efforts, the chapter organized events and raised funds for a local anti-human trafficking organization, sorted and packaged donated medical supplies for a Houston-based international medical relief organization, and combined

awareness with fundraising to purchase "wish list" items for a local LGBTQ+ housing and services organization.

The top chapter will be announced at the PLS Awards Ceremony during the APhA Annual Meeting and Exposition March 24-27 in Phoenix, Ariz.



The UHCOP Student Society of Health-System Pharmacists held its annual Residency Showcase Nov. 4 at the UH campus, with nearly 50 residency programs in attendance.

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The UHCOP chapters of the Academy of Managed Care Pharmacy and Industry Pharmacists Organization hosted their 8th Annual Round Table Event Jan. 20 at UH, with participation by pharmacy students from Texas Southern University, University of North Texas and the University of Texas.

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A total of 33 UHCOP Pharm.D. students participated in the APhA-ASP Lynn Simpson Patient Counseling Competition, with Pharm.D. candidate Dana Elder taking the title and moving on to represent the college at the national level during the APhA 2023 Meeting & Exposition March 24-27 in Phoenix, Ariz.

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The UHCOP and Texas Southern University chapters of the Student Society of Health-System Pharmacists will host their 18th Annual Residency Mentoring Social April 10 at UH. The round-robin style networking event allows students to interact with representatives from more than a dozen Houston-area residency programs.

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The Houston Program in Health-System Pharmacy Adminis-

Pharmacology Ph.D. Student Awarded AHA Fellowship

Pharmacology Ph.D. student Anika Nusrat, working under mentor/major advisor Mingfu Wu, Ph.D., has been awarded a two-year, \$65,106 American Heart Association Predoctoral Fellowship.

Nusrat and Wu are seeking to elucidate the molecular and cellular contributors to fibrosis in cardiac disease development, including hypertrophy, chamber dilation and the progression of cardiac failure.

Nusrat's project, "Numb Family Proteins (NFPs) Regulate Cardiac Fibroblasts Differentiation During Development and Fibrosis in Aging and Injured Hearts," will investigate whether and how NFPs regulate cardiac fibroblasts differentiation during embryonic development as well as whether and how NFPs regulate fibrosis in aging and adult injured hearts.



tration and Leadership concurrent M.S./PGY1-PGY2 residency program has welcomed HCA Houston Healthcare Kingwood as its newest member institution.

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UHCOP Ph.D. students are now eligible for the highest level of academic specialization from leading analytical software developer SAS Institute through the college's Health Analytics and Real-World Evidence certificate program. SAS academic specialization also offers a range of benefits for students, including webinars, academic discounts on products, and other professional development resources.



Faculty @ Research News

Nicholas Beyda, Pharm.D., BCPS, assistant professor, has received an 18-month, \$198,916 grant from Jazz Pharmaceuticals Inc. for the project, "Using an at-home EEG headband to improve outcomes among narcolepsy patients initiating Oxybate therapy."

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Diana S-L. Chow, Ph.D., FNAI, John J. Lovoi Sr. Endowed Professor, has received a three-year, \$310,000 subaward from the University of Texas Medical Branch for work on the National Institute of Mental Health-funded project, "Probing brain circuit and behavior with protein:protein interaction modulators."

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Austin De La Cruz, Pharm.D., BCPP, clinical assistant professor, has been accepted into the 2023 National Hispanic and Latino Executive Leadership and Fellowship Program, which is coordinated by the National Latino Behavioral Health Association and funded by the Substance Abuse and Mental Health Services Administration.

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Jiukuan Hao, Ph.D., associate professor, has received a one-year, \$155,000 grant from the U.S. Department of Defense U.S. Army Medical Requisition Activity for his project, "Application of Multifunctional RNA Nanoparticle for Lung Cancer Therapy."

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Jinhee Jo, Pharm.D., BCIDP, research assistant professor, has received a one-year, \$8,500 grant from the American Association of Colleges of Pharmacy for her project "Non-toxicigenic *Clostridioides difficile*: Implications for Diagnostic Stewardship," and a one-year, \$4,320 UH New Faculty Research Program grant for

her project "Gut Microbiome-Derived Short-Chain Fatty Acid Changes in Healthy Volunteers Receiving Antibiotics."

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Xinli Liu, Ph.D., associate professor, **Tyler Varisco**, Ph.D., Pharm.D., BCPS, assistant professor, and **Elisabeth Wang**, Pharm.D., BCCP, clinical assistant professor, were honored with the UHCOP Rho Chi Society Beta Omicron Chapter's Teaching Excellence awards for 2021-22.

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Onye Ononogbu, Pharm.D., BCOP, research assistant professor, was honored with the American College of Clinical Pharmacy Hematology/Oncology Practice and Research Network's 2022 Patient Advocate Award, which "recognizes a pharmacist who has fostered hope and engagement, improving access to care and patient education or bridging the gap between patients and medical professionals through impactful interventions."

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Vincent Tam, Pharm.D., FIDSA, BCIDP, professor, has received a two-year, \$95,352 subaward from the Methodist Hospital Research Institute for the National Institute of Allergy and Infectious Diseases-funded project, "Emergence of TonB-dependent receptor mediated cefiderocol resistance among multidrug-resistant (MDR) *Pseudomonas aeruginosa* clinical isolates."

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Matthew Wanat, Pharm.D., BCPS, BCCCP, FCCM, clinical associate professor, has been appointed to a three-year term on the American College of Cardiology Education Standards and Outcomes Committee.

Recent/Upcoming Presentations

Austin De La Cruz, Pharm.D., BCPP, clinical assistant professor, presented "Safety issues in the use of sedative-hypnotics, muscle relaxants, and alcohol" at the Texas Society of Psychiatric Physicians' 66th Annual Convention and Scientific Program Nov. 10-13 in Houston.

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Among the UHCOP presenters at the 6th Annual Texas Medical Center Antimicrobial Resistance and Stewardship Conference Jan. 18-20 at the Rice Bioscience Research Collaborative in Houston were:

Samantha Agyapong, research assistant, "Investigation of Fecal pH in Healthy Volunteers Receiving Oral Omadacycline or Vancomycin"; **Brianna Eales**, Ph.D. student, "Simulated Human Dosing of Ceftazidime in a Murine Pneumonia Model"; **Taryn Eubank**, Pharm.D., BCIDP, T32 Gulf Coast Consortia Texas Medical Center

Training Program in Antimicrobial Resistance Fellow, "A Molecular Epidemiological Exploration of Reduced Vancomycin Susceptibility in *Clostridioides difficile*"; and

Jinhee Jo, Pharm.D., BCIDP, research assistant professor, "The Effects of Oral Omadacycline and Vancomycin on the Gut Microbiome in Healthy Subjects."

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Natalie Rosario, Pharm.D., MPH, BCACP, clinical assistant professor, presented an AACP-hosted webinar "Hispanic Patients and Diabetes Distress" in November 2022.

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Douglas Thornton, Pharm.D., Ph.D., associate professor, has been invited to co-present the panel discussion, "Ending the Opioid Crisis with Schools," March 3 during the SXSW EDU Conference & Festival March 6-9 in Austin.



Recent Publications

- STEMIN and YAP5SA synthetic modified mRNAs regenerate and repair infarcted mouse hearts. Xiao S*, Liang R*, **Lucero E***, **McConnell BK**, Chen Z, Chang J, Navran S, Schwartz RJ, Iyer D. *J Cardiovasc Aging*. 2022 Jul;2(3):31. doi: 10.20517/jca.2022.20. Epub 2022 Jun 15. PMID: 35891703; PMCID: PMC9311335. *Equally Contributing First Authors
- Functional and Metagenomic Evaluation of Ibezapolstat for Early Evaluation of Anti-Recurrence Effects in Clostridioides difficile Infection. **McPherson J**, **Hu C**, **Begum K**, **Wang W**, **Lancaster C**, **Gonzales-Luna AJ**, **Loveall C**, Silverman MH, **Alam MJ**, **Garey KW**. *Antimicrob Agents Chemother*. 2022 Aug 16;66(8):e0224421. doi: 10.1128/aac.02244-21. Epub 2022 Jul 6. PMID: 35862742
- Comparison of Absolute Expression and Turnover Number of COX-1 and COX-2 in Human and Rodent Cells and Tissues. **Li L**, **Sun R**, Zenga J, Himburg H, **Wang L**, **Duan S**, **Liu J**, **Bui D**, Xie Z, Du T, **Xie L**, **Yin T**, Wong S, Gao S, **Hu M**. *J Inflamm Res*. 2022 Aug 4;15:4435-4447. doi: 10.2147/JIR.S365842. eCollection 2022. PMID: 35958187
- Nuclear receptors as potential therapeutic targets in peripheral arterial disease and related myopathy. **Kumar A**, Narkar VA. *FEBS J*. 2022 Aug 9;. doi: 10.1111/febs.16593. [Epub ahead of print] Review. PubMed PMID: 35942640.
- A Novel Mouse Model to Analyze Non-Genomic ER α Physiological Actions. Arao Y, Gruzdev A, Scott GJ, Ray MK, Donoghue LJ, Neufeld TI, Lierz SL, Stefkovich ML, Mathura E, Jefferson T, Foley JF, Mahler TB, Asghari A, Le C, **McConnell BK**, Stephen R, Berridge BR, Hamilton KJ, Hewitt SC, Umetani M, Korach KS. *Journal of the Endocrine Society*. Volume 6, Issue 9, September 2022, bvac109, <https://doi.org/10.1210/jen-dso/bvac109>.
- Estrogen-related receptor alpha is an AMPK-regulated factor that promotes ischemic muscle revascularization and recovery in diet-induced obese mice. Sopariwala DH, Rios AS, Park MK, Song MS, **Kumar A**, Narkar VA. *FASEB Bioadv*. 2022 Sep;4(9):602-618. doi: 10.1096/fba.2022-00015. eCollection 2022 Sep. PubMed PMID: 36089981; PubMed Central PMCID: PMC9447423.
- Direct reprogramming of cardiomyocytes into cardiac Purkinje-like cells. **Prodan N**, **Ershad F**, **Reyes-Alcaraz A**, Li L, Mistretta B, Gonzalez L, Rao Z, Yu C, Gunaratne PH, Li N, Schwartz RJ, **McConnell BK**. *iScience*. 2022 Oct 20;25(11):105402. doi: 10.1016/j.isci.2022.105402. PMID: 36388958; PMCID: PMC9646947.
- A clinical review of HIV integrase strand transfer inhibitors (INSTIs) for the prevention and treatment of HIV-1 infection. **Zhao AV**, Crutchley RD, Guduru RC, Ton K, **Lam T**, Min AC. *Retrovirology*. 2022 Oct 22;19(1):22. doi: 10.1186/s12977-022-00608-1. PMID: 36273165
- An Immunconjugate Vaccine Alters Distribution and Reduces the Antinociceptive, Behavioral and Physiological Effects of Fentanyl in Male and Female Rats. Haile CN, Baker MD, Sanchez SA, Lopez Arteaga CA, **Duddupudi AL**, **Cuny GD**, Norton EB, Kosten TR, Kosten TA. *Pharmaceutics*. 2022 Oct 26;14(11):2290. doi: 10.3390/pharmaceutics14112290. PMID: 36365109
- Protecting glomerulus: role of angiotensin-II type 2 receptor. **Patel S**, **Kulkarni K**, **Hussain T**. *Clin Sci (Lond)*. 2022 Oct 28;136(20):1467-1470. doi: 10.1042/CS20220396. PMID: 36287192
- Qualitative Analysis of Pharmacy Students Self-identified Preconceptions About the Term "Clinical Pharmacy". Farris C, **Diec S**, Patel P, Samuel N. *Am J Pharm Educ*. 2022 Nov 1:9026. doi: 10.5688/ajpe9026. Online ahead of print. PMID: 36319072
- Deciphering longitudinal optical-density measurements to guide clinical dosing regimen design: A model-based approach. Kesisoglou I, **Eales BM**, **Merlau PR**, **Tam VH**, Nikolaou M. *Comput Methods Programs Biomed*. 2022 Dec;227:107212. doi: 10.1016/j.cmpb.2022.107212. Epub 2022 Nov 1. PMID: 36335752
- Machine learning methods to predict 30-day hospital readmission outcome among US adults with pneumonia: analysis of the national readmission database. **Huang Y**, **Talwar A**, Lin Y, **Aparasu RR**. *BMC Med Inform Decis Mak*. 2022 Nov 9;22(1):288. doi: 10.1186/s12911-022-01995-3. PMID: 36352392
- A peptoid interleukin-15 receptor antagonist suppresses inflammation and arthritis in mice. **Cho KB**, **Shukla SP**, **Kannan M**, **Zhang H**, **Amina SJ**, **Zhou S**, Chen Y, Molligan JF, Taneja V, Mohan C, **Udugamasooriya DG**, **Guo B**. *Clin Transl Immunology*. 2022 Nov 24;11(11):e1432. doi: 10.1002/cti2.1432. eCollection 2022. PMID: 36439637
- Risk Factors Associated with Severe Clostridioides difficile Infection in Patients with Cancer. Francisco DMA, Zhang L, Jiang Y, Olvera A, Adachi J, Guevara EY, Aitken SL, **Garey KW**, Peterson CB, Do KA, Dillon R, Obi EN, Jenq R, Okhuysen PC. *Infect Dis Ther*. 2023 Jan;12(1):209-225. doi: 10.1007/s40121-022-00722-9. Epub 2022 Nov 28. PMID: 36443547
- Screening of GPCR-targeting drugs for repositioning in breast cancer. **Abdulkareem NM**, Bhat R, Powell R, **Chikermane S**, **Yande S**, **Trinh L**, **Abdelnasser H**, **Tabassum M**, **Ruiz A**, Sobieski M, Nguyen ND, Park JH, Johnson CA, Kaiparettu BA, **Bond RA**, **Johnson M**, Stephan C, **Trivedi MV***. *Front Pharmacol*, 13:1049640, 2022. PMID: 36561339. DOI: 10.3389/fphar.2022.1049640.
- Corrigendum to "Irinotecan decreases intestinal UDP-glucuronosyltransferase (UGT) 1A1 via TLR4/MyD88 pathway prior to the onset of diarrhea" [Food Chem. Toxicol. 166 (2022) 113246]. **Tao G**, **Dagher F**, **Li L**, **Singh R**, **Hu M**, **Ghose R**. *Food Chem Toxicol*. 2023 Jan;171:113547. doi: 10.1016/j.fct.2022.113547. Epub 2022 Dec 8. PMID: 36495622
- Heterogeneity and lyophilization comparison of stool processing for gastrointestinal bile acid measurement by LC-MS/MS. **Hu C**, **Wang W**, **Garey KW**. *J Chromatogr B Analyt Technol Biomed Life Sci*. 2023 Jan 1;1214:123569. doi: 10.1016/j.jchromb.2022.123569. Epub 2022 Dec 9. PMID: 36527807
- Optimizing Clinical Outcomes Through Rational Dosing Strategies: Roles of Pharmacokinetic/Pharmacodynamic Modeling Tools. **Chua HC**, **Tam VH**. *Open Forum Infect Dis*. 2022 Dec 16;9(12):ofac626. doi: 10.1093/ofid/ofac626. eCollection 2022 Dec. PMID: 36540388
- Pharmacokinetic Basis for Using Saliva Matrine Concentrations as a Clinical Compliance Monitoring in Antitumor B Chemoprevention Trials in Humans. **Bui D**, McWilliams LA, **Wu L**, Zhou H, Wong SJ, You M, **Chow DS**, **Singh R**, **Hu M**. *Cancers (Basel)*. 2022 Dec 23;15(1):89. doi: 10.3390/cancers15010089. PMID: 36612086
- Nonhydrolyzable d-phenylalanine-benzoxazole derivatives retain anti-tubercular activity. Pepi MJ, Chacko S, Kopetz N, Boshoff HIM, **Cuny GD**, Hedstrom L. *Bioorg Med Chem Lett*. 2023 Jan 15;80:129116. doi: 10.1016/j.bmcl.2022.129116. Epub 2022 Dec 23. PMID: 36572353
- Fusobacteria behaving badly: Masquerading strains of strictly anaerobic Escherichiacoli misidentified due to the deletion of the hemB gene. **Endres BT**, **Basserres E**, Citron DM, Tyrrell KL, **Begum K**, **Lancaster C**, Warren YA, **Alam MJ**, **Garey KW**, Goldstein EJC. *Anaerobe*. 2022 Dec 27;79:102682. doi: 10.1016/j.anaerobe.2022.102682. Online ahead of print. PMID: 36580991
- Targeted ablation of Fn14 receptor improves exercise capacity and inhibits neurogenic muscle atrophy. **Tomaz da Silva M**, **Joshi AS**, **Koike TE**, **Roy A**, **Mathukumalli K**, Sopariwala DH, Narkar VA, **Kumar A**. *FASEB J*. 2022 Dec;36(12):e22666. doi: 10.1096/fj.202201583R. PMID: 36412933