Welcome to the weekly newsletter from the Center for Addiction Research! Each newsletter includes highlights from addiction in the news topics, active funding opportunities offered by NIDA/NIAAA, and information about any new publications from CAR members. Please email Jen Rowe (roweji@ucmail.uc.edu) to change your communication preferences. Thank you.

Thank you for your interest in the Center for Addiction Research - our mission is to accelerate scientific progress in the prevention and treatment of substance use disorders and their consequences by fostering research collaborations across: 1) UC departments, colleges, and centers including Cincinnati Children's Hospital Medical Center; 2) Local, regional, and state community and governmental partners; and 3) Other academic institutions and industry."



UC/ Regional News

Please join us in congratulating Dr. Teresa Reyes, PhD, Professor in the Department of Pharmacology and Systems Physiology and CAR Member for being named Senior Associate Dean for Basic and Translational Research!

Please read the announcement below emailed Wednesday from Dean Filak...

I am very pleased to announce that Teresa Reyes, PhD, has accepted my offer to serve as Senior Associate Dean for Basic and Translational Research. While Dr. Reyes has officially assumed the title, she is currently completing a sabbatical and will increasingly take on the full responsibilities of the position between now and January 2024, when she returns to the college.

The Senior Associate Dean for Basic and Translational Research is an extremely important leadership position in the College of Medicine. Dr. Reyes will join with Brett Kissela, MD, MS, Executive Vice Dean and Senior Associate Dean for Clinical Research, to co-lead the college's Office of Research and provide strategic oversight for our research agenda, which at the close of FY2023 included more than \$140 million in NIH-sponsored research holdings. With her extensive research and programmatic leadership experience, her success in obtaining NIH and foundation funding and her commitment to mentoring students and trainees, I believe Dr. Reyes will thrive in this position taking the college's research program to the next level by building on the many successes of her predecessor, Melanie Cushion, PhD. Dr. Reyes is a Professor in the Department of Pharmacology and Systems Physiology. She joined the College of Medicine faculty in 2015, coming to Cincinnati from the University of Pennsylvania, Perelman School of Medicine. Prior to that she was on faculty at The Scripps Research Institute in Jupiter, Florida. She received her doctorate in Psychology from the University of Wisconsin, Madison and completed a postdoctoral fellowship at the Salk Institute for Biological Studies in La Jolla, CA.

Dr. Reyes' lab is focused on how early life environment shapes brain development and cognition, with a focus on understanding neuron-glial interactions. Her work examines a range of environmental influences, including nutrition as well as exposure to inflammation, drugs of abuse and chemotherapeutic medications.

Please join me in congratulating Dr. Reyes on her new position and again sharing our thanks and gratitude with Dr. Cushion for her 10 years of previous leadership as Senior Associate Dean for Research.

Telemedicine Could Improve Treatment for Opioid Use Disorder

THURSDAY, Oct. 19, 2023 (HealthDay News) -- Telehealth may be a powerful way to get people with opioid use disorder to take -- and stay on -- medication to treat their addiction. <u>Researchers report</u> that those who started buprenorphine treatment via telehealth had an increased likelihood of staying in treatment longer compared to those who started the treatment in another setting. "This study suggests that telehealth may increase treatment access and retention, strengthening the evidence that receiving addiction care through telehealth is to be safe and beneficial, and that it should be made... **(The research was part of the HEALing Communities Study, Ohio co-Principal Investigator and CAR Director, Dr. T. John Winhusen)**

Center for Clinical and Translational Science and Training Grand Rounds Friday, October 20 at noon:

Nichole Nidey, PhD, assistant professor, Department of Epidemiology, University of Iowa College of Public Health, will present "Journey Mapping: An Innovative Tool for Patient and Community Engaged Research" via <u>Zoom</u>.

Economic Impact: Ohio Could Potentially See Millions More in Tax Revenue if Issue 2 Passes

A recent Ohio State University Drug Enforcement and Policy Center study estimates the potential annual tax revenue from legalizing marijuana ranges from \$276 million to \$403 million in the fifth year of an operational cannabis market. Those projections could become reality if Ohioans vote to pass Issue 2, which would legalize and regulate the cultivation, manufacturing, testing and the sale of marijuana to Ohioans 21 and up. It would impose a 10% tax at the point of sale for each transaction and would also legalize home grow for Ohioans 21 and up with a limit of six plants per person and 12 plants per residence. "From an economics perspective, it's added tax revenue, to new job creation...

Not just fentanyl. Animal tranquilizer xylazine is embedded in Ohio's drug supply

A Northern Kentucky doctor saw a patient who was hospitalized for weeks as caregivers removed all the skin from her forearms to save them from amputation. Dr. Mike Kalfas said the woman had been using the opioid drug fentanyl tainted with an animal sedative that caused tissue death, a situation that's becoming more and more common in the Cincinnati area. "I've been educating my patients," Kalfas said. "I've been telling them, look, there's some bad stuff that may be in your drugs that Narcan won't save you from." That stuff is xylazine, often called tranq dope, and it's the newest challenge in the opioid epidemic. The drug is cheap and easy to get, so sellers add it to their fentanyl...

Governor DeWine announces \$100M in federal funding to communities to fight opioid addiction, prevent overdose deaths

Ohio Governor Mike DeWine announced a \$100 million investment of federal State Opioid and Stimulant Response (SOS, formerly SOR) funding from the Substance Abuse and Mental Health Services Administration to help communities fight opioid addiction and prevent overdose deaths. The funds are a continuation of year one funding received by the Ohio Department of Mental Health and Addiction Services (OhioMHAS) that will strengthen and sustain an array of prevention, harm reduction, treatment and long-term recovery supports for Ohioans struggling with an opioid or stimulant use disorder. More than 7,800 Ohioans were served in year one of the SOS initiative. "Ohio continues to…

National News

Treatment for alcohol use disorder improves quality of life in men and women aged 60+, study finds

Adults aged 60 and older reported better overall health and quality of life after treatment for their alcohol use disorder, according to a new study published in Alcohol: Clinical and Experimental Research. Both male and female study participants also reported improvements in specific quality of life measures, including physical and psychological health, social relationships, and other environmental factors (e.g., including home environment, financial resources, transportation), and these improvements continued over time. The study supports the value of treatment of alcohol use...

Brain imaging study suggests both cutting down and quitting drinking linked to healthier brains

The brains of people who reduce their drinking, as well as of people who quit drinking entirely, have greater volume in certain regions than people who drink more heavily, according to a new study of adults treated for alcohol use disorder. The regional brain volumes of people who resume drinking at low-risk levels (no more than approximately three drinks per day for males, 1.5 drinks per day for females) of alcohol are more similar to the brains of those who remain abstinent than they are to those who drink at higher risk levels (average of five or more drinks per day). The study, published...

Treating high-risk drinking, alcohol use disorder: New Canadian guideline

A new Canadian guideline for treating high-risk drinking and alcohol use disorder (AUD) with 15 evidence-based recommendations to reduce harms associated with high-risk drinking and to support people's treatment and recovery from AUD is published in CMAJ (Canadian Medical Association Journal). High-risk drinking, AUD and alcohol-related harms are common in Canada. Nearly 18% of people aged 15 years or older in Canada will meet the clinical criteria for an AUD in their lifetime, and over 50% of people in Canada aged 15 years or older currently drink more than the amount recommended in Canada's...

Retail outlets for legal marijuana may be associated with alcohol co-use among high school students: Study

Given the increasing trend toward legalizing marijuana in many states, there is growing concern that underage youth may find the drug easier to access. In fact, a recent study reported in the Journal of Studies on Alcohol and Drugs suggests that in areas with local retail availability of legalized marijuana, high school students are more likely to use marijuana and alcohol together, as well as alcohol alone. "Greater retail availability may 'normalize' marijuana use for young people, even if they are unable to purchase marijuana directly from retail businesses, and retail sales may introduce greater access...

Recovery checkups in primary care settings linked to increased substance use treatment and reduced drug abuse

Highly vulnerable patients with alcohol use disorder (AUD) or substance use disorder (SUD) who received regular assessments after their initial intervention had substantially better outcomes a year later than those who did not receive the same follow-up, according to a new study. Fewer than one in ten people with SUD receive any form of treatment in a given year; among those who do, relapse and treatment reentry are common. A Screening, Brief Intervention, and Referral to Treatment (SBIRT) protocol is intended to facilitate treatment referrals, especially among patients with more severe SUDs, but...

Cannabis intoxication triggers cognitive mechanism of addiction, finds study

New research from the Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at King's College London and the University of Oxford has found that the main component of cannabis, delta-9-tetrahydrocannabinol (THC), leads to people's attention being more drawn to other cannabis stimuli when using the drug, which researchers suggest could underpin the cognitive mechanisms behind cannabis use disorder (CUD). The research, published in Addiction, also found that levels of cannabidiol (CBD) typically found in cannabis had no modulating effects on the participants, despite many users believing...

FDA Denies Marketing of Six Flavored Vuse Alto E-Cigarette Products Following Determination They Do Not Meet Public Health Standard

Today, the U.S. Food and Drug Administration issued marketing denial orders (MDOs) to R.J. Reynolds Vapor Company for six flavored e-cigarette products under its Vuse Alto brand. This includes three menthol-flavored and three mixed berry-flavored products, with each flavor being offered in three nicotine strengths. The company must not market or distribute these products in the United States or they risk FDA enforcement action. However, the company may submit new applications for the products that are subject to these MDOs. The FDA evaluates premarket tobacco product applications (PMTAs) based...

Elf Bar finds an easy way around US vape import ban: a name change

WASHINGTON (AP) — Four months after U.S. regulators tried to block imports of Elf Bar, the top-selling Chinese disposable e-cigarette remains widely available thanks to a simple but effective tactic: changing its name. Convenience stores in Washington D.C., Philadelphia, New York and other cities remain fully stocked with the brightly colored vapes, sold in fruity flavors like strawberry melon and claiming to contain 5,000 "puffs" per device. The Food and Drug Administration considers the products illegal. In May, it directed customs officials to seize incoming shipments of Elf Bar and EBDesign, two of the...

FDA takes 'momentous' step toward banning menthol cigarettes and flavored cigars

The US Food and Drug Administration took a "momentous" step Monday toward banning menthol in cigarettes and banning flavored cigars, proposing a rule that public health experts say could save hundreds of thousands of lives. The FDA has been talking about banning menthol and flavored cigars for years and has said the issue is one of its top priorities. In April, it announced it would move ahead with proposed product standard restrictions because such a move had "the potential to significantly reduce disease and death" and reduce "youth experimentation and addiction" as well as increase the number...

New York City's tobacco retailer density policy mitigates longstanding neighborhood inequities in tobacco access: Study

Tobacco retail licenses in New York City decreased by over 30 percent since 2018, when the City established a policy to cap the number of licenses in each of its 59 community districts, according to a study just released by Columbia University Mailman School of Public Health. The results showed that policy effects were stronger in districts with lower income and greater proportions of non-Hispanic Black residents. This study is the first to evaluate the effects of New York City's innovative policy approach, which addresses a key environmental determinant of tobacco use disparities. Findings are published in...

The roots of the North American opioid crisis, and three key strategies for stopping it

The Netflix series "Painkiller" recently depicted how the over-prescribing of the medicine OxyContin wreaked havoc on American society. Today the grim reality is that opioid-related deaths in North America reached a record level in 2022, with more than 109,000 fatalities in the United States. The same year in Canada, deaths exceeded 7,400, a number equivalent to 20 opioid-related deaths every day, and this is likely to continue to increase over the coming years. The opioid overdose crisis has been ongoing for over two decades in Canada and the U.S. The current mortality rate is greater than the worst years of...

Implementation of routine opioid use disorder screening fails to significantly boost new diagnosis rates, finds research

In a brief research report, authors from University of Washington report that screening for opioid use disorder (OUD) in a primary care setting did not significantly boost the percentage of new diagnoses. Screening sensitivity could be a contributing factor, and the authors suggest that addressing stigma may increase the sensitivity of the screening instrument. The report is published in Annals of Internal Medicine. Integrating care for common mental health disorders into primary care through screening and treatment has proved to be highly effective and is now a widespread practice. However, substance...

Opioid use disorder treatment associated with decreased risk of overdose after surgery, suggests study

Although people with opioid use disorder (OUD) are significantly more likely to overdose or have a complication after major surgery than those without the disorder, using medications for the treatment of OUD before surgery may eliminate that extra risk, suggests a large, first-of-its-kind study presented at the ANESTHESIOLOGY 2023 annual meeting. Patients with OUD who didn't use an OUD medication (such as buprenorphine or methadone) were over four times more likely to overdose after having surgery, yet those who used evidence-based OUD medication before surgery were essentially at no greater risk than...

Staggering increase in opioid-related deaths among people experiencing homelessness, new study finds

People experiencing homelessness account for an increasing proportion of fatal opioid-related deaths in Ontario, Canada, reaching one in six such deaths by 2021, according to new research from ICES, Western University and Lawson Health Research Institute. In one of the first reports to track the continuous increase in opioid-related mortality in the province among people experiencing homelessness, researchers found that the quarterly proportion of opioid-related overdose deaths among unhoused individuals increased from 7.2% (26 deaths) in the period of July to September 2017 to 16.8%...

Drones delivering opioid overdose reversal kits could reach people more quickly than ambulances

Researchers from King's College London used real-world data of fatal opioid overdoses where a bystander was present to show that commercial-off-the-shelf drones could have reached 78% of cases within seven minutes—the benchmark time for the arrival of emergency services for Category 1 calls in England—a huge increase on the 14% reached by ambulances. The researchers also found that by increasing the speeds of the drones and designing specialist cargo cradles, an estimated 98% of overdoses could be reached within seven minutes. The study, "An evaluation of naloxone transit for opioid overdose using...

The latest college campus freebies? Naloxone and fentanyl test strips

At the University of North Carolina at Chapel Hill, three students stand behind a card table covered in naloxone injection kits. When a curious student leans in and asks what the kits are for, Caroline Clodfelter, one of the co-founders of the student group running the table, explains: "It will reverse an opioid overdose. ... So let's say you're going out to a frat — stick it in your pocket. It's easy to just have on you." Nearly 600 miles away, at the State University of New York's Delhi campus, Rebecca Harrington, who works in student affairs, has also been tabling to prevent fentanyl overdoses. Her table, though, is full of...

Hyloris announces U.S. FDA Approval of Maxigesic® IV

Liège, Belgium – 18 OCTOBER 2023 – 7AM CET – Regulated Information - Inside information - Hyloris Pharmaceuticals SA (Euronext Brussels: HYL), a specialty biopharma company committed to addressing unmet medical needs through reinventing existing medications, today announces Maxigesic[®] IV has been approved for the relief of mild to moderate pain and for the management of moderate to severe pain as an adjunct to opioid analgesics in adults, where an intravenous route of administration is considered clinically necessary. The approval for the New Drug Application (NDA) is based on positive data...

Philadelphia bans safe injection sites—evidence suggests keeping drug users on the street could do more harm than good

The United States remains tightly in the grasp of an ongoing, and escalating, crisis of deaths caused by opioid overdoses. With a record-high 109,000 people dying in 2022, it is clear that something new needs to be done to reverse this trend. Philadelphia is near the epicenter of the crisis. Some of the country's largest openair drug markets can be found in the Kensington neighborhood. Heroin, prescription opioids and fentanyl aren't the only drugs of concern. Xylazine, a powerful non-opioid also known as tranq, has an overwhelming presence on the streets. We are a group of Scandinavian and American...

A visual circuit related to the habenula mediates the prevention of cocaine relapse by bright light treatment: Study

The treatment of drug addiction remains a significant challenge, with cocaine use disorder (CUD) carrying a high rate of relapse and imposing a significant global burden. Over the past few decades, considerable efforts have been made to increase the effectiveness of extinction training, a method where individuals are repeatedly exposed to drug-related cues without actual drug use. These efforts have bolstered earlier reports that support the potential for interventions during drug withdrawal with extinction training to prevent relapse. The lateral habenula (LHb) is particularly noteworthy as it is responsible for...

Funding Opportunities



<u>RFA-DA-25-012</u> <u>Targeting Inflammasomes in HIV and Substance Use (R01 Clinical Trial Not Allowed)</u>

<u>RFA-DA-25-013</u> <u>Targeting Inflammasomes in HIV and Substance Use (R21 Clinical Trial Not Allowed)</u>

<u>RFA-AA-23-004</u> <u>Comprehensive Alcohol-HIV/AIDS Research Center (P60 Clinical Trial Optional)</u>

<u>RFA-DA-24-030</u> <u>Applying Imaging Pipelines for Spatial Characterization of Cellular Interactions in</u> <u>HIV-related CNS Pathology and/or Substance Use (R61/R33 Clinical Trial Not</u> <u>Allowed)</u>

<u>NOT-DA-23-040</u> <u>Notice of Change to section for PAR-23-194, "Substance Use/Substance Use</u> <u>Disorder Dissertation Research Award (R36 Clinical Trials Not Allowed)"</u>

CAR Member New Publications

Potential effect of antidepressants on remission from cocaine use disorder – A nationwide matched retrospective cohort study

Zhenxiang Gao, T. John Winhusen, Maria Gorenflo, Udi E. Ghitza, Edward Nunes, Andrew J. Saxon, Todd Korthuis, Kathleen Brady, Sean X. Luo, Pamela B. Davis, David C. Kaelber, Rong Xu Drug and Alcohol Dependence DOI: <u>https://doi.org/10.1016/j.drugalcdep.2023.110958</u>

ABSTRACT

Background: Cocaine use disorder (CUD) is a significant public health issue for which there is no Food and Drug Administration-approved pharmacotherapy. Depressive disorders are common psychiatric comorbidity amongst individuals with CUD.

Methods: A retrospective cohort study was conducted among 161,544 patients diagnosed with CUD and depression to evaluate the effectiveness of 13 antidepressants on CUD remission. For any antidepressant found to be associated with CUD remission that had an additional indication, we conducted an additional analysis to evaluate the effectiveness of the candidate drug in patients with CUD with that indication. We then analyzed publicly genomic and functional databases to identify potential explanatory mechanisms of action of the candidate drug in the treatment of CUD.

Results: Among these antidepressants, bupropion was associated with higher rates of CUD remission compared to propensity-score matched patients prescribed other antidepressants: hazard ratio (HR) and 95% confidence interval (CI) 1.57 (95% CI: 1.27– 1.94). Bupropion is also approved for smoking cessation. We identified CUD patients with co-occurring nicotine dependence and observed that patients prescribed bupropion displayed a higher rate of CUD remission compared to matched individuals prescribed other drugs for nicotine dependence: 1.38 (95% CI: 1.11–1.71). Genetic and functional analyses revealed that bupropion interacts with four protein-encoding genes (COMT, DRD2, SLC6A3, and SLC6A4) which are also associated with CUD and targets CUD-associated pathways including serotonergic synapses, cocaine addiction, and dopaminergic synapses.

Conclusions: Our findings suggest that bupropion might be considered a treatment for improving CUD remission in patients with CUD and co-occurring depression or nicotine dependence.

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