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

### **CoM Office of Research Gallery of Awardees**

To recognize the challenges of competing for funding to support faculty research programs, the College of Medicine Office of Research celebrates researchers each month in the Gallery of Awardees. The gallery honors those faculty members who have been awarded external grants of \$100,000 per year or more direct costs and recently featured **CAR Member, Dr. Jason Blackard**.

- Jason Blackard, PhD, Walter A. and George McDonald Foundation Professor of Medicine, Department of Internal Medicine, Division of Digestive Diseases; National Institute of Diabetes and Digestive and Kidney Disease T35; "Short-term Institutional Research Training Grant"
- Jason Blackard, PhD, Walter A. and George McDonald Foundation Professor of Medicine, Department of Internal Medicine, Division of Digestive Diseases...National Heart, Lung, and Blood Institute R01; "Initiators of Thrombotic Microangiopathy"

### Walk the Road to Recovery: We Recover Together

Join the "Walk the Road to Recovery: We Recover Together" on Thursday, September 5, 2024, between 6:00 – 8:00 PM to kick-off National Recovery Month. This event will be open to the public and will offer helpful information about recovery, treatment services, as well as an opportunity to engage with public officials and inspirational cultural activities. The goal remains to reduce the stigma associated with substance use and mental health disorders. For more information and to RSVP, please visit: TranisitionsKY.org/recovery.

# Ohio study reveals high risk of overdose deaths among those using drugs when they're alone

In Cuyahoga County, the stark reality of the opioid crisis is that most drug overdose victims die alone, with no one nearby to help. A recent study, done in partnership with Case Western Reserve University and Cuyahoga County, highlights the critical need for "targeted harm-reduction strategies" in Northeast Ohio, where the opioid epidemic continues to claim lives at nearly twice the national average. The paper is published in the journal Substance Use & Misuse. Those strategies include the distribution of Naloxone (an opioid antagonist that can reverse the effects of an overdose) and increasing the availability of medication-assisted treatment options and fentanyl test strips. The research, using data from the...

### U.S. DEA doesn't rule out arrests for marijuana use in Ohio after legalization

Federal agents haven't ruled out making arrests for marijuana use even after Ohio legalized the drug for recreational use. Ohio and Michigan have both legalized marijuana for recreational use, but the drug is still illegal on the federal level. The U.S. Drug Enforcement Agency told WOSU that it is focused on arresting and charging "big fish" like drug traffickers but didn't rule out arresting an everyday person smoking marijuana as allowed by Ohio law. DEA spokesman Brian McNeal said the focus of the agency is on those manufacturing and distributing illicit substances. "So are we necessarily after the kid with an ounce of weed for that kid or for that group of people? We want to provide information and remind that...

### Steps to fight opioid epidemic in the region encouraging

Opioid addiction and subsequent deaths have led to a massive multi-billion effort by the federal government to ease the drug abuse that has hit Kentucky particularly hard. A promising step has been taken in southcentral Kentucky. The Barren River Area Development District has hired mental health professional Brooke Edwards as the first director of the Barren River Office of Drug Control Policy. Edwards has been on the BRADD staff for five years as a mental health associate, and now will head an office that is part of the Anchor Project. She will lead the 10-county effort funded by the national Opioid Settlement, money from which Kentucky has been allotted \$478 million. Opioid abuse is devastating to...

## **National News**

# **Comprehensive review identifies three key concepts for recovery from substance use disorders**

Certain concepts have a demonstrated basis for aiding recovery from dangerous alcohol or substance use, according to an analysis of scientific literature since 1990. Self-efficacy (a belief in one's ability to achieve a goal), social support, and managing cravings are among the treatment elements best supported by evidence. Effective treatment for alcohol use disorder (AUD) and other substance use disorders (SUDs) depends on understanding how human behaviors change and incorporating that knowledge into clinical practice. An ongoing research effort continues to investigate varying treatment approaches and how they...

#### Digital intervention shows promise for moderating alcohol consumption

In a large group of frequent drinkers who used a digital application offering tailored text-based support for reducing their alcohol intake, weekly drink amounts fell by 1/3 over 12 weeks. The study of real-world users shows promise for people who are uncomfortable with their drinking habits but may not meet the criteria for alcohol use disorder (AUD). Although they may be unlikely to aim for abstinence or to seek formal treatment, many are open to moderating their drinking. Digital interventions, such as self-guided online programs and smartphone apps, are easily accessible and engaging. Studies have shown that...

#### Mayo Clinic's high-tech pursuit of precision alcohol addiction treatment

Millions of people worldwide are affected by alcohol use disorder, a debilitating addiction that can disrupt daily life and overall health. Alcohol use disorder is characterized by an inability to control drinking, a preoccupation with alcohol and continued use despite negative consequences. According to the World Health Organization, 400 million people, or 7% of the world's population ages 15 and older, had an alcohol use disorder in 2019. Yet the primary prescribed medications, such as acamprosate, are only beneficial for a subset of patients. To improve these outcomes, scientists at Mayo Clinic's Center for...

# Brain shows changes in regions associated with anxiety after quitting alcohol, finds study

Certain regions of the brain show changes during the early stages after quitting drinking that may contribute to increased anxiety and relapse rates in people attempting recovery from alcohol use disorder, according to a study published in Alcohol: Clinical and Experimental Research. The study further found that an individual's sex and severity of their anxiety play a significant role in the brain's response during early abstinence from alcohol use, with the brains of men and women responding differently. These findings highlight the need for a greater understanding of the neural mechanisms affected by alcohol use and...

#### New genetic tool predicts risk of liver disease in heavy drinkers

An international research group led by the Centenary Institute has developed a new genetic risk prediction tool to identify heavy drinkers most at risk of developing alcohol-associated cirrhosis, a severe form of liver disease. In an article published in the journal Hepatology Communications, the researchers present the tool, which offers new hope for the early detection and prevention of alcohol-associated cirrhosis, a condition responsible for more than 300,000 global deaths annually.

While excessive alcohol consumption is known to cause liver damage, not all heavy drinkers develop cirrhosis, which is characterized by...

#### How exercise influences addiction recovery: Q&A with neuroscientist

A University at Buffalo neuroscientist whose focus is the brain's reward system and its role in addiction is helping to illuminate how exercise can aid the brain in addiction recovery. Over the past year, this research has revealed that because exercise acts on the same areas of the brain that addiction does, it has the potential to become an important treatment tool for people with substance use disorder. Panayotis (Peter) K. Thanos, Ph.D., senior research scientist in the Department of Pharmacology and Toxicology in the Jacobs School of Medicine and Biomedical Sciences at UB, is a lead or senior author on publications that describe...

# Cannabis and hallucinogen use among adults remained at historic highs in 2023

Past-year use of cannabis and hallucinogens stayed at historically high levels in 2023 among adults aged 19 to 30 and 35 to 50, according to the latest findings from the Monitoring the Future survey. In contrast, past-year use of cigarettes remained at historically low levels in both adult groups. Past-month and daily alcohol use continued a decade-long decline among those 19 to 30 years old, with binge drinking reaching all-time lows. However, among 35- to 50-year-olds, the prevalence of binge drinking in 2023 increased from five and 10 years ago. The Monitoring the Future study is conducted by scientists at the University of...

#### Frequent cannabis users miss more workdays, research shows

A new analysis of 46,499 employed adults in the United States, completed with data from the 2021–2022 National Survey on Drug Use and Health (NSDUH), found that recent and frequent cannabis use and cannabis use disorder (CUD) were associated with greater workplace absenteeism. This included both absences due to illness/injury as well as skipped work days. Among full-time employed adults, 15.9% used cannabis in the past month, with 6.5% meeting criteria for CUD. The study found that over the last 30 days, the mean number of workdays missed because of illness was 1.47 for people who didn't have CUD but had used...

#### Researchers to test new approach for detecting cannabis in breath

With cannabis now outpacing alcohol as Americans' daily drug of choice, there is a critical need for a scientifically validated breath test to detect the recent use of the substance in drivers. But developing such a breath test has proved a significant challenge. Last year, researchers at the National Institute of Standards and Technology (NIST) and the University of Colorado Boulder found that a single breath test may not be reliable in detecting recent cannabis use because cannabis can linger in the body for weeks, making it difficult to distinguish between past and present use. Now, these researchers are considering...

# Justice Department, FDA announce federal multi-agency task force to curb the distribution and sale of illegal e-cigarettes

The U.S. Department of Justice (DOJ) and the U.S. Food and Drug Administration (FDA) recently announced the creation of a federal multi-agency task force to combat the illegal distribution and sale of e-cigarettes. Along with the FDA and the Justice Department, the task force will bring together multiple law enforcement partners, including the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF); the U.S. Marshals Service (USMS); the U.S. Postal Inspection Service (USPIS); and the Federal Trade Commission (FTC), to coordinate and streamline efforts to bring all available criminal and civil tools to bear against the...

#### Researchers find e-cigarette use disrupts the nasal microbiome

The nose plays more roles than merely allowing us to smell and shaping our facial profiles. It also acts as a gatekeeper for the respiratory tract, capable of preventing bacteria and other pathogens from leaving the nasal passage and taking up residence in the lungs. Similar to the microbiome in the gastrointestinal tract and the skin, the precious balance between beneficial bacterial, fungal, and viral colonies in the nose can be disrupted. This imbalance, termed dysbiosis, can lead to an overgrowth of harmful bacteria and can predispose people to respiratory diseases, such as chronic obstructive pulmonary disease and asthma. Elise...

#### **Stop & Shop Announces Plans to Stop Selling Tobacco Products**

Quincy, Mass. (August 26, 2024) - Stop & Shop announced today that it will stop selling all cigarettes and tobacco products at its 360 stores. The grocery retailer with stores across Massachusetts, Rhode Island, Connecticut, New York, and New Jersey plans to end sales of all tobacco products at all stores by August 31 as a part of the brand's commitment to community wellness. "Our responsibility as a grocer goes far beyond our aisles, and we are committed to taking bold steps to help our associates, customers, and communities work towards better health outcomes," said Gordon Reid, Stop & Shop President. "From our…

#### UK doctors urge government to act over 'vaping epidemic'

Leading UK doctors urged the government Wednesday to pass legislation to tackle "a vaping epidemic," in particular among young people, by banning disposable ecigarettes and all flavors apart from tobacco. The call came alongside the publication of a British Medical Association (BMA) report which it said was a "blueprint" for the "bold actions needed." The previous Conservative government unveiled plans earlier this year to eventually phase out smoking, alongside banning disposable e-cigarettes and restricting their flavors and packaging. The new Labour administration—which swept to power early last month...

# Harm reduction education and tools access may help women prevent opioid overdose

Women with opioid use disorder and who are also involved with the criminal legal system face unique challenges and stigmas that may keep them from seeking substance use treatment and harm reduction tools that could prevent overdose deaths, according to new research led by a team from Penn State. They published their findings in Psychology of Addictive Behavior. Harm reduction strategies are evidence-based practices to engage people who use drugs and provide them with tools and information to reduce the risk of overdose. These practices can play a critical role in addressing the overdose crisis in the United...

#### Access to opioid agonist treatment in prisons saves lives, researchers say

Receiving opioid agonist treatment (OAT) in prison and after release into the community substantially cuts the risk of death among people who use drugs, a new study shows. Researchers led by the National Drug and Alcohol Research Center (NDARC) say their findings, published in The Lancet Public Health, suggest that high coverage of OAT is crucial to reducing drug-related harm. OAT interventions, such as methadone and buprenorphine, can reduce opioid cravings and prevent withdrawal symptoms in those with opioid dependence. "This review supports a considerable body of evidence showing that OAT is integral...

#### Public voices often ignored in states' opioid settlement money decisions

The conversation wasn't sounding good for Kensington residents on June 20. The Philadelphia neighborhood is a critical center of the nation's opioid crisis, and the city had decided to spend \$7.5 million in opioid settlement money to improve the quality of life there. But on that day, a Pennsylvania oversight board was about to vote on whether to reject the city's decision. It was a thorny issue with major implications—both for Kensington residents and people across the state, as the decision could set a precedent for what kind of spending the board would allow for years to come. But a lot of people were shut out of the...

## Wounds are common among people who use illicit opioids, but proper wound care is hard to find

The animal tranquilizer xylazine is increasingly found in the illicit opioid supply nationwide, leading to severe wounds among people who use drugs. New research led by a University of Pittsburgh physician-scientist and published in Drug and Alcohol Dependence seeks to understand wound care experiences of this population. A cross-sectional survey of people who use drugs identified through three syringe service providers in Massachusetts found the vast majority had experienced xylazine wounds in the prior year. As the need for comprehensive, low barrier wound care grows, access to such care continues to lag...

# Survey finds more than 3 in 4 Americans don't feel they could help someone suffering an opioid overdose

International Overdose Awareness Day is a worldwide campaign held each Aug. 31 that acknowledges the grief of family and friends left behind from those who have died from a drug overdose. This year's campaign theme "Together we can" highlights the power of the community standing together to help end overdose. However, a new survey of 1,000 Americans from The Ohio State University Wexner Medical Center and College of Medicine found more than three in four Americans say they would not be able to step in to treat an overdose. "A recent Ohio State survey found that 77% of people are concerned that...

#### Study raises concerns about residential opioid treatment providers in N.C.

A new study of organizations that claim to provide residential opioid substance use services in North Carolina found that only 12% of the organizations were licensed by the state to provide residential substance use treatment. What's more, only about a quarter of the organizations even allowed patients to access the only treatment for opioid use disorder proven to reduce overdose deaths. The study, "Evidence-based treatment for opioid use disorder is widely unavailable and often discouraged by providers of residential substance use services in North Carolina," is published in the Journal of Substance Use and...

# Methamphetamine-related deaths in Australia quadrupled over 20 years, study finds

A new study has found there has been a four-fold increase in methamphetaminerelated deaths in Australia during the last two decades. The findings are published in the International Journal of Drug Policy. Australia has one of the highest rates of amphetamine dependence globally, with a 2019 government survey estimating more than 5% of Australians have used amphetamines at some point in their life. However, this figure is suspected to be much higher. The study identified the most significant rise in deaths between 2009 and 2016, peaking at a record high of 2.4 deaths per 100,000 in 2020. While there has been a decrease...

### **Hepatitis C Reinfection Common Among Treated Injection Drug Users**

Among injection drug users treated for hepatitis C virus (HCV) infection, rates of reinfection were high soon after sustained virologic response but decreased with longer follow-up, according to a secondary analysis of the randomized HERO trial. Of 415 participants followed for up to 42 months, the overall reinfection rate was 11.4 per 100 person-years at risk (95% CI 8.7-14.7) over 518 person-years of follow-up, reported investigators led by Alain Litwin, MD, MPH, of the University of South Carolina School of Medicine in Greenville, in JAMA Network Open. There was a significant decrease in incident reinfection, however, with increasing...

### **Could psychedelic-assisted therapy change addiction treatment?**

After years of being seen as dangerous "party drugs," psychedelic substances are receiving renewed attention as therapies for addiction—but far more research is needed, according to a new special series of articles in the Journal of Studies on Alcohol and Drugs (JSAD), published at Rutgers University. Psychedelics are substances that essentially alter users' perceptions and thoughts about their surroundings and themselves. For millennia, indigenous cultures have used plants with psychedelic properties in traditional medicine and spiritual rituals. And for a time in the mid-20th century, Western researchers became interested in the...

#### As 'tranq' wounds rise, volunteers are filling gaps in care

There was no textbook for the volunteer training held on how to care for the severe skin wounds that are increasingly afflicting people in addiction. Inside the tiny Savage Sisters storefront on Kensington Avenue, surgeon Jamaal Shaban had written his medical guidance by hand on a poster. Since doctors are learning in real time about how these understudied wounds develop, Shaban frequently has to update his presentation. He passed out surgical gauze and ointment. Dress the wound with the salve, he explained, and then a non-adhesive layer. Anything that could stick to the dead skin could send a patient into agonizing...

## **Funding Opportunities**



<u>RFA-DA-25-063</u> <u>Microglial Pathophysiology in Comorbid Substance Use Disorder (SUD) and HIV</u> (<u>R61/R33 Clinical Trial Not Allowed)</u>

<u>NOT-DA-26-008</u> <u>Notice of Special Interest (NOSI): Research on Illicit Drug Markets</u>

<u>NOT-DA-24-038</u> <u>Notice of Information: Updates to the Data Repository for the Adolescent Brain</u> <u>Cognitive Development (ABCD) Study and the HEALthy Brain and Child</u> <u>Development (HBCD) Study</u>

### **UC Foundation Funding Opportunities**

Please contact Carol Russell at (513) 556-6169 or <u>carol.russell@uc.edu</u> at least 5 business days before the deadline, prior to applying to the below opportunity, to ensure coordination and to facilitate assistance with approaches.

# American Philosophical Society Seeks Nominees for Renewable Clinical Fellowships

The American Philosophical Society invites applications in support of patientoriented research in several branches of clinical medicine, including internal medicine, neurology, pediatrics, psychiatry, and surgery. The Daland Fellowships in Clinical Investigation provide one-year stipends of \$40,000, with eligibility for renewal for a second year. Direct contact with patients is mandatory. *Candidates must be nominated by their department chair*. Applicants must have an MD, DO, MD/PhD, or DO/PhD degree and have held it for fewer than eight years. Preference is usually given to candidates who have not more than two years of postdoctoral training and research. Applicants must expect to perform their research at an institution in the United States under the direct supervision of a scientific advisor.

### Klingenstein Philanthropies Posts Mental Health Research Opportunities

Klingenstein Philanthropies is committed to helping people by supporting breakthrough research in neuroscience, and by funding programs that improve the lives of children, especially in the fields of mental health. The nonprofit has announced three application opportunities to open in September:

### Esther A. & Jospeh Klingenstein Fund:

 Neuroscience Fellowship: Pays \$300,000 over three years for early-career investigators in basic or clinical research that may lead to a better understanding of neurological and psychiatric disorders. Applications will open September 15 and close February 1. For information, see: <u>https://klingenstein.org/esther-a-joseph-klingensteinfund/neuroscience/applying/</u>

### Klingenstein Third Generation Foundation:

- Transformation of Mental Health Care: Awards pay \$200,000 over two years to improve access to care for children and adolescents while furthering researchers in their careers. Applications will open September 1 and have a deadline of December 15. For information, see:
  <a href="https://klingenstein.org/klingenstein-third-generation-foundation/transformation-of-mental-health-care/applying/">https://klingenstein.org/klingenstein-third-generation-foundation/transformation-of-mental-health-care/applying/</a>
- Fellowship for post-doctoral candidates: Pays \$100,000 over two years for research in child and adolescent ADHD and depression. Applications will open September 1 and have a deadline of December 15. *Must be nominated by the Psychiatry Department Chair*. For information, see:

https://klingenstein.org/klingenstein-third-generationfoundation/fellowship-program/applying/

## **CAR Member New Publications**

# Trauma Prevalence and Its Association With Health-Related Quality of Life in Pregnant Persons with Opioid Use Disorder

Winhusen, T. John PhD; Kropp, Frankie MS; Greenfield, Shelly F. MD; Krans, Elizabeth E. MD; Lewis, Daniel BA; Martin, Peter R. MD; Gordon, Adam J. MD; Davies, Todd H. PhD; Wachman, Elisha M. MD; Douaihy, Antoine MD; Parker, Kea MD; Xin, Xie PhD; Jalali, Ali PhD; Lofwall, Michelle R. MD

Journal of Addiction Medicine DOI: <u>https://doi.org/10.1097/adm.0000000000001366</u>

### ABSTRACT

**Objectives:** Trauma screening is recommended for pregnant persons with opioid use disorder (OUD), but there is limited literature on screening results from buprenorphine treatment. This study's objectives were to 1) describe the types, and severity, of traumatic events reported and 2) evaluate the associations between trauma and health-related quality of life (HRQoL).

**Methods:** Baseline data from an ongoing trial were analyzed. Participants were 155 pregnant persons with OUD receiving, or enrolling in, buprenorphine treatment at one of 13 sites. The experience, and relative severity, of 14 high magnitude stressors were assessed with the trauma history screen. The Patient-Reported Outcomes Measurement Information System-29+2 was used to assess 8 HRQoL domains.

**Results:** Traumatic stressors were reported by 91% of the sample (n = 155), with 54.8% reporting a lifetime persisting posttraumatic distress (PPD) event and 29.7% reporting a childhood PPD event. The most prevalent lifetime PPD event was sudden death of a close family/friend (25.8%); physical abuse was the most prevalent childhood PPD event (10.3%). Participants with lifetime PPD, relative to no PPD, reported significantly greater pain interference (P = 0.02). Participants with childhood PPD, relative to no PPD, had significantly worse HRQoL overall (P = 0.01), and worse pain interference (P = 0.002), anxiety (P = 0.003), depression (P = 0.007), fatigue (P = 0.002), and pain interference (P < 0.001).

**Conclusions:** A majority of pregnant persons enrolled/enrolling in buprenorphine treatment reported persisting posttraumatic distress with sudden death of close family/friend being the most prevalent originating event; clinicians should consider the impact that the opioid-overdose epidemic may be having in increasing trauma exposure in patients with OUD.

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