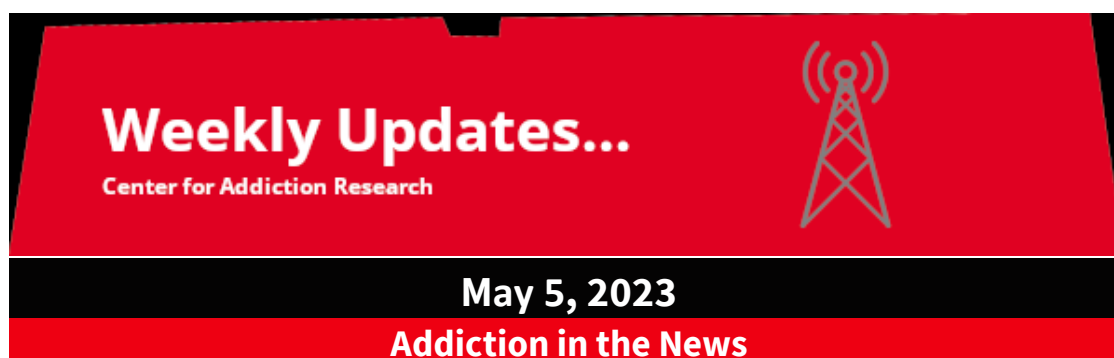


Welcome to the weekly newsletter from the Center for Addiction Research! Each newsletter includes highlights from addiction in the news topics, active funding opportunities offered by NIDA/NIAAA, and information about any new publications from CAR members. Please email Jen Rowe ([roweji@ucmail.uc.edu](mailto:roweji@ucmail.uc.edu))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

#### **UC research examines the role of genetics in opioid use disorder**

"We are trying to identify some of the genetic variants that might play into OUD," says Caroline Freiermuth, MD, associate professor in the Department of Emergency Medicine at the UC College of Medicine and principal investigator for the study.

"Patients received an oral swab that gets put inside their cheek, and those swabs were sent off for genetic testing looking for 180 single nucleotide polymorphisms." According to the Centers for Disease Control and Protection, more than 107,000 people in the U.S. died in 2021 from drug overdose, with overdose deaths involving synthetic opioids increasing 23% from the year before. The economic cost of OUD and opioid-related... **(featuring CAR Population Health and Health Services Core**

**Co-Leader and CAR Member, Dr. Caroline Freiermuth)**

#### **'Eat, sleep, console' reduces hospital stay and need for medication among opioid-exposed infants**

Researchers have found the "Eat, Sleep, Console" (ESC) care approach to be more effective than using the Finnegan Neonatal Abstinence Scoring Tool (FNAST) to assess and manage opioid-exposed newborns, according to a national, randomized controlled clinical trial. Newborns cared for with ESC were medically ready for discharge approximately 6.7 days earlier and 63% less likely to receive medication as part of their treatment, compared to newborns cared for with FNAST. ESC prioritizes non-pharmacologic approaches to care, such as a low-stimulation environment, swaddling, skin-to-skin... **(third author, Dr. Stephanie Merhar, CAR**

## **Perinatal Addiction/Developmental Consequences Core Leader and CAR Member)**

### **Ohio Attorney General steps into legal battle over \$1B opioid settlement distribution**

Ohio Attorney General Dave Yost has asked a court to let his office intervene in a legal battle on behalf of the organization tasked with distributing more than half of the \$1 billion settlement reached with national opioid distributors. The request comes a day after a judge in Franklin County refused to issue an order to temporarily prevent Ohio from spending \$58.3 million in opioid settlement funds. Harm Reduction Ohio is suing the OneOhio Recovery Foundation, the entity designated to coordinate the distribution of a settlement reached with national opioid distributors. OneOhio Recovery Foundation will receive 55% of Ohio's \$1 billion opioid settlement over 18 years. The other 45% goes...

### **Local running group prepping for Flying Pig on track to addiction recovery**

CINCINNATI (WKRC) - Flying Pig weekend is just a week away, and one local running group is setting goals on and off the course. It is officially crunch time for those participating in the Flying Pig Marathon events. City Gospel Mission's Step Forward running team has been training for months, but they recently had their final training session. They call it "Cheer Day," with family and friends on hand for some extra motivation. Evan Van Skaik has been training to run the Flying Pig 10K. "It's been the best thing ever for me," Evan said. But his goal isn't just to pass the finish line. He and the other 25 members of the team are in addiction recovery. They say training for these events has helped them...

### **BROWN, FOP PRESIDENT PATRICK YOES DISCUSS BROWN'S BILL TO HELP PREVENT FENTANYL FROM REACHING OHIO COMMUNITIES**

WASHINGTON, D.C. – Today U.S. Senator Sherrod Brown (D-OH) hosted a news conference call to discuss how his new bipartisan legislation, the Fentanyl Eradication and Narcotics Deterrence (FEND) Off Fentanyl Act, would combat the country's fentanyl crisis and save lives in Ohio by imposing new sanctions and money laundering penalties on illegal opioid traffickers. The bill targets the illicit fentanyl supply chain, from the chemical suppliers in China to the cartels that transport the drugs in Mexico. Brown was joined on the call by Patrick Yoes, National President of the Fraternal Order of Police, who shared what he is hearing from law enforcement officers in the field dealing with...

### **Eastern Kentucky addiction treatment center getting some opioid settlement money**

PRESTONSBURG, Ky. (WCHS) — More than \$8 million is heading to 24 addiction recovery programs in Kentucky as part of a \$900 million opioid settlement. As part of the settlement, Mountain Comprehensive Care Center is getting \$250,000. For nearly three months, Derek Young has been a client at Mountain Comprehensive

Care Center. Eventually Derek will finish his treatment, and the facility wants to make sure he and others who are leaving treatment can function independently in the real world, so they are using a \$250,000 grant from the Kentucky Opioid Abatement Advisory Commission to expand their transitional living program. "To say it's a blessing is an understatement for what..."

## **National News**

### **Study: People with anxiety and mood disorders experience more severe alcohol symptoms than those without**

People with anxiety or major depressive disorders experience more alcohol-related symptoms and problems than people without those disorders, even at the same levels of drinking, according to a large study. This finding might help to explain why those who develop an anxiety or mood disorder are at heightened risk of alcohol use disorder (AUD). "Internalizing disorders"—anxiety disorder or a major depressive disorder—and AUD commonly co-occur: 20-40% of people with an internalizing disorder have AUD, compared to 5% of the general population. It has been shown that people...

### **Older drivers drinking or using drugs up to four times likelier to be at fault during a car crash**

Substance use among older drivers increases the probability of them being at-fault two to four times during a crash, a new study, analyzing nine years' worth of US nationwide highway traffic data, shows. Although older drivers are less likely to report using substances, this research found that out of a sample of 87,060 drivers involved in two moving vehicle crashes, more than one-third were motorists over the age of 70 who tested positive for substances. Findings are published today in the journal *Traffic Injury Prevention*. "In general older drivers are at an elevated risk for being at-fault in a fatal car crash..."

### **Video-based smoking cessation program found to help HIV-positive smokers quit tobacco**

Nearly 40% of participants in a pilot study quit tobacco after completing a video-based smoking cessation intervention developed by a University of Massachusetts Amherst community health researcher for HIV-positive smokers in Nepal. "I am blown away with the findings," published in the journal *AIDS and Behavior*, says lead author Krishna Poudel, associate professor of community health education in the School of Public Health and Health Sciences. "I was confident that a lot of people would quit, but I was not expecting 40%." HIV-positive people who are receiving highly active antiretroviral...

### **Q&A: How the FDA can help more people stop smoking**

Although smoking rates have decreased in the U.S., more than 30 million people continue to smoke, resulting in nearly half a million deaths each year. Many people who smoke want to quit, but the available FDA-approved products for smoking

cessation—like nicotine patches or gum—don't work for everyone. In a recent commentary in the *New England Journal of Medicine*, tobacco policy expert Joanna Cohen, Ph.D., MHSc, and colleagues call for the FDA to take steps to bring more smoking cessation therapies to the market. In this Q&A, adapted from the May 1 episode of *Public Health On Call*, Cohen, director...

### **Quitting smoking may lead to a lower risk of household food insecurity**

When a tobacco user quits smoking, their household is less likely to experience food insecurity in the following year, according to a new study from the University of Minnesota School of Public Health (SPH) published in *Annals of Epidemiology*. Food insecurity and tobacco use both rank as major threats to U.S. public health, and both have an inequitable impact on low-income households and people of color. While about 10% of all U.S. households are food insecure, roughly 32% of households below the poverty line experienced some food insecurity in 2021. Similarly, people who face...

### **Restricting flavored e-cigarettes may reduce their use among teens and young adults: Study**

Getting many adolescents and young adults to stop using e-cigarettes may be as simple as doing away with flavored versions of the product, according to new research in the *Journal of Studies on Alcohol and Drugs*. This study suggests that a large majority of current users may discontinue their use if the product became available in the tobacco version only. "The restriction of the availability for certain e-cigarette e-liquid flavors has been considered by various regulatory agencies," says senior study author Alayna P. Tackett, Ph.D., assistant professor at the Center for Tobacco Research at The...

### **Australia to ban recreational vaping in major public health move**

Minimum quality standards will also be introduced, and the sale of vapes restricted to pharmacies. Nicotine vapes already require a prescription in Australia, but the industry is poorly regulated and a black market is thriving. Health Minister Mark Butler says the products are creating a new generation of nicotine addicts in Australia. Also known as e-cigarettes, vapes heat a liquid - usually containing nicotine - turning it into a vapour that users inhale. They are widely seen as a product to help smokers quit. But in Australia, vapes have exploded in popularity as a recreational product, particularly...

### **No, vapes aren't 95% less harmful than cigarettes. Here's how this decade-old myth took off**

It's 2013. The Harlem Shake is on the radio and e-cigarettes are becoming a thing. A group of researchers convene to discuss these and other products containing nicotine. In a 2014 paper detailing the outcomes of that meeting, the authors rated "electronic nicotine delivery systems" (e-cigarettes) as having "only 4%" of the maximum relative harm of cigarettes. Critically, the authors stated their

"understanding of the potential hazards" of e-cigarettes was "at a very early stage" because they lacked "hard evidence for the harms of most products on most of the criteria" they examined. In other...

### **Can vaping help people quit smoking? It's unlikely, says researcher**

Australian Health Minister Mark Butler has announced a major policy shift on vaping. Its two primary objectives are to make it harder for children and non-smokers to access vapes and to allow people trying to quit smoking to access nicotine vapes with a prescription. Vapes are unquestionably popular, with many who vape saying they are trying to quit or to cut down on cigarettes. "Recreational" vapers of any age with no interest in quitting will find themselves frozen out. But can vapes actually help significant numbers of people quit smoking? The evidence suggests it's unlikely. First, let's bust a widely...

### **New DEA requirements may limit access to buprenorphine, a popular drug for opioid recovery**

Doctors and advocates are concerned a federal proposal to roll back a pandemic policy allowing remote prescribing of a common opioid substitute medicine could jeopardize those recovering from addiction. With the public health emergency set to end May 11, the Drug Enforcement Administration proposal would require people to visit a doctor or clinic within 30 days of getting a telehealth prescription for buprenorphine. The proposal could change how more than 1 million Americans recovering from addiction can access this opioid-substitute medicine, used to stop cravings and block...

### **Few waived clinicians prescribed buprenorphine: New study**

A new study found a declining proportion of DATA-waivered clinicians prescribed any buprenorphine between 2017 and 2021. While the number of waived clinicians increased significantly during the five-year window, only one out of three prescribed any buprenorphine as of May 2021. Furthermore, the majority of prescriptions were written by clinicians who specialize in treating opioid use disorder. The research letter published in JAMA April 27 notes that the Drug Addiction Treatment Act (DATA) of 2000 created a pathway for clinicians to obtain a "waiver" to prescribe buprenorphine (also known by...

### **U.S. deaths due to fentanyl nearly quadrupled in 5 years**

Overdose deaths in the United States tied to the powerful synthetic opioid fentanyl soared 279% from 2016 to 2021, health officials reported Wednesday. With the nation reeling from continued drug overdose deaths, investigators sought to identify trends in drug-related fatalities involving the five most commonly involved opioids and stimulant drugs: fentanyl, heroin, methamphetamine, cocaine and oxycodone. In just five years, deaths involving fentanyl—the most frequently implicated substance—rose from 6 per 100,000 people to 22 per 100,000, according to the U.S. Centers for Disease...

### **Study identifies compounds that ease depression, opioid withdrawal in mice**

Since the 1960s, the hallucinogenic drug ibogaine has piqued interest as a potential treatment for opioid addiction. Anecdotal and limited experimental evidence, including claims by some that they no longer had interest in using opioids after taking ibogaine, has fueled this interest. But the drug comes with risks, including heart disorders and death. In a new study, Yale researchers identified two compounds that, in experiments with mice, were shown to be more biologically targeted than ibogaine but, like the hallucinogen, ameliorated symptoms of depression, anxiety, and opioid withdrawal. The...

### **When naloxone isn't enough: How technology can save lives when people use drugs when they're alone**

When Ju Park was studying epidemiology in graduate school, she volunteered with a harm reduction organization that trained local community members on how to prevent a drug overdose. She traveled around the state to demonstrate how the medication naloxone can be used to reverse an overdose from opioids if administered in a timely manner. After one session, a mother whose daughter had a substance abuse disorder approached Park to share a heartbreaking story: The daughter, who had been in and out of rehabilitation centers, recently experienced a relapse. She locked herself into a...

### **Discovery suggests route to safer pain medications**

Strategies to treat pain without triggering dangerous side effects such as euphoria and addiction have proven elusive. For decades, scientists have attempted to develop drugs that selectively activate one type of opioid receptor to treat pain while not activating another type of opioid receptor linked to addiction. Unfortunately, those compounds can cause a different unwanted effect: hallucinations. But a new study led by Washington University School of Medicine in St. Louis has identified a potential route to pain relief that neither triggers addiction nor activates the pathway that causes...

### **Frustration grows over wait on OxyContin maker's settlement**

More than a year after OxyContin maker Purdue Pharma reached a tentative settlement over the toll of opioids that was accepted nearly universally by the groups suing the company — including thousands of people injured by the drug — money is still not rolling out. Parties waiting to finalize the deal are waiting for a court to rule on the legality of a key detail: whether members of the Sackler family who own the company can be protected from lawsuits over OxyContin in exchange for handing over up to \$6 billion in cash over time plus the company itself. This week — days before the one-year...

### **Integrating Addiction Services in Primary Care Likely Effective, Modestly Costly**

A modeling study found that integrating addiction services into primary care improved clinical outcomes at a modest cost increase. These findings were published in JAMA Network Open. The largest clinical workforce in the United States are primary care practitioners (PCPs). As such, integration of addiction services into primary care would be a practical way to increase access to addiction services. This decision analytical model study was designed to estimate the long-term clinical outcomes and costs of integrating addiction services into primary care. Investigators used a Reducing Infections Related...

### **CDC: Fentanyl Overdose Deaths Increased 279% Over Recent Years**

Drug overdose death rates involving fentanyl, methamphetamine, and cocaine increased from 2016 through 2021, CDC researchers said. The age-adjusted overdose death rate involving fentanyl rose by 279%, from 5.7 per 100,000 standard population in 2016 to 21.6 per 100,000 in 2021, reported Merianne Rose Spencer, MPH, an epidemiologist in the Division of Analysis and Epidemiology at the CDC's National Center for Health Statistics, and colleagues. Rates of overdose deaths involving methamphetamine more than quadrupled, from 2.1 per 100,000 in 2016 to 9.6 in 2021, and those involving cocaine...

### **Pennsylvania set to ban supervised drug use sites, in setback for harm reduction**

Pennsylvania lawmakers are set to pass a new ban on supervised drug consumption, effectively ending a Philadelphia nonprofit's long-running effort to offer a sanctioned substance-use site meant to prevent overdose and death. A bill outlawing sites that "knowingly" provide a space for drug consumption passed a committee vote by a wide margin on Tuesday. It now advances to the full state senate, where it is also expected to pass. Gov. Josh Shapiro, a Democrat, has expressed strong opposition to supervised injection sites in the past, and is expected to sign the legislation. While supervised...

### **Multiple Paths to Addiction Recovery**

One size never fits all, whether it is a pair of stretch pants, the "universal" television remote, or an adjustable wrench. Why would we assume that there is only one method or program of recovery for addiction? Many people do assume there is only one path, especially if they themselves have become sober on it. With the best of intentions, they may exhort others to follow that same path. This view has a companion, namely that there are no viable alternatives. Combined, these two views produce a belief that if people fail with this method, they perhaps are not trying hard enough. People begin to use...



## Funding Opportunities



## GRANTS & FUNDING

NIH Central Resource for Grants and Funding Information

[RFA-OD-23-017](#)

[Tobacco Regulatory Science \(R01 Clinical Trial Optional\)](#)

[RFA-DA-24-019](#)

[Translating Socioenvironmental Influences on Neurocognitive Development and Addiction Risk \(TranSINDA\) \(R34 Clinical Trial Not Allowed\)](#)

[RFA-NS-23-028](#)

[HEAL Initiative: Interdisciplinary Team Science to Uncover the Mechanisms of Pain Relief by Medical Devices \(RM1 Clinical Trial Optional\)](#)

[NOT-AA-23-009](#)

[Notice of Intent to Publish a Funding Opportunity Announcement for Specialized Alcohol Research Centers \(P50 Clinical trial Optional\)](#)

[NOT-AA-23-010](#)

[Notice of Intent to Publish a Funding Opportunity Announcement for Comprehensive Alcohol Research Centers \(P60 Clinical trial Optional\)](#)

## CAR Member New Publications

### **Genetic Variants Associated With Opioid Use Disorder**

Caroline E. Freiermuth, David F. Kisor, Joshua Lambert, Robert Braun, Jennifer A. Frey, Daniel J. Bachmann, Jason J. Bischof, Michael S. Lyons, Michael V. Pantalon, Brittany E. Punches, Rachel Ancona and Jon E. Sprague

*Clinical Pharmacology & Therapeutics*

DOI: <https://doi.org/10.1002/cpt.2864>

### **ABSTRACT**

Genetics are presumed to contribute 30–40% to opioid use disorder (OUD), allowing for the possibility that genetic markers could be used to identify personal risk for developing OUD. We aimed to test the potential association among 180 candidate single nucleotide polymorphisms (SNPs), 120 of which were related to the dopamine reward pathway and 60 related to pharmacokinetics. Participants were randomly recruited in 2020–2021 in a cross-sectional genetic association study. Self-reported health history including Diagnostic and Statistical Manual of Mental Disorders (DSM-5) OUD criteria and buccal swabs were



collected. A total of 1,301 participants were included in the analyses for this study. Of included participants, 250 met the DSM-5 criteria for ever having OUD. Logistic regression, adjusting for age and biologic sex, was used to characterize the association between each SNP and DSM-5 criteria consistent with OUD. Six SNPs found in four genes were associated with OUD: increased odds with *CYP3A5* (rs15524 and rs776746) and *DRD3* (rs324029 and rs2654754), and decreased odds with *CYP3A4* (rs2740574) and *CYP1A2* (rs2069514). Homozygotic *CYP3A5* (rs15524 and rs776746) had the highest adjusted odds ratio of 2.812 (95% confidence interval (CI) 1.737, 4.798) and 2.495 (95% CI 1.670, 3.835), respectively. Variants within the dopamine reward and opioid metabolism pathways have significant positive (*DRD3* and *CYP3A5*) and negative (*CYP3A4* and *CYP1A2*) associations with OUD. Identification of these variants provides promising possibilities for genetic prognostic and therapeutic targets for future investigation.

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