

UC CAR Weekly Newsletter 12.8.2023

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

WVXU: Health benefits and risks to recreational marijuana

Issue 2 passed in Ohio on Nov. 7 with more than 55% of the vote, legalizing recreational marijuana for adult use. The University of Cincinnati's LaTrice Montgomery, PhD, joined WVXU's Cincinnati Edition to discuss the potential health benefits and risks associated with cannabis use. Montgomery studies cannabis use disorder, particularly around young adults using blunts, hollowed out cigars where tobacco is partially or fully replaced with marijuana. The wide variety of cannabis products makes it difficult for researchers looking to make strong conclusions, Montgomery said. "I think as legalization increases, it's going to become more and more important for us to get more and more specific about..." **(Dr. LaTrice Montgomery, CAR Member)**

Ohio START program earns national certification

OHIO — Ohio's Sobriety Treatment and Reducing Trauma program (Ohio START), has become the nation's first such program to earn national certification from Children and Family Futures, according to a press release from the Ohio Governor's office Wednesday. "We launched Ohio START when I was attorney general, and since then, hundreds of families have benefited from access to both treatment and recovery," Gov. DeWine said. "Many families have found hope and healing through Ohio START, and I congratulate our partners at the Public Children Services Association of Ohio and across the state for this recognition." The release notes that the program was started in 2017 by Mike DeWine...

Substance abuse on the rise in Jefferson County: Inpatient rehab center urgently needed

JEFFERSON COUNTY, Ohio — Jefferson County has seen a steady increase in substance abuse cases in recent years, but treatment has been far away. The absence of inpatient rehabilitation centers makes it difficult for those seeking help to access comprehensive and intensive treatment programs that are often crucial for successful recovery. County Commissioner Toni Morelli has long lobbied for such programs. “I’m very frustrated,” he said. “It’s something that’s almost unconscionable to not have one in Jefferson County, or this area period when we have one of the highest counties as far as the drug epidemic.” Morelli continued to say that without an in-patient center in the county...

Our students are dying from opioid overdose. Schools must keep Narcan on hand to save them.

The case for Narcan in schools goes beyond saving the lives of students. It can help save their families. Overdose deaths among young people in the U.S. nearly doubled from 2019 to 2020, and that number continues to rise. In Kentucky alone more than 2,000 people died from overdoses in 2022 — mostly attributable to fentanyl. In Texas, fentanyl-related deaths surged nearly 600% between 2019 and 2022, with minors accounting for more than 200 of those deaths. That’s why I’m grateful the White House recently urged school districts nationwide to keep medication on hand that can reverse opioid overdoses. Naloxone, commonly marketed as Narcan, is highly effective and easy to administer as a nasal...

National News

Study identifies peptide as key mediator in heavy alcohol drinking

Alcohol is the most common addictive substance in the world. Every year in the U.S. excessive alcohol use costs \$249 billion and causes approximately 88,000 deaths, as well as various chronic diseases and social issues. Alcohol use disorder, a highly prevalent, chronic, relapsing disorder, affects more than 14 million people in the U.S. alone, in addition to being severely under-treated, with only three modestly effective pharmacological therapies available. Chronic exposure to alcohol has been shown to produce profound neuroadaptations in specific brain regions, including the recruitment of key stress...

Use of GLP-1 receptor agonists to treat substance and alcohol use disorders is promising, but premature, say researchers

Semaglutide, a glucagon-like peptide-1 receptor agonist (GLP-1RA) originally formulated to treat diabetes, has gained traction as the latest and greatest weight loss drug. Among the hype, anecdotal observations from patients and providers alike have suggested the drug may also play a role in treating alcohol use disorder and other substance use disorders. Christian Hendershot, Ph.D., associate professor of psychiatry and director of the Clinical and Translational Addiction

Research Program in the Department of Psychiatry and Bowles Center for Alcohol Studies, UNC School of Medicine, co-penned a...

WHO calls on countries to increase taxes on alcohol and sugary sweetened beverages

The World Health Organization (WHO) is releasing today new data that show a low global rate of taxes being applied to unhealthy products such as alcohol and sugary sweetened beverages (SSBs). The findings highlight that the majority of countries are not using taxes to incentivize healthier behaviors. To help support countries WHO is also releasing a technical manual on alcohol tax policy and administration. Globally 2.6 million people die from drinking alcohol every year and over 8 million from an unhealthy diet, implementing tax on alcohol and SSBs will reduce these deaths. Half of all countries...

One in eight older adults use cannabis products, suggesting need to screen for risks

More older Americans use cannabis now than before the pandemic, with 12% saying they've consumed a THC-containing substance in the past year and 4% saying they do so multiple times a week, according to a new study of people aged 50 to 80. Those who drink alcohol at risky levels have a much higher rate of cannabis use. The new findings, published in the journal Cannabis and Cannabinoids Research by a team from the University of Michigan's Institute for Healthcare Policy and Innovation, suggest a need for more education and screening of older adults for cannabis-related risks. "As the stress...

Japan to legalize cannabis-based medicines

Japan has passed a bill to legalize cannabis-based medicines in a landmark revision of its stringent drug laws, while toughening its ban on recreational use of marijuana. The changes to Japan's cannabis and narcotics control laws passed on Wednesday in the upper house will pave the way for the lifting of a ban on medical products derived from cannabis. Cannabis-based medicines, produced with the active ingredient cannabidiol, or CBD, are already used overseas to treat various conditions like severe epilepsy. This is a win for patient groups that have campaigned for access to these medicines. However the changes...

Critics charge political concerns have led Biden administration to delay long-awaited ban on menthol cigarettes

Long-awaited federal rules that would ban menthol flavoring in cigarettes have been delayed, angering health advocates who charge that the Biden Administration has postponed the ban to avoid alienating Black voters, who disproportionately smoke menthol-flavored tobacco products. On Wednesday afternoon, the federal government published its regulatory to-do list, officially known as the Unified Agenda of Regulatory and Deregulatory Actions. The final menthol rule is now

expected in March, according to the calendar. The move comes amid intense lobbying by the tobacco industry to block the ban. “In the...

Don't Neglect Tobacco Use in People Experiencing Homelessness

The Biden administration is considering a policy to eliminate menthol-flavored tobacco and invest \$240 million in cancer prevention, including tobacco prevention and cessation, through the White House Cancer Moonshot initiative. These landmark efforts that align tobacco policy with tobacco treatment are likely to help thousands of people quit smoking, including people experiencing homelessness, who have the highest rates of tobacco use in the U.S. About 70% of people experiencing homelessness report current tobacco use. Some of the earliest studies – dating...

2011 to 2022 saw little change in smoking prevalence for older adults

Between 2011 and 2022, there were significant decreases in smoking prevalence among younger adults, but not older adults, according to a study published online Dec. 1 in JAMA Health Forum. Rafael Meza, Ph.D., from the University of British Columbia in Vancouver, Canada, and colleagues used data from 353,555 participants in the National Health Interview Survey (2011 through 2022) to assess trends in smoking. The researchers found that overall, smoking prevalence decreased among adults aged 18 to 24 years, from 19.2 percent in 2011 to 4.9 percent in 2022, yielding an average annual percentage...

Study: Tobacco-related annual health care costs of US Minorities who smoke double that of white peers

The annual tobacco-related health care spend of US Minorities who smoke is double that of white adults who smoke, finds an analysis of national health and medical spend survey data, published online in the journal Tobacco Control. And the excess risks of three or more long-term health conditions associated with smoking are more than 40% higher among Minority adults, despite their lower smoking rates and more numerous quit attempts than their White peers, the analysis indicates. The findings prompt the researchers to conclude that Minority adults who smoke stand to benefit substantially more from tobacco...

France's parliament considers a ban on single-use e-cigarettes

PARIS -- The French parliament is considering a ban on single-use, disposable electronic cigarettes that are popular with teenagers for their sweet flavors and are under scrutiny as a new source of trash. The ban, supported Prime Minister Elisabeth Borne and Health Minister Aurelien Rousseau, aims to protect the health of youths and mitigate the environmental impacts of the increasingly popular disposable products known as “puffs.” The National Assembly was expected to vote on the measure Monday night. If passed, it would then move to the Senate and could go into effect by September 2024. Disposable...

China e-cigarette titan behind 'Elf Bar' floods the US with illegal vapes

SHENZHEN, China, Dec 6 (Reuters) - A new breed of e-cigarette has addicted teenagers and confounded regulators worldwide by offering flavors like Blue Cotton Candy and Pink Lemonade in a cheap, disposable package. The tycoon dominating this latest wave is Zhang Shengwei, 50, a veteran of China's vape industry in the southern manufacturing hub of Shenzhen. Most people have never heard of him. Zhang quietly rose over 15 years from a boutique exporter to become one of the world's largest vape manufacturers. His main company, Heaven Gifts, now competes with industry giants Juul...

Sweeping bill to fight opioid addiction will be considered by Senate health committee

The Senate health care committee will consider a sweeping bill next week meant to combat the opioid epidemic, according to four lobbyists and a congressional aide familiar with the legislation. The proposal would reauthorize a number of programs first created by the SUPPORT Act, an addiction-focused bill that Congress first passed in 2018. Many of those programs' authorizations expired earlier this year, however, leading addiction treatment advocates to fret that lawmakers — and specifically the committee's chairman, Sen. Bernie Sanders (I-Vt.) — no longer view the issue as a priority. If passed, the...

Buvidal: Is it really a 'game changer' in the treatment of problematic opioid use?

To overcome problematic opioid use, traditional forms of opioid substitution therapy, such as methadone and oral buprenorphine, have become valuable tools. Research shows that patients receiving substitution therapy are more likely to stay in treatment and stop using heroin than patients receiving treatments that do not involve substitutes—such as counseling or group therapy. But not all those on substitute medication are able to stop using illicit opioids. Some continue to use them in addition to the substitute. One barrier to success is the need to attend a clinic or pharmacy every day, or every few days, to...

Cancer patients with opioid use disorder face obstacles to treatment

A cancer diagnosis can greatly disrupt treatment with methadone, a medication used to treat patients with opioid use disorder, according to a perspective piece published in the New England Journal of Medicine by University of Pittsburgh researchers. Through the lens of a specific patient treated with methadone for many years and later diagnosed with head and neck cancer, the authors discuss how segregating methadone distribution from general medical care is problematic and emphasize the need to integrate opioid use disorder treatment and improve patient access. Before his cancer diagnosis...

Increase in child suicide linked to the nation's opioid crisis

The rise in child suicides in the U.S. since 2010 was fueled in part by the nation's opioid crisis, which previous studies found increased rates of child neglect and altered household living arrangements, according to a new RAND Corporation study. The analysis links the rise in child suicides to the reformulation of prescription opioids to discourage misuse, which led to a steep rise in the use of illicit opioids such as heroin and may have contributed to the growth of illicit opioid markets. Geographic areas that were more exposed to the effects of reformulation because they had higher pre-existing rates of...

Study finds 1 in 6 patients with opioid use disorder leave the hospital early

The number of patients admitted with opioid use disorder (OUD) and injection-related infections who left the hospital before completing treatment increased significantly between 2016 and 2020 (from 9.3% to 17%), according to analysis from researchers at the Perelman School of Medicine at the University of Pennsylvania. One in six of these patients now leave the hospital before their care team deems them safe to do so. The findings, published today in JAMA, also reveal that the rate at which patients with any opioid-related issues (patients presenting with other issues but who also exhibit a dependence on...

Mindfulness could help women with opioid use disorder better control drug urges

A Rutgers pilot study sheds light on how mindfulness could prevent relapse in opioid-dependent women. Mindfulness-Oriented Recovery Enhancement (MORE)—a behavioral intervention that integrates training in mindfulness, emotion regulation strategies and savoring of natural rewards—could hold the key to mitigating relapse in women undergoing medically assisted opioid use disorder treatment, a Rutgers study found. The pilot study published in the journal *Explore*, is the first to evaluate the potential neural changes that underlie women's emotion regulation and craving after an...

Could a monthly treatment prevent fentanyl overdoses? Scientists are working on it

Scientists have developed an antibody treatment that shows promise in blocking the potentially deadly effects of fentanyl for nearly a month, raising hopes for a new tool to combat overdoses. Tests in animals found that the treatment could effectively block the effects of fentanyl, laying the groundwork for assessing whether the medication will prove effective in humans, according to a study published in the journal *Nature Communications*. The antibodies are too big to cross the blood-brain barrier, so when they bind to fentanyl in the bloodstream, they stop the powerful opioid from reaching...

San Francisco faces deadliest year for drug overdoses due to rise of fentanyl

San Francisco is facing its deadliest year ever for drug overdoses, a trend blamed on the surge of powerful synthetic fentanyl in the US's illicit drug supply. In the first nine months of 2023, the northern California city saw 692 people die of overdoses, more than in the entire year of 2022, according to new data reported by the city's medical examiner. The city is on track to see more than 800 deaths this year, topping its highest year ever, 2020, when it saw 720. August was the deadliest month on record – with an overdose death every nine hours. “It’s going to be an almost 25% increase over last year – that’s crazy...

Muppets from Sesame Workshop help explain opioid addiction to young children

Tevis Simon grew up in West Baltimore back in the 1980s, a neighborhood that lacked attention from the city and investment from the government. From day to day, she was never sure what version of her mother she'd encounter. "I knew that if my mom had her drugs, that she was fun, mommy. And if she didn't, then she was mean mommy," Simon says. Simon's mother was addicted to opioids and her issues with the drug led to abuse and neglect, she says. Millions of children struggle with what Simon went through. More than 4% of children in the United States live in a household with a parent who misuses...

Opioid Alternative: Rutgers Research Reveals Cannabidiol (CBD) Effectively Treats Dental Pain

In a groundbreaking study that could revolutionize dental pain management, Rutgers researchers have found that cannabidiol (CBD) – the non-addictive marijuana derivative – alleviates acute dental pain. This first-of-its-kind result appears in the Journal of Dental Research and indicates that CBD, which produces no “high” among users, may be an equally effective but far safer alternative to addictive opioid painkillers. “The first line of defense for dental pain has always been anti-inflammatory medications like acetaminophen (Tylenol), ibuprofen (Advil, Motrin) or naproxen (Aleve), but many patients...

New syndrome may be developing in newborns exposed to fentanyl

A group of babies born with multiple congenital malformations could be evidence of a new syndrome linked to fentanyl exposure while in the womb. In a new report, health care professionals from across the U.S. discovered a group of 10 infants, all born to mothers who had used fentanyl while pregnant, were each born with an abnormally small head, short body and distinctively malformed features, like a cleft palate or fused toes. None of the infants had a shared genetic cause for the abnormalities, which led the researchers to believe the shared factor of prenatal fentanyl use was the root cause. "In light of the...

Purdue Pharma, Sacklers' OxyContin settlement lands at the Supreme Court

The opioid crisis comes to the Supreme Court Monday as the justices hear arguments in a challenge to the bankruptcy deal meant to compensate victims of the highly addictive pain killer OxyContin. Under the terms of the deal approved by a lower court, Purdue Pharma—the maker, aggressive peddler, and deceptive marketer of Oxycontin—agreed to pay billions of dollars to those harmed in the opioid epidemic. In exchange, the deal shields members of the Sackler family from personal liability, though they owned and ran the company. Just what happened at Purdue Pharma, and what the Sacklers did, was not...

The Untapped Potential of Therapy in Addiction Treatment

There's this statistic that's always bothered me since I learned of it back in graduate school: Of all the people who experience symptoms of addiction (also known as substance use disorder) in any given year, only 10 percent receive any kind of help—including peer support groups. It's so stubborn that it has not meaningfully changed in the years since I became aware of it. However, when you keep in mind that the vast majority of people experiencing substance use issues have problems that fall along the mild-to-moderate end of the spectrum, the reasons behind this become clearer. We could greatly...

Measure 110 in need of fixes rather than repeal

In November 2020, a near-landslide of Oregon voters – 58.5% – approved Measure 110, which generally decriminalized small-scale possession of illicit drugs. That passage was a call to change the state's core policy. Kassandra Frederique, executive director of the pro-110 Drug Policy Alliance, said, "This confirms a substantial shift in public support in favor of treating drug use with health services rather than with criminalization." That was the core idea: rejection of the long-standing general policy of criminal enforcement, the half-century "war on drugs" widely declared as a failure. State Sen. Floyd Prozanski...

Funding Opportunities



GRANTS & FUNDING

NIH Central Resource for Grants and Funding Information

[RFA-DA-25-009](#)

[Interplay of Autophagy Regulated Cell Death and HIV Pathogenesis in Substance Use Disorders \(R01 Clinical Trial Not Allowed\)](#)

[RFA-DA-25-010](#)

[Interplay of Autophagy Regulated Cell Death and HIV Pathogenesis in Substance Use Disorders \(R21 Clinical Trial Not Allowed\)](#)

[RFA-DA-25-023](#)

[Integrated Functional Mapping and Molecular Profiling of Cell Ensembles Encoding the Effects of Addictive Substances in Rodents \(R01 Clinical Trial Not Allowed\)](#)

[PAR-24-071](#)

[Alcohol Research-Related Resource Award \(R24 Clinical Trial Not Allowed\)](#)

[NOT-DA-23-049](#)

[Notice of Change to PAR-23-194, "Substance Use/Substance Use Disorder Dissertation Research Award \(R36 Clinical Trials Not Allowed\)"](#)

CAR Member New Publications

Role of mesolimbic cannabinoid receptor 1 in stress-driven increases in cocaine self-administration in male rats

Jayne R. McReynolds, Colten P. Wolf, Dylan M. Starck, Jacob C. Mathy, Rebecca Schaps, Leslie A. Krause, Cecilia J. Hillard & John R. Mantsch

Neuropsychopharmacology

DOI: <https://doi.org/10.1038/s41386-023-01589-1>

ABSTRACT

Stress is prevalent in the lives of those with substance use disorders (SUDs) and influences SUD outcomes. Understanding the neurobiological mechanisms through which stress promotes drug use is important for the development of effective SUD interventions. We have developed a model wherein exposure to a stressor, uncontrollable electric footshock, daily at the time of cocaine self-administration escalates intake in male rats. Here we test the hypothesis that stress-induced escalation of cocaine self-administration requires the CB1 cannabinoid receptor. Male Sprague-Dawley rats self-administered cocaine (0.5 mg/kg/inf, i.v.) during 2-h sessions comprised of four 30-min self-administration components separated by 5-min shock sequences or 5-min shock-free periods for 14 days. Footshock produced an escalation of cocaine self-administration that persisted following shock removal. Systemic administration of the cannabinoid receptor type 1 (CB1R) antagonist/inverse agonist, AM251, attenuated cocaine intake only in rats with a history of stress. This effect was localized to the mesolimbic system, as intra-nucleus accumbens (NAc) shell and intra-ventral tegmental area (VTA) micro-infusions of AM251 attenuated cocaine intake only in stress-escalated rats. Cocaine self-administration, regardless of stress history, increased CB1R binding site density in the VTA, but not NAc shell. Following extinction, cocaine-primed reinstatement (10 mg/kg, ip) was increased in rats with prior footshock during self-administration. AM251 attenuated reinstatement only in rats with a stress history. Altogether, these data demonstrate that mesolimbic CB1Rs are required to escalate intake and heighten relapse susceptibility and suggest that repeated stress at the time of cocaine use regulates mesolimbic CB1R activity through a currently unknown mechanism.

A humanized anti-cocaine mAb antagonizes the cardiovascular effects of cocaine in rats

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PRP Pharmacology Research & Perspectives

DOI: <https://doi.org/10.1002/prp2.1045>

ABSTRACT

The recombinant monoclonal anti-cocaine antibody, h2E2, sequesters cocaine in plasma increasing concentrations more than 10-fold. The increased levels of cocaine in the plasma could have detrimental peripheral effects, particularly on the cardiovascular system. We investigated the duration and magnitude of the effect of cocaine on the rat heart, and if h2E2 could antagonize that effect. Echocardiography was used to evaluate cardiac function under isoflurane anesthesia, while a tail-cuff was used to measure blood pressure. Cocaine was delivered intravenously and the rats were continuously monitored for a total of 45 min. Echocardiography measurements were recorded every 5 min and blood pressure measurements were recorded throughout the duration of the experiment using 30-s cycles. ECG recordings were taken simultaneously with the echocardiography measurements. An increase in ejection fraction was seen after the cocaine push with the maximum change occurring at 25 min. Treatment with h2E2 1 h before the cocaine push did not have any effect on cardiac parameters. Subsequent cocaine treatment had no effect on the ejection fraction, indicating that the antibody-bound cocaine does not affect the heart. This antagonism of cocaine's effects was greatly decreased after 1 week and entirely absent after 1 month. Cocaine in the presence of h2E2 is pharmacologically inert and h2E2 may have additional clinical utility for reversing cocaine effects on the cardiovascular system.

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