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

Drug needles, test strips going to addicts to fight deadly overdoses

CINCINNATI — A dramatic rise in deadly drug overdoses has area leaders trying something different to combat the problem. They're taking drug needles and test strips straight to drug addicts. Bobby Turner runs a team in Cincinnati, going up against the city's drug problem by giving out things like clean drug needles to addicts. "It's not enabling, it's just providing a safe way for people to do what they're gonna do anyway," said Turner. He knows because he was one of them. He was a heroin addict. "I was sick and didn't even know it, like, I knew something was wrong with me but I didn't know how bad I looked...it was awful," said Turner. He says his addiction left him homeless, infected, going in and out of jail...

New treatment model focuses on helping mothers overcome addiction

CINCINNATI (WKRC) - As the nation continues to struggle with the rise in overdose deaths, families are hurting, but a newer model for treatment is focusing on moms. CDC numbers show that young adults between 18 and 25 are the most likely to use addictive drugs, which means many are young moms. Those young moms such as Katie Caldwell need more than just addiction treatment, they need family treatment. "I was using cocaine and alcohol," said Caldwell. "I have to be okay to be their mom before I can be anything else." For years, Caldwell says she struggled to stay sober for her children. This time she got sober with her children. Colton is three and Coby is one. Now six months clean, she says it is all due...

National News

Exploring the role of social contexts on neural processes underpinning alcohol consumption

The abuse of alcoholic beverages can increase the risk of numerous serious mental and physical health problems, including addiction, liver diseases, heart disease, strokes, and cancer. Identifying cues and contexts that promote alcohol consumption, as well as the neural processes involved in relapses or excessive drinking, could ultimately help to develop more effective treatments for alcohol addictions, consequently preventing some patients from developing these health conditions. Researchers at University of Amsterdam have recently carried out a study investigating how the brain of social drinkers responded to cues associated with drinking-promoting situations or venues, as they were sipping alcoholic or non-alcoholic beverages. Their findings, published in the Addiction...

College students suffer more than 100 alcohol-related consequences, study finds

On average, students experience an estimated total of 102 alcohol-related consequences, such as blacking out, being hung over, or missing work or school, due to drinking across their four years in college, according to a new study led by Penn State. The research also revealed that students who think their parents disapprove of the consequences of drinking are likely to experience fewer negative consequences from drinking during college. "We often think of peers as having an influence on drinking behaviors, but we found that parents can make a difference, even after their child has left home," said Kimberly Mallett, research professor at the Edna Bennett Pierce Prevention Center and a clinical psychologist. The research team surveyed students at a large, public northeastern U.S. university about...

Problem drinking linked to increased risk of suicide and self-harm

Problematic alcohol use is associated with increased odds of suicide or self-harm, according to a new study led by UCL researchers. The study, published in BJPsych Open, did not identify a clear association with levels of alcohol consumption and risk of suicide or self-harm, other than among those with "probable dependence" (the highest consumption level); rather, they identified signs of alcohol negatively impacting people's lives as risk factors. Lead author, Ph.D. candidate Sarah Ledden (UCL Psychiatry), said, "We found that it's not just how much people drink that is associated with their risk of suicide or self-harm, but whether they show signs of more problematic alcohol use. Drinking alcohol might not be the problem per se, but how it's affecting your life and potentially causing you problems." The...

Stroke Risk Rises for Young People Who Drink Frequently

People in their 20s and 30s who were moderate-to-heavy drinkers were more likely to have a stroke in early adulthood compared with those who consumed low amounts of alcohol each week, Korean national database records showed. Young adults who consumed 105 g of alcohol per week, or 15 g per day, for 2 or more years

were more likely to have a stroke over 5.6 years of follow-up versus light drinkers (HR 1.19, 95% CI 1.05-1.34, P<0.001), reported Eue-Keun Choi, MD, PhD, of Seoul National University in the Republic of Korea, and co-authors in Neurology. Stroke risk rose as the number of years of moderate-to-heavy drinking in young adulthood increased. At 3 years, the adjusted HR was 1.22 (95% CI 1.09-1.38), and at 4 years, it was 1.23 (95% CI 1.10-1.38; both P<0.001). A standard drink in the U.S...

Studies find cardiovascular effects of cigarettes and e-cigarettes to be strikingly similar

Two related studies, one in humans and the other in rats, found that the cardiovascular effects of cigarettes and e-cigarettes are strikingly similar, and these harmful effects on blood vessel function are likely caused by airway irritation due to inhalation of a foreign substance, rather than a specific component of the cigarette smoke or e-cigarette vapor (aerosol), according to new research published today in the American Heart Association's peer-reviewed journal Arteriosclerosis, Thrombosis and Vascular Biology (ATVB). Cigarette smoking and e-cigarette vaping are both known to cause endothelial dysfunction, the inability of the large blood vessels to open enough to supply sufficient blood to the heart and other tissues. This can be an early predictor of cardiovascular...

FDA rejects menthol flavored e-cigarettes in latest vaping knock-down, cites harm to youth

The Food and Drug Administration on Wednesday rejected a company's application to sell menthol-flavored vaping products, citing a lack of public health benefit and potential risk to youth vapers. The FDA said Logic Technology Development didn't show its menthol products are more likely than non-flavored products to help people quit or reduce smoking. Combined with the risk of enticing youth vapers who like menthol vapes, the agency rejected the company's marketing of Logic Pro and Logic Power menthol e-liquid packages. "In this case, the applicant did not provide sufficient scientific evidence to show that the potential benefit to adult smokers outweighs the risks to youth," said Brian King, director of the FDA's Center for Tobacco Products. In 2020, the FDA banned flavored cartridges used...

E-cigarette use alters respiration but does not impair lung function, according to new findings

A recent study published in npj Primary Care Respiratory Medicine indicated that although vaping increases airway resistance, it does not impact lung function. In recent years, electronic cigarette use (or vaping)—which was regarded as a safer alternative to traditional cigarettes—has had a huge impact on the tobacco industry. However, evidence depicts the harmful effects of vaping on the respiratory system. In e-cigarettes, nicotine combustion is replaced by the electronic heating of a liquid. Some manufacturers claim that e-cigarettes have fewer adverse effects on the respiratory system than smoking tobacco. E-cigarettes have been tried as an

alternative to smoking tobacco for addiction treatment – as an aid to quitting tobacco smoking. Previously believed to be less hazardous...

People who vape had worrisome changes in cardiovascular function, even as young adults

DALLAS, Oct. 31, 2022 — Adults who regularly used electronic nicotine delivery devices, or e-cigarettes, displayed worrisome changes in heart and blood vessel function and performed significantly worse on exercise stress testing than people who did not use any nicotine products, according to two separate analyses of preliminary research to be presented at the American Heart Association's Scientific Sessions 2022. The meeting, held in person in Chicago and virtually, Nov. 5-7, 2022, is a premier global exchange of the latest scientific advancements, research and evidence-based clinical practice updates in cardiovascular science. Researchers from the Cardiac and LUng E-cig Smoking (CLUES) Study will present two abstracts that compared outcomes among people who vaped, those...

CDC Just Changed Its Opioid Prescribing Guidelines. Here's What to Know.

Hard thresholds for pain medication doses and duration are no longer promoted through the CDC's new Clinical Practice Guideline for Prescribing Opioids for Pain. The new guidance -- which covers acute, subacute, and chronic pain for primary care and other clinicians -- updates and replaces the controversial 2016 CDC opioid guideline for chronic pain. The 2016 guideline was interpreted as imposing strict opioid dose and duration limits and was misapplied by some organizations, leading the guideline authors to clarify their recommendations in 2019. The 2022 recommendations are voluntary and give clinicians and patients flexibility to support individual care, said Christopher Jones, PharmD, DrPH, MPH, acting director of CDC's National Center for Injury Prevention and Control in a...

Medicare Mental Health Proposals Expand Aid for Substance Abuse

America's opioid crisis and the Covid pandemic have renewed calls from lawmakers and advocates to modernize and expand Medicare's behavioral health coverage. And the Biden administration is listening. The Medicare physician fee schedule proposed rule for 2023 suggests changes are coming to Medicare's coverage of treatment for mental health and substance use disorders when the final rule is released. It's expected next week. Roughly 1.7 million Medicare beneficiaries had a substance-use disorder in the past year, a recent study estimated. And even though they were much more likely to have had serious psychological distress and suicidal thoughts, only 11% received treatment. The problem isn't new. Medicare doesn't cover the full range of services, providers, and settings for the...

Few Patients with Opioid Use Disorder Get Timely Follow-Up After Rehab

November 01, 2022 - Recovery from addiction doesn't end after rehab; timely follow-up care after residential treatment is considered the best practice for supporting patients with opioid use disorder (OUD) through recovery. But, new

research by the University of Pittsburgh School of Public Health (UPMC) sounded an alarm on the lack of access to post-discharge follow-up care for patients with OUD. Discharge from residential treatment is a sensitive time for people with OUD. Data shows that between 40 and 60 percent of people with substance abuse disorder issues experience relapses after treatment. UPMC scientists stressed that engaging patients in timely follow-up care that provides counseling, medication, or both, could significantly reduce the risk of relapse. Medication for...

Better Than Opiates: Pain Relief Without Side Effects and Addiction

Scientists have identified new substances that have a similar pain-relieving effect to opiates, but without the negative aspects such as respiratory depression and addiction. Instead of activating opioid receptors, they work by stimulating adrenalin receptors. This is the result of research carried out by an international team of researchers led by the Chair of Pharmaceutical Chemistry at FAU. Their findings are a milestone in the development of non-opioid pain relief and have recently been published in the renowned scientific journal Science. While opiates are a blessing for many patients suffering from severe pain, they also have serious side effects. Opioids, and above all morphine, can cause nausea, dizziness, and constipation. They can also often cause slowed breathing that can even...

CVS and Walgreens announce opioid settlements totaling \$10 billion

Two of the largest U.S. pharmacy chains, CVS Health and Walgreen Co., announced agreements in principle Wednesday to pay about \$5 billion each to settle lawsuits nationwide over the toll of opioids, and a lawyer said Walmart is in discussions for a deal. Together, the developments amount to what could be the last round of huge settlements after years of litigation over the drug industry's role in an overdose crisis that has been linked to more than 500,000 deaths in the U.S. over the past two decades. In the lawsuits, governments said pharmacies filled prescriptions they should have flagged as inappropriate. The deals call for most of the funds from Woonsocket, Rhode Island-based CVS and Deerfield, Illinois-based Walgreens to be used to fight the opioid crisis through such efforts as...

Why Is Methadone So Hard to Prescribe for Opioid Use Disorder?

Unbeknownst to most clinicians, access to methadone remains shrouded in mystery, misunderstanding, and misinformation. However, I learned by working in a federally designated Opioid Treatment Program (OTP) where methadone is the primary intervention that it is a monumental issue. In preparing a poster for the upcoming annual conference of the American Academy for the Treatment of Opioid Dependence, I learned about the history of restrictions on methadone for the treatment of addiction. Perhaps no other drug is as restricted for an approved use (opioid use disorder [OUD]), yet has few restrictions when it is used for pain management. Methadone is a schedule II medication, thus requiring a Drug Enforcement Agency (DEA) license to prescribe. These restrictions make...

Human Cocaine and Heroin Addiction Is Tied to Impairments in Specific Brain Circuit

According to a new study, white matter in the brain that was previously implicated in animal studies has now been suggested to be specifically impaired in the brains of people with addiction to cocaine or heroin. The research, which was published on October 6 in the journal Neuron, was conducted by scientists from the Icahn School of Medicine at Mount Sinai and Baylor College of Medicine. In the study, investigators examined the connectivity of the tract between the prefrontal cortex (PFC), a brain region critical for regulating higher-order executive functions, and the habenula, a region that plays a critical role in reward and reward-associated learning. In animal models of addiction, the habenula has emerged as a key driver of drug-seeking behaviors. Specifically, signaling from the...

Scientists shine a spotlight on yet another shrewd maneuver HIV uses to commandeer human cells

More than 40 years into the HIV pandemic, scientists are still turning up clues revealing how the virus hijacks its host's cellular processes to support its own replication—and promote the long-term survival of the virus itself. A new study, led by researchers at the University of Pittsburgh, has identified how an HIV protein called Nef activates enzyme activity in host cells necessary for the virus to replicate. While it might seem that at least by now scientists would have unraveled the many mysteries underlying the HIV infection process, the new research is testimony to the complexity of a virus that has killed more than 40 million people since the early 1980s, and still eludes a cure. "Viruses ensure successful replication, in part, by subverting host signaling pathways," writes Dr. Manish Aryal of the...

Funding Opportunities



PAR-23-041

<u>Functional Validation and/or Characterization of Genes or Variants Implicated in Substance Use Disorders (R21/R33 Clinical Trial Not Allowed)</u>

NOT-DA-22-083

Notice of Pre-Application Technical Assistance Webinar for RFA-DA-23-030, "BRAIN Initiative: Brain-Behavior Quantification and Synchronization Transformative and Integrative Models of Behavior at the Organismal Level (R34 Clinical Trial Not Allowed)"

NOT-DA-23-012

Notice of Special Interest (NOSI): Health Services and Economic Research on the Treatment of Drug, Alcohol, and Tobacco Use Disorders (R01, R21, R03)

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