

CNRA CONNECTIONS

Center for Neurobehavioral Research on Addiction
 Faillace Department of Psychiatry and Behavioral Science

UTHealth Offers Medication Assisted Training for Opioid Addiction

As the country finds itself in the throes of an unprecedented opioid epidemic, a so-called “miracle” drug exists but remains difficult for providers to access. Buprenorphine (Suboxone) is an FDA-approved opioid replacement medication that is safe, easy to take, has few adverse side effects, and minimal abuse potential. Taken daily, the medication dissolves under the tongue, binds to opioid receptors and, in doing so, blocks craving and desire to use opioids.

Physicians who prescribe Suboxone must obtain a waiver through an application to the Substance Abuse and Mental Health Services Administration (SAMHSA) and complete training under the Drug Addiction Treatment Act (DATA 2000). For many practicing physicians, this has been a barrier. Only about 5% of the nation's doctors have waivers to prescribe buprenorphine. This number is not sufficient to ensure access to an effective treatment for all the millions of individuals with opioid use disorder.

Last year, under the leadership of **Angela Heads, PhD**, (Principal Investigator), CNRA received a three year grant from the SAMHSA to provide a DATA waiver training program for residents, medical students and nurse practitioners. The first UT DATA Waiver training course will be offered at 1 p.m. - 4 p.m. on Wednesday, Dec. 11, 2019 at the UTHealth School of Dentistry. Four hours of online learning must be completed before in-person training.

The course will cover all the medications and treatments for opioid use disorder, as well as provide the required education needed to obtain the waiver to prescribe buprenorphine.

Heads will be joined by CNRA addiction physicians- **Michael Weaver, MD**, and **Austin Lin, MD**. A second UTHealth DATA Waiver training course is scheduled for Wednesday, Jan. 22, 2020.

For more information, please contact:
 Angela.M.Heads@uth.tmc.edu or
 Jasmin.P.Wong@uth.tmc.edu.



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Weaver chosen to chair 11th Annual Psychiatry Update

CRNA Medical Director - **Michael Weaver, MD**, is the Chair of the 11th Annual Psychiatry Update to be held on Saturday, Feb. 8, 2020 at the Memorial Hermann - Texas Medical Center Conference Room at 6411 Fannin St.

Appropriately, the conference will cover the topic of substance use disorders ranging from the current opioid epidemic to use of other drugs, including the rapidly growing rate of fentanyl use.

Weaver has confirmed a lineup of outstanding experts in the area, including Keynote Spaker **Edward Nunes, MD**, from Columbia University. Nunes will speak about novel treatment approaches for patients with psychiatric and substance use disorders. Other talks will focus on the impact of synthetic cannabinoids and electronic cigarettes, which are affecting people in Houston and across the U.S.

There will be interdisciplinary discussions of advances in treatment modalities, both behavioral and pharmacological. Attending this symposium will inform clinicians at all levels about trends in and treatment of substance use disorders. Continuing Education credits will be offered to MDs, PhDs, nurses, and social Workers.

11th Annual Psychiatry Update Substance Use Disorders Opioids and Beyond



Saturday, February 8, 2020

Memorial Hermann– Texas Medical Center

7.00 CME/Psychology CE credits

Register at:

www.BaylorCME.org/CME/1635


UTHealth
The University of Texas
Health Science Center at Houston

McGovern
Medical School

About CNRA

MISSION

To develop evidence-based treatment for substance use disorders (SUDs) using decisions informed by behavioral neurosciences.

AIMS

In pursuit of this mission the CNRA aims to:

- Map out the neurological, behavioral, and clinical mechanisms that contribute to drug addiction
- Target key mechanistic processes in the development of SUD treatment
- Evaluate treatment efficacy using innovative clinical trial designs and statistical methods

Core and affiliated faculty

Charles Green, PhD
Angela Heads, PhD
Scott Lane, PhD
Austin Lin, MD
Joy Schmitz, PhD
Angela Stotts, PhD
Robert Suchting, PhD
Anka Vujanovic, PhD
Michael Weaver, MD
Luba Yammine, PhD
Jin Yoon, PhD



1941 EAST ROAD
HOUSTON, TEXAS 77054
713-486-2823

CNRA: IN THE MEDIA

- **Angela Heads, PhD**, presented at the Research Awareness Day event at Fallbrook Church in Houston on April 12, 2019.
- **Joy Schmitz, PhD**, was interviewed by FOX 26 News on June 11, 2019, and Houston Public Media NPR on August 8, 2019, on the topic of methamphetamine addiction.
- **Michael Weaver, MD**, was interviewed by FOX 26 News on July 2, 2019, on the topic of secondhand drinking.
- **Michael Weaver, MD**, was quoted in the national magazine Good Housekeeping for an article on “The Science of Addiction” (April 2019).
- **Michael Weaver, MD**, was interviewed about electronic cigarettes on KTRK-TV Channel 13 (August 2019).
- **Michael Weaver, MD**, participated in Twitter chat on treatment of alcohol use disorder for the American Society of Addiction Medicine as part of National Addiction Treatment Week 2019 (Oct 2019).
- **Jin Yoon, PhD**, was interviewed by Melissa Wilson at FOX26 News on July 25, 2019, on the topic of medication to treat stress-driven alcohol use.



Joy Schmitz, PhD, Consuelo Walss-Bass, PhD, and Gabriel Fries, PhD, presented research at the Early Life Stress and Reward System Symposium, at Pontifical Catholic University of Rio Grande do Sul. This trip was part of their Fogarty grant from the National Institute on Drug Abuse (NIDA R01 DA044859). On this trip, the Houston group toured the area of Sao Paulo, Brazil, known as “Crackland” where thousands of people congregate daily to smoke crack cocaine. The goal of this and future trips is to build research capacity in Brazil in order to enhance development of novel treatments for combating this epidemic.

AWARDS RECOGNITION & HONORS



Angela Heads, PhD, served as expert judge at the Annual Biomedical Research Conference for Minority Students in Anaheim, CA, on November 13-16. This event is sponsored by the American Society for Microbiology as a research career development activity for graduate students.



Scott Lane, PhD, was featured on Inside UTHealth for his talk titled "A Road More Traveled: Mistakes, Opportunities, Serendipity, and Survival," given at the Junior Faculty Boot Camp on Nov. 7.

Robert Suchting, PhD, received a Seed Grant Award from the Faillace Department of Psychiatry and Behavioral Sciences for his project titled "Suvorexant to Reduce Symptoms of Nicotine Use: A Double-Blind, Placebo-Controlled Study." Suchting also received funding as co-investigator for a CCTS pilot project titled "Accelerated Aging in Bipolar Disorder: Translating Findings from the Clinic to the Laboratory" (PI: Gabriel R. Fries, PhD).



Heather Soder, PhD, received a Seed Grant Award from the Faillace Department of Psychiatry and Behavioral Sciences for her project titled "The Effects of Abstinence on EEG Power and Attention in Cocaine Use Disorder."

Michael Weaver, MD, was nominated by the American Society of Addiction Medicine for a seat on the American Board of Preventive Medicine Board of Directors. Weaver also received the Dean's Teaching Excellence Award from McGovern Medical School and was recognized as one of Houston's Top Doctors in Addiction Medicine in Houston Texas Magazine. In August, Weaver was a distinguished attendee at the White House Addiction Medicine Event: "Building the Addiction Medicine Workforce: Giving Americans Access to the Care They Need."



PrEP to Reduce HIV Risk

Despite significant gains in prevention efforts, effective HIV prevention tools are not widely accessed by all at-risk populations, thus impeding optimal progress towards eliminating HIV in the United States. Each year, there are approximately 40,000 new HIV diagnoses (Centers for Disease Control and Prevention, CDC, 2018). New research at the CNRA aims to increase awareness and usage of HIV prevention tools. In this Clinical Corner we focus on pre-exposure prophylaxis (PrEP) as one important yet underutilized tool.



What is the status of HIV in the U.S.?

HIV continues to be a significant public health problem in the U.S. despite gains in prevention and treatment efforts. In the 2019 State of the Union address, President Trump called for a national plan to end the HIV epidemic in the U.S. The following month the CDC released a report indicating that HIV prevention has stalled in the U.S. According to the CDC, the substantial decline in annual HIV infections in recent years has leveled off. The stall is attributable to HIV prevention and treatment efforts not reaching those most likely to benefit, including individuals who are African American/black, Hispanic/Latinx, living in southern states in the U.S., or living in rural areas.

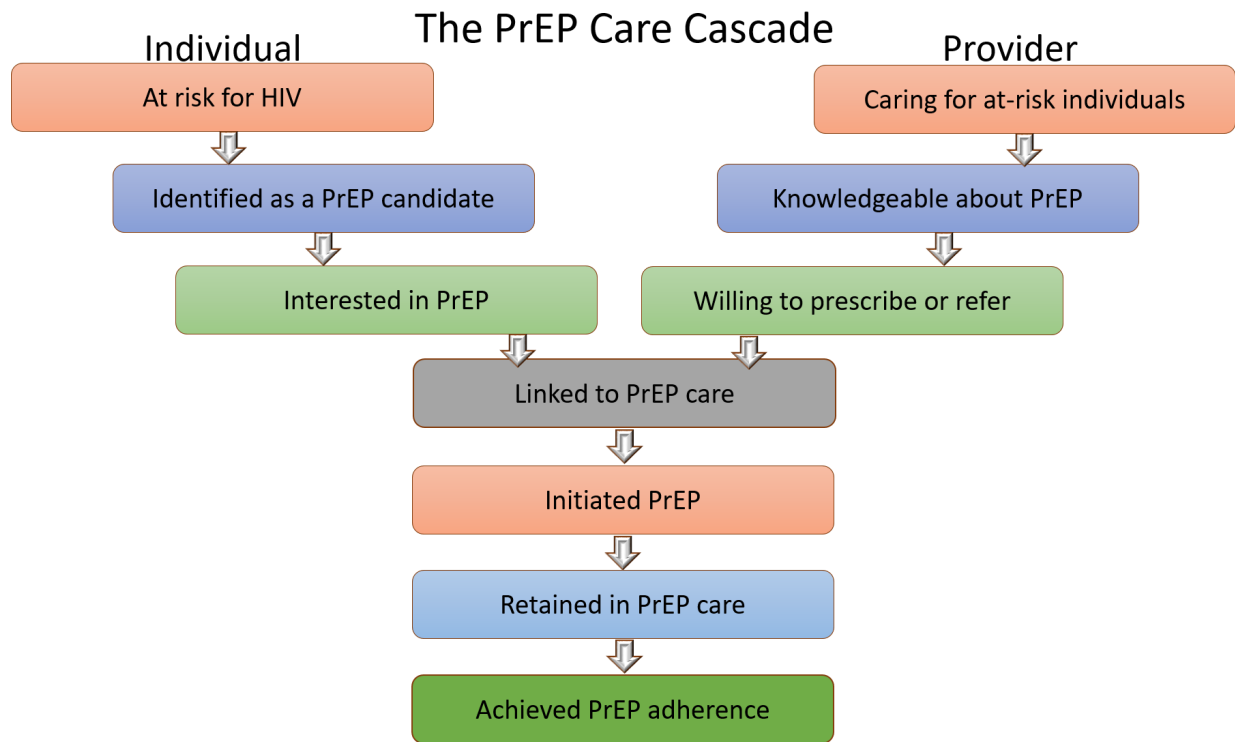
What is PrEP?

Pre-exposure prophylaxis (PrEP) is a once daily antiretroviral medication containing two drugs: tenofovir and emtricitabine. The pill (brand name Truvada) - was FDA approved in 2012. When the medicine is present in the bloodstream it can stop HIV from taking hold and spreading in the body. Taken daily, Truvada reduces the risk of getting HIV from sex by about 99%.

Among people who inject drugs, Truvada for PrEP reduces the risk of getting HIV by at least 74% when taken daily. Truvada is much less effective when it is not taken daily. Common side effects (occurring >2% more frequently than placebo) of Truvada for PrEP in clinical trials include headache, abdominal pain, and weight loss. Serious, but extremely rare, side effects include kidney failure.

Why is PrEP underutilized?

Despite the well-documented evidence for PrEP as an HIV prevention strategy for men and women, rates of utilization are disappointingly low. Women in particular are much less likely to seek PrEP treatment or fill their prescription. Reasons for low uptake among women are not well understood. Some evidence indicates that women perceive themselves to be at low risk for HIV and have concerns about side effects of PrEP use.



Others report lack of motivation for taking a daily pill. Also contributing to the under utilization of this effective medication is lack of awareness and education on the side of the clinician. The health care system has inherent missed opportunities to initiate and discuss PrEP with eligible patients. Recently the PrEP Care Cascade has been published as a road-map for improving PrEP engagement on the side of the individual patient and treatment provider (see diagram).

What research is being conducted at the CNRA to address this issue?

CNRA investigator, **Angela Heads, PhD**, conducted a survey study with 107 substance using women. The goal of the study was to assess knowledge and attitudes about PrEP as an HIV prevention strategy. The ethnic breakdown of the sample was 50% Black/African American, 27.3% Hispanic/Latinx, 14.2% multi-racial, 6.6% White, and 1.9% Asian American. The majority (78.3%) identified as “straight or heterosexual.” Thirty-two percent reported never having been tested for HIV, 17% reported their last HIV test was within the past 6 months, 22.6% had an HIV test 6-12 months prior to the survey, and 28.4% reported having an HIV test more than a year ago.

Consistent with prior research, higher substance use and related problems were associated with higher sexual risk. Participants also completed a Medical Mistrust Scale. Results indicated that higher mistrust scores (indicating more mistrust towards health care workers and the health care system) correlated with perceived PrEP stereotypes (that is, negative evaluative judgments of a person who decides to use PrEP) and both of these factors predicted attitudes against HIV testing. In other words, PrEP-related stigma, real or anticipated, is one potential barrier to using and adhering to PrEP.

This work has prompted Heads and her team to develop individual- and provider-level interventions to increase engagement in the PrEP Care Cascade. She is working with Mandy Hill, DrPH, MPH (PI) on a funded project in which PrEP eligible women receive an innovative tablet-based motivational intervention to raise awareness of risky HIV behaviors and PrEP. At the same time, the team is developing training and educational interventions for equipping treatment providers with the knowledge and skills necessary to provide PrEP to appropriate candidates. Ultimately, the goal is to incorporate PrEP and other HIV prevention strategies into a comprehensive health care clinic for treatment of addictions.

NEW NAMES AT THE CNRA

Stacy Bell is a support assistant at the CNRA since May 2019. She is involved in supporting the clinical activities of participants as part of the Developing Adaptive Interventions for Cocaine Cessation and Relapse Prevention study. She facilitates the daily operations of the med desk including reception, participant data collection, and various administrative study related tasks.

Karla Caballero, MS, LMFT, is a Spanish-bilingual psychology intern from Our Lady of the Lake University where she is completing her Doctorate of Psychology (PsyD) in counseling psychology. She recently began her four-month rotation at the CNRA. She is currently conducting intake assessments for the HEARTS@UTHealth program and providing Drug Counseling on the Developing Adaptive Interventions for Cocaine Cessation and Relapse Prevention study. In addition, she is seeing individuals for therapy via the Innovations Addiction Clinic and training in Seeking Safety Therapy for comorbid trauma and substance abuse.

Constanza de Dios, PhD, is a first-year postdoctoral research fellow at the CNRA. Constanza received her doctorate degree in psychology with a concentration in cognitive neuroscience from the University of South Florida. Her interests include the neuroscience of reward and attention, and the application of data science approaches to clinical research.

Danielle Kessler is a junior at Rice University, where she is majoring in psychology. She completed a research project on opioid use disorder at the CNRA as part of the McGovern Medical School Summer Research Program. She is continuing opioid research at the CNRA by working on a larger project investigating predictors of opioid use in trauma surgery patients at Memorial Hermann - Texas Medical Center. In addition to this project, Danielle assists with participant visits for the Developing Adaptive Interventions for Cocaine Cessation and Relapse Study and the EEG sub-study at the CNRA.

Welcome

Lia Smith, MA, is a pre-doctoral clinician at the CNRA. She is completing her doctoral degree in clinical psychology at the University of Houston. She is currently conducting intake assessments for the HEARTS@UTHealth program and the Developing Adaptive Interventions for Cocaine Cessation and Relapse Prevention Study. In addition, she delivers Drug Counseling as part of the Developing Adaptive Interventions for Cocaine Cessation and Relapse Prevention study and individual therapy as part of the HEARTS@UTHealth program.

Jasmin Wong, MEd, is a Research Assistant II and Counselor at the CNRA. She is completing her doctoral degree in counseling psychology at the University of Houston. She is clinically trained in Acceptance Commitment Therapy (ACT), and delivers ACT as part of the Developing Adaptive Interventions for Cocaine Cessation and Relapse Prevention study and the HEARTS@UTHealth program. In addition to RA duties and managing a caseload of clients, Jasmin is involved in the screening and intake process of new participants.

Chloe Zachary, MS, is a psychology intern from the University of North Carolina, Chapel Hill where she is completing her doctoral degree in clinical psychology. She completed a four-month rotation with CNRA from July-October 2019. Clinically, she conducted assessments and individual therapy with patients in the HEARTS@UTHealth program and INNOVATIONS Addiction Clinic. She also served as a study assessor and provided Drug Counseling on the Developing Adaptive Interventions for Cocaine Cessation and Relapse Prevention Study at CNRA.

RESEARCH UPDATE

Recent faculty publications

- Bauer IE, **Suchting R**, Van Rheenen TE, Wu MJ, Mwangi B, Spiker D, Zunta-Soares GB, Soares JC. The use of component-wise gradient boosting to assess the possible role of cognitive measures as markers of vulnerability to pediatric bipolar disorder. *Cognitive Neuropsychiatry* 2019; 24(2): 93-107.
- Beard CL, **Schmitz JM**, **Soder HE**, **Suchting R**, **Yoon JH**, Hasan KM, Moeller FG, **Lane SD**. Regional differences in white matter integrity in stimulant use disorders: A meta-analysis of diffusion tensor imaging studies. *Drug and Alcohol Dependence* 2019; 201, 29-37.
- De La Garza, R, II, Shuman, S, **Yamine, L**, **Yoon, JH**, Salas, R, Holst, M. A pilot study of e-cigarette naïve cigarette smokers and the effects on craving after acute exposure to e-cigarettes in the laboratory. *American Journal on Addiction* 2019; 28, 361-366.
- Hamilton JE, **Suchting R**, Buck DS, Chesnokova A, Das S, Allen M, Cho RY. Determinants of high psychiatric utilization at a large urban safety-net hospital. *J Health Care Poor Underserved* (forthcoming).
- Northrup TF, Carroll K, **Suchting R**, Villarreal YR, Zare M, **Stotts AL**: The impact of hydrocodone rescheduling on opioid prescribing in an urban safety-net healthcare system. *J Am Board Fam Med* 2019; 32(3): 362-374.
- Northrup TF, **Stotts AL**, **Suchting R**, Khan AM, **Green CE**, Quintana PJ, Hoh E, Matt GE. Medical staff contributions to thirdhand smoke contamination in a neonatal intensive care unit. *Tobacco Induced Diseases* 2019; 17: 38.
- Meisch RA, Gomez TH, **Lane SD**. Equal response rates maintained by concurrent drug and nondrug reinforcers: A design for treatment evaluation. *Behavioral Pharmacology* (forthcoming).
- Pericot-Valverde I, Elliott R, Priest J, Barret T, **Yoon JH**, Millier CC III, Okoli CT, Haliwa I, Ades PA, Gaalema D. Patterns of tobacco use among smokers prior to hospitalization for an acute cardiac event: Use of combusted and non-combusted products. *Preventative Medicine* (forthcoming).
- Pericot-Valverde I, **Yoon JH**, Gaalema DE. Single- and cross-commodity delay discounting of money and E-cigarette liquid in experienced E-cigarette users. *Drug and Alcohol Dependence* (forthcoming).
- **Soder HE**, Berumen AM, Gomez KE, **Green C**, **Suchting R**, Wardle MC, Vincent J, **Schmitz JM**, **Lane SD**. Elevated neutrophil to lymphocyte ratio in older adults with cocaine use disorder as a marker of chronic inflammation. *Clinical Psychopharmacology and Neuroscience* (forthcoming).
- **Soder HE**, **Suchting R**, Potts GF. Electrophysiological responses to appetitive and aversive outcomes: A comparison of college drinkers and non-drinkers. *Neuroscience Letters* 2019; 714: 134549.
- **Soder HE**, Wardle MC, **Schmitz JM**, **Lane SD**, **Green C**, **Vujanovic AA**. Baseline resting heart rate variability predicts posttraumatic stress disorder treatment outcomes in adults with co-occurring substance use disorders and posttraumatic stress. *Psychophysiology* (forthcoming).
- **Stotts AL**, Northrup TF, **Green C**, **Suchting R**, Hovell ME, Khan A, Villarreal YR, **Schmitz JM**, Velasquez MM, Hammond K, Hoh E, Tyson, J. Reducing tobacco smoke exposure in high risk infants: A randomized, controlled trial. *Journal of Pediatrics* (forthcoming).
- **Suchting R**, **Yoon JH**, San Miguel GG, **Green CE**, **Weaver MF**, Vincent JN, Fries GR, **Schmitz JM**, **Lane SD**. Preliminary examination of the orexin system on relapse-related factors in cocaine use disorder. *Brain Research* (forthcoming).
- **Suchting R**, Colpa GD, Rocha NP, Ahn H. The effect of transcranial direct current stimulation on inflammation in older adults with knee osteoarthritis: A Bayesian residual change analysis. *Biological Research for Nursing* 2019.
- Tannous J, Mwangi B, Hasan K, Narayana P, Steinberg J, Walss-Bass C, Moeller FG, **Schmitz JM**, **Lane SD**. Measures of possible allostatic load in comorbid cocaine and alcohol use disorder: Brain white matter integrity, telomere length, and anti-saccade performance. *PLOS ONE* 2019; 14(1).
- Tong, ST, Polak KM, **Weaver MF**, Villalobos GC, Smith WR, Kvikis DS. Screening for psychotherapeutic medication misuse in primary care patients: Comparing two instruments. *Journal of American Board of Family Medicine* 2019; 32(2): 272-278.
- Villarreal YR, **Suchting R**, Klawans MR, **Lane SD**, **Green CE**, Northrup TF, **Stotts, AL**. Predicting HCV incidence in Latinos with high-risk substance use: A data science approach. *Social Work in Public Health* 2019; 34(7): 606-615.
- Viola TW, Sanvicente-Vieira B, Kluwe-Schiavon BK, Rothmann LM, Pereira JVN, Niederauer JP, **Schmitz JM**, Grassi-Oliveira R. Association between cannabis consumption and a worse detoxification treatment response among females with smoked cocaine use disorder. *Journal of Addiction Medicine* (forthcoming).
- **Weaver MF**. Becoming a Board-Certified Addiction Clinician. *The Carlat Addiction Treatment Report* 2019; 7(1): 4-7.
- **Yamine L**, Pimenova M, Kosten T, **Schmitz JM**. Cigarette smoking, type 2 diabetes mellitus, and glucagon-like peptide-1 receptor agonists as a potential treatment for smokers with diabetes: An integrative review. *Diabetes Research and Clinical Practice* 2019; 149, 78-88.
- **Yoon JH**, **Suchting R**, McKay SA, San Miguel GG, **Vujanovic AA**, **Stotts AL**, **Lane SD**, Vincent JN, **Weaver MF**, Lin A, **Schmitz JM**. Baseline cocaine demand predicts contingency management treatment outcomes for cocaine-use disorder. *Psychology of Addictive Behaviors* (forthcoming).

Explore the CNRA

The CNRA currently has one ongoing study of treatment for stimulant use disorders.

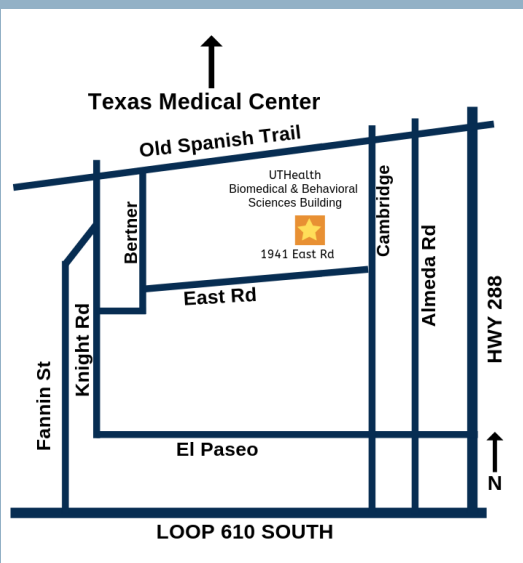
- Developing adaptive interventions for cocaine cessation and relapse prevention

Other currently enrolling studies at the CNRA:

- Medication to reduce symptoms of nicotine withdrawal
- Brain responding during and after cocaine use
- Medication to reduce stress and alcohol use

CNRA Program Features

- No-cost treatment
- 100% confidential
- Medical and behavioral treatments
- Experienced and professional staff
- Safe and clean atmosphere
- Free parking and metro tickets
- Financial compensation for research participation
- Funded by the National Institute on Drug Abuse (NIDA)



Appointments

713-500-DRUG [3784]

Clinic Hours:

Monday – Friday 7:30-4:30

Behavioral and Biomedical Sciences Building

1941 East Road

Houston Texas 77054

<https://med.uth.edu/psychiatry/research/centers/addiction/>