



CNRA Connections

Center for Neurobehavioral Research on Addiction

Department of Psychiatry

INNOVATIONS Addiction Treatment Clinic opens at the CNRA

■ Michael Weaver, MD

The Center for Neurobehavioral Research on Addiction (CNRA) announces the opening of a new outpatient clinic with UT Physicians offering treatment for drug addiction, including smoking, alcoholism, use of illegal substances, and abuse of prescription medications.

To treat addiction, the INNOVATIONS Clinic uses the latest medical practices based on scientific studies, some of which are oc-

curring at the affiliated CNRA. Patients can expect to receive a specialized recovery plan designed to meet their individual needs. Additionally, patients are encouraged and assisted to develop a personal recovery support network involving family, peers, and health professionals. Attendance at support groups (such as Alcoholics Anonymous, Smart Recovery, or Celebrate Recovery) is encouraged. Professional counseling in an individual or group setting is also an essen-



tial part of treatment, and referral assistance is provided.

Dr. Michael Weaver is the physician in charge of the INNOVATIONS Clinic, and also serves as the Medical Director of the CNRA. He conducts a comprehensive initial evaluation with each client, then develops a personalized

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Accelerating Medication Development with Bayesian Statistical Methods

■ Robert Suchting, PhD
 ■ Charles E. Green, PhD

A new drug shows promise in the laboratory. Twelve years later—assuming it is the lucky one-in-1,000 compounds that makes it through the development pipeline process to human testing—it becomes available for physicians to prescribe. This inefficiency in drug development has been referred to as the “Pipeline Prob-

lem” by the Food and Drug Administration (FDA). Despite increased resource investment in clinical trials, there has been a slowdown, instead of the expected acceleration, in innovative medical therapies reaching patients.

Accrual of decisive evidence supporting a new medication requires methodological rigor in the design and analysis of clinical

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Newsletter layout and design by Kathryn Tipton

CNRA: About us**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 Faculty:

Prashant Gajwani, M.D.

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Joy Schmitz, Ph.D.

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Margaret Wardle, Ph.D.

Michael Weaver, M.D.

Jin Yoon, Ph.D.

Interested in research?**Contact us!****(713) 486-2823**

Rolanda Johnson
CNRA Program Manager

Director's Message



Joy Schmitz, Ph.D.

In this Winter issue of CNRA Connections I am excited to announce the grand opening of our new outpatient addiction clinic, called INNOVATIONS. Appropriately named, INNOVATIONS at the CNRA draws on the latest research to offer Medication Assisted Treatment (MAT) for a range of substance use disorders (SUD). MAT is the use of FDA-approved medications in combination with evidence-based behavioral therapies to provide a whole-patient approach to treating SUDs. Surprisingly few MAT programs exist in the community, despite the availability of FDA-approved medicines for SUD. The opiate-antagonist, naltrexone (Vivitrol®), for example, is significantly beneficial in helping patients reduce their drinking and avoid relapse. However, in a recent survey study based on 307 nationally representative SUD treatment programs, only 13% of programs offered naltrexone to patients with alcohol use disorders. Clearly, there is a gap in promoting science-based treatments into widespread community-based programs. The INNOVATIONS clinic at the CNRA is designed to address this gap.

At the helm of the clinic is our new CNRA Medical Director, **Dr. Michael Weaver**, a board-certified physician in both Internal Medicine and Addiction Medicine. Mike has over 17 years of experience in treating patients with addiction in a variety of medical settings. He is recognized nationally as one of the leading experts in addiction medicine. His vast knowledge about SUD is matched by his incredible competence and compassion in working with patients. Clients receive a comprehensive assessment, followed by an individualized treatment plan that includes pharmacological and supportive interventions tailored to meet their needs and preferences.

INNOVATIONS is one of several new UT Physicians outpatient clinics committed to improving mental health care for patients in the Houston area through the administrative support of the UTHealth Department of Psychiatry and Behavioral Sciences. We are excited to offer this much needed clinical service to people suffering from drug and alcohol addiction.

For more information or to schedule an appointment, please call: 713-486-2525.



trials. Recently, the FDA described the “Pipeline Problem:” despite increased resource investment in clinical trials, there has been a decrease in the number of drugs in the pipeline for regulatory approval. Further, progress in basic sciences (e.g., genetics, proteomics, etc.) has not resulted in a commensurate increase in the development of clinical applications.

Clearly, continued development

Despite increased resource investment in clinical trials, there has been a decrease in the number of drugs in the pipeline for regulatory approval.

of more efficient approaches is critical to accelerate the process of discovery of new applications. While there are several ways to increase the information yield from clinical trials, this article focuses on one: Bayesian statistical methods. Much of the ongoing work at the CNRA is using Bayesian methods to achieve more efficient medication development.

Frequentist methods currently prevail in the substance abuse literature, whereby parameters are fixed, unobservable values about which we attempt to draw inferences using observable sample statistics. These methods rely on the ubiquitous p -value: the probability of observing the current data (or data more extreme) *given that the null hypothesis is true*. When researchers find a sufficiently small p -value, they reject the null hypothesis and indirectly reason that the alternative hypothesis is supported.

However, the p -value never directly assesses the alternative hypothesis.

Similarly, while confidence intervals do capture uncertainty in parameter estimates by specifying an interval that will capture the alternative hypothesis some percent of the time, they do not convey the relative probability that estimates within the interval are more or less likely.

Bayesian methods conceive of parameter estimates as “random,” that is, they are best characterized by a distribution instead of a fixed point. There may be some “true” parameter value, but our imperfect knowledge of it requires us to consider estimates as described by a probability density. Bayesian conclusions are summarized in a “posterior distribution” of parameter estimates that characterizes the range and relative probability of possible parameter estimates; that is, the probability that the alternative hypothesis takes on some set of values. The posterior distribution of parameter estimates is calculated using a prior distribution and new data. In a sense, Bayesian in-

ference may be thought of as a mathematical formulation of learning, in which evidence prior to a study is updated by new data.

Developing effective interven-

Developing effective interventions is also an iterative process. Unfortunately, it is often hampered by statistical tools not appropriate to the task.

tions is also an iterative process. Unfortunately, it is often hampered by statistical tools not appropriate to the task. Frequentist statistics are less informative in a treatment development context. While Frequentist statistics may provide control of the error rate across multiple repeated trials, this is not what is needed in early-phase treatment development.

Bayesian statistics provide a greater level of resolution in weighing evidence for and against the pursuit of different clinical applications than conventional, Frequentist approaches.

Developing nascent treatments requires betting on an alternative hypothesis. Such inferences are accessible from a Bayesian approach, even with small sample sizes. Bayesian statistics provide a greater level of resolution in weighing evidence for and against the pursuit of different clinical applications than conventional, Frequentist approaches.



KAPOW! Reaches Out to Reduce Risk

■ Angela Heads, Ph.D.

The Knowledge Awareness and Prevention on Wheels (KAPOW!) Project, recently launched at Prairie View A&M University, works to reduce harmful substance use and sexual behavior among University students and residents of surrounding communities.

The Substance Abuse and Mental Health Services Administration (SAMHSA) has identified emerging adults (ages 18-24) as an important target population for substance abuse treatment and HIV risk reduction interventions. According to the December 2010 National Survey on Drug Use and Health (NSDUH) Report on HIV/AIDS and Substance Use, “nearly one quarter of persons living with HIV/AIDS were in need of treatment for alcohol use or illicit drug use in the past year.”

The 2005 NSDUH indicated that young people in rural areas are more likely than big-city youth to indulge in binge drinking and to use other substances such as marijuana, methamphetamine and oxycodone. Accessing treatment in these areas can be especially challenging due to the lack of treatment facilities and the lack of transportation to areas where treatment programs are available. The **KAPOW! Project** addresses these challenges.

Prairie View A&M University, the first state supported College in Texas for African Americans, is one of the 104 recognized Historically Black Colleges and Universities (HBCU) established in the United States. Its location in Wal-



HIV testing is one of the services provided to students through the KAPOW! Project.

ler County places the university in an area identified as having one of the highest case rates of HIV infection in the state of Texas.

There is an established connection between substance use and sexual behaviors that places young people at risk for HIV infection. Substance use is a known problem on college campuses and Prairie View is not an exception. Because of the HIV-related risks associated with substance use, evidence based treatments and interventions are needed for this vulnerable age group.

The **KAPOW! Project** was created by Principal Investigators, Angela Heads, Ph.D., a CNRA post-doctoral fellow and Aisha Asby, Ph.D., an Assistant Professor in the Department of Psychology at Prairie View A&M University. The project is coordinated with the assistance of Joe Dickson, Ph.D., an Assistant Professor and Co Principal Investigator at Prairie View A&M University. The project is funded through a grant from SAMHSA and is the product of a part-

nership between Prairie View and Change Happens! - a Houston based community organization.

Through this partnership **KAPOW!** is addressing four primary goals identified by the Healthy People 2020 Substance Abuse Topic Area: 1) reducing new HIV infections, 2) increasing access to care and improving health outcomes for people living with HIV, 3) reducing HIV-related health disparities and 4) achieving a coordinated national response to the HIV epidemic.

To achieve these goals, the **KAPOW!** project with Change Happens! has begun providing HIV testing, pre and post-test counseling, referrals and substance abuse prevention strategies for students on campus at Prairie View A&M University.

To date, over 130 students have received testing and counseling—a significant increase over the reported numbers of students presenting for HIV testing at the Student Health Center. Since the roll out of **KAPOW!** in July 2014, the mobile

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KAPOW!, continued from page 4

testing unit has become a familiar sight on campus – appearing during high student traffic times such as orientation, homecoming and the popular Hump Day on the Hill, a student festival featuring music, socializing, and information sharing. Additionally, students are invited to participate in evidence-based programs for HIV prevention and substance use risk reduction including *Video Opportunities for*

Innovative Condom Education and Safer Sex (VOICES) and *Positive Action* which is a comprehensive program designed to improve academic achievement and decrease substance use and risky sexual behavior.

Data collected as part of the KAPOW! Program is expected to show significant changes in attitudes about risky sexual behaviors

and substance use. Initial analysis of the data shows a relationship between parental attitudes about drug and alcohol use (from the student’s perspective) and their reported use of substances and engagement in high risk sexual behavior (multiple partners, sex under the influence of drugs or alcohol and condom use). This indicates that parental involvement is still important in determining a young adult student’s behavior even after they leave home for college.

KAPOW! will next extend these mobile services to the rural community. Recently, the mobile testing unit made its first appearance in Waller County at a Narcotics Anonymous Meeting. Five high risk adults were testing and participated in a VOICES class. One participant wished these preventative services would have been available years ago.



The Mobile HIV testing unit maximizes impact by targeting popular student events.

INNOVATIONS Addiction Treatment clinic, continued from page 1

treatment plan tailored to the individual’s needs including prescribing medications for treatment of addiction—with ongoing follow-up consultations.

Medication-assisted therapy is available for alcohol use disorder, including Antabuse, Campral, or Vivitrol (injections are available on-site). Prescription opiates (narcotic painkillers) and heroin use disorders are treated with maintenance therapy using Suboxone (buprenorphine/naloxone) (for more information on Suboxone therapy, see Clinical Corner section of this issue). Tobacco smoking is

treated using nicotine replacement (patches, lozenges, gum), Chantix, or Zyban.

The INNOVATIONS Clinic participates with multiple health insurance plans, including Medicare and Medicaid. Appointments are currently available with minimal wait time. The INNOVATIONS Clinic is located on the campus of the Texas Medical Center close to the CNRA, with ample surface parking nearby.

* * * * *

Medication Assisted Therapy:

- **Alcohol:** Antabuse, Campral, Vivitrol injections on site
- **Prescription opiates** (narcotic painkillers) and **Heroin:** Suboxone (buprenorphine/naloxone)
- **Tobacco:** nicotine replacement (patches, lozenges, gum), Chantax, Zyban

For additional information, to refer a patient, or to schedule an appointment, please call the UT Psychiatry Clinic at 713-486-2525.

Research Update

2014 Selected Faculty Publications

- Ramesh D, Steinberg JL, **Lane SD**, **Schmitz JS**, Cifu DX, Moeller FG. (In Press). Prevalence of mild traumatic brain injury in cocaine-dependent research volunteers. *The American Journal on Addictions*.
- Kose S, Steinberg JL, Moeller GG, Gowin JL, Zuniga E, Kamdar ZN, **Schmitz JM**, **Lane SD**. (In Press). Neural correlates of impulsive aggressive behavior in subjects with a history of alcohol dependence. *Behavioral Neuroscience*.
- Wu HE, Mohite S, Ngana I, Burns W, Shah N, Schneider L, **Schmitz JM**, **Lane SD**, Okusaga OO. (In Press). Hospital length of stay in individuals with schizophrenia with and without cocaine positive urine drug screens at hospital admission. *Journal of Nervous and Mental Disease*.
- Hamilton KR, Mitchell MR, Wing VC, Balodis IM, Bickel WK, Fillmore M, **Lane SD**, et al. (In Press). Choice impulsivity: Definitions, measurement issues, and clinical implications. *Personality Disorders: Theory, Research, and Treatment*.
- Tan SP, Cui JF, Fan FM, Zhao YL, Chen N, Fan HZ, Zhang JG, Wang YH, **Yoon JH**, Soares JC, Zou YZ, Zhang XY. (In Press). Smoking, MATRICS consensus cognitive battery and P50 sensory gating in a Han Chinese population. *Drug and Alcohol Dependence*.
- Northrup TF, **Green CE**, Walker R, Greer TL, Trivedi MH: On the invariance of the Stimulant Craving Questionnaire (STCQ) across cocaine and methamphetamine users. *Addictive Behaviors*, 42C, 144-147, 2014.
- Northrup TF, Stotts AL, **Green CE**, Potter JS, Marino EN, Walker R, Weiss RD, Trivedi M: Opioid withdrawal, craving, and use during and after outpatient buprenorphine stabilization and taper: A discrete survival and growth mixture model. *Addictive Behaviors*, 41, 20-28, 2014.
- Clark CM, Frye CG, **Wardle MC**, Norman GJ, de Wit H: (In Press) Acute effects of MDMA on autonomic cardiac activity and their relation to subjective pro-social and stimulant effects. *Psychophysiology*.
- **Wardle MC**, Fitzgerald DA, Angstadt M, Rabinak CA, de Wit H, Phan KL: Effects of oxycodone on brain responses to emotional images. *Psychopharmacology*, 231, 4403-4415, 2014.
- **Wardle MC** & de Wit H: MDMA alters emotional processing and facilitates positive social interaction. *Psychopharmacology*, 241, 4219-4229, 2014.
- Garey L, Bakhshaie J, **Vujanovic AA**, Leventhal AM, Schmidt NB, Zvolensky MJ. (In Press). Posttraumatic stress symptoms and cognitive-based smoking processes among trauma-exposed treatment-seeking smokers: The role of dysphoria. *Journal of Addiction Medicine*.
- **Vujanovic AA**, Litz BT, Farris SG. (In Press). Distress tolerance as risk and maintenance factor for PTSD: Empirical and clinical implications. *The comprehensive guide to post-traumatic stress disorders*.
- **Weaver MF**, Breland AB, Spindle T, Eissenberg T: Electronic cigarettes: a review of safety and clinical issues. *Journal of Addiction Medicine*, 8(4): 234-240, 2014.
- **Weaver MF**, Delos Reyes C, Schnoll SH: Club Drug Addiction. In G. O. Gabbard (Ed.), *Gabbard's Treatments of Psychiatric Disorders*, 5th Ed., Washington, D.C.: American Psychiatric Publishing, Inc., pp 851-858, 2014.
- **Weaver MF**, Jones HE, Wunsch MJ: Alcohol and Other Drug Use During Pregnancy: Management of the Mother and Child. In R. Ries, D. Fiellin, S. Miller, R. Saitz (Eds.), *Principles of Addiction Medicine*, 5th Ed., Chevy Chase, MD: American Society of Addiction Medicine, Inc., pp 1254-1271, 2014.

Training Leads to Success

The CNRA is committed to the training and career development of the next generation of addiction scientists, educators, and clinicians. Our current trainees are working hard to make strides in substance abuse research. We are extremely impressed with their research accomplishments.

Jocelyn Abrams is pre-doctoral counseling trainee at the University of Houston. Her research interests revolve around various outcomes of trauma, including resilience, substance use, and distress tolerance. Clinically, she enjoys working with trauma, substance use disorders, and severe mental illness. She is a visiting research assistant at the CNRA working on the *Treatment of Integrated Posttraumatic Stress and Substance Use* study.

Joseph L Alcorn III successfully defended his dissertation titled “*Effects of oxytocin on human aggression*” and received his Doctorate of Neuroscience. He has accepted a position at University of Kentucky where plans continue conducting research in the fields of behavioral pharmacology in a post-doctoral research fellowship under the mentorship of Craig R. Rush, Ph.D. and William Stoops, Ph.D.

Christy Amador, B.A., is a graduate student working on her Master's of Education in Counseling at the University of Houston. She is a clinical intern at Family Services of Greater Houston. Her research interests include depression, anxiety, relational issues, distress tolerance, trauma symptoms, and substance abuse. Christy is currently working on her Master's Thesis titled, “PTSD Symptom Severity, Cocaine Use Severity, and Distress Tolerance: The Relationship to Depres-

sion Symptoms.” She is the Assistant Coordinator for the *Treatment of Integrated Posttraumatic Stress and Substance Use* study at the CNRA.

Yu Ding, M.A., is a psychology pre-doctoral intern from Indiana University of Pennsylvania. She has been trained in a wide range of clinical settings, including inpatient psychiatric hospital, outpatient community clinics, behavioral health clinics, and schools. Her research focuses on emotion coaching and social behaviors. Specifically, parents' abilities to coach children during emotional times and how it affects their interpersonal and intrapersonal relations. She is completing a six month clinical rotation at the CNRA.

Crispa Aeschbach Jachmann, MD, is currently a third year, research track psychiatry resident at UT Health at Houston. She completed medical school in the Medical University of Vienna, Austria, where she participated in addiction research in opioid maintenance treatment during pregnancy and HCV prevalence and treatment in opioid dependent patients. She continues to work in addiction research currently at the CNRA and in cooperation with Dr. Pigott at HCPC. She recently won an American Society of Addiction Medicine (ASAM) Young Investigator Award for her submitted abstract “Who's

Asking? Variations in Self-Reported Substance Abuse.” After completing residency, she plans to pursue a career in Addiction Psychiatry.

Darrow Khosh-Chashm, MD, is currently a third-year research track psychiatry resident at UT Medical School at Houston. He completed medical school in St. Maarten. He underwent his first year of residency training in California before transferring to UT Houston to pursue his academic and research interests. His research interests include cultural influences on substance abuse, pharmacotherapeutic interventions for cocaine and opioid use disorders, and medical education. He is currently receiving clinical training at the INNOVATIONS clinic.

Laura Milliken, M.S., is a fourth-year counseling psychology doctoral trainee from the University of Houston. Her research broadly focuses on the relationship between mental and physical health conditions. Currently, she is examining the illness intrusiveness theoretical model in Veterans diagnosed with chronic heart failure and anxiety. She is a visiting research assistant and therapist at the CNRA working on the *Treatment of Integrated Posttraumatic Stress and Substance Use* study.

Clinical Corner

Q & A on Buprenorphine

In this issue of Clinical Corner, Dr. Michael Weaver of the INNOVATIONS Clinic answers questions about the medication Buprenorphine and its role in opioid addiction treatment.



Dr. Weaver is a board-certified physician in both Internal Medicine and Addiction Medicine. He has over 17 years of experience in treating patients with addiction. He is the medical director of the CNRA and the physician in charge of INNOVATIONS in Addictions Treatment Clinic.

What is an opioid?

An opioid is a drug that is made from the opium poppy plant, such as morphine or heroin. Many different opioids are used as prescription painkillers. All of them act in the brain and spinal cord and have similar effects: feelings of euphoria (“high”), pain relief, sedation, and other effects. Taking an opioid several times a day for several weeks leads to physical dependence, which means that the person feels bad if they stop the opioid suddenly. This is known as opioid withdrawal. Misuse of opioids can lead to addiction.

What is buprenorphine?

Buprenorphine is an opioid that is used to treat opioid addiction. Its effects are milder than other opioids and last a long time, so it can help treat opioid withdrawal. It can be taken for a short time just to treat withdrawal, or for a long time as maintenance treatment.

How is it different than traditional methadone?

Methadone has been used for many years for long-term treatment of opioid addiction and it is very effective. However, people on methadone must go to a methadone clinic every day and receive a dose there. Buprenorphine has a lower risk of overdose than methadone, but is just as effective for treating opioid addiction, so it is less restricted than methadone. Buprenorphine is available through a doctor’s office (the doctor must complete special training to prescribe buprenorphine to treat addiction) and can be obtained at many pharmacies, instead of a methadone clinic.

What makes buprenorphine the ideal medication for treatment of opioid addiction?

Buprenorphine is safe and effective, and less restricted than methadone. It is covered by most health insurance plans. People on buprenorphine can take it at home each

day instead of going to a methadone clinic. It is difficult to abuse because it can cause opioid withdrawal if taken with other opioids that are being abused.

What is buprenorphine induction?

This is the process of starting buprenorphine. The person must stop using other opioids for at least 24 hours. A small dose of buprenorphine is given and the person is watched closely to see how they respond. Additional doses are given over several hours to treat any opioid withdrawal symptoms. This process may occur over a couple of days in a doctor’s office or even at home. Once the person is taking a dose that treats their withdrawal symptoms and does not make them too sleepy, they will take that dose once each day.

How long does someone usually take buprenorphine?

This varies and depends on the circumstances of the person taking the buprenorphine. Someone who has been abusing opioids for a long time may need a longer time on buprenorphine to overcome that addiction. Someone who has a lot of support from family and friends and who is working hard at recovery from addiction may not need to be on buprenorphine for as long. Every person on buprenorphine



should take it long enough to have established a good recovery plan. This may take some people a few months, and for some it may take years.

Is buprenorphine alone enough to treat opioid addiction?

No. Buprenorphine is one part of a recovery plan. The most important part is to work on the thoughts and behaviors that make up the addiction in order to prevent a relapse to illegal opioid use. This can be accomplished with the help of Narcotics Anonymous meetings, a therapist, support from family and peers, or other elements of an addiction treatment program. Buprenorphine alone is not enough to treat addiction, it must be combined with counseling to be effective.

Is taking a drug to treat drug addiction just getting someone addicted to the new drug?

People taking buprenorphine as treatment for an opioid addiction are not addicted to buprenorphine. Buprenorphine will treat the physical symptoms of opioid addiction, such as cravings and withdrawal, but it does not give feelings of euphoria when taken properly. People addicted to opioids will have worsening problems when taking illegal opioids, such as problems with finances, relationships, and their health. People taking buprenorphine to treat addiction will see improvement in these areas, and eventually will be able to discontinue buprenorphine without relapse to illegal opioid use.

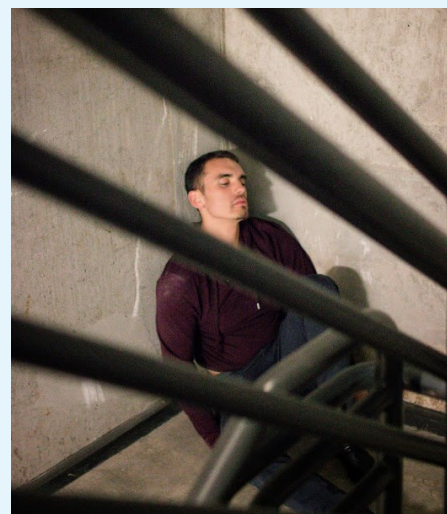
Treatment of Integrated Posttraumatic Stress and Substance Use

The CNRA is now enrolling participants in a **non-medication** treatment research study for **trauma related symptoms and substance abuse**.

Adults age 18-65 who have experienced trauma and use drugs or alcohol may be eligible to take part in a 12 session study comparing integrated cognitive-behavioral treatment for PTSD and substance use with standard cognitive behavioral treatment for substance use.

For more information call: **713-500-DRUG**

- ◆ No Cost Treatment
- ◆ 100% confidential
- ◆ Experienced and Professional Staff
- ◆ A Safe and Clean Atmosphere
- ◆ Free Parking & Metro Tickets
- ◆ Financial Compensation for Research Participation



Your Support Is Needed

Contributions to CNRA help advance important research to develop science-based treatments for those who suffer from substance use disorders.

Donations can be made to:

UTHealth—CNRA, P.O. Box 301413, Dallas, TX 75303
or by calling **(713) 500-5217**

Inside the CNRA

The CNRA currently has three ongoing studies of new medications for substance use disorders.

- ◆ Clinical Trial of Citalopram in Cocaine Dependence
- ◆ Cognitive-enhancing Dopamine Medications for Cocaine Dependence
- ◆ PPAR Gamma Agonist Treatment for Cocaine Dependence

CNRA Program Features:

- ◆ No Cost Treatment for Cocaine Dependence
- ◆ 100% confidential
- ◆ Medical & Behavioral Treatments
- ◆ Experienced and Professional Staff
- ◆ A 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 7:30-4:00

Behavioral and Biomedical Sciences Building
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Visit us online: <http://med.tmc.edu/psychiatry/research/addiction>