November 3, 2017
1-6 pm
BioScience Research Collaborative

1st Annual Alcohol & Addiction Research Mini-Symposium

Gulf Coast Consortia
Quantitative Biomedical Sciences
Annual Alcohol and Addiction Research Symposium

November 3, 2017

Agenda

1:00 Welcome

1:05 Data blitz/short talks
   Jason Robinson, MD Anderson Cancer Center
   Jennifer Minnix, MD Anderson Cancer Center
   George Kypriotakis, MD Anderson Cancer Center
   Luba Yammine, UT Health Science Center
   Melissa Suter, Baylor College of Medicine
   Thomas Northrup, UTHealth
   Chris Verrico, Baylor College of Medicine
   Jaye Derrick, University of Houston
   Chelsie Young, University of Houston
   Margaret Wardle, UT Health Science Center
   Joy Schmitz, UT Health Science Center
   Jin Yoon, UT Health Science Center
   Charles Green, UT Health Science Center

2:15 Break

2:30 Data blitz/short talks
   Francesco Versace, MD Anderson Cancer Center
   Ramiro Salas, Baylor College of Medicine
   Chris Stewart, Baylor College of Medicine
   Farrah Kheradmand, Baylor College of Medicine
   Colin Haile, University of Houston
   Joydip Das, University of Houston
   Leigh Leasure, University of Houston
   Kelly Dineley, UT Medical Branch at Galveston
   Ping Wu, UT Medical Branch at Galveston
   Tom Green, UT Medical Branch at Galveston
   Jonathan Hommel, UT Medical Branch at Galveston
   Eric Wold, UT Medical Branch at Galveston
   John Allen, UT Medical Branch at Galveston

3:45 Break

4:00 Keynote and Keck Seminar, Robert Balster

5:00 Reception and Poster Session
Abstract:
I will describe the evolution of a career in addiction science and training. It will focus on the early development of two important methodologies for addiction research, drug discrimination and drug self-administration. This work began while I was a PhD student at the University of Houston and worked in the behavioral pharmacology laboratories at the Texas Research Institute of Mental Sciences. It will also describe how opportunities arose to study a novel drugs of abuse, phencyclidine, as well as a much ignored class of abused drugs, the inhalants. The role of mentors and trainees in the development of this research will be emphasized. My career further evolved into doing multidisciplinary work, primarily the areas of science administration and editing of the journal *Drug and Alcohol Dependence*, and into being deeply involved in international work through work on the International Programmeon Addiction Studies and the Hubert H Humphrey Fellowship Program.

About Dr. Balster:
Dr. Robert Balster is the Luther A. Butler Professor of Pharmacology and Toxicology, and Research Professor of Psychology and Psychiatry at Virginia Commonwealth University in Richmond, Virginia. Dr. Balster is also an associate coordinator for the VCU site for the U.S. State Department Humphrey Fellowship Program in Substance Abuse Prevention, Treatment and Policy (http://www.psychology.vcu.edu/humphrey/index.shtml) and a co-founder and co-director of the International Programme in Addiction Studies (http://www.ipas.vcu.edu/), an online graduate program. From 1997-2013 Dr. Balster was the Director of the VCU Institute for Drug and Alcohol Studies and from 2011-2012 he was selected as a Jefferson Science Fellow with the Global Health Bureau at the US Agency for International Development and served until 2015 as a Science Advisor for the Office of Health, Infectious Diseases and Nutrition at USAID. He was the founding Director of the Virginia Youth Tobacco Project, a statewide coalition of tobacco scientists supported by funds from the Master Settlement Agreement. Dr. Balster is a Fellow of the American College of Neuropsychopharmacology, the College on Problems of Drug Dependence (CPDD), and the American Psychological Association. He is a Past-President of the CPDD and a former member of the WHO Expert Advisory Panel on Drug Dependence. From 1998 to 2010 he was the Editor-in-Chief of the international journal *Drug and Alcohol Dependence* and Vice-President of the International Society of Addiction Journal Editors from 2008-2010. Previous appointments also include Chair of the FDA Drug Abuse Advisory Committee, and Chair of the Board of Scientific Affairs of the American Psychological Association. He is the recipient of the CPDD Nathan B. Eddy Award for career contributions in addiction research, the Brady-Schuster Award and the Award for Distinguished Service to Psychological Science from the American Psychological Association, and the Excellence in Mentorship award from the NIDA International Program. In addition to publishing more than 280 papers in scientific journals, Dr. Balster has edited two books and authored over 55 book chapters.

Keynote Speaker

Robert L. Balster, Ph.D.
Butler Professor of Pharmacology and Toxicology
Affiliate Professor of Psychology and Psychiatry
Virginia Commonwealth University
Research Interests:

- Neurobehavioral consequences of nicotine dependence and withdrawal
- Novel Health interventions for smoking cessation
- Tobacco regulatory science research
Research Interests:

- Individual differences resulting from and/or leading to chronic nicotine use.
- Psychophysiology and neurobiological indices of high-level cognitive and affective processing as it relates to nicotine dependence.
- Strategies for tailoring smoking cessation treatments, especially among smokers with co-morbid mental health disorders.
George Kypriotakis
MD Anderson Cancer Center

gkypriotakis@mdanderson.org

Research Interests:
- Quantitative Methods
- New Generation Tobacco Products
- Regulation of Tobacco Products
Research Interests:

- Approved pharmacological treatments for smoking cessation are marginally effective, underscoring the need for improved pharmacotherapies.
- A novel approach might use glucagon-like peptide-1 (GLP-1) agonists, which reduce alcohol and drug use in preclinical studies.
- We are examining whether a GLP-1 agonist, extended-release exenatide, reduces smoking, craving and withdrawal symptoms, as well as cue-induced craving for cigarettes.
Research Interests:
I study the use of electronic cigarettes in pregnancy.
Research Interests:

- Substance Use Disorders
- Secondhand/Thirdhand Smoke Exposure Prevention
- Smoking Cessation
Research Interests:

Medication development for:
- PTSD & comorbid alcohol use disorders
- cocaine use disorders
- cannabis use disorders
Jaye Derrick  
University of Houston  
jlderric@central.uh.edu

Research Interests:  
The influence of relationships on self-regulation and substance use; the influence of substance use on relationship functioning and intimate partner aggression; daily diary and EMA research methods.
Research Interests:
My research aims to develop strategies incorporating personalized normative feedback, motivational interviewing, and expressive writing to facilitate behavior change. I also examine mechanisms of action for behavior change to gain insight into how such strategies work and which components are most effective. I explore individual difference factors as moderators of behavior change to better understand for whom such strategies are best suited.
Margaret Wardle
UT Health Science Center Houston
Margaret.C.Wardle@uth.tmc.edu

Research Interests:

Emotions in Addiction:

1. Individual differences in emotional functioning that may predispose people to use drugs
2. Acute effects of abused drugs on emotional functioning
3. How disruptions in emotional functioning relate to addiction treatment outcomes, and how to restore equilibrium to emotional functions disrupted by drug use

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Research Interests:

- Development and evaluation of behavioral treatments and combinations of behavioral therapies and medications for substance use disorders.
- Innovative clinical trial designs.
- Integrated approaches for treatment of substance use disorders and comorbid psychiatric conditions.
Research Interests:

- Use of technological innovations in addictions research.
- Assessment of behavioral economic factors in addiction.
- E-cigarettes for tobacco cigarette smokers.
Charles Green
UT Health Science Center Houston
charles.green@uth.tmc.edu

Research Interests:

• Bayesian Statistics
• Adaptive Trial Design

Notes
Francesco Versace
MD Anderson Cancer Center
fversace@mdanderson.org

Research Interests:
Brain Imaging

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Ramiro Salas
Baylor College of Medicine
rsalas@bcm.edu

Research Interests:

• Brain Imaging
• Neuropharmacology
• Reward/disappointment brain processing
Research Interests:

I am interested in how the microbiome and host crosstalk shapes human health and disease.
Farrah Kheradmand  
Baylor College of Medicine  

Research Interests:  
Smoking related lung diseases  

Notes
Addictive and Psychiatric Disorders
Post-Traumatic Stress Disorder

Research Interests:

- Addictive and Psychiatric Disorders
- Post-Traumatic Stress Disorder

Colin Haile
University of Houston
cnhaile@uh.edu

Notes
Munc13-1 is presynaptic protein involved in the vesicle fusion and neurotransmitter release.

Chronic ethanol drinking upregulates presynaptic Munc13-1 in mouse hippocampus.

Alcohol binds to the C1 domain of Munc13-1.

Notes
Research Interests:

- Interactive neural effects of alcohol and exercise.
- Sex differences in binge alcohol-induced brain damage
Research Interests:

Our study focuses on the biology and application of neural stem cells. Particularly, we are interested in the role of adult neural stem cells and how chronic alcohol exposure affect their functions.
Tom Green
UT Medical Branch at Galveston

Research Interests:

The molecular determinants of cocaine-taking in preclinical models

thgreen@utmb.edu
We are focusing on identifying novel therapeutic targets that regulate motivation for drugs of abuse such as cocaine. An innovative target in this regard is neuromedin U Receptor 2 (NMUR2), a neuropeptide receptor found in CNS circuits related to drug taking and reinforcement. We have discovered that NMUR2 utilizes a newly discovered GABAergic pathway from the raphe to the nucleus accumbens to regulate motivation for cocaine in animal models.
Research Interests:
Through the design and synthesis of small molecules, we seek to discover novel therapies and chemical tools with applications in central nervous system (CNS) disorders such as drug abuse and addiction, depression, schizophrenia, pain, and neurodegenerative diseases. Current discovery efforts: allosteric modulators, allosteric/orthosteric bitopic ligands, and inverse agonists of the serotonin 2C receptor (5-HT$_{2C}$R); agonists of the neuromedin U receptor 2 (NMUR2); modulators of deltaFosB; biased ligands of the dopamine receptor D1 (DRD1); positive allosteric modulators of the AMPA receptor (AMPAR); and, ligands of orphan G protein-coupled receptors (GPCRs).
Research Interests:

• Neurobiology, pharmacology and biochemistry of G protein-coupled receptors, with a focus on DA, 5-HT and other receptors that modulate the striatum.
• Drug discovery, novel drug target identification and medications development for neuropsychiatric disorders including addiction and schizophrenia.

Notes
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<th>Institution</th>
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<tr>
<td>Noelle</td>
<td>Anastasio</td>
<td>UT Medical Branch at Galveston</td>
<td><a href="mailto:ncanasta@utmb.edu">ncanasta@utmb.edu</a></td>
<td>research interests lie at the interface of pharmacology, neuroscience, and psychiatry and have evolved to a primary focus on elucidating the molecular, neurochemical and behavioral underpinnings of impulsivity.</td>
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<tr>
<td>Janice</td>
<td>Blalock</td>
<td>UT MD Anderson Cancer Center</td>
<td><a href="mailto:jablaloc@mdanderson.org">jablaloc@mdanderson.org</a></td>
<td>Treatment of smokers with co-morbid psychiatric disorders.</td>
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<td>Victoria</td>
<td>Brehm</td>
<td>UT Medical Branch at Galveston</td>
<td><a href="mailto:vdbrehm@utmb.edu">vdbrehm@utmb.edu</a></td>
<td>I am interested in exploring the functional relationship between the Ghrelin Receptor and the Serotonin 2C Receptor in the context of addiction.</td>
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| Paul       | Cinciripini | UT MD Anderson Cancer Center | pcinciri@mdanderson.org | Smoking Cessation  
 Nicotine psychopharmacology |
| Irma       | Cisneros   | UT Medical Branch at Galveston | ircisner@utmb.edu | My research investigates the role of cocaine on regulating astrocyte innate antiviral immune response to neurotropic viruses. We currently utilize a plethora of RNA viruses including Zika, Candid and the retrovirus, HIV-1. We are specifically interested in the mechanisms by which cocaine increases viral pathogenesis in the central nervous system. |
| Richard    | De La Garza, II | Baylor College of Medicine | rg12@bcm.edu | Medications development and testing for cocaine, methamphetamine and tobacco use disorders.  
 Use of neuroimaging to identify neural substrates of reward processing, cue reactivity, and treatment response.  
 Use of genetics and epigenetics to uncover the acute effects produced by stimulants and by candidate medications for drug use disorders. |
| Andrea     | Dimet     | UT Medical Branch at Galveston | aldimet@utmb.edu | Cocaine use disorder (CUD) is a chronic, relapsing disorder for which there are currently no pharmacotherapeutics.  
 Pioglitazone is a FDA-approved peroxisome proliferator-activated receptor gamma agonist which has been shown to attenuate cocaine-seeking. |
<p>| Shadab     | Forouzan  | University of Houston | <a href="mailto:sforouzan@uh.edu">sforouzan@uh.edu</a> | |</p>
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| Kenneth    | Johnson   | UT Medical Branch at Galveston | kmjohnso@utmb.edu | • Mechanism of action of phencyclidine (PCP), particularly the mechanism underlying schizophrenia-like behavior following PCP administration in perinatal rat pups.  
• Role of diminished BDNF in the behavioral paradigm referenced above, particularly the positive roles of Akt, ERK 1/2, and GSK-3B in regulating BDNF and neuronal survival and synaptic plasticity. |
| Yuanyuan   | Kang      | Other       | KangY@uhd.edu | I study the role of G protein coupled receptor kinases in alcohol induced behaviors in Drosophila. |
| Therese    | Kosten    | University of Houston | takosten@uh.edu | • animal models of alcohol and substance use disorders  
• stress  
• development |
| Thomas     | Kosten    | Baylor College of Medicine | Kosten@bcm.edu | • anti-addiction vaccines  
• clinical trials  
• stimulants opiates nicotine alcohol |
| Michael    | Lacagnina | UT MD Anderson Cancer Center | MJLacagnina@mdanderson.org | • Neuroimmunology of chronic pain  
• Reward and reinforcement during chronic pain |
| Scott      | Lane      | UT Health Science Center at Houston | scott.d.lane@uth.tmc.edu | • psychopharmacology, behavioral neuroscience of human substance use disorders  
• laboratory methods focused on impulse control, attentional bias, and decision making  
• medications development |
| Angie      | LeRoy     | Rice University | asl6@rice.edu | |
| Paula      | Lopez-Gamundi | UT Health Science Center at Houston | paula.lopezgamundi@uth.tmc.edu | • Anhedonia as a mediator of drug addiction treatment  
• cocaine dependence treatment  
• reward motivation in healthy adults |
| Richard    | Meisch    | UT Health Science Center at Houston | rmeisch@mac.com | • drug self-administration  
• oral route  
• drug choice |
| Mary Ann   | Ottinger  | University of Houston | maotting@central.uh.edu | • Behavioral neuroendocrinology as associated with aging  
• Adverse effects of endocrine disrupting compounds on development Comparative biology of aging |
| Prahlad    | Ram       | UT MD Anderson Cancer Center | pram@mdanderson.org | • Systems biology  
• Network analysis  
• Target identification |
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<tr>
<td>Andrew</td>
<td>Rogers</td>
<td>University of Houston</td>
<td><a href="mailto:ahroger2@central.uh.edu">ahroger2@central.uh.edu</a></td>
<td>• Pain</td>
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<td>• Opioids</td>
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<td>• Emotion Regulation</td>
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<td>Sergio</td>
<td>Sanchez</td>
<td>University of Houston</td>
<td><a href="mailto:sanchez.19sergio@gmail.com">sanchez.19sergio@gmail.com</a></td>
<td>TL4 Rats</td>
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<tr>
<td>Mohan</td>
<td>Vivekanandan</td>
<td>Baylor College of Medicine</td>
<td><a href="mailto:MOHAN.WWW83@gmail.com">MOHAN.WWW83@gmail.com</a></td>
<td>Study alcohol and drug actions at the molecular, electrophysiological and behavioral levels.</td>
</tr>
<tr>
<td>Dennis</td>
<td>Sholler</td>
<td>UT Medical Branch at Galveston</td>
<td><a href="mailto:djsholle@utmb.edu">djsholle@utmb.edu</a></td>
<td>My research interrogates serotonin neurobiology in impulsive behavior, a vulnerability factor for the initiation and maintenance of and relapse to substance abuse.</td>
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<tr>
<td>Deqiang</td>
<td>Sun</td>
<td>IBT Texas A&amp;M Health Science Center</td>
<td><a href="mailto:dsun@tamu.edu">dsun@tamu.edu</a></td>
<td>• computational epigenetics</td>
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<td>• bioinformatics</td>
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<td>Luis</td>
<td>Torres</td>
<td>University of Houston</td>
<td><a href="mailto:LRTorres@uh.edu">LRTorres@uh.edu</a></td>
<td>Health disparities, specifically co-occurring mental health, substance use and medical disorders (including HIV/AIDS) in Hispanics; and family-strengthening efforts with a focus on Hispanic communities.</td>
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<tr>
<td>Yoly</td>
<td>Villarreal</td>
<td>UT Health Science Center at Houston</td>
<td><a href="mailto:Yolanda.R.Villarreal@uth.tmc.edu">Yolanda.R.Villarreal@uth.tmc.edu</a></td>
<td>• Behavioral health intervention and prevention (i.e., Motivational Interviewing, Acceptance and Commitment Therapy)</td>
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<td>• Substance use (i.e., tobacco, alcohol, drugs) among high risk populations</td>
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<td>• Clinical trial</td>
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<td>Rebecca</td>
<td>West</td>
<td>University of Houston</td>
<td><a href="mailto:rkwest@uh.edu">rkwest@uh.edu</a></td>
<td>• Brain Damage</td>
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<td>Colin</td>
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<td>Yuanyuan</td>
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<td>Salas</td>
<td>Baylor College of Medicine</td>
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<td>Christopher</td>
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<td>Chelsie</td>
<td>Young</td>
<td>University of Houston</td>
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