# STACEY C. SIGMON, PH.D. CURRICULUM VITAE

Position: Professor with Tenure

University of Vermont College of Medicine, Department of Psychiatry

(primary)

University of Vermont Department of Psychological Science (secondary)

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# **EDUCATION**

2002-2004	Johns Hopkins University School of Medicine, Baltimore, MD	NIH Postdoctoral fellow, Behavioral Pharmacology Research Unit
1999-2002	University of Vermont, Burlington, VT	Ph.D., Experimental Psychology/Behavioral Pharmacology; NIH Predoctoral fellow
1996-1999	University of Vermont, Burlington, VT	M.A., Experimental Psychology/Behavioral Pharmacology; NIH Predoctoral fellow
1995	University of Sussex, Falmer, Britain	Behavioral Pharmacology/ Foreign exchange
1991-1995	University of North Carolina at Chapel Hill, Chapel Hill, NC	B.A., Psychology/Behavioral Pharmacology

# **FACULTY POSITIONS HELD**

Years 2021 - present	Institution University of Vermont	Academic Title Tenured Professor	<b>Department</b> Psychiatry (primary); Psychological Science
2018 - 2021	University of Vermont	Tenured Associate Professor	Psychiatry (primary); Psychological Science (secondary)
2008 - 2021	University of Vermont	Associate Professor	Psychiatry (primary); Psychological Science (secondary)

Member,

Core

Director

Center Co-

Investigator,

2008 - 2021	Dartmouth College	Associate Professor	Psychiatry (adjunct)
2004 - 2008	University of Vermont	Assistant Professor	Psychiatry (primary); Psychological Science (secondary)
2004 - 2008	Dartmouth College	Assistant Professor	Psychiatry (adjunct)

_	ID MAJOR ADMINISTRATIVE POSITIONS HELD	
Years 2004 - present	The Chittenden Clinic: Opioid Treatment Program The Chittenden Clinic is the first and largest opioid treatment clinic in Vermont and a joint collaboration of the UVM College of Medicine, UVM Medical Center and Howard Center. We provide evidence-based methadone and buprenorphine maintenance and associated services to 1,000 opioid-dependent Vermonters and employ over 60 staff. As Director, I oversaw an expansion of our clinic that included an increase from 100 to 1,000 patients, adoption of buprenorphine as an additional pharmacological tool, the opening of a second clinic site, and a tripling of clinic staff.	Role Director & Executive Committee
2004 - present	Graduate College, University of Vermont The Graduate College at the University of Vermont was formally established in 1952, though the first graduate degree had been awarded in 1807. The Graduate College includes programs and degrees in the natural, physical and biological sciences, the social sciences, the humanities, and professional training.	Faculty Member
2007 - present	Neuroscience Graduate Program, University of Vermont The Neuroscience Graduate Program at the University of Vermont is a multidisciplinary, Ph.D. granting program that has more than 50 faculty mentors across 9 departments and 4 colleges.	Faculty Member
2013 - present	Vermont Center on Behavior and Health (P20 GM103644) The Vermont Center on Behavior and Health (VCBH) was established in 2013 and is funded by a NIGMS Centers of	Executive Committee, Founding

The Vermont Center on Behavior and Health (VCBH) was established in 2013 and is funded by a NIGMS Centers of Biomedical Research Excellence (COBRE) Award. The VCBH's participating investigators, collaborators, and advisors extend across 15 academic departments in the College of Medicine, 7 colleges within the University of Vermont and 5 additional universities. The focus of our center is on investigating relationships between personal behaviors and risk for chronic disease and premature death, with a specific focus on understanding mechanisms underpinning risk and developing effective interventions and policies to promote healthy behavior.

## 2013 - present

# **UVM Tobacco Center on Regulatory Science (P50** DA036114)

The Vermont TCORS was established in 2013 and is funded by an NIH- and FDA-funded P50 center grant. The Vermont TCORS' investigators extend across UVM, Johns Hopkins University, and Brown University with UVM as the coordinating site. Our Center is dedicated to researching tobacco products in vulnerable populations, currently an evaluation of reduced nicotine cigarettes in women of childbearing age, individuals with comorbid opioid dependence, and individuals with psychiatric illness. We also coordinate a pre- and post-doctoral training program in tobacco regulatory science.

Founding Member. Center Co-Investigator, Project Pl. Training Mentor

## 2016

# Division of Psychopharmacology and Substance Abuse, President American Psychological Association (APA)

APA is the largest scientific and professional organization of psychologists in the US, with ~120,000 members including scientists, educators, clinicians, consultants and students. APA's Division of Psychopharmacology and Substance Abuse (Division 28) is the primary division for my professional field of behavioral pharmacology and substance abuse treatment and research. Division 28's mission is to encourage the advancement of knowledge on the behavioral effect of psychotropic drugs and toxicants, including (a) disseminating research-based information on psychopharmacology and substance abuse within APA, in educational settings, and to other scientists; (b) encouraging the application of the results of psychopharmacology research to human affairs; and (c) consideration of education and policy issues pertaining to psychopharmacology, behavioral toxicology, and substance abuse.

#### 2017 - 2020

# Board of Directors, College on Problems of Drug Elected Dependence (CPDD)

CPDD is the oldest and largest organization in the US dedicated to advancing a scientific approach to substance use and addictive disorders. CPDD's mission is to provide a national and international forum for scientists of diverse backgrounds to advance the understanding of molecularneurobiological aspects of addictive disorders and, by the application of new scientific knowledge, to improve and develop treatments utilizing novel behavioral and pharmacological therapies.

# Board Member

## 2020 - 2021

# President, College on Problems of Drug Dependence (CPDD)

CPDD is the oldest and largest organization in the US dedicated to advancing a scientific approach to substance use and addictive disorders. CPDD's mission is to provide a national and international forum for scientists of diverse backgrounds to advance the understanding of molecularneurobiological aspects of addictive disorders and, by the application of new scientific knowledge, to improve and develop

# Elected President (2020-2021)

treatments utilizing novel behavioral and pharmacological therapies.

# 2019 - present UVM Center on Rural Addiction (UVM CORA)

PI, Center Director

UVM CORA was established in 2019 and is funded by a \$10.4 million RCORP-RCOE Center of Excellence Award from the Health Resources & Services Administration. The aim of our Center is to disseminate science-based treatments and tools to rural communities throughout New England and nationally, with the overarching goal of expanding opioid use disorder (OUD) treatment capacity and reduce opioid-related morbidity and mortality in the rural areas so disproportionately impacted by the current opioid epidemic. Our collaborating partners include the University of New Hampshire and the University of Southern Maine.

## **HONORS AND AWARDS**

Year	Award/Honor
1998	Director's Travel Award, National Institute on Drug Abuse
2001	Division 28 Poster Award, American Psychological Association (APA)
2003	The College on Problem of Drug Dependence, Early Career Investigator Award
2006	Recipient of the Wyeth Young Psychopharmacologist Award, APA Division 28
2007	Elected Member-at-large, Division 28, APA
2012	Elected Fellow, Division 28, APA
2014	Elected Full Member, The College on Problems of Drug Dependence
2014	Elected President (to serve in 2016), Division 28, APA
2015	Elected Fellow, Division 50 (Society of Addiction Psychology), APA
2016	Elected Member, Board of Directors (2017-2020), The College on
	Problems of Drug Dependence
2019	Elected President, The College on Problems of Drug Dependence (to serve as
	President-Elect in 2020 and President in 2021)
2019	Founding Director and PI, University of Vermont Center on Rural Addiction

## **KEYWORDS/AREAS OF INTEREST**

Substance use disorders, opioids, buprenorphine, methadone, opioid overdose, opioid treatment, opioid withdrawal, rural health, cigarette smoking, tobacco, nicotine withdrawal, smoking cessation, tobacco regulatory science, health behavior change, behavioral treatments

## SUMMARY OF PROFESSIONAL ACTIVITIES-OVERALL

I am an Associate Professor with Tenure in the Department of Psychiatry, with a secondary appointment in Psychology. I have conducted behavioral pharmacology and clinical drug abuse research for nearly 3 decades. Since joining the faculty in 2004, I have obtained ~\$20 million in funding as PI, published ~100 manuscripts in peer-reviewed scientific journals (h-index=31, ~2900 citations), and I present my research at 4-5 national and international peer-reviewed scientific meetings annually. I have served as Director of Vermont's first and largest opioid treatment clinic which serves 1,000 opioid-dependent patients, President of the American Psychological Association's Division on Psychopharmacology, and am currently President of The College on Problems of Drug Dependence (CPDD), the oldest and largest organization dedicated to advancing the scientific study of substance use. I have served as the primary mentor and advisor for 13 pre- and post-doctoral fellows, 1 junior faculty, and as a member or chair of 20 thesis and dissertation committees.

## **SUMMARY OF ACCOMPLISHMENTS**

## **Grant Funding:**

- ~\$20 million in funding as Primary Investigator (PI); \$50.9 million as Co-Investigator (Co-I)
- PI on 3 R01, 1 R03 and 1 R34 grants from the NIH; 1 Center grant from HRSA; 1 Foundation grant; Site PI on 5 industry-sponsored contracts
- Co-I on 2 Center grants (NIH/FDA P50, NIGMS P20) and 12 additional NIH grants
- Co-I and Training Mentor of Pre- and Postdoctoral Fellows on 3 training grants (NIDA, FDA, HRSA) and 1 center grant (P20 from NIGMS)

#### **Publications:**

- ~100 peer-reviewed articles (GS h-index=31, ~2900 citations), including high IF journals:
  - New England Journal of Medicine (IF: 70.7): Published in NEJM in 2016, 2017
  - The Lancet (IF: 59.1): 2016
  - JAMA (IF: 47.7): 2016
  - JAMA Internal Medicine (IF: 20.0): 2018
  - JAMA Psychiatry (IF: 17.5): 2013, 2014, 2015, 2017
- 15 book, chapters and encyclopedia entries; 6 editorials, commentaries and other scholarly writing; Guest editor on 2 scientific journal Special Issues (*Experimental and Clinical Psychopharmacology, Preventive Medicine*)

## **Presentations:**

- 4-5 scholarly presentations annually (57 oral, 91 poster, 35 invited, 6 chaired symposia to date); International presentations in Cuba, Portugal, Spain, Italy, Rwanda, UK, Mexico
- Invited presentations to prestigious groups (e.g., Johns Hopkins School of Medicine, FDA's Advisory Committee, Institute for Clinical and Economic Review's New England Comparative Public Advisory Council, Vermont State Legislators)
- 17 invited media interviews (e.g., *New York Times, NPR, NIH, Vermont Digger*). Selected for inclusion in *Fast Company*'s annual list of the 100 Most Creative People in Business, September 2020: <a href="https://www.fastcompany.com/90523229/fast-companys-most-creative-people-in-business-2020">https://www.fastcompany.com/90523229/fast-companys-most-creative-people-in-business-2020</a>

## Service:

- Since 2004, Director of Vermont's first and largest opioid treatment clinic, serving 1,000 opioid-dependent patients
- 2020-21 President of The College on Problems of Drug Dependence (CPDD), the oldest and largest organization dedicated to advancing the scientific study of substance use; Elected to CPDD Board of Directors (2017-21) and Executive Committee (2019-22)
- 2016 President of American Psychological Association (APA) Division 28 on Psychopharmacology and Substance Abuse; Elected Fellow in APA Divisions 28 and 50.
- NIH reviewer on numerous Scientific Review Groups for 20 years; editorial board member of 2 peer-reviewed scientific journals; ad hoc reviewer for >25 journals
- Member of numerous national, state, community, and university committees (e.g., FDA Advisory Committee, Vermont Maternal Mortality Review Board, Prescription Monitoring Program, Committee to Revise the Vermont Buprenorphine Treatment Guidelines)

## Mentoring and teaching:

- Served as the primary mentor and advisor for 13 pre- and post-doctoral fellows, member or chair of 20 thesis and dissertation committees, and as primary mentor for a junior faculty Project Director as part of our COBRE center grant
- Regularly lecture in graduate, medical student, and resident courses at the University of Vermont and give CE/CME presentations throughout the US
- As Director and PI of the UVM Center on Rural Addiction, lead our efforts to provide

workforce training and education in evidence-based practices for treating addiction to rural providers and staff across the country

# **PROFESSIONAL SERVICE**

DEPARTMEN	DEPARTMENTAL SERVICE				
Years	Department				
2004-2006	Psychiatry	Search Committee for Addiction Psychiatrist	Chair		
2007-2010	Psychiatry	Faculty Standards Committee	Ad-hoc Member		
2013- present	Psychiatry/VCBH	Conference Planning Committee, Annual Behavior Change, Health and Health Disparities Conference	Member		
2013- present	Psychiatry/VCBH	Executive Committee, Vermont Center on Behavior and Health	Member		
2013- present	Psychiatry/VCBH	Executive Committee, UVM Tobacco Center on Regulatory Science	Member		
2014	Psychiatry	Search Committee for Faculty Position in Tobacco Research	Member		
2016	Psychiatry	Search Committee for Faculty Position in Addiction Psychiatry	Member		
COLLEGE SERVICE					
2005		ean to participate in the Junior Faculty	Participant		

2005	Selected by the Dean to participate in the Junior Faculty	Participant
	portion of the LCME site accreditation visit	
2010 - 2012	UVM College of Medicine Internal Grant Committee	Member

# MEDICAL CENTER SERVICE Years Department

i cai s	Department		
2014 - 2016	UVMMC	Committee to Evaluate Opioid Dosing for Patients in	Member
		the Complex Pain Management Clinic, UVM	
		Medical Center	

# **UNIVERSITY SERVICE**

1999 - 2000	Alumni and Public Relations Committee, University of Vermont	Member
2004 - present	Graduate College	Member
2012 - 2015	Addictions Focus Group, UVM Neuroscience, Behavior and	Member
	Health Spire	
2013 - 2015	Steering Committee, Tobacco-Free UVM Initiative	Member

# **GOVERNMENT**

2005 - 2010	National Institutes of Health	Reviewer, NIH Clinical Research Loan
		Repayment Program
2010	National Institute on Drug Abuse	Member, Special Emphasis Panel on Medications
		Development for Cannabis-Related Disorder
2010	National Institutes of Health	Member, Special Emphasis Panel/Scientific
		Review Group ZDA1 JXR-D (09)
2013	Food and Drug Administration	Provided testimony to the FDA Advisory
		Committee related to new drug application
		204442, PROBUPHINE (buprenorphine
		hydrochloride and ethylene vinyl acetate)

2015		subdermal implant, submitted by Titan Pharmaceuticals, Inc., and its safety and efficacy for the proposed indication of maintenance treatment of opioid dependence
2015	National Institutes of Health	Member, Scientific Review Group on Risk, Prevention and Intervention for Addictions (ZRG1 RPIA-N)
2015	National Institutes of Health	Member, Scientific Review Group on Risk, Prevention and Intervention for Addictions (ZRG1 RPIA)
2015	National Institutes of Health	Special Emphasis Panel/Scientific Review Group ZRG1 RPHB-V (02)
2016	National Institutes of Health	Special Emphasis Panel/Scientific Review Group ZRG1 RPHB-V (02)
2018	National Institutes of Health	Special Emphasis Panel/Scientific Review Group RPHB-W (03)
2018	National Institutes of Health	Special Emphasis Panel/Scientific Review Group ZRG1 MDCN-C(56)
2019	National Institutes of Health	Special Emphasis Panel/Scientific Review Group 05 ZDA1 GXM-A (17)

# **SOCIETY MEMBERSHIPS**

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1996 - present	American Psychological Association (Member)
1996 - present	Association of Behavior Analysis (Full Member)
1996 - present	College on Problems of Drug Dependence (Full Member)
1996 - present	American Psychological Association Division 28 - Psychopharmacology and
•	Substance Abuse (Elected Fellow)
2004 - present	American Psychological Association Division 50 - Society of Addiction Psychology
	(Elected Fellow)
2012 - present	Society for Research on Nicotine and Tobacco (Full Member)

# SERVICE TO PROFESSIONAL ORGANIZATIONS

SERVICE TO FE	NOI ESSIONAL ORGANIZATIONS	
2002 - 2003	American Psychological Association	Program Committee, Division 28
2003 - 2009	College on Problems of Drug	Chair, Contingency Management Working
	Dependence	Group
2004 - 2009	College on Problems of Drug	Member, Publications Committee
	Dependence	
2005 - 2006	American Psychological Association	Program Chair, Division 28
2005 - 2010	American Psychological Association	Member, Executive Committee, Division 28
2008 - 2010	American Psychological Association	Member-at-large, Division 28
2008	American Psychological Association	Member, Awards Committee, Division 28
2012 -	College on Problems of Drug	Member, Committee on Tobacco Control
	Dependence	
2014 - 2019	College on Problems of Drug	Co-Chair, Committee on Tobacco Control
	Dependence	
2014	New England Comparative Public	Clinical Expert at Advisory Council meeting on
	Advisory Council (CEPAC), Institute	the comparative effectiveness of treatments for
	for Clinical and Economic Review	opioid dependence
	(ICER)	·
2014 - 2015	Society of Research on Nicotine and	Member, Program Committee
	Tobacco	•

2015 - 2017	College on Problems of Drug Dependence	Member, Personnel Committee
2016	American Psychological Association, Division 28	President
2017 - 2021	College on Problems of Drug Dependence	Member, Board of Directors
2019 - 2022	College on Problems of Drug Dependence	Member, Executive Committee
2019 - 2020	College on Problems of Drug Dependence	Chair, Nominating Committee
2020 - 2021	College on Problems of Drug Dependence	President
2021 -	Rural Health Equity Research Center, East Tennessee State University	Member, Expert Advisory Board

## SERVICE TO PROFESSIONAL PUBLICATIONS

SERVICE TO F	ROFESSIONAL FUBLICATIONS	
2007	Psychiatric Times	Invited book review of "Behavioral Treatment of
		Substance Abuse in People with Serious and
		Persistent Mental Illness: A Handbook for Mental
		Health Professionals" by Alan S. Bellack,
		Melanie E. Bennett and Jean S. Gearon
2010	Journal of Caffeine Research	Member, Editorial Board
2010 - 2011	Preventive Medicine	Guest Editor, Special Issue on Incentives and Health
2016	Experimental and Clinical	Guest Editor, Special Issue honoring 50 <sup>th</sup>
	Psychopharmacology	anniversary of APA Division 28
2017	Experimental and Clinical	Member, Editorial Board
	Psychopharmacology	

## OTHER:

Ad hoc reviewer for >25 journals, including: Addiction; Addictive Behaviors; Alcoholism: Clinical and Experimental Research, American Journal on Addictions; Annals of Behavioral Medicine; British Medical Journal Case Reports; Clinical Nutrition; Drug and Alcohol Dependence (Rated in the top 5% of reviewers in 2018); Experimental and Clinical Psychopharmacology; Expert Opinion on Pharmacotherapy; JAMA Pediatrics; Journal of Addiction Medicine; Journal of Applied Behavior Analysis; Journal of Behavior Therapy and Experimental Psychiatry; Journal of Consulting and Clinical Psychology; Journal of Studies on Alcohol and Drugs; Journal of Substance Abuse Treatment; Nicotine & Tobacco Research; Pharmacology, Biochemistry and Behavior; PLOS One; Preventive Medicine; Psychopharmacology; Substance Abuse Treatment, Prevention and Policy; Substance Use & Misuse; The American Journal on Addictions; The American Journal of Drug and Alcohol Abuse

# **PUBLIC SERVICE**

2004 -	The Chittenden Center: Opioid Treatment Program	Director
2004 -	Community Advisory Board, The Chittenden Center	Member
2004 - 2008	Scientific Advisory Board, Vermont Division of Alcohol and Drug Programs	Member
2005 -	Prescription Monitoring Program, Vermont Department of Health	Consultant
2011 - 2015	Maternal Mortality Review Board, Vermont Department of Health	Member
2011 - 2013	New Hampshire Medicaid Incentives for Weight Loss and Smoking Cessation, NH Department of Health and Dartmouth School of Medicine	Consultant

2012 - 2015	Committee to Revise the Vermont Buprenorphine Treatment Guidelines, Department of Vermont Health Access, State of Vermont	Member
2012 - 2014	CDC grant PS12-1201: Innovative, High Impact HIV Prevention for Injection Drug Users, Vermont Department of Health	Consultant
2012	Provided testimony to the Human Services Committee of the Vermont House of Representatives on H.745 – An Act Relating to the Vermont Prescription Monitoring System	
2012	Clinical & Scientific Leaders Committee to Develop a Hub & Spoke Buprenorphine Treatment System, Department of Vermont Health Access	Member
2013 -	Substance Abuse Advisory Board, Howard Center for Human Services	Member

## **SUMMARY OF SERVICE ACTIVITIES**

Since 2004 I have been dedicated to the service of Vermont public health through leadership of the Chittenden Center, the first and largest opioid treatment clinic in Vermont. We now treat 1,000 opioid-dependent Vermonters and employ >60 staff. I have been elected to serve as President of the primary professional organizations in my field (i.e., APA, CPDD). I have served scientific and professional organizations in numerous other capacities, including Program Chair, Member-at-Large, Executive Committee Member, and Chair of numerous committees and symposia. I have served as Guest Editor and Editorial Board member of peer-reviewed scientific journals and as an ad hoc reviewer for >25 journals. I have served NIH as ad hoc reviewer on numerous study sections. I have served on a variety of national, state, community, and university committees, including for the Vermont Department of Health (e.g., Maternal Mortality Review Board, Prescription Monitoring Program, Committee to Revise the Vermont Buprenorphine Treatment Guidelines) and Howard Center for Human Services (e.g., Community Advisory Board, Substance Abuse Advisory Board). As PI of the UVM Center on Rural Addiction, I am leading efforts to serve providers and patients throughout New England by providing education, technical assistance and workforce development to providers and staff in rural, underserved communities.

## **TEACHING**

Year	Name	Approximate number and type of attendees	Commitment	Lecture/ discussion topic
2004-present (16 years)	NIDA Pre/Postdoctoral Trainee Journal Seminar on Behavioral Pharmacology and Substance Abuse Treatment	8-16 Graduate/ Predoctoral and postdoctoral trainees in human behavioral pharmacology and clinical research	One hour weekly during academic year	Various research articles, textbooks, other scholarly writings
2005 – 2016 (11 years)	UVM COM Neural Sciences (MD 577)	100 First-year medical students	Annually for 1 hour	Epidemiology, pharmacology and clinical management of opioid and cocaine use disorders
2005 – 2016 (11 years)	Department of Psychiatry Substance Abuse Seminar	~5 PGY2 and PGY3 Residents	Annually for 1.5 hours per class	Neurobiology and clinical management of patients with opioid use disorder

2005	Summer Training Fellowship for Medical Students, UVM Human Behavioral Pharmacology Laboratory	3 UVM Medical Students	Once for 2 hours	Treating patients with substance use disorders
2007 – 2012 (5 years)	Selected Topics on Behavior, Neurobiology & Health (UVM PSYC 380)	6-10 Dept of Psychological Science graduate students	Annually for 2 hours per class	Treating patients with opioid use disorder
2007 – 2016 (9 years)	Department of Psychiatry Advanced Psychiatric Neuroscience Seminar	~4 PGY4 Psychiatry Residents	Annually for 2 hours per class	Opioid pharmacology, epidemiology and clinical treatment of opioid dependence
2008	UVM College of Medicine, Community Medical School Lecture Series	~75 community members, university faculty and staff	Once for 2 hours	Evidence-based opioid treatment and research
2009	Training in the Neuroscience of Drug Abuse, Vermont Addiction Professionals Association (VAPA)	~20 clinicians, nurses, case managers and other addiction professionals	Once for 6 hours	6-hour seminar on the pharmacology, neurobiology, epidemiology, treatment and clinical management of opioid, cocaine and nicotine dependence
2015	Chittenden Clinic Methadone Service	45 clinicians, case managers, medical and administrative staff	Once for 1.5 hours	In-service for all clinical staff on functional analysis of cocaine and other drug use, as well as a behavioral approach to drug abuse more generally

## OTHER:

- 1997 Instructor, Introduction to Psychology, Community College of Vermont
- 1999 Teaching Assistant, Psychopharmacology, University of Vermont
- 2004-2015 Coordinator of medical student and resident rotations in The Chittenden Center methadone clinic, UVM Department of Psychiatry: Assist with education of medical students and Residents, including coordinating rotations in The Chittenden Center methadone program and the Substance Abuse Treatment Center and lectures in behavioral pharmacology and evidence-based treatments for drug abuse
- 2005-present Co-Investigator on NIDA-funded training grant, "Behavioral Pharmacology of Human Drug Dependence", University of Vermont: Serve as co-investigator in training grant (T32 DA007242) the supports the training of predoctoral, postdoctoral and medical students in the factors associated with the development, maintenance, and cessation of drug abuse in humans
- 2007-present Faculty Member, UVM Neuroscience Graduate Program: Faculty member of the UVM Neuroscience graduate program which aims to provide rigorous training in neuroscience research, including the areas of molecular, cellular, developmental, systems and biobehavioral neuroscience (<a href="http://www.uvm.edu/~neurogp/?Page=faculty.html">http://www.uvm.edu/~neurogp/?Page=faculty.html</a>)
- 2013-present Co-Investigator on NIH/FDA-funded P50 center grant, "UVM Tobacco Center on Regulatory Science": Serve as co-investigator and training faculty on a large-scale, NIH- and FDA-funded P50 center grant (P50 DA036114) to support the training of predoctoral and postdoctoral fellows in tobacco regulatory science
- **2019-present** Director and PI of HRSA-funded Center grant, "UVM Center on Rural Addiction": *This RCORP-RCOE Center of Excellence (P50 DA036114) will support the*

- training and professional development of rural providers and staff in evidence-based practices for preventing and treating addiction
- 2019-present Primary Mentor to junior faculty (COBRE Project Director Kelly Peck, Ph.D., Assistant Professor of Psychiatry, University of Vermont) as part of our COBRE center grant from NIGMS

# PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program School	Role	Current Position
2005 - 2009	Kelly Dunn**	Psychological Science, University of Vermont	Mentor, M.A. Advisor Ph.D. Advisor	Assistant Professor, Johns Hopkins School of Medicine
2009 - 2014	Mollie Patrick	Psychological Science, University of Vermont	Mentor, M.A. Advisor Ph.D. Advisor	Tobacco Regulatory Science Fellow, FDA Center for Tobacco Products
2014 - 2019	Taylor Ochalek	Psychological Science, University of Vermont	Mentor, M.A. Advisor Ph.D. Advisor	NIDA Postdoctoral Fellow, Virginia Commonwealth University
2014 - 2019	Joanna Streck	Psychological Science, University of Vermont	Mentor, Ph.D. Advisor	Clinical Internship, Harvard/Massachusetts General Hospital
2019 -	Tanya Oleskowicz	Psychological Science, University of Vermont	Mentor, Ph.D. Advisor	
2019 -	Rhiannon Wiley	Psychological Science, University of Vermont	Mentor, Ph.D. Advisor	

<sup>\*\*</sup>Note: Dr. Dunn was my first graduate student and I served as her primary mentor throughout her graduate training at UVM. She received the 2010 Outstanding Dissertation Award from the American Psychological Association, which honors the best recent doctoral dissertation in psychopharmacology and substance abuse and resulted in an invited publication describing her work in Experimental and Clinical Psychopharmacology, 2011. In 2015, Dr. Dunn received the Young Psychopharmacologist Award from the American Psychological Association, which recognizes a young scientist doing original, meritorious work in psychopharmacology and encourages excellence in research at the interface between the disciplines of pharmacology and psychology. Dr. Dunn is now on the faculty of the Johns Hopkins School of Medicine and has been awarded 4 R01, 1 R34, 1 R21 and 1 UG grants for a total of \$12 million in external funding to date.

## **DISSERTATION/THESIS COMMITTEE MEMBERSHIP**

Dates	Name	Program School	Role
2005	Kirstin Gatchalian	Psychological Science, University of Vermont	M.A. Thesis Committee (Chair)
2008	Katherine Ryan	Ph I) Dissertation (3d	
2005 - 2009	Kelly Dunn	Psychological Science, University of Vermont	Graduate Advisor M.A. Thesis Committee Preliminary Project Committee

			Ph.D. Dissertation Committee
2009	Erica Peters	Psychological Science, University of Vermont	Ph.D. Dissertation Committee
2009 - 2014	Mollie Patrick	Psychological Science, University of Vermont	Graduate Advisor M.A. Thesis Committee Preliminary Project Committee Ph.D. Dissertation Committee
2009 - 2014	Alexa Lopez	Psychological Science, University of Vermont	M.A. Thesis Committee Preliminary Project Committee Ph.D. Dissertation Committee
2010 - 2015	Laura Chivers	Psychological Science, University of Vermont	Preliminary Project Committee Ph.D. Dissertation Committee
2011 - 2013	Evan Herrmann	Psychological Science, University of Vermont	M.A. Thesis Committee Preliminary Project Committee Ph.D. Dissertation Committee
2008 - 2012	Matt Bradstreet	Psychological Science, University of Vermont	M.A. Thesis Committee Preliminary Project Committee Ph.D. Dissertation Committee
2012 - 2013	Jennifer Fenn	Nursing, University of Vermont	M.S. Thesis Committee (Chair)
2013	Sarah Gallalee	Geography, University of Vermont	Undergraduate Honors Thesis Committee (Chair)
2015 - 2016	Joanna Streck	Psychological Science, University of Vermont	Graduate Advisor Second Year Project Committee Ph.D. Dissertation Committee
2016 - 2017	Taylor Ochalek	Psychological Science, University of Vermont	Graduate Advisor M.A. Thesis Committee Ph.D. Dissertation Committee
2014 - 2016	Cecilia Bergeria	Psychological Science, University of Vermont	M.A. Thesis Committee
2016 -	Heidi Melbostad	Psychological Science, University of Vermont	Preliminary Project Committee
2016 - 2017	Danielle Davis	Psychological Science, University of Vermont	Preliminary Project Committee
2018 - 2019	Cecilia Bergeria	Psychological Science, University of Vermont	PhD. Dissertation Committee
2020-2021	Martha M. Whitfield	School of Nursing, Queen's University at Kingston, Ontario, Canada	Comprehensive Examination Committee

# POSTDOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED

Dates Nam	Fellow	Faculty Ro	ole Current Position
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2005	Mark McGee, M.D.	Medical Student	Mentor, Research Supervisor	President, Alpine Telehealth; Previously Chief Medical Officer, Brattleboro Retreat, VT
2006 - 2007	Todd McKerchar, Ph.D.	Postdoctoral Fellow	Mentor, Research Supervisor	Associate Professor of Psychology, Jacksonville State University
2008 - 2011	Kathryn Saulsgiver, Ph.D.	Postdoctoral Fellow	Mentor, Research Supervisor	Senior Research Investigator at the Center for Health Incentives and Behavioral Economics, University of Pennsylvania
2012 - 2015	Andrew Meyer, Ph.D.	Postdoctoral Fellow	Mentor, Research Supervisor	Research Scientist, Otsuka Pharmaceuticals
2014 - 2015	Bryce Hruska, Ph.D.	Postdoctoral Fellow	Mentor, Research Supervisor	Research Assistant Professor, Syracuse University
2016 - 2019	Maria Parker, Ph.D.	Postdoctoral Fellow	Mentor, Research Supervisor	Assistant Professor of Epidemiology and Biostatistics, Indiana University
2017 - 2019	Kelly Peck, Ph.D.	Postdoctoral Fellow	Mentor, Research Supervisor	Assistant Professor of Psychiatry, University of Vermont

Below are representative publications from my prior trainees (trainees noted in **bold**):

- 1. **Dunn, K.E.**, Sigmon, S.C., McGee, M.R., Heil, S.H., & Higgins, S.T. (2008). Evaluation of ongoing oxycodone abuse among methadone-maintained patients. <u>Journal of Substance Abuse Treatment</u>, 35, 451-456.
- 1. **Dunn, K.E.**, Sigmon, S.C., Thomas, C.S., Heil, S.H. & Higgins, S.T. (2008). Voucher-based contingent reinforcement of smoking abstinence among methadone-maintained patients: A pilot study. Journal of Applied Behavior Analysis, 41, 527-538.
- 2. Sigmon, S.C., **Dunn, K.E.**, Badger, G.J., Heil, S.H., & Higgins, S.T. (2009). Brief buprenorphine detoxification for the treatment of prescription opioid dependence: A pilot study. Addictive Behaviors, 34, 304-311.
- 3. **Dunn, K.E.**, Sigmon, S.C., Reimann, E., Heil, S.H., & Higgins, S.T. (2009). Effects of smoking cessation on illicit drug use among opioid maintenance patients. <u>Journal of Drug</u> Issues, Vol. 39(2), 313-328.
- 4. Dunn, K.E., Sigmon, S.C., Reimann, E.F., Badger, G.J., Heil, S.H., & Higgins, S.T. (2010). A contingency-management intervention to promote initial smoking cessation among opioid-maintained patients. Experimental and Clinical Psychopharmacology, 18 (1), 37-50. Note: This publication reports the results of the dissertation of my first predoctoral student, who received the Outstanding Dissertation Award from Division 28 of the American Psychological Association.
- 5. **Dunn, K., Saulsgiver, K.**, & Sigmon, S.C. (2011). Contingency management for behavior change: Applications to promote smoking cessation among opioid-maintained patients. Experimental and Clinical Psychopharmacology, 19, 20-30.
- 6. **Dunn, K.E.**, Sigmon, S.C., Strain, E., Heil, S.H., & Higgins, S.T. (2011). The association between outpatient buprenorphine detoxification duration and clinical treatment outcomes: A review. <u>Drug and Alcohol Dependence</u>, 119 (1-2), 1-9.
- 7. Sigmon, S.C., & Patrick, M.E. (2012). The use of financial incentives in promoting smoking

- cessation. Preventive Medicine, 55, 24-32.
- 8. **Dunn, K.E., Saulsgiver, K.A., Patrick, M.E.**, Heil, S.H., Higgins, S.T., & Sigmon, S.C. (2013). Characterizing and improving HIV and hepatitis knowledge among primary prescription opioid abusers. <u>Drug and Alcohol Dependence</u>, 133, 625-632.
- 9. Sigmon, S.C., **Dunn, K., Saulsgiver, K., Patrick, M.**, Badger, G.J., Heil, S.H., Brooklyn, J., & Higgins, S.T. (2013). A randomized, double-blind evaluation of buprenorphine taper duration in primary prescription opioid abusers. <u>JAMA Psychiatry</u>, 70(12), 1347-1354.
- 10. **Patrick, M.E., Dunn, K.E.**, Badger, G.J., Heil, S.H., Higgins, S.T., & Sigmon, S.C. (2014). Spontaneous reductions in smoking during double-blind buprenorphine detoxification. <u>Addictive Behaviors</u>, 39, 1353-1356.
- 11. **Dunn, K., Saulsgiver, K., Miller, M.E.**, Nuzzo, P.A., & Sigmon, S.C. (2015). Characterizing opioid withdrawal during double-blind buprenorphine detoxification. <u>Drug and Alcohol Dependence</u>, 151, 47-55.
- 12. **Meyer, A.C., Miller, M.E.**, & Sigmon, S.C. (2015). Lifetime history of heroin use is associated with greater drug severity among prescription opioid abusers. <u>Addictive</u> Behaviors, 42, 189-193.
- 13. **Miller, M.E.**, Badger, G.J., Heil, S.H., Higgins, S.T., & Sigmon, S.C. (2015). Associations between sensation seeking and *d*-amphetamine reinforcement. <u>The American Journal on Addictions</u>, 24(5):435-42.
- 14. **Miller, M.E.**, & Sigmon, S.C. (2015). Are pharmacotherapies ineffective in opioid-dependent smokers? Reflections on the scientific literature and future directions. <u>Nicotine and Tobacco Research</u>, 17(8), 955-959.
- 15. Sigmon, S.C., **Meyer, A.C., Hruska, B., Ochalek, T.**, Rose, G., Badger, G.J., Brooklyn, J.R., Heil, S.H., Higgins, S.T., Moore, B.A., & Schwartz, R.P. (2015). Bridging waitlist delays with Interim Buprenorphine Treatment: Initial feasibility. <u>Addictive Behaviors, 51</u>, 136-142.
- 16. **Dunn, K.E.**, Barrett, F.S., Herrmann, E., Plebani, J., Sigmon, S.C. & Johnson, M.W. (2016). Behavioral Risk Assessment for Infectious Diseases (BRAID): Self-report measure to assess injection and non-injection risk behaviors in substance users. <u>Drug and Alcohol Dependence</u>, 168, 69-75.
- 17. **Dunn, K.E.**, Barrett, F.A., Yepez-Laubach, C., **Meyer, A.C., Hruska, B.J.**, Petruch, K., Berman, S., Sigmon, S.C., Fingerhood, M. & Bigelow, G.E. (2016). Opioid overdose experience, risk behaviors, and knowledge in drug users from rural versus urban settings. <u>Journal of Substance Abuse Treatment, 71</u>, 1-7.
- 18. **Dunn, K.E.**, Barrett, F.A., Yepez-Laubach, C., **Meyer, A.C.**, **Hruska, B.J.**, Sigmon, S.C., Fingerhood, M., & Bigelow, G.E. (2016). Brief Opioid Overdose Knowledge (BOOK): A questionnaire to assess overdose knowledge in individuals who use illicit or prescribed opioids. <u>Journal of Addiction Medicine</u>, 10(5), 314-323.
- 19. Sigmon, S.C., **Miller, M., Meyer, A.C., Saulsgiver, K.**, Badger, G.J., Heil, S.H. & Higgins, S.T. (2016). Financial incentives to promote extended smoking abstinence in opioid-maintained patients: A randomized trial. Addiction, 111(5), 903-912
- 20. Sigmon, S.C., **Ochalek, T., Meyer, A., Hruska, B.**, Heil, S.H., Badger, G.J., Rose, G., Brooklyn, J.R., Schwartz, R.P., Moore, B.A. & Higgins, S.T. (2016). Interim buprenorphine vs. waiting list for opioid dependence. <u>The New England Journal of Medicine</u>, 375(25), 2504-2505.
- 21. **Ochalek, T.**, Heil, S.H., Higgins S.T., Badger, G.J. & Sigmon, S.C. (2018). A novel *m*Health application for improving HIV and Hepatitis C knowledge in individuals with opioid use disorder: A pilot study. <u>Drug and Alcohol Dependence</u>, 190, 224-228.
- 22. **Parker, M.A., Streck, J.M.**, & Sigmon, S.C. (2018). Associations between opioid and nicotine dependence in nationally representative samples of United States adult daily smokers. Drug and Alcohol Dependence 186, 167-170.
- 23. **Streck**, **J.**, Heil, S.H., Higgins, S.T., Bunn, J.Y., & Sigmon, S.C. (2018). Tobacco withdrawal among opioid-dependent smokers. <u>Experimental and Clinical Psychopharmacology</u>, 26(2), 119-124. (PMID: 29389213)
- 24. Streck, J., Ochalek, T., Miller, M.E., Meyer, A.C., Badger, G.J., Teneback, C.C., Dixon,

- A.E., Higgins, S.T. & Sigmon, S.C. (2018). Promoting smoking abstinence among patients with chronic obstructive pulmonary disease: Initial feasibility. <u>Preventive Medicine Reports</u>, 11, 176-179.
- 25. **Streck**, **J.**, **Ochalek**, **T.**, & Sigmon, S.C. (2018). Interim buprenorphine treatment during delays to comprehensive treatment: Changes in psychiatric symptoms. <u>Experimental and Clinical Psychopharmacology</u>, 26(4), 403-409.
  - Note: This study was selected for coverage in NIDA Notes (March 27, 2019), a monthly newsletter published by NIDA for the last 25 years highlighting research findings on drug abuse and addiction.
- 26. **Peck, K.R., Parker, M.A.**, & Sigmon, S.C. (2019). Reasons for non-medical use of prescription opioids among young adults: Role of educational status. <u>Preventive Medicine, 128</u>, 105684. doi: 10.1016/j.ypmed.2019.03.047.

# **CE/CME TEACHING**

- 1. **Sigmon, S.C.** (2001). Effects of psychomotor stimulants on the reinforcing effects of cigarette smoking and monetary reinforcement. Behavioral Pharmacology Research Unit, Department of Psychiatry, The Johns Hopkins University School of Medicine, Baltimore, MD (CE).
- 2. **Sigmon, S.C.** (2003). Behavioral approach to substance abuse treatment: A look at the empirical support. Psychiatric Research Center, Dartmouth Medical School, Dartmouth College, Lebanon, NH (CE).
- 3. **Sigmon, S.C.** (2006). Investigating the factors that modulate drug reinforcement. University of Vermont Psychiatry Grand Rounds, Burlington, VT (CME).
- 4. **Sigmon, S.C.** (2007). Current issues in opioid behavioral pharmacology and treatment. Department of Psychiatry Grand Rounds, Dartmouth Medical School, Hanover, NH (CE).
- 5. **Sigmon, S.C.** (2009). Opioids, cocaine and nicotine: Pharmacology, neurobiology, epidemiology, treatment and research. Invited workshop, Vermont Addictions Professionals Association, Colchester, VT (CE).
- Sigmon, S.C. (2014). Innovative approaches to minimizing medication nonadherence, abuse and diversion in opioid addiction and/or chronic pain patients. Participated in workshop, "Diagnostic and Assessment Considerations for the Treatment of Comorbid Opioid Addiction and Chronic Pain" (NIDA, chair) held at the 167<sup>th</sup> Annual Meeting of the American Psychiatric Association, New York, NY (CME).
- 7. **Sigmon, S.C.** (2015). Diagnostic and Assessment Considerations for the Treatment of Comorbid Opioid Addiction and Chronic Pain. American Psychiatric Association, New York, NY. (CME and Psychiatric Resident Educational Program).
- 8. **Sigmon, S.C.** (2016). Developing and evaluating novel treatments for opioid dependence. Department of Psychiatry Grand Rounds, Johns Hopkins School of Medicine, Baltimore, MD (CME).
- 9. **Sigmon, S.C.** (2017). Interim buprenorphine treatment reduces illicit opioid use during treatment delays. Invited lecture to the Research Institute on Addictions, SUNY-Buffalo, Buffalo, NY (CE).

## **UVM FACULTY MENTORED**

Kelly Peck, Ph.D., Assistant Professor of Psychiatry, University of Vermont

# **OTHER VISITING FACULTY SUPERVISED**

Not applicable

# **TEACHING AIDS**

Not applicable

## **TEACHING AWARDS AND NOMINATIONS**

Not applicable

## **SUMMARY OF TEACHING ACTIVITIES**

My teaching responsibilities lie primarily in mentoring. Since 2005 I have served as primary mentor for 13 pre- and post-doctoral fellows, member or chair of 19 thesis and dissertation committees, and as primary mentor for a junior faculty Project Director as part of our COBRE center grant. I lecture in graduate, medical student, and resident courses at UVM and have given numerous CE/CME presentations throughout the US. I regularly present to non-academic audiences (e.g., UVMMC Board of Trustees, Vermont Health Commissioner and legislature, UVMMC Community Rounds, Psychiatry Community Briefing) and addiction professionals (e.g., Vermont Addictions Professionals Association). I have co-authored chapters in 15 textbooks to facilitate the dissemination of evidence-based clinical practice to students and clinicians.

As 2016 President of APA's Division on Psychopharmacology and Substance Abuse, I created the <u>Division 28 APA Undergraduate Scholarship</u> to provide undergraduate psychology majors an opportunity to attend the annual conference to learn about psychopharmacology and substance abuse research. As Director of the **UVM Center on Rural Addiction**, I lead efforts to support the training of rural providers and staff in evidence-based practices (<a href="https://uvmcora.org/what-we-do/">https://uvmcora.org/what-we-do/</a>). This includes a **Best-Practices Training Scholarship Program** to bring physicians and staff from VT, NH, ME and Northern NY to UVM for in-person training in science-based methods for treating addiction, as well as a **Community Rounds Workshop Series** with CME/CU credits to be offered to support attendance by providers in rural areas.

## **RESEARCH AND SCHOLARLY ACTIVITIES**

## **RESEARCH AWARDS AND GRANTS**

# **Ongoing Support**

UD9RH33633

RCORP-RCOE Center of Excellence

Agency: Health Resources & Services Administration University of Vermont Center on Rural Addiction

09/01/19 - 08/31/22

Role: PI and Center Director

The current US opioid epidemic represents one of the most devastating public health crises of our time. There is a critical need to leverage evidence-based tools to expand opioid use disorder (OUD) treatment capacity and reduce opioid-related morbidity and mortality in rural communities, which have been disproportionately impacted. With this HRSA center award we established the UVM Center on Rural Addiction to identify, translate, disseminate and implement science-based practices to address the rural OUD epidemic, as well as future substance use disorder epidemics as they emerge.

Total costs: \$10,365,921

R01 DA042790 Agency: NIH/NIDA

Interim Buprenorphine Treatment to bridge waitlist delays: Stage II evaluation

09/01/17 - 07/31/21

Role: PI

We have developed a novel Interim Buprenorphine Treatment that leverages pharmacotherapy, state-of-the-art technology and rigorous methodology to bridge existing delays in treatment access. In an initial R34 randomized pilot study, we demonstrated reductions in illicit opioid use and risk behaviors among waitlisted opioid abusers receiving IBT. This project will seek to

replicate those highly promising initial results while simultaneously evaluating generality of our findings to additional rural settings outside our single academic medical center.

Total costs: \$3,715,109

Agency: Laura and John Arnold Foundation

# Interim Buprenorphine Treatment to reduce individual and societal harm during delays to opioid treatment: Extended duration

08/10/17 - 01/31/21 (NCE)

Role: PI

We have developed a novel Interim Buprenorphine Treatment that leverages pharmacotherapy, state-of-the-art technology and rigorous methodology to bridge existing delays in treatment access. In an initial R34 randomized pilot study, we demonstrated reductions in illicit opioid use and risk behaviors among waitlisted opioid abusers receiving IBT. This project will seek to replicate those highly promising initial results while simultaneously evaluating generality of our findings to a longer treatment duration.

Total costs: \$776, 474

UG3 DA044830 Agency: NIH/NIDA

# Drug Injection Surveillance and Care Enhancement for Rural Northern New England (DISCERNNE)

8/1/17 - 7/31/22

Role: Consultant (PI: Friedmann)

This study will examine the epidemiology of injection drug use, its infectious consequences, and service accessibility among young persons who inject drugs in rural counties in Maine, New Hampshire and Vermont, and then implement an integrated telemedicine approach to treat OUD and reduce HIV, HCV, STIs, major bacterial infections (e.g. infective endocarditis, septic arthritis, osteomyelitis, epidural abscess) and overdose.

Total costs: \$400,000

U54DA036114-06 Agency: NIH/FDA 09/30/13 – 08/31/23

Role: Center Grant Co-I, PI of Project 2, Training Mentor of Pre- and Post-doctoral Fellows (PI:

Higgins)

## **University of Vermont Tobacco Center on Regulatory Science**

The prevalence of smoking remains high among individuals with concomitant other vulnerabilities (e.g., substance use, affective disorders, socioeconomic disadvantage) and is associated with significant smoking-related morbidity and mortality. The UVM TCORS assists the FDA CTP mission by investigating the impacts of tobacco product use on addiction, behavior, and health biomarkers and outcomes in vulnerable populations. A primary focus of this center is on investigating the effects of extended exposure to reduced-nicotine cigarettes on smoking rate, toxicants, health effects, and other measures in populations of vulnerable smokers.

Annual total costs: \$2,812,652

P20GM103644

Agency: NIH/NIGMS

## **Vermont Center on Behavior and Health**

09/15/13 - 07/31/2023

Role: Center Grant Co-Investigator and Core Director (PI: Higgins)

Our center investigates relationships between personal behavior patterns (e.g., substance abuse, sedentary lifestyle, medication non-adherence) and risk for chronic disease and premature

death. The overarching focus is on developing and evaluating clinical interventions for these risk behaviors and examining biases in decision-making.

Total costs: \$11,563,458

4P20GM103644 Agency: NIH/NIGMS

# VCBH COBRE Project: Treating Posttraumatic Stress Disorder in Patients with Opioid Use Disorder

03/01/19 - 07/31/21

Role: Project Director Mentor

The co-occurrence of opioid use disorder (OUD) and posttraumatic stress disorder (PTSD) is associated with more severe mental health symptoms and worse opioid agonist treatment (OAT) outcomes relative to either diagnosis alone. In research by our group and others, prolonged exposure therapy (PET) has been associated with reductions in PTSD symptom severity among patients receiving treatment for concomitant OUD. However, it is unclear to what extent observed improvements in PTSD symptom severity are a function of PET versus the psychopharmacological effects of OAT. This project will seek to evaluate the effects of PET above and beyond OAT for reducing PTSD symptomatology among patients with concurrent PTSD and OUD.

Total costs: \$500,000

1R01HD078332-01 Agency: NIH/NICHD

# Behavioral Economic Approach to Reducing Maternal Smoking in Disadvantaged Women

09/01/13 – 08/31/18 Role: Co-I (PI: Higgins)

We are examining new strategies for helping economically disadvantaged mothers of young children to quit smoking and better protect their children from the harmful effects of being regularly exposed to cigarette smoke.

Total costs: \$2,903,033

1R01DA036670 Agency: NIH/NIDA

# Improving effective contraceptive use among opioid-maintained women: Stage II

09/01/13 - 05/31/19 Role: Co-I (PI: Heil)

This study will more fully test a contraceptive management intervention that aims to increase use of more effective contraceptives among opioid-maintained women. The proposed project will dismantle the intervention to examine the contribution of each component and will further our overarching goal of developing an efficacious, empirically based contraceptive management program that can be disseminated to drug treatment facilities throughout the country.

Total costs: \$3,584,118

T32 DA007242 Agency: NIH/NIDA

# **Training in Behavioral Pharmacology of Drug Abuse**

09/30/90 - 05/31/21

Role: Co-I, Training Mentor of Pre- and Post-doctoral Fellows (PI: Higgins)

This training program focuses on human behavioral pharmacology, which fills a unique niche in addiction research. Our fellows learn to identify basic behavioral and pharmacological processes underpinning addiction and to translate that knowledge into effective clinical interventions and policy.

Total costs: \$2,815,554

Agency: SAMHSA

# **Expansion of Low Barrier MAT Access and Treatment Support (FOA TI-18-009)**

09/30/18 - 09/29/21

Role: Consultant/Grant Evaluator

The primary purpose of the project is to expand access to medication-assisted treatment (MAT) for adults with opioid use disorder (OUD) who have otherwise been unsuccessful in MAT, as

well as support treatment retention.

Total costs: \$1,574,010

## **Completed Research Support**

R01DA019989 Agency: NIH/NIDA 07/01/06 – 06/30/10

## **Effective Treatment for Prescription Opioid Abuse**

Role: P

The overarching goal of this project is to develop a manualized, efficacious treatment for prescription opioid abuse. Despite the alarming recent increase in prescription opioid abuse, we know of no published studies evaluating treatments for this emerging population. Two experimental studies are proposed to programmatically evaluate a combined behavioral (Community Reinforcement Approach) and pharmacological (buprenorphine detoxification followed by a regiment of naltrexone therapy) treatment for prescription opioid abuse.

Total costs: \$2,409,677

R01DA019550 Agency: NIH/NIDA 07/01/07 – 06/30/13

# **Incentive-Based Smoking Cessation for Methadone Patients**

Role: PI

This project aims to develop a voucher-based smoking cessation intervention in opioid-maintained cigarette smokers. First, we will develop and test a voucher-based intervention to promote smoking abstinence during the initial 2 weeks of the cessation effort. Second, we will develop and test the efficacy of a voucher-based intervention that seeks to sustain smoking abstinence after the intensive 2-week program is discontinued. The overall goal is to produce an efficacious, empirically-based smoking cessation intervention that can be easily disseminated to clinics throughout the country.

Total costs: \$1,755,931

R34DA037385 Agency: NIH/NIDA

# Interim Treatment: Leveraging Buprenorphine & Technology to Bridge Waitlist Delays

04/01/14 - 03/31/16

Role: PI

We are leveraging efficacious pharmacotherapy, state-of-the-art technology and rigorous methodology to develop a novel Interim Buprenorphine Treatment that can bridge these delays in treatment access. This project will produce a highly innovative technology-assisted pharmacotherapy protocol that can be widely disseminated to increase access to life-saving opioid treatment. The primary outcomes from this project were published in December 2016 in *The New England Journal of Medicine*.

Total costs: \$651,938

R03 DA027480

Agency: National Institute on Drug Abuse

# Individual differences in stimulant reinforcement as a function of DRD2 allele

9/1/09 - 8/31/11

Role: PI

In this NIDA-funded R03, we examined whether carriers and noncarriers of the DRD2 polymorphism, prospectively identified, respond differentially in terms of sensitivity to subjective and reinforcing effects, to multiple doses of *d*-amphetamine.

Total costs: \$451,428

P50 DA036114 Agency: NIH/FDA

## **UVM Tobacco Center on Regulatory Science**

09/01/13 - 08/31/18

Role: Center Grant Co-I, PI of Project 2, Training Mentor of Pre- and Post-doctoral Fellows (PI:

Higgins)

Our Center is dedicated to researching tobacco products in vulnerable populations, currently an evaluation of reduced nicotine cigarettes in women of childbearing age, individuals with comorbid opioid dependence, and individuals with psychiatric illness. We also coordinate a pre- and post-doctoral training program in tobacco regulatory science.

Total costs: \$19,409,157

P20 GM103644 Agency: NIH/NIGMS

# **Vermont Center on Behavior and Health**

09/15/13 - 07/31/18

Role: Center Grant Co-Investigator and Core Director (PI: Higgins)

Our center investigates relationships between personal behavior patterns (e.g., substance abuse, sedentary lifestyle, medication non-adherence) and risk for chronic disease and premature death. The overarching focus is on developing and evaluating clinical interventions for these risk behaviors and examining biases in decision-making.

Total costs: \$11,455,592

R01 DA031928 Agency: NIH/NIDA

## Testing the Reliability and Validity of Pupil Diameter in Opioid-Exposed Neonates

09/15/12 - 07/31/15 (NCE)

Role: Co-I (PI: Heil)

The objectives of this proposal are to test the reliability and validity of pupil diameter as a measure of neonatal abstinence syndrome (NAS) in neonates exposed to opioids in utero. This measure has the potential to provide a more sensitive and objective measure of NAS and to significantly improve the assessment and treatment of these vulnerable infants.

Total costs: \$1,237,528

G02 HP28002

Agency: Health Resources and Services Administration

# The University of Vermont Clinical Psychology Internship Program (CPIP): Developing Vermont's behavioral workforce to support at-risk youth and families

09/30/14 - 9/29/17

Role: Co-I, Training Mentor of Clinical Psychology Students (PI: Fondacaro)

Total costs: \$370,285

This program focuses on the training and professional development of clinical psychology students, with a focus on the CPIP internship program that supports development of clinical psychologists dedicated to working with high-risk children and their families.

Agency: REACH Grant Program, UVM Office of the Vice President for Research

**Intervention for Opioid-Dependent Parents** 

5/1/17 - 8/1/18

Role: Co-I (PI: Forehand)

This project seeks to develop an education-based intervention for supporting parents of young

children who also meet criteria for opioid use disorder.

Total Costs: \$35,440

Agency: Indivior, PLC

# Understanding use of opioid medications by patients and non-patients

08/01/17 - 07/31/18

Role: PI

In this study we examined individual characteristics and factors associated with illicit (non-

prescribed) buprenorphine use among adults residing in rural areas.

Total costs: \$235,221

R01 DA00937 Agency: NIH/NIDA

Treating cocaine abuse: A behavioral approach

04/01/08 – 03/31/13 Role: Co-I (PI: Higgins)

This project was aimed at developing and evaluating the efficacy of a behavioral intervention for

promoting cocaine abstinence among cocaine-dependent adult outpatients.

Total costs: \$3,195,612

R01DA018410 Agency: NIH/NIDA

# **Maternal Opioid Treatment: Human Experimental Research**

10/01/04 – 09/31/09 Role: Co-I (PI: Heil)

The objective of this multi-site clinical trial is to evaluate the possible differential impact of buprenorphine and methadone on both neonatal and maternal outcomes in opioid-dependent pregnant women. Results from this study will also provide data to guide FDA review of these medications for the treatment of opioid dependence during pregnancy.

Total costs: \$2,211,838

R01DA022491 Agency: NIH/NIDA

## **Characterizing Nicotine Withdrawal in Pregnant Smokers**

6/01/08 – 05/11/11 Role: Co-I (PI: Heil)

The objectives of this study are to 1) perform a thorough examination of elevated baseline nicotine withdrawal symptomatology in pregnant smokers and 2) provide a comprehensive characterization of nicotine withdrawal following a quit attempt. Results will have implications for the treatment of smoking during pregnancy, particularly pharmacotherapies whose mechanism of action is the reduction of withdrawal symptomatology.

Total costs: \$1,012,677

R34DA030534 Agency: NIH/NIDA

# Improving Effective Contraceptive Use among Opioid-Maintained Women

08/01/11 – 06/30/13 Role: Co-I (PI: Heil)

The objective of this study is to develop and pilot test an intervention that aims to promote the use of more effective contraceptives among opioid-maintained women at risk for unintended pregnancy. Development of such an intervention has the potential to reduce the vast economic and societal costs associated with unintended pregnancy among drug-dependent women.

Total costs: \$603,900

R03DA017813 Agency: NIH/NIDA

# Early Abstinence's Effect on Later Abstinence in Smokers

05/01/04 - 04/31/06 Role: Co-I (PI: Heil)

The proposed study is designed to rigorously and experimentally evaluate whether a period of early abstinence from cigarette smoking, induced using financial incentives contingent on biochemically-verified abstinence, decreases longer-term relapse risk.

Total costs: \$151,500

R01 DA032687

Agency: National Institute on Drug Abuse

# Does smoking cessation cause anhedonia: A test of pre-clinical findings

8/15/11 – 4/30/14 Role: Co-I (PI: Hughes) Total costs: \$1,518,881

Using an outpatient laboratory paradigm, we experimentally induced smoking abstinence among adult participants and examined whether acute abstinence is associated with increases in anhedonia and changes in reinforcement sensitivity, as has been seen in preclinical research.

Agency: Centers for Disease Control and Prevention, DHHS, Grant PS12-1201 Innovative, high impact HIV prevention for injection drug users

03/1/12 - 12/31/15

Role: Lead Consultant (PI: Vermont Department of Health)

In this project we developed and evaluated an iPad-based educational module for intravenous drug users, with the aim of improving knowledge or HIV and Hepatitis C risk factors.

OTHER

## **Completed Industry-Sponsored Research**

Sponsor: Braeburn Pharmaceuticals, Inc.

A Phase III, randomized, double-blind, active-controlled, parallel group, multi-center trial assessing the efficacy and safety of a once-weekly and once-monthly, long-acting subcutaneous injectable depot of buprenorphine (CAM2038) in treatment of adult outpatients with opioid use disorder

11/1/15 – 11/1/16 Role: Site PI Sponsor: Braeburn Pharmaceuticals, Inc.

Randomized, double-blind, double-dummy, active-controlled multi-center study of adult outpatients with opioid dependence transitioned from a daily maintenance dose of 8 mg or less of sublingual buprenorphine or buprenorphine/naloxone to four Probuphine subdermal implants

08/15/14 - 08/15/15

Role: Site PI

Sponsor: Titan Pharmaceuticals, Inc.

Phase 3, six-month, open-label re-treatment study of Probuphine in opioid addiction

09/28/10 - 08/31/12

Role: Site PI

Sponsor: CRS Associates, Inc.

Brief survey of individuals who report using buprenorphine without a prescription

02/15/11 – 02/15/12

Role: PI

RC2 DA028910

Sponsors: Titan Pharmaceuticals, Inc. and National Institute on Drug Abuse Six-month RCT of Probuphine safety and efficacy in opioid addiction

9/30/09 – 8/31/11 Role: Site PI

# **SCHOLARSHIP**

## **Peer Reviewed Publications**

- 1. Higgins, S.T., & **Sigmon, S.C.** (2000). Implications of behavioral momentum for understanding the behavioral pharmacology of abused drugs. <u>Behavioral and Brain</u> Sciences, 23(1), 101.
- 2. **Sigmon, S.C.**, Steingard, S., Badger, G.J., Anthony, S.L., & Higgins, S.T. (2000). Contingent reinforcement of marijuana abstinence among individuals with serious mental illness: A feasibility study. <u>Experimental and Clinical Psychopharmacology</u>, 8(4), 509-517. (PMID: 11127422)
- 3. Wong, C.J., Badger, G.J., **Sigmon, S.C.**, & Higgins, S.T. (2002). Examining possible gender differences among cocaine-dependent outpatients. <u>Experimental and Clinical Psychopharmacology</u>, 10(3), 316-323. (PMID: 12233993)
- 4. Higgins, S.T., **Sigmon, S.C.**, Wong, C.J., Heil, S.H., Badger, G.J., Donham, R., Dantona, R.L., & Anthony, S. (2003). Community reinforcement therapy for cocaine-dependent outpatients. Archives of General Psychiatry, 60, 1043-1052. (PMID: 14557150)
- 5. **Sigmon, S.C.**, Tidey, J.W., Badger, G.J., & Higgins, S.T. (2003). Acute effects of *d*-amphetamine on progressive-ratio performance maintained by cigarette smoking and money. Psychopharmacology, 167, 393-402. (PMID: 12684732)
- 6. **Sigmon, S.C.**, Correia, C., & Stitzer, M.L. (2004). Cocaine abstinence during methadone maintenance: Effects of repeated exposure to voucher-based reinforcement and predictive utility for response to abstinence incentive interventions. <u>Experimental and Clinical Psychopharmacology</u>, 12(4), 269-275. (PMID: 15571444)
- 7. **Sigmon, S.C.**, Wong, C.J., Nuwayser, E., Chausmer, A., & Bigelow, G.E. (2004). Evaluation of depot buprenorphine: Placebo comparison. <u>Addiction, 99</u>, 1439-1449. (PMID: 15500597)
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- 88. Peck, K.R., Parker, M.A., & **Sigmon, S.C.** (2019). Reasons for non-medical use of prescription opioids among young adults: Role of educational status. <u>Preventive Medicine</u>, 128, 105684. doi: 10.1016/j.ypmed.2019.03.047.
- 89. **Sigmon, S.C.** (2019). Innovations in efforts to expand treatment for opioid use disorder. Preventive Medicine, 128, 105818. doi: 10.1016/j.ypmed.2019.105818.
- Streck, J.M., Davis, D.R., Pang, R.D., Sigmon, S.C., Bunn, J.Y., Bergeria, C.L., Tidey, J.W., Heil, S.H., Gaalema, D.E., Hughes, J.R., Stitzer, M.L., Reed, E., & Higgins, S.T. (2019). Potential moderating effects of sex on the acute relative reinforcing and subjective effects of reduced nicotine content cigarettes in vulnerable populations. Nicotine & Tobacco Research, pii: ntz098. doi: 10.1093/ntr/ntz098.
- 91. Peck, K.R., Ochalek, T.A., Badger, G.J., & **Sigmon, S.C.** (2020). Effects of Interim Buprenorphine Treatment for opioid use disorder among emerging adults. <u>Drug and Alcohol Dependence</u>, doi: 10.1016/j.drugalcdep.2020.107879.
- 92. Rey, C.N., Badger, G.J., Melbostad, H.S., Wachtel, D., **Sigmon, S.C.**, MacAfee, L.K., Dougherty, A.K., & Heil, S.H. (2020). Perceptions of long-acting reversible contraception among women receiving medication for opioid use disorder in Vermont. <u>Contraception</u>, 101(5), 333-337.
- 93. Streck, J.M., **Sigmon, S.C.**, Priest, J., Bergeria, C.L., Davis, D.R., Hughes, J.R., Villanti, A.C., Tidey, J.W., Heil, S.H., Gaalema, D.E., Stitzer, M.L., & Higgins, S.T. (2020). Investigating tobacco withdrawal in response to reduced nicotine cigarettes among smokers with opioid use disorder and other vulnerabilities. <a href="Experimental and Clinical Psychopharmacology"><u>Experimental and Clinical Psychopharmacology</u></a>, doi: 10.1037/pha0000350.
- 94. Dube, S.L., **Sigmon, S.C.**, Althoff, R., Dittus, K., Gaalema, D.E., Ogden, D.E., Phillips, J., Ades, P., & Potter, A.S. (2020). Association of self-reported executive function and mood with executive function task performance across adult populations. <u>Applied</u> Neuropsychology: Adult.

- 95. Higgins, S.T., DeSarno, M., Davis, D.R., Nighbor, T., Streck, J.M., Adise, S., Harfmann, R., Nesheim-Case, R., Markesich, C., Reed, D., Tyndale, R.F., Gaalema, D.E., Heil, S.H., **Sigmon, S.C.**, Tidey, J.W., Villanti, A.C., Lee, D., Hughes, J.R., & Bunn, J.Y. (2020). Relating individual differences in nicotine dependence severity to underpinning motivational and pharmacological processes among smokers from vulnerable populations. Preventive Medicine, https://doi.org/10.1016/j.ypmed.2020.106189.
- 96. Higgins, S.T., Tidey, J.W., **Sigmon, S.C.**, Heil, S.H., Gaalema, D.E., Lee, D., Hughes, J.R., Villanti, A.C., Bunn, J.Y., Davis, D.R., Bergeria, C.L., Streck, J.M., Parker, M., Miller, M.E., DeWarno, M., Priest, J.S., Cioe, P., MacLeod, D., Barrows, A. Markesich, C., & Harfmann, R. (2020). Changes in cigarette consumption with reduced nicotine content cigarettes among smokers with psychiatric conditions or socioeconomic disadvantage: Three randomized clinical trials. <u>JAMA Network Open</u>, 2020;3(10):e2019311. doi:10.1001/jamanetworkopen.2020.19311.
- 97. Rey, C.N., Badger, G.J., Melbostad, H.S., Wachtel, D., **Sigmon, S.C.**, MacAfee, L.K., Dougherty, A.K., & Heil, S.H. (2020). Perceptions of long-acting reversible contraception among women receiving medication for opioid use disorder in Vermont. <u>Contraception</u>.
- 98. Oleskowicz, T.N., Ochalek, T.A., Peck, K.R., Badger, G.J., & **Sigmon, S.C.** (2021). Within-subject evaluation of interim buprenorphine treatment during waitlist delays. <u>Drug</u> and Alcohol Dependence, doi: 10.1016/j.drugalcdep.2021.108532.
- 99. Peck, K.R., Ochalek, T.A., Streck, J.M., Badger, G.J. & **Sigmon, S.C.** (2021). Impact of current pain status on low-barrier buprenorphine treatment response among patients with opioid use disorder. Pain Medicine, doi: 10.1093/pm/pnab058.
- 100. Dammerman, R., Bailey, G.L., Beebe, K.L., Chen, M., Rosenthal, R.N., **Sigmon, S.C.**, & Ling, W. (in press). Long-term buprenorphine implants for treatment of opioid dependence: Safety outcomes from two open-label extension trials. <u>Journal of Addictive</u> Behaviors, Therapy & Rehabilitation.
- 101. Heil, S.H., Melbostad, H.S., Matusiewicz, A.S., Rey, C.M., Badger, G.J., Shepard, D.S., **Sigmon, S.C.**, MacAfee, L.K., & Higgins, S.T. (in press). Efficacy and cost-benefit of onsite contraceptive services with and without incentives among women with opioid use disorder at high risk for unintended pregnancy. <u>JAMA Psychiatry</u>.

## **Under Review/In Preparation**

- 1. Ametti, M.R., Crehan, E.T., O'Loughlin, K., Shreck, M., Dube, S., Potter, A., **Sigmon, S.C.**, & Althoff, R.R. (submitted). Executive function and psychophysiological profiles of dysregulated children: A research domain criteria approach. <u>Psychological Science</u>.
- 2. Gaalema, D.E., Dube, S., Potter, A., Elliott, R.J., Mahoney, K., **Sigmon, S.C.**, Higgins, S.T., & Ades, P.A. (submitted). Cardiac secondary prevention program completion and response to an incentive-based adherence intervention: Effects of executive function. <a href="Perventive-Prevention">Preventive-Prevention</a>. Medicine.
- 3. Harder, V.S., Villanti, A.C., Heil, S.H., Smith, M.L., Gaalema, D.E., Meyer, M.C., Schafrick, N.H., & **Sigmon, S.C.** (submitted). Opioid use disorder treatment in rural settings: The primary care perspective. <u>Preventive Medicine</u>.
- 4. Higgins, S.T., DeSarno, M., Bunn, J.Y., Gaalema, D.E., Levanthal, A.M., Davis, D.R., Streck, J.M., Harfmann, R.F., Markesich, C., Orr, E., Sigmon, S.C., Heil, S.H., Tidey, J.W., Lee, D., & Hughes, J.H. (submitted). Cumulative vulnerabilities as a potential moderator of response to reduced nicotine content cigarettes. Preventive Medicine.
- 5. Melbostad, H.S., Badger, G.J., Rey, C.N., MacAfee, L.K., Dougherty, A.K., **Sigmon, S.C.**, & Heil, S.H. (submitted). Contraceptive knowledge among females and males receiving medication treatment for opioid use disorder compared to those seeking primary care in Vermont. Journal of Substance Abuse Treatment.
- 6. Ochalek, T.A., Laurent, J., Badger, G.J., & **Sigmon, S.C.** (submitted). Sucrose subjective response and eating behaviors among individuals with opioid use disorder. <u>Drug and</u>

- Alcohol Dependence.
- 7. Peck, K.R., Moxley-Kelly, N., & Badger, G. J., **Sigmon, S.C.** (submitted). Posttraumatic stress disorder in individuals seeking treatment for opioid use disorder in a rural setting. Preventive Medicine.
- 8. **Sigmon, S.C.**, & Heil, S.H. (in preparation) Treating opioid use disorder in a pandemic: Lessons from rural areas. <u>Preventive Medicine</u>.
- 9. Streck, J.M., Parker, M.A., Bearnot, B., Kalagher, K., Sigmon, S.C., Goodwin, R.D., & Weinberger, A.H. (in preparation). National trends in suicide thoughts and behavior among US adults with opioid use disorder from 2015-2019. <u>Journal of Clinical Psychiatry</u>.

# Non-Peer Reviewed Publications and Other Creative Activities Review Articles

Not applicable

## **Books and Chapters**

- 1. Budney, A.J., **Sigmon, S.C.**, & Higgins, S.T. (2001). Contingency management: Using science to motivate change. In R.H. Coombs (Ed.), <u>Addiction Recovery Tools: A Practitioner's Handbook</u>. New York: Sage Publications, pp. 147-172.
- 2. Higgins, S.T., Budney, A.J., & **Sigmon, S.C.** (2001). Cocaine dependence. In D.H. Barlow (Ed.), <u>Clinical Handbook of Psychological Disorders</u>, 3<sup>rd</sup> ed. New York: Guilford Publications, Inc., pp. 434-469.
- Higgins, S.T., Sigmon, S.C., & Budney, A.J. (2002). Psychosocial treatment of cocaine dependence: The community reinforcement plus vouchers approach. In S.G. Hofmann & M.C. Tompson (Eds.), <u>Treating Chronic and Severe Mental Disorders: A Handbook of Empirically Supported Interventions.</u> New York: Guilford Publications, Inc., pp. 296-313.
- 4. Budney, A.J., **Sigmon, S.C.**, & Higgins, S.T. (2003). Contingency management in the substance abuse treatment clinic. In F. Rotgers, J. Morgenstern, & S. Walters (Eds.), <u>Treating Substance Abuse: Theory and Technique</u>. New York: Guildford Press, pp. 248-278.
- 5. Budney, A.J., Moore, B.A., **Sigmon, S.C.**, & Higgins, S.T. (2006). Contingency-management interventions for cannabis dependence. In R. Roffman, & R. Stephens (Eds.), <u>Cannabis Dependence: Its Nature, Consequences, and Treatment</u>. New York, NY: Cambridge University Press, pp. 154-176.
- 6. Stitzer, M.L. & **Sigmon, S.C.** (2006). Other substance use disorders: Prevalence, consequences, detection and management. In E.C. Strain, & M.L. Stitzer (Eds.), <u>The Treatment of Opioid Dependence</u>. Baltimore, MD: The Johns Hopkins University Press, pp. 365-397.
- 7. Higgins, S.T., Heil, S.H., & **Sigmon, S.C.** (2007). A behavioral approach to the treatment of substance use disorders. In P. Sturmey (Ed.), <u>The Handbook of Functional Analysis and Clinical Psychology</u>. Netherlands: Elsevier Press, pp. 261-282.
- 8. Higgins, S.T., **Sigmon, S.C.**, & Heil, S.T. (2008). Drug abuse and dependence. In D.H. Barlow (Ed.), <u>Clinical Handbook of Psychological Disorders</u>, 4<sup>th</sup> ed. New York: Guilford Publications, Inc., pp. 547-577.
- 9. **Sigmon, S.C.** (2008). Prescription drugs. In G.L. Fisher & N.A. Roget (Eds.), <u>Encyclopedia of Substance Abuse Prevention, Treatment, and Recovery</u>. California: Sage Publications, Inc., pp 695-698.
- 10. **Sigmon, S.C.**, Lamb, R.J., & Dallery, J. (2008). Contingency management for reducing tobacco use. In S.T. Higgins, K. Silverman, & S.H. Heil (Eds.), <u>Contingency Management in the Treatment of Substance Use Disorders: A Science-based Treatment Innovation</u>. New York: The Guilford Press, pp. 99-119.
- 11. Higgins, S.T., Heil, S.H., & **Sigmon, S.C.** (2010). Contingency management approaches in drug dependence. In I. Stolerman (Ed.), <u>Encyclopedia of Psychopharmacology</u>. Berlin: Springer-Verlag, pp. 350-354.

- 12. Higgins, S.T., **Sigmon, S.C.**, & Heil, S.H. (2011). Contingency management in the treatment of substance use disorders: Trends in the literature. In P. Ruiz & E. Strain (Eds.), <u>Lowinson & Ruiz's Substance Abuse: A Comprehensive Textbook, Fifth Edition</u>. Maryland: Lippincott Williams & Wilkins, pp. 603-621.
- 13. Higgins, S.T., Heil, S.H., & **Sigmon, S.C.** (2012). Voucher-based contingency management in the treatment of substance use disorders. In G.J. Madden (Ed.), <u>APA Handbook of Behavior Analysis</u>. Washington, DC: American Psychological Association, pp. 481-500.
- 14. Higgins, S.T., **Sigmon, S.C.** & Heil, S.T. (2013). Drug use disorders. In D.H. Barlow (Ed.), <u>Clinical Handbook of Psychological Disorders, 5<sup>th</sup> ed.</u> New York: Guilford Publications, Inc., pp. 588-616.
- 15. Higgins, S.T., Heil, S.H. & **Sigmon, S.C.** (2015). Contingency management in the treatment of substance use disorders. In I. Stolerman & L.H. Price (Eds.), <u>Encyclopedia of Psychopharmacology</u>, 2<sup>nd</sup> ed. Heidelberg, Germany: Springer-Verlag, pp. 441-446.

## **Other Scholarly Publications**

- 1. **Sigmon, S.C.**, Dunn, K., & Higgins, S.T. (2007). Brief history of the Contingency Management Working Group at the annual meeting of The College on Problems of Drug Dependence. Drug and Alcohol Dependence 89(2-3), 314-316.
- 2. **Sigmon, S.C.**, Dunn, K.E., & McKerchar, T.L. (2007). Developing an effective treatment for prescription opioid abuse. The Addictions Newsletter, 14(1), 12-13.
- 3. **Sigmon, S.C.**, & Stitzer, M.L. (2007). Low-cost incentives to improve counseling attendance. Counselor Magazine, 8(1), 32-38.
- 4. **Sigmon, S.C**. (2011). Is caffeine a gateway drug? An interview with Stacey Sigmon, Ph.D. Journal of Caffeine Research, 1(3), 141-143.
- 5. **Sigmon, S.C**. (2015). Vermont's heroin epidemic. Letter to the New York Times Editor, published March 4, 2015. <a href="http://www.nytimes.com/2015/03/04/opinion/vermont-heroin-epidemic.html">http://www.nytimes.com/2015/03/04/opinion/vermont-heroin-epidemic.html</a>.
- 6. **Sigmon, S.C.**, Schwartz, R.P., & Higgins, S.T. (2017). Buprenorphine for persons on waiting lists for treatment for opioid abuse. <u>The New England Journal of Medicine, 376(10)</u>, 1000-1001.

## **Guest Editor**

- 1. Higgins, S.T., Silverman, K., **Sigmon, S.C.**, & Naito, N.A. (2012). Incentives and health: An introduction. <u>Preventive Medicine</u>, 55, 2-6. (PMID: 22554884)
- 2. Stoops, W.W., **Sigmon, S.C.**, Evans, S.M. (2016). Introduction to the special issue: 50<sup>th</sup> anniversary of APA Division 28: The past, present, and future of psychopharmacology and substance abuse. Experimental and Clinical Psychopharmacology, 24(4), 207-208.

## **Presentations:**

Note: Rather than an exhaustive list, the below provides representative examples of my scientific, clinical and community presentations over the past several decades. Trainee co-authors are underlined.

## Regional

- 1. **Sigmon, S.C.** (October 2014). Behavioral economics and intervention science core: An update. Invited presentation at the Vermont Center on Behavior and Health's 2<sup>nd</sup> Annual Conference on Behavior Change, Health and Health Disparities, Burlington, VT.
- 2. **Sigmon, S.C.** (October 2014). Expanding access to evidence-based treatment for opioid dependence. Invited presentation at the Vermont Center on Behavior and Health's 2<sup>nd</sup> Annual Conference on Behavior Change, Health and Health Disparities, Burlington, VT.
- 3. Sigmon, S.C. (October 2017). Smoking among opioid-dependent individuals: Nicotine

- reinforcement, withdrawal, and response to interventions. Invited presentation at the Vermont Center on Behavior and Health's 5<sup>th</sup> Annual Conference on Behavior Change, Health and Health Disparities, Burlington, VT.
- 4. **Sigmon, S.C.** (October 2018). Technology-assisted buprenorphine for expanding treatment access. Invited presentation at the Vermont Center on Behavior and Health's 6<sup>th</sup> Annual Conference on Behavior Change, Health and Health Disparities, Burlington, VT.
- 5. <u>Peck, K.R., Streck, J.M., Ochalek, T.A.,</u> & **Sigmon, S.C.** (July 2018) Interim buprenorphine treatment for opioid use disorder. Oral presentation at the 27th<sup>th</sup> Annual Training in Behavioral Pharmacology of Drug Dependence Scientific Retreat, Vergennes, VT.
- 6. <u>Streck, J.M.</u>, **Sigmon, S.C.**, Heil, S.H., Stitzer, M.L., Tidey, J.W., Gaalema, D.E., Davis, D.R., Bergeria, C.L., Priest, J., & Higgins, S.T. (July 2018). Investigating tobacco withdrawal in opioid-maintained smokers and smokers with other vulnerabilities. Oral presentation at the 27th<sup>th</sup> Annual Training in Behavioral Pharmacology of Drug Dependence Scientific Retreat, Vergennes, VT.

## **National**

- 1. **Sigmon, S.C.** (June 1998). Examining the operant characteristics of schizophrenic drug use. Paper presentation at the 4<sup>th</sup> Annual Contingency Management Workshop, 60<sup>th</sup> Annual Meeting of The College on Problems of Drug Dependence. Scottsdale, AZ.
- 2. **Sigmon, S.C.** (May 1999). Sensitivity of marijuana use in schizophrenic individuals to contingency management. Paper presentation at the 25<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. Chicago, IL.
- 3. **Sigmon, S.C**. (June 2000). Legal severity in cocaine treatment: Baseline characteristics and treatment outcome. Paper presentation and abstract publication at the 62<sup>nd</sup> Annual Meeting of the College on Problems of Drug Dependence. San Juan, Puerto Rico.
- 4. **Sigmon, S.C.** & Higgins, S.T. (June 2001). Effects of *d*-amphetamine on progressive ratio responding in humans maintained by cigarette smoking or monetary reinforcement. Paper presentation at the 63<sup>rd</sup> Annual Meeting of the College on Problems of Drug Dependence. Scottsdale, AZ.
- 5. **Sigmon, S.C.,** Wong, C.J., Ginn, D., Nuwayser, E., Chausmer, A.L., Liebson, I.A., & Bigelow, G.E. (June 2003). Evaluation of an injection depot formulation of buprenorphine: Placebo comparison. Paper presentation at the 65<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence. Bal Harbour, FL.
- 6. **Sigmon, S.C.**, & Bigelow, G.E. (July 2005). A novel depot formulation of buprenorphine for treatment of opioid dependence. Presentation at the 2005 International Narcotics Research Conference Annual Scientific Meeting, Annapolis, MD.
- 7. **Sigmon, S.C.**, Dunn, K., Heil, S.H., & Higgins, S.T. (June 2008). Developing a treatment for prescription opioid abuse. Paper presentation at the 70th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR.
- 8. Heil, S.H., Scott, T.L., **Sigmon, S.C.**, & Higgins, S.T. (June 2008). Characterizing methadone dose during late pregnancy and postpartum. Paper presentation at the 70th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR.
- 9. Heil, S.H., Scott, T.L., & **Sigmon, S.C.** (December 2008). Smoking, pregnancy, and opioid dependence. Paper presentation at the 19th Annual Meeting and Symposium of the American Academy of Addiction Psychiatry. Boca Raton, FL.
- Saulsgiver, K.A., Dunn, K., Sigmon, S.C., Bradstreet, M.P., Reimann, E., Heil, S.H., & Higgins, S.T. (May 2009). Baseline delay discounting predicts response to a behavioral smoking intervention among opiate maintained patients. Presented at the 35<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. Phoenix, AZ.
- 11. <u>Dunn, K.E.</u>, **Sigmon, S.C.**, Reimann, E.F., <u>Saulsgiver, K.C.</u>, & Higgins, S.T. (June 2009). Randomized controlled trial using contingency management to promote smoking abstinence among opioid-maintained patients. Presented at the 71st Annual Meeting of the College on Problems of Drug Dependence 71st annual meeting, Reno, NV.
- 12. Sigmon, S.C., Dunn, K., Saulsgiver, K., Heil, S.H., & Higgins, S.T. (June 2009).

- Randomized, double-blind trial evaluating buprenorphine taper for prescription opioid abuse. Paper presented at the 71<sup>st</sup> Annual Meeting of the College on Problems of Drug Dependence, Reno, NV.
- 13. <u>Patrick, M.E., Saulsgiver, K.A., Dunn, K.E.,</u> **Sigmon, S.C.,** & Higgins, S.T. (June 2010). Using contingency management to promote smoking cessation among opioid maintained individuals. Presentation in the Contingency Management Working Group at the 72nd Annual Meeting of the College on Problems of Drug Dependence, Scottsdale, AZ.
- 14. **Sigmon, S.C.,** <u>Saulsgiver, K.,</u> <u>Patrick, M.,</u> <u>Dunn, K.,</u> Heil, S.H., & Higgins, S.T. (June 2010). Parametric evaluation of buprenorphine taper duration for prescription opioid abuse. Paper presented at the 72nd Annual Meeting of the College on Problems of Drug Dependence, Scottsdale, AZ.
- 15. <u>Patrick, M., Saulsgiver, K.,</u> **Sigmon, S.C.**, & Higgins, S.T. (June 2011). A 12-week contingency management intervention to promote smoking cessation in opioid-maintained individuals. Presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence. Hollywood. FL.
- 16. **Sigmon, S.C.,** Higgins, S.T., Heil, S.H. & <u>Saulsgiver, K.</u> (June 2011). Investigating a genetic marker of vulnerability for stimulant abuse. Paper presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence, Hollywood, FL.
- 17. **Sigmon, S.C**. (December 2011). Randomized, double-blind trial evaluating buprenorphine taper and naltrexone maintenance for prescription opioid abusers. Paper presented at the American Academy of Addiction Psychiatry meeting, Scottsdale, AZ.
- 18. **Sigmon, S.C**. (June 2012). A novel mobile technology intervention to promote physical activity in young people. Presentation in the Contingency Management Working Group at the 74th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 19. Hughes, J.R., Etter, J.F., Callas, P.W., Budney, A.J., Fingar, J.R., **Sigmon, S.C**. (February 2014). A self-report scale to measure the effect of nicotine on rewarding events. Paper presentation at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Seattle, WA.
- 20. **Sigmon, S.C.** (May 2014). Innovative approaches to minimizing medication nonadherence, abuse and diversion in opioid addiction and/or chronic pain patients. Paper presented at the 167<sup>th</sup> Annual Meeting of the American Psychiatric Association, New York, NY.
- 21. Meyer, A.C. & **Sigmon**, **S.C.** (May 2015). Using financial incentives to sustain smoking abstinence in opioid-maintained patients. Paper presented at the 41st Annual Convention of the Association for Behavior Analysis International. San Antonio. TX.
- 22. **Sigmon, S.C.**, <u>Meyer, A.C.</u>, <u>Hruska, B.</u>, <u>Ochalek, T.</u>, Heil, S.H., Higgins, S.T., & Schwartz, R.P. (June 2015). Interim buprenorphine treatment: Leveraging technology to bridge waitlist delays. Paper presented at the 77th Annual Meeting of the College on Problems of Drug Dependence, Phoenix, AZ.
- 23. <u>Streck, J.M., Meyer, A.C.</u>, Bunn, J., & **Sigmon, S.C.** (June 2015). Characterizing nicotine withdrawal in opioid-maintained smokers. Paper presented at the 77th Annual Meeting of the College on Problems of Drug Dependence, Phoenix, AZ.
- 24. Ochalek, T.A., Streck, J.M., Sigmon, S.C. (June 2016). Using contingency management to promote smoking abstinence among patients with chronic obstructive pulmonary disease. Talk presented at the Meeting on the College on Problems of Drug Dependence 22nd Annual Contingency Management Working Group, Palm Springs, CA.
- 25. **Sigmon, S.C.** (August 2016). Developing and evaluating novel treatments for opioid dependence. Presidential Address given at the 124<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention, Division 28, Denver, CO.
- 26. Frost, M., Lofwall, M., Walsh, S., Dammerman, R., Carter, J.A., & **Sigmon, S.C.** (June 2017). Characterization of the use of supplemental sublingual buprenoprhine in a randomized trial of buprenorphine subdermal implants. Oral presentation at the International Conference on Opioids, Boston, MA.
- 27. Sigmon, S.C. (December 2017). Innovative pharmacotherapies and strategies to address

- the opioid epidemic. Oral presentation at the 56<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology, Palm Springs, CA.
- 28. Lofwall, M., Walsh, S.L., **Sigmon, S.C.**, Nunes, E., & Frost, M. (December 2017). Efficacy of buprenorphine (BPN) depot injections vs. sublingual BPN for opioid use disorder: A Phase 3 RCT. Oral presentation at the 28<sup>th</sup> Annual Meeting of the American Academy of Addiction Psychiatry, San Diego, CA.
- 29. **Sigmon, S.C.** (May 2018). Interim buprenorphine dosing for reducing illicit drug use and associated risks among waitlisted opioid-dependent adults. Invited presentation at the 7<sup>th</sup> Annual Translational Science Symposium, "Addiction Medicine 2018: Translational Science at the Cutting Edge", Boston University Clinical and Translational Science Institute (BU-CTSI) & Boston Medical Center Grayken Center for Addiction, Boston, MA.
- 30. <u>Parker, M.A.</u>, **Sigmon, S.C.**, & Villanti, A.C. (June 2018). Patterns and frequency of current e-cigarette use in U.S. adults, 2012-2013. Oral presentation at the 80th Meeting, College on Problems of Drug Dependence, San Diego, CA.
- 31. <u>Peck, K.R.</u> & **Sigmon, S.C.** (August 2019). Interim buprenorphine: Leveraging medication and technology to bridge the gap in treatment access. Oral presentation as part of the symposium, "Addressing the US Opioid Epidemic in Northern New England: Clinical Research Efforts", 2019 Northeast Regional IDeA Conference. Bretton Woods, NH.
- 32. Ochalek, T.A., Peck, K.R., & **Sigmon, S.C.** (August 2019). Characterizing treatment motivation among out-of-treatment adults with OUD. Oral presentation given at the 127<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention, Chicago, IL.
- 33. Peck, K.R. & Sigmon, S.C. (August 2019). Interim buprenorphine: Leveraging medication and technology to bridge the gap in treatment access. Oral presentation as part of the symposium, "Addressing the US Opioid Epidemic in Northern New England: Clinical Research Efforts", 2019 Northeast Regional IDeA Conference. Bretton Woods, NH.
- 34. **Sigmon, S.C.** (October 2019). The UVM Center on Rural Addiction: Science-based support for rural providers. Invited presentation at Vermont CommStat meeting. Burlington, VT.
- 35. **Sigmon, S.C.** (November 2019). Innovative approaches to expanding opioid addiction treatment in rural communities. 2019 New England Rural Health Conference of the New England Rural Health Association. Newry, ME.
- 36. Heil, S.H., Melbostad, H. Matusiewicz, A., Rey, C., Badger, G., Sigmon, S.C., MacAfee, L., & Higgins, S.T. (June 2020). Increasing effective contraceptive use among women receiving medication for opioid use disorder and at risk for unintended pregnancy. Oral presentation at the 82<sup>nd</sup> Annual Meeting of the College on Problems of Drug Dependence, Hollywood FL.

## International

- 1. Higgins, S.T., Tidey, J.W., Roll, J.M., & **Sigmon, S.C.** (September 1998). Assessing the sensitivity of drug use by schizophrenics to systematic environmental manipulations. Paper presentation at the international symposium, Addictions '98: Comorbidity Across the Addictions. Newcastle Upon Tyne, England.
- 2. <u>Dunn, K., Sigmon, S.C., & Higgins, S.T.</u> (June 2007). Pilot study to reduce cigarette smoking among methadone patients. Presentation in the Contingency Management Working Group at the 69th Annual Meeting of the College on Problems of Drug Dependence, Quebec City, Canada.
- 3. **Sigmon, S.C.** (June 2007). Developing an effective treatment for prescription opioid abuse: Preliminary findings. Presentation in the Late-Breaking Research Session at the 69<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Quebec City, Canada.
- 4. <u>Dunn, K.</u>, **Sigmon, S.C.**, & Higgins, S.T. (June 2008). CM for smoking cessation among opioid-treatment patients. Presentation in the Contingency Management Working Group at the 70th Annual Meeting of the College on Problems of Drug Dependence, Quebec City, Canada.
- 5. Sigmon, S.C., Dunn, K., Saulsgiver, K., Heil, S.H., & Higgins, S.T. (August 2009).

- Association between illicit opioid use at intake and subsequent buprenorphine stabilization dose. Paper presented at the 117th Annual Meeting of the American Psychological Association Annual Convention, Toronto, Canada.
- 6. <u>Dunn, K.E.</u>, **Sigmon, S.C.**, <u>Saulsgiver, K.A.</u>, & Higgins, S.T. (August 2009). Characterization of buprenorphine withdrawal following a double-blind buprenorphine taper. Invited presentation to the APASSC's "Psychological Science Graduate Superstars: A Datablitz", at the American Psychological Association's 117th Annual Convention, Toronto, Canada.
- 7. **Sigmon, S.C.** (October 2013). Using financial incentives to promote smoking cessation among smokers with concurrent opioid dependence. Paper presented at the International Congress of Dual Disorders, Barcelona, Spain.
- 8. **Sigmon, S.C.** (August 2015). The untapped potential of office-based buprenorphine treatment. Paper presented at the 123<sup>rd</sup> Annual Meeting of the American Psychological Association Annual Convention, Toronto, Canada.
- 9. **Sigmon, S.C.** (May 2016). Interim buprenorphine treatment for reducing illicit opioid use during treatment delays. Oral presentation at the Hominis 2016 7<sup>th</sup> Intercontinental Convention, Havana, Cuba.
- 10. Lofwall, M., Nunes, E., Bailey, G., Walsh, S., **Sigmon, S.C.**, Tiberg, F., Linden, M., Sheldon, B., & Kim, S. (October 2016). Efficacy and safety of CAM2038 (buprenorphine FluidCrystal® injection depot) q1w (once weekly) and q4w (once-monthly) in adult outpatients with opioid use disorder: A randomized, controlled trial. Oral presentation at the International Society of Addiction Medicine, Montreal, Canada.
- 11. Lofwall, M., Nunes, E., Bailey, G., Walsh, S.L., **Sigmon, S.C.**, Linden, M., Sheldon, B., & Kim, S. (June 2017). A Phase III outpatient randomized, double-blind, double-dummy controlled trial evaluating efficacy of CAM2038 (weekly and monthly buprenorphine Fluid Crystal® injection depot) for opioid use disorder. Oral presentation at the 79<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Montreal, Canada.
- 12. Ochalek, T.A., **Sigmon, S.C.**, Parker, M.A., & Higgins, S.T. (June 2017). Undetected illicit fentanyl use among patients receiving opioid agonist treatment. Oral presentation at the 79<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Montreal, Canada.
- 13. <u>Parker, M.A., Ochalek, T.A.,</u> & **Sigmon, S.C.** (June 2017). Illicit drug use is associated with increased cigarette smoking among buprenorphine-maintained adults. Oral presentation at the 79<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Montreal, Canada
- 14. Melbostad, H.S., Matusiewicz, A.K., Rey, C.N., Badger, G.J., MacAfee, L.K., **Sigmon, S.C.**, Higgins, S.T., and Heil, S.H. (November 2018). Increasing contraceptive use among women with opioid use disorder at risk for unintended pregnancy. Presentation at the 5th International Conference on Family Planning, Kigali, Rwanda.
- 15. **Sigmon, S.C.** (October 2019). Innovative treatment for opioid use disorder. Presentation at the Lisbon Addictions 2019, 3<sup>rd</sup> European Conference on Addictive Behaviours and Dependencies, Lisbon, Portugal.

## **Poster - National**

- 1. **Sigmon, S.C.**, Hughes, C.E., & Dykstra, L. (October 1994). Degree of tolerance to morphine's response-rate-decreasing effects. Poster presentation at the Annual Meeting of the Southeastern Association of Behavior Analysis. Savannah, GA.
- 2. **Sigmon, S.C.,** Higgins, S.T., Wong, C.J. & Badger, G.J. (June 1997). Frequency of aversive events in cocaine-dependent outpatients. Poster presentation at the 59<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence. Nashville, TN.
- 3. **Sigmon, S.C.,** Higgins, S.T., Steingard, S., Wong, C.J., & Tidey, J.W. (May 1998). Reducing marijuana use in schizophrenics. Poster presentation at the 24<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. Orlando, FL.
- 4. **Sigmon, S.C.**, Higgins, S.T., Steingard, S., Wong, C.J. & Tidey, J.W. (June 1998). Sensitivity of marijuana use in schizophrenics to contingency management. Poster

- presentation and abstract publication at the 60<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence. Scottsdale, AZ.
- Sigmon, S.C., Higgins, S.T. & Badger, G.J. (August 1998). Legal severity in cocaine treatment: baseline characteristics and treatment outcome. Poster presentation and abstract publication at the 106<sup>th</sup> Annual Convention of the American Psychological Association. San Francisco, CA.
- 6. **Sigmon, S.C.,** Higgins, S.T., & Badger, G.J. (August 2000). Characterizing HIV/AIDS knowledge among cocaine-dependent outpatients. Poster presentation at the 108<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention. Washington, D.C.
- 7. **Sigmon, S.C.**, & Higgins, S.T. (August 2001). Contingent reinforcement of marijuana abstinence among individuals with serious mental illness. Poster presentation at the 109<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention. San Francisco, CA.
- 8. Heil, S.H., **Sigmon, S.C.,** McHale, L., Badger, G. & Higgins, S.T. (August 2002). Increasing HIV/AIDS-related knowledge in cocaine-dependent patients. Poster presentation at the 110<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention. Chicago, IL.
- 9. Griffiths, R.R., Sobel, X.B.F., **Sigmon, S.C.**, (June 2003). Subjective and reinforcing effects of intravenous nicotine, caffeine and cocaine: Effects of chronic nicotine maintenance. Poster presentation at the 65<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence. Bal Harbour, FL.
- 10. **Sigmon, S.C.**, & Griffiths, R.R. (June 2004). Individual differences in the reinforcing and subjective effects of psychomotor stimulants. Poster presentation at the 66<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence. San Juan, PR.
- 11. **Sigmon, S.C.,** Chausmer, A.L., Better, W., Herning, R.I., & Griffiths, R.R. (June 2005). Caffeine withdrawal increases cerebral blood flow velocity and alters quantitative electroencephalography (EEG) activity. Poster presentation at the 67<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Orlando, FL.
- 12. <u>Dunn, K.</u>, **Sigmon, S.C.**, & Higgins, S.T. (June 2006). Pilot study to reduce cigarette smoking among methadone patients. Poster presentation at the 68th Annual Meeting of the College on Problems of Drug Dependence, Scottsdale, AZ.
- 13. <u>Dunn, K.E.</u>, **Sigmon, S.C.**, McGee, M.R., & Higgins, S.T. (August 2006). Evaluation of ongoing oxycodone abuse among methadone-maintained patients. Poster presentation at the 114th Annual Meeting of the American Psychological Association Annual Convention. New Orleans, LA.
- 14. <u>Dunn, K.E.</u>, **Sigmon, S.C**. & Higgins, S.T. (August 2007). Contingency management to promote smoking abstinence among methadone-maintained patients. Poster presentation at the 115th Annual Meeting of the American Psychological Association Annual Convention, San Francisco, CA.
- 15. <u>Dunn, K.E.</u>, **Sigmon, S.C.**, Heil, S. & Higgins, S.T. (June 2008). Semi-quantitative buprenorphine testing in an ongoing study with prescription opioid abusers. Poster presentation at the 70th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR.
- 16. <u>Scott, T.L.</u>, Heil, S.H., Higgins, S.T., **Sigmon, S.C.,** & Jones, H.E. (June 2008). Examination of withdrawal symptoms in methadone or buprenorphine-exposed neonates. Poster presentation at the 70th Annual Meeting of the College on Problems of Drug Dependence, San Juan. PR.
- 17. <u>Dunn, K.E.</u>, **Sigmon, S.C**. & Higgins, S.T. (August 2008). Prevalence of pain and medical problems among prescription opioid abusers. Poster presentation at the 116th Annual Meeting of the American Psychological Association Annual Convention, Boston, MA.
- 18. **Sigmon, S.C.**, <u>Dunn, K.</u>, Heil, S., & Higgins, S.T. (August 2008). A behavioral intervention to reduce smoking among opioid maintenance patients. Poster presentation at the 116th Annual Meeting of the American Psychological Association Annual Convention, Boston, MA.
- 19. Sigmon, S.C., Saulsgiver, K.A., & Dunn, K. (November 2008). Concurrent alcohol use

- among prescription opioid abusers enrolled in outpatient buprenorphine detoxification. Poster presentation at the Tufts Health Care Institute Program on Opioid Risk Management Conference. Boston, MA.
- 20. <u>Saulsgiver, K.A., Dunn, K.E., Sigmon, S.C.</u>, & Higgins, S.T. (June 2009). Prevalence of pain among prescription-opioid abusers. Presented at the 71st Annual Meeting of the College on Problems of Drug Dependence 71st annual meeting, Reno, NV.
- 21. <u>Dunn, K.E., Saulsgiver, K.S.,</u> **Sigmon, S.C.,** Newth, A., & Higgins, S.T. (February 2010). Brief buprenorphine induction and taper do not promote increased cigarette smoking as measured by urinary cotinine. Poster presented at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Baltimore MD.
- 22. <u>Saulsgiver, K.A., Patrick, M., Dunn, K.,</u> **Sigmon, S.C.** (February 2010). A behavioral approach to smoking cessation among opioid-maintained patients. Poster presented at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Baltimore, MD.
- 23. <u>Saulsgiver, K.A., Dunn, K., Patrick, M.,</u> Sigmon, S.C., Reimann, E., Necheles, A., & Heil, S.H. (May 2010). A Behavioral Approach to Smoking Cessation Among Opioid-Maintained Patients. Poster presented at the 36<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. San Antonio, TX.
- 24. <u>Saulsgiver, K.A., Patrick, M., Dunn, K.,</u> **Sigmon, S.C.**, Heil, S.H., & Higgins, S.T. (May 2010). Using contingency management to enhance success in outpatient detoxifications among prescription opioid abusers. Poster presented at the 36<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. San Antonio, TX.
- 25. <u>Patrick, M.E., Saulsgiver, K.A., Dunn, K.E.,</u> **Sigmon, S.C.**, & Higgins, S.T. (June 2010). Efficacy of an HIV/hepatitis educational intervention during buprenorphine detoxification in prescription opioid abusers. Poster presented at the 72nd Annual Meeting of the College on Problems of Drug Dependence, Scottsdale, AZ.
- Saulsgiver, K.A., Sigmon, S.C., Dunn, K.D., Patrick, M., & Higgins, S.T. (June 2010).
   Gender differences in treatment-seeking prescription opioid abusers. Poster presented at the 72nd Annual Meeting of the College on Problems of Drug Dependence, Scottsdale, AZ.
- 27. <u>Saulsgiver, K.A.</u>, **Sigmon, S.C.**, <u>Dunn, K.D.</u>, <u>Patrick, M.</u>, & Higgins, S.T. (June 2010). Contingency management and substance abuse. Presented at the Annual Meeting of the International Study Group Investigating Drugs As Reinforcers, Scottsdale, AZ.
- 28. <u>Dunn, K.E.</u>, <u>Saulsgiver, K.A.</u>, **Sigmon, S.C.**, & Johnson, M.W. (August 2010). HIV and Hepatitis-C risk among injection and noninjection drug users. Paper presented at the American Psychological Association's 117th annual convention, San Diego, CA.
- 29. Heil, S.H., Gaalema, D., Higgins, S.T., **Sigmon, S.C**., & Johnston, A. (June 2011). Infant pupil diameter in response to opioid administration. Poster presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence, Hollywood, FL.
- 30. <u>Saulsgiver, K., Dunn, K.</u> **Sigmon, S.C.,** Bradstreet, M., Reimann, E., Heil, S.H. & Higgins, S.T. (June 2011). Baseline delay discounting predicts response to a behavioral smoking intervention among opioid-maintained patients. Poster presented at the 73rd Annual Meeting of the College on Problems of Drug Dependence, Hollywood, FL.
- 31. **Sigmon, S.C.,** Higgins, S.T., Heil, S.H. & <u>Saulsgiver, K.</u> (August 2011). Individual differences in stimulant reinforcement as a function of DRD2 allele. Poster presented at the American Psychological Association's 118th annual convention, Washington, DC.
- 32. <u>Herrmann, E.</u>, Heil, S., Higgins, S., **Sigmon, S.**, Solomon, L., & Bernstein, I. (June 2012). Characterizing nicotine withdrawal in pregnant smokers. Poster presented at the 74th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 33. <u>Patrick, M.E.</u>, **Sigmon, S.**, <u>Saulsgiver, K.</u>, & Higgins, S. (June 2012). Individual differences in substance use as a function of DRD2 allele status. Poster presented at the 74th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 34. **Sigmon, S.C.,** Patrick, M., Saulsgiver, K., & Higgins, S. (June 2012). Using financial incentives to sustain smoking abstinence among opioid-maintained patients. Poster presented at the 74th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.

- 35. Washio, Y., Higgins, S.T., **Sigmon, S.C.,** Yandell, D.W., Skelly, J.M., Bernstein, I.M., Lopez, A.A., Lynch, M.L., & Hanson, J.D. (June 2012). Carriers of the A1 allele of the D2 dopamine receptor gene have better outcomes in an incentive-based intervention for pregnant smokers. Poster presented at the 74th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 36. <u>Patrick, M., Dunn, K., Sigmon, S.C., Saulsgiver, K., & Higgins, S.T.</u> (August 2012). Naturalistic changes in cigarette smoking during a double-blind buprenorphine taper. Poster presented at the American Psychological Association's 119th annual convention, Orlando, FL.
- 37. **Sigmon, S.C.,** Patrick, M., Dunn, K., Saulsgiver, K., Meyer, A., Heil, S.H. & Higgins, S.T. (August 2012). Using contingency management to promote smoking abstinence in challenging populations. Poster presented at the American Psychological Association's 119th annual convention, Orlando, FL.
- 38. Beebe, K.L., Chavoustie, S., Ling, W., **Sigmon, S.**, Leiderman, D.B., & Bailey, G. (December 2012). Buprenorphine implants for the treatment of opioid dependence: Sixand 12-month outcomes. Poster presented at the 51<sup>st</sup> annual meeting of the American College of Neuropsychopharmacology, Hollywood, FL.
- 39. Heil, S.H., <u>Herrmann, E.S.</u>, Higgins, S.T., Solomon, L.J., **Sigmon, S.C.** & Bernstein, I.M. (March 2013). Characterizing nicotine withdrawal in pregnant cigarette smokers. Poster presented at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Boston, MA.
- 40. <u>Patrick, M.E., Meyer, A.C.</u>, Teneback, C., Dixon, A., Holterman, L.A., Higgins, S.T. & **Sigmon, S.C**. (March 2013). Financial incentives to promote smoking abstinence in patients diagnosed with chronic obstructive pulmonary disease. Poster presented at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Boston, MA.
- 41. **Sigmon, S.C.,** Patrick, M.E., Meyer, A.C., Heil, S.H. & Higgins, S.T. (March 2013). Financial incentives to sustain smoking abstinence in opioid-maintained patients. Poster presented at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Boston, MA.
- 42. Heil, S.H., <u>Hand, D.J.</u>, **Sigmon, S.C.**, Meyer, M.C. & Higgins, S.T. (June 2013). Improving effective contraceptive use among opioid-maintained women. Poster presented at the 75th Annual Meeting of the College on Problems of Drug Dependence, San Diego, CA.
- 43. Meyer, A.C., Sigmon, S.C., Patrick, M.E., Heil, S.H., & Higgins, S.T. (June 2013). Characterizing prescription opioid abusers with and without lifetime heroin use. Poster presented at the 75th Annual Meeting of the College on Problems of Drug Dependence, San Diego, CA.
- 44. <u>Patrick, M.E.</u>, **Sigmon, S.C.**, <u>Meyer, A.C.</u>, Heil, S.H., & Higgins, S.T. (June 2013). Influence of bupropion on smoking abstinence in opioid-maintained smokers. Poster presented at the 75th Annual Meeting of the College on Problems of Drug Dependence, San Diego, CA.
- 45. **Sigmon, S.C.,** Patrick, M.E., Meyer, A.C., Teneback, C. & Dixon, A. (June 2013). Financial incentives for smoking abstinence in patients diagnosed with pulmonary disease. Poster presented at the 75th Annual Meeting of the College on Problems of Drug Dependence, San Diego, CA.
- 46. Meyer, A.C., Patrick, M.E., Teneback, C., Dixon, A., Higgins, S.T. & **Sigmon, S.C**. (September 2013). Using financial incentives to promote initial smoking abstinence among patients diagnosed with pulmonary disease. Poster presentation at the 1<sup>st</sup> annual Behavior Change, Health and Health Disparities Conference, Burlington, VT.
- 47. <u>Patrick, M.E., Saulsgiver, K.A., Meyer, A.C.</u>, Heil, S., Higgins, S., & **Sigmon, S.C.** (September 2013). Sustaining smoking abstinence in opioid-maintained individuals: A contingency management intervention. Poster presentation at the 1<sup>st</sup> annual Behavior Change, Health and Health Disparities Conference, Burlington, VT.
- 48. <u>Patrick, M.E., Dunn, K.E.,</u> Heil, S.H., Higgins, S.T. & **Sigmon, S.C**. (February 2014). Spontaneous reductions in smoking during double-blind buprenorphine detoxification. Poster presented at the Annual Meeting of the Society for Research on Nicotine and Tobacco. Seattle, WA.

- 49. **Sigmon, S.C.,** Higgins, S.T., Stitzer, M.L., Tidey, J.W., Heil, S.H., Gaalema, D.E., Hughes, J.R., Durand, H.J., Bunn, J., Brummel-Ziedins, K., Garavan, H., Rose, G., Irvin, C., Tyndale, R., & Hecht, S. (April 2014). Low nicotine content cigarettes in vulnerable populations: Opioid abusers. Poster presentation at the NIH Tobacco Regulatory Science Conference. Bethesda, MD.
- 50. Heil, S.H., Higgins, S.T., Stitzer, M.L., Tidey, J.W., **Sigmon, S.C.,** Gaalema, D.E., Hughes, J.R., Durand, H.J., Bunn, J., Brummel-Ziedins, K., Garavan, H., Rose, G., Irvin, C., Tyndale, R., & Hecht, S. (April 2014). Low nicotine content cigarettes in vulnerable populations: Childbearing age women. Poster presentation at the NIH Tobacco Regulatory Science Conference. Bethesda, MD.
- 51. Tidey, J.W., Higgins, S.T., Gaalema, D.E., **Sigmon, S.C.**, Heil, S.H., Hughes, J.R., Durand, H.J., Bunn, J., Brummel-Ziedins, K., Garavan, H., Rose, G., Irvin, C., Tyndale, R., & Hecht, S. (April 2014). Low nicotine content cigarettes in vulnerable populations: Currently depressed. Poster presentation at the NIH Tobacco Regulatory Science Conference. Bethesda. MD.
- 52. Bergeria, C.L., Hand, D., Meyer, M., **Sigmon, S.C.**, Higgins, S.T., S.H. Heil (June 2014). Characterizing interpregnancy intervals of opioid-maintained women. Poster presented at the 76th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR.
- 53. Meyer, A.C., Patrick, M.E., Heil, S.H., Higgins, S.T., & **Sigmon, S.C.** (June 2014). Gender differences in smoking and treatment outcome among opioid-maintained smokers. Poster presented at the 76th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR.
- 54. <u>Patrick, M., Meyer, A., Higgins, S.T., & **Sigmon S.C**. (June 2014). Influence of sensation seeking on *d*-amphetamine reinforcement. Poster presented at the 76th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR.</u>
- 55. **Sigmon, S.C.,** & <u>Fenn, J.M.</u> (June 2014). Examining the association between methadone maintenance treatment and body mass index. Poster presented at the 76th Annual Meeting of the College on Problems of Drug Dependence, San Juan, PR. Drug and Alcohol Dependence 146 (2015) e99.
- 56. Bergeria, C.L., Heil, S.H., Meyer, M., Hand, D.J., Higgins, S.T. & **Sigmon, S.C.** (August 2014). Characterizing the reproductive histories of opioid-maintained women. Poster presented at the American Psychological Association's 121st annual convention, Washington, DC.
- 57. Miller, M.E., Meyer, A.C. & **Sigmon, S.C.** (February 2015). Changes in anxiety following initial smoking abstinence in opioid-dependent smokers. Poster presented at the 21st Annual Meeting of the Society for Research on Nicotine and Tobacco, Philadelphia, PA.
- 58. Meyer, A.C., Streck, J.M., Ochalek, T.A., Hruska, B.J., Teneback, C.C., Dixon, A.E., Higgins, S.T. & **Sigmon, S.C.** (February 2015). Using contingency management to promote smoking abstinence among patients with pulmonary disease. Poster presented at the 21st Annual Meeting of the Society for Research on Nicotine and Tobacco, Philadelphia, PA.
- 59. <u>Streck, J.M., Meyer, A.C.,</u> & **Sigmon, S.C.** (February 2015). Characterizing nicotine withdrawal among opioid-maintained smokers. Poster presented at the 21<sup>st</sup> Annual Meeting of the Society for Research on Nicotine and Tobacco, Philadelphia, PA.
- 60. Meyer, A.C., Streck, J.M., Ochalek, T.A., Hruska, B., Teneback, C.C., Dixon, A.E., & Sigmon, S.C. (June 2015). Financial incentives promote smoking abstinence among patients with pulmonary disease. Poster presented at the 77th Annual Meeting of the College on Problems of Drug Dependence, Phoenix, AZ.
- 61. <u>Hruska, B., Meyer, A.C.</u>, & **Sigmon, S.C.** (June 2015). Smoking status on day 3 of a quit attempt predicts future smoking outcomes. Poster presented at the 77th Annual Meeting of the College on Problems of Drug Dependence, Phoenix, AZ.
- 62. Ochalek, T.A., Meyer, A.C., Hruska, B., Streck, J.M., & Sigmon, S.C. (June 2015). An mHealth application for increasing HIV and hepatitis knowledge in waitlisted opioid abusers. Poster presented at the 77th Annual Meeting of the College on Problems of Drug Dependence, Phoenix, AZ.

- 63. Streck, J.M., Sigmon, S.C., Heil, S.H., Stitzer, M.L., Tidey, J.W., Gaalema, D.E., DeSarno, M.J., Balas, K., Durand, H.J., & Higgins, S.T. (October 2015). Does nicotine function differently among opioid-dependent versus nondependent smokers? Poster presented at the Annual Fall Meeting of the NIH Tobacco Centers of Regulatory Science, Bethesda, MD.
- 64. Ochalek, T.A., Pusey, J., Hruska, B.J., Heil, S.H., Higgins, S.T., Rose, G., Moore, B.A., Sigmon, S.C. (June 2016). Within subject evaluation of interim buprenorphine vs. waitlist on illicit opioid use. Poster presentation at the 78th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 65. **Sigmon, S.C**. (June 2016). Interim buprenorphine treatment for reducing illicit opioid use during treatment delays. Poster presented at the 78th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 66. <u>Streck, J.M., Ochalek, T.A., Hruska, B.J.</u>, Pusey, J.D., **Sigmon, S.C.** (June 2016). Improvements in psychiatric symptoms during interim buprenorphine treatment. Poster presentation at the 78<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 67. Ochalek, T.A., **Sigmon, S.C.**, Hruska, B.J., Heil, S.H., Higgins, S.T., Rose, G., Moore, B.A., Schwartz, R.P. (August 2016). Interim buprenorphine treatment for reducing illicit opioid use during delays to treatment entry. Poster presentation at the American Psychological Association Annual Convention, Division 28, Denver, CO.
- 68. <u>Streck, J.M., Ochalek, T.A., Hruska, B.J.</u>, Pusey, J.D., **Sigmon, S.C.** (August 2016). Effects of interim buprenorphine treatment on psychiatric symptoms among waitlisted opioid abusers. Poster presentation at the American Psychological Association Annual Convention, Division 28, Denver, CO.
- 69. Ochalek, T.A., **Sigmon, S.C.**, Higgins, S.T. (August 2017). An HIV+HCV mHealth Application for Increasing Knowledge in Opioid-Dependent Adults. Poster presentation at the 2017 Annual American Psychological Association Convention, Washington, DC.
- 70. <u>Parker, M.A., Ochalek, T.A.</u>, Rose, G.L. & **Sigmon, S.C.** (August 2017). Phone-based vs. in-person self-report of drug use during Interim Buprenorphine Treatment. Poster presentation at the 2017 Annual American Psychological Association Convention, Washington, DC.
- 71. <u>Peck, K.R., Streck, J.M., Ochalek, T.A.,</u> & **Sigmon, S.C.** (November 2017). Examining the impact of current pain status on buprenorphine treatment response for patients with Opioid Use Disorder. Poster presentation at the annual convention of the Association of Behavioral and Cognitive Therapies, Washington, DC.
- 72. Parker, M.A., **Sigmon, S.C.**, & Villanti, A.C. (February 2018). Relative and absolute harm perceptions of tobacco products and newly incident use in youth: Results from wave 1 and 2 of the Population Assessment of Tobacco and Health (PATH) study. Poster presentation at the Society for Research on Nicotine & Tobacco 24th Annual Meeting, Baltimore, MD.
- 73. Ochalek, T.A., Peck, K.R., Parker, M.A., Badger, G.J., Higgins, S.T., & **Sigmon, S.C.** (June 2018). Within-subject evaluation of interim buprenorphine treatment during waitlist delays. Poster presentation at the 80<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, San Diego, California.
- 74. <u>Parker, M.A.</u>, **Sigmon, S.C.**, & Villanti, A.C. (June 2018). Correlation of dual drug use and psychiatric diagnoses with cigarette smoking in U.S. adults. Poster presentation at the NIH Tobacco Regulatory Science Meeting, Bethesda, MD.
- 75. <u>Peck, K.R., Ochalek, T.A.</u>, Badger, G.J., & **Sigmon, S.C.** (June 2018). Effects of Interim Buprenorphine Treatment for opioid use disorder among emerging adults. Poster presentation at the 80<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, San Diego, CA.
- Ochalek, T.A., Peck, K.R., Parker, M.A., Badger, G.J., Higgins, S.T., & Sigmon, S.C. (August 2018). Evaluating within-subject effects of interim buprenorphine treatment for opioid use disorder. Poster presentation at the 2018 Annual American Psychological Association Convention, San Francisco, California.
- 77. Peck, K.R., Streck, J.M., Ochalek, T.A., & Sigmon, S.C. (November 2018). Examining the

- impact of current pain status on buprenorphine treatment response for patients with Opioid Use Disorder. Poster presentation at the 52<sup>nd</sup> Annual Meeting of the Association of Behavioral and Cognitive Therapies, Washington, DC.
- 78. Ochalek, T.A., Peck, K.R., Dunn, K.E., Stoner, A.D., Sigmon, S.C. (June 2019). Evaluation of iPad-delivered opioid overdose education among individuals with opioid use disorder. Poster presentation at the 81<sup>st</sup> Annual Meeting of the College on Problems of Drug Dependence, San Antonio, Texas.
- 79. Ochalek, T.A., Peck, K.R., Lontine, P.J., Pennington-Fitzgerald, W., & Sigmon, S.C. (August 2019). Characterizing baseline treatment motivation among out-of-treatment adults with opioid use disorder. Poster presentation at the 2019 Annual American Psychological Association Convention, Chicago, IL.
- 80. Oleskowicz, T., Ochalek, T., Peck, K., & **Sigmon S.C.** (June 2020). Interim Buprenorphine Treatment: Preliminary outcomes over a longer duration. Poster presentation at the 82<sup>nd</sup> Annual Meeting of the College on Problems of Drug Dependence, Hollywood, FL.
- 81. Ochalek, T., Laurent, J., Badger, G.J. & **Sigmon S.C.** (June 2020). Examining sucrose subjective response among individuals with opioid use disorder. Poster presentation at the 82<sup>nd</sup> Annual Meeting of the College on Problems of Drug Dependence, Hollywood, FL.
- 82. Wiley. R., Oleskowicz, T., Ochalek, T., Peck, K., & **Sigmon, S.C.** (June 2020). Cocaine use and urinary cotinine during interim buprenorphine treatment. Poster presentation at the 82<sup>nd</sup> Annual Meeting of the College on Problems of Drug Dependence, Hollywood, FL.
- 83. Harder, V., McCluskey, C., Smith, M.L., Ryer, J., Thomas, J., **Sigmon, S.**, Heil, S., Villanti, A. (October 2020). Rural primary care practitioners' perceptions of substance use disorders and treatment during COVID-19. Invited presentation at the Vermont Center on Behavior and Health's 8<sup>th</sup> Annual Conference on Rural Addiction and Health, Burlington, VT.
- 84. Wiley, R., Sigmon, S.C., DeSarno, M., Bunn, J., Harfmann, R., Davis, D., Streck, J., Bergeria, C.L., Parker, M., Heil, S., Gaalema, D., Tidey, J., Lee, D., Hughes, J., Markesich, C., Nesheim-Case, R., & Higgins, S. (February 2021). Investigating the impact of opioid agonist treatment on nicotine metabolite ration among vulnerable smokers. Poster presented at the 27<sup>th</sup> Annual Meeting of the Society for Research on Nicotine and Tobacco.

#### Poster – International

- 1. **Sigmon, S.C.**, Higgins, S.T., & Badger, G.J. (June 1999). Relation of age of cocaine initiation to drug use severity and treatment outcome. Poster presentation and abstract publication at the 61<sup>st</sup> Annual Meeting of the College on Problems of Drug Dependence. Acapulco, Mexico.
- 2. **Sigmon, S.C.,** & Higgins, S.T. (June 2002). Cocaine-dependent patients' perceptions of how their cocaine use influences the reinforcing effects of cigarettes and money. Poster presentation at the 64<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence. Quebec City, Canada.
- 3. McKerchar, T.L., Heil, S.H., **Sigmon, S.C.,** Dantona, R.L., & Higgins, S.T. (June 2007) Delay discounting of money, cocaine, cigarettes, and health by cocaine-dependent outpatients. Poster presentation at the 69th Annual Meeting of the College on Problems of Drug Dependence, Quebec City, Canada.
- 4. <u>Dunn, K.E.</u>, **Sigmon, S.C.**, & Higgins, S.T. (June 2007) Breath carbon monoxide levels and urine cotinine in MM smokers. Poster presentation at the 69th Annual Meeting of the College on Problems of Drug Dependence, Quebec City, Canada.
- 5. <u>Dunn, K.E.</u>, **Sigmon, S.C.**, <u>Saulsgiver, K.A.</u> & Higgins, S.T. (August 2009). Characterization of buprenorphine withdrawal following a double-blind buprenorphine taper. Poster presented at the 117th Annual Meeting of the American Psychological Association Annual Convention, Toronto, CA.
- 6. <u>Saulsgiver, K.A., Dunn, K.E.,</u> **Sigmon, S.C.,** & Higgins, S.T. (August 2009). Evaluation of an HIV/Hepatitis C educational intervention during buprenorphine treatment of prescription-opioid abuse. Poster presented at the 117th Annual Meeting of the American Psychological Association Annual Convention, Toronto, Canada.

- 7. <u>Streck, J.M.</u>, Davis, D.R., Bergeria, C.L., Bunn, J.Y., **Sigmon, S.C.**, Heil, S.H., Gaalema, D., & Higgins, S.T. (March 2017). Characterizing smokers who use American Indian reservation cigarettes. Poster presentation at the 23<sup>rd</sup> Annual Meeting of the Society for Research on Nicotine and Tobacco, Florence, Italy.
- 8. **Sigmon, S.C.**, <u>Streck, J.M.</u>, Heil, S.H., Stitzer, M.L., Tidey, J.W., Gaalema, D.E., & Higgins, S.T. (June 2017). Subjective effects of smoking among opioid-maintained individuals: Results from a pilot study examining reduced nicotine content cigarettes. Poster presentation at the 79<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Montreal, Canada.
- 9. <u>Streck, J.M., Ochalek, T.A.</u>, Badger, G.J., & **Sigmon, S.C.** (June 2017). Gender differences in effects of Interim Buprenorphine Treatment on psychiatric symptoms. Poster presentation at the 79<sup>th</sup> Annual Meeting of the College on Problems of Drug Dependence, Montreal, Canada.

### **INVITED PRESENTATIONS**

### Regional invited presentations

- 1. November 2004. Status of opioid treatment in Vermont. Invited address to the Board of Trustees of Fletcher Allen Health Care, Burlington, VT.
- 2. November 2004. Methadone maintenance treatment in Vermont. Invited presentation on empirically-supported opioid agonist treatments to visiting physicians from Nizhny Novgorod, Russia as part of Project Harmony, a program funded by the U.S. Department of State to expose top-level physicians to American medical models, Burlington, VT.
- 3. April 2005. Invited presentation on prescription opioid abuse to Vermont Health Commissioner and legislature, as part of the Prescription Monitoring Program Information Session, Montpelier, VT.
- 4. October 2006. Invited presentation on opioid pharmacology and pharmacotherapies to Howard Center for Human Services, Burlington, VT.
- 5. December 2006. Investigating the factors that modulate drug reinforcement. Invited presentation at Grand Rounds in Psychiatry, The University of Vermont College of Medicine, Burlington, VT.
- 6. September 2009. An empirically-supported educational intervention to enhance HIV/Hepatitis C knowledge during methadone treatment of opioid dependence. Invited presentation to the Alcohol and Drug Abuse Program, Vermont Department of Health, Burlington, VT.
- 7. November 2009. Opioids, cocaine and nicotine: Pharmacology, neurobiology, epidemiology, treatment and research. Invited presentation at the Vermont Addiction Professionals Association training, Colchester, VT.
- 8. May 2010. Parametric evaluation of buprenorphine taper duration for prescription opioid abuse. Invited presentation at the University of Vermont Department of Psychology Collogium, Burlington, VT.
- 9. June 2011. Parametric evaluation of buprenorphine taper duration for prescription opioid abuse. Invited presentation at the Department of Psychiatry Research Day, University of Vermont, Burlington, VT.
- 10. September 2013. Incentives for smoking cessation among outpatients with co-morbid medical conditions. Invited address at the 1st Annual Behavior Change, Health and Health Disparities Conference, Burlington, VT.
- 11. September 2014. Expanding access to opioid treatment in rural America. Invited lecture to the University of Vermont College of Medicine Community Rounds. Burlington, VT.
- 12. January 2015. Expanding access to evidence-based treatment for opioid dependence. Invited presentation at Grand Rounds in Academic Health Sciences, UVM Medical Center, Burlington, VT.
- 13. November 2015. Treating heroin and prescription opioid dependence. Psychiatry Community Briefing UVM Medical Center, Burlington, VT.

- 14. March 2016. Reducing individual and public health risks during opioid treatment delays. Population Health and Quality Committee, University of Vermont Health Network, Burlington, VT.
- 15. June 2018. Expanding access to treatment for opioid use disorder. Senator Patrick Leahy's Chief of Staff and staff of the Appropriations Committee and the Subcommittee on Labor, Health and Human Services, Burlington, VT.
- 16. October 2018. Technology-assisted buprenorphine for expanding treatment access. Invited address at the 6<sup>th</sup> Annual Behavior Change, Health and Health Disparities Conference, Burlington, VT.
- 17. November 2019. UVM Center on Rural Addiction: Helping patients by helping providers. Invited address given at the University of Vermont Legislative Policy Summit: Innovations in Education and Research for the Benefit of Vermont at the University of Vermont's Larner College of Medicine. UVM Medical Center. Burlington, VT.

# **National invited presentations**

- October 2001. Effects of psychomotor stimulants on the reinforcing effects of cigarette smoking and monetary reinforcement. Behavioral Pharmacology Research Unit, Department of Psychiatry, The Johns Hopkins University School of Medicine, Baltimore, MD (CME).
- October 2003. Behavioral approach to substance abuse treatment: A look at the empirical support. Psychiatric Research Center, Dartmouth Medical School, Dartmouth College, Lebanon, NH.
- November 2003. Behavioral and pharmacological treatments for substance abuse.
   Department of Behavioral Science, College of Medicine, University of Kentucky, Lexington, KY.
- 4. August 2006. Invited award lecture as recipient of the 2006 Wyeth Young Psychopharmacologist Award at the 114<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention. New Orleans, LA.
- December 2007. Current research in opioid behavioral pharmacology at the University of Vermont. Invited presentation at Grand Rounds in Psychiatry, Dartmouth Medical School, Hanover, NH.
- 6. February 2011. Promoting smoking cessation. Invited presentation at the Conference on Incentives and Health, University of Maryland, College Park, MD.
- 7. December 2011. Is caffeine a gateway drug? Invited interview with the Journal of Caffeine Research to discuss my recently-published study showing that individual differences in sensitivity to caffeine reinforcement prospectively predicted sensitivity to d-amphetamine positive subjective effects.
- 8. March 2014. Improving access to opioid treatment in rural America. Invited presentation at the Dartmouth Psychiatry Research Center, Geisel School of Medicine, Hanover, NH.
- 9. April 2014. Invited presentation to Senator Leahy staff and members of the US Judiciary and Appropriations committees to discuss newly-received NIDA R34 grant to develop and evaluate an Interim Buprenorphine Treatment for opioid-dependent Vermonters currently on waitlists, Washington, DC.
- March 2016. Developing and evaluating novel treatments for opioid dependence.
   Department of Psychiatry Grand Rounds, Johns Hopkins School of Medicine, Baltimore, MD
- 11. March 2016. Bridging waitlist delays with Interim Buprenorphine Treatment: A randomized clinical trial. Behavioral Pharmacology Research Unit Lecture Series, Johns Hopkins School of Medicine, Baltimore, MD.
- 12. June 2016. Interim buprenorphine treatment for reducing illicit opioid use during treatment delays. Media forum at the 78th Annual Meeting of the College on Problems of Drug Dependence, Palm Springs, CA.
- 13. August 2016. Developing and evaluating novel treatments for opioid dependence. Presidential Address given at the 124<sup>th</sup> Annual Meeting of the American Psychological

- Association Annual Convention, Division 28, Denver, CO.
- 14. April 2017. Interim buprenorphine treatment reduces illicit opioid use during treatment delays. Invited lecture to the Research Institute on Addictions, SUNY-Buffalo, Buffalo, NY.
- 15. November 2019. University of Vermont Center on Rural Addictions. Invited address given at the Rural Communities Opioid Response Program (RCORP) Rural Centers of Excellence on Substance Use Disorder (RCOE) Kick-Off Meeting. Health Resources and Services Administration. Rockville, MD.
- 16. January 2021. Overview of the University of Vermont Center on Rural Addictions. Invited address given at the PI meeting of the Centers for Clinical & Translational Research. Burlington, VT.

# **International invited presentations**

- 1. October 2013. A behavioral-economic approach to promoting health behavior change in patients with co-occurring disorders. Chaired symposium at the International Congress of Dual Disorders, Barcelona, Spain.
- 2. August 2015. Technology and substance use disorders: Expanding our method and improving our science. Discussant of symposium at the 123<sup>rd</sup> Annual Meeting of the American Psychological Association Annual Convention, Toronto, CA.
- 3. May 2016. Interim buprenorphine treatment for reducing illicit opioid use during treatment delays. Oral presentation at the Hominis 2016 7<sup>th</sup> Intercontinental Convention, Havana, Cuba.

## **CHAIRED SYMPOSIA**

- 1. **Sigmon, S.C.** & Wong, C.J. (May 1998). Behavioral innovations for the treatment of substance abuse. Co-chaired symposium at the 24<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. Orlando, FL.
- 2. **Sigmon, S.C.** & Wong, C.J. (August 1999). An empirical look at gender issues and cocaine. Co-chaired symposium at the 107<sup>th</sup> Annual Meeting of the American Psychological Association. Boston, MA.
- 3. **Sigmon, S.C.** (May 2001). Contingency management among substance-abusing populations. Chaired symposium at the 27<sup>th</sup> Annual Meeting of the Association for Behavior Analysis. New Orleans, LA.
- 4. **Sigmon, S.C.** & Rogers, R. (August 2007). HIV and HCV transmission risks in noninjecting drug users. Co-chaired symposium at the 115th Annual Meeting of the American Psychological Association Annual Convention. San Francisco. CA.
- Hatsukami, D. & Sigmon, S.C. (June 2013). Nicotine and novel tobacco products and regulatory science. Co-chaired symposium at the 75th Annual Meeting of the College on Problems of Drug Dependence, San Diego, CA. Presenters included Dr. David Ashley, Director of the FDA Center for Tobacco Products, as well as Drs. Jack Henningfield, Larry Carter and David Shurtleff.
- 6. **Sigmon, S.C.** & Stoops, W.W. (August 2016). Fifty years of APA Division 28: Our remarkable past and bright future. Co-chaired symposium at the 124<sup>th</sup> Annual Meeting of the American Psychological Association Annual Convention, Denver, CO.

#### **INVITED MEDIA INTERVIEWS**

- October 2004. Invited interview on "Unsung Heroes", a local cable television program, to represent The Chittenden Center and to facilitate greater understanding of opioid dependence in Vermont, Vermont Community Access Media, Burlington, Vermont.
- 2. May 2009. It may not be caffeine keeping you awake. Invited interview with the *New York Times*, published as a Vital Signs article in the *New York Times* on May 11, 2009.
- 3. January 2012. Inhalable caffeine: Party drug or handy, pocket-sized boost? Invited interview with *National Public Radio* to discuss the development of a new formulation of caffeine.
- 4. February 2012. Sizing up Suboxone. Invited interview on *Vermont Public Radio* to discuss buprenorphine treatment in Vermont.

- 5. February 2014. Invited interview on WCAX, the local news television station, to discuss the urgent need for expanded access to opioid treatment in rural areas, Burlington, VT.
- 6. April 2014. Invited interview on *Vermont Public Radio* to discuss newly-received NIDA R34 grant to develop and evaluate an Interim Buprenorphine Treatment for opioid-dependent Vermonters currently on waitlists, Burlington, Vermont.
- April 2014. Invited interview on WCAX, the local news television station, to discuss newlyreceived NIDA R34 grant to develop and evaluate an Interim Buprenorphine Treatment for opioid-dependent Vermonters currently on waitlists, Burlington, Vermont.
- 8. April 2014. Invited interview with the Tufts University Observer to discuss Vermont's opioid abuse and dependence problem.
- 9. February 2015. National Institute on Drug Abuse. Patients Addicted to Opioid Painkillers Achieve Good Results With Outpatient Detoxification. Retrieved from <a href="http://www.drugabuse.gov/news-events/nida-notes/2015/02/patients-addicted-to-opioid-painkillers-achieve-good-results-outpatient-detoxification">http://www.drugabuse.gov/news-events/nida-notes/2015/02/patients-addicted-to-opioid-painkillers-achieve-good-results-outpatient-detoxification</a>.
- 10. September 2015. Invited interview on WCAX, the local news television station, to discuss novel approaches for addressing the opioid epidemic in Vermont.
- 11. October 2015. Invited interview with Vermont Digger to discuss ongoing Interim Buprenorphine Treatment study. <a href="http://vtdigger.org/2015/10/13/uvm-doctor-devises-system-to-help-addicts-waiting-for-treatment/">http://vtdigger.org/2015/10/13/uvm-doctor-devises-system-to-help-addicts-waiting-for-treatment/</a>
- 12. October 2015. Invited interview with NECN/WTPZ News Channel 3 to discuss UVM Methadone Clinic farm stand project. http://goo.gl/isy50d
- 13. November 2015. Invited interview on WCAX, the local news television station, to discuss contingency management approaches for treating opioid dependence, Burlington, Vermont. http://www.wcax.com/story/30473351/rewarding-addicts-to-drop-opiates
- 14. February 2017. Invited interview on WPTZ, the local news television station, to discuss opioid abuse and dependence among adolescents, Burlington, Vermont. http://www.mynbc5.com/article/state-of-addiction-a-look-at-the-effects-of-early-use/8988016
- 15. February 2020. *This woman saves lives. UVM researcher leads fight against rural opioid crisis.* The Vermont Cynic, Issue 19, Volume 136.
- 16. February 2020. UVM researcher leads fight against rural opioid crisis. VTDigger. February 18, 2020.
- 17. September 2020. Selected for inclusion in *Fast Company*'s annual list of the 100 Most Creative People in Business, September 2020: <a href="https://www.fastcompany.com/90523229/fast-companys-most-creative-people-in-business-2020">https://www.fastcompany.com/90523229/fast-companys-most-creative-people-in-business-2020</a>

#### **Patents Issues for Pending**

**Treatment Needs Questionnaire** – In a collaboration with John Brooklyn, MD, we developed an evidence-informed brief screening tool for assessing opioid-dependent patients' clinical needs at treatment intake and pairing them with the most appropriate intensity of pharmacotherapy-based treatment. This screener is now being used at intake in our 1,000-patient opioid treatment clinic, as well as by all office-based buprenorphine practices taking part in the Vermont Department of Health's Buprenorphine Learning Collaborative and Hub & Spoke system of care. Copyrighted under UVM's Office of Technology Commercialization: @2015 SC Sigmon & JR Brooklyn, Licensed under CC BY-NC-ND 4.0

**HIV+Hepatitis Educational iPad application** – Our team has a well-established, single-visit intervention that produces significant improvements in HIV and HCV knowledge and reductions in self-reported risk behaviors. However, it has typically been delivered in a resource-intensive, in-person format which may not be practical in resource-constrained settings. I adapted our intervention for automated delivery via iPad, a state-of-the-art mobile device with portability, sophisticated functionality and widespread appeal. In our studies thus far, our HIV+Hepatitis

Education, delivered via iPad application, is improving HIV- and HCV-knowledge in extremely high-risk opioid-dependent patients waitlisted for treatment.

#### Other Activities

UVM Methadone Clinic Farm Stand - Despite the demonstrated efficacy of methadone treatment for opioid dependence, one less desirable side effect may include weight gain, perhaps through opioid-induced increases in sweet taste preference and glycemic dysregulation. As Director of the Chittenden Center methadone service, I oversaw a project in which we evaluated changes in BMI among patients entering methadone maintenance (Fenn, Laurent & Sigmon, 2015). We observed a significant increase in BMI following intake (p < 0.001), which translated to a 28-pound (17.5% increase in body weight) increase in females and a 12-pound (6.4%) increase in males. I plan to pursue extramural funding to further investigate this association between opioid agonists and weight gain. In the meantime, during the Spring of 2015 I initiated a collaboration with Burlington's Intervale Community Farm to bring a weekly subscription of healthy, free produce to our methadone-maintained patients. The UVM Methadone Clinic Farm Stand distributed fresh locally-grown, organic vegetables to patients from our clinic waiting room every Tuesday from July-October 2015. The project was well-received by patients and clinic staff alike and also covered in a news story by NECN/WTPZ Newschannel 3 which was broadcast across New England: http://goo.gl/isy50d. We also published a letter highlighting the unique economic and practical barriers to healthy eating faced by economically-disadvantaged individuals, especially those with concomitant opioid use disorder (Sigmon, S.C. (2016). The Lancet, 388, 1879-1880).

APA Division 28 Undergraduate Scholarship – The American Psychological Association holds a large national conference annually wherein graduate students, postdoctoral fellows and faculty present and discuss data from ongoing research and clinical programs. As 2016 President of APA's Division 28 on Psychopharmacology and Substance Abuse, I established an Undergraduate Scholarship to support the participation of undergraduate psychology majors from a college or university located in the destination city of the convention. We covered the cost of the students' APA membership and conference registration and invited them to participate in a poster session for early career psychologists. Going forward, this annual scholarship will provide undergraduate students with an opportunity to see and discuss ongoing research in the areas of psychopharmacology and substance abuse, as well as to connect with potential new colleagues and possibly even learn about potential graduate programs.

#### **Quality Improvement and Patient Safety Activities**

2014 - Served as Clinical Expert at Advisory Council meeting on the comparative effectiveness of treatments for opioid dependence, New England Comparative Public Advisory Council (CEPAC), Institute for Clinical and Economic Review (ICER)

## **SUMMARY OF SCHOLARLY ACTIVITIES**

I have been conducting behavioral pharmacology and clinical drug abuse research for nearly 3 decades. My conduct of opioid research began in 1993 examining the factors influencing morphine self-administration in rats and pigeons. For the past 20 years I have conducted clinical research which has been supported by NIH R01 grants, published in high-impact scientific journals (e.g., *JAMA Psychiatry*, *The New England Journal of Medicine*, *JAMA Internal Medicine*), and directly supported FDA approval of new pharmacotherapeutic tools for treatment of patients with opioid use disorder.

For two decades I have also investigated cigarette smoking and nicotine reinforcement among smokers with concurrent substance abuse disorders. This work has utilized both controlled

laboratory and randomized clinical trial approaches, been supported by NIH R01 and FDA grants, produced the most effective smoking cessation intervention to date among opioid-maintained patients, and is poised to impact FDA's forthcoming regulatory decisions around cigarette nicotine content.

In the past decade I have also become increasingly focused on the unique challenges faced by opioid-dependent patients in rural geographic areas. In addition to publications on the rural opioid epidemic in *JAMA Psychiatry* (2013, 2014, 2015), I published a letter to *The New York Times* (March 4, 2015) in an effort to bring broader attention to this issue. I now lead one of three national Rural Centers of Excellence on Substance Use Disorders dedicated to disseminating science-based treatments and tools to expand treatment capacity and reduce opioid-related morbidity and mortality in the rural areas so disproportionately impacted by the current opioid epidemic (<a href="https://uvmcora.org/our-team/">https://uvmcora.org/our-team/</a>).