

# CURRICULUM VITAE

Stephen T. Higgins, Ph.D.

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*Director, Vermont Center for Behavior and Health  
Professor and Virginia H. Donaldson Chair in Translational Science  
University of Vermont College of Medicine*

## CONTACT INFORMATION

### Office

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## EDUCATION & TRAINING

- |  |         |
|--|---------|
| <i>Shippensburg University, Shippensburg, Pennsylvania</i>                   | 1971-75 |
| Major: Psychology<br>Degree: B.A. (Honors)                                   |         |
| <i>Shippensburg University, Shippensburg, Pennsylvania</i>                   | 1976-78 |
| Major: Counseling<br>Degree: M.S.  |         |
| <i>University of Kansas, Lawrence, Kansas</i>                                | 1979-82 |
| Major: Developmental and Child Psychology<br>Degree: M.A.                    |         |
| <i>University of Kansas, Lawrence, Kansas</i>                                | 1982-83 |
| Major: Developmental and Child Psychology<br>Degree: Ph.D.                   |         |
| <i>Johns Hopkins University School of Medicine, Baltimore, Maryland</i>      | 1983-85 |
| Concentration: Behavioral Pharmacology and Drug Abuse<br>Postdoctoral Fellow |         |

## PROFESSIONAL APPOINTMENTS

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|---------|--|
| 1985-86 | Research Associate, Department of Psychiatry, Behavioral Pharmacology Research Unit, Division of Behavioral Biology, Johns Hopkins University School of Medicine |
| 1985-86 | Staff Fellow, Addiction Research Center, National Institute on Drug Abuse  |

- 1986-89 Research Assistant Professor, Departments of Psychiatry and Psychological Science, University of Vermont
- 1989-92 Assistant Professor, Departments of Psychiatry and Psychological Science, University of Vermont
- 1992-97 Associate Professor with tenure, Departments of Psychiatry and Psychological Science, University of Vermont
- 1997-present Professor with tenure, Departments of Psychiatry and Psychological Science, University of Vermont
- 1986-2013 Co-Director, Human Behavioral Pharmacology Laboratory, Department of Psychiatry, University of Vermont
- 1990-present Director, NIH-supported predoctoral and postdoctoral research training program in the human behavioral pharmacology of drug dependence, Departments of Psychiatry and Psychological Science
- 2004-present Vice Chair for Research, Department of Psychiatry, University of Vermont
- 2013-present Founder and Director, Vermont Center on Behavior and Health, College of Medicine, University of Vermont

## **HONORS & AWARDS**

- 1980-81 National Institute on Child Health and Development, Predoctoral Fellowship sponsored through the University Affiliated Facility, Children's Rehabilitation Unit, Kansas University Medical Center
- 1983 National Institute on Child Health and Development, Predoctoral Fellowship sponsored through the Department of Human Development, University of Kansas
- 1983-85 National Institute on Drug Abuse, Postdoctoral Fellowship sponsored through the Department of Psychiatry, Behavioral Pharmacology Research Unit, Division of Behavioral Biology, The Johns Hopkins University School of Medicine
- 1987 Travel Award, Committee on Problems of Drug Dependence, Department of Pharmacology, Medical College of Virginia
- 1992-present Fellow, American Psychological Association, Divisions of Psychopharmacology and Substance Abuse (Div. 28), Experimental Analysis of Behavior (Div. 25), Addictions (Div. 50), Behavioral Neuroscience Comparative Psychology (Div. 6)
- 1993 Joseph Cochin Young Investigator Award, College on Problems of Drug Dependence
- 1996 Dan Anderson Research Award, Hazelden's Butler Center for Research and Learning
- 1997 University Scholar Award, University of Vermont, Burlington, Vermont
- 1999 President, Division of Psychopharmacology and Substance Abuse (Div. 28), American Psychological Association
- 2001 Don Hake Translational Research Award, American Psychological Association, Division of the Experimental Analysis of Behavior (Div. 25)
- 2001-2007 MERIT (Method to Extend Research in Time) Award, National Institute on Drug Abuse, National Institutes of Health
- 2007-2008 President, College on Problems of Drug Dependence

- 2008-present Fellow, College on Problems of Drug Dependence
- 2008-present Fellow, Association for Behavior Analysis International
- 2008 G. Stanley Hall Lecture, Distinguished Contributions to Addiction, American Psychological Association (APA)
- 2010 Alumni Distinguished Achievement Award, Dept. of Applied Behavioral Science, University of Kansas
- 2011 Brady-Schuster Award in recognition of outstanding behavioral science research in psychopharmacology and substance abuse. Division of Psychopharmacology and Substance Abuse (Div. 28), American Psychological Association
- 2014 Virginia H. Donaldson Endowed Professorship in Translational Science, Department of Psychiatry, College of Medicine, University of Vermont
- 2016-present Fellow, Academy of Behavioral Medicine Research
- 2017 Mentorship Award in Addictions Research, College on Problems of Drug Dependence Award
- 2022 Award for Scientific Translation, Society for the Advancement of Behavior Analysis (to be bestowed, May 28, 2022).

## **PROFESSIONAL LICENSES**

- 1986-present Licensed Psychologist - Doctorate, State of Vermont

## **PROFESSIONAL SERVICE & AFFILIATIONS**

### *University and Community Service*

- 1987-89 Member of the University of Vermont Continuing Medical Education Committee
- 1991 Member of the Chittenden County Alliance Against Drug Abuse
- 1991-92 Member, Board of Directors, Wheeler House, Brattleboro, VT, (A Center for Teaching Independent Living Skills to the Hearing Impaired)
- 1997-1999 Member, Faculty Standards Committee, University of Vermont
- 1999-2005 Chair, Scientific Advisory Panel, Vermont Department of Health, Office of Alcohol and Drug Abuse Programs
- 2004-present Vice Chair for Research, Department of Psychiatry

### *Service to External Organizations*

- 1980-81 Area Resource Person, Association for Behavior Analysis
- 1981-83 Affiliate Representative to the Executive Council, Association for Behavior Analysis
- 1985-86 Member of Program Committee, Division 25, American Psychological Association
- 1985-90 Program Coordinator in Behavioral Pharmacology, Association for Behavior Analysis
- 1987-90 Ad-hoc re/site visitor, Clinical and Behavioral Pharmacology Review Group, National Institute on Drug Abuse

- 1988-92 Secretary, Division 28 (Psychopharmacology and Substance Abuse) Executive Committee, American Psychological Association
- 1995-96 Member, Publications Committee, College on Problems of Drug Dependence, Inc.
- 1999-2000 President, Division 28 (Psychopharmacology and Substance Abuse), American Psychological Association
- 1999 Special Review Consultant, Special Emphasis Panel, National Institute on Drug Abuse
- 1999 Member, Subcommittee of National Advisory Council on Alcohol Abuse and Alcoholism on Review of Extramural Research Portfolio for Treatment
- 1999-present Member, Divisions 28 (Psychopharmacology and Substance Abuse), and 50 (Addictions), American Psychological Association
- 1999-2001 Member, NIDA Training and Career Development Study Section
- 2000-2003 Member, National Advisory Committee for the Robert Wood Johnson Foundation's Smoke-Free Families Phase II Program
- 2000-2004 Member, Board of Directors, College on Problems of Drug Dependence, Inc.
- 2002-present Ad-hoc Reviewer, Biobehavioral and Behavioral Processes Study Section, National Institutes of Health
- 2006-2009 President-elect, President, Past-President, College on Problems of Drug Dependence
- 2012-2016 Member, Board of Directors, College on Problems of Drug Dependence, Inc.
- 2012-2013 Ad-hoc Reviewer, Adult Psychopathology Study Section, National Institutes of Health  
Ad-hoc Reviewer, Conference Grants Study Section, National Institute on Drug Abuse, National Institutes of Health  
Ad-hoc Reviewer, Stage 1 reviews, Director's Early Independence Award Applications, National Institutes of Health
- 2014 Ad-hoc Reviewer, P50 Center Grants, National Institute on Drug Abuse
- 2014-2018 Chair, Food & Drug Administration and Tobacco Centers of Regulatory Science Vulnerable Populations Working Group
- 2017-present Member, External Advisory Board, Center on Biomedical Research Excellence (COBRE) on Neuroscience-based Mental Health Assessment and Prediction, Laureate Institute for Brain Research, Martin Paulus, MD, PI
- 2019-present Chair, External Advisory Board, Center on Biomedical Research Excellence (COBRE) on Addiction & Disease Risk and Exacerbation, Brown University, Peter Monti, PhD, PI
- 2019-present Chair, External Advisory Board, Center on Biomedical Research Excellence (COBRE) on Rural Drug Addiction Research Center, University of Nebraska, Rick Bevin, PhD, PI

***Membership in Professional Societies***

- Present Member, College on Problems of Drug Dependence (CPDD)
- Present Member, American Psychological Association (APA, Divisions 25, 28, 50)
- Present Member, Society for Research on Nicotine and Tobacco (SRNT)
- Present Member, Academy of Behavioral Medicine Research

### ***Editorial Activities***

Editor for Behavioral Pharmacology, Journal of the Experimental Analysis of Behavior (1999-2003)  
Board Member, Journal of Child and Adolescent Substance Abuse (2000-present)  
Board Member, Experimental and Clinical Psychopharmacology (1999-present)  
Board Member, The Behavior Analyst (1986-1989)  
Board Member, Journal of the Experimental Analysis of Behavior (1990-93, 1995-97, 1999, 2009-2012)  
Board Member, Psychology of Addictive Behaviors (1998-2001)  
Board Member, Addiction (2009-2015)  
Board Member, Preventive Medicine (2014-2018)  
Associate Editor, Preventive Medicine (2018-present)

### ***Guest Reviewer (Selected sample)***

<i>Addictive Behaviors</i>	<i>JAMA Psychiatry</i>
<i>American Journal of Preventive Medicine</i>	<i>Journal of Applied Behavior Analysis</i>
<i>American Psychologist</i>	<i>Journal of Consulting and Clinical Psychology</i>
<i>Annals of Internal Medicine</i>	<i>Journal of General Internal Medicine</i>
<i>Archives of Pediatrics &amp; Adolescent Medicine</i>	<i>Journal of Studies on Alcohol</i>
<i>Pediatrics</i>	<i>Journal of Substance Abuse</i>
<i>Behavior Therapy</i>	<i>Neuroscience and Biobehavioral Reviews</i>
<i>Behavioral Pharmacology</i>	<i>Pharmacology Biochemistry and Behavior</i>
<i>Biological Psychiatry</i>	<i>Preventive Medicine</i>
<i>Drug and Alcohol Dependence</i>	<i>Psychopharmacology</i>
<i>JAMA</i>	<i>Science</i>
<i>Journal of Pharmacology and Experimental Therapeutics</i>	<i>The Behavior Analyst</i>

## **TEACHING**

### **University of Vermont**

1986 – Present

- Course Co-Director "Research Seminar in Human Behavioral Pharmacology" (16 hours per semester) for psychology graduate students and postdoctoral fellows
- Course Co-Director "Behavior Analysis of Drug Dependence" or "Behavioral Economics of Health" (45 hours every 3 years) for psychology graduate students
- Clinical supervisor of pre-doctoral and postdoctoral fellows in the behavior therapy of drug abuse.
- Member of Ph.D. and Master's Theses Committees for graduate students in the Department of Psychology

### ***Primary Faculty Advisor for the Following Fellows in Drug Abuse Research***

## **Predoctoral**

1. Craig R. Rush, Ph.D. (1988-92)
2. Michelle L. Van Etten, Ph.D. (1991-96)
3. Conrad J. Wong, Ph.D. (1995-00)
4. Stacey C. Sigmon, Ph.D. (1996-2002)
5. Jennifer Plebani Lussier, Ph.D. (2000-2004)
6. Laura Chivers, Ph.D. (2004-2006)
7. Matthew P. Bradstreet, Ph.D. (2007-2012)
8. Alexa Lopez, Ph.D. (2009-2014)
9. Drina Vurbic, M.A. (2012-2014)
10. Ivori Zvorsky, Ph.D. (2014-2019)
11. Danielle Davis, Ph.D. (2014-2019)
12. Carolyn Evemy, B.S. (2020-present)

## **Postdoctoral**

1. Alan J. Budney, Ph.D. (1990-1992)
2. John M. Roll, Ph.D. (1995-1997)
3. Jennifer W. Tidey, Ph.D. (1998-2000)
4. Sarah H. Heil, Ph.D. (2000- 2002)
5. Sheila M. Alessi, Ph.D. (2000-2002)
6. Jin Ho Yoon, Ph.D. (2005-2008)
7. Randall Rogers, Ph.D. (2005-2008)
8. Yukiko Washio, Ph.D. (2008-2011)
9. Diann Gaalema, Ph.D. (2010-2012)
10. Thomas White, Ph.D. (2012-2015)
11. Ryan Redner, Ph.D. (2012-2015)
12. Allison Kurti, Ph.D. (2014-2017)
13. Diana Keith, Ph.D. (2015-2018)
14. Tyler Nighbor, Ph.D. (2017-2020)
15. Sulamunn Coleman, Ph.D. (2018-present)
16. Kaitlyn Browning, Ph.D. (2020-present)

## **RESEARCH GRANTS**

**Cumulative grant support through 3/17/21: \$120,505,827  
(\$90,044,430 as PI; \$30,461,397 as Co-I)**

### ***Current***

**Principal Investigator**, *National Institute on Drug Abuse*, (T32 DA07242), "Training in Behavioral Pharmacology of Drug Abuse," 3/21 – 6/26

**Principal Investigator**, *National Institute of General Medical Sciences*, Center for Biomedical Research Excellence (COBRE, P20 GM103644), "Vermont Center on Behavior and Health," 9/13 – 7/23

**Principal Investigator**, *National Institute on Drug Abuse & Food and Drug Administration*, Tobacco Centers of Regulatory Science (TCORS, U54 DA036114), "University of Vermont Tobacco Center of Regulatory Science," 09/13 – 8/23

**Investigator**, *National Institute on Drug Abuse*, (R01 DA042790), "Interim Buprenorphine Treatment to bridge waitlist delays: Stage II evaluation," 09/17 – 07/21

### ***Past***

**Investigator**, *National Institute on Drug Abuse*, (R01 DA04066) "Self-Administration of Nicotine Gum," 7/84 - 3/89

**Principal Investigator**, *National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism*, FIRST Award, (R29 DA04545), "Stimulant-Alcohol Combinations in Humans," 7/87 - 6/92

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA05213) "Drug Effects on Social Interaction," 10/87 - 9/90

**Investigator**, *National Institute on Drug Abuse*, (R01 DA05538) “Drug Effects on Repeated Acquisition in Humans,” 10/87 - 9/91

**Investigator**, *National Institute on Drug Abuse*, (R01 DA04843) “Caffeine as a Reinforcer in Humans,” 5%, 8/88 - 10/95

**Principal Investigator**, *National Institute on Drug Abuse*, (R18 DA06113) “Behavioral Treatment for IV Cocaine Dependence,” 9/89 - 8/94

**Investigator**, *National Institute on Drug Abuse*, (R01 DA06205) “Benzodiazepine Drug Discrimination in Humans,” 3/90 - 2/98

**Investigator**, *National Institute on Drug Abuse*, (R01 DA06969) “Buprenorphine Pharmacology Related to Addiction Treatment,” 9/90 - 8/05

**Sponsor**, *National Institute on Drug Abuse*, (F31 DA05382) “Sedative-Stimulant Combinations: Effects on Human Learning,” 9/90 - 12/91

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA08076) “Factors Influencing Cocaine use in Humans,” 2/93 - 6/02

**Investigator**, *Eli Lilly and Company*, “A Comparison of the Physiological, Psychomotor, and Self-Reported Effects of LY297802 and a Standard Compound in Humans,” 8/94 - 2/95

**Investigator**, *National Institute on Drug Abuse*, (DA08606) “Children of Drug Abusers: A Multisite Study,” 9/94 - 8/31/96

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA009378), “Treating Cocaine Abuse: A Behavioral Approach,” 9/30/1994 – 3/31/2013

**Investigator**, *National Institute on Drug Abuse*, (R29 DA08655) “Behavioral Treatment of Marijuana and other Drug Abuse,” 9/94 - 7/99

**Investigator**, *National Institute on Drug Abuse*, (R01 DA12157) “Behavioral treatment of marijuana dependence,” 8/99 - 7/02

**Investigator**, *Eli Lilly and Company*, “A Comparison of the Physiological, Psychomotor, and Self-Reported Effects of LY303870 and a Standard Compound in Humans,” 9/95 - 1/96

**Investigator**, *National Institute on Drug Abuse*, (R37 DA06526) “Behavioral Economics of Human Drug Self-Administration,” 6/90 – 8/04

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA008076), “Modeling Initial Smoking Abstinence and Relapse Risk,” 02/93 – 06/07

**Investigator**, *National Institute on Drug Abuse*, (R29 DA10821) “Outcomes for Children of Drug Abusers: A Multi-Site Study,” 6/98 – 5/03

**Investigator**, *National Institute on Drug Abuse*, (1R01 DA11692) “Impulsivity in Drug Dependence: Delay Discounting,” 4/99 – 8/04

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA14028), “Voucher-Based Incentives to Treat Pregnant Smokers,” 6/01 – 5/06

**Principle Investigator**, *National Institute on Drug Abuse*, (R13 DA018424) “Future Directions in Contingency Management Research,” 09/04 – 08/05

**Investigator**, *Robert Wood Johnson Foundation*, “Characterizing Nicotine Withdrawal and Craving and Examining their Utility as Predictors of Relapse in Pregnant and Recently Postpartum Women,” 9/04 – 8/06

**Investigator**, *National Institute on Drug Abuse*, (R03 DA017813), “Early Abstinence Effect on Later Abstinence in Smokers,” 5/04 – 4/06

**Investigator**, *National Institute on Drug Abuse*, (R01 DA018410), “Maternal Opioid Treatment: Human Experimental Research,” 9/04 – 8/09

**Principal Investigator**, *National Institute on Drug Abuse* (R13 DA024956), “Women and Smoking: Understanding Socioeconomic Influences,” 4/08 –03/09

**Investigator**, *National Institute on Drug Abuse*, (R01 DA019989), “Effective Treatment for Rx Opioid Abuse,” 07/06 – 06/11

**Investigator**, *National Institute on Drug Abuse*, (R01 DA002491) “Characterizing Nicotine Withdrawal in Pregnant Smokers,” 7/08 – 2/11

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA014028), “Voucher-Based Incentives to Treat Pregnant Smokers,” 8/06 – 5/11

**Principal Investigator**, *National Institute on Drug Abuse*, (R01 DA008076), “Modeling Initial Smoking Abstinence and Relapse Risk,” 2/93 – 2/12

**Investigator**, *National Institute on Drug Abuse*, (R01 DA019550), “Incentive Based Smoking Cessation for Methadone Patients,” 7/06 – 05/12

**Principal Investigator**, *National Institute on Drug Abuse*, (R37 DA09378), "Treating Cocaine Abuse: A Behavioral Approach," 9/94 – 3/13

**Investigator**, *National Institute of Health/National Institute on Drug Abuse*, (R34 DA030534), “Improving Effective Contraceptive Use among Opioid-maintained Women,” 08/01/11-06/30/13

**Investigator**, *National Institute of Health/National Institute on Drug Abuse*, (R34 DA037385), “Interim Treatment: Leveraging Buprenorphine & Technology to Bridge Waitlist Delays,” 04/14 – 03/16

**Principal Investigator**, *National Institute of Child Health & Human Development*, (R01 HD075669), “Financial Incentives for Smoking Cessation Among Disadvantaged Pregnant Women,” 3/13 – 5/19

**Principal Investigator**, *National Institute of Child Health & Human Development*, (R01 HD078332), “Behavioral Economic Approach to Reducing Maternal Smoking in Disadvantaged Women,” 6/15 – 12/20 (NCE)

## PUBLICATIONS

<b><i>Citation Indices</i></b>	<b><i>All</i></b>	<b><i>Since 2016</i></b>
<b>Total citations</b>	24,054	6894
<b>h-index</b>	80	42
<b>i10-index</b>	289	181

58 articles cited  $\geq$  100x

[https://scholar.google.com/citations?user=4\\_nZK8oAAAAJ&hl=en&oi=sra](https://scholar.google.com/citations?user=4_nZK8oAAAAJ&hl=en&oi=sra)

### ***Edited Volumes & Therapist Manuals***

1. Dworkin, S.I., Higgins, S.T., & Bickel, W.K. (Eds.) (1990). Contemporary research in behavioral pharmacology, *Drug Development Research*, 20.
2. Budney, A.J., & Higgins, S.T. (1998). *Treating cocaine dependence: A community reinforcement plus vouchers approach*. Rockville, MD: National Institute on Drug Abuse.



3. Higgins, S.T., and Katz, J.L. (Eds.) (1998). *Cocaine abuse: Behavior, pharmacology, and clinical application*. San Diego, CA: Academic Press.
4. Higgins, S.T., and Silverman, K. (Eds.) (1999). *Motivating behavior change in illicit-drug abusers: Contemporary research on contingency-management interventions*. Washington, DC: American Psychological Association.
5. Higgins, S.T. & Bickel, W.K. (Eds.) (2000). Decade of behavior. *Experimental and Clinical Psychopharmacology*, 8.
6. Silverman, K., Higgins, S.T., & Roll, J.M. (2008). Contingency management and addictions, *Journal of Applied Behavior Analysis*, 41.
7. Higgins, S.T., Silverman, K. & Heil, S.H. (Eds.). (2008). *Contingency management in substance abuse treatment*. New York, NY: The Guilford Press.
8. Higgins, S.T., & Chilcoat, H. (Eds.) (2009). Women and smoking: An interdisciplinary examination of socioeconomic influences. *Drug and Alcohol Dependence*, 104.
9. Higgins, S.T., Silverman, K., Sigmon, S.C., & Naito, N.A. (Eds.) (2012). Financial incentives and health. *Preventive Medicine*, 55.
10. Higgins, S.T. (Ed.) (2014). Behavior change, health, and health disparities. *Preventive Medicine*, 68.
11. Higgins, S.T. (Ed.) (2015). Behavior change, health, and health disparities. *Preventive Medicine*, 80.
12. Higgins, S.T. (Ed.) (2016). Behavior change, health, and health disparities. *Preventive Medicine*, 80.
13. Higgins, S.T. (Ed.) (2017). Behavior change, health, and health disparities. *Preventive Medicine*, 104.
14. Higgins, S.T. (Ed.) (2018). Behavior change, health, and health disparities. *Preventive Medicine*, 117.
15. Higgins, S.T. (Ed.) (2019). Behavior change, health, and health disparities. *Preventive Medicine*, 128.
16. Higgins, S.T. (Ed.) (2020). Behavior change, health, and health disparities 2020: Some current challenges in tobacco control and regulatory science. *Preventive Medicine*, in press.

### **Articles, Book Chapters & Letters (\* = Refereed Publications)**

- \*1. Morris, E.K., Higgins, S.T., & Bickel, W.K. (1982). The influence of Kantor's interbehavioral psychology on behavior analysis. *The Behavior Analyst*, 5, 158-173.
- \*2. Morris, E.K., Higgins, S.T., & Bickel, W.K. (1982). Comments on cognitive science in the experimental analysis of behavior. *The Behavior Analyst*, 5, 109-125.
- \*3. Altman, K., Haavik, S., & Higgins, S.T. (1983). Modifying the self-injurious behavior of an infant with spina bifida and diminished pain sensitivity. *Journal of Behavior Therapy and Experimental Psychiatry*, 14, 165-168.
4. Morris, E.K., Higgins, S.T., & Bickel, W.K. (1983). J. R. Kantor's contributions to contemporary behaviorism. In N. W. Smith, P. T. Mountjoy, and D. Ruben (Eds.), *Reassessment in psychology: The interbehavioral alternative*. (A Festschrift for J. R. Kantor). Washington, DC: University Press of America.

- \*5. Higgins, S.T., & Morris, E.K. (1984). Generality of free-operant avoidance conditioning to human behavior. *Psychological Bulletin*, 96, 247-272.
- 6. Bigelow, G.E., Brady, J.V., Griffiths, R.R., Stitzer, M.L., Ator, N.A., Higgins, S.T., Liebson, I.A., & Lukas, S.E. (1985). Progress report from the Division of Behavioral Biology, The Johns Hopkins University School of Medicine. *NIDA Research Monograph, Problems of Drug Dependence, 1984, Proceedings of the 46th Annual Scientific Meeting, Committee on Problems of Drug Dependence* (pp. 66-75).
- \*7. Higgins, S.T., & Morris, E.K. (1985). A comment on contemporary definitions of reinforcement as a behavioral process. *The Psychological Record*, 35, 81-88.
- 8. Higgins, S.T., Stitzer, M.L., Bigelow, G.E., & Liebson, I.A. (1985). Contingent methadone dose increases as a method for decreasing illicit opiate use by detoxification patients. *NIDA Research Monograph, Problems of Drug Dependence, 1984, Proceedings of the 46th Annual Scientific Meeting, Committee on Problems of Drug Dependence*, 178-184.
- \*9. Higgins, S.T., Stitzer, M.L., McCaul, M.E., Bigelow, G.E., & Liebson, I.A. (1985). Pupillary response to a methadone challenge in chronic heroin users. *Clinical Pharmacology and Therapeutics*, 37, 460-463.
- \*10. Bickel, W.K., Higgins, S.T., & Stitzer, M.L. (1986). Choice of blind methadone dose increases by methadone maintenance patients. *Drug and Alcohol Dependence*, 18, 165-171.
- \*11. Higgins, S.T., Stitzer, M.L., Bigelow, G.E., & Liebson, I.A. (1986). Contingent methadone delivery: effects on illicit opiate use. *Drug and Alcohol Dependence*, 17, 311-322.
- \*12. Higgins, S.T., & Stitzer, M.L. (1986). Acute marijuana effects on social conversation. *Psychopharmacology*, 89, 234-238.
- \*13. Higgins, S.T., Bickel, W.K., O'Leary, D.K., & Yingling, J. (1987). The acute effects of ethanol and diazepam on the acquisition and performance of response sequences in humans. *Journal of Pharmacology and Experimental Therapeutics*, 243, 1-8.
- 14. Higgins, S.T., Hughes, J.R., & Gallagher, R.M. (1987). Introducing behavioral pharmacology: A review of primers by Poling and Carlton. *The Behavior Analyst*, 10, 277-281.
- 15. Hughes, J.R., & Higgins, S.T. (1987). Behavioral and pharmacological treatments for drug abuse. *Vermont Psychologist*, 11, 2-31.
- 16. Morris, E.K., Higgins, S.T., & Bickel, W.K. (1987). An introduction to contemporary behaviorism: history, concepts, and a system of analysis. In E.K. Morris and C.J. Braukman (Eds.), *Behavioral approaches to crime and delinquency: A handbook of application, research, and concepts*. New York: Plenum Press.
- \*17. Bickel, W.K., Higgins, S.T., Kirby, K., & Johnson, L.M. (1988). An inverse relationship between baseline fixed interval response rate and the effects of a tandem response requirement. *Journal of the Experimental Analysis of Behavior*, 50, 211-218.
- 18. Higgins, S.T., Preston, K.L., Cone, E.J., Henningfield, J.E., & Jaffe, J.H. (1988). Behavioral, physiological, and hormonal effects of a naloxone challenge following acute morphine pretreatment in humans. In L.S. Harris (Ed.), *NIDA Research Monograph, Problems of Drug Dependence, 1987, Proceedings of the 49th Annual Scientific Meeting, Committee on Problems of Drug Dependence, Inc.* (pp. 202-208).
- \*19. Higgins, S.T., & Stitzer, M.L. (1988). Effects of alcohol on speaking in isolated subjects. *Psychopharmacology*, 95, 189-194.

- \*20. Higgins, S.T., & Stitzer, M.L. (1988). Time allocation in a concurrent schedule of social interaction and monetary reinforcement: Effects of *d*-amphetamine. *Pharmacology, Biochemistry & Behavior*, *31*, 227-231.
21. Hughes, J.R., Gust, S., Keenan, R., Skoog, K., Pickens, R., Ramlet, D., Healey, M., & Higgins, S.T. (1988). Efficacy of nicotine gum in general practice: One-year follow-up. In L.S. Harris (Ed.), *NIDA Research Monograph, Problems of Drug Dependence, 1987, Proceedings of the 49th Annual Scientific Meeting, Committee on Problems of Drug Dependence*, 59.
- \*22. Morris, E.K., Johnson, L.M., Todd, J.T., & Higgins, S.T. (1988). Subject selection in the experimental analysis of human behavior. *The Behavior Analyst*, *11*, 43-50.
- \*23. Bickel, W.K., Higgins, S.T., & Griffiths, R.R. (1989). Repeated diazepam administration: Effects on the acquisition and performance of response chains in humans. *Journal of the Experimental Analysis of Behavior*, *52*, 47-56.
- \*24. Henningfield, J.E., & Higgins, S.T. (1989). On the influence of behavioral research: a response to the Surgeon General's report, "The Health Consequences of Smoking: Nicotine Addiction." *The Behavior Analyst*, *12*, 99-101.
- \*25. Higgins, S.T., Bickel, W.K., Hughes, J.R., Rush, C., Pepper, S., & Lynn, M. (1989). Comparable rates of responding and reinforcement do not eliminate the selective effects of ethanol on response-chain acquisition and performance. *The Psychological Record*, *39*, 583-595.
- \*26. Higgins, S.T., Henningfield, J.E., & Lamb, R.J. (1989). Dose-dependent effects of atropine on behavioral and physiologic responses in humans. *Pharmacology Biochemistry & Behavior*, *34*, 303-311.
- \*27. Higgins, S.T., Hughes, J.R., & Bickel, W.K. (1989). Effects of *d*-amphetamine on choice of social versus monetary reinforcement: A discrete-trial test. *Pharmacology Biochemistry & Behavior*, *34*, 297-301.
- \*28. Higgins, S.T., Morris, E.K., & Johnson, L.M. (1989). Social transmission of superstitious behavior in preschool children. *Psychological Record*, *39*, 307-323.
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- improved birth outcomes among pregnant women enrolled in smoking-cessation treatment. *Experimental and Clinical Psychopharmacology*. doi: 10.1037/pha0000426. PMID: 33180541.
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426. Bolivar, H.A., Klemperer, E.M., Coleman, S.R.M., DeSarno, M., Skelly, J.M., Higgins, S.T. (2021). Contingency management with patients receiving medication for opioid use disorder: A systematic review and meta-analysis. *JAMA Psychiatry*.
427. Coleman, S.R.M., Bunn, J.Y., Nighbor, T.D., Kurti, A.N., Bolivar, H.A., Tyndale, R.F., Higgins, S.T. (2021). Use of electronic nicotine delivery systems (ENDS) among U.S. women of reproductive age: Prevalence, reported reasons for use, and toxin exposure. *Preventive Medicine*.

## PRESENTATIONS (sample from 2014-2021)

January 2014. *Low Nicotine Content Cigarettes in Vulnerable Populations: Childbearing Age Women*. Tobacco and Reproductive Health: Enhancing the Science Base. Washington, DC.

April 2014. *Behavioral interventions for smoking cessation*. Behavioral Pharmacology Society Meeting @ Experimental Biology/American Society for Pharmacology & Experimental Therapeutics Annual Meeting. San Diego, CA.

April, 2014. *Financial Incentives for Smoking Cessation among Disadvantaged Pregnant Women*. Oral presentation as part of the symposium, New Preclinical and Clinical Perspectives for Smoking Cessation, at the annual meeting of American Society for Pharmacology and Experimental Therapeutics, San Diego, CA.

June 2014. *Some reflections on 20 years of research on the use of financial incentives to promote behavior change*. 20<sup>th</sup> Annual Contingency Management Working Group at the Annual College on Problems of Drug Dependency (CPDD) Meeting. San Juan, PR.

June 2014. *Health Behaviors and Behavioral Sciences*. 5<sup>th</sup> Biennial National IDeA (Institutional Development Award) Symposium of Biomedical Research Excellence (NISBRE). Washington, DC.

October 2014. *Challenges of Cigarette Smoking Among Disadvantaged Women*. Behavior Change, Health, and Health Disparities. Vermont Center on Behavior & Health 2<sup>nd</sup> Annual Conference, Burlington, VT.

November 2014. *Financial Incentives Among Disadvantaged Pregnant Smokers*. Invited Grand Rounds presentation at the University of Texas, Houston. Houston, TX.

February 2015. *Contingency Management in Pregnant and Newly Postpartum Women*. Society for Research on Nicotine and Tobacco (SRNT). Philadelphia, PA.

June 2015. *Behavioral Economics of Health Disparities in Addiction*. Annual College on Problems of Drug Dependency (CPDD) Meeting. Phoenix, AZ.

October 2015. *Behavioral Economics and Vulnerability to Tobacco Use in Economically Disadvantaged Women*. Behavior Change, Health and Health Disparities. Vermont Center on Behavior & Health 3<sup>rd</sup> Annual Conference, Burlington, VT.

January 2016. *Tobacco Control and Regulatory Science in Vulnerable Populations*. Markey Cancer Center, University of Kentucky. Lexington, KY.

March 2016. *Tobacco Control and Regulatory Science in Vulnerable Populations*. Symposium 7, Society for Research on Nicotine and Tobacco (SRNT). Chicago, IL

June, 2016. *The Role of Incentives in Health Promotion in Disadvantaged Populations*. New Member Ceremony. Academy of Behavioral Medicine Research Annual Meeting. Whistler, BC

June, 2016. *Vermont Center on Behavior and Health*. iPoster presentation. 6<sup>th</sup> Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE). Washington, DC.

July, 2016. *Using Behavioral Science to Evaluate the Feasibility of a National Nicotine Reduction Policy*. Symposium, American Psychological Association (APA) 124<sup>th</sup> Annual Meeting. Denver, CO.

October 2016. *Full-flavor Cigarettes & Nicotine-Dependence Risk in Vulnerable Populations*. Behavior Change, Health and Health Disparities. Vermont Center on Behavior & Health 4<sup>th</sup> Annual Conference, Burlington, VT.

December, 2016. *Some Recent Developments on Financial Incentives for Smoking Cessation Among Pregnant and Newly Postpartum Women*. International Congress of Behavioral Medicine. Melbourne, Australia.

March, 2017. *Examining Tobacco Control and Regulatory Science Questions in the Clinical Laboratory Setting*. Symposium presentation. Symposium entitled: Contributions of Basic Science to Public Policy. Society for Research on Nicotine & Tobacco annual meeting. Florence, Italy.

March, 2017. *Simulating Demand for Cigarettes Among Pregnant Women: A Low-risk Experimental Method for Investigating Tobacco use in Highly Vulnerable Populations*. Poster presentation at the Society for Research on Nicotine & Tobacco annual meeting. Florence, Italy.

April, 2017. *Tobacco Control and Regulatory Science Research on Motivating Behavior Change in Vulnerable Populations*. Presentation, 65<sup>th</sup> Nebraska Symposium on Motivation. University of Nebraska- Lincoln. Lincoln, NE.

May, 2017. *Tobacco Control and Regulatory Science Research on Motivating Behavior Change in Vulnerable Populations*. Presentation, RoBUST Speaker Series. Wayne State University. Detroit, MI.

June, 2017. *Evaluating Reduced-Nicotine Standards on the Addiction Potential of Cigarettes in Vulnerable Populations*. Poster presentation, 2017 Annual Conference on Problems of Drug Dependence. Montreal, Canada.

August, 2017. *Carrots Taste Better than Sticks- Positive Reinforcement for Behavior Change*. Discussant, 2017 American Psychological Association. Washington, DC.

August, 2017. *Nicotine and Tobacco Use and Assessment Among Pregnant and Nonpregnant Women of Reproductive Age*. Symposium, 2017 American Psychological Association. Washington, DC.

October, 2017. *Research on Reduced Nicotine Content*. Fall TCORS Grantee Meeting, Bethesda, MD.

November, 2017. *Tobacco Control and Regulatory Science with Vulnerable Populations*. Columbia University Lecture. Columbia, NY.

February, 2018. *The Role of Reinforcement in Disease Risk and Health Promotion*. Animal Learning and Behavior Winter Conference. Logan, UT.

February, 2018. *Reducing Nicotine Content Cigarettes: A Discussion of the Evidence and Policy Implications*. Society for Research on Nicotine and Tobacco (SRNT) Conference. Baltimore, MD.

May, 2018. *Reducing Smoking Among Rural Women: Tobacco Control and Regulatory Interventions*. Invited guest speaker at Virginia Tech Carilion Research Institute, Roanoke, VA.

June, 2018. Reduced Nicotine Content Cigarettes. Chair, Symposium presented at 2018 TCORS Conference, Bethesda, MD.

August, 2018. *Tobacco Product Abuse Liability Assessment: Challenges for FDA and Behavioral Science*. Symposium presented at APA 2018, San Francisco, CA.

November, 2018. *Changing Drug Use and Other Health-Related Behavior in Vulnerable Populations*. Behavior Analysis, Drug Use, and Society, Symposium; ABAI Conference, Washington, DC.

January, 2019. *Changing Drug Use and Other Health-related Behavior in Vulnerable Populations*. Inaugural lecture, University of Southern California Institute for Addiction Science, Los Angeles, CA.

February, 2019. *Applying Behavioral Economics to the Study and Treatment of Drug Addiction*. Inaugural lecture, Cofrin Logan Center for Addiction Research and Treatment, University of Kansas, Lawrence, KS.

June, 2019. Higgins, ST. NIDA International Forum: Underserved Smokers. Discussant, College on Problems of Drug Dependence, San Antonio, TX.

August, 2019. Higgins, ST. *Contingency Management/Incentives: Foundational Principles and Evidence for Support for Treatment of Individuals with Stimulant Use Disorders*. Oral Presentation, Substance Abuse and Mental Health Services Administration Tate Opioid Response Program Grantee Meeting, Washington, DC.

October, 2019. Higgins, ST. *The Influence of Rural Residence on Response to Incentive-based Cessation Intervention for Pregnant Smokers*. Oral Presentation, 7<sup>th</sup> Annual Vermont Center on Behavior and Health Conference, Burlington, VT

October, 2019. Higgins, ST. *Characterizing Differences in Motivation to Smoke Among Those Differing in Tobacco Dependence Severity*. Oral Presentation, NIH Tobacco Regulatory Science Conference, Bethesda, MD.

March, 2020. Higgins, ST. *Randomized Clinical Trial Examining Reduced Nicotine Content Cigarettes Among Smokers with Psychiatric Conditions or Socioeconomic Disadvantage*. Society for Research on Nicotine and Tobacco (SRNT) Conference, New Orleans, LA

April, 2021. Higgins, ST. *Psychosocial Treatment for Stimulant Disorders*. Oral Presentation, Opioid Use in the Context of Polysubstance Use: Research Opportunities for Prevention, Treatment, and Sustained Recovery. NIH HEAL (Helping to End Addiction Long-term) Initiative. Virtual meeting.

May, 2021. Higgins, ST. *Psychosocial Treatment for Stimulant Disorders*. HEAL Principal Investigators. Virtual meeting.

June, 2021. Higgins, ST. *Contingency Management in the Treatment of substance Use Disorders and other Health Conditions*. Invited lecturer for the William K. Warren, Jr. Frontiers in Neuroscience Lecture. Laureate Institute for Brain Research. Virtual presentation.

## REFERENCES

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