

J David Jentsch, Ph.D.
Curriculum Vitae



Business Address: Department of Psychology
Binghamton University
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Education:

1999 Doctor of Philosophy (Neurobiology), Yale University
1999 Master of Philosophy (Neurobiology), Yale University
1992 Bachelor of Arts (Behavioral Biology), The Johns Hopkins University

Professional Experience:

2023- Chair, Department of Psychology
2023- SUNY Distinguished Professor
2021- Co-Director, Binghamton University Center for Advanced Magnetic Resonance Imaging Sciences (CAMRIS)
2020- Founding Director of the Binghamton University Brain and Body Imaging Research Center
2017- Program Director (PI), "Development and Neuroadaptations in Alcohol and Addictions" NIH-funded T32 Institutional Training Program at Binghamton University
2017- Adjunct Faculty, The Jackson Laboratory, Bar Harbor ME
2016-2020 Area Coordinator, Behavioral Neuroscience faculty group, Department of Psychology, Binghamton University
2015-2023 Empire Innovation Professor of Psychology, Binghamton University
2009-2016 Professor in the Departments of Psychology and Psychiatry & Biobehavioral Sciences, UCLA
2009-2014 Associate Director for Research, Brain Research Institute, UCLA
2007-2009 Associate Professor (Tenure), Psychiatry & Biobehavioral Sciences, University of California at Los Angeles
2006-2009 Associate Professor (Tenure), Psychology, University of California at Los Angeles
2001-2015 Member, Brain Research Institute, University of California at Los Angeles
2001-2006 Assistant Professor, Psychology, University of California at Los Angeles
2000-2001 Associate Research Scientist, Department of Psychiatry, Yale University
1999-2000 Postdoctoral Fellow, Department of Neuroscience, University of Pittsburgh
1994-1999 Graduate Student, Section of Neurobiology, Yale University

Honors and Awards:

2019 Fellow, American College for Neuropsychopharmacology
2014-2019 Elected Member, American College for Neuropsychopharmacology
2014 Biomedical Research Leadership Award, California Biomedical Research Association
2012 Award for Scientific Freedom and Responsibility from the American

	Association for the Advancement of Science
2011	The Jacob P. Waletzky Memorial Award for Innovative Research in Drug Addiction and Alcoholism from the Society for Neuroscience
2011	Department of Psychology Distinguished Service Award
2010	Joseph Cochin Young Investigator Award, College on the Problems of Drug Dependence
2009	Department of Psychology Distinguished Teaching Award
2001	Young Investigator Award, International Congress on Schizophrenia
2000	American College of Neuropsychopharmacology/Bristol Myers Travel Award
2000	International College of Neuropsychopharmacology/Rafaelsen Fellowship Award
1998	Accuscan Prize for Behavioral Neuroscience
1996-1997	Scottish Rite Schizophrenia Research Dissertation Award
1994-1996	Yale University Doctoral Fellowship

Professional Activities:

NIH Review

2019-present	Member and/or <u>Chair</u> , NIDA SEP; NIDA Research “Center of Excellence” (P50) and Core Centers of Excellence (P30) Study Section
2018,2021	Member, NIDA Pathway to Independence Award (K99/R00) Study Section
2018	Member, Joint NIAAA/NIDA Institutional Training Grant Review Study Section
2017-present	Member and/or <u>Chair</u> , NIDA SEP; Avenir Award in Genetics and Epigenetics of Substance Abuse
2018	<i>Ad hoc</i> member, Biobehavioral Regulation, Learning and Ethology Study Section
2016-2021	Member and/or <u>Chair</u> , NIDA SEP; PAR-15-120: Identification of Genetic and Genomic Variants by Next-Generation Sequencing in Non-Human Animal Models
2016, 2021	Member, NIAAA SEP; Integrative Neuroscience Initiative on Alcoholism (INIA)
2014-present	Member and/or <u>Chair</u> , NIDA SEP, Cutting-Edge Basic Research Award (CEBRA)
2011-2017	Regular Member, Pathophysiology of Mental Disorders and Addictions study section
2014	Member, BRAIN Initiative SEP Panel (NINDS/NIH); Integrated Approaches to Understanding Circuit Function in the Nervous System
2013	Member, NIDA SEP, Exceptional Unconventional Research Enabling Knowledge Acceleration (EUREKA) for Neuroscience and Disorders of the Nervous System
2011	Chair, Washington National Primate Center Site Review team
2010	Member, Yerkes National Primate Research Center Site Review team
2009-2011	<i>Ad hoc</i> ; Pathophysiology of Mental Disorders and Addictions study section
2009	<i>Ad hoc</i> ; Neurobiology of Motivated Behavior study section
2005-2015	NIH Mail Reviewer (B/START and R13 Conference Grants)

Journal

2023-present	Editorial Board, <i>Brain Sciences</i> (Behavioral Neuroscience section)
2014-present	Advisory Editor, <i>Psychopharmacology</i>
2014-present	Consulting Editor, <i>Behavioral Neuroscience</i>
2008-2014	Associate Editor, <i>Journal of Neuroscience</i>

Scientific Community

2017-2019	Member and Chair (2018), American College for Neuropsychopharmacology Animal Research Committee (ARC)
2016-2019	Member, Society for Neuroscience Committee on Animals in Research (CAR)
2018-present	Member, UCLA Translational Neuroscience of Drug Abuse Training Program External Advisory Board
2015-2017	Member, Selection Committee for the Jacob P. Waletzky Memorial Award for Innovative Research in Drug Addiction and Alcoholism, Society for Neuroscience
2015-2018	UCSD Translational Methamphetamine AIDS Research Center (TMARC) Scientific Advisory Board
2013-present	Yerkes National Primate Research Center Scientific Advisory Board
2009-present	Member, Board of Directors, Americans for Medical Progress
2009-2020	Member, Organizing Committee, SpeakingofResearch.com

Doctoral Student Trainees:

- In progress: Makenzie Lehr (Binghamton University; Behavioral Neuroscience)
- In progress: Alyssa (Moore) Kinser (Binghamton University; Behavioral Neuroscience)
- In progress: James Wherry (Binghamton University; Behavioral Neuroscience)
- 2023 – Lauren S. Bailey (Binghamton University; Behavioral Neuroscience)
Title: Heritable differences in impulsive behavior associate with altered indices of dopaminergic transmission in the nucleus accumbens and orbitofrontal cortex
- 2014 – James R. Ashenurst (UCLA; Neuroscience)
Title: Translational examination of risk-related decision-making as an endophenotype for alcohol use disorders
- 2014 – Alexander S. James (UCLA; Behavioral Neuroscience)
Title: A neurogenetic and genomic characterization of reward-seeking behaviors
- 2013 – Stephanie M. Groman (UCLA; Behavioral Neuroscience)
Title: The dopamine D2-like receptor: At the nexus between self-control and addiction
- 2012 – Bryant L. Horowitz (UCLA; Behavioral Neuroscience)
Title: Investigating the role for Dysbindin in hippocampal-dependent learning and memory: Glutamatergic mechanisms
- 2011 – Adi Jaffe (UCLA; Quantitative Psychology)
Title: Conditioned reinforcement for drug-related cues: Neurochemical mechanisms and learning effects
- 2010 – Rick E. Laughlin (UCLA; Cognitive Psychology)
Title: Quantitative trait loci for brain morphology and complex behavior: Neurogenetics in cognitive neuroscience
- 2010 – Shawn M. Aarde (UCLA; Behavioral Neuroscience)
Title: The role of genetic vasopressin deficiency and sex in cognition and monoamine function
- 2010 – Michael King (UCLA; Behavioral Neuroscience)
Title: Hippocampal and pharmacological influences on medial prefrontal cortex-dependent executive function in the rat
- 2006 – Luigi Anzivino (UCLA; Behavioral Neuroscience)
Title: Neurobehavioral functions of burst-firing in dopaminergic neurons

Citation metrics: 9,375 citations; H-index of 52 (according to Web of Knowledge, July 2023)

Publications

2023

Empirical, Peer-Reviewed Articles

Khan AH, Bagley JR, LaPierre N, Gonzalez-Figueroa C, Spencer TC, Choudhury M, Xiao X, Eskin E, Jentsch JD, Smith DJ (2023) Genetic pathways regulating the longitudinal acquisition of cocaine self-administration in a panel of inbred and recombinant-inbred mice. *Cell Rep.*, **42: 112856.**

Methodological articles (Peer reviewed)

Burnette EM, Nieto SJ, Grodin EN, Jentsch JD, Ray LA (2022) Intravenous alcohol self-administration using a progressive ratio schedule of reinforcement in clinical studies. *Neuromethods*, **201**: 189-200.

2022

Bagley JR, Bailey LS, Gagnon L, He H, Philip VM, Reinholdt LG, Tarantino LM, Chelser EJ, Jentsch JD (2022) Reversal learning phenotypes associate with novel genetic loci in diversity outbred mice. *Addiction Neurosci.*, **4**: 100045.

Also posted on *bioRxiv* 2022.01.29.478259; <https://doi.org/10.1101/2022.01.29.478259>

Bailey LS, Bagley JR, Wherry JD, Chesler EJ, Karkhanis A, Jentsch JD, Tarantino LM (2022) Repeated dosing with cocaine produces strain-dependent effects on responding for conditioned reinforcement in Collaborative Cross mice. *Psychopharmacol.*, **240(3):561-573.**

Bagley JR, Khan AH, Smith DJ, Jentsch JD (2022) Extreme phenotypic diversity in operant responding for an intravenous cocaine or saline infusion in the Hybrid Mouse Diversity Panel. *Addiction Biology*, **27(3):e13162.**

Also posted on *bioRxiv* 2021.02.03.429584; doi.org/10.1101/2021.02.03.429584

Schoenrock SA, Gagnon L, Olson A, Leonardo M, Phillip VM, He H, Jentsch JD, Chesler EJ, Tarantino LM (2022) The Collaborative Cross strains and their founders vary widely in cocaine-induced behavioral sensitization. *Front. Behav. Neurosci.*, **16**:886524.

Also posted on *bioRxiv* 2022.02.01.478694; doi.org/10.1101/2022.02.01.478694

Preprints (Not Peer Reviewed)

Aarde SM, Bagley JR, Jentsch JD (2022) Gonadal sex and sex-chromosome complement interact to affect ethanol consumption in adolescent four core genotypes mice. *BioRxiv* 2022.10.25.513748

2021

Empirical, Peer-Reviewed Articles

Moore A, Linden J, Jentsch JD (2021) Syn3 gene knockout negatively impacts aspects of reversal learning performance. *eNeuro*, **8 (5)** ENEURO.0251-21.2021; doi.org/10.1523/ENEURO.0251-21.2021

Bailey LS, Bagley JR, Dodd R, Olsen A, Boduc M, Philip VM, Reinholdt LG, Sukoff-Rizzo SJ, Gagnon L, Chesler EJ, Jentsch JD (2021) Heritable variation in locomotion, reward sensitivity and impulsive behaviors in a genetically diverse inbred mouse panel. *Genes Brain Behav.*, 20(8):e12773. doi: [10.1111/gbb.12773](https://doi.org/10.1111/gbb.12773).

Also posted on *bioRxiv* 10.1101/2021.04.06.438678v2;
doi.org/10.1101/2021.04.06.438678v2

Bagley JR, Chesler EJ, Phillip VM, Center for the Systems Neurogenetics of Addiction, Jentsch JD (2021) Heritability of ethanol consumption and pharmacokinetics in a genetically diverse panel of Collaborative Cross mouse strains and their inbred founders. *Alcohol. Clin. Exp. Res.*, 45: 697-708. doi.org/10.1111/acer.14582

Also posted on *bioRxiv* 2020.09.13.294769; [10.1101/2020.09.13.294769](https://doi.org/10.1101/2020.09.13.294769)

Preprints (Not Peer Reviewed)

Bagley JR, Kachinsky WM, Jentsch JD (2021) A system for continuous and automated measurement of mouse home-cage drinking with automated control of liquid access. *bioRxiv* 2021.02.10.430693; doi.org/10.1101/2021.02.10.430693

2020

Empirical, Peer-Reviewed Articles

Aarde SM, Genner R, Hrcir H, Arnold AP, Jentsch JD (2020) Sex chromosome complement affects multiple aspects of reversal-learning task performance in mice. *Genes Brain Behav.* 20(1): e12685; doi: [10.1111/gbb.12685](https://doi.org/10.1111/gbb.12685)

Jasinska AJ, Pandrea I, He T, Benjamin C, Newton M, Lee J-C, Freimer NB, Coppola G, Jentsch JD (2020) Immunosuppressive effect and global dysregulation of blood transcriptome in response to psychosocial stress in vervet monkeys (*Chlorocebus sabaeus*). *Scientific Rep.*, 10: 3459. [10.1038/s41598-020-59934-z](https://doi.org/10.1038/s41598-020-59934-z)

Schoenrock SA, Kumar P, Gomez-A A, Dickson PE, Kim S-M, Bailey L, Neira S, Riker KD, Farrington J, Gaines CH, Khan S, Wilcox TD, Roy TA, Leonardo MR, Olson AA, Gagnon LH, Philip VM, Valdar W, Pardo-Manuel de Villena F, Jentsch JD, Logan RW, McClung CA, Robinson DL, Chesler EJ, Tarantino LM (2020) Characterization of genetically complex Collaborative Cross mouse strains that model divergent locomotor activating and reinforcing properties of cocaine. *Psychopharmacol.*, 237: 979-996. [10.1007/s00213-019-05429-3](https://doi.org/10.1007/s00213-019-05429-3)

Preprints (Not Peer Reviewed)

Saul MC, Bagley JR, Bailey LS, Datta U, Dickson PE, Dodd R, Gagnon LH, Hugett SB, Kimble VA, Leonardo M, Kim S-M, Olson A, Roy T, Schoenrock SE, Wilcox T, Jentsch JD, Logan RW, McClung CA, Palmer RHC, Phillip VM, Reinhold LG, Sukhoff-Rizzo SJ, Tarantino LM, Chesler EJ (2020) Consideration of genetic and sex effects in mice enhances consilience with human addiction studies. *bioRxiv* 2020.02.14.949784; [10.1101/2020.02.14.949784](https://doi.org/10.1101/2020.02.14.949784)

Review Articles (Peer Reviewed)

Ray LA, Grodin E, Leggio L, Bechtholt A, Becker H, Feldstein Ewing S, Jentsch JD, King A, Mason B, O'Malley S, MacKillop J, Heilig M and Koob G (2020) The future of translational research in alcohol use disorder. *Addiction Biol.* doi: [10.1111/adb.12903](https://doi.org/10.1111/adb.12903)

Datta U, Schoenrock SA, Bubier JA, Bogue MA, Jentsch JD, Logan RW, Tarantino LM, Chesler EJ (2020) Prospects for finding the mechanisms of sex differences in addiction with human and model organism genetic analysis. *Genes Brain Behav.*, 19: e12645. [10.1111/gbb.12645](https://doi.org/10.1111/gbb.12645)

Edited Books

Recent Advances in Research on Impulsivity and Impulsive Behaviors. de Wit H and Jentsch JD, Eds. Springer Nature AG, Switzerland.

2019

Empirical, Peer-Reviewed Articles

Grodin E, Bujarski S, Venegas A, Baskerville W-A, Nieto S, Jentsch JD, Ray LA (2019) Reward, relief and habit drinking: Initial validation of a brief assessment tool. *Alcohol Alcoholism*, 54(6):574-583. [10.1093/alcalc/agz075](https://doi.org/10.1093/alcalc/agz075)

Aarde SM, Hrnčir H, Arnold AP, Jentsch JD (2019) Reversal learning performance in the XY* mouse model of Klinefelter and Turner Syndromes. *Front. Behav. Neurosci.*, 13:201. [10.3389/fnbeh.2019.00201](https://doi.org/10.3389/fnbeh.2019.00201)

Also posted on *bioRxiv* 672022; [10.1101/672022](https://doi.org/10.1101/672022)

2018

Empirical, Peer-Reviewed Articles

Bujarski S, Jentsch JD, Roche DJO, Ramchandani VA, Miotto K, Ray LA (2018) Differences in the subjective and motivational properties of alcohol across alcohol use severity: application of a novel translational human laboratory paradigm. *Neuropsychopharmacol.*, 43(9):1891-1899. <https://escholarship.org/uc/item/Ors8z4f4>

Linden J, James AS, McDaniel C, Jentsch JD (2018) Dopamine D2 receptors in dopaminergic neurons modulate performance in a reversal learning test. *eNeuro* 28 February 2018, ENEURO.0229-17.2018. [10.1523/ENEURO.0229-17.2018](https://doi.org/10.1523/ENEURO.0229-17.2018)

Review Articles (Peer Reviewed)

Egervari G, Ciccocioppo R, Jentsch JD, Hurd YL (2017) Shaping vulnerability to addiction - the contribution of behavior, neural circuits and molecular mechanisms. *Neurosci Biobehav Rev.*, 85:117-125. [10.1016/j.neubiorev.2017.05.019](https://doi.org/10.1016/j.neubiorev.2017.05.019)

2017

Empirical, Peer-Reviewed Articles

Jasinska AJ, Zelaya I, Service SK, Peterson C, Cantor RM, Choi OW, DeYoung J, Eskin E, Fairbanks LA, Fears S, Furterer A, Huang YS, Ramensky V, Schmitt CA, Svardal H, Jorgensen MJ, Kaplan JR, Villar D, Aken BR, Flicek P, Nag R, Wong ES, Blangero J, Dyer TD, Bogomolov M, Benjamini Y, Weinstock GM, Dewar K, Sabatti C, Wilson RK, Jentsch JD, Warren W, Coppola G, Woods RP, Freimer NB (2017) Genetic variation and gene expression across multiple tissues and developmental stages in a non-human primate. *Nature Genetics*, 49(12):1714-1721.

Also posted on *bioRxiv* 092874; [10.1101/092874](https://doi.org/10.1101/092874)

Thompson AB, Gerson J, Stolyarova A, Bugarin A, Hart EE, Jentsch JD, Izquierdo A (2017) Steep effort discounting of a preferred reward over a freely-available option in prolonged methamphetamine withdrawal in male rats. *Psychopharmacology (Berl)*. 234(18):2697-2705.

2016

Empirical, Peer-Reviewed Articles

Brown RJ, Jun BJ, Cushman JD, Nguyen C, Beighley AH, Blanchard J, Iwamoto K, Schae D, Harris NG, Jentsch JD, Bluml S, McBride WH (2016) Changes in Imaging and Cognition in Juvenile Rats After Whole-Brain Irradiation. *Int J Radiat Oncol Biol Phys.*, 96(2):470-478.

2015

Empirical, Peer-Reviewed Articles

James AS, Pennington ZT, Tran P, Jentsch JD (2015) Compromised NMDA/glutamate receptor expression in dopaminergic neurons impairs instrumental learning, but not Pavlovian goal tracking or sign tracking. *eNeuro*, 2(3). pii: ENEURO.0040-14.2015. doi: 10.1523/ENEURO.0040-14.2015.

Spiegel S, Chiu A, James AS, Jentsch JD, Karlsgodt KH (2015) Recognition deficits in mice carrying mutations of genes encoding BLOC-1 subunits pallidin or dysbindin. *Genes Brain Behav.*, 14: 618-24.

Elsworth JD, Jentsch JD, Groman SM, Roth RH, Redmond DE and Leranth C (2015) Low circulating levels of bisphenol-A induce cognitive deficits and loss of asymmetric spine synapses in dorsolateral prefrontal cortex and hippocampus of adult male monkeys. *J. Comp. Neurol.*, 523(8):1248-57.

2014

Empirical, Peer-Reviewed Articles

Groman SM, James AS, Seu E, Tran S, Clark T, Harpster S, Crawford M, Burtner J, Feiler K, Roth RH, Elsworth JD, London ED and Jentsch JD (2014) In the blink of an eye: Relating positive-feedback sensitivity to striatal dopamine D2-like receptors through blink rate. *J. Neurosci.*, 34(43):14443-54.

Elsworth JD, Groman SM, Jentsch JD, Leranth C, Redmond DE Jr, Kim JD, Diano S and Roth RH (2014) Primate phencyclidine model of schizophrenia: sex-specific effects on cognition, BDNF, spine synapses and dopamine turnover in prefrontal cortex. *Int. J. Neuropsychopharmacol.*, 18(6). pii: pyu048.

Cui YJ, Ostlund SB, James AS, Park CS, Ge W, Roberts KW, Mittal N, Murphy NP, Cepeda C, Kieffer BL, Levine MS, Jentsch JD, Walwyn WM, Sun YE, Evans CJ, Maidment NT and Yang WX (2014) Targeted expression of mu opioid receptors in a subset of striatal direct-pathway neurons restores opiate reward. *Nature Neurosci.*, 17(2):254-61. PMC4008330

Pineda E, Jentsch JD, Shin D, Griesbach G, Sankar R and Mazarati A (2014) Behavioral impairments in rats with chronic epilepsy suggest comorbidity between epilepsy and attention deficit/hyperactivity disorder. *Epilepsy & Behavior*, 31: 267-75.

Ashenhurst JR, Bujarski S, Jentsch JD and Ray LA (2014) Modeling behavioral reactivity to losses and rewards in the Balloon Analogue Risk Task: Moderation by alcohol problem severity. *Exp. Clin. Psychopharmacol.*, 22(4):298-306. PMC4166528

Seu E, Groman SM, Arnold AP and Jentsch JD (2014) Sex chromosome complement influences operant responding for a palatable food in mice. *Genes Brain Behav.*, 13(6): 527-34.

Jaffe, Pham JAZ, Tarash I, Getty SS, Fanselow MS and Jentsch JD (2014) The absence of the blocking in nicotine high-responders as a possible factor in the development of nicotine dependence. *Op. Addiction J.*, 7: 8-16.

Review Articles (Peer Reviewed)

Jentsch JD, Ashenhurst JR, Cervantes MC, Groman SM, James AS and Pennington ZT (2014) Dissecting impulsivity and its relationship to drug addictions. *Ann. N. Y. Acad. Sci. (Addiction Reviews)*, 1327(1):1-26.

2013

Empirical, Peer-Reviewed Articles

Cervantes MC, Laughlin RE and Jentsch JD (2013) Cocaine self-administration behaviors in mouse inbred lines segregating different capacities for inhibitory control. *Psychopharmacol.*, 229(3):515-25. PMC3770817

Groman SM, Morales AM, Lee B, London ED and Jentsch JD (2013) Methamphetamine-induced increases in putamen gray matter associate with inhibitory control. *Psychopharmacol.*, 229(3):527-538. PMC3770792

Elsworth JD, Jentsch JD, Vandevort CA, Roth RH, Redmond DE, Leranath C (2013) Prenatal exposure to bisphenol A impacts midbrain dopamine neurons and hippocampal spine synapses in non-human primates. *Neurotoxicol.*, 35:113-120. PMC3660149

Groman SM, James AS, Seu E, Crawford MA, Harpster S and Jentsch JD (2013) Monoamine levels within the orbitofrontal cortex and putamen interact to predict reversal learning performance. *Biol. Psychiatry*, 73(8):756-62. PMC3615106

Holley SM, Wang EA, Cepeda C, Jentsch JD, Ross CA, Pletnikov M and Levine MS (2013) Frontal cortical synaptic communication is abnormal in *disc1* genetic mouse models of schizophrenia. *Schizophr. Res.*, 146(1-3):264-72. PMC3622830

Saggu S, Cannon TD, Jentsch JD and Lavin A (2013) Potential molecular mechanisms for decreased synaptic glutamate release in dysbindin-1 mutant mice. *Schizophr. Res.*, 146(1-3):254-63. PMC3628687

James AS, Chen JY, Cepeda C, Mittal M, Jentsch JD, Levine MS, Evans CJ, Walwyn WM (2013) Opioid self-administration results in cell-type specific adaptations of striatal medium spiny neurons. *Behav. Brain Res.*, 256:279-83.

Ma Y-Y, Henley SM, Toll J, Jentsch JD, Evans CJ, Levine MS, Cepeda C (2013) Drug-primed reinstatement of cocaine seeking in mice: Increased excitability of medium-sized spiny neurons in the nucleus accumbens. *ASN Neuro.*, 5(4):257-71. PMC3789142

Glen WB, Horowitz B, Carlson GC, Cannon TD, Talbot K, Jentsch JD and Lavin A (2013) Dysbindin-1 compromises NMDAR-dependent synaptic plasticity and contextual fear conditioning. *Hippocampus*, 24(2):204-13.

Review Articles (Peer Reviewed)

Young JW, Jentsch JD, Bussey TJ, Wallace TJ and Hutchenson DM (2013) Consideration of species differences in developing novel molecules as cognition enhancers. *Neurosci. Biobehav. Rev.*, 37(9 Pt B):2181-93.

Groman SM and Jentsch JD (2013) Identifying the molecular basis of inhibitory control deficits in addictions: Neuroimaging in non-human primates. *Curr. Op. Neurobiol.*, 23(4):625-31. PMC3731407

Jentsch JD and Pennington ZT (2013) Reward, interrupted: Inhibitory control and its relevance to addictions. *Neuropharmacol.* (Special Issue dedicated to the 40th Anniversary of the National Institute on Drug Abuse), 76: 479-86.

Jasinska AJ, Schmitt C, Service S, Cantor R, Dewar K, Jentsch JD, Kaplan J, Turner T, Warren W, Weinstock G, Woods R and Freimer NB (2013) Systems biology of the vervet monkey. *I. L. A. R. J.*, 54(2):122-43.

Gilmour G, Arguello A, Bari A, Brown VJ, Carter C, Floresco SB, Jentsch JD, Tait DS, Young JW, Robbins TW (2013) Measuring the construct of executive control in schizophrenia: Defining and validating translational animal paradigms for discovery research. *Neurosci. Biobehav. Rev.*, 37(9 Pt B):2125-40.

Book Chapters (Edited)

Maldonado R, Jentsch JD, Kieffer BL and Evans CJ (2013) Animal models for addiction. In: Charney DS, Sklar P, Buxbaum JD and Nestler EJ (Eds.) Neurobiology of Mental Illness, 4th Edition. Oxford: New York, pp. 675-82.

2012

Empirical, Peer-Reviewed Articles

Courtney KE, Arellano R, Barkley-Levenson E, Galvan A, Poldrack RA, MacKillop J, Jentsch JD and Ray LA (2012) The relationship between measures of impulsivity and alcohol misuse: An integrative structural equation modeling approach. *Alcohol Clin. Exp. Res.*, 36(6):923-31. PMC3711239

Ashenhurst JR, Seaman M and Jentsch JD (2012) Responding in a test of decision-making under risk is under moderate genetic control in the rat. *Alcohol Clin. Exp. Res.*, 36(6):417-25.

Elsworth JD, Groman S, Jentsch JD, Valles R, Shahid M, Wong E, Marston H and Roth RH (2012) Asenapine effects on cognitive and monoamine dysfunction elicited by subchronic phencyclidine administration. *Neuropharmacol.*, 62(3):1442-52. PMC3711239

Magen I, Fleming SM, Zhu C, Garcia EC, Cardiff KM, Dihn D, De La Rosa K, Sanchez M, Torres ER, Masliah E, Jentsch JD and Chesselet MF (2012) Cognitive deficits in a mouse model of pre-manifest Parkinson's disease. *Eur. J. Neurosci.*, 35(6):870-82. PMC3967873

Groman SM, Lee B, Seu E, James AS, Feiler K, Mandelkern M, London ED and Jentsch JD (2012) Dysregulation of D2-mediated dopamine transmission in monkeys after chronic, escalating methamphetamine exposure. *J. Neurosci*, 32(17):5843-52. PMC335381

Jasinska AJ, Lin MK, Service S, Choi OW, DeYoung J, Grujic O, Kong SY, Jung Y, Jorgensen MJ, Fairbanks LA, Turner T, Cantor RM, Wasserschneid J, Dewar K, Warren W, Wilson RK, Weinstock G, Jentsch JD and Freimer NB (2012) A non-human primate system for large-scale genetic studies of complex traits. *Hum. Mol. Genetics*, 21(15):3307-16. PMC3392106

Lutkenhoff ES, Karlsgodt KH, Gutman B, Stein JL, Thompson PM, Cannon TD and Jentsch JD (2012) Structural and functional neuroimaging phenotypes in dysbindin mutant mice. *Neuroimage*, 62(1):120-129.

Review Articles (Peer Reviewed)

Izquierdo A and Jentsch JD (2012) Reversal learning as a measure of impulsive and compulsive behavior: Relevance to addiction. *Psychopharmacol.*, 219(2): 607-620. PMC3249486

Ghazalpour A, Rau CD, Farber CR, Bennett BJ, Orozco LD, van Nas A, Pan C, Allayee H, Beaven SW, Civelek M, Davis RC, Drake TA, Friedman RA, Furlotte N, Hui ST, Jentsch JD, Kostem E, Kang HM, Kang EY, Joo JW, Korshunov VA, Laughlin RE, Martin LJ, Ohmen JD, Parks BW, Pellegrini M, Reue K, Smith DJ, Tetradis S, Wang J, Wang Y, Weiss JN, Kirchgessner T, Gargalovic PS, Eskin E, Lusk AJ, Leboeuf RC (2012) Hybrid mouse diversity panel: a panel of inbred mouse strains suitable for analysis of complex genetic traits. *Mamm. Genome*, 23(9-10): 680-92.

2011

Empirical, Peer-Reviewed Articles

Karlsgodt KH, Robleto K, Trantham-Davidson H, Jairl C, Cannon TD, Lavin A and Jentsch JD (2011) Reduced dysbindin expression mediates NMDA receptor hypofunction and impaired working memory. *Biol. Psychiatry*, 69(1):28-34.

Laughlin RE, Grant TL, Williams RWW and Jentsch JD (2011) Genetic dissection of behavioral flexibility: Reversal learning in mice. *Biol. Psychiatry*, 69(11):1109-16. PMC3090526

Groman SM, Lee B, London ED, Mandelkern M, James AS, Feiler K, Rivera RJ, Dahlbom, M, Sossi V, Vandervoort E and Jentsch JD (2011) Dorsal striatal D2-like receptor availability co-varies with sensitivity to positive reinforcement during discrimination learning. *J. Neurosci.*, 31: 7291-7299. PMC3114883

Ashenhurst JR, Jentsch JD and Ray LA (2011) Risk-taking measured by the balloon analogue risk task and alcohol use disorders symptomatology in a sample of problem drinkers. *Exp. Clin. Psychopharmacol.*, 19(5):361-70.

Review Articles (Peer Reviewed)

Floresco S and Jentsch JD (2011) Pharmacological enhancement of memory and executive functioning in animals. *Neuropsychopharmacol. Rev.*, 36(1):227-50. PMC3055518

Groman SM and Jentsch JD (2011) Cognitive control and the dopamine D2-like receptor: A dimensional understanding of addiction. *Depression and Anxiety*, 29(4):295-306.

Book Chapters (Edited)

Jentsch JD, Groman SM, James AS, Seu E (2011) Monoaminergic regulation of cognitive control in laboratory animals. In: Bardo MT, Fishbein DH, Milich R (Eds.) Inhibitory Control and Drug Abuse Prevention. Springer: New York, pp.43-62.

Fleming SM, Jentsch JD and Chesselet M-F (2011) Cognitive dysfunction in genetic mouse models of Parkinsonism. In: De Deyn PP, Van Dam D (Eds.) Animal Models of Dementia. Springer: New York, pp. 485-492.

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Jentsch JD, Woods JA, Groman SM and Seu E (2010) Behavioral characteristics and neural mechanisms mediating performance in a rodent analogue of the balloon analogue risk task. *Neuropsychopharmacol.*, 35: 1797-1806. PMC3055471

Shilyansky C, Karlsgodt K, Cummings D, Sidiropoulou K, Hardt M, James A, Ehninger D, Bearden C, Poirazi P, Jentsch JD, Cannon TD, Levine MS and Silva AJ (2010) Neurofibromin regulates corticostriatal inhibitory networks during working memory performance. *Proc Natl Acad Sci USA*, 107(29):13141-6. PMC2919968

Lu PY, Erkkila K, Lue YH, Jentsch JD, Schwarcz RM, Abuyounes D, Hikim AS, Wang C, Lee PWN and Swerdloff RS (2010) Genetic, hormonal and metabolomic influences on social behavior and gender preference of XXY mice. *Am J Physiol-Endocrinol Metabol*, 299(3):E446-55. PMC2944286

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Ringach DL and Jentsch JD (2009) Enough is enough. *J. Neurophysiol.*, 102: 2007.

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Olausson P, Jentsch JD and Taylor JR (2003) Repeated nicotine exposure enhances reward-related learning in the rat. *Neuropsychopharmacol.*, 28: 1264-1271.

Verrico CD, Jentsch JD, Dazzi L and Roth RH (2003) Systemic, but not local, administration of cannabinoid CB1 receptor agonists modulate prefrontal cortical acetylcholine efflux in the rat. *Synapse*, 48: 178-183.

Verrico CD, Jentsch JD and Roth RH (2003) A persistent and anatomically selective reduction in prefrontal cortical dopamine metabolism after repeated, intermittent cannabinoid administration to rats. *Synapse*, 49: 61-66.

Jentsch JD, Arguello PA and Anzivino LA (2003) Null mutation of the arginine-vasopressin gene in rats slows attentional engagement and facilitates response accuracy in a lateralized reaction time task. *Neuropsychopharmacol.*, 28: 1957-1605

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Review Articles (Peer Reviewed)

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De La Garza R, Jentsch JD, Verrico CD and Roth RH (2002) Adaptation of monoaminergic responses to phencyclidine in nucleus accumbens and prefrontal cortex following repeated treatment with fluoxetine or imipramine. *Brain Research*, 958: 20-27.

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Taylor JR and Jentsch JD (2001) Repeated intermittent administration of psychomotor stimulant drugs alters the acquisition of Pavlovian approach behavior in rats: Differential effects of cocaine, *d*-amphetamine and 3,4-methylenedioxymethamphetamine ("Ecstasy"). *Biol. Psychiatry* 50: 137-143.

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Jentsch JD, Roth RH, Taylor JR (2000) Impaired performance of an object retrieval/detour task by monkeys after subchronic phencyclidine administration: Evidence for cognitive impulsivity. *Biol. Psychiatry* 48: 415-424.

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Jentsch JD, Taylor JR and Roth RH (2000) Phencyclidine model of frontal cortical dysfunction in non-human primates. *The Neuroscientist* 6: 263-270.

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Taylor JR and Jentsch JD (2000) Stimulant effects on striatal and cortical systems involved in reward-related behavior and impulsivity. In: Solanto-Gardner M, Arnsten AFT and Castellanos FX (Eds.), Stimulant Drugs and AD/HD: Basic and Clinical Neuroscience. Oxford University Press: New York, pp. 104-133.

Jentsch JD and Roth RH (2000) Effects of antipsychotic drugs on dopamine release and metabolism in the central nervous system. In: Lidow M (Ed.), Role of Neurotransmitter Receptors in Actions of Antipsychotic Drugs. CRC Press: Boca Roton, pp. 31-41.

Jentsch JD, Roth RH and Taylor JR (2000) Role for dopamine in the behavioral functions of the prefrontal corticostriatal system: Implications for mental disorders and psychotropic drug action. In: Uylings HBM, Van Eden CG, De Bruin JPC, Feenstra MGP and Pennartz CMA (Eds.) Cognition, Emotion and Autonomic Responses: the Integrative Role of the Prefrontal Cortex and Limbic Structures. Elsevier Press: Amsterdam, pp. 433-453.

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Jentsch JD, Taylor JR, Redmond DE, Elsworth JD, Youngren KD and Roth RH (1999) Reversal of phencyclidine-induced cognitive deficits in monkeys by a selective dopamine D4 receptor antagonist. *Psychopharmacol.* 142: 78-84.

Jentsch JD, Taylor JR, Elsworth JD, Redmond DE and Roth RH (1999) Altered frontal cortical dopaminergic transmission in monkeys after subchronic phencyclidine exposure: Involvement in frontostriatal cognitive deficits. *Neurosci.* 90: 823-832.

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Jentsch JD and Taylor JR (1999) Impulsivity resulting from frontostriatal dysfunction in drug abuse: Implications for the control of behavior by reward-related stimuli. *Psychopharmacol.* 146: 373-390.

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Jentsch JD, Taylor JR and Roth RH (1998) Subchronic phencyclidine administration increases mesolimbic dopaminergic system responsivity and augments stress- and psychostimulant-induced hyperlocomotion. *Neuropsychopharmacol.* 19: 105-113.

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Jentsch JD, Tran A, Taylor JR and Roth RH (1998) Prefrontal cortical involvement in phencyclidine-induced activation of the mesolimbic dopamine system: Behavioral and neurochemical evidence. *Psychopharmacol.* 138: 89-95.

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Jentsch JD, Elsworth JD, Redmond DE and Roth RH (1997) Phencyclidine increases forebrain monoamine metabolism in rats and monkeys: Modulation by the isomers of HA966. *J. Neurosci.* 17: 1769-1775.

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Jentsch JD, Andrusiak EA, Tran A, Bowers MB and Roth RH (1997) Delta⁹-tetrahydrocannabinol increases prefrontal cortical catecholaminergic turnover and impairs spatial working memory in the rat: Blockade of dopaminergic effects with HA966. *Neuropsychopharmacol.* 16: 426-432.

Jentsch JD, Tran A, Le D, Youngren KD and Roth RH (1997) Subchronic phencyclidine administration reduces mesoprefrontal dopamine utilization and impairs prefrontal cortical-dependent cognition in the rat. *Neuropsychopharmacol.* 17: 92-99.

Jentsch JD, Redmond DE, Elsworth JD, Taylor JR, Youngren KD and Roth RH (1997) Enduring cognitive deficits and cortical dopamine dysfunction in monkeys after long-term administration of phencyclidine. *Science* 277: 953-955.

Book Chapters (Edited)

Jentsch JD, Elsworth JD, Taylor JR, Redmond DE and Roth RH (1997) Dysregulation of mesoprefrontal dopamine neurons induced by acute and repeated phencyclidine administration in the non-human primate: Implications for schizophrenia. In: Goldstein DS, Eisenhofer G and McCarty R (Eds.), Catecholamines: Bridging Basic Science with Clinical Medicine. San Diego, Academic Press, pp. 810-814.

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Murphy BL, Arnsten AFT, Jentsch JD and Roth RH (1996) Dopamine and spatial working memory in rats and monkeys: Pharmacological modulation of FG7142-induced impairment. *J. Neurosci.* 16: 7768-7775.

Invited Talks (2017-present)

27-JAN-23: "Reward, interrupted: Inhibitory control and its relevance to addictions"; California State University BRAIN Alliance; Virtual format.

16-SEP-22: *STERN Family Seminar Series*: "Reward, Interrupted: Inhibitory Control and its Relevance to Addictions"; University of Texas at El Paso.

16-AUG-22: *Invited conference talk*: "Frontostriatal dysfunction theory for addiction: past, present and future"; Gordon Research Conference on the Neurobiology of Addiction; Newry ME.

12-JUN-22: *Presidential Symposium talk*: "The future of animal research on addiction(s): Promises and perils"; College on the Problems of Drug Dependence annual conference; Minneapolis MN.

22-APR-22: *Department colloquium talk*: "Sex, drugs and impulsivity: Novel associations discovered in the diverse mouse genome"; The Department of Genetics, Genetics and Informatics at the University of Tennessee Health Sciences Center; Virtual format.

19-APR-22: *Department colloquium talk*: "A neurogenetic analysis of impulsivity and its relationship to addictions"; Integrative Neuroscience Research Center seminar series at Marquette University; Milwaukee WI.

26-JAN-22: *Society colloquium talk*: "Sex, drugs and impulsivity: Novel associations discovered in the diverse mouse genome"; Behavior and Neural Genetics Seminar Series, hosted by the International Behavioural and Neural Genetics Society. Virtual format.

27-OCT-21: *Department colloquium talk*: "Sex, drugs and impulsivity: Novel associations discovered in the diverse mouse genome"; Temple University Neuroscience Seminar Series; Philadelphia PA.

07-MAY-21: *Keynote talk*: "Sex, drugs and impulsivity: Novel associations discovered in the diverse mouse genome". Annual retreat of the UCLA Translational Neuroscience of Drug Abuse training grant; Virtual format.

08-DEC-20: *Study group participant*: “Life After Compulsive Substance Use: How to Translate the Neurobehavioral Dynamics of Recovery”. 2020 annual meeting of the American College for Neuropsychopharmacology. Virtual format.

03-MAY-19: *Department colloquium talk*: “Sex, genes and addictions: Insights from advanced mouse populations”; Neuroscience Seminar Series at Middlebury College; Middlebury VT.

26-APR-19: *Department colloquium talk*: “Sex, genes and addictions: Insights from advanced mouse populations”; Djavad Mowafaghian Centre for Brain Health, University of British Columbia; Vancouver BC CANADA.

12-DEC-18: *Study group participant*: “I Can’t Wait: Challenges and Successes in Translational Research on Impulsivity”; American College for Neuropsychopharmacology, Hollywood FL.

25-MAY-18: *Keynote talk*: “Triangulating novel genetic influences on impulsivity and drug reinforcement;” Annual retreat of the UCLA Translational Neuroscience of Drug Abuse training grant, Los Angeles CA.

27-APR-18: *Department colloquium talk*: “Reward, Interrupted: Inhibitory Control and its Relevance for Addictions;” School of Neuroscience, Virginia Tech, Roanoke VA.

20-APR-18: *Department colloquium talk*: “Reward, Interrupted: Inhibitory Control and its Relevance to Addictions;” Department of Animal Sciences, Rutgers University, New Brunswick NJ.

04-APR-18: *Department colloquium talk*: “Reward, Interrupted: Inhibitory Control and its Relevance to Addictions;” Department of Pharmaceutical Sciences, Wayne State University, Detroit MI.

01-DEC-17: *Invited talk*: “Impulses and impulse control: from genes to sex to addictions;” Workshop for Interaction and Scientific Collaboration on the topic of “Sex, Genes and Behavior;” University of Albany; Albany NY.

09-NOV-17: *Invited talk*: “Reward, Interrupted: Inhibitory Control and its Relevance to Addictions;” Jeremy Waletzky Honorary Symposium at the National Institute on Drug Abuse Intramural Program.

31-MAR-17: *Department colloquium talk*: “Reward, Interrupted: Inhibitory Control and its Relevance for Addictions;” Research colloquium delivered at the Research Institute on Addictions at the University at Buffalo.

Current Funding

- P50-AA017823 (9/19-8/24) Developmental Exposure to Alcohol Research Center
Role: PI of Main Project 1: "Sex chromosome complement moderates prenatal alcohol effects on brain and behavior"
Annual total costs: \$186,323
- P50-DA039841 (07/22-06/28) Center for Systems Neurogenetics of Addictions
Role: PI of Project 1: Impulsivity
Annual total costs: \$196,302
- T32-AA025606 (06/17-05/22) Development and neuroadaptations in alcohol and addiction
Role: Program Director
Annual total costs: \$255,904 (in no cost extension)

Past Funding

- U01-DA041602 (09/17-05/22) Genetic pathways for impulsivity and drug reinforcement: DNA and transcriptome variation in mice
Role: Co-PI
Total costs: \$3,208,138
- R01-HD076125 (05/14-04/20) Genetic mechanisms in Klinefelter Syndrome-related behaviors
Role: Co-PI
- R01-DA031852 (05/12-04/18) Genetic influences on inhibitory control and cocaine sensitivity
Role: PI
Total costs: \$1,388,438
- R21-DA038377 (07/14-10/16) Synapsin 3: Involvement in impulsivity and drug self-administration
Role: PI
Total costs: \$404,480
- R21-OD017959 (05/14-04/16) Non-human primate model for systems biology studies of stress response
Role: Investigator
Total costs: \$420,420
- R21-AA022752 (09/14-08/2016) Modeling alcohol reward and reinforcement in the human laboratory
Role: Co-Investigator
Total costs: \$398,763
- P50-DA005010 (07/12-06/17) Center for the Study of Opioid Receptors and Drug Abuse
Role: Co-investigator on Project 3: Opioid Drug Self-Administration
- P20-DA022539 (09/06-08/10) Methamphetamine abuse, inhibitory control: Treatment implications
Role PI on Project 3: Neurochemical determinants of MA-induced cognitive deficits
Total costs: \$752,089
- P50-MH077248 (09/06-07/11) CIDAR: Translational Research to Enhance Cognitive Control Role: PI of Project 2: Neurochemical and genetic determinants of impulsivity
Total costs: \$1,041,637
- RL1-MH083270 (09/07-06/12) Translational models of memory and cognitive control
Role: PI
Total costs: \$2,574,764
- R03 MH069360 (09/12/03-02/28/05) Behavioral model of contextual attention in the monkey
Role: PI

Total costs: \$74,227