JUSTIN S. RHODES

Personal: Born in New York City, NY, 26 March 1972; married, 2 children

Appointments

2003	Postdoctoral Fellow, Department of Behavioral Neuroscience, Oregon Health & Science University, Portland, Oregon
2004	Instructor, Department of Psychology, Lewis & Clark College, Portland, Oregon
2005	Assistant Professor, Department of Psychology, University of Illinois at Urbana-Champaign (UIUC)
2012	Associate Professor, Department of Psychology, University of Illinois at Urbana-Champaign (UIUC)

Other UIUC campus appointments: Full time member of the Beckman Institute Intelligent Systems Research Theme; *Affiliate,* Institute for Genomic Biology; *Faculty Member*, Neuroscience Program, Program in Ecology, Evolution, and Conservation Biology, Division of Nutritional Sciences

Education

B.S.	Stanford University, Biology, 1995
M.S.	University of Washington, Seattle, Fisheries, 1998
M.S.	University of Wisconsin-Madison, Statistics, 2002
Ph.D.	University of Wisconsin-Madison, Zoology, 2002
Postdoc	Oregon Health & Science Univ., Behavioral Neuroscience, 2005

Awards and Honors

1989	Research Stipend, $700, American Museum of Natural History
1993	Undergraduate Research Award, $2500, Stanford University
1995	Signing Bonus, $1000, University of Washington, Seattle
1996	Quistorff Fellowship, $3000, University of Washington, Seattle
1999	Enteman Award, $1500, University of Washington, Seattle
1998, 2000, 01	John Jefferson Davis Travel Award, $300, U. Wisconsin-Madison
2003	IBANGS Travel Award, $346
2004	Invited Participant, Vanderbilt University Summer Conference
2004	ISBRA Travel Award, $2000
2005	Invited Participant, Gordon Research Conferences
2008	**Young Scientist Award**, International Behavioural and Neural Genetics Society, Portland, OR
2008-2016	On list of teachers ranked excellent by their students
2010,2012	Invited Participant, Gordon Research Conferences, Genes & Behavior
2012-2013	**Helen Corley Petit Scholar**, UIUC
2013-2014	**Evelyn Satinoff Professorial Scholar in Psychology,** UIUC
2013	**Outstanding Advisor Award**, Medical Scholars Program, UIUC

2014 **Outstanding Advisor Award**, Division of Nutritional Sciences, UIUC

Grant Support

Extramural

Current

2015-2019 "Mouse cognition and hippocampal neurogenesis core facility" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $789,828
Role: PI

2018-2020 "Origins of exercise-brain interactions" NIH-NINDS, R21 NS104293, $402,880
Role: PI

2019-2021 "In Vitro Platform for Exploring Muscle-Neuron Interactions." NIH-NINDS, R21 NS109894, $396,872
Rhodes: PI

Previous

2000-2002 "The neural basis of hyperactive wheel-running in mice," NIH-NINDS, NRSA.
Role: Predoctoral fellow

2005-2006 "Gene expression profiles of high alcohol-drinking rodents," NIH-NIAAA INIA Consortium Pilot Grant, $50K
Role: PI

2008-2010 Technical Testing Agreement with VM Discovery Inc. to test novel compounds for efficacy in reducing excessive ethanol intake in a mouse model, $16K.
Role: PI

2011-2012 Technical Testing Agreement with BioModels to test novel compounds for efficacy in reducing excessive ethananol intake in a mouse model, $10K
Role: PI

2011-2013 "Therapeutic interventions for brain-immune interactions during cognitive aging." NIH K99 AG040194, $85,256.
Role: Sponsor

2009-2015 "Mouse genetic differences in exercise-induced hippocampal neurogenesis & learning." NIH RO1 MH083807, $1,388,256.
Role: PI

2009-2015	"The functional significance of exercise-induced neurogenesis in cocaine reward" NIH RO1 DA027487 $1,303,099. Role: PI
2012-2013	"Mouse cognition and hippocampal neurogenesis core facility" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $1,519,355. Role: PI
2014-2015	"Impact of Vitamin E on neonatal development" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $500,000. Role: PI
2012-2015	"Molecular bases of cognitive impairment in chemobrain and nutritional intervention" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $987,225. Role: Co-PI (Helferich PI)
2012-2015	"Enhancing learning and memory in the aged: interactions between dietary supplementation and exercise" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $1,450,542. Role: Co-PI (Woods PI)
2012-2015	"Nutritional enhancement of cognition through stem cells" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $600,000. Role: Co-PI (Boppart PI)
2013-2016	"Visualizing diet modified brain chemistry with multifaceted chemical imaging" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $892,104. Role: Co-PI (Sweedler PI)
2014-2016	"Diet-Modified Brain Chemistry and Plasticity: DHA and Vitamin E as a Case Study" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $422,463. Role: Co-PI (Sweedler PI)
2014-2016	"Impact of Fiber on the Gut Microbiome and Cognition in Mice" Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, $99,158. Role: Co-PI (Woods PI)

2014-2016 "BRAIN EAGER: Spatially-Resolved In Vivo Optogenetic Stimulation and Imaging Platform" NSF EAGER. $300,000. Role: Co-PI (Boppart PI)

2013-2017 "Exercise as therapeutic intervention to extinguish conditioned drug associations" NIH F30 DA034480, $231,788. Role: Sponsor

2016-2017 "Functional role of adult neurogenesis in cognitive recovery from fetal alcohol" F32 AA023444-01A1 Role: Sponsor, $174,000.

Intramural

Previous

2004-2005 "Neural basis of craving for natural and drug rewards," Tartar Trust Fellowship, OHSU, $3000

2006-2007 "Are new neurons required for improved cognitive performance following aerobic exercise training?" Center for Healthy Minds, UIUC, seed grant. 15K

2010 "A common ground biomarker of mental health for translation between mouse and human," Research Board, UIUC, $9,250

2014-2016 "Optical stimulus and control platform for neural circuits" Beckman Seed grant. Role: Co-investigator (Boppart PI). $200K

2017-2018 "Origins of exercise-brain interactions" UIUC Campus Research Board, Award RB17119, $25,000

Symposia and Meetings Organized

2009 "Adult hippocampal Neurogenesis" International Behavioural & Neural Genetics Society, Dresden, Germany.

2009 "Exercise and Brain Health" Winter Conference on Brain Research, Breckenridge, Co.

2010 "Interactions between physical activity and drug abuse" International Behavioural & Neural Genetics Society, Halifax, Canada.

2016 "Why Zebras Don't Get Ulcers: Stress and Health" inaugural lecture delivered by Robert Sapolsky, Fenton-Rhodes Lectures on Proactive Wellness.

Invited Talks at Symposia

2004	"Evaluation of a simple model of ethanol drinking to intoxication in C57BL/6J mice" International Society for Biomedical Research on Alcoholism, Heidelberg, Germany
2004	"Genetic hyperactivity, adult hippocampal neurogenesis, and learning" Federation of American Societies for Experimental Biology, Washington, DC.
2004	"Neural basis of motivation for exercise" Society for Integrative and Comparative Biology, New Orleans, LA.
2008	"Exercise-induced adult hippocampal neurogenesis improves spatial memory in C57BL/6J mice" Center for Healthy Minds, Sarasota, FL
2009	"Functional analysis of exercise-induced neurogenesis in laboratory mice" International Behavioural & Neural Genetics Society, Dresden, Germany
2010	"Behaviour genetics analysis in the collaborative cross" International Behavioral & Neural Genetics Society, Halifax. Canada.
2013	"Exercise-induced adult hippocampal neurogenesis" Research Society on Alcoholism, Orlando, FL
2014	"Exercise reduces inflammatory microglia in the hippocampus: role in neurogenesis and behavioral learning" American Physiological Society/American College of Sports Medicine Exercise, Miami, FL
2019	"Feminization of behavior, plasma sex hormone profile, gonadal histology and brain gene expression from endocrine disruption in sexually labile anemonefish" North American Society for Comparative Endocrinology, Gainesville, FL

Invited Seminars

2001	Dept. Zoology, Univ. Wisconsin-Madison, Madison, WI
2001	Wisconsin Regulation of Respiration Symposium, Madison, WI
2002	Dept. Behavioral Neuroscience, OHSU, Portland, OR
2003	Dept. Behavioral Neuroscience, OHSU, Portland, OR
2005	Dept. Psychology, SUNY-Binghamton, Binghamton, NY
2005	Dept. Psychology, UIUC, Champaign, IL
2005	Dept. Animal Biology, UIUC, Urbana, IL
2005	Dept. Pharmacology & Toxicology, Virginia Commonwealth Univ, Richmond, VA
2006	Neuroscience Program, UIUC, Urbana, IL
2006	Dept. Kinesiology, UIUC, Urbana, IL
2007	Dept. Animal Sciences, UIUC, Urbana, IL
2007	Dept Cell Biology, Loyola University Chicago, IL
2008-2012	Annual Illinois Summer Neuroscience Institute, Urbana, IL
2008	Waggoner Center for Alcohol and Addiction Research, Univ Texas, Austin, TX
2009	Neuroscience Program, Univ. Colorado at Boulder, CO

2009	Institute for Behavioral Genetics, Univ. Colorado at Boulder, CO
2009	Department of Psychology, IUPUI, Indianapolis, IN
2010, 2011	Short Course on the Genetics of Addiction, The Jackson Laboratory, Bar Harbor, ME
2011	Directors Seminar, Beckman Institute, UIUC, Urbana, IL
2012	Brain and Cognition division, Department of Psychology, UIUC
2013	Division of Nutritional Sciences, UIUC
2014	National Institute on Aging, Baltimore, MD
2017	Dept. of Nutrition & Exercise Physiology, University of Missouri
2019	Neuroscience Program, University of Chicago

Contributed Presentations

1995	Gilbert Ichthyological Socieity, Eatonville, WA
1995	American Society Ichthyologists & Herpetologists, Edmonton, CA
1997	Pacific Ecology Conference, Victoria, CA
1997	American Society Ichthyologists & Herpetologists, Seattle, WA
1999	Society for Integrative and Comparative Biology, Denver, CO
1999	Society for the Study of Evolution, Madison, WI
1999	American College of Sports Medicine, Seattle, WA
2000	The American Physiological Society, San Diego, CA
2001	Society for Integrative and Comparative Biology, Chicago, IL
2001	Fed. of Am. Societies for Experimental Biology, Orlando, FL
2001	Society for Neuroscience, San Diego, CA
2002	Society for Integrative and Comparative Biology, Anaheim, CA
2003	International Behav. Neural Genetics Society, New Orleans, LA
2004	Vanderbilt Summer Conferences, Nashville, TN
2004	Society for Neuroscience, San Diego, CA
2004	Society for Integrative and Comparative Biology, San Diego, CA
2005	Society for Neuroscience, Washington, DC
2006	Gordon Conferences, Genes and Behavior, Ventura, CA
2006	Society for Neuroscience, Atlanta, GA
2007	Society for Neuroscience, San Diego, CA
2008	Gordon Conferences, Genes and Behavior, Barga, Italy
2008	International Behav. Neural Genetics Society, Portland, OR
2008	Society for Neuroscience, Washington DC
2009	International Behav. Neural Genetics Society, Dresden Germany
2009	Society for Neuroscience, Chicago, IL
2010	International Behav. Neural Genetics Society, Halifax, Canada
2010	Society for Neuroscience, San Diego, CA
2011	International Behav. Neural Genetics Society, Rome, Italy
2011	Psychoneuroimmunology Research Society, Chicago, IL
2011	Society for Neuroscience, San Diego, CA
2012	International Behav. Neural Genetics Society, Boulder, Co
2012	Society for Neuroscience, New Orleans, LA
2013	International Behav. Neural Genetics Society, Leuven, Belgium
2013	Society for Neuroscience, San Diego, CA
2014	International Behav. Neural Genetics Society, Chicago, IL

2014	Research Society on Alcoholism, Bellevue, WA
2014	Experimental Biology, San Diego, CA
2014	Society for Neuroscience, Washington D.C.
2015	International Behav. Neural Genetics Society, Uppsala, Sweeden
2015	Research Society on Alcoholism, San Antonio, TX
2015	Experimental Biology, Boston, MA
2015	Society for Neuroscience, Chicago, IL
2016	Experimental Biology, San Diego, CA
2017	Society for Neuroscience, Washington D.C.
2019	North American Society for Comparative Endocrinology, Gainesville, FL

Postdoctoral Fellows

Rachel Kohman, 2009-2012, NIH K99/R00 award, currently tenure track Assistant Professor in the Department of Psychology at the University of North Carolina, Wilmington.
Gillian Hamilton, 2013-2017, Beckman Institute fellow, NIH NRSA individual Fellowship (F32 award), currently Science writer for the Houston Methodist Research Institute
Samuel Perez, 2013-2016, currently tenure track Assistant Professor in the Department of Biology and Chemistry at Washington Adventist University, in Washington, D.C.
Jonathan Mun, 2014-2016, currently Senior Nutrition Scientist at Pharmavite in Los Angeles, CA.
Catarina Rendeiro, 2014-2017, Center for Nutrition, Learning and Memory fellow, currently Lecturer at Birmingham University, UK.

Graduate Students

Jonathan Zombeck, Neuroscience (Ph.D.), 2006-2010, Neuroscience Fellowship; currently employed by Technology Licensing Office, MIT, Boston, MA
Peter Clark, Psychology (Ph.D.), 2006-2011, Center for Healthy Minds grant, $5000; currently Assistant Professor at Iowa State University, Department of Food Science and Human Nutrition
Martina Mustroph, Neuroscience (MD/PhD), 2009-2014, Neuroscience Fellowship, Beckman Fellowship, NIH NRSA individual Fellowship (F30 award); currently neurosurgery resident at Harvard Medical School
Jonathan Mun, Division of Nutritional Sciences (Ph.D.), 2013-2014; currently Senior Nutrition Scientist at Pharmavite in Los Angeles, CA.
Petra Majdak, Neuroscience (MD/PhD), 2011-2016; currently finishing the MD portion of her MD/PhD training.
Kristy Du, Division of Nutritional Sciences (Ph.D.), 2013-2017

Ross DeAngelis, Program in Ecology, Evolution, and Conservation Biology (Ph.D.), 2014-2018, currently looking for a postdoc position
Jennie Garner, Cognitive Psychology (Ph.D.), 2018-present
Ed Clint, Neuroscience (Ph.D.), 2018-present
Coltan Parker, Neuroscience (Ph.D.), 2018-present

Final Exam committee
Jason Ebaugh, Neuroscience
Amy Richwine, Animal Sciences
James Lee, Neuroscience
Seth Ament, Neuroscience
Laura Chaddock, Psychology
Molly Kent, Neuroscience
Heather Huntsman, Kinesiology
Sophia Liang, Neuroscience
Sarah Dowd, Chemistry
Chen Fu, Neuroscience
Marcus Lawson, Neuroscience
Harry Rosenberg, Neuroscience
Itamar Livnat, Neuroscience
Al Towers, Division of Nutritional Sciences

Preliminary Exam committee
Emily Venheim, Psychology
Annie Weisner, Neuroscience
Kevin Ambrose Stebbings, Neuroscience
Christopher Seward, Developmental and Cell Biology

Qualifying Exam committee
Chris Whalen, Neuroscience
Shuo Kang, Neuroscience
Jim Monti, Psychology
Lindsey Hammerslag, Psychology
Mariam Bonyadi, Neuroscience

Diagnostic committee
Benjamin Zimmerman, Neuroscience
Tae-Jin Kim, Neuroscience
Sook-Eun Park, Neuroscience
Chelsea Wong, Neuroscience
Laura Moody, Division of Nutritional Sciences
Zoë A. MacDowell Kaswan, Neuroscience
Coltan Gable Parker, Neuroscience

Visiting students
Christine Venghaus, UIUC Vet student, summer rotation, 2010
Lindsey Peterson, UIUC Vet student, summer rotation, 2011

Anne Wyer, UIUC Vet student, summer rotation, 2012
Gabrielle Hofmann, UIUC Vet student, summer rotation, 2014
Danielle Marie Engel UIUC Vet student, summer rotation, 2016

Undergraduate Students

Neil Kamdar, 2005-2007
Rishi Bhayana, 2005-2007
Yaqoob Syed, 2005-2008
Tripta Gupta, 2005-2008
Samantha Miller, 2005-2008
Guan-Ting Chen, 2006-2007
Cannie Yu Sze-To, 2006-2007
Adam Craig, 2006-2007
David Rosenberg, 2006-2007, currently MD student.
Zack Johnson, 2007-2009, "Neuroanatomical specificity of brain activation elicited by contextual cues paired with cocaine versus lithium chloride in male outbred Hsd:ICR mice", currently postdoc at Georgia Tech.
Andrew Revis, 2007-2009
Erik Haferkamp, 2007-2010
Michael DeMeyer, 2007-2008
Kellen Cohn, 2007-2008
Keven Patel, 2007-2008
Mallory Burdick, 2007-2009
Bryana Close, 2007-2008
Daniel Miller, 2007-2010, "Evaluation of a C57BL/6J x 129S1/SvImJ hybrid nestin-thymidine kinase transgenic mouse model for studying the functional significance of exercise-induced adult hippocampal neurogenesis," Tritsch award, currently PhD student at OHSU.
David Krone, 2007-2010
Brian Clague, 2007-2008
Dominic Hahn, 2008-2009
Kris Deters, 2008-2010
Emily Dabe, 2008-2011, "The Effects of d-amphetamine on the survival of new neurons in the hippocampus", currently PhD student at U. Florida Gainesville
Amber Duarrani, 2008-2009
David Sohn, 2008-2011
Sean Swearingen, 2009-2010, "Differential acute locomotor stimulation from cocaine in adolescent versus adult mice across 4 divergent strains of mice."
Sarah Ludmer, 2009-2010
Peter Fernandez, 2009-2010
Tushar Bhattacharya, 2009-2010
Molly Odum, 2009-2011
Erica Lopata, 2009-2010
Derrick Stobaugh, 2010
Stephanie Treece, 2010
Zachary Bulwa, 2010-2011
Jordy Sharlin, 2010-2011

Elzbieta Wojcik, 2010-2012
Anna Ros, 2010-2012
Cindy Alkass, 2010
Dylan Calewarts, 2010
Heeyoon Kim, 2010 - 2011
Thomas Romanow, 2010
Sarah Sciortino, 2010
Sonal Patel, 2010
Aya Kobeissi, 2010-2014
Charlie Swanson, 2010-2013
Chessa Kilby, 2010-2012
Lisa Lauderdale, 2010-2011
Mruga Nanavati, 2010
Shalin Desai, 2010-2012
Shannon Stanis, 2010-2011
Shi Chen, 2010-2012
Ed Clint, 2010-2012, "Male superiority in spatial navigation, adaptation or side effect", Tritsch award, currently PhD student at UCLA
Courtney Yaeger, 2011-2014, "Blockade of arginine vasotocin signaling reduces aggressive behavior and c-Fos expression in the preoptic area and periventricular nucleus of the posterior tuberculum in male *Amphirion ocellaris*" Neuroscience 267:205-18.
Jill Anne Nakayama, 2011
Josh Lim, 2011-2012
Adam Cobert, 2012-2015, "Development of a mouse model of chemobrain for nutritional intervention", currently PhD student at UC Davis
Ashley Holloway, 2012-2014, "Abolishment of conditioned place preference for cocaine as a result of voluntary wheel running is independent of new neurons"
Christopher Krebs, 2012-2015, "The functional significance of neurogenesis in a mouse model of fetal alcohol spectrum disorder"
Elizabeth Abushevitz, 2012-2014
Heinrich Pinardo, 2012-2015, currently MD student at Boston University
Robert Holland, 2012-2014
Jacyln Hastings, 2011-2012
Jennifer Merritt, 2012-2014, "Genetic variation in exercise-induced hippocampal neurogenesis and learning", currently PhD student at Emory
Ashley Masnik, 2012-2014, "Fructose decreases physical activity and increases body fat without affecting hippocampal neurogenesis and learning relative to an isocaloric glucose diet"
Ashley Holloway, 2012-2014, Ashley worked in the Wainwright lab at Ann and Robert H. Lurie Children's Hospital, associated with Northwestern University, as a research associate in neurology until September 2017 when she started as a graduate student in Neuroscience at Northwestern University
Paula Bucko, 2012-2014, "Impact of exercise on hippocampal adult neurogenesis and learning following either a single or binge exposure to alcohol during neonatal development", currently PhD student at U. Washington
Peter Wingard, 2012-2014

Natalia Sopiarz, 2012-2013
Michael Kozak, 2013-2014
Brent Panozzo, 2013-2015, "Effects of d-amphetamine on regional neural activation in a mouse model of genetic hyperactivity"
Victoria Cross, 2013-2014
Paul Kozak, 2013-2015, currently MD student at Midwestern
Andrew Sheriff, 2013-2015, "Chemotherapy impairs cognitive performance and reduces neurogenesis in mice, independent of nutritional intervention," currently PhD student at U. Chicago
Madison Barker, 2013-2016, "Novel mouse model for studying the functions of new neurons," currently PhD student at U. North Carolina
Ivy Hernandez, 2013-2015, "Neonatal alcohol exposure decreases parvalbumin expressing GABAergic interneurons in the medial prefrontal cortex"
Kevin Jorgensen, 2013-2015
Elizabeth Grogan, 2013-2016, "Evaluating the effect of environment vs genetics on development of hyperactivity in a novel mouse model of ADHD"
Joseph Gogola, 2014-2016, currently PhD student at U. Chicago
Stephen Tse, 2014-2016
Logan Dodd, 2015-2017, "Sex differences in cytoarchitecture of the peroptic area in *Amphiprion ocellaris*"
Anastassia Sorokina, 2015-2018, Tritsch award, "Striatal transcriptome of a mouse model of ADHD reveals a pattern of synaptic remodeling"
Amanda Snyder, 2015-2017
Clara Stezowski, 2015-2017
Dominca Lange, 2016-2018
Sailee Karmarkar, 2017-2018
Achint Kaur, 2018
Pragya Thaman, 2015-present
Supriya Bhuvanagiri, 2017-present
Marcellus Tseng, 2017-present
Joey Ramp, 2017-present
Elizabeth Phillips, 2017-present
Ewelina Nowak, 2017-present
Sanjana Venkataraman, 2018-present
Lotanna Ezenekwe, 2018-present
Jose Antonio Gonzalez Abreu, 2018-present
Sumeet Sunil Thosar, 2018-present
Wendy Yang, 2018-present
Kendra Diane Zwonitzer, 2018-present

<u>Summer Research Opportunities Program</u>
Marina Martinez, 2007
Lauren Jeffries, 2008
Phillip Luu, 2009
Ashley Walker, 2009

Courses Taught

PSYC 302	Applied Neuroscience, Spring 2017, 2018
NEUR 598	Neuroscience I and II, Fall and Spring, 2015-present
PSYC 593	Analysis of your messy data, Spring 2016
PSYC 398, 498, 493	Honors Seminar in Psychology, Spring 2010, Fall and Spring 2011
PSYC 492	Capstone Seminar in Psychology, Fall 2013, Spring 2014
PSYC 510	Advances in Psychobiology, Spring 06- Spring 16
PSYC/NEUR 433	Evolutionary Neuroscience, Fall 06- present
PSYC 311	Techniques of Biological Psychology, Fall 06-08
PSYC 210	Behavioral Neuroscience, 06-16
PSYC 270	Health Psychology, Fall 04, Lewis & Clark College

National and International Service

Interim Associate Editor, *Brain, Behavior and Immunity*, 2012-2013
Editorial board, *Brain, Behavior and Immunity*, 2012-present
Elected Member at Large, International Behavioural and Neural Genetics Society, 2011- 2014
Reviewer, NIH Special Emphasis panel ZRG1 BDCN-W (03), 2012
Reviewer, NIH Molecular Neurogenetics study section, ad hoc, 2010-2011
Reviewer, NIH Neurogenesis and Cell Fate study section, mail in review, 2011
Reviewer, NIH RC1 Challenge Grants, 2009
Reviewer, NIH Behavioral Neuroscience Fellowship panel, 2014
Reviewer, NIH Neurobiology of Motivated Behavior study section, 2015
Reviewer, NIH Neurobiology of Learning and Memory study section, 2016
Reviewer, NIH US-China collaborative biomedical research, BDCN N 51, 2016
Reviewer, NIH Biobehavioral Regulation, Learning and Ethology study section, 2016
Reviewer, NIH Genetics of Health and Disease Study Section, 2018, 2019
Ad hoc Reviewer, *Nature Neuroscience, Proceedings of the National Academy of Sciences USA, Journal of Neuroscience, Biological Psychiatry, Journal of Evolutionary Biology, Scientific Reports, Genes, Brain & Behavior, Psychopharmacology, Neuron, European Journal of Neuroscience, Journal of Pharmacology and Experimental Therapeutics, Neuroscience and Biobehavioral Reviews, Journal of Neuroendocrinology, Hormones & Behavior, Neuroscience Letters, Journal of Comparative Physiology, Physiological and Biochemical Zoology, Physiology & Behavior, Alcoholism: Clinical and Experimental Research, Brain, Behavior and Immunity, Pharmacology Biochemistry and Behavior, Learning and Motivation, Canadian Journal of Fisheries and Aquatic Sciences, Journal of Zhejiang University Science*

Professional Affiliations

Research Society on Alcoholism
International Behavioural and Neural Genetics Society
Society for Neuroscience (active)
Society for Integrative and Comparative Biology
Faculty for Undergraduate Neuroscience

University Service

Graduate Admissions Committee, Psychology, 06-10
Neuroscience Admissions Committee, 07
Senate, 07-09
Undergraduate Studies Committee, 08, 09, 10,17,18
Evaluation committee for potential hire, Roberto Galvez, 08
Beckman Institute Media Advisory Board, 10
Beckman Institute Erik Haferkamp Memorial Fund, 10-18
Beckman Institute Graduate and Postdoctoral Fellowships Committee, 11-17
Campus General Education Board, 12-15
Neuroscience Program Executive Committee, 2014-present
Biotechnology Center Faculty Advisory Committee, 2015-present

Public Outreach

Research featured in instructional videos:

Not Finding Nemo: Clownfish in the Lab and the Wild (**Emmy award winner**)
Why Clownfish are #1 Dads
60 Second Science: Justin Rhodes on Studying Mice and Clownfish
Clownfish Sex Tape
Why Men Are Better Navigators Then Women
Explaining Evolutionary Adaptations and Side Effects: The Spandrels of San Marco
Why Men Are Better Navigators Than Women: Adaptation or Testosterone Side Effect? (**Emmy award winner**)
Sex-Changing Clownfish
Investigating Sex-Changing Clownfish

Huffington Post online articles:

Orgasms Are Like Nipples, They Are Functional in One Sex and Inherited in the Other
Calorie for Calorie, Fructose Packs On More Pounds
Naturally Occurring Sex Change and the Rise of the Alpha Female
How Exercise Boosts Memory

Publications

Peer reviewed papers

1. Rhodes J.S., Quinn T.P. 1998. Factors affecting the outcome of territorial contests between hatchery and naturally reared coho salmon parr in the laboratory. *Journal of Fish Biology* 53:1220-1230.
2. Rhodes J.S., Quinn T.P. 1999. Comparative performance of genetically similar hatchery and naturally reared juvenile coho salmon in streams. *North American Journal of Fisheries Management* 19:670-677.
3. Rhodes J.S., Koteja P., Swallow J.G., Carter P.A., Garland T., Jr. 2000. Body temperatures of house mice artificially selected for high voluntary wheel-running behavior: repeatability and effect of genetic selection. *Journal of Thermal Biology* 25:391-400. PMID 10838179

4. Girard I., McAleer M.W., Rhodes J.S., Garland T., Jr. 2001. Selection for high voluntary wheel-running increases speed and intermittency in house mice (Mus domesticus). *Journal of Experimental Biology* 204:4311-4320. PMID 11815655
5. Dumke C.L., Rhodes J.S., Garland T., Jr., Maslowski E., Swallow J.G., Wetter A.C., Cartee G.D. 2001. Genetic selection of mice for high voluntary wheel running: effect on skeletal muscle glucose uptake. *Journal of Applied Physiology* 91:1289-1297. PMID 11509528
6. Bronikowski A.M., Carter P.A., Swallow J.G., Girard I.A., Rhodes J.S., Garland T., Jr. (2001) Open-field behavior of house mice selectively bred for high voluntary wheel-running. Behavior Genetics 31:309-316. PMID 11699603
7. Rhodes J.S., Hosack G.R., Girard I., Kelley A.E., Mitchell G.S., Garland T., Jr. 2001. Differential sensitivity to acute administration of cocaine, GBR 12909, and fluoxetine in mice selectively bred for hyperactive wheel-running behavior. *Psychopharmacology* 158:120-131. PMID 11702085
8. Girard I., Swallow J.G., Carter P.A., Koteja P., Rhodes J.S., Garland T., Jr. 2002. Maternal-care behavior and life-history traits in house mice (Mus domesticus) artificially selected for high voluntary wheel-running activity. *Behavioural Processes* 57:37-50. PMID 11864774
9. Garland T., Jr., Morgan M.T., Swallow J.G., Rhodes J.S., Girard I., Belter J.G., Carter P.A. 2002. Evolution of a small-muscle polymorphism in lines of house mice selected for high activity levels. *Evolution* 56:1267-1275. PMID 12144025
10. Crabbe J.C., Cotnam C.J., Cameron A.J., Schlumbohm J.P., Rhodes J.S., Metten P., Wahlsten D. 2003. Strain differences in three measures of ethanol intoxication in mice: the screen, dowel, and grip strength tests. *Genes, Brain and Behavior* 2:201-213. PMID 12953786
11. Gammie S.C., Hasen N.S., Rhodes J.S., Girard I., Garland T., Jr. 2003 Predatory aggression, but not maternal or intermale aggression, is associated with high voluntary wheel-running behavior in mice. *Hormones and Behavior* 44:209-221. PMID 14609543
12. Johnson R.A., Rhodes J.S., Jeffrey S.L., Garland T., Jr., Mitchell G.S. 2003. Hippocampal brain-derived neurotrophic factor but not neurotrophin-3 increases more in mice selected for increased voluntary wheel running. *Neuroscience* 121:1-7. PMID 12946694
13. Rhodes J.S., Garland T., Jr. 2003. Differential sensitivity to acute administration of Ritalin, apomorphine, SCH 23390, but not raclopride in mice selectively bred for hyperactive wheel-running behavior. *Psychopharmacology* 167:242-250. PMID 12669177
14. Rhodes J.S., Garland T., Jr., Gammie S.C. 2003. Patterns of brain activity associated with variation in voluntary wheel-running behavior. *Behavioral Neuroscience* 117:1243-1256. PMID 14674844
15. Rhodes J.S., van Praag H., Jeffrey S., Girard I., Mitchell G.S., Garland T., Jr., Gage F.H. 2003. Exercise increases hippocampal neurogenesis to high levels but does not improve spatial learning in mice bred for increased voluntary wheel running. *Behavioral Neuroscience* 117:1006–1016. PMID 14570550

16. Gammie S.C., Negron A., Newman S.M., Rhodes J.S. 2004. Corticotropin-releasing factor inhibits maternal aggression in mice. *Behavioral Neuroscience* 118:805-814. PMID 15301606
17. Bronikowski A.M., Rhodes J.S., Garland T., Jr., Prolla T.A., Awad T., Gammie S.C. 2004. The hippocampal gene expression profile of mice selectively bred for increased voluntary exercise. *Evolution* 58:2079-2086. PMID 15521463
18. Li G., Rhodes J.S., Girard I., Gammie S.C., Garland T., Jr. 2004. Opioid-mediated pain sensitivity in mice bred for high wheel running. *Physiology & Behavior* 83:515-524. PMID 15581674
19. Swallow J.G., Rhodes J.S., Garland T., Jr. 2005. Phenotypic and evolutionary plasticity of organ masses in response to voluntary exercise in house mice. *Integrative and Comparative Biology* 45:426-437.
20. Rhodes J.S., Best K., Belknap J.K., Finn D.A., Crabbe J.C. 2005. Evaluation of a simple model of ethanol drinking to intoxication in C57BL/6J mice. *Physiology & Behavior* 84:53-63. PMID 15642607
21. Rhodes J.S., Ryabinin A.E., Crabbe J.C. 2005. Patterns of brain activation associated with contextual conditioning to methamphetamine in mice. *Behavioral Neuroscience* 119:759-771. PMID 15998197
22. Blednov Y.A., Metten P., Finn D.A., Rhodes J.S., Bergeson S.E., Harris R.A., Crabbe J.C. 2005. Hybrid C57BL/6J x FVB/NJ mice drink more alcohol than do C57BL/6J mice. *Alcoholism: Clinical and Experimental Research* 29:1949-1958. PMID 16340451
23. Krugner-Higby L., Girard I., Welter J., Gendron A., Rhodes J.S., Garland T., Jr. 2006. Clostridial enteropathy in lactating out bred Swiss-derived (ICR) mice. *Journal of the American Association for Laboratory Animal Science* 45: 80-87. PMID 17089998
24. Rhodes, J.S., Ford, M.M., Yu, C.H., Brown, L.L., Finn, D.A., Garland, T., Jr., and Crabbe, J.C. 2007. Mouse inbred strain differences in ethanol drinking to intoxication. *Genes, Brain & Behavior* 6:1-18. PMID 17233637
25. Kamdar N.K., Miller S.A., Syed Y.M., Bhayana R., Gupta T., Rhodes J.S. 2007. Acute effects of Naltrexone and GBR 12909 on ethanol drinking-in-the-dark in C57BL/6J mice. *Psychopharmacology* 192: 207-217. PMID 17273875
26. Zombeck J.A., Chen G., Johnson Z.V., Rosenberg D.M., Craig A.B., Rhodes J.S. 2008. Neuroanatomical specificity of conditioned responses to cocaine versus food in mice. *Physiology & Behavior* 93: 637-650. PMID 18155256
27. Clark P.J., Brzezinska W.J., Thomas M.W., Ryzhenko N.A., Toshkov S.A., Rhodes J.S. 2008. Intact neurogenesis is required for benefits of exercise on spatial memory but not motor performance or contextual fear conditioning in C57BL/6J mice. *Neuroscience* 155: 1048-58. PMID 18664375
28. Gupta T., Syed Y.M., Revis A.A., Miller S.A., Martinez M., Cohn K.A., Demeyer M.R., Patel K.Y., Brzezinska W.J., Rhodes J.S. 2008. Acute effects of acamprosate and MPEP on ethanol Drinking-in-the-Dark in male C57BL/6J mice. *Alcoholism: Clinical and Experimental Research* 32: 1992-1998. PMID 18782337

29. Zombeck J.A., Gupta T., Rhodes J.S. 2009. Evaluation of a pharmacokinetic hypothesis for reduced locomotor stimulation from methamphetamine and cocaine in adolescent versus adult male C57BL/6J mice. *Psychopharmacology* 201: 589-599. PMID 18797848
30. Clark P.J., Brezezinska W.J., Puchalski E.K., Krone D.A., Rhodes J.S. 2009. Functional analysis of neurovascular adaptations to exercise in the dentate gyrus of young adult mice associated with cognitive gain. *Hippocampus*. 19: 937-950. PMID 19132736
31. Crabbe J.C., Metten P., Rhodes J.S., Yu C.H., Brown L.L., Phillips T.J., Finn D.A. 2009. A line of mice selected for drinking in the dark to intoxication. *Biological Psychiatry*. 65: 662-670. PMID 19095222
32. Zombeck J.A., Lewicki A.D., Patel K., Gupta T., Rhodes J.S. 2009. Patterns of neural activity associated with differential acute locomotor stimulation to cocaine and methamphetamine in adolescent versus adult male C57BL/6J mice. *Neuroscience*. 165: 1087-99. PMID 19932887
33. Johnson Z.V., Revis A.A., Burdick M.A., Rhodes J.S. 2010. A similar pattern of neuronal Fos activation in 10 brain regions following exposure to reward- or aversion-associated contextual cues in mice. *Physiology & Behavior.* 99: 412-418. PMID 20026143
34. Clark P.J., Kohman R.A., Miller D.S., Bhattacharya T.K., Haferkamp E.H., Rhodes J.S. 2010. Adult hippocampal neurogenesis and c-Fos induction during escalation of voluntary wheel running in C57BL/6J mice. *Behavioral Brain Research*. 213: 246-252. PMID 20472002
35. Zombeck J.A., Swearingen S.P., Rhodes J.S. 2010. Acute locomotor responses to cocaine in adolescents versus adults from 4 divergent inbred mouse strains. *Genes, Brain and Behavior*. 9: 892-898. PMID 20662938
36. Mulligan M.K., Rhodes J.S., Crabbe, J.C., Mayfield, R.D., Harris, R.A., Ponomarev, I. 2011. Molecular profiles of drinking alcohol to intoxication in C57BL/6J mice. *Alcoholism: Clinical and Experimental Research*. 35: 659-70. PMID 21223303
37. Zombeck J.A., DeYoung E., Brzezinska W.J., Rhodes J.S. 2011. Selective breeding for increased home cage physical activity in Collaborative Cross and Hsd:ICR mice. *Behavior Genetics*. 41: 571-82. PMID 21184167
38. Clark P.J., Kohman R.A., Miller D.S., Bhattacharya T.K., Brzezinska W.J., Rhodes J.S. 2011. Genetic influences on exercise-induced adult hippocampal neurogenesis across 12 divergent mouse strains. *Genes, Brain and Behavior*. 10: 345-53. PMID 21223504
39. Clark P.J., Bhattacharya T.K., Miller D.S., Rhodes J.S. 2011. Induction of c-Fos, Zif268, and Arc from acute bouts of voluntary wheel running in new and pre-existing adult mouse hippocampal granule neurons. *Neuroscience.* 184: 16-27. PMID 21497182
40. Bulwa Z.B., Sharlin J.A., Clark P.J., Bhattacharya T.K., Kilby C.N., Wang Y., Rhodes J.S. 2011. Increased consumption of ethanol and sugar water in mice lacking the dopamine D2 long receptor. *Alcohol*. 45: 631-639. PMID 21803530
41. Kohman R.A., Rodriguez-Zas S.L., Kelley K.W., Dantzer R., Rhodes J.S. 2011. Voluntary wheel running reverses age-induced changes in hippocampal gene expression. *PLoS ONE*. 6: e22654. PMID 21857943

42. Mustroph M.L., Stobaugh D.J., Miller D.S., DeYoung E. K., Rhodes J.S. 2011. Wheel running can accelerate or delay extinction of conditioned place preference for cocaine in male C57BL/6J mice depending on timing of wheel access. *European Journal of Neuroscience*. 34: 1161-9. PMID 21864322
43. Kohman R.A., Clark P.J., DeYoung E.K., Bhattacharya T.K., Venghaus C.E., Rhodes J.S. 2011. Voluntary wheel running enhances contextual but not trace fear conditioning. *Behavioural Brain Research*. 226: 1-7. PMID 21896289
44. Kohman R.A., DeYoung E.K., Bhattacharya T.K., Peterson L.N., Rhodes J.S. 2012. Wheel running attenuates microglia proliferation and increases expression of a proneurogenic phenotype in the hippocampus of aged mice. *Brain, Behavior, and Immunity*. 26: 803-810.
45. Clark P.J., Bhattacharya T.K., Miller D.S., Kohman R.A., DeYoung E.K., Rhodes, J.S. 2012. New neurons generated from running are broadly recruited into neuronal activation associated with three different hippocampus-involved tasks. *Hippocampus*. 22(9):1860-7.
46. Clint E.K., Sober E., Garland T.J., and Rhodes J.S., 2012. Male superiority in spatial navigation: adaptation or side effect? *Quarterly Review of Biology*. 87(4): 289-313.
47. Mustroph M.L., Chen S., Desai S.C., Cay E.B., DeYoung E.K., Rhodes J.S. 2012. Aerobic exercise is the critical variable in an enriched environment that increases hippocampal neurogenesis and water maze learning in male C57BL/6J mice. *Neuroscience*. 219:62-71.
48. Dabe E.C., Majdak P., Bhattacharya T.K., Miller D.S., Rhodes J.S. 2013. Chronic d-amphetamine administered from childhood to adulthood dose-dependently increases the survival of new neurons in the hippocampus of male C57BL/6J mice. *Neuroscience*. 231: 125-135.
49. Kohman R.A., Bhattacharya T.K., Kilby C., Bucko P., Rhodes J.S. 2013. Effects of minocycline on spatial learning, hippocampal neurogenesis and microglia in aged and adult mice. *Behavioural Brain Research.* 242: 17-24.
50. Kohman R.A., Bhattacharya T.K., Wojcik E., Rhodes J.S. 2013. Exercise reduces activation of microglia isolated from hippocampus and brain of aged mice. *Journal of neuroinflammation* 10:114.
51. Kelly S.A., Rezende E.L., Chappell M.A., Gomes F.R., Kolb E.M., Malisch J.L., Rhodes J.S., Mitchell G.S., Garland T., Jr. 2014. Exercise training effects on hypoxic and hypercapnic ventilatory responses in mice selected for increased voluntary wheel running. *Experimental Physiology* 99: 403-413.
52. Yaeger C., Ros A.M., Cross V., DeAngelis R.S., Stobaugh D.J., Rhodes J.S. 2014. Blockade of arginine vasotocin signaling reduces aggressive behavior and c-Fos expression in the preoptic area and periventricular nucleus of the posterior tuberculum in male *Amphiprion ocellaris.* *Neuroscience* 267:205-218.
53. Gibbons T.E., Pence B.D., Petr G., Ossyra J.M., Mach H.C., Bhattacharya T.K., Perez S., Martin S.A., McCusker R.H., Kelley K.W., Rhodes J.S., Johnson R.W., Woods J.A. 2014. Voluntary wheel running, but not a diet containing (-)-epigallocatechin-3-gallate and beta-alanine, improves learning, memory and hippocampal neurogenesis in aged mice. *Behavioural Brain Research* 272C:131-140.

54. Majdak P., Bucko P.J., Holloway A.L., Bhattacharya T.K., DeYoung E.K., Kilby C.N., Zombeck J.A., Rhodes J.S. 2014. Behavioral and pharmacological evaluation of a selectively bred mouse model of home cage hyperactivity. *Behavior Genetics* 44:516-534.
55. Conrad M.S., Harasim H., Rhodes J.S., Van Alstine W., Johnson R.W. 2015. Postnatal respiratory viral infection alters hippocampal neurogenesis, cell fate, and neuron morphology in the neonatal piglet. *Brain Behavior and Immunity* 44:82-90.
56. Mustroph M.L.,Merritt J.R., Holloway A.L., Pinardo H., Miller D.S., Kilby C.N., Bucko P., Wyer A., Rhodes J.S. 2015. Increased adult hippocampal neurogenesis is not necessary for wheel running to abolish conditioned place preference for cocaine in mice. *European Journal of Neuroscience* 41:216-226.
57. Merritt J., Rhodes J.S. 2015. Mouse genetic differences in voluntary wheel running, adult hippocampal neurogenesis and learning on the multi-strain-adapted plus water maze. *Behavioural Brain Research* 280:62-71.
58. Bhattacharya T.K., Pence B.D., Ossyra J.M., Gibbons T.E., Perez S., McCusker R.H., Kelley K.W., Johnson R.W., Woods J.A., Rhodes J.S. 2015. Exercise but not (-)-epigallocatechin-3-gallate or beta-alanine enhances physical fitness, brain plasticity, and behavioral performance in mice. *Physiology & behavior* 145:29-37.
59. Rendeiro C., Masnik A.M., Mun J.G., Du K., Clark D., Dilger R.N., Dilger A.C., Rhodes J.S. 2015. Fructose decreases physical activity and increases body fat without affecting hippocampal neurogenesis and learning relative to an isocaloric glucose diet. *Scientific reports* 5:9589.
60. Romanova E.V., Rubakhin S.S., Ossyra J.R., Zombeck J.A., Nosek M.R., Sweedler J.V., Rhodes J.S. (2015) Differential peptidomics assessment of strain and age differences in mice in response to acute cocaine administration. *Journal of neurochemistry* 135(5):1038-48.
61. Park, S.I., Shin, G., Banks, A., McCall, J.G., Siuda, E.R., Schmidt, M.J., Chung, H.U., Noh, K.N., Mun, J.G., Rhodes, J.S., Bruchas, M.R., and Rogers, J.A. 2015. Ultraminiaturized photovoltaic and radio frequency powered optoelectronic systems for wireless optogenetics. *Journal of Neuroengineering* 12(5):056002.
62. Pence, B.D., Gibbons, T.E., Bhattacharya, T.K., Mach, H.M., Ossyra, J.M., Petr, G., Martin, S.A., Wang, L., Rubakhin, S.S., Sweedler, J.V., McCusker, R.H., Kelley, K.W., Rhodes, J.S., Johnson, R.W., and Woods, J.A. 2016. Effects of exercise and dietary EGCG and B-Alanine on skeletal muscle in aged mice. Applied *Physiology, Nutrition, and Metabolism* 41:181-90.
63. Hamilton, G.F., Majdak, P., Miller, D.S., Bucko, P.J., Merritt, J.R., Krebs, C.P., and Rhodes, J.S. 2015. Evaluation of a C57BL/6J x 129S1/SvImJ hybrid nestin-thymidine kinase transgenic mouse model for studying exercise-induced adult hippocampal neurogesis. *Brain Plasticity* 1:83-95.
64. DeAngelis R.S., Rhodes J.S. 2016. Sex differences in steroid hormones and parental effort across the breeding cycle in *Amphiprion ocellaris*. *Copeia*, 104(2):586-593.
65. Mustroph, M.L., Pinardo, H., Merritt, J.R., and Rhodes, J.S. 2016. Parameters for abolishing conditioned place preference for cocaine from running and environmental enrichment in male C57BL/6J mice. *Behavioural Brain Research* 312:366-373.

66. Majdak, P., Grogan, E.L., Gogola, J.V., Sorokina, A., Tse, S., and Rhodes, J.S. 2016. The impact of maternal neglect on genetic hyperactivity. *Behavioural Brain Research* 313:282-292
67. Rendeiro, C., Sheriff, A., Bhattacharya, T.K., Gogola, J.V., Baxter, J.H., Chen, H., Helferich, W.G., Roy, E.J., Rhodes, J.S. 2016. Long-lasting impairments in adult neurogenesis, spatial learning and memory from a standard chemotherapy regimen used to treat breast cancer. *Behavioural Brain Research*. 315:10-22.
68. Caetano-Anollés, K., Rhodes, J.S., Garland, T., Jr., Perez, S.D., Hernandez, A.G., Southey, B.R., Rodriguez-Zas, S.L. 2016. Cerebellum transcriptome of mice bred for high voluntary activity offers insights into locomotor control and reward-dependent behaviors. *Plos One*. 11:e0167095.
69. Majdak P., Ossyra J.R., Ossyra J.M., Cobert A.J., Hofmann G.C., Tse S., Panozzo B., Grogan E.L., Sorokina A., Rhodes J.S. 2016. A new mouse model of ADHD for medication development. *Scientific Reports* 6:39472.
70. Hamilton G.F., Bucko P.J., Miller D.S., DeAngelis R.S., Krebs C.P., Rhodes J.S. 2016. Behavioral deficits induced by third-trimester equivalent alcohol exposure in male C57BL/6J mice are not associated with reduced adult hippocampal neurogenesis but are still rescued with voluntary exercise. *Behavioural Brain Research* 314:96-105.
71. Saul, M., Majdak, P., Perez, S., Reilly, M., Garland. T., Jr., Rhodes J.S. 2017. High motivation for exercise is associated with altered chromatin regulators of monoamine receptor gene expression in the striatum of selectively bred mice. *Genes, brain, and behavior.* 16:328-341
72. Pence B.D., Bhattacharya T.K., Park P., Rytych J.L., Allen J.M., Sun Y., McCusker R.H., Kelley K.W., Johnson R.W., Rhodes J.S., Woods J.A. 2017. Dose-dependent decrease in mortality with no cognitive or muscle function improvements due to dietary EGCG Supplementation in aged mice. *Applied Physiology, Nutrition, and Metabolism*. 42:495-502.
73. Perez, S.D., Du, K., Rendeiro, C., Wang, L., Qian, W., Rubakhin, S.S., Vazhappilly, R. , Baxter, J.H.., Sweedler, J.V., Rhodes, J.S. 2017. A unique combination of micronutrients rejuvenates cognitive performance in aged mice. *Behavioural Brain Research*. 320:97-112.
74. Du K., Markus E., Fecych M., Rhodes J.S., Beverly J.L. 2017. Satiety and memory enhancing effects of a high-protein meal depend on the source of protein. *Nutritional neuroscience.* 1-11.
75. DeAngelis R.S., Rhodes J.S. 2017. Opposite effects of nonapeptide antagonists on paternal behavior in the teleost fish *Amphiprion ocellaris*. *Hormones and Behavior*. 90:113-119.
76. Munroe M., Pincu Y., Merritt J., Cobert A., Brander R., Jensen T., Rhodes J.S., Boppart M.D. 2017 Impact of β-hydroxy β-methylbutyrate (HMB) on age-related functional deficits in mice. *Experimental Gerontology.* 87:57-66.
77. Hamilton G.F., Hernandez I.J., Krebs C.P., Bucko P.J., Rhodes J.S. 2017. Neonatal alcohol exposure reduces number of parvalbumin-positive interneurons in the medial prefrontal cortex and impairs passive avoidance acquisition in mice deficits not rescued from exercise. *Neuroscience*. 352:52-63.

78. Ujjainwala A.L., Courtney C.D., Rhoads S.G., Rhodes J.S., Christian C.A. 2017. Genetic loss of diazepam binding inhibitor in mice impairs social interest. *Genes, Brain and Behavior*. 17:e12442.
79. Huntsman H.D., Rendeiro C., Merritt J.R., Pincu Y., Cobert A., De Lisio M., Kolyvas E., Dvoretskiy S., Dobrucki I.T., Kemkemer R. 2018. The impact of mechanically stimulated muscle-derived stromal cells on aged skeletal muscle. *Experimental Gerontology.* 103:35-46.
80. Davis R. D., Park H.M., Kim K., Greer J., Fellers R., LeDuc R., Romanova E., Rubakhin S., Zombeck J., Wu C., Yau P., Gao P., VanNispen A., Patrie S., Thomas P., Sweedler J.V., Rhodes J.S., Kelleher N. 2018. Top-down proteomics enables comparative analysis of brain proteoforms between mouse strains. *Analytical Chemistry*. 90(6):3802-10.
81. Rendeiro C., Rhodes, J.S. 2018. A new perspective of the hippocampus in the origin of exercise-brain interactions. *Brain Structure and Function*. 223(6): 2527–2545.
82. Munroe M., Mahmassani Z.S., Dvoretskiy S., Miller B.F., Hamilton K.L., Rhodes J.S., Boppart M.D. 2018. Cognitive function is preserved in aged mice following long-term β-hydroxy β-methylbutyrate (HMB) supplementation. *Nutritional Neuroscience*. In press.
83. DeAngelis R., Dodd L., Snyder A., Rhodes J.S. 2018. Dynamic regulation of brain aromatase and isotocin receptor gene expression in *Amphiprion ocellaris* pairs depending on breeding status. *Hormones and Behavior* 103:62-70.
84. Sorokina A.M., Saul M., Goncalves T.M., Gogola J.V., Majdak P., Rodriguez-Zas S.L., Rhodes J.S. 2018. Striatal transcriptome of a mouse model of ADHD reveals a pattern of synaptic remodeling. *PLOS ONE*, 13(8):e0201553.
85. Zhang P., Rhodes J.S., Garland T., Jr., Perez S.D., Southey B.R., Rodriguez-Zas S.L. 2018. Brain region-dependent gene networks associated with selective breeding for increased voluntary wheel-running behavior. *PLOS ONE*, 13(8): e0201773.
86. Mailing L., Allen J., Brandt P., Rytych J., Sun Y., Bhattacharya T., Park P., Liu T., McCusker R., Swanson K., Fahey G.C., Rhodes J.S., Kelley K.W., Johnson R., Woods J. 2018. Behavioral response to fiber feeding is cohort-dependent and associated with gut microbiota composition in mice. *Behavioural Brain Research*. 359: 731-736.
87. Dowd S., Mustroph M.L., Romanova E., Southey B., Pinardo H., Rhodes J.S., Sweedler J.V. 2018. Exploring exercise- and context-induced peptide changes in mice by quantitative mass spectrometry. *ACS Omega*. 3(10): 13817-13827.
88. Ujjainwala A.L., Courtney C.D., Wojnowski N.M., Rhodes J.S., Christian C.A. 2019. Differential impacts on multiple forms of spatial and contextual memory in diazepam binding inhibitor knockout mice. *Journal of Neuroscience Research*. 97: 683-697.
89. Dodd L.D., Nowak E., Lange D., Parker C.G., DeAngelis R., Gonzalez J.A., Rhodes J.S. 2019. Active feminization of the preoptic area occurs independently of the gonads in *Amphiprion ocellaris*, *Hormones & Behavior*. 112: 65-76.
90. Du K., Markus E., Fecych M., Beverly L., Rhodes J.S., Rendeiro C. 2019. Metabolic consequences of egg white versus wheat gluten protein consumption in a rodent model, *Journal of Nutrition & Food Sciences*, In press.

Invited reviews and book chapters

91. Rhodes J.S., Crabbe J.C. 2003. Progress towards finding genes for alcoholism in mice. *Clinical Neuroscience Research* 3:315-323.
92. Rhodes J.S., Gammie S.C., Garland T., Jr. 2005. Neurobiology of mice selected for high voluntary wheel running activity. *Integrative and Comparative Biology* 45:438-455.
93. Rhodes J.S., Crabbe J.C. 2005. Gene expression induced by drugs of abuse. *Current Opinion in Pharmacology* 5:26-33.
94. Rhodes J.S., Kawecki, T. 2009. Behavior and Neurobiology. In: Garland T., Jr., Rose, M.R. (eds) *Experimental Evolution.* University of California Press.
95. Rhodes J.S., Majdak, P. 2013. Physical activity and reward: The role of dopamine. In: Ekkekakis P. (ed) *Routledge Handbook of Physical Activity and Mental Health.* Routledge.
96. Kohman, R.A. and Rhodes, J.S. 2013. Neurogenesis, inflammation and behavior. *Brain, Behavior, and Immunity* 27: 22-32
97. Garcia-Fuster, MJ, Rhodes, J.S., and Mandyam, C.D. 2013. The role of dentate gyrus neurogenesis in neuropsychiatric disorders. *Neural Plasticity*.
98. Hamilton G.F., Rhodes J.S. 2015. Animal models of exercise-brain interactions. In: McMorris (ed) *Exercise-Cognition Interaction*. Elsevier.
99. Hamilton G.F., Rhodes J.S. 2015. Exercise regulation of cognitive function and neuroplasticity in the healthy and diseased brain. In: Bouchard C. (ed) *Progress in Molecular Biology and Translational Science: Molecular and Cellular Regulation of Adaptation to Exercise.* Elsevier.
100. Rendeiro C., Rhodes J.S., Spencer J.P. 2015. The mechanisms of action of flavonoids in the brain: Direct versus indirect effects. *Neurochemistry International* 89:126-139.
101. Kohman R.A., Rhodes J.S. 2016. Role of adult hippocampal neurogenesis in psychiatric disorders. In Halaris A. and Leonard B. (eds) *Neuroprogression in Psychiatric Disorders*. Karger Verlag.
102. Rhodes, J.S. 2018. Neurogenetics of motivation for exercise. In Lightfoot T.J., Roth S., Hubal M. (eds) *Rutledge Handbook of Sport and Exercise Systems Genetics,* Routledge.