

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 NeuroTech Research Group; *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 **Emmy Award**, National Academy of Television Arts and Sciences Mid-American Chapter, for winning instructional video
- 2013 **Outstanding Advisor Award**, Medical Scholars Program, UIUC

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

Grant Support

Extramural

Current

- 2015-2017 “Mouse cognition and hippocampal neurogenesis core facility” Center for Nutrition, Learning and Memory, private funding, Abbott Nutrition, \$660,000.
Role: PI
- 2013-2018 “Exercise as therapeutic intervention to extinguish conditioned drug associations” NIH F30 DA034480, \$231,788.
Role: Sponsor
- 2016-2019 “Functional role of adult neurogenesis in cognitive recovery from fetal alcohol” F32 AA023444-01A1
Role: Sponsor, \$174,000.

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 ethanol 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)

Intramural

Current

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

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

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

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

Contributed Presentations

- 1995 Gilbert Ichthyological Society, 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, Sweden
 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

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 finishing the MD portion of her MD/PhD training.

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-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

Preliminary Exam committee

Sophia Liang, Neuroscience
Sarah Dowd, Chemistry
Emily Venheim, Psychology
Chen Fu, Neuroscience
Marcus Lawson, Neuroscience
Harry Rosenberg, Neuroscience

Itamar Livnat, Neuroscience
Annie Weisner, Neuroscience

Qualifying

Exam committee

Chris Whalen, Neuroscience
Kristy Du, Nutrition Master's Degree Program
Shuo Kang, Neuroscience
Jim Monti, Psychology
Lindsey Hammerslag, Psychology
Kevin Ambrose Stebbings, Neuroscience

Diagnostic
committee

Benjamin Zimmerman, Neuroscience
Tae-Jin Kim, Neuroscience
Sook-Eun Park, Neuroscience
Chelsea Wong, Neuroscience
Al Towers, Division of Nutritional Sciences
Mariam Bonyadi, Neuroscience
Laura Moody, Division of Nutritional Sciences
Christopher Seward, Developmental and Cell Biology
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
Zack Johnson, 2007-2009
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
David Krone, 2007-2010
Brian Clague, 2007-2008
Dominic Hahn, 2008-2009
Kris Deters, 2008-2010
Emily Dabe, 2008-2011
Amber Duarrani, 2008-2009
David Sohn, 2008-2011
Sean Swearingen, 2009-2010
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
Courtney Yaeger, 2011-2014
Jill Anne Nakayama, 2011
Josh Lim, 2011-2012
Adam Cobert, 2012-present
Ashley Holloway, 2012-2014
Christopher Krebs, 2012-present
Elizabeth Abushevitz, 2012-2014
Heinrich Pinaro, 2012-present
Robert Holland, 2012-2014
Jacyn Hastings, 2011-2012
Jennifer Merritt, 2012-2014
Ashley Masnik, 2012-2014
Paula Bucko, 2012-2014

Peter Wingard, 2012-2014
Natalia Sopiarsz, 2012-2013
Michael Kozak, 2013-2014
Brent Panozzo, 2013-present
Victoria Cross, 2013-2014
Paul Kozak, 2013-present
Andrew Sheriff, 2013-present
Madison Barker, 2013-present
Ivy Hernandez, 2013-present
Kevin Jorgensen, 2013-2015
Elizabeth Grogan, 2013-present
Joseph Gogola, 2014-present
Stephen Tse, 2014-present
Logan Dodd, 2015-present
Anastassia Sorokina, 2015-present
Amanda Snyder, 2015-present
Clara Stezowski, 2015-present
Pragya Thaman, 2015-present

Summer Research Opportunities Program

Marina Martinez, 2007
Lauren Jeffries, 2008
Phillip Luu, 2009
Ashley Walker, 2009

Courses Taught

PSYC 396	Neuroscience in the Real World, Spring 2017
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*, 2012-2014
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
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

University Service

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

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
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