Stanford



Joseph Garner

Professor of Comparative Medicine and, by courtesy, of Psychiatry and Behavioral Sciences

Bio

BIO

Joseph Garner, D.Phil., Professor, received his doctoral degree from the Department of Zoology at the University of Oxford, Great Britain, where he studied the developmental neuroethology of stereotypies in captive animals (1995-1999). His postdoctoral research in animal behavior and wellbeing was undertaken at UC Davis (1999-2004). He served as an Assistant (2004-2010) and an Associate (2010-2011) Professor of animal behavior and wellbeing in the Department of Animal Sciences at Purdue University, where he also held a courtesy appointment in the Department of Speech, Language and Hearing Sciences (2009-2011). Dr. Garner joined the Department of Comparative Medicine at Stanford in 2011. Here he oversees 3R's services (Biostatistics consulting, Environmental enrichment & Behavioral management, Breeding colony management, Apparatus design & 3D printing) that help researchers implement new and emerging technologies, techniques and best practices in animal research that benefit both the wellbeing of research animals and the effectiveness, efficiency, reproducibility and translatability of the research.

The overarching theme of Dr. Garner's research is understanding why most drugs (and other basic science findings) fail to translate into human outcomes; the role that animal models, animal methodology, and animal wellbeing play in in these failures; and developing new approaches to animal research which improve the translation and benefits of animal work through improvements in the wellbeing of animal participants. He is an internationally recognized expert in the behavior and wellbeing of laboratory mice, and abnormal behavior in animals in general, including awards from the National Center for the 3Rs (UK), the American Association for Laboratory Animal Science, the Swiss Laboratory Animal Science Association, and the Universities Federation for Animal Welfare. His current human health research is focused on animal and human studies in autism, trichotillomania, and compulsive skin-picking. The question driving all of this work is "Why does one sibling become ill and another does not?", and the goal is to identify biomarkers leading to screening, prevention and personalized treatment options. Recognition of his work in human health includes being selected for Spectrum's Ten Notable Papers in Autism Research for both 2017 and 2018. His publication record includes over 100 peer-reviewed journal articles, including papers in Science, PNAS, and Nature Methods.

Dr. Garner serves, or has served, as a council member for the International Society for Applied Ethology, an Editor for Applied Animal Behavior Science, a Special Topics section editor for the Journal of Animal Science, on the AAALAC Board of Trustees, on the SCAW Board of Trustees, on the NA3RsC board, on the Scientific Advisory Board of the Trichotillomania Learning Center, the Tourette Association of America, and the Beautiful You MRKH Foundation.

ACADEMIC APPOINTMENTS

- Professor-Univ Med Line, Comparative Medicine
- Professor-Univ Med Line (By courtesy), Psychiatry and Behavioral Sciences

- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Rigor & Reproducibility Award, Honorable Mention, Stanford University, Stanford Program on Research Rigor & Reproducibility (SPORR) (2023)
- Community Service Award, Stanford University, Department of Comparative Medicine (2022)
- Certificate of Distinction in Teaching, Stanford University, Department of Comparative Medicine (2019)
- Henry Spira Memorial Lecture, In Recognition of Innovation and Achievement in the 3Rs, PRIM&R (2016)
- Year of Learning, Great Teaching Showcase, Stanford University (2015)
- 3Rs Prize (Highly Commended), NC3Rs and GlaxoSmithKline (2014)
- Prize for exceptional science: for exceptional achievements in laboratory animal science, Swiss Society for Laboratory Animal Science (2013)
- Pravin N. Bhatt Young Investigator Award, American Association for Laboratory Animal Science (2012)
- Outstanding Faculty Mentor, Louis Stokes Alliance for Minority Participation - Indiana (2011)
- Early Achievement Award (Research), Poultry Science Association (2009)
- Entrepreneurial Leadership Academy Scholar, Purdue University (2009)
- Professor William Russell Fellowship, Universities Federation for Animal Welfare (2008-2011)
- Entrepreneurial Leadership Academy, Purdue University (2008)
- Professors For The Future Fellow, UC Davis (2001)
- Honorary Senior Scholar, New College, Oxford University (1995-1999)
- Gibbs Prize for Zoology, proxime accessit, Oxford University (1995)
- Southern Field Prize, Biological Sciences, Oxford University (1995)

COMMUNITY AND INTERNATIONAL WORK

- Board Member, North American 3Rs Collaborative
- Beautiful You MRKH Foundation
- Scientific Advisory Board, Tourette Syndrome Association
- Scientific Advisory Board, Trichotillomania Learning Center
- Member of editorial board, Applied Animal Behaviour Science
- Editorial Board, Journal of Animal Science
- Governing Council, International Society for Applied Ethology
- ISAE representative on the AAALAC Board of Trustees

LINKS

- Full publication list from Google Scholar: http://scholar.google.com/citations?user=JThS8LMAAAAJ
- Mouse ethogram and video library: http://www.mousebehavior.org
- Beyond3Rs Initiative: med.stanford.edu/content/sm/beyond3rs.html/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I study the "science of doing science" and the connections between human and animal well-being – including both “forward translation” from animal work to human outcomes, but also “reverse translation” from human measures and interventions to animals. For example, roughly 90% of drugs fail in translation, and the majority of these failures are due to a lack of efficacy. The financial, societal, and ethical costs of these failures are staggering. Accordingly, the overarching theme of my research is understanding why most drugs (and other basic science findings) fail to translate into human outcomes, the role that animal models and animal methodology play in in these failures, and in developing new approaches to improve the translation of animal research while also improving well-being. I am particularly interested in biomarker-based personalized medicine as a general solution, and much of my research program focuses on developing methodologies for biomarker-based animal models (e.g. biostatistics; individual differences in risk and response; animal housing, behavior and well-being; reverse-translated assays and automated instrumentation).

On the animal well-being side of my research, my work on the role of biostatistics and experimental design in improving both animal well-being and scientific outcomes includes a series of papers in Nature Methods, as well as papers in the MRC (UK) and the National Academies’ policy journals (NC3Rs Journal, and ILAR journal). We recently completed a long arc of work on the implementation and benefits (to science, well-being, and breeding) of nesting material for mice. Early papers in this program are referenced in new federal policy for mouse housing, and the body of work as a whole has won three major international awards. We are currently working on other major health and well-being issues in mice (particularly aggression and ulcerative dermatitis), including the first report of an effective treatment for ulcerative dermatitis. Our current NIH funding in this area is for the reverse-translation and validation of human measures of pain for use in mice, as a solution to the issues that current mouse measures of pain present for translational research.

I also work extensively in human health, both as a researcher and an advocate. My current human health research is focused on autism, trichotillomania and skin-picking. The question driving all of this work is “Why does one sibling become ill and another does not?”, and the goal is to identify biomarkers leading to screening, prevention and personalized treatment options. My early work in autism reverse-translated neuropsychological biomarkers of frontal executive function for use in mice and other animals, and established spontaneous stereotypies as a model of stereotypies (identical repetitive movements) in autism. My current work in autism (in collaboration with colleagues at Stanford, UCSF and UC Davis) is focused on biomarkers, genetic risk factors, and associated potential therapeutics targeting oxytocin and vasopressin and the relationship to social deficits in autistic patients and primate models. Trichotillomania and Skin Picking Disorder are extremely prevalent (trichotillomania affects approximately 3.5% of women), underserved, and hidden disorders, with severe impacts on life functioning and potentially life-threatening medical complications. My lab is the only lab working on animal models for either disorder. In mice we have identified underlying disease processes, biomarkers predictive of later onset, preventative interventions, and most recently, a novel and highly effective treatment (intranasal glutathione).

Teaching

COURSES

2026-27

- Animal behavior: sex, death, and sometimes food!: COMPMED 80N (Aut)
- Robust, reproducible, real-world experimental design and analysis for life and biomedical scientists: COMPMED 211 (Win)

2025-26

- Animal behavior: sex, death, and sometimes food!: COMPMED 80N (Aut)
- Robust, reproducible, real-world experimental design and analysis for life and biomedical scientists: COMPMED 211 (Win)

2024-25

- Animal behavior: sex, death, and sometimes food!: COMPMED 80N (Aut, Spr)
- Robust, reproducible, real-world experimental design and analysis for life and biomedical scientists: COMPMED 211 (Win)

2023-24

- Animal behavior: sex, death, and sometimes food!: COMPMED 80N (Aut, Spr)
- Robust, reproducible, real-world experimental design and analysis for life and biomedical scientists: COMPMED 211 (Aut)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Anna Ratuski

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Laboratory Animal Science (Masters Program)
- Neurosciences (PhD Program)

Publications

PUBLICATIONS

- **Stereotypy is strongly linked to multiple biomarkers of oxidative stress-A potential common etiology for Abnormal Repetitive Behaviors.** *PloS one*
  Coden, K. M., Beacham, K. J., Stix-Brunell, B. E., Moorhead, R., Byrd, K. A., Baker, J. N., Geronimo, J. T., Parker, K. J., Garner, J. P.
  2025; 20 (11): e0326902
- **Risk factors for barbering in laboratory mice.** *Scientific reports*
  Ratuski, A. S., Theil, J. H., Ahloy-Dallaire, J., Gaskill, B. N., Pritchett-Corning, K. R., Felt, S. A., Garner, J. P.
  2025; 15 (1): 7456
- **Making bloodwork work: the impact of sample collection, processing, and storage on plasma glutathione measurement, and implications for translation.** *Translational psychiatry*
  Coden, K. M., Nguyen, D. K., Moorhead, R., Stix-Brunell, B. E., Baker, J. N., Parker, K. J., Garner, J. P.
  2024; 14 (1): 385
- **Pebble to the Metal: A Boulder Approach to Enrichment for Danio rerio.** *PloS one*
  Byrd, K. A., Theil, J. H., Geronimo, J. T., Ahloy-Dallaire, J., Gutierrez, M. F., Hui, E. I., Felt, T. K., Coden, K. M., Ratuski, A. S., Felt, S. A., Chu, D. K., Garner, J. P.
  2024; 19 (5): e0298657
- **Rhesus macaque social functioning is paternally, but not maternally, inherited by sons: potential implications for autism.** *Molecular autism*
  Garner, J. P., Talbot, C. F., Del Rosso, L. A., McCowan, B., Kanthaswamy, S., Haig, D., Capitanio, J. P., Parker, K. J.
  2023; 14 (1): 25
- **Oxytocin and the social facilitation of placebo effects.** *Molecular psychiatry*
  Itskovich, E., Bowling, D. L., Garner, J. P., Parker, K. J.
  2022
- **The Mouse in the Room: The Critical Distinction Between Regulations and Ethics** *Principles of Animal Research Ethics*
  Garner, J. P.
  OUP.2020: 79–98
- **Power to the People: Power, Negative Results and Sample Size** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
  Gaskill, B. N., Garner, J. P.
  2020; 59 (1): 9–16

- **A randomized placebo-controlled pilot trial shows that intranasal vasopressin improves social deficits in children with autism.** *Science translational medicine*
  Parker, K. J., Oztan, O. n., Libove, R. A., Mohsin, N. n., Karhson, D. S., Sumiyoshi, R. D., Summers, J. E., Hinman, K. E., Motonaga, K. S., Phillips, J. M., Carson, D. S., Fung, L. K., Garner, et al
  2019
- **Preventing, treating, and predicting barbering: A fundamental role for biomarkers of oxidative stress in a mouse model of Trichotillomania** *PLOS ONE*
  Vieira, G. d., Lossie, A. C., Lay, D. C., Radcliffe, J. S., Garner, J. P.
  2017; 12 (4)
- **Introducing Therioepistemology: the study of how knowledge is gained from animal research** *LAB ANIMAL*
  Garner, J. P., Gaskill, B. N., Webers, E. M., Ahloy-Dallaire, J., Pritchett-Corning, K. R.
  2017; 46 (4): 103-113
- **Cerebrospinal Fluid Vasopressin Concentration Is a Biomarker of Autistic Social Impairment and Hypothalamic Vasopressin Gene Expression in Humans.** *Autism research : official journal of the International Society for Autism Research*
  Oztan, O., Zhu, C., Nguyen, D. K., West, R. B., Garner, J. P., Parker, K. J.
  2026
- **Oxytocin administration rescues the negative impacts of social isolation on wound healing in mice.** *Hormones and behavior*
  Steele, S. R., Ratuski, A. S., Hui, E. I., Mahoney, B. S., Geronimo, J. T., Huss, M. K., Parker, K. J., Garner, J. P.
  2025; 171: 105741
- **Behavioral or nutritional drive: which motivation affects rates of food grinding in CD1 mice?** *APPLIED ANIMAL BEHAVIOUR SCIENCE*
  Gaskill, B. N., Davis, H., Gosselin, R. P., Garner, J. P., Radcliffe, J. S., Robbins, L. A., Pritchett-Corning, K. R.
  2025; 284
- **Efficacy and Effects of High-Dose Carprofen after Plantar Incision in C57BL/6J Mice** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
  Cotton, R. M., Casey, K. M., Alamaw, E., Gates, K., Jampachaisri, K., Garner, J. P., Kendall, L., Pacharinsak, C., Huss, M. K.
  2025; 64 (2): 204-211
- **Assessing the Efficacy of Topical Fluralaner for the Treatment of Demodex musculi Infestations in NSG Mice (Mus musculus)** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
  Morrill, C., Vilches-Moure, J., Garner, J. P., Cotton, R. M., Barouch-Bentov, R., de Alonso, F., Nagamine, C. M.
  2025; 64 (2): 219-227
- **Do we still need a canary in the coal mine for laboratory animal facilities? A systematic review of environmental health monitoring versus soiled bedding sentinels.** *PloS one*
  LaFollette, M. R., Clement, C. S., Luchins, K. R., Manuel, C. A., Foley, P. L., Hanson, W. H., Pettan-Brewer, C., Winn, C. B., Garner, J. P.
  2024; 19 (12): e0311840
- **Nebulized vasopressin penetrates CSF and improves social cognition without inducing aggression in a rhesus monkey model of autism.** *Proceedings of the National Academy of Sciences of the United States of America*
  Talbot, C. F., Oztan, O., Simmons, S. M., Trainor, C., Ceniceros, L. C., Nguyen, D. K., Del Rosso, L. A., Garner, J. P., Capitanio, J. P., Parker, K. J.
  2024; 121 (49): e2418635121
- **Letter to the Editor Regarding "Assessing Methods for Replacement of Soiled Bedding Sentinels in Cage-level Exhaust IVC Racks" by Eichner and Smith.** *Journal of the American Association for Laboratory Animal Science : JAALAS*
  Manuel, C., Luchins, K., Peterson, N. C., Dodelet-Devillers, A., Pettan-Brewer, C., Phaneuf, L., Garner, J. P., Lafollette, M.
  2024; 63 (2): 103-104
- **Naturally occurring low sociality in female rhesus monkeys: A tractable model for autism or not?** *Molecular autism*
  Oztan, O., Del Rosso, L. A., Simmons, S. M., Nguyen, D. K., Talbot, C. F., Capitanio, J. P., Garner, J. P., Parker, K. J.
  2024; 15 (1): 8
- **Letter to the Editor Regarding "Assessing Methods for Replacement of Soiled Bedding Sentinels in Cage-level Exhaust IVC Racks" by Eichner and Smith.** *Journal of the American Association for Laboratory Animal Science : JAALAS*
  Manuel, C., Luchins, K., Peterson, N. C., Dodelet-Devillers, A., Pettan-Brewer, C., Phaneuf, L., Garner, J. P., LaFollette, M.
  2024

- **Chronic Adaptations in the Dorsal Horn Following a Cervical Spinal Cord Injury in Primates.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
  Fisher, K. M., Garner, J. P., Darian-Smith, C.
  2024; 44 (3)
- **A Cross-sectional Survey on Rodent Environmental Health Monitoring Practices: Benchmarking, Associations, and Barriers.** *Journal of the American Association for Laboratory Animal Science : JAALAS*
  Luchins, K. R., Gates, K. V., Winn, C. B., Manuel, C. A., Pettan-Brewer, C., Foley, P. L., Peterson, N. C., Garner, J. P., Hanson, W., LaFollette, M. R.
  2023; 62 (1): 64-73
- **Rhesus monkey sociality is stable across time and linked to variation in the initiation but not receipt of prosocial behavior.** *American journal of primatology*
  Talbot, C. F., Madrid, J. E., Del Rosso, L. A., Capitanio, J. P., Garner, J. P., Parker, K. J.
  2022: e23442
- **Small sensory spinal lesions that affect hand function in monkeys greatly alter primary afferent and motor neuron connections in the cord.** *The Journal of comparative neurology*
  Fisher, K. M., Garner, J. P., Darian-Smith, C.
  2022
- **Propofol Immersion as a Euthanasia Method for Adult Zebrafish (Danio rerio).** *Comparative medicine*
  Davis, A. K., Garner, J. P., Chu, D. K., Felt, S. A.
  2022
- **Autism-associated biomarkers: test-retest reliability and relationship to quantitative social trait variation in rhesus monkeys.** *Molecular autism*
  Oztan, O., Talbot, C. F., Argilli, E., Maness, A. C., Simmons, S. M., Mohsin, N., Del Rosso, L. A., Garner, J. P., Sherr, E. H., Capitanio, J. P., Parker, K. J.
  2021; 12 (1): 50
- **Assessment of medical morbidities in a rhesus monkey model of naturally occurring low sociality.** *Autism research : official journal of the International Society for Autism Research*
  Myers, A. K., Talbot, C. F., Del Rosso, L. A., Maness, A. C., Simmons, S. M., Garner, J. P., Capitanio, J. P., Parker, K. J.
  2021
- **Full closed loop open-source algorithm performance comparison in pigs with diabetes.** *Clinical and translational medicine*
  Lal, R. A., Maikawa, C. L., Lewis, D., Baker, S. W., Smith, A. A., Roth, G. A., Gale, E. C., Stapleton, L. M., Mann, J. L., Yu, A. C., Correa, S., Grosskopf, A. K., Liong, et al
  2021; 11 (4): e387
- **Behavioral recovery after a spinal deafferentation injury in monkeys does not correlate with extent of corticospinal sprouting.** *Behavioural brain research*
  Crowley, M., Lilak, A., Garner, J. P., Darian-Smith, C.
  2021: 113533
- **Natural food intake patterns have little synchronizing effect on peripheral circadian clocks.** *BMC biology*
  Xie, X., Kukino, A., Calcagno, H. E., Berman, A. M., Garner, J. P., Butler, M. P.
  2020; 18 (1): 160
- **Complex Interplay Between Cognitive Ability and Social Motivation in Predicting Social Skill: A Unique Role for Social Motivation in Children With Autism.** *Autism research : official journal of the International Society for Autism Research*
  Itskovich, E., Zyga, O., Libove, R. A., Phillips, J. M., Garner, J. P., Parker, K. J.
  2020
- **Complex Interplay Between Cognitive Ability and Social Motivation in Predicting Social Skill: A Unique Role for Social Motivation in Children With Autism** *AUTISM RESEARCH*
  Itskovich, E., Zyga, O., Libove, R. A., Phillips, J. M., Garner, J. P., Parker, K. J.
  2020
- **The epidemiology of fighting in group-housed laboratory mice.** *Scientific reports*
  Theil, J. H., Ahloy-Dallaire, J., Weber, E. M., Gaskill, B. N., Pritchett-Corning, K. R., Felt, S. A., Garner, J. P.

2020; 10 (1): 16649

- **ANIMAL MODELS OF TRICHOTILLOMANIA AND COMPULSIVE SKIN PICKING: A FOCUS ON THERIOEPISTEMOLOGY**
  Garner, J. P.
  ELSEVIER SCIENCE INC.2020: S327–S328

- **A psychometrically robust screening tool to rapidly identify socially impaired monkeys in the general population.** *Autism research : official journal of the International Society for Autism Research*
  Talbot, C. F., Garner, J. P., Maness, A. C., McCowan, B., Capitanio, J. P., Parker, K. J.
  2020

- **Reorganization of the Primate Dorsal Horn in Response to a Deafferentation Lesion Affecting Hand Function.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
  Fisher, K. M., Garner, J., Darian-Smith, C.
  2020

- **Neonatal CSF vasopressin concentration predicts later medical record diagnoses of autism spectrum disorder.** *Proceedings of the National Academy of Sciences of the United States of America*
  Oztan, O. n., Garner, J. P., Constantino, J. N., Parker, K. J.
  2020

- **Tell-tale TINT: Does the Time to Incorporate into Nest Test Evaluate Postsurgical Pain or Welfare in Mice?** *JOURNAL OF THE AMERICAN ASSOCIATION FOR LABORATORY ANIMAL SCIENCE*
  Gallo, M. S., Karas, A. Z., Pritchett-Corning, K., Garner, J. P., Mulder, G., Gaskil, B. N.
  2020; 59 (1): 37–45

- **Automated monitoring of mouse feeding and body weight for continuous health assessment** *LABORATORY ANIMALS*
  Ahloy-Dallaire, J., Klein, J. D., Davis, J. K., Garner, J. P.
  2019; 53 (4): 342–51

- **Blood oxytocin concentration positively predicts contagious yawning behavior in children with autism spectrum disorder.** *Autism research : official journal of the International Society for Autism Research*
  Mariscal, M. G., Oztan, O., Rose, S. M., Libove, R. A., Jackson, L. P., Sumiyoshi, R. D., Trujillo, T. H., Carson, D. S., Phillips, J. M., Garner, J. P., Hardan, A. Y., Parker, K. J.
  2019

- **A randomized placebo-controlled pilot trial shows that intranasal vasopressin improves social deficits in children with autism** *SCIENCE TRANSLATIONAL MEDICINE*
  Parker, K. J., Oztan, O., Libove, R. A., Mohsin, N., Karhson, D. S., Sumiyoshi, R. D., Summers, J. E., Hinman, K. E., Motonaga, K. S., Phillips, J. M., Carson, D. S., Fung, L. K., Garner, et al
  2019; 11 (491)

- **The effect of early life experience, environment, and genetic factors on spontaneous home-cage aggression-related wounding in male C57BL/6 mice (vol 46, pg 176, 2017)** *LAB ANIMAL*
  Gaskill, B. N., Stottler, A. M., Garner, J. P., Winnicker, C. W., Mulder, G. B., Pritchett-Corning, K. R.
  2019; 48 (5): 147–48

- **Addendum: The effect of early life experience, environment, and genetic factors on spontaneous home-cage aggression-related wounding in male C57BL/6 mice.** *Lab animal*
  Gaskill, B. N., Stottler, A. M., Garner, J. P., Winnicker, C. W., Mulder, G. B., Pritchett-Corning, K. R.
  2019

- **Extensive somatosensory and motor corticospinal sprouting occurs following a central dorsal column lesion in monkeys** *JOURNAL OF COMPARATIVE NEUROLOGY*
  Fisher, K. M., Lilak, A., Garner, J., Darian-Smith, C.
  2018; 526 (15): 2373–87

- **Automated monitoring of mouse feeding and body weight for continuous health assessment.** *Laboratory animals*
  Ahloy-Dallaire, J., Klein, J. D., Davis, J. K., Garner, J. P.
  2018: 23677218797974

- **Cerebrospinal fluid vasopressin and symptom severity in children with autism** *ANNALS OF NEUROLOGY*
  Oztan, O., Garner, J. P., Partap, S., Sherr, E. H., Hardan, A. Y., Farmer, C., Thurm, A., Swedo, S. E., Parker, K. J.
  2018; 84 (4): 611–15
- **Cerebrospinal fluid vasopressin and symptom severity in children with autism.** *Annals of neurology*
  Oztan, O., Garner, J. P., Partap, S., Sherr, E. H., Hardan, A. Y., Farmer, C., Thurm, A., Swedo, S. E., Parker, K. J.
  2018
- **Extensive Somatosensory and Motor Corticospinal Sprouting Occurs Following a Central Dorsal Column Lesion in Monkeys.** *The Journal of comparative neurology*
  Fisher, K. M., Lilak, A., Garner, J., Darian-Smith, C.
  2018
- **Adaptive developmental plasticity in rhesus macaques: the serotonin transporter gene interacts with maternal care to affect juvenile social behaviour.** *Proceedings. Biological sciences*
  Madrid, J. E., Mandalaywala, T. M., Coyne, S. P., Ahloy-Dallaire, J., Garner, J. P., Barr, C. S., Maestripieri, D., Parker, K. J.
  2018; 285 (1881)
- **Adaptive developmental plasticity in rhesus macaques: the serotonin transporter gene interacts with maternal care to affect juvenile social behaviour** *PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
  Madrid, J. E., Mandalaywala, T. M., Coyne, S. P., Ahloy-Dallaire, J., Garner, J. P., Barr, C. S., Maestripieri, D., Parker, K. J.
  2018; 285 (1881)
- **Arginine vasopressin in cerebrospinal fluid is a marker of sociality in nonhuman primates** *SCIENCE TRANSLATIONAL MEDICINE*
  Parker, K. J., Garner, J. P., Oztan, O., Tarara, E. R., Li, J., Sclafani, V., Del Rosso, L. A., Chun, K., Berquist, S. W., Chez, M. G., Partap, S., Hardan, A. Y., Sherr, et al
  2018; 10 (439)
- **Plasma anandamide concentrations are lower in children with autism spectrum disorder** *MOLECULAR AUTISM*
  Karhson, D. S., Krasinska, K. M., Dallaire, J., Libove, R. A., Phillips, J. M., Chien, A. S., Garner, J. P., Hardan, A. Y., Parker, K. J.
  2018; 9: 18
- **Breaking up is hard to do: does splitting cages of mice reduce aggression?** *Applied Animal Behaviour Science*
  Blankenberger, W. B., Weber, E. M., Chu, D. K., Geronimo, J. T., Theil, J., Gaskill, B. N., Pritchett-Corning, K., Albertelli, M. A., Garner, J. P., Ahloy-Dallaire, J.
  2018; 206: 94-101
- **Biomarker Discovery for Social Impairments: Translation From a Novel Monkey Model to Patients With Autism**
  Parker, K., Garner, J., Oztan, O., Tarara, E., Li, J., Sclafani, V., Del Rosso, L., Chun, K., Berquist, S., Chez, M., Partap, S., Hardan, A., Sherr, et al
  NATURE PUBLISHING GROUP.2017: S501–S502
- **Preference for novel faces in male infant monkeys predicts cerebrospinal fluid oxytocin concentrations later in life.** *Scientific reports*
  Madrid, J. E., Oztan, O., Sclafani, V., Del Rosso, L. A., Calonder, L. A., Chun, K., Capitanio, J. P., Garner, J. P., Parker, K. J.
  2017; 7 (1): 12935
- **Intranasal oxytocin treatment for social deficits and biomarkers of response in children with autism.** *Proceedings of the National Academy of Sciences of the United States of America*
  Parker, K. J., Oztan, O., Libove, R. A., Sumiyoshi, R. D., Jackson, L. P., Karhson, D. S., Summers, J. E., Hinman, K. E., Motonaga, K. S., Phillips, J. M., Carson, D. S., Garner, J. P., Hardan, et al
  2017; 114 (30): 8119-8124
- **Stressed out: providing laboratory animals with behavioral control to reduce the physiological effects of stress** *LAB ANIMAL*
  Gaskill, B. N., Garner, J. P.
  2017; 46 (4): 142-145
- **Aggression in group-housed laboratory mice: why can't we solve the problem?** *LAB ANIMAL*
  Webers, E. M., Dallaire, J. A., Gaskill, B. N., Pritchett-Corning, K. R., Garner, J. P.
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