University of Colorado
MCDB and Psychology/Neuroscience
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Zoe R. Donaldson, Ph.D.

RESEARCH STATEMENT

The Donaldson Lab investigates the neural and genetic basis of complex social behaviors. We combine perspectives from evolutionary biology, genetics, neurobiology, and psychiatry to elucidate the biological mechanisms that contribute to species and individual differences in behavior. By uncovering how natural sociobehavioral diversity occurs, we hope to better understand diseases characterized by deficits in social behavior.

POSITIONS

University of Colorado Boulder 2016 - present
Assistant Professor, Departments of Molecular, Cellular, Developmental Biology and Psychology/Neuroscience

EDUCATION AND TRAINING

Columbia University, New York, NY
Post-doctoral K99 Fellow 2014 - 2016
Post-doctoral Fellow, Affective Disorders Training Grant (NIMH T32) 2011 - 2014
Robert Wood Johnson Health & Society Post-Doctoral Scholar 2009 - 2011
Mentor: René Hen

Emory University, Atlanta, GA 2003 - 2009
Ph.D. in Neuroscience; HHMI Predoctoral Fellow
Mentor: Larry Young

University of California, Los Angeles 2001 - 2002
B.S. Biology, Summa Cum Laude with College and Highest Departmental Honors

Simon's Rock College, Great Barrington, MA 1998 - 2000
A.A., with Honors

SELECTED HONORS AND AWARDS

NSF CAREER Award 2021
Janett Trubatch Career Development Award, Society for Neuroscience 2019
Young Scientist Award, International Behavior and Neural Genetics Society (IBANGS) 2019
Frank Beach Award, Society for Behavioral Neuroendocrinology 2018
Associate Member, ACNP 2018
NIH DP2: New Innovator 2018

NIMH Biobehavioral Research Award for Innovative New Scientist (*declined*)	2018
One of 16 inaugural RIO Faculty Fellows across the CU Boulder Campus	2017
Whitehall Foundation Grant	2017
Early Career Award: Society for Social Neuroscience	2012
Robert Wood Johnson Health & Society Post-Doctoral Fellowship	2009 - 2011
Young Investigator Award: World Congress on Neurohypophysial Hormones	2011
Howard Hughes Medical Institute Pre-Doctoral Fellowship	2003 - 2008
SIRE (Scholarly Inquiry and Research at Emory) Scholarship	2006 - 2007
ORDER (On Recent Developments by Emory Researchers) Fellowship	2006
International Achievement Summit Honor Delegate	2004
UCLA Dean's Prize for Excellence in Undergraduate Research	2002
Acceleration to Excellence Full Scholarship, Simon's Rock College	1998 - 2000

PEER-REVIEWED PRIMARY PUBLICATIONS

1. Harbert, K.J. [Δ], M. Pellegrini[†], K.M. Gordon, **Z.R. Donaldson**. (2020). How prior pair-bonding experience affects future bonding behavior in monogamous prairie voles. Hormones and Behavior. Sep 7:104847. doi: 10.1016/j.yhbeh.2020.104847
2. Scribner, J.L. , E. Vance, D.S.W. Protter , W. M. Sheeran , E. Saslow , R. Cameron , E. Klein, J.C. Jimenez, M.A. Khierbek, **Z.R. Donaldson**. (2020) A neuronal signature for monogamous reunion. Proceeding of the National Academies of Science. 117 (20) 11076-11084 doi:10.1073/pnas.1917287117
3. Gutzeit, V.A., Ahuna, K., Santos, T.L., Cunningham, A.M., Sasad Rooney, M., Denny, C.A., **Z.R. Donaldson**. (*In press*) Optogenetic reactivation of prefrontal social neural ensembles mimics social buffering of fear. *Neuropsychopharmacology*. doi:10.1038/s41386-020-0631-1. ****Cover article**
4. Cunningham, A. M., T. L. Santos , V. A. Gutzeit , H. Hamilton, R. Hen, **Z.R. Donaldson** (2019). Functional interrogation of a depression-related serotonergic SNP, rs6295, using a humanized mouse model. *ACS Chemical Neuroscience*. doi: 10.1021/acschemneuro.8b00638
5. Phillipe, T.J., F. Vahid-Ansari, **Z.R. Donaldson**, B. Le Francois, A. Zahria, V. Trucotte-Cardin, M. Daigle, J. James, R. Hen, Z. Merali, P.R. Albert. (2018) Loss of MeCP2 in adult 5-HT neurons induces 5-HT1A autoreceptors, with opposite sex-dependent anxiety and depression phenotypes. *Scientific Reports*. doi: 10.1038/s41598-018-24167-8
6. Perusini, J.N., S.A. Cajigas, O. Cohensedgh, S.C. Lim, I.P. Pavlova, **Z.R. Donaldson**, C.A. Denny. (2017) Optogenetic stimulation of dentate gyrus engrams restores memory in Alzheimer's disease mice. *Hippocampus*. doi: 10.1002/hippo.22756
7. **Donaldson, Z.R.,** B. le Francois, T.L. Santos, M. Boldrini, F.A. Champagne, V. Arango, J.J. Mann, C.A. Stockmeier, H. Galfalvy, P.R. Albert, K.J. Ressler, and R. Hen. (2016) The functional serotonin 1a receptor promoter polymorphism, rs6295, is associated with psychiatric illness and differences in transcription. *Translational Psychiatry.* 1;6:e746. doi:10.1038/tp.2015.226
8. Samuels, B.A., C. Anacker, A. Hu, M.R. Levinstein, A. Pickenhagen, T. Tsetsenis, N. Madronal, **Z.R. Donaldson**, L.J. Drew, A. Dranovsky, C.T. Gross, K. F. Tanaka, R. Hen.

(2015) 5-HT1A receptors on mature dentate gyrus granule cells are critical for antidepressant response. *Nature Neuroscience*. 18(11):1606-1616. DOI: 10.1038/NN.4116

9. Fusani, L., **Z.R. Donaldson**, S.E. London, M.A. Fuxjager, and B.A. Schlinger. (2014) Expression of androgen receptor in the brain of a sub-oscine bird with an elaborate courtship display. *Neuroscience Letters*. 578: 61 – 65. DOI: 10.1016/j.neulet.2014.06.028
10. **Donaldson, Z.R.**, D.A. Piel, T.L. Santos, J. Richardson-Jones, E.D. Leonardo, S.G. Beck, F.A. Champagne, and R. Hen. (2013) Developmental effects of serotonin 1A autoreceptors on anxiety and social behavior. *Neuropsychopharmacology*. doi: 10.1038/npp.2013.185
11. **Donaldson, Z.R.** and L.J. Young. (2013) The relative contribution of proximal 5′ flanking sequence and microsatellite variation on brain vasopressin 1a receptor (*Avpr1a)* gene expression and behavior. *PLOS Genetics.* 9(8):e1003729. doi: 10.1371/journal.pgen.1003729
12. Hopkins, W.D., **Z.R. Donaldson**, and L.J. Young. (2012) A polymorphic indel containing the RS3 microsatellite in the 5′ flanking region of the vasopressin V1a receptor gene is associated with chimpanzee (*Pan troglodytes*) personality. *Genes, Brain, and Behavior.* doi:10.1111/j.1601-183X.2012.00799.x.
13. Teng, B., S. Dao, **Z.R. Donaldson**, and G.F. Grether (2012) New communal roosting tradition established through experimental translocation in a Neotropical harvestman. *Animal Behavior*. 84:1183-1190.
14. **Donaldson, Z. R.**, L. Spiegel, and L. J. Young (2010) Central vasopressin V1a receptor activation is necessary for both pair bond formation and expression. *Behavioral Neuroscience.* (124)1:159-163.
15. **Donaldson, Z. R.**, S. H. Yang, A. W. S. Chan, and L. J. Young (2009) Production of germline transgenic prairie voles (*Microtus ochragaster*) using lentiviral vectors. *Biology of Reproduction*. (81)6:1189-1195.
16. **Donaldson, Z.R.**, F.A. Kondrashov, A. Putnam, Y. Bai, T.L. Stoinski, E.A.D. Hammock, and L.J. Young (2008) Evolution of a behavior-linked microsatellite-containing element in the 5′ flanking region of the primate *AVPR1A* gene. *BMC Evolutionary Biology.* 8: 180.
17. **Donaldson, Z.R.** and G.F. Grether (2007) Tradition without social learning: pheromone-based communal roost sites in a Neotropical harvestman (*Prionostemma spp*.). *Behavioral Ecology and Sociobiology.* (61) 5:801-809.
18. Grether, G.F. and **Z.R. Donaldson** (2007) Communal roost site selection in a neotropical harvestman: Habitat limitation vs. tradition. *Ethology.* 113:290-300.
19. Bourdelet-Parks, B., G. Anderson, **Z. Donaldson**, J. Weiss, R. Bonsall, M. Emery, L. Liles, D. Weinshenker (2005) Effects of dopamine beta-hydroxylase genotype and disulfiram inhibition on catecholamine synthesis in mice. *Psychopharmacology.* (183) 1:72-80.
20. Tillman, J.A., L.M. Lu, L.M. Goddard, **Z.R. Donaldson**, S.C. Dwinnel, C. Tittiger, G.M. Hall, A.J. Storer, G.J. Blomquist, S.J. Seybold (2004) Juvenile Hormone regulates *de novo* isoprenoid aggregation pheromone biosynthesis in the pine bark beetle, Ips. SPP. (Coleopteran: Scolytidae), through transcriptional control of HMG-CoA Reductase. *Journal of Chemical Ecology.* (30) 12:2459-2494.

PEER-REVIEWED CHAPTERS AND REVIEW ARTICLES

21. Loth, M.K., **Z.R. Donaldson**. (2020) Oxytocin, Dopamine, and Opioid Interactions Underlying Pair Bonding: Highlighting a Potential Role for Microglia. Endocrinology. 2020 Dec 23:bqaa223. doi: 10.1210/endocr/bqaa223.
22. Sadino J.S. and **Z.R. Donaldson**. (2018) Prairie voles as a model for understanding the genetic and epigenetic regulation of attachment behaviors. ACS Chemical Biology. doi: 10.1021/acschemneuro.7b00475
23. Temple, J.A. and **Z.R. Donaldson**. (2018) The oxytocin system: single gene effects on social behavior across the species spectrum. Encyclopedia of Animal Behavior. Elsevier.
24. Bengston, S., R. Dahan, **Z.R. Donaldson**, K. van Oers, S. Phelps, A. Sih, and A. Bell. (2018) Genomic tools for behavioural ecologists: when and how molecular tools can advance understanding of consistent individual behavioural differences. *Nature Ecology and Evolution.* doi: 10.1038/s41559-017-0411-4
25. T.D. Gould, T.D., L.A. Brenner, L. Brundin, A. Can, P. Courtet, Y. Dwivedi, **Z.R. Donaldson,** *et al.* (2017) Animal models to better understand the neurobiology and treatment of suicidal behaviors. *Translational Psychiatry.* doi: 10.1038/tp.2017.50
26. **Donaldson, Z.R.** and L.J. Young. (2016) The neurobiology and genetics of affiliation and social bonding in animal models. In: Animal models for behavior genetics research. Edited by: Y.K. Kim and J.C. Gewertz.

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27. **Donaldson, Z.R.** and R. Hen. (2015) From psychiatric disorders to animal models: a bidirectional and dimensional approach. *Biological Psychiatry*. doi: 10.1016/j.biopsych.2014.02.004
28. **Donaldson, Z.R.,** K.M. Nautiyal, S.E. Ahmari, and R. Hen. (2013) Genetic approaches for understanding the role of serotonin receptors in mood and behavior. *Current Opinions in Neurobiology*. 23(3):399-406. doi: 10.1016/j.conb.2013.01.011.
29. Hansen, H.*, **Z. Donaldson***, B. Link, P. Bearman, K. Hopper, L. Bates, K. Cheslack-Postava, K. Harper, S. Holmes, G. Lovasi, K. Springer, J. Teitler. (2013) Independent review of social and population variation in mental health could improve diagnosis in DSM revisions. *Health Affairs.* doi: 10.1377/hlthaff.2011.0596. *These authors contributed equally.
30. **Donaldson, Z.R.** (2010) We're the same…but different: addressing academic divides in the study of brain and behavior. *Frontiers in Behavioral Neuroscience.* (4):41. doi:10.3389/fnbeh.2010.00041
31. **Donaldson, Z.R.,** L.J. Young (2008) Oxytocin, vasopressin, and the neurogenetics of sociality. *Science.* (322) 5903:900-904.

COMMENTARIES/NEWS & VIEWS

1. **Donaldson, Z.R.,** D. Manoli (2020) Blueprints for bonding? New genetic tools to parse the neural basis of pair bonding in prairie voles. Neuroscience. doi: 10.1016/j.neuroscience.2020.08.038

CURRENT GRANT FUNDING

Co-PI: BRAINI U01 ($800,000 to Donaldson Lab) June 2021 – May 2024

Co-PIs: Golshani, Hong, Aharoni (UCLA); Yartsev (Berkeley)
"Hippocampal neural dynamics driving affiliation and attachment"

PI: NSF CAREER Award ($1,610,000) May 2021 – May 2026
"CAREER: Harnessing species differences to identify the cellular basis of attachment"

PI: NSF Meeting Proposal ($22,179) Apr 2020 – Mar 2021

PI: NIH Director's New Innovator Award ($2,400,000) Sep 2018 – Aug 2023
"Neuronal basis of selective social motivation and the failure to adapt to loss"

PI: Diversity supplement for New Innovator ($110,214) Sep 2019 – May 2023

PI: Dana Foundation: David Mahoney Neuroimaging Grant ($200,000) Sep 2018 – Sep 2021
"Identifying an oxytocin-sensitive neuronal substrate underlying social motivation"

PI: NSF EDGE ($1,600,000) Oct 2018 – Sep 2021
Co-PIs: Devanand Manoli, UCSF; Steve Phelps, UT Austin
"Engineering the social brain in Microtus*"*

PI: Whitehall Foundation Grant ($225,000) Oct 2017 – Sep 2020
"Cellular neurobiology of social attachment"

Senior Personnel: U01 NS099577 (PIs Restrepo and Gibson; $53,000) Oct 2017 – Sep 2020
"Controlled neuronal firing in vivo using two photon spatially shaped optogenetics"

COMPLETED GRANT AND FELLOWSHIP FUNDING

PI: R00 MH102352 ($1,010,000) Jul 2016 – June 2019
"Variation in serotonin 1a receptor expression as a source of depression risk."

PI: Undergraduate Research Program Team Grant ($3,000) Jun 2018 – Aug 2018
"Developing a homecage operant system to measure selective social motivation"

PI: Diversity Supplement for MH102352 ($125,000) Feb 2017 – August 2018
Post-bac research training experience for Ashley Cunningham

PI: CCTSI CNS-Pilot Basic Research Award ($30,000) Jun 2017 – May 2018
"Approaches for whole brain labeling of neural ensembles in prairie voles."

PI: Collaborative and Multidisciplinary Pilot Research Awards ($15,000) May 2015 – Sep 2015
"Developing a translational framework for studying grief and grief-related pathologies"

PI: American Found. for Suicide Prev. Young Investigator Grant ($80,000) Jul 2014 – Jun 2016
"Investigating HTR1A transcription as a mechanism underlying suicide risk."

Co-PI: Sackler Institute for Developmental Biology Seed Grant ($10,550) Jun 2013 – Jun 2014
"Neuroendocrine and behavioral adaptation to partner loss in monogamous prairie voles."

PI: Robert Wood Johnson Foundation Seed Grant ($32,000) Feb 2010 – Jun 2011
"How are microRNA regulatory systems differentially regulated by social environment?"

Co-PI: Robert Wood Johnson Foundation Working Group Grant ($25,000) Feb 2011 – Jun 2012
"Gene-environment interaction working group"

Fellow: RWJ Health & Society Post-doctoral Scholar ($270,000) Sep 2009 – Jul 2011

Fellow: HHMI Predoctoral Fellow ($225,000) Sep 2003 – Aug 2008

ORGANIZATION OF SYMPOSIA AT NATIONAL OR INTERNATIONAL MEETINGS

ABS Workshop: From genes to behavior (postponed due to COVID) TBD

Invited Symposium: Canadian Neuroscience Meeting, Toronto, Canada 2019

Invited Panel: American College of Neuropsychopharmacology 2018

Invited Symposium: Winter Conference on Brain Research, Whistler, British Columbia 2018

Invited Symposium: Society for Behavioral Neuroendocrinology, Long Beach, CA 2017
Invited Symposium: AACAP, New York, NY 2016
Invited Symposium: International Summit on Suicide Prevention, New York, NY 2015
Discussion Leader: Gordon Conference on Neuroethology, Stonehill College, MA 2011
Chair of the Gordon-Kenan Grad. Res. Seminar: Neuroethology 2050, Oxford, UK 2008

SELECTED INVITED TALKS

UCLA Synapse to Circuit Seminar April, 2021
Einstein School of Medicine Neuroscience Seminar Series November, 2020
Inscopix Webinar July, 2020
NIH Brain Initiative Investigators Meeting (virtual event) June, 2020
National Academies of Science, Washington, DC January, 2020
University of California, Davis December, 2019
Society for Behavioral Neuroendocrinology (award talk) June, 2019
International Behavioral and Neural Genetics Society (award talk) May, 2019
University of Northern Colorado November, 2018
Denver University October, 2018
Michigan State Neuroscience Seminar Series (student invited) April, 2018
Cornell Dept of Psychology Seminar Series October, 2017
Aschutz Medical School Neuroscience Seminar Series September, 2017
Gordon Conference: Modulation of Neural Circuits and Behavior, ME June, 2017
MCDB Graduate Student Symposium "Exploring novel models" January, 2017
National Academies Arab-American Frontiers in Science, Abu Dhabi October, 2016
American Association of Laboratory Animal Science (AALAS), CO September, 2016
HHMI Janelia Farms, VA October, 2014
Northwestern University, IL September, 2014
Mount Sinai School of Medicine, NY August, 2014
UIUC Neuroscience Departmental Seminar, IL February, 2014
Kavli Frontiers of Science, Irvine, CA November, 2013
Biology Departmental Seminar, Vassar College, NY October, 2012
Biology Colloquium, Smith College, MA March, 2012
Sackler Institute, Weill Cornell Medical School, NY January, 2012
VIII. Göttinger Freilandtage, Gottingen, Germany December, 2011
Center for Genome Regulation, Barcelona, Spain December, 2011
National Academies - Kavli Frontiers of Science, Shenzhen, China November, 2011
World Congress on Neurohypophyseal Hormones, Boston, MA August, 2011
Sackler Institute for Developmental Psychobiology, Columbia University, NY June, 2011
HHMI Janelia Farms, Ashburn, VA May, 2011
National Institutes of Mental Health, Bethesda, MD May, 2011
Social Inequalities and Health Meeting, Seattle, Washington February, 2011
Harvard Museum of Comparative Zoology, Boston, MA August, 2010
Gordon Conference on Genes and Behavior, Ventura, California March, 2010
Psychiatric Epidemiology Seminar Series, Columbia University February, 2010
Neurolunch Seminar Series, Columbia University December, 2009
Frontiers in Neuroscience, Emory University February, 2009

Emory Core Resource Seminar Series	January, 2009
Emory Graduate Symposium	October, 2008
Gordon Conference on Neuroethology, Oxford, England	August, 2008
Gordon Conference on Genes and Behavior, Il Ciocco, Italy	February, 2008
Keck Center for Behavioral Biology, North Carolina State University	January, 2008

ACADEMIC SERVICE

Service at CU:

Behavioral Neuroscience Faculty Search Committee	2020 - 2021
MCDB Academic review and planning advisory committee	2018 - 2019
Signaling and Cell Regulation T32 Advisory Committee	2017 - present
Psychology & Neuroscience Awards Committee	2018 - present
Psychology & Neuroscience Faculty Search Committee	2018 - 2019
MCDB 50th Anniversary Committee	2016-18
MCDB Committee on Graduate Student Advising	2017-18
MCDB Faculty Search Committee	2017-18
MCDB Admissions Committee	2016-17, 20-21
Reviewer for Internal Nominees for two competitions	2017
Behavioral Neuroscience Retreat Committee	2017
Organized NSF Preproposal Internal Review Group	2017
Behavioral Neuroscience Faculty Search Committee	2016- 2017

External Service:

2021 – 23 ACNP Animal Research Committee
2020 NSF Behavioral Systems Review Panel
2020 – NIH R01 Special Emphasis Panel
2019, 2020 NIMH K99 Review Panel
2019 Program Selection Committee, Society for Social Neuroscience
2019 Program Selection Committee, Society for Behavioral Neuroendocrinology
2018 Program Selection Committee, Society for Social Neuroscience
Review Editor, Frontiers in Endocrinology and Frontiers in Neuroscience
Co-editor: Special issue: Animal models of affective disorders, Frontiers in Neuroscience, 2014
Reviewer for *BMC Evolutionary Biology, Brain Research, Journal of Molecular Evolution, Physiology and Behavior, Hormones and Behavior, Molecular Autism, Behavioral Ecology and Sociobiology, Journal of Comparative Physiology A, Neurobiology of Disease, PNAS, Neuroscience, Behavioral Research and Therapy, Nature Communications, Behavioral Neuroscience, Neuropsychopharmacology, Nature Human Behavior, Genes Brain & Behavior.*
Grant Reviewer for Sam Houston University Seed Grant Competition
Grant Reviewer for Leakey Foundation
Ad-hoc Reviewer for National Science Foundation CAREER Panel (2016, 2017, 2018)
Emory Graduate Division Student Advisory Panel Neuroscience Representative
Emory Neuroscience Program Newsletter Creator and Editor
Emory Neuroscience Program Admissions Committee Member

SELECTED TEACHING/MENTORING HONORS AND EXPERIENCE

Beckman Mentor for CU Boulder Beckman Scholars Program	2020
NRSC/MCDB-4420 "Genetics of Brain and Behavior"	Spring 2019, 20
CU Boulder Undergraduate Research Mentor Award, Honorable Mention	2018
NRSC-4561/MCDB-4100 "Neurogenetics of Behavior"	Spring 2018
MCDB-5210, 2 lectures on miRNAs for "Cell Structure and Function"	2016, 2017
Columbia University Course "Fundamentals of Teaching"	2015
Brain Awareness Outreach, Atlanta, GA	2004 - 2009
Scholarly Inquiry and Research at Emory (SIRE), Undergraduate Advisor	2006 - 2007
On Recent Developments by Emory Researchers (ORDER) Teaching Fellowship	2006
Teaching Assistant, Emory University	2004
IBS 514: Cellular, Developmental, and Molecular Neuroscience	
UCLA Outdoor Leadership Training Program Guide (WFR)	2000 – 2002

Post-doctoral Fellows
David Protter, Ph.D.
Meredith Loth, Ph.D.
Lisa Hiura (NSF Post-doctoral Fellowship)

Graduate students (primary advisor)
Kathleen Murphy (CU IQ Bio, Behavioral Neuroscience)
Julie Sadino (CU MCDB)
Anne Pierce (CU Behav Neurscience)
Liza Brusman (CU MCDB)
Will Sheeran (CU MSTP/MCDB)

Past:
Jayme Temple (Master's degree conferred Dec 2018)

Graduate students (rotation/other)
Mostafa El-Kalliny (CU MSTP rotation)
Xinyi Fu (CU MCDB rotation)
Pamela Flores (CU MCDB rotation)
Dustin White (CU MCDB rotation)
Marisela Gonzales (CU MCDB rotation)
Willow Mercurio (CU MCDB rotation)
Jesse Kurland (CU MCDB rotation)
Kira Cazzulino (CU MCDB rotation)
David Tora (Master's degree)
Elena Carazo (Columbia University Biology Ph.D. program rotation)
Darshini Mahadevia (Columbia University Pharmacology Ph.D. program rotation)

Undergraduate research students
Yilin Liu (Integrative Physiology Major)
N. Marcus Botsford (Electrical Engineering Major)
Hannah Dougherty (Neuroscience Major)*
Kylia Ahuna (Neuroscience Major, BSI)*
Magda Woroniecka (MCDB Major, BSI)

Conor Kelly (MCDB Major, UROP, BSI)
Michaela Best (Neuroscience Major, UROP)*
Elliott Saslow (Physics Engineering Major, UROP)
Samantha Ong (Neuroscience Major)
Ashley Cunningham (Neuroscience Major)
Jennifer Scribner - Graduate Program in Neuroscience at Columbia University
Meghin Sadsad - Power of Two (http://www.powerof2.nyc/)
Vanessa Gutzeit - Cornell Graduate Program in Neuroscience
Tabia Santos[12] - Hofstra Medical School
Alex Jonokuchi – SUNY Downstate Medical School
Laurie Tomashaw – Columbia School of Social Work
Lauren Spiegel[1**] - Resident at Baylor Medical Center

High school students
Dara Kang (2019)
Isaiah Elges (2018)
Rose Adler (2017)

SELECTED ADDITIONAL RESEARCH EXPERIENCE AND TRAINING

Genome Engineering 3.0 Workshop
Broad Institute, Cambridge, MA
Eukaryotic Gene Regulation Advanced Course
Cold Spring Harbor Laboratory, NY
Neural Systems and Behavior Advanced Course
Wood's Hole Marine Biology Laboratory, MA
Howard Hughes Undergraduate Research Fellowship and Senior Thesis
Dr. Barney Schlinger, Physiological Science, UCLA
NASA Spaceflight Life Sciences Training Program
Kennedy Space Center, FL

EDITORIALS AND POPULAR PRESS

"This is your brain on love: the beautiful neuroscience behind all romance." BBC Science Focus, 2021
"Solo stars among our genes" Knowable Magazine. Oct 22, 2020
https://knowablemagazine.org/article/living-world/2020/solo-stars-among-genes
Coverage of our PNAS paper: "A neuronal signature for monogamous reunion."
https://www.cpr.org/2020/05/16/what-do-quarantine-and-voles-have-in-common-they-both-teach-us-how-important-our-social-bonds-are/
https://www.scientias.nl/woelmuizen-bewijzen-verlangen-maakt-liefde-echt-sterker/
Washington Post: https://tinyurl.com/ycowgb2v
"Neuroscientists reach for more branches on the tree of life: Diverse study species offer evolutionary insights." 2020 BioScience, 70: 6 (452 – 458).
https://doi.org/10.1093/biosci/biaa040
"Storytellers: What rodents can teach us about love." 9News. February 2020.

[1] Poster author
[2] Manuscript author

https://www.9news.com/article/news/local/storytellers/learning-about-love-by-researching-rodents/73-odbc80ae-2153-4dba-9fe8-6d1dd666d6d5

"CU Boulder researcher looks to voles to learn about love." Daily Camera. June 2019. https://www.dailycamera.com/2019/06/26/cu-boulder-researcher-looks-to-voles-to-learn-about-love/

"The CU scientist cracking the love code." The Coloradan Magazine. June, 2019. (Highlighted on Colorado.edu web page). https://www.colorado.edu/coloradan/Zoe-Donaldson-love-chemistry-brain-voles

"What a Tiny Rodent's Brain Can Tell Us About Love" – a Newsy Feature, February 14, 2019 https://www.newsy.com/stories/what-a-tiny-rodent-s-brain-can-tell-us-about-love/

New Innovator project profiled in CU Boulder Today, Denver Post, Daily Camera, Colorado Public Radio Oct 2018:

http://www.cpr.org/news/story/love-in-the-time-of-voles-why-a-cu-scientist-is-studying-these-monogamous-mammals
https://www.denverpost.com/2018/10/05/cu-researcher-voles-human-grief/

https://www.colorado.edu/today/2018/10/02/what-bonds-are-made-neuroscientist-awarded-15-million-study-attachment-grief

http://www.dailycamera.com/cu-news/ci_32187889/cu-boulder-researcher-hopes-voles-hold-clues-prolonged

Profiled in Boulder Magazine, December 2017: http://getboulder.com/cu-scientist-probes-neurobiology-love-loss/

Profiled in ScienceBuffs, February 2017: Women in Science https://sciencebuffs.org/2017/02/23/zoe-donaldson-on-being-young-and-female-in-academia/

Outreach efforts were highlighted in an article in CU Today, November 2016: https://www.colorado.edu/today/2016/11/21/mcdb-professor-helps-bring-science-screen

SfN Press Conference on Social Behavior. November, 2016. https://youtu.be/MWX_YqJBy_k

"This is your brain on love (if you're a prairie vole)." A ScienceShot piece by Science Magazine featuring our work. 22 October 2015.

"Anatomy of a pair bond: in vivo calcium imaging in behaving prairie voles" 2015 Society for Neuroscience abstract – selected for inclusion in the "Hot Topics" press booklet.

"Postnatal knock-down of serotonin 1a receptors increases adult anxiety levels" 2011 Society for Neuroscience abstract - selected for inclusion in the "Hot Topics" press booklet.

"Monogamouse: Genetically modified prairie voles may illuminate the human condition." Economist; December 30, 2009

"First transgenic prairie voles may help unlock the secrets of pair bonding" Science Daily; December 2, 2009

R. F. Rosen and **Z. R. Donaldson** "Monkey Business: Why chimpanzees should be allowed to breed." Op-Ed for *Emory Political Review;* April, 2007

COMMUNITY ENGAGEMENT

Neurobiology of love and loss. NeurOnAir Podcast, May 2, 2021. https://www.stitcher.com/show/neuronair/episode/neurobiology-of-love-and-loss-guest-dr-zoe-donaldson-83653371

Speaker, National Academies of Science: Science of Attraction Virtual Event. February 17, 2021.

Speaker, Science from Your Sofa, "Neurobiology of Love and Loss" Virtual events through the CU Development Office. February 12, 2021.

Guest speaker, Discovery Health Club, Fairmont High School, February 27, 2020

Here we are Podcast, "Hormones and Rodent Monogamy" ~40,000 subscribers. July 8, 2019: http://www.herewearepodcast.com//episode/227/zoe-donaldson

Stand Up Science, Bohemian Beer Garden, April 4, 2019: http://www.shanemauss.com/club-dates-1/2019/4/4/boulder-co

"What is love?" The Brain Waves podcast interview. Aired Mar 4, 2019 https://soundcloud.com/onthebrainwaves/what-is-love

CU Research and Innovation Fellows TED Talks, Dairy Arts Center, October 17, 2018

Lab presentation and tour for Jefferson County Open School students, October 16, 2018

TEDx Boulder "Lost in loss: A window into the grieving brain" Macky Auditorium, September 16, 2018

Presented a public lecture, "Decoding monogamy: The neuroscience of social bonding" at the MCDB 50th Anniversary, September 8, 2018

Presented a popular science talk at Boulder Rotary Club, June 13, 2018

Interviewed in "Episode 8: No self-reported Shrieking" Science Buffs Podcast. August 1, 2018. https://soundcloud.com/user-352570525/episode-8-no-self-reported-shrieking.

Speaker for "Science of Sex" – a 2018 Valentine's Day Celebration sponsored by National Academies of Science and Entertainment Exchange. Brooklyn, NY. Feb 12, 2018

Workshop for Science Fiction Film-makers at Austin film Festival sponsored by National Academies of Science and Entertainment Exchange. October, 2016 and October, 2017.

"Molecules of Monogamy." A popular science talk for Café Scientifique, May 8, 2017, at Bohemian Beer Garden, Boulder, CO.

Science! Exclamation Point presented by Thank you, Robot. An Improv Comedy Session with Science from Zoe Donaldson. Under St Mark's Theatre, New York. January 15, 2016.

"Puppy Love" A film by BJ Perlmutt. Scientific advisor as part of the Science in Film initiative by Sloan Foundation/Sundance Institute.http://scienceandfilm.org/articles/2614/exclusive-watch-four-videos-from-the-science-in-film-forum November, 2015.

"Of Molecules and Monogamy." A popular science talk for NerdNite, April 10, 2015, at Littlefield, Brooklyn with accompanying podcast interview June 25, 2015. http://cbsloc.al/1GV9JA2