Ryan H. Purcell, Ph.D.
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Curriculum vitae

Education

Emory University, Atlanta, GA 2011 – 2017
PhD, Neuroscience
Laboratory of Dr. Randy Hall, Dept. of Pharmacology

Johns Hopkins University, Baltimore, MD 2005 – 2009
BA with honors, Neuroscience

Current Position

Virginia Tech August 2024 – Present
Assistant Professor, Fralin Biomedical Research Institute at VTC
Assistant Professor, School of Neuroscience
Assistant Professor of Health Sciences

My laboratory in the Center for Neurobiology investigates the developmental neurobiology of genetic variants and environmental factors that are associated with high risk for psychiatric conditions. The aims of my current research are to (1) determine the cellular and molecular mechanisms of the schizophrenia associated 3q29 deletion, and (2) to test the hypothesis that high-risk genetic variants for neuropsychiatric diseases such as ASD and schizophrenia have convergent effects on neurodevelopmental pathways. We are addressing these questions using CRISPR/Cas9 genome engineering, single-cell transcriptomics, and human neuronal and cortical organoid culture systems.

Previous Research Experience

Emory University Department of Cell Biology July 2023 – July 2024
Assistant Professor (Research)
Investigated mechanisms and genes associated with mitochondrial phenotypes in 3q29 and 22q11 deletion models.

Emory University Department of Cell Biology June 2021 – June 2023
Instructor in Laboratory for Translational Cell Biology, directed by Dr. Gary Bassell.
Identified mitochondrial phenotypes in 3q29 deletion model systems. Generated an isogenic 22q11 deletion iPS cell line cohort.

Emory University Department of Cell Biology June 2017 – May 2021
Postdoctoral fellow, Laboratory of Dr. Gary Bassell, co-mentored by Dr. Jennifer Mulle.
Studied mechanisms of 3q29 deletion syndrome in neurons and cortical organoids derived from patient iPSCs and in an experimental mouse system.

Universität Leipzig Department of Biochemistry April – May, 2017
Visiting postdoctoral fellow, Laboratory of Dr. Tobias Langenhan.
Examined phenotype of *Drosophila* null mutants lacking two novel adhesion GPCRs.

Emory University Department of Pharmacology 2012 – 2017
Graduate student, Laboratory of Dr. Randy Hall
Investigated the activation and regulatory mechanisms of a subset of neuronal expressed adhesion GPCRs.

Johns Hopkins University Department of Psychiatry 2009 – 2011
Research Technologist, Laboratory of Dr. Kellie Tamashiro
Studied rodent models of stress and metabolic disorders with behavioral testing, endocrine assays, and gene expression analyses.

Johns Hopkins University Department of Neuroscience Summer 2008
Summer Intern, Laboratory of Dr. Jay Baraban
Investigated the subcellular localization of an uncharacterized neuronal protein.

Current Research Support

NIMH K01 MH133970 August 2023 – July 2027
Phenotypic convergence at mitochondria in copy number variant disorders **Role: PI**
Description: The aims of this project are to (1) determine the effects of 3q29Del and 22q11Del on the neural mitochondrial proteome in mouse and human systems, (2) test the capacity of 3q29Del and 22q11Del neural cells to adapt to metabolic stress, and (3) to identify the 3q29 genes responsible for mitochondrial phenotypes.

Completed Research Support

Imagine, Innovate, Impact (I^3) Award August 2023 – July 2024
Emory School of Medicine **Purcell, Ryan (PI)**, Bassell, Gary (PI), Duncan, Erica (PI)
Testing convergent biology across schizophrenia risk variants in forebrain cortical organoids
Role: Co-Investigator (lead author of proposal)
Description: Pilot study to investigate the transcriptomes of 3q29Del and 22q11Del human cortical organoids at single cell resolution.

NARSAD Young Investigator Grant January 2022 – January 2024
Brain & Behavior Research Foundation **Role: PI**
Cross-comparison of schizophrenia risk copy number variants.
Description: Testing the hypothesis that the two highest known genetic risk factors for schizophrenia converge on similar neurodevelopmental pathways.

University Research Committee Award May 2022 – August 2023
Emory University **Role: PI**
Convergent mechanisms in schizophrenia risk variants
Description: Funding for quantitative proteomics experiments in 3q29 and 22q11 neurons and cortical organoids.

Ruth L. Kirschstein National Research Service Award July 2020 – July 2022
F32 MH124273 National Institute of Mental Health **Role: PI**
Neural mechanisms of 3q29 deletion syndrome
Description: Investigated the impact of the 3q29 deletion on proliferation and fate commitment in the neural lineage using iPSC-derived neural progenitor cells, forebrain neurons, and cortical organoids.

Imagine, Innovate, Impact (I^3) Award Bassell, Gary (PI) and Duncan, Erica (PI)
Emory School of Medicine May 2021 – December 2022
Direct comparison of high-risk schizophrenia genetic variants using translational cell biology
Role: Co-Investigator (lead author of proposal)
Description: Seed funding ($75,000) to generate isogenic 22q11.2 deletion cell lines in the same genetic background as 3q29 deletion and test for convergent biological mechanisms.

Publications

1. **Purcell RH**[1#], Sefik E[1], Werner E, King AT, Mosley TJ, Merritt-Garza ME, Chopra P, McEachin ZT, Karne S, Raj N, Vaglio BJ, Sullivan D, Firestein BL, Tilahun K, Robinette MI, Warren ST, Wen Z, Faundez V, Sloan SA, Bassell GJ[#], Mulle JG[#] (2023). Cross-species analysis identifies mitochondrial dysregulation as a functional consequence of the schizophrenia-associated 3q29 deletion. *Science Advances* 9 (33) August 16. PMID: 37585521 ([1]equal contribution first authorship, [#]corresponding)

2. Yilmaz F, Gurusamy U, Mosley TJ, Hallast P, Kim K, Mostovoy Y, **Purcell RH**, Shaikh TH, Zwick ME, Kwok PY, Lee C, Mulle JG (2023). High level of complexity and global diversity of the schizophrenia-associated 3q29 locus revealed by optical mapping and long-read sequencing. *Genome Medicine* 15, 35. PMID: 37165454

3. Commission on Novel Technologies for Neurodevelopmental CNVs [Alphabetical: Buttermore ED, Chamberlain SJ, Cody JD, DeWoody A, DeWoody YD, Dies KA, Eichler EE, Gramm M, Girirajan S, Halladay A, Lal D, Lalli MA, Levy T, Logsdon GA, Lowenstein DH, Mefford HG, Mulle JG, Muotri AR, Murphy MM, Palma EP, Pinter SF, Pollak RM, **Purcell RH**, Samaco RC, Shah BM, Singh KK, So J, Sundberg M, Veeraragavan S, Vogel-Farley V, Wynshaw-Boris A] (2022). Neurodevelopmental copy number variants: a roadmap to improving outcomes by uniting patient advocates, researchers, and clinicians for collective impact. *American Journal of Human Genetics* Aug 4; 109(8):1353-1365. PMID: 35931048

4. Shiu FH, Wong JC, Yamamoto T, Lala T, **Purcell RH**, Owino S, Zhu D, Van Meir EG, Hall RA, Escayg A (2022). Mice lacking full length Adgrb1 (Bai1) exhibit social deficits, increased seizure susceptibility, and altered brain development. *Experimental Neurology* May 2022, Vol 351. PMID: 35114205

5. Pollak RM, **Purcell RH**, Rutkowski TP, Malone T, Pachura KJ, Bassell GJ, Epstein MP, Dawson PA, Smith MR, Jones DP, Zwick ME, Warren ST, Caspary T, Weinshenker D, Mulle JG (2022). Metabolic effects of the schizophrenia-associated 3q29 deletion. *Translational Psychiatry* Feb 17; 12(1):66 PMID: 35177588

6. Cable J[1], **Purcell RH**[1], Robinson E, Vorstman JAS, Chung WK, Constantino JN, Sanders SJ, Sahin M, Dolmetsch RE, Shah B, Thurm A, Martin CL, Bearden CE, Mulle JG (2021). Harnessing rare variants in neuropsychiatric and neurodevelopmental disorders – a Keystone Symposia report. *Annals of the New York Academy of Sciences* doi: 10.1111/nyas.14658. Dec;1506(1):5-17. PMID: 34342000 ([1]equal contribution first authorship)

7. Glassford MM[1], **Purcell RH**[1], Pass S, Murphy MM, The Emory 3q29 Project, Bassell GJ, Mulle JG (2021). Caregiver perspectives on a child's diagnosis of 3q29 deletion: "We can't just wish this thing away" *Journal of Behavioral and Developmental Pediatrics* Feb-Mar;43(2):e94-e102 PMID: 34320535 ([1]equal contribution first authorship)

8. Sefik E[1], **Purcell RH**[1], The Emory 3q29 Project, Walker EF, Bassell GJ, Mulle JG (2021). Convergent and distributed effects of the 3q29 deletion on the human neural transcriptome. *Translational Psychiatry* Jun 15; 11(1):357 PMID: 34131099 ([1]equal contribution first authorship)

9. Sanchez Russo R, Gambello MJ, Murphy MM, Aberizk K, Black E, Burrell TL, Carlock G, Cubells JF, Epstein MT, Espana R, Goines K, Guest RM, Klaiman C, Koh S, Leslie EJ, Li L, Novacek DM, Saulnier CA, Sefik E, Shultz S, Walker E, White SP; **Emory 3q29 Project**, Mulle JG (2021). Deep phenotyping in 3q29 deletion syndrome: recommendations for clinical care. *Genetics in Medicine*. May;23(5):872-880 PMID: 33564151

10. McEachin ZT, Gendron TF, Raj N, Garcia-Murias M, Banerjee A, **Purcell RH**, Ward PJ, Todd TW, Merritt-Garza ME, Jansen-West K, Hales CM, Garcia-Sobrino T, Quintans B, Holler CJ, Taylor G, San Millan B, Teijeira S, Yamashita T, Ohkubo R, Boulis NM, Xu C, Wen Z, Streichenberger N, Neuro–CEB Neuropathology Network, Fogel BL, Kukar T, Abe K, Dickson DW, Arias M, Glass JD, Jiang J, Tansey MG, Sobrido MJ, Petrucelli L, Rossoll W, Bassell GJ (2020). Chimeric Peptide Species Contribute to Divergent Dipeptide Repeat Pathology in c9ALS/FTD and SCA36. *Neuron* Vol. 107, 1-14.

11. Murphy MM, Burrell TL, Cubells JF, Epstein MT, Espana R, Gambello MJ, Goines K, Klaiman C, Koh S, Russo RS, Saulnier CA, Walker E, **Emory 3q29 Project**, Mulle JG (2020). Comprehensive Phenotyping of Neuropsychiatric Traits in a Multiplex 3q29 Deletion Family: A Case Report. *BMC Psychiatry*. Online April 22. PMID: 3232147.

12. Pollak RM, Murphy MM, Epstein MP, Zwick ME, Klaiman C, Saulnier CA, **Emory 3q29 Project**, Mulle JG (2019). Neuropsychiatric phenotypes and a distinct constellation of ASD features in 3q29 deletion syndrome: results from the 3q29 registry. *Molecular Autism* Vol. 10 Issue 30. PMID: 31346402.

13. Rutkowski TP, **Purcell RH**, Pollak RM, Grewenow SM, Gafford GM, Malone T, Khan U, Schroeder JP, Epstein MP, Bassell GJ, Warren ST, Weinshenker D, Caspary T, Mulle JG (2019). Behavioral changes and growth deficits in a CRISPR engineered mouse model of the schizophrenia-associated 3q29 deletion. *Molecular Psychiatry*. Online April 11, 2019. PMID: 30976085.

14. **Purcell RH**, Hall RA (2018). Adhesion G protein-coupled receptors as drug targets. *Annual Review of Pharmacology and Toxicology*. Vol. 58: 429-449. PMID: 28968187.

15. **Purcell RH**, Toro C, Gahl WA, Hall RA (2017). A disease-associated mutation in the adhesion GPCR ADGRB2 (BAI2) increases receptor signaling activity (2017). *Human Mutation*. Vol. 38: 1751-1760. PMID: 28891236.

16. **Purcell RH**, Rommelfanger KS (2016). Biometric tracking from professional athletes to consumers. *American Journal of Bioethics.* 17 (1) 72-74.* PMID: 27996927.

17. **Purcell RH**, Rommelfanger KS (2016). Neuroscience online: real ethical issues in virtual realms. *Routledge Handbook of Neuroethics*, p. 262 – 270.*

18. Kishore A[1], **Purcell RH**[1], Nassiri-Toosi Z, Hall RA (2016). Stalk-dependent and stalk-independent signaling by the adhesion G protein-coupled receptors GPR56 (ADGRG1)

* Editorial review only.

and BAI1 (ADGRB1). *Journal of Biological Chemistry* 291 (7) 3385-3394. PMID: 26710850. ([1]equal contribution first authorship)

19. **Purcell RH,** and Wolpe PR. Overview of Neuroethics (2016). *eLS* (Wiley Online Library). Published online July 15th, 2016. DOI: 10.1002/9780470015902.a0026498

20. **Purcell RH** and Rommelfanger KS (2015). Internet-based brain training games, citizen scientists, and big data: Ethical issues in unprecedented virtual territories. *Neuron* 86 (2) 356-359.* PMID: 25905809.

21. Stephenson JR, **Purcell RH**, Hall RA (2014). The BAI Sub-family of Adhesion GPCRs: Synaptic Regulation and Beyond. *Trends in Pharmacological Sciences* 35(4) 208-215. PMID: 24642458.

22. Boersma GJ, Lee RS, Cordner ZA, Ewald ER, **Purcell RH**, Moghadam AA, Tamashiro KL (2014). Prenatal stress decreases *Bdnf* expression and increases methylation of *Bdnf* exon IV in rats. *Epigenetics* 9(3) 437-447. PMID: 24365909.

23. Sun B, Liang NC, Ewald ER, **Purcell RH**, Boersma GJ, Yan J, Tamashiro KL (2013). Early postweaning exercise improves central leptin sensitivity in offspring of rat dams fed high-fat diet during pregnancy and lactation. *Am J Physiol Regul Integr Comp Physiol* 305(9) R1076-1084. PMID: 24026073.

24. **Purcell RH**, Papale LA, Makinson CD, Sawyer NT, Schroeder JP, Escayg A, and Weinshenker D (2013). An epilepsy-causing mutation in the *SCN1A* sodium channel gene confers susceptibility to cocaine-induced seizures in mice. *Psychopharmacology* 228(2); 263-270. PMID: 23494229.

25. **Purcell R** (2012). To embrace doping in sport is absurd. *Nature* 488; 157. PMID: 22874954*

26. Sun B, **Purcell RH**, Terrillion CE, Yan J, Moran TH, and Tamashiro KL (2012). Maternal high-fat diet during gestation or suckling differentially affects offspring leptin sensitivity and obesity. *Diabetes* 61(11) 2833-41. PMID: 22751689.

27. **Purcell RH**, Sun B, Pass LL, Power ML, Moran TH, and Tamashiro KL (2011). Maternal stress and high-fat diet effects on maternal behavior, milk composition, and pup ingestive behavior. *Physiology and Behavior* 104; 474-479. PMID: 21605577.

28. Lee RS, Tamashiro KL, Yang X, **Purcell RH**, Huo Y, Rongione M, Potash JB, and Wand GS (2011). A measure of glucocorticoid load provided by DNA methylation of *Fkbp5* in mice. *Psychopharmacology* 218(1) 303-312. PMID: 21509501.

29. Lee RS, Tamashiro KL, Yang X, **Purcell RH**, Harvey A, Willour V, Huo Y, Rongione M, Wand GS, and Potash JB (2010). Chronic corticosterone exposure increases expression and decreases deoxyribonucleic acid methylation of *Fkbp5* in mice. *Endocrinology* 151(9) 4332-4343. PMID: 20668026.

Meeting Abstracts and Presentations

1. **Purcell RH**, Robinette MI, Duncan EJ, Cubells JF, Wen Z, Mulle JG, Faundez V, Bassell GJ. Investigating convergent cellular phenotypes of 22q11 and 3q29 deletions. The 13th Biennial Meeting of the 22q11 Society, 2024. Óbidos, Portugal. Oral Presentation.

2. **Purcell RH**, Faundez V, Mulle JG, Bassell GJ. Investigating convergent cellular phenotypes in schizophrenia-associated copy number variants. Society of Biological Psychiatry Annual Meeting. Austin, TX. May 9, 2024. Oral Presentation.

3. **Purcell RH**, Sefik E, Werner E, Sloan SA, Faundez V, Bassell GJ, Mulle JG. Identifying the neurodevelopmental impact of the 3q29 deletion through single-cell sequencing. Canadian Association for Neuroscience Annual Meeting. Montreal. May 29, 2023. Oral Presentation.

4. **Purcell RH**, Sefik E, King AT, Mosley T, Merritt-Garza ME, Chopra P, Raj N, McEachin ZT, Karne S, Tilahun K, Weinshenker D, Warren ST, Wen Z, Sloan SA, Bassell GJ, and Mulle JG. Identifying the neurodevelopmental impact of the schizophrenia-associated 3q29 deletion through cross-species single-cell sequencing. Cell Symposia: The Biology of Neuropsychiatric Disorders. Sitges, Spain. May 15, 2022. Oral Presentation.

5. **Purcell RH**, Sefik E, King AT, Mosley T, Merritt-Garza ME, Chopra P, Raj N, McEachin ZT, Karne S, Tilahun K, Weinshenker D, Warren ST, Wen Z, Sloan SA, Bassell GJ, and Mulle JG. Identifying the neurodevelopmental impact of the schizophrenia-associated 3q29 deletion through cross-species single-cell sequencing. Atlanta Workshop on Single-Cell Omics 2022. Georgia Tech, Atlanta, GA. Oral presentation.

6. **Purcell RH**, Sefik E, Karne S, Murphy MM, Pollak RM, Mosley T, Merritt-Garza MM, Raj N, McEachin ZT, Evans E, Randall J, Sloan SA, Wen Z, The Emory 3q29 Project, Mulle JG, Bassell GJ. An iPSC-derived neuronal model of the schizophrenia-associated 3q29 deletion. American Society of Human Genetics 2019. Houston, TX.

7. **Purcell RH** and Hall RA. A disease-associated mutation in the C-terminus of ADGRB2 (BAI2) increases receptor signaling. 2016 Adhesion GPCR Workshop. Leipzig, Germany. Oral presentation.

8. **Purcell RH** and Hall RA. A disease-associated mutation in the C-terminus of ADGRB2 (BAI2) increases receptor signaling. Experimental Biology, 2016. San Diego, CA.

9. **Purcell RH**, Nassiri-Toosi Z, and Hall, RA. New insights into the activation mechanisms of the adhesion GPCR BAI1. Gordon Research Conference: Molecular Pharmacology 2015, Ventura, CA.

10. **Purcell RH** and Hall RA. The GAIN domain of the adhesion GPCR BAI1 regulates the constitutive activity of the receptor. Neuroscience 2014, Washington, DC.

11. **Purcell RH** and Rommelfanger KS. An ethical evaluation of commercial brain training programs. International Neuroethics Society Annual Meeting, Washington, DC, November 2014. Oral and poster presentation.

12. **Purcell RH** and Hall RA. Interactions between the adhesion GPCR BAI1 and the BAI1 GAIN domain affect receptor signaling activity. 2014 Adhesion GPCR Workshop, Boston, MA.

13. **Purcell RH**, Ewald ER, Volk K, Sun B, Liang NC, Moran TH, and Tamashiro KL. Mechanisms for metabolic side-effects associated with the atypical antipsychotic olanzapine. Neuroscience 2011, Washington, DC.

14. **Purcell RH**, Ewald ER, Volk K, Sun B, Liang NC, Moran TH, and Tamashiro KL. Short- and long-term effects of olanzapine on food intake and hypothalamic gene expression in female rats. Society for the Study of Ingestive Behavior annual meeting, Clearwater, FL, July 2011. Oral Presentation.

15. **Purcell RH**, Sun B, Pass LL, Moran TH, and Tamashiro KL. Gestational stress and high-fat diet effects on maternal and pup behavior and gene expression. Society for the Study of Ingestive Behavior annual meeting, Pittsburgh, PA, July 2010.

Teaching and Guest Lectures

Emory University, IBS514: Cellular, Developmental, & Molecular Neuroscience 3.28.24
Journal article discussion leader
Emory University, IBS514: Cellular, Developmental, & Molecular Neuroscience 3.27.24
Guest Lecture: "Neurotransmitters and Receptors"
Emory University, NBB401: Perspectives in Neuroscience and Behavior 9.26.23
Guest Lecture: "Model system considerations and an approach to understand the neurobiology of schizophrenia"
Emory University, NBB280: Intro to Neuroethics 11.2.21
Guest Lecture: "From stem cells to brain surrogates: ethical issues modeling brain disorders"
Emory University, NBB270: Neuroethics 10.06.20
Guest lecture: "From stem cells to brain surrogates: ethical issues modeling brain disorders"
Emory University, NBB270: Neuroethics 10.29.19
Guest lecture: "Human stem cells and cerebral organoids in neuropsychiatric disease research"
Emory University, EPI552: Human Genome Epidemiology 3.18.19
Guest lecture: "Genome Architecture: Psychiatric Genetics"
Emory University, NBB370: Neuroethics 3.6.18
Guest lecture: "Using stem cells to study neuropsychiatric disease"
Summer Undergraduate Research Program Summer 2017
Responsible Conduct of Research and Ethics
Special Topics in Human Health: How self-tracking transforms health
Guest lecture: "Big data, privacy, and ethics" 9.29.15
Guest lecture: "Ethics of Big Data in health and science" 3.17.16
Department of Biology, Emory University
Teaching Assistant NBB301: Introduction to Neurobiology Fall 2012
Lecture: "The Chemical Senses" 11.29.12
Lecture: "Neurotransmitter Release" 10.4.12

Invited Talks

Emory University Dept. of Pharmacology and Chemical Biology 4.23.24
Johns Hopkins University Nu Rho Psi Club (Virtual) 4.22.24
Georgia State University Neuroscience Institute 1.19.24
Virginia Tech Fralin Biomedical Research Institute 11.20.23
NIMH SSPsyGene Consortium (Virtual) 10.19.23
Rutgers Univ. Dept. of Psychiatry 9.18.23
Genes 2 Mental Health Network (Virtual) 8.24.22
Moving Mountains Commission Hybrid Conference, Comm. on Neurodevelopmental CNVs
Research Roadmap Draft Presentation Denver, CO 7.6.21
Collective Impact Conference, Commission on Neurodevelopment CNVs 3.3.21

Virtual Meeting – Research priorities for *in vitro* working group
Kittell Laboratory, University of Würzburg, Germany 5.5.17
Department of Biochemistry, Leipzig University, Germany 4.27.17

Awards and Honors

22q11.2 Society Meeting Best Presentation of Session July 2024
NARSAD Young Investigator Award January 2022 – January 2024
Ruth L. Kirschstein National Research Service Award July 2020 – July 2022
Travel award November 2014
"Top 5 Abstract: International Neuroethics Society Annual Meeting"
Appointed to Emory Neuroscience Program's NIGMS training grant: 2012 – 2013
"Training in systems and integrative biology – neuroscience"
Johns Hopkins University Dean's List 2006 – 2009
Johns Hopkins Varsity Men's Basketball Scholar Athlete Award 2007 – 2009

Peer Reviewer

American Journal of Bioethics Neuroscience
The Lancet Psychiatry
Nature Communications (co-reviewer)
Nature Neuroscience (co-reviewer)
Neurobiology of Disease
Schizophrenia
Scientific Reports

Additional Training

Responsible Conduct of Research – 10 hour in-person course Spring 2024
Scientists Teaching Science – 8-week online course Spring 2020

University and Community Service

Conferences and Consortia

Selected as conference assistant, Keystone eSymposium 2.11.2021
"Neuropsychiatric and Neurodevelopmental Disorders: Harnessing Rare Variants"
In vitro Working Group, Commission on Neurodevelopmental CNVs 2020 – Present

Mentoring

Allyson Herriges, TBMH PhD student Summer 2024 – Present
Maxine Robinette, Emory PhD student (committee member)
Delia Du, undergraduate student Fall 2023 – Summer 2024
Sridhar Karne, undergraduate student Fall 2019 – 2021
Laboratory intern (1yr full time) and three graduate student rotations 2014 – 2016

Emory Summer Undergraduate Research Experience

Admissions committee 2016, 2017

Atlanta Track Club

Second largest running organization in US with more than 30,000 members. Organizes the annual AJC Peachtree Road Race (largest 10k in the world).

Board of Directors 2014 – 2021
Elite Team Captain 2014 – 2015

Editorial Activities

BMC Psychiatry

Editorial Board Member 2023 –
American Journal of Bioethics Neuroscience
Associate Editor June 2023 –
Managing Editor Fall 2020 – June 2023
Assistant Managing Editor Spring 2017 – Fall 2020
Editorial intern Fall 2013 – Spring 2017
Contributor to *The Neuroethics Blog*
"When it comes to issues of identity and authenticity in DBS, let patients have a voice" 3.22.16
"Getting aHead: Ethical issues facing human head transplants" 12.8.15
"'Believe the children'? Childhood memory, amnesia, and its implications for law" 1.20.15
"Burden of Proof: Does Neuroscience Have the Upper Hand?" 10.21.14
"Big data and privacy on the Web: how should human research be conducted on the Internet?" 9.9.14
"The New Normal: How the definition of disease impacts enhancement" 7.24.14
Cited in "Gray Matters Vol. 2: Topics at the Intersection of Neuroscience, Ethics, and Society" by the Presidential Commission for the Study of Bioethical Issues
"Lumosity: A 'personal trainer for your brain'?" 3.4.14

On-campus presentations

Center for Neurobiology Research Welcome Symposium 8.30.24
"Investigating the neurobiology of psychiatric conditions"
Fralin Biomedical Research Institute Retreat 6.12.24
"Leveraging rare variants to investigate neurodevelopmental conditions"
Emory Human induced Pluripotent Stem Cell Workshop
"Genome engineering in iPSC lines" 10.17.23
Human Genetics Research in Progress
"Assessing the impact of the schizophrenia-associated 3q29 deletion on the developing neural transcriptome" 1.15.21
Frontiers in Neuroscience Seminar
"Advances in Adhesion GPCR Signaling and Regulation: Implications for human health" 2.19.16
Neuroethics Journal Club
"Ethics of motivation enhancement" 3.18.15
"Parvizi *et al.* 2013 *Neuron*" 3.18.14
Bassell Lab Meetings
Mitochondrial phenotypes in models of neurodevelopmental copy number variants 3.27.23
Cross-species single-cell RNA-seq in 3q29Del 10.31.22
Direct comparison of high-risk genetic variants associated with SCZ. 6.28.21
Neurodevelopmental transcriptomic dysregulation in the schizophrenia-associated 3q29 deletion 11.15.21
Assessing the impact of the schizophrenia-associated 3q29 deletion on the developing neural transcriptome 11.16.20
Convergent and distributed effects of the schizophrenia-associated 3q29 deletion on the human neural transcriptome 5.18.20
Review of NRSA proposal 4.13.20
Isogenic 3q29 deletion cell lines 1.6.20
Generating isogenic cell lines with CRISPR/Cas9 7.18.19
A human neuronal model of schizophrenia risk factor 3q29 deletion 3.15.19

A human neuronal model of schizophrenia risk factor 3q29 deletion 11.26.18
A neuronal model of 3q29 deletion syndrome 6.18.18
3q29 deletion syndrome: progress in human and mouse studies 3.30.18
Gene and protein expression in 3q29 mouse model 2.5.18
Project introduction: Modeling 3q29 deletion syndrome in iPS cell lines 9.8.17

Hall Lab Meetings

Disease-associated mutations in ADGRB1 and B2 may reveal aGPCR regulatory mechanisms 9.14.16
Co-expression of a lipid scramblase activates ADGRB1 and B2 5.11.16
The BAI Family of Adhesion GPCRs: Focus on regulation 9.23.15
New insights into the activation mechanisms of ADGRB1 4.15.15
BAI1-3: Toward a cohesive understanding of activation and function 9.4.14
Intracellular Ca^{2+} stabilizes the cleaved form of BAI1 5.29.14
BAI1 interactions with the GAIN domain, effect on signaling 2.27.14
Orphan receptors for peptide and steroid hormones 7.11.13
The search for a receptor for the VGF-derived peptide TLQP-21 11.13.12

ENCORE Seminar Series

New insights into the activation mechanisms of the aGPCR ADGRB1 4.7.15

Professional society memberships

Society of Biological Psychiatry
22q11.2 Society
American Society of Human Genetics
International Neuroethics Society
Society for Neuroscience