CURRICULUM VITAE

1. NAME, POSITION, ACADEMIC DEPARTMENT

Eric M. Morrow MD PhD
Mencoff Family Associate Professor of Biology
Department of Molecular Biology, Cell Biology and Biochemistry (MCB) (Primary Department)
Director, Center for Translational Neuroscience
Brown Institute for Translational Science (BITS)
Carney Institute for Brain Science

Research Laboratory Address:
Laboratories for Molecular Medicine
Brown University
70 Ship Street, Box G-E4
Providence, RI 02912
Telephone: 401-863-9778
Fax: 401-863-9653

Email: eric_morrow@brown.edu
Websites: http://research.brown.edu/myresearch/Eric_Morrow; www.ddgrp.org

2. EDUCATION

1992	S.B.	Biology, Massachusetts Institute of Technology (MIT), Cambridge, MA
2001	Ph.D.	Genetics, Harvard University, Cambridge, MA Dissertation: "Functional Analysis of Crx and NeuroD in the Development of the Neural Retina in Rodent," Advisor: Constance L. Cepko PhD
2001	M.D.	Harvard-MIT Division of Health Sciences and Technology (HST), Harvard Medical School, Boston, MA
2007	M.Sc.	Clinical Investigation, HST, Harvard Medical School, Boston, MA

3. PROFESSIONAL APPOINTMENTS

a. Graduate and Postdoctoral Training

1992-1994	Medical Student (Year 1-2), Harvard Medical School
1993-1998	Graduate Student, Laboratory of Dr. Constance L. Cepko, Department of Genetics, Harvard Medical School, Boston, MA
1998-1999	Postdoctoral Fellow, Laboratory of Dr. Constance L. Cepko, Department of Genetics, Harvard Medical School, Boston, MA
1999-2001	Medical Student (Year 3-4), Harvard Medical School, Boston, MA
2001-2002	Medicine Intern, Mount Auburn Hospital, Cambridge, MA; and Neurology Intern, Massachusetts General Hospital (MGH), Harvard Medical School, Boston, MA
2002-2005	Psychiatry Resident, MGH and McLean Hospital, Harvard Medical School, Boston, MA
2004-2005	Chief Resident in Psychopharmacology, Department of Psychiatry, MGH, Harvard Medical School, Boston, MA

2004-2009	Postdoctoral Fellow, Laboratory of Dr. Christopher A. Walsh, Department of Neurology, Beth Israel Deaconess Medical Center and Division of Genetics, Boston Children's Hospital, Harvard Medical School, Boston, MA
2004-2009	Postdoctoral Fellow, Medical and Population Genetics Program, Broad Institute of MIT and Harvard, Cambridge, MA
2005-2007	Trainee, Clinical Investigator Training Program, MIT-HST and Harvard Medical School, Boston, MA

b. Academic and Affiliated Appointments

2001-2005	Clinical Fellow in Psychiatry, Harvard Medical School, Boston, MA
2005-2009	Instructor in Psychiatry, Harvard Medical School, Boston, MA
2009	Assistant Professor of Psychiatry, Harvard Medical School, Boston, MA
2009-2015	Assistant Professor of Biology, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Providence, RI
2009-2015	Assistant Professor of Psychiatry, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI
2009-present	Faculty, Carney Institute for Brain Science, Brown University, Providence, RI
2009-present	Director, Developmental Disorders Genetics Research Program (DDGRP), Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI
2009-present	Faculty, Division of Child & Adolescent Psychiatry, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI
2013-present	Associate Member, Center for Computational Molecular Biology, Brown University, Providence, RI
2015-present	Associate Professor of Biology, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Providence, RI (with tenure)
2015-present	Associate Professor of Psychiatry, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI
2016-2017	Visiting Associate Professor of Neurology, Department of Neurology, Brigham and Women's Hospital and Harvard Medical School, Boston, MA
2017-2018	Visiting Research Scientist, Department of Biology, MIT, Cambridge, MA
2017-2018	Co-Director, Center for Neurobiology of Cells and Circuits, Carney Institute for Brain Science, Brown University, Providence, RI
2018-present	Mencoff Family Associate Professor of Biology, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Providence, RI
2018-present	Associate Professor of Neuroscience, Department of Neuroscience, Brown University, Providence, RI
2019-present	Director, Center for Translational Neuroscience, Carney Institute for Brain Science and Brown Institute for Translational Science, Brown University, Providence, RI

c. Hospital and Affiliated Appointments

2001-2002	Medicine Intern, Mount Auburn Hospital, Cambridge, MA; and Neurology Intern, MGH, Boston, MA
2002-2005	Psychiatry Resident, MGH and McLean Hospital, Boston, MA

2004-2005	Chief Resident in Psychopharmacology, Department of Psychiatry, MGH, Boston, MA
2004-2008	Research Scientist, MGH Schizophrenia Clinical and Research Program, Department of Psychiatry, MGH, Boston, MA
2005-2009	Medical Staff and Clinical Assistant in Psychiatry, MGH, Boston, MA
2005-2007	Medical Staff and Attending Physician, Developmental Disorders Partial Hospital Program, McLean Hospital, Belmont, MA
2008-2009	Research Scientist, Division of Genetics and Genomics, Department of Medicine, Boston Children's Hospital, Boston, MA
2009-2013	Medical Staff, Butler Hospital, Providence, RI
2009-2016	Medical Staff, Hasbro Children's/Rhode Island Hospital and Emma Pendleton Bradley Hospital, Providence, RI
2016-present	Research Scientist, Emma Pendleton Bradley Hospital, East Providence, RI

4. ACADEMIC HONORS, FELLOWSHIPS, HONORARY SOCIETIES

a. Honors, Awards

1992	Phi Beta Kappa, Massachusetts Institute of Technology
1998	Dean's Report, Personal Profile, Harvard Medical School
2001	Graduated *magna cum laude*, Harvard Medical School
2001	Harold Lamport Biomedical Research Prize, Harvard Medical School, awarded to a graduating student for the best biomedical research paper.
2003	National Institute of Mental Health (NIMH) Outstanding Resident Award
2003	American College of Neuropsychopharmacology (ACNP) Travel Fellowship
2005	Society of Biological Psychiatry, Eli Lilly Travel Fellowship Award
2005	Daland Award in Clinical Investigation, American Philosophical Society
2005	Dupont-Warren Award, Department of Psychiatry, Harvard Medical School
2005	Livingston Award, Department of Psychiatry, Harvard Medical School
2005	Pfizer Scholar in Clinical Psychiatry, Pfizer Medical and Academic Partnerships (MAP) Program
2005	Thomas P. Hackett Award, MGH, awarded to a graduating resident for demonstrated academic achievement
2007	NARSAD Young Investigator Grant (Sidney R. Baer, Jr. Foundation Investigator)
2007	Charles H. Hood Foundation Child Health Research Award
2007	Burroughs Wellcome Career Award for Medical Scientists
2007	MGH Rappaport Neuroscience Scholarship, awarded to one junior faculty member from the clinical neurosciences for early achievement
2008	American Society of Human Genetics (ASHG) Trainee Award Finalist, one of four finalists for best research presentation by a postdoctoral trainee in the category of translational research at the 58th Annual ASHG Meeting (out of a total of 2,615 presentations)
2009	*Nature Medicine*/Roche, Junior Investigator Award in Translational Neuroscience
2011-2012	Psychiatry Research Mentor Award, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University
2012-present	Investigator, Simons Foundation Autism Research Initiative (SFARI)
2014-2018	Associate Member, American College of Neuropsychopharmacology (ACNP)
2014	A.E. Bennett Research Award in Clinical/Translational Research, Society of Biological Psychiatry (awarded at 2014 Annual Meeting involving >1800 participants)

2016	Master of Arts *ad eundem*, Brown University, voted by the Board of Fellows and conferring status as honorary Brown University alumnus
2017	Presidential Early Career Award for Scientists and Engineers (PECASE), White House Office of Science and Technology Policy, Executive Office of the President of the United States of America, Barack Obama administration (one of 102 awardees)
2017	NARSAD Independent Investigator Grant
2019-present	Member, American College of Neuropsychopharmacology (ACNP)

b. Licensure and Certification

Diplomate, American Board of Psychiatry and Neurology (2006-2016)
Massachusetts Medical License (inactive)
Rhode Island Medical License, 2009-2020

5. PUBLICATIONS AND PRESENTATIONS

a. Chapters in Books

1. **Eric M. Morrow**. "An Overview of Nerve Cell Physiology and the Autonomic Nervous System" In: Julian Seifter, David Sloane, and Austin Ratner, eds. *Concepts in Medical Physiology*. Lippincott Williams & Wilkins. October 2005, 49-70.

2. **Eric M. Morrow**. "The boy that is happiest when left alone" In: Sandra I. Kim, Todd A. Swanson, and Jonathan D. Wasserman, eds*. Underground Clinical Vignettes: Pediatrics 4th ed.* Lippincott Williams & Wilkins. 2007.

3. **Eric M. Morrow**, Joshua L. Roffman, Daniel H. Wolf, and Joseph T. Coyle. "Psychiatric Neuroscience: Incorporating Pathophysiology into Clinical Case Formulation" In: Theodore A. Stern, Jerrold F. Rosenbaum, Maurizio Fava, Joseph Biederman, and Scott Rauch, eds. *Massachusetts General Hospital: Comprehensive Clinical Psychiatry*. Philadelphia, PA: Mosby/Elsevier. 2008, 543-564. **[cover photo]**

4. **Eric M. Morrow** and Christopher A. Walsh. "Isolate Populations and Rare Variation in Autism Spectrum Disorders" In: David Amaral, Daniel Geschwind, and Geraldine Dawson, eds. *Autism Spectrum Disorders*. Oxford: Oxford University Press. 2011, 766-775.

5. Derek Aguiar, **Eric Morrow**, and Sorin Istrail. "Tractatus: An Exact and Subquadratic Algorithm for Inferring Identical-by-Descent Multi-shared Haplotype Tracts" In: Roded Sharan, ed. *Research in Computational Molecular Biology*. Springer International Publishing. Lecture Notes in Computer Science Vol. 8394, 2014, 1-17.

b. Refereed Journal Articles

1. Furukawa, T., **Morrow, E.M.**, and Cepko, C.L. (1997). Crx, a novel otx-like homeobox gene, shows photoreceptor-specific expression and regulates photoreceptor differentiation. *Cell* 91: 531-541 (PMID: 9390562). **[cover photo]**

2. **Morrow, E.M.**, Belliveau, M.J., and Cepko, C.L. (1998). Two phases of rod photoreceptor differentiation during rat retinal development. *J Neurosci* 18: 3738-3748 (PMID: 9570804).

3. **Morrow, E.M.**, Furukawa, T., and Cepko, C.L. (1998). Vertebrate photoreceptor cell development and disease. *Trends Cell Biol* 8: 353-358 (PMID: 9728396). **[cover photo]**

4. Furukawa, T., **Morrow, E.M.**, Li, T., Davis, F.C., and Cepko, C.L. (1999). Retinopathy and attenuated circadian entrainment in Crx-deficient mice. *Nat Genet* 23: 466-470 (PMID: 10581037).

5. **Morrow, E.M.**, Furukawa, T., Lee, J.E., and Cepko, C.L. (1999). NeuroD regulates multiple functions in the developing neural retina in rodent. *Development* 126: 23-36 (PMID: 9834183).

6. Cai, L., **Morrow, E.M.**, and Cepko, C.L. (2000). Misexpression of basic helix-loop-helix genes in the murine cerebral cortex affects cell fate choices and neuronal survival. *Development* 127: 3021-3030 (PMID: 10862740).

7. Furukawa, T., Mukherjee, S., Bao, Z.Z., **Morrow, E.M.**, and Cepko, C.L. (2000). rax, Hes1, and notch1 promote the formation of Muller glia by postnatal retinal progenitor cells. *Neuron* 26: 383-394 (PMID: 10839357).

[Residency training 2001-2005.]

8. **Morrow, E.M.**, Furukawa, T., Raviola, E., and Cepko, C.L. (2005). Synaptogenesis and outer segment formation are perturbed in the neural retina of Crx mutant mice. *BMC Neurosci* 6: 5 (PMID: 15676071; PMCID: PMC548520).

9. **Morrow, E.M.**, Lafayette, J.M., Bromfield, E.B., and Fricchione, G. (2006). Postictal psychosis: Presymptomatic risk factors and the need for further investigation of genetics and pharmacotherapy. *Ann Gen Psychiatry* 5: 9 (PMID: 16859554; PMCID: PMC1555577).

10. Levine, J.B., **Morrow, E.M.**, Berdichevsky, Y., and Martin, G.E. (2007). BKca channel in autism and mental retardation. *Am J Psychiatry* 164: 977-978; author reply 978-979 (PMID: 17541064).

11. **Morrow, E.M.**, Chen, C.M., and Cepko, C.L. (2008). Temporal order of bipolar cell genesis in the neural retina. *Neural Dev* 3: 2 (PMID: 18215319; PMCID: PMC22448187).

12. **Morrow, E.M.**, Kane, A., Goff, D.C., and Walsh, C.A. (2008). Sequence analysis of P21-activated kinase 3 (PAK3) in chronic schizophrenia with cognitive impairment. *Schizophr Res* 106: 265-267 (PMID: 18805672; PMCID: PMC2631562).

13. **Morrow, E.M.**, Yoo, S.Y., Flavell, S.W., Kim, T.K., Lin, Y., Hill, R.S., Mukaddes, N.M., Balkhy, S., Gascon, G., Hashmi, A., Al-Saad, S., Ware, J., Joseph, R.M., Greenblatt, R., Gleason, D., Ertelt, J.A., Apse, K.A., Bodell, A., Partlow, J.N., Barry, B., Yao, H., Markianos, K., Ferland, R.J., Greenberg, M.E., and Walsh, C.A. (2008). Identifying autism loci and genes by tracing recent shared ancestry. *Science* 321: 218-223 (PMID: 18621663; PMCID: PMC2586171). **[cover photo]**

14. Walsh, C.A., **Morrow, E.M.**, and Rubenstein, J.L. (2008). Autism and brain development. *Cell* 135: 396-400 (PMID: 18984148; PMCID: PMC2701104).

15. Weiss, L.A., Arking, D.E.; Gene Discovery Project of Johns Hopkins and the Autism Consortium, …[16 authors], Korn, J., Kuruvilla, F., McCarroll, S., **Morrow, E.M.**, Neale, B., Purcell, S., …[170 authors], Daly, M.J., and Chakravarti, A. (2009). A genome-wide linkage and association scan reveals novel loci for autism. *Nature* 461: 802-808 (PMID: 19812673; PMCID: PMC2772655).

16. Ehrlich, S., **Morrow, E.M.**, Roffman, J.L., Wallace, S.R., Naylor, M., Bockholt, H.J., Lundquist, A., Yendiki, A., Ho, B., White, T., Manoach, D.S., Clark, V.P., Calhoun, V.D., Gollub, R.L., and Holt, D.J. (2010). The COMT Val108/158Met polymorphism and medial temporal lobe volumetry in patients with schizophrenia and healthy adults. *NeuroImage* 53: 992-1000 (PMID: 20026221; PMCID: PMC2888809).

17. Ching, M.S., Shen, Y., Tan, W.H., Jeste, S.S., **Morrow, E.M.**, Mukaddes, N.M., Yoo, S.Y., Hanson, E., Hundley, R., Austin, C., Becker, R.E., Berry, G.T., Driscoll, K., Engle, E.C., Friedman, S., Gusella, J.F., Hisama, F.M., Irons, M.B., Lafiosca, T., LeClair, E., Miller, D.T., Neessen, M., Picker, J.D., Rappaport, L., Rooney, C.M., Sarco, D.P., Stoler, J.M., Walsh, C.A., Wolff, R.R., Zhang, T., Nasir, R., and Wu, B.L. (2010). Deletions of NRXN1 (neurexin-1) predispose to a wide spectrum of developmental disorders. *Am J Med Genet B Neuropsychiatr Genet* 153B: 937-947 (PMID: 20468056; PMCID: PMC3001124).

18. **Morrow, E.M.** (2010). Genomic copy number variation in disorders of cognitive development. *J Am Acad Child Adolesc Psychiatry* 49: 1091-1104 (PMID: 20970697; PMCID: PMC3137887).

19. Sanders, S.J., Ercan-Sencicek, A.G., Hus, V., Luo, R., Murtha, M.T., Moreno-De-Luca, D., Chu, S.H., Moreau, M.P., Gupta, A.R., …[46 authors], **Morrow, E.M.**, Ledbetter, D.H., Fombonne, E., Lord, C., Martin, C.L., Brooks, A.I., Sutcliffe, J.S., Cook, E.H. Jr., Geschwind, D., Roeder, K., Devlin, B., and State, M.W. (2011). Multiple recurrent de novo CNVs, including duplications of the 7q11.23 Williams syndrome region, are strongly associated with autism. *Neuron* 70: 863-885 (PMID: 21658581; PMCID: PMC3939065).

20. Sofos, E., Pescosolido, M.F., Quintos, J.B., Abuelo, D., Gunn, S., Hovanes, K., **Morrow, E.M.**, and Shur, N. (2012). A novel familial 11p15.4 microduplication associated with intellectual disability, dysmorphic features, and obesity with involvement of the ZNF214 gene. *Am J Med Genet A* 158A: 50-58 (PMID: 22052655).

21. Gamsiz, E.D., Ouyang, Q., Schmidt, M., Nagpal, S., and **Morrow, E.M.** (2012). Genome-wide transcriptome analysis in murine neural retina using high-throughput RNA sequencing. *Genomics* 99: 44-51 (PMID: 22032952; PMCID: PMC3392719).

22. Mefford, H.C., Rosenfeld, J.A., Shur, N., Slavotinek, A.M., Cox, V.A., Hennekam, R., Firth, H.V., Willatt, L., Wheeler, P., **Morrow, E.M.**, Cook, J., Sullivan, R., Oh, A., Zonana, J., Keller, K., Hannibal, M.C., Ball, S., Kussmann, J., Gorski, J., Zelewski, S., Banks, V., Smith, W., Smith, R., Paull, L., Rosenbaum, K.N., Amor, D.J., Silva, J., Lamb, A., and Eichler, E.E. (2012). Further clinical and molecular delineation of the 15q24 microdeletion syndrome. *J Med Genet* 49: 110-118 (PMID: 22180641; PMCID: PMC3261729).

23. Lizarraga, S.B., Coser, K.R., Sabbagh, M., and **Morrow, E.M.** (2012). Methods for study of neuronal morphogenesis: Ex vivo RNAi electroporation in embryonic murine cerebral cortex. *J Vis Exp* 63: e3621 (PMID: 22643694; PMCID: PMC3369626).

24. Aguiar, D., Halldórsson, B.V., **Morrow, E.M.**[**], and Istrail, S.[**] (2012). DELISHUS: An efficient and exact algorithm for genome-wide detection of hemizygous deletion polymorphism in autism. *Bioinformatics* 28: i154-i162 (PMID: 22689755; PMCID: PMC3371866).
[**]Co-corresponding authors

25. Pescosolido, M.F., Yang, U., Sabbagh, M., and **Morrow, E.M.** (2012). Lighting a path: Genetic studies pinpoint neurodevelopmental mechanisms in autism and related disorders. *Dialogues Clin Neurosci* 14: 239-252 (PMID: 23226950; PMCID: PMC3513679).

26. Klei, L., Sanders, S.J., Murtha, M.T., Hus, V., Lowe, J.K., Willsey, A.J., Moreno-De-Luca, D., Yu, T.W., Fombonne, E., Geschwind, D., Grice, D.E., Ledbetter, D.H., Lord, C., Mane, S.M., Martin, C.L., Martin, D.M., **Morrow, E.M.**, Walsh, C.A., Melhem, N.M., Chaste, P., Sutcliffe, J.S., State, M.W., Cook, E.H. Jr., Roeder, K., and Devlin, B. (2012). Common genetic variants, acting additively, are a major source of risk for autism. *Mol Autism* 3: 9 (PMID: 23067556; PMCID: PMC3579743).

27. Yu, T.W., Chahrour, M.H., Coulter, M.E., Jiralerspong, S., Okamura-Ikeda, K., Ataman, B., Schmitz-Abe, K., Harmin, D.A., Adli, M., Malik, A.N., D'Gama, A.M., Lim, E.T., Sanders, S.J., Mochida, G.H., Partlow, J.N., Sunu, C.M., Felie, J.M., Rodriguez, J., Nasir, R.H., Ware, J., Joseph, R.M., Hill, R.S., Kwan, B.Y., Al-Saffar, M., Mukaddes, N.M., Hashmi, A., Balkhy, S., Gascon, G.G., Hisama, F.M., LeClair, E., Poduri, A., Oner, O., Al-Saad, S., Al-Awadi, S.A., Bastaki, L., Ben-Omran, T., Teebi, A.S., Al-Gazali, L., Eapen, V., Stevens, C.R., Rappaport, L., Gabriel, S.B., Markianos, K., State, M.W., Greenberg, M.E., Taniguchi, H., Braverman, N.E., **Morrow, E.M.**, and Walsh, C.A. (2013). Using whole-exome sequencing to identify inherited causes of autism. *Neuron* 77: 259-273 (PMID: 23352163; PMCID: PMC3694430). **[cover photo]**

28. Yeo, R.A., Gangestad, S.W., Liu, J., Ehrlich, S., Thoma, R.J., Pommy, J., Mayer, A.R., Schulz, S.C., Wassink, T.H., **Morrow, E.M.**, Bustillo, J.R., Sponheim, S.R., Ho, B.C., and Calhoun, V.D. (2013). The impact of copy number deletions on general cognitive ability and ventricle size in patients with schizophrenia and healthy controls. *Biol Psychiatry* 73: 540-545 (PMID: 23237311; PMCID: PMC3582736).

29. Chaste, P., Klei, L., Sanders, S.J., Murtha, M.T., Hus, V., Lowe, J.K., Willsey, A.J., Moreno-De-Luca, D., Yu, T.W., Fombonne, E., Geschwind, D., Grice, D.E., Ledbetter, D.H., Lord, C., Mane, S.M., Lese Martin, C., Martin, D.M., **Morrow, E.M.**, Walsh, C.A., Sutcliffe, J.S., State, M.W., Devlin, B., Cook, E.H. Jr., and Kim, S.-J. (2013). Adjusting head circumference for covariates in autism: Clinical correlates of a highly heritable continuous trait. *Biol Psychiatry* 74: 576-584 (PMID: 23746936; PMCID: PMC3772969).

30. Schwede, M., Garbett, K., Mirnics, K., Geschwind, D.H., and **Morrow, E.M.** (2014). Genes for endosomal NHE6 and NHE9 are misregulated in autism brains. *Mol Psychiatry* 19: 277-279 (PMID: 23508127; PMCID: PMC3932404).

31. Marano, R.M., Mercurio, L., Kanter, R., Doyle, R., Abuelo, D., **Morrow, E.M.**, and Shur, N. (2013). Risk assessment models in genetics clinic for array comparative genomic hybridization: Clinical information can be used to predict the likelihood of an abnormal result in patients. *J Pediatr Genet* 2: 25-31 (PMID: 27625836; PMCID: PMC5020955).

32. Minhas, H.M., Pescosolido, M.F., Schwede, M., Piasecka, J., Gaitanis, J., Tantravahi, U., and **Morrow, E.M.** (2013). An unbalanced translocation involving loss of 10q26.2 and gain of

11q25 in a pedigree with autism and cerebellar juvenile pilocytic astrocytoma. *Am J Med Genet A* 161A: 787-791 (PMID: 23495067; PMCID: PMC3606653).

33. Pescosolido, M.F., Gamsiz, E.D., Nagpal, S., and **Morrow, E.M.** (2013). Distribution of disease-associated copy number variants across distinct disorders of cognitive development. *J Am Acad Child Adolesc Psychiatry* 52: 414-430 (PMID: 23582872; PMCID: PMC3774163).

34. Gamsiz, E.D., Viscidi, E.W., Frederick, A.M., Nagpal, S., Sanders, S.J., Murtha, M.T.; Simons Simplex Collection Genetics Consortium, Triche, E.W., Geschwind, D.H., State, M.W., Istrail, S., Cook, E.H. Jr., Devlin, B., and **Morrow, E.M.** (2013). Intellectual disability is associated with increased runs-of-homozygosity in simplex autism. *Am J Hum Genet* 93: 103-109 (PMID: 2380515; PMCID: PMC3710760).

35. Viscidi, E.W., Triche, E.W., Pescosolido, M.F., McLean, R.L., Joseph, R.M., Spence, S.J., and **Morrow, E.M.** (2013). Clinical characteristics of children with autism spectrum disorder and co-occurring epilepsy. *PLoS One* 8: e67797 (PMID: 23861807; PMCID: PMC3701630). **[as of June 2017, among the top 10% most cited of articles published in *PLoS One*]**

36. Cross-Disorder Group of the Psychiatric Genomics Consortium, Lee, S.H., Ripke, S., Neale, B.M., Faraone, S.V., Purcell, S.M., Perlis, R.H., Mowry, B.J., Thapar, A., …[210 authors alphabetically listed], **Morrow, E.M.**, Moskvina, V., …[125 authors alphabetically listed], Yu, T.W., Zammit, S., Zandi, P.P., Zhang, P., Zitman, F.G., Zöllner, S.; International Inflammatory Bowel Disease Genetics Consortium (IIBDGC), Devlin, B., Kelsoe, J.R., Sklar, P., Daly, M.J., O'Donovan, M.C., Craddock, N., Sullivan, P.F., Smoller, J.W., Kendler, K.S., and Wray, N.R. (2013). Genetic relationship between five psychiatric disorders estimated from genome-wide SNPs. *Nat Genet* 45: 984-994 (PMID: 23933821; PMCID: PMC3800159).

37. Ouyang, Q., Lizarraga, S.B., Schmidt, M., Yang, U., Gong, J., Ellisor, D., Kauer, J.A., and **Morrow, E.M.** (2013). Christianson syndrome protein NHE6 modulates TrkB endosomal signaling required for neuronal circuit development. *Neuron* 80: 97-112 (PMID: 24035762; PMCID: PMC3830955). **[cover photo; highlighted by commentary in same issue; chosen as an Editors' Choice in *Science Signaling*]**

38. Abrahams, B.S.*, Arking, D.E.*, Campbell, D.B.*, Mefford, H.C.*, **Morrow, E.M.***, Weiss, L.A.*, Menashe, I., Wadkins, T., Banerjee-Basu, S., and Packer, A. (2013). SFARI Gene 2.0: A community-driven knowledgebase for the autism spectrum disorders (ASDs). *Mol Autism* 4: 36 (PMID: 24090431; PMCID: PMC3851189).
*Authors contributed equally and are listed alphabetically

39. Viscidi, E.W., Johnson, A.L., Spence, S.J., Buka, S.L., **Morrow, E.M.***, and Triche, E.W. (2014). The association between epilepsy and autism symptoms and maladaptive behaviors in children with autism spectrum disorder. *Autism* 18: 996-1006 (PMID: 24165273; PMCID: PMC4002664).
*Corresponding author

40. Yeo, R.A., Gangestad, S.W., Walton, E., Ehrlich, S., Pommy, J., Turner, J.A., Liu, J., Mayer, A.R., Schulz, S.C., Ho, B.C., Bustillo, J.R., Wassink, T.H., Sponheim, S.R., **Morrow, E.M.**, and Calhoun, V.D. (2014). Genetic influences on cognitive endophenotypes in schizophrenia. *Schizophr Res* 156: 71-75 (PMID: 24768440; PMCID: PMC4699552).

41. Chaste, P., Sanders, S.J., Mohan, K.N., Klei, L., Song, Y., Murtha, M.T., Hus, V., Lowe, J.K., Willsey, A.J., Moreno-De-Luca, D., Yu, T.W., Fombonne, E., Geschwind, D., Grice, D.E., Ledbetter, D.H., Lord, C., Mane, S.M., Martin, D.M., **Morrow, E.M.**, Walsh, C.A., Sutcliffe, J.S., State, M.W., Martin, C.L., Devlin, B., Beaudet, A.L., Cook, E.H. Jr., and Kim, S.-J. (2014). Modest impact of risk for autism spectrum disorder of rare copy number variants at 15q11.2, specifically breakpoints 1 to 2. *Autism Res* 7: 355-362 (PMID: 24821083; PMCID: In Process).

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83. Ma, L., Prada, A., Schmidt, M., and **Morrow, E.M.** (2021). Generation of Pathogenic *TPP1* Mutations in Human Stem Cells as a Model for CLN2 Disease. *bioRxiv* 2021.01.05.425495 [**Preprint**]. January 6, 2021. Available from: https://doi.org/10.1101/2021.01.05.425495.

c. Editorials, Essays, Commentaries, Workshop Reports

1. **Morrow, E.M.** and Smoller, J.W. (2006). The Interface of Genetics and Clinical Psychiatry: Introduction. *Harv Rev Psychiatry* 14: 45-46. (Invited Editorial)

2. **Morrow, E.M.** (2011). Commentary: Genetic Testing Makes Important Contributions to Autism Diagnosis. *The Brown University Child and Adolescent Behavior Letter* 27: 8.

3. Johnson, H.M., Gaitanis, J., and **Morrow, E.M.** (2011). Genetics in Autism Diagnosis: Adding Molecular Subtypes to Neurobehavioral Diagnosis. *Med Health RI* 94: 124-126.

4. Scientific Vision Workshop on Cognition, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, MD March 14-15, 2011. (Contributor, Workshop Report)

5. **Morrow, E.M.** (2015). Quantifying the effects of rare variants in pedigrees: How far does the apple fall from the tree? *JAMA Psychiatry* 72: 106-107 (PMID: 25493613). (Invited Editorial)

6. **Morrow, E.M.** (2015). MicroRNAs in copy number variants in schizophrenia: Misregulation of genome-wide gene expression programs. *Biol Psychiatry* 77: 93-94 (PMID: 25524307). (Invited Editorial)

7. Lizarraga, S.B. and **Morrow, E.M.** (2015). Uncovering a role for SK2 in Angelman syndrome. *Cell Rep* 12: 359-360 (PMID: 26200312). (Invited Commentary)

8. Warren, E.B. and **Morrow, E.M.** (2019). Mitochondrial function in 22q11 deletion syndrome. *Neuron* 102: 1089-1091 (PMID: 31220439). (Invited Preview)

9. **Morrow, E.M.** (2020). Paternal sperm DNA mosaicism and recurrence risk of autism in families. *Nat Med* 26: 26-28 (PMID: 31873313). (Invited News and Views)

d. Volumes Edited

1. — (2006). The Interface of Genetics and Clinical Psychiatry. *Harv Rev Psychiatry* Vol. 14. (Invited Special Guest Editor)

2. — (2019). Modeling Neurogenetic and Inflammatory Neurodevelopmental Disorders with Stem Cell Platforms. *Front Pediatr* (Co-editor of Research Topic)

e. Poster Abstracts Since 2010

1. Howe, Y.J.[*], Yatchmink, Y., and **Morrow, E.M.** (2010). Gender differences in autism spectrum disorders. Developmental-Behavioral Pediatrics Fellowship Training Annual Meeting, Yale University, New Haven, CT. Poster presented by YJH. [*]Brown Med Behavioral Pediatrics Trainee

2. **Morrow, E.M.** and Gamsiz, E.D. (2011). Genome-wide investigation of alternative splicing in the neural retina using high-throughput RNA-sequencing. Association for Research in Vision and Ophthalmology (ARVO) 2011 Annual Meeting, Ft. Lauderdale, FL. Poster presented by EMM.

3. Howe, Y.J.[*], Yatchmink, Y., and **Morrow, E.M.** (2011). Gender differences in autism spectrum disorders. Maternal Child Health Bureau (MCHB) Trainee Meeting, Oklahoma City, OK. Poster presented by YJH. [*]Brown Med Behavioral Pediatrics Trainee

4. Pescosolido, M.F.[#], Viscidi, E.[*], and **Morrow, E.M.** (2011). Epilepsy and regression in autism: Patients sampled from large population-based and genetic studies. 14th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by MFP. [#]1st Prize Brain Science Research Poster. [*]Brown Graduate Student

5. Minhas, H.[#*], Vargish, G.[**], and **Morrow, E.M.** (2011). Genomic structural variation in neurexin-pathway genes using fine-tiling array comparative genomic hybridization in autism. 14th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by HM. [#]2nd Prize Psychiatry Residency Research Poster. [*]Brown Psychiatry Resident Trainee; [**]Brown Graduate Student

6. Bernabe, J.P.[*], Cahill, K.E., and **Morrow, E.M.** (2011). Developmental disorders research in the general psychiatry literature during the decade 1999-2009. 14th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by JPB. [*]Brown Medical Student

7. Pescosolido, M.F., Mersereau, A., Reidy, B.L., Ciminelli, N.L., Barrett, R.P., **Morrow, E.M.**, and Dickstein, D.P. (2011). Meta-analysis of autism neuroimaging studies. 14th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by MFP.

8. Shur, N., Bernabe, J.P.[*], Machan, J.T., Hovanes, K., **Morrow, E.M.**, and Abuelo, D. (2011). If it's free, do people necessarily agree? Uptake of parental testing after abnormal array comparative hybridization in our clinical genetics experience. American Society of Human Genetics 61st Annual Meeting, Montreal, Canada. Poster presented by NS. [*]Brown Medical Student

9. Gamsiz, E.D., Ouyang, Q., Schmidt, M., Nagpal, S., and **Morrow, E.M.** (2011). Novel features of neural retina transcriptome revealed by high-throughput RNA-sequencing. American Society of Human Genetics 61st Annual Meeting, Montreal, Canada. Poster presented by EDG.

10. Pescosolido, M.F. and **Morrow, E.M.** (2011). Pathway analysis of highly recurrent copy number variants in disorders of cognitive development reveals novel functions for implicated genes. Cell Symposia *Autism Spectrum Disorders: From Mechanisms to Therapies*, Arlington, VA. Poster presented by MFP.

11. Pescosolido, M.F. and **Morrow, E.M.** (2011). Pathway analysis of highly recurrent copy number variants in neurodevelopmental disorders. Society for Neuroscience 41st Annual Meeting, Washington, DC. November 12-16, 2011. Poster presented by MFP.

12. Aguiar, D.[*], Tarpine, R., Lam, F., Halldórsson, B., **Morrow, E.M.**, and Istrail, S. (2011). Long-range haplotype phasing by multi-assembly of shared haplotypes: Phase dependent interactions between rare variants. Gordon Research Conference *Human Genetics &*

Genomics, Salve Regina University, Newport, RI. July 17-22, 2011. Poster presented by SI. [*]Brown Graduate Student

13. Dickstein, D.P., Pescosolido, M.F., Reidy, B., Galvan, T., and **Morrow, E.M.** (2011). Preliminary findings from a developmental meta-analysis of neural correlates of autism spectrum disorders. American College of Neuropsychopharmacology 50th Annual Meeting, Waikoloa Beach, HI. December 4-8, 2011. Poster presented by DPD.

14. Minhas, H.M.[*#], Gamsiz, E.D., Walsh, C.A., Nagpal, S., Chaudhry, H.R., and **Morrow, E.M.** (2012). High-throughput exon sequencing reveals novel mutation in pedigree with intellectual disability and recent shared ancestry. 15th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by HMM. [#]2nd Prize Residency Research Poster. [*]Brown Psychiatry Resident

15. McLean, R.L.[*] and **Morrow, E.M.** (2012). Study of Executive Function in Pedigrees with Autism. 15th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by RLM. [*]Brown Clinical Psychology Resident

16. Pescosolido, M.F., Gamsiz, E.D., Nagpal, S., and **Morrow, E.M**. (2012). Pathway analysis of highly recurrent copy number variants in disorders of cognitive development reveals novel functions for implicated genes. 15th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by MFP.

17. Gamsiz, D.E.[#] and **Morrow, E.M.** (2012). A genetic marker for adaptive and cognitive function in autism. 15th Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by DEG. [#]1st Prize Postdoctoral Research Poster.

18. Aguiar, D.[*], Halldórson, B., **Morrow, E.M.**, and Istrail, S. (2012). Computational Biology of Detecting Genomic Deletion Variation in Autism. Conference on Research in Computational Molecular Biology, Barcelona, Spain. April 21-24, 2012. Poster presented by SI. [*]Brown Graduate Student

19. Howe, Y.J.[*], Yatchmink, Y., and **Morrow, E.M.** (2012). Gender Differences in Clinical Presentation in Autism Spectrum Disorders. International Meeting for Autism Research (IMFAR) 12th Annual Meeting, Toronto, Canada. May 17-19, 2012. Poster presented by YJH. [*]Brown Med Behavioral Pediatrics Trainee

20. Aguiar, D.[*], Halldórson, B., **Morrow, E.M.**, and Istrail, S. (2012). A Fast and Accurate Algorithm for Computing Genomic Deletion Variation with Applications to Autism. 20th Annual International Conference on Intelligent Systems for Molecular Biology, Long Beach, CA. July 15-17, 2012. Poster presented by DA. [*]Brown Graduate Student

21. **Morrow, E.M.**, Pescosolido, M.F., Stein, D.[*], Schmidt, M., Sabbagh, M.[*], and McLean, R.[**] (2012). Mutations in the X-linked endosomal alkali cation/proton exchanger 6 - A new genetic model to study the neurodevelopmental biology of severe autism. American College of Neuropsychopharmacology 51st Annual Meeting, Hollywood, FL. December 2-6, 2012. Poster presented by EMM. [*]Brown Undergraduate; [**]Brown Psychology Intern

22. Viscidi, E.W.[*], Pescosolido, M.F., McLean, R., Triche, E.W., Joseph, R.M., Spence, S.J., and **Morrow, E.M.** (2013). Clinical Characteristics of Children with Autism Spectrum Disorder and Co-occurring Epilepsy. International Meeting for Autism Research (IMFAR) 13th Annual

Meeting, Donostia/San Sebastian, Spain. May 2-4, 2013. Poster presented by EWV. *Brown Graduate Student

23. Viscidi, E.W., **Morrow, E.M.**, Triche, E.W., and Buka, S.L. (2013). Perinatal Risk: Factors for Autism Findings From the Collaborative Perinatal Project. Brown Department of Psychiatry and Human Behavior Research Day, Providence, RI. May 9, 2013. Poster presented by EWV.

24. Minhas, H.*, Pescosolido, M.F., Schwede, M.**, Piasecka, J.**, Gaitanis, J., Tantravahi, U., and **Morrow, E.M.** (2012). An unbalanced translocation in a pedigree with autism spectrum disorder and cerebellar juvenile pilocytic astrocytoma. Brown Department of Psychiatry and Human Behavior Research Day, Providence, RI. May 9, 2013. Poster presented by HM. *Brown Psychiatry Resident; **Brown Medical Student

25. Minhas, H.*, Pescosolido, M.F., Schwede, M.**, Piasecka, J.**, Gaitanis, J., Tantravahi, U., and **Morrow, E.M.** (2013). An unbalanced translocation in a pedigree with autism spectrum disorder and cerebellar juvenile pilocytic astrocytoma. American Psychological Association 166th Annual Meeting, San Francisco, CA. May 18-23, 2013. Poster presented by EMM. *Brown Psychiatry Resident; **Brown Medical Student

26. **Morrow, E.M.**, Gamsiz, E.D., and Simons Simplex Collection (Illumina) Genetic Consortium (2013). Runs-of-homozygosity (ROH) are associated with intellectual disability and female gender in simplex autism. Gordon Research Conference *Human Genetics & Genomics*, Bryant University, Providence, RI. July 7-12, 2013. Poster presented by EMM.

27. Aguiar, D.*, Huang, A., Kantor, R., **Morrow, E.M.**, and Istrail, S. (2013). Haplotype assembly in the presence of hemizygosity, haplotype sharing, polyploidy, and viral quasispecies. 21st Annual International Conference on Intelligent Systems for Molecular Biology, Berlin, Germany. July 21-23, 2013. Poster presented by DA. *Brown Graduate Student

28. **Morrow, E.M.**, Kauer, J.A., Ouyang, Q., and Lizarraga, S. (2013). Intra-endosomal pH, BDNF, signaling and circuit development. American College of Neuropsychopharmacology 52nd Annual Meeting, Hollywood, FL. December 8-12, 2013. Poster presented by EMM. Poster chosen for 1 of 10 “Voice Poster in Basic Science” out of >400 posters.

29. **Morrow, E.M.**, Ouyang, Q., and Lizarraga, S. (2013). Christianson syndrome protein NHE6 regulates intra-endosomal pH, signaling and neuronal morphogenesis. American Society for Cell Biology Annual Meeting, New Orleans, LA. December 14-18, 2013. Poster presented by EMM.

30. **Morrow, E.M.**, Gamsiz, E.D., and Simons Simplex Collection (Illumina) Genetic Consortium (2014). Runs-of-homozygosity (ROH) are associated with intellectual disability and female gender in simplex autism. Center for Computational Molecular Biology Research Day 2014, Brown University, Providence, RI. January 21, 2014. Poster presented by EDG.

31. Dunn, B., Jerskey, B., Gerber, A., Johnson, A., Anders, T., Sheinkopf, S., and **Morrow, E.M.** (2014). The Rhode Island Consortium for Autism Research and Treatment: First Year Update. Mind Brain Research Day 2014, Brown University, Warren Alpert Medical School of Brown University, and Rhode Island Hospital, Providence, RI. March 25, 2014. Poster presented by BD.

32. McLean, R.L.[#], Johnson, A.L., Zimak, E., Joseph, R.M., and **Morrow, E.M.** (2014). Executive function in autism probands with average intellectual ability and their unaffected first-degree relatives. Mind Brain Research Day 2014, Brown University, Warren Alpert Medical School of Brown University, and Rhode Island Hospital, Providence, RI. March 25, 2014. Poster presented by RLM. [#]2nd Prize Postdoctoral Associates Research Poster.

33. Frederick, A.[*#], Lizarraga, S., Van Dyck, L., Young-Pearse, T., and **Morrow, E.M.** (2014). Endosome overacidification as a common cellular mechanism of neurodegeneration. 26th Annual MCB Graduate Program Retreat, Bristol, RI. August 27, 2014. Poster presented by AF. [#]1st Prize Graduate Program in Molecular Biology, Cell Biology and Biochemistry Research Poster. [*]Brown Graduate Student, Pre-doctoral Training Grant Appointee (T32-GM007601)

34. Lizarraga, S. and **Morrow, E.M.** (2014). The functions of Christianson syndrome protein NHE6 in circuit development in patient-derived neural tissues. Gordon Research Conference *Neural Development: From Stem Cells to Circuits*, Salve Regina University, Newport, RI. August 10-15, 2014. Poster presented by EMM.

35. Siegel, M., Smith, K.A., Mazefsky, C., Gabriels, R., Kaplan, D., **Morrow, E.M.**, Wink, L., Erickson, C., and Santangelo, S.L. (2015). The Autism Inpatient Collection (AIC): Methods and Preliminary Sample Description. International Meeting for Autism Research (IMFAR) 15th Annual Meeting, Salt Lake City, UT. May 13-16, 2015. Poster presented by MS.

36. Pedapati, E.V., Wink, L., Erickson, E., Gabriels, R., Beresford, C., Kaplan, D., **Morrow, E.M.**, and Siegel, M. (2015). Preliminary Characterization of Medication Use in a Multicenter Sample of Pediatric Inpatients with Autism. International Meeting for Autism Research (IMFAR) 15th Annual Meeting, Salt Lake City, UT. May 13-16, 2015. Poster presented by EVP.

37. **Morrow, E.M.** (2015) Christianson syndrome: A novel neurogenetic disorder involving abnormalities in intra-endosomal pH and trafficking. Gordon Research Conference *Lysosomal Diseases*, Galveston, TX. March 15-20, 2015. Poster presented by EMM.

38. Maguire, A.[*], Lizarraga, S., Van Dyck, L., and **Morrow, E.M.** (2015). Investigating Christianson Syndrome in Induced Pluripotent Stem Cells. 1st International Basic Science and Clinical Conference on Christianson Syndrome, Houston, TX. July 31-August 1, 2015. Poster presented by AM. [*]Brown Graduate Student

39. Morriss, D., Tokadjian, H., Gerber, A., **Morrow, E.M.**, Anders, T., and Sheinkopf, S.J. (2016). The Relation Between Autism Symptom Severity and Family History of Psychiatric and Neurodevelopmental Disorders. Mind Brain Research Day 2016, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 30, 2016. Poster presented by DM.

40. Maguire, A.[*#], Lizarraga, S., Van Dyck, L., Nagda, D.[**], and **Morrow, E.M.** (2016). Investigating Christianson Syndrome Neuronal Development in Induced Pluripotent Stem Cells. The New York Stem Cell Foundation Annual Conference *Translational Stem Cell Research*, The Rockefeller University, New York, NY. October 26-27, 2016. Poster presented by AM. [#]2nd Prize Research Poster out of 50 posters. [*]Brown Graduate Student; [**]Brown Undergraduate

41. Tokadjian, H., Morriss, D., McCormick, C., Perkins, K., Oberman, L., Anders, T., **Morrow, E.M.**, and Sheinkopf, S.J. (2017). Increased Psychiatric Complexity of Autism Spectrum

Disorder: Explaining Diagnostic Inconsistencies. Mind Brain Research Day 2017, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 28, 2017. Poster presented by HT.

42. Pruett, B.S.[*] and **Morrow, E.M.** (2017). Evaluating Models of Neuropsychiatric Illness Using Volumetric Analysis of Mouse Brain MRI. Mind Brain Research Day 2017, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 28, 2017. Poster presented by BSP. [*]Brown Adult Psychiatry Resident

43. Tokadjian, H., Morriss, D., McCormick, C., Perkins, K., Oberman, L., Anders, T., **Morrow, E.M.**, and Sheinkopf, S.J. (2017). Increased Psychiatric Complexity of Autism Spectrum Disorder: Explaining Diagnostic Inconsistencies. International Meeting for Autism Research (IMFAR) 17th Annual Meeting, San Francisco, CA. May 10-13, 2017. Poster presented by HT.

44. Maguire, A.M.[*#], Lizarraga, S.B., van Dyck, L.I., Livi, L.L., Nagda, D.[**], Cowen, M., Brito-Vargas, P., Mayhew, C.N., Jones, R.N., Schlessinger, A., Hoffman-Kim, D., and **Morrow, E.M.** (2017). Investigating Christianson Syndrome Neuronal Development in Induced Pluripotent Stem Cells. 2nd International Basic Science and Clinical Conference on Christianson Syndrome, McGill University, Montreal, Canada. June 29-July 1, 2017. Poster presented by AMM. [#]Also selected for an oral presentation. [*]Brown Graduate Student; [**]Brown Undergraduate

45. Nakayama, T.[#], Al-Maawali, A., Ouyang, Q., Wu, J., Vaughan, D.J., El-Quessny, M., Rajab, A., Khalil, S., Niaz, S., Gul Butt, M., Imran Murtaza, S., Javed, A., Rashid Chaudhry, H., AlZahrani, A.A., Galvin-Parton, P., Weiss, J., Andriola, M.R., Amudhavalli, S.M., Cross, L., Baytas, O.[*], Schmitz-Abe, K., Markianos, K., Hill, R.S., Partlow, J.N., Barry, B.J., Al-Saffar, M., Barkovich, A.J., **Morrow, E.M.**, Ling, J., and Mochida, G.H. (2017). Deficient activity of genes associated with amino acid metabolism underlies an autosomal recessive syndrome of microcephaly and hypomyelination. American Society of Human Genetics 67th Annual Meeting, Orlando, FL. October 17-21, 2017. Presented by TN. [#]Selected for Platform Session presentation under the theme “Gene Discovery and Functional Models of Intellectual Disability.” [*]Brown Graduate Student

46. Ma, L., Ouyang, Q., Werthmann, G.C.[*], Thompson, H.M., and **Morrow, E.M.** (2018). Live-cell microscopy and fluorescence-based measurement of luminal pH in intracellular organelles. Mind Brain Research Day 2018, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 27, 2018. Poster presented by LM. [*]Brown Undergraduate

47. Ma, L., Maguire, A.M.[*], and **Morrow, E.M.** (2018). Using Dual SMAD inhibitor monolayer protocol and NGR protocol for rapid excitatory cortical neuron induction. Mind Brain Research Day 2018, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 27, 2018. Poster presented by LM. [*]Brown Graduate Student

48. Pruett, B.S.[*], Pescosolido, M.F.[**], Best, C.R., Bradley, R., Marsland, H., and **Morrow, E.M.** (2018). Brain MRI morphometry changes associated with Na+/H+ Exchanger 6 (NHE6) mutations in Christianson syndrome. Mind Brain Research Day 2018, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 27, 2018. Poster presented by BSP. [*]Brown Adult Psychiatry Resident; [**]Brown Graduate Student

49. Pruett, B.S.[*], Pescosolido, M.F.[**], Best, C.R., Bradley, R., Marsland, H., and **Morrow, E.M.** (2018). Brain MRI morphometry changes associated with Na+/H+ Exchanger 6 (NHE6) mutations in Christianson syndrome. Society of Biological Psychiatry 73rd Annual Meeting, New

York, NY. May 10-12, 2018. Poster presented by BSP. [*]Brown Adult Psychiatry Resident; [**]Brown Graduate Student

50. Baytas, O.[*#], Ouyang, Q., Yang, C., Schmidt, M., and **Morrow, E.M.** (2019). Mutations in mitochondrial enzyme GPT2 cause metabolic dysfunction and neurological disease with developmental and progressive features. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by OB. [#]1st Prize Graduate/Medical Student Poster. [*]Brown Graduate Student

51. Kavanaugh, B., Pruett, B.[*], Caruso, P., Busch, K., Pescosolido, M.F.[**], Best, C.R., Bradley, R., Marsland, H., and **Morrow, E.M.** (2019). Cerebellar atrophy associated with Na+/H+ Exchanger 6 (NHE6) mutations in Christianson syndrome. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by BK. [*]Brown Adult Psychiatry Resident; [**]Brown Graduate Student

52. Kavanaugh, B., McCormick, C., Sipsock, D., Righi, G., Moreno De Luca, D., Best, C., Jerskey, B., Quinn, J., Jewel, S., Wu, P.C., McLean, R., Levine, T., Tokadjian, H., Perkins, K., Clarke, E., Dunn, B., Gerber, A., Tenenbaum, E., Anders, T., Sheinkopf, S., and **Morrow, E.** (2019). Rhode Island Consortium for Autism Research and Treatment (RI-CART): A statewide, population-based resource for studies in autism. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by BK.

53. Lee, E. and **Morrow, E.** (2019). Christianson syndrome: A novel endosomal disorder with neurodegeneration. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by EL.

54. Ma, L., Lizarraga, S.B., Maguire, A.M.[*], van Dyck, L.I., Wu, Q.[*], Nagda, D.[**], Livi, L.L., Pescosolido, M.F.[*], Schmidt, M., Alabi, S., Cowen, M.H., Brito-Vargas, P., Hoffman-Kim, D., Gamsiz Uzun, E.D., Schlessinger, A., Jones, R.N., and **Morrow, E.M.** (2019). Human neurons from Christianson syndrome iPSCs reveal allele-specific responses to rescue strategies. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by LM. [*]Brown Graduate Student; [**]Brown Undergraduate

55. Moreno De Luca, D., Goldman, M., RI-CART, Sheinkopf, S., and **Morrow, E.** (2019). Attitudes, perspectives, and prevalence of molecular genetic testing in Autism Spectrum Disorders: Big lessons from the smallest state. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by DM.

56. Ouyang, Q., Kavanaugh, B., Righi, G., Crown, A., Schmidt, M., Pavinato, L., Brusco, A., and **Morrow, E.M.** (2019). Novel *SLC9A6* mutations in patients with autism. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by QO.

57. Righi, G., Bradley, R., RI-CART, and **Morrow, E.** (2019). Angelman-like social communication phenotype in Christianson syndrome: Report of three affected brothers with relatively higher adaptive function. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by GR.

58. Rosenzweig, S.[*], Marinelli, N.A., Hollingsworth, E.W., Douglas, A., Maguire, A.M.[**], Cowen, M.M., Schmidt, M., Schorl, C., Imitola, J., **Morrow, E.M.**, Lizarraga, S.B., and Gamsiz Uzun, E.D. (2019). Valproic acid alters transcriptional and signaling pathways in human stem cell derived human cortical projection neurons. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by SR. [*]Brown Undergraduate; [**]Brown Graduate Student

59. Warren, E., Moreno De Luca, D., and **Morrow, E.** (2019). Generation and characterization of a transgenic model of 17q12 deletion syndrome: A novel mouse model of polygenic Autism Spectrum Disorder. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by EW.

60. Wu, Q.[*], Ma, L., Joesch-Cohen, L.[**], Schmidt, M., Gamsiz Uzun, E., and **Morrow, E.** (2019). NHE6-mediated gene expression changes identify lysosome dysfunction and neurodevelopmental pathways in Christianson syndrome cell model. Mind Brain Research Day 2019, Brown University and Warren Alpert Medical School of Brown University, Providence, RI. March 26, 2019. Poster presented by QW. [*]Brown Graduate Student; [**]Brown Undergraduate

61. Ouyang, Q., Pescosolido, M.[*], Schmidt, M., and **Morrow, E.M.** (2019). A high throughput assay to study endosomal pH in neurons. BioImage Informatics 2019, Allen Institute for Brain Science and Allen Institute for Cell Science, Seattle, WA. October 2-4, 2019. Poster presented by QO. [*]Brown Graduate Student

62. Moreno De Luca, D., Goldman, M., Clarke, E., Guerrero, S., Sheinkopf, S., and **Morrow, E.** (2019). Attitudes, perspectives, and prevalence of molecular genetic testing in Autism Spectrum Disorders: Big lessons from the smallest state. 27th Annual World Congress of Psychiatric Genetics, Anaheim Marriott, Los Angeles, CA. October 26-31, 2019. Poster presented by DM.

f. Invited Oral Presentations

1. XIII International Congress of Eye Research, Section on Molecular Neurodevelopment, Platform Presentation, “Function of Crx in rodent retinal development in vivo.” Paris, France. (August, 1998)

2. Gordon Research Conference *Myelin*, Section on Neural Cell Fate, Platform Presentation, “Basic helix-loop-helix transcription factors in retinal development.” Ventura Beach, CA. Hosts: Bruce D. Trapp and Bernard Zalc (February, 1998)

3. Schizophrenia Research Program, Erich Lindemann Mental Health Center/Massachusetts General Hospital, Harvard Medical School, Seminar, “The genetics of schizophrenia.” Boston, MA. Host: Don C. Goff (November, 1998)

4. Medical Psychiatry Case Conference, Department of Psychiatry, Massachusetts General Hospital, Harvard Medical School, Grand Rounds, “A case of maniform, post-ictal psychosis.” Boston, MA. Host: Donna Greenberg (May, 2003)

5. Psychosomatics Conference, Department of Psychiatry, Massachusetts General Hospital, Harvard Medical School, Seminar, “The genetics of antipsychotic response.” Boston, MA. Host: Theodore A. Stern (September, 2003)

6. Psychosomatics Conference, Department of Psychiatry, Massachusetts General Hospital, Harvard Medical School, Seminar, “Addiction pharmacotherapy and the mu-opioid receptor gene.” Boston, MA. Host: Theodore A. Stern (October, 2003)

7. 3rd Annual MGH Schizophrenia Education Day, Massachusetts General Hospital, Harvard Medical School, Seminar, “Genetics of schizophrenia.” Boston, MA. Host: Don C. Goff (September, 2005)

8. Broad Institute First Annual Retreat, Medical and Population Genetics Plenary Session, Platform Lecture, “Homozygosity mapping in multiplex families with autism.” MIT and Harvard Medical School, Cambridge, MA. Host: David Altshuler (October, 2005)

9. National Institute of Mental Health, Child Psychiatry Branch, Seminar, “Genetic regulation of cerebral volume in human.” Bethesda, MD. Host: Judith Rapoport (March, 2006)

10. International Meeting for Autism Research (IMFAR), Section on Genetic Studies: Cytogenetic and Molecular, Platform Presentation, “Identification of autosomal recessive genes for familial autism and mental retardation.” Montreal, Canada. Host: Matthew State (June, 2006)

11. Medical and Populations Genetics Program Meeting, Broad Institute of MIT and Harvard, Seminar, “Translational genetics studies in familial autism and mental retardation.” Cambridge, MA. Host: David Altshuler (June, 2006)

12. Autism Consortium First Annual Retreat, Seminar, “Copy number analysis in autism using SNP microarrays.” Broad Institute of MIT and Harvard, Cambridge, MA. (October, 2006)

13. Developmental Medicine Center, Boston Children’s Hospital, Harvard Medical School, Seminar, “Autosomal recessive genes in autistic spectrum disorders.” Boston, MA. Host: Jane Ware, Associate Director (November, 2006)

14. Clinical Neuroscience Division, Neuroimaging, Brigham and Women’s Hospital Radiology, Harvard Medical School, Seminar, “Recent progress in autism genetics research.” Boston, MA. Host: Martha E. Shenton, Director (January, 2007)

15. King Faisal Specialist Hospital, Grand Rounds, “Collaboration and Genetics in Autism Research.” Jeddah, Kingdom of Saudi Arabia. Host: Sohail Balky (April, 2007)

16. Society of Biological Psychiatry 62nd Annual Meeting, Child Psychiatry Section, Slide Presentation, “Autosomal recessive loci in familial autism using a systematic gosity mapping strategy.” San Diego, CA. (May, 2007)

17. Neuroscience Division, Centre for Addiction and Mental Health, University of Toronto, Seminar, “Translational genetic studies in autism and cognitive development.” Toronto, Canada. Host: James Kennedy, Director (July, 2007)

18. Centre for Addiction and Mental Health, University of Toronto, Grand Rounds, “Translational genetics and the neurodevelopment roots of psychopathology.” Toronto, Canada. Host: Arun Ravindran (December, 2007)

19. Program in Neuroscience, Harvard Medical School, Seminar, “Heterogeneous genetic mechanisms in autism and related disorders of cognitive development.” Boston, MA. Host: Dennis Selkoe (January, 2008)

20. Department of Neurobiology, Yale University School of Medicine, Seminar, “Heterogeneous molecular mechanisms identified in autism and related disorders of cognitive development.” New Haven, CT. Host: Pasko Rakic (February, 2008)

21. Rockefeller University, Seminar, “Autosomal Recessive Mutations Identified in Autism in Special Founder Populations.” New York, NY. Host: Jeffrey M. Friedman (March, 2008)

22. Dubai Harvard Foundation for Medical Research, Science Writers and Journalists Fellowship Program, Seminar, “Genetics of Autism in the Arabian Gulf Region.” Boston, MA. (March, 2008)

23. MGH Pediatric Psychopharmacology CME Course Lecture, “Developmental Psychopharmacology.” Boston, MA. Host: Joseph Biederman (April, 2008)

24. Department of Neurology, Boston Children’s Hospital, Harvard Medical School, Seminar, “Heterogeneous genetic mechanisms identified in autism.” Boston, MA. Host: Elizabeth C. Engle (May, 2008)

25. Department of Genetics Annual Retreat, Harvard Medical School, Seminar, “Autism Genetics: Tracing Recent Shared Ancestry.” Salve Regina University, Newport, RI. (May, 2008)

26. NARSAD and Sidney R. Baer Jr. Foundation Boston Mental Health Research Symposium, Seminar, “Rare Genetic Variation in the Neuropsychiatric Disease: Implications for Pathophysiology and Diagnosis.” Boston, MA. (May, 2008)

27. Division of Genetics and Newborn Medicine, Tufts University Medical Center, Grand Rounds, “Copy number variation in autism: Implications for molecular diagnosis.” Medford, MA. (October, 2008)

28. American Society of Human Genetics 58th Annual Meeting, Autism Session, Platform Presentation, “Homozygous deletions in pedigrees with autism and recent shared ancestry implicate heterogeneous loci and genes.” Philadelphia, PA. Host: John Vincent (October, 2008)

29. Broad Institute of MIT and Harvard, co-sponsored by the Doris Duke Charitable Foundation, Genetics of Complex Disorders Course Lecture, “Homozygosity Mapping.” Cambridge, MA. Host: Jose Florez (November, 2008)

30. Psychiatry Research Day, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Seminar, “Autism Genetics: Genome-wide, Worldwide.” Providence, RI. Host: Martin Keller (March, 2009)

31. Brown-NIH Neuroscience Graduate Retreat, Seminar, “Genome-wide approaches to disorders of cognitive development.” Marine Biological Laboratory, Woods Hole, MA. Host: Jerome Sanes (March, 2009)

32. Stanley Center for Psychiatric Disease, Broad Institute of MIT and Harvard, Seminar, “What are the lessons from developmental brain disorders?” Cambridge, MA. Host: Edward Scolnick (April, 2009)

33. Department of Psychiatry, Massachusetts General Hospital, Harvard Medical School, Grand Rounds, “Genomic Copy Number Variation in Autism: Emerging Principles for Clinical Psychiatry.” Boston, MA. Host: Joshua Roffman (May, 2009)

34. Child and Adolescent Psychiatry, Emma Pendleton Bradley Hospital, and Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Grand Rounds, “Microarrays in Autism Diagnosis: From Basic Science to Clinical Practice.” East Providence, RI. Host: Greg Fritz (June, 2009)

35. Brown Institute for Brain Science Symposium, Genetics of Synaptic and Neurodegenerative Disease, Seminar, “Genetic mechanisms in disorders of cognitive development.” Brown University, Providence, RI. Host: Justin Fallon (December, 2009)

36. Department of Pediatrics, Pediatric Birth Defects Awareness Month, Hasbro Children’s Hospital, Warren Alpert Medical School of Brown University, Grand Rounds, “Autism genetics: Progress through regional and international collaboration.” Providence, RI. Host: Pamela High MD (January, 2010)

37. Department of Neurology, Rhode Island Hospital, Warren Alpert Medical School of Brown University, Grand Rounds, “Rare Genetic Variation in Autism.” Providence, RI. Host: Joseph Friedman (April, 2010)

38. Brown University Center for Study of Children at Risk, Women and Infants Hospital, Seminar, “Autism Genetics: Updates.” Providence, RI. Host: Steven Sheinkopf (August, 2010)

39. Next-Generation Sequencing Data Analysis Symposium, Seminar, “Applications of Next-Generation Sequencing in Medical Genetics.” Brown University, Providence, RI. (September, 2010)

40. Brown University MD-PhD Program, Annual Program Dinner, Invited Speaker, “MD-PhDs in Neurobehavioral Medicine: The View From That Bridge.” Providence, RI. Hosts: MD-PhD Students (September, 2010)

41. Northeast Regional Meeting of the Society for Developmental Biology, Seminar, “Heterogeneous Genetic Mechanisms in Autism and Related Developmental Disorders.” Marine Biological Laboratory, Woods Hole, MA. (March, 2011)

42. Child and Adolescent Psychiatry, Emma Pendleton Bradley Hospital, and Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Grand Rounds, “New Progress in Autism Research.” East Providence, RI. Host: Gregory Fritz (June, 2011)

43. 2011 Teaching About Neurobiology of Brain Dysfunction, Lecture, “Genetics of Neurodevelopmental Disorders.” Marine Biological Laboratory, Woods Hole, MA. Host: Michael Zigmond (August 14-20, 2011)

44. Cambridge Healthtech Institute Conference, NGx: Applying Next-Generation Sequencing, Platform Presentation, “Identification of Candidate Disease Genes Using Whole-Genome Sequencing to Solve Complex Structural Rearrangements in Humans.” Needham, MA. Host: Kevin Davies (September 26, 2011)

45. Neuroscience Graduate Department, Brown University, Seminar, “Genetics Studies in Human Neurodevelopmental Disorders.” Providence, RI. Host: Gilad Barnea (November, 2011)

46. Brain and Cognitive Science Department, MIT, The Autism and Developmental Disorders Colloquium Series at MIT Seminar, “Difficult-to-treat autism: Necessities and challenges.” Cambridge, MA. Host: Mriganka Sur (January 18, 2012)

47. Sheppard Pratt Health System, CME Lecture Series Seminar, “Difficult-to-treat autism: Challenges and priorities.” Baltimore, MD. Host: Steven Sharfstein (February 22, 2012)

48. Women and Infants Hospital, Pediatric Research Colloquium Seminar, “Novel Molecular Methods to Dissect the Genetic Architecture of Autism.” Providence, RI. Host: James Padbury (March 2, 2012)

49. MIT, Course in Molecular Mechanisms, Pathology and Therapy of Human Neuromuscular Disorders, Guest Lecture, “Roads to discovery in biologic psychiatry.” Cambridge, MA. Host: David Housman (March 16, 2012)

50. Center for Computational Molecular Biology, Brown University, Research Talk, “Novel Genomic Methods for Mutation Discovery in Disorders of Cognitive Development.” Providence, RI. Host: Ben Raphael (April 11, 2012)

51. The Norman Prince Neurosciences Institute Inaugural Symposium, Disorders of the Developing Brain, Seminar, “Heterogeneous Molecular Mechanisms in Autism and Related Disorders.” Warren Alpert Medical School of Brown University, Providence, RI. Host: John Robson (June 8, 2012)

52. Ivy Plus Symposium, Seminar, “Novel Genomic Methods in Autism and Related Disorders.” University of Pennsylvania, Philadelphia, PA. (October 5, 2012)

53. The Brown Alumnae Club of Kent County, Seminar, “Hopeful Progress in Autism Research.” Warren Alpert Medical School of Brown University, Providence, RI. (November 1, 2012)

54. 2nd Suna Kıraç-Brown University Workshop on Neurodegenerative Disease, Seminar, “Human Genetics and iPS Cells.” Bogazici University, Istanbul, Turkey. Host: Nazli Basak (January 17, 2013)

55. Society of Biological Psychiatry 68th Annual Meeting, Session on Developmental Research: Autism Spectrum Disorders and Beyond, Oral Presentation, “Intellectual disability is associated with increased runs-of-homozygosity in simplex autism.” San Francisco, CA. (May 17, 2013)

56. The 11th International Conference of the Society of Neuroscientists of Africa (SONA), Oral Presentation, “Intellectual disability is associated with increased runs-of-homozygosity in simplex autism.” Mohammed V University at Agdal, Rabat, Morocco. Host: Pr. Nouria Lakhdar Ghazal (June 13-17, 2013)

57. First Annual Christianson Syndrome Association Conference, Inaugural event symposium – A new day has come, Invited Speaker, "Research Progress in Christianson Syndrome." Warren Alpert Medical School of Brown University, Providence, RI. Host and organizer: Deborah Nash, Association founder and director (June 27-29, 2013)

58. McLean Hospital, Harvard Medical School, Neuroscience Seminar, "Molecular mechanisms in Christianson Syndrome – A novel autism-related disorder." Belmont, MA. Host: Christopher Cowan (October 15, 2013)

59. Brown Institute for Brain Science Symposium, Neurological and Psychiatric Diseases: Model Systems and Treatments, Presentation, "Genetic and cellular mechanisms in Christianson Syndrome." Brown University, Providence, RI. Hosts: Justin Fallon and Diane Lipscombe (November 1, 2013)

60. Autism Consortium, Harvard Medical School, Seminar, "Difficult-to-treat autism: From genes to populations." Martin Conference Center, Boston, MA. Host: Diedre Phillips (November 5, 2013)

61. Society for Neuroscience 43rd Annual Meeting, Nanosymposium on Endosomes in Neuronal Trafficking and Neurodegenerative Diseases, Platform Presentation, "The functions of endosomal Na^+/H^+ exchangers in circuit development in patient-derived neural tissues." San Diego, CA. Session Chairs: Gopal Thinakaran and Bettina Winckler (November 10, 2013)

62. Department of Biomedical Engineering, Rutgers School of Engineering, Seminar, "Novel Methods in Genome and Stem Cell Science Applied to Neurodevelopmental Disorders." Piscataway, NJ. Host: Li Cai (November 25, 2013)

63. Biology New England South (BioNES) 7th Annual Meeting, sponsored by New England Science Public (NESP), Presentation, "Molecular and Cellular Mechanisms in Christianson Syndrome." Roger Williams University, Bristol, RI. Host: Avelina Espinoza (December 6, 2013)

64. Center for Computational Molecular Biology Research Day 2014, Brown University, Research Talk, "Novel genomic and stem cell methods in neurodevelopmental disorders." Providence, RI. Host: Benjamin Raphael (January 21, 2014)

65. Ivy Plus Symposium, Research Talk, "Molecular and Cellular Mechanisms in Disorders of Cognitive Development." Harvard University and MIT, Cambridge, MA. (March 15, 2014)

66. University of Massachusetts Medical School, Neurodegeneration Seminar, "NHE6-associated neurologic disorders." Worcester, MA. Host: Robert Brown (April 11, 2014)

67. *Nature Medicine*/Volkswagen Foundation Herrenhausen Symposium on Autism and Neurodevelopmental Disorders, Seminar, "Novel Methods in Genome and Stem Cell Science Applied to Neurodevelopmental Disorders." Herrenhausen Palace Conference Centre, Hannover, Germany. Hosts: Eva Chmielnicki, Kevin Da Silva, and Oliver Grewe (May 5-7, 2014)

68. Society of Biological Psychiatry 69th Annual Meeting, Late Breaking Oral Session (Basic/Translational), "Modulation of BDNF/TrkB Signaling by a Novel Mechanism Involving Regulation of Intra-endosomal pH." New York, NY. Chair: Gustavo Turecki (May 8, 2014)

69. Gordon Research Conference *Membrane Transport Proteins*, Session on Ion Exchangers in Health and Disease, 25-minute Platform Presentation, "The Role of Endosomal Na^+/H^+ Exchangers in Autism and Related Disorders." Mount Snow Resort, West Dover, VT. Hosts: Poul Nissen and Rajini Rao (July 13-18, 2014)

70. Yale University School of Medicine, Child Study Center Seminar, "Difficult-to-Treat Autism: Challenges and Necessities." New Haven, CT. Host: John Krystal (July 29, 2014)

71. Johns Hopkins University, Physiology Seminar Series Seminar, "Endosomal Na^+/H^+ Exchangers in Neurodevelopment and Neuropsychiatric Disease." Baltimore, MD. Host: Rajini Rao (September 17, 2014)

72. Johns Hopkins University, Biology Seminar Series Seminar, "Cellular and molecular mechanisms in Christianson Syndrome." Baltimore, MD. Host: Rejji Kuruvilla (September 18, 2014)

73. Simons Foundation Autism Research Initiative Annual Meeting, Invited Speaker, "Role of endosomal NHE6 in brain connectivity and autism." New York, NY. Host: Louis Reichardt (September 28-30, 2014)

74. Rhode Island College, Biology Colloquium Seminar, "Genetics of Autism and Related Disorders in Childhood." Providence, RI. Host: Sarah Spinette (November 13, 2014)

75. Department of Psychiatry, Dartmouth Hitchcock Medical Center, Geisel School of Medicine at Dartmouth, Grand Rounds, "Difficult-to-Treat Autism: Necessities and Challenges." Lebanon, NH. Host: Jamie Fairstone (November 18, 2014)

76. Neuroscience and Behavioral Science Training Program, University of Pennsylvania, Neuroscience Seminar, "Clinical and genetic studies in Christianson syndrome, a novel autism-related disorder." Philadelphia, PA. Host: Paul Moberg (November 21, 2014)

77. Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Faculty Seminar, "Cellular Mechanisms in Christianson Syndrome, a Novel Neurogenetic Disorder." Providence, RI. Host: Kimberly Mowry (December 5, 2014)

78. Division of Developmental Biology, Children's Hospital Medical Center, Seminar, "Cellular Mechanisms in Christianson Syndrome, a Novel Neurogenetic Disorder." Cincinnati, OH. Host: Chris Mayhew (February 23, 2015)

79. Department of Cellular and Developmental Biology, University of Massachusetts Medical School, Seminar, "Cellular Mechanisms in Christianson Syndrome, a Novel Neurogenetic Disorder." Worcester, MA. Host: Jeanne Lawrence (Interim Chair) (February 25, 2015)

80. Keystone Symposia Conference *Pathways of Neurodevelopmental Disorders*, Session on RNA Toxicity and Mitochondrial Dysfunction Across Neurodevelopmental Disorders, Invited Speaker, "Cellular mechanisms in Christianson syndrome, a novel neurogenetic disorder." Granlibakken Resort, Tahoe City, CA. Organizers: Randi Hagerman, Mustafa Sahin, and Paul Hagerman (March 16-20, 2015) (declined due to conflict)

81. Department of Psychiatry, University of Texas Southwestern Autism Center, Seminar, "Difficult-to-Treat Autism: Challenges and Necessities." Dallas, TX. Host: Carol Tamminga (April 2, 2015)

82. Department of Psychiatry and Department of Neuroscience, SUNY Stony Brook School of Medicine, Seminar, "Difficult-to-Treat Autism: Challenges and Necessities." Stony Brook, NY. Hosts: Ramin Parsey and Lorna Role (April 14, 2015)

83. Cold Spring Harbor Laboratory Meeting *Stem Cell Biology*, Session on Creating Patient-specific Neural Cells for the In Vitro Study of Brain Disorders, Invited Speaker, "Live cell imaging of neurodevelopment in cells from patients with Christianson syndrome." Banbury Center, Cold Spring Harbor, NY. Organizers: Fred Gage and Rudolf Jaenisch (April 16, 2015)

84. National Center for Advancing Translational Sciences, Seminar, "Translational Science Targeting Treatment Development for Christianson Syndrome." Bethesda, MD. Host: Juan Marugan (April 24, 2015)

85. Nathan S. Kline Institute for Psychiatry Research, New York University Medical School, Center for Dementia Research Neuroscience Seminar Series Seminar, "Cellular and Molecular Mechanisms in Christianson Syndrome, a Novel Neurogenetic Disorder." Orangeburg, NY. Host: Ralph Nixon (May 28, 2015)

86. Gordon Research Conference *Neurotrophic Factors*, Session on Neurotrophic Factors in Disease and Repair, Invited Speaker, "Endosomal and Neurotrophin Mechanisms in Christianson Syndrome, a Novel Neurodevelopmental Disorder." Salve Regina University, Newport, RI. Organizers: Freda Miller and Wilma J. Friedman (May 31-June 5, 2015)

87. BioMedical Transporters Conference 2015 *Membrane Transporters – From Basic Science to Drug Discovery*, Session on Therapeutic Relevance of Ion Exchangers, Invited Speaker, "The Role of Endosomal Na^+/H^+ Exchangers in Autism and Related Disorders." Lugano, Switzerland. Organizers: Matthias A. Hediger, Robert Burrier, Ken-ichi Inui, and Bruno Stieger; Chair: Daniel Fuster (August 9-13, 2015) (declined due to family reasons)

88. 1st International Basic Science and Clinical Conference on Christianson Syndrome, Speaker and Co-Organizer, "Relevance of CS to neuropsychiatric disorders: Autism, hyperactivity, Angelman syndrome." Houston, TX. Organizers: Eric M. Morrow and Steven U. Walkley (July 31-August 1, 2015)

89. 1st International Basic Science and Clinical Conference on Christianson Syndrome, Speaker and Co-Organizer, "Framework for natural history study in CS." Houston, TX. Organizers: Eric M. Morrow and Steven U. Walkley (July 31-August 1, 2015)

90. National Institute of Mental Health, Seminar, "New Discoveries in Mental Health Research." Bethesda, MD. Host: Susan Amara (October 14, 2015)

91. The Jackson Laboratory for Genomic Medicine, University of Connecticut, Seminar, "Novel Human Neurogenetic Syndromes and Cellular Mechanisms in Brain Disease." Farmington, CT. Host: Charles Lee (October 27, 2015)

92. National Institutes of Health Program Project *Presenilin Biology and the Mechanisms of Alzheimer's Disease*, Harvard Institutes of Medicine, Basic and Applied Biology Relevant to

Neurodegeneration Seminar, “Novel Human Neurogenetic Syndromes and Cellular Mechanisms in Brain Disease.” Boston, MA. Host: Dennis Selkoe (October 29, 2015)

93. Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Grand Rounds, “Rare genetic variation in neuropsychiatry: Relevance to diagnosis and brain mechanisms.” Providence, RI. Host: Jane Eisen (November 4, 2015)

94. Women and Infants Hospital, Pediatric Research Colloquium Seminar, “Novel neurogenetic syndromes affecting mitochondria and metabolism.” Providence, RI. Host: James Padbury (November 20, 2015)

95. Department of Psychiatry and Department of Neuroscience, Seaver Autism Center for Research and Treatment, Icahn School of Medicine at Mount Sinai, Seaver Seminar Series Seminar, “Novel Human Neurogenetic Syndromes and Cellular Mechanisms in Brain Disease.” New York, NY. Host: A. Ting Wang (December 16, 2015)

96. Keystone Symposia Conference *Neurological Disorders of Intracellular Trafficking*, Session on Clinical Neurology and Trafficking Disorders I, Invited Speaker, “Cellular mechanisms in Christianson syndrome, a novel endosomal disorder.” Keystone Resort, Keystone, CO. Organizers: Dennis Drayna and Bettina Winckler (January 31-February 4, 2016)

97. MIT, Course in Molecular Mechanisms, Pathology and Therapy of Human Neuromuscular Disorders, Guest Lecture, “Rare neurogenetic disorders: Paths to translation.” Cambridge, MA. Host: David Housman (March 7, 2016)

98. BIBS Center for Neurobiology of Cells and Circuits, Brown Institute for Brain Science, Brown University, Faculty Chalk Talk Series Seminar, “Inaugural BIBS Chalk Talk.” Providence, RI. Hosts: BIBS Faculty (April 27, 2016)

99. May Institute Annual Clinical Conference *Biomarker Contributions to Understanding Autism Spectrum Disorder*, Invited Speaker, “Rare Genetic Variation in Neuropsychiatry: Relevance to Brain Mechanisms in Autism.” Randolph, MA. Coordinator: Valerie Thompson (May 25, 2016)

100. Angelman Syndrome Foundation and the Dup15q Alliance Joint Scientific Symposium *Two Sides of a Coin: Deletions and Duplications on Chromosome 15q*, Invited Speaker, “Christianson Syndrome: A novel endosomal disorder related to Angelman Syndrome.” Silver Spring, MD. Organizers: Stormy Chamberlain, Guy Calvert, and Dan Harvey (July 28-29, 2016)

101. 28th Annual Department of Molecular Biology, Cell Biology and Biochemistry (MCB) Graduate Program Retreat, Brown University, Invited Faculty Research Talk, “A Novel Neurogenetic Disorder Affecting Mitochondria and Metabolism.” Haffenreffer Museum of Anthropology, Bristol, RI. Hosts: Ashley Webb and Louis Lapierre (August 31, 2016)

102. George Washington Institute for Neuroscience/Children’s National Medical Center-Center for Neuroscience Research, George Washington University and Children’s National Health System, 2016-2017 Neuroscience Seminar Series Seminar, “Human Neurogenetic Syndromes and Cellular Mechanisms in Brain Disease.” Washington, DC. Hosts: Anthony-Samuel LaMantia, Judy Liu, Chiara Manzini, and Damien O’Halloran (October 20, 2016)

103. Longwood Mitochondrial Data Club, Harvard Medical School, Research Talk, "Mitochondrial function in novel neurogenetic syndromes." Boston, MA. Hosts: Tom Schwarz and Marcia Haigis (November 14, 2016)

104. National Institute of Mental Health Grantees Workshop *Using Stem Cell-Based Assays for Biological & Drug Discovery*, Session on 2D and 3D Disease Assay Phenotypic Discovery, Invited Participant and Speaker, "Mechanisms involving endosomal NHE6 in neuronal development in Christianson syndrome." Sanford Consortium, La Jolla, CA. Organizer: David Panchision (November 17-18, 2016)

105. 1st International *SYNGAP1* Conference, Invited Speaker and Program Committee Member, "Clinical and Cellular Characterization of Christianson Syndrome: Novel Endosomal Mechanisms in Neurodevelopment." Houston, TX. Organizer: Gavin Rumbaugh (November 30-December 1, 2016)

106. Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital, Harvard Medical School, Research Talk, "Novel Neurogenetic Syndromes and Cellular Mechanisms in Brain Disease." Boston, MA. Host: Dennis Selkoe (February 13, 2017)

107. MIT, Course in Molecular Mechanisms, Pathology and Therapy of Human Neuromuscular Disorders, Guest Lecture, "Rare genetic disorders – from gene discovery to therapeutic development." Cambridge, MA. Host: David Housman (May 1, 2017)

108. 2nd International Basic Science and Clinical Conference on Christianson Syndrome, Keynote Speaker, "Christianson Syndrome: Genes, Families and Research Progress." McGill University, Montreal, Canada. Organizers: John Orlowski and R. Anne McKinney (June 29-July 1, 2017)

109. 2nd International Basic Science and Clinical Conference on Christianson Syndrome, Closing Session Speaker, "Christianson Syndrome Research: The Way Forward." McGill University, Montreal, Canada. Organizers: John Orlowski and R. Anne McKinney (June 29-July 1, 2017)

110. Department of Pathology, Rhode Island Hospital, Warren Alpert Medical School of Brown University, Pathology Research Seminar, "Genetic and Cellular Mechanisms in Postnatal Microcephaly." Providence, RI. Host: Alexander Brodsky (September 26, 2017)

111. MD-PhD Program *Physician-Scientists on Parade*, Warren Alpert Medical School of Brown University, Career and Research Talk, "Genetic Study of Human Brain Development and Disease." Providence, RI. Host: Jonathan Kurtis (September 27, 2017)

112. Department of Psychiatry, Weill Cornell Medical College, New York-Presbyterian/Weill Cornell Medicine, Child and Adolescent Psychiatry Grand Rounds, "Genetic and cellular mechanisms in human postnatal brain development." New York, NY. Hosts: Jack Barchas and John Walkup (December 20, 2017)

113. Neuroscience Graduate Program, University of California, San Francisco, 2017-2018 Formal Seminar Speaker Series Seminar, "Genetic and cellular mechanisms in early postnatal human brain development." San Francisco, CA. Host: Ben Cheyette (January 18, 2018)

114. Biomedical Club, Wheeler School, Career and Research Talk. Providence, RI. Host: Katia Koelliker (March 7, 2018)

115. Kennedy Fellows Association Continuing Education Course *The Spectrum of Developmental Disabilities*, Session on Neurodevelopmental Disorders: Genetic Underpinnings, Invited Speaker, "What have we learned from syndromic autism?" Johns Hopkins University School of Medicine, Baltimore, MD. Host: Bruce Shapiro (March 19-21, 2018)

116. Department of Neuroscience, Johns Hopkins University, 2017-2018 Graduate Student-invited Neuroscience Seminar Series Seminar. Baltimore, MD. Host: Graduate students (April 12, 2018) (declined due to conflict)

117. Center for Neurobiology of Cells and Circuits, Carney Institute for Brain Science, Brown University, Faculty Chalk Talk Series Seminar. Providence, RI. Hosts: Faculty (April 30, 2018)

118. Department of Psychiatry and Behavioral Neuroscience, Center for Psychiatric Genetics, Pritzker School of Medicine, University of Chicago, Research Seminar, "Genetic and cellular mechanisms in early postnatal human brain development." Evanston, IL. Host: Jubao Duan (July 13, 2018)

119. Angelman Syndrome Foundation and the Dup15q Alliance Joint Research Symposium *Angelman and Dup15q Syndromes: Shared Pathways to Discovery*, Invited Speaker, "Shared Clinical and Cellular Features of Christianson Syndrome and Angelman Syndrome." Chapel Hill, NC. Organizers: Stormy Chamberlain, Ben Philpot, and Shefali Jeste (August 6-7, 2018)

120. McLean Hospital, Harvard Medical School, Neuroscience Seminar, "Metabolic mechanisms in early postnatal human brain development." Belmont, MA. Host: Dost Ongur (November 13, 2018)

121. Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, MCB Graduate Program Seminar, "Metabolic mechanisms in early postnatal human brain development." Providence, RI. (November 14, 2018)

122. Department of Physiology and Neurobiology, University of Connecticut, Research Seminar, "Genetic and cellular mechanisms in early postnatal human brain development." Storrs, CT. Host: Joseph LoTurco (November 28, 2018)

123. Intellectual and Developmental Disabilities Research Center, Children's Hospital of Philadelphia, University of Pennsylvania, IDDRC Seminar Series Seminar, "Genetic and cellular mechanisms in human postnatal brain development." Philadelphia, PA. Hosts: Michael Robinson, Ethan Goldberg, and Stewart Anderson (March 12, 2019)

124. Marcus Autism Center, Children's Healthcare of Atlanta, Emory University School of Medicine, Frontiers in Neuroscience Lecture/Autism and Related Disorders Grand Rounds, "Genetic and cellular mechanisms in human early postnatal brain development." Atlanta, GA. Hosts: Chris Gunter and Ami Klin (April 12, 2019)

125. Gurdon Institute, Cambridge University, "Genetic syndromes with mixed neurodevelopmental and degenerative mechanisms." Cambridge, United Kingdom. Host: Frederick Livesey (June 11, 2019)

126. Institute of Neurology, University College London, ALS Seminar Series Seminar, "Genetic syndromes with mixed neurodevelopmental and degenerative mechanisms." London, United Kingdom. Host: Elizabeth Fisher (June 13, 2019)

127. 1st European Christianson Syndrome Conference, Invited Speaker, "An Update on the Christianson Syndrome International Study." Parc Spelderholt, Beekbergen, The Netherlands. Organizer: Christianson Syndrome Europe (June 14-16, 2019)

128. Center for Translational Neurodegeneration Research, University of Texas Southwestern Medical Center, Department of Physiology Seminar Series Seminar, "Mechanisms of human brain development and degeneration through the lens of rare genetic disorders." Dallas, TX. Hosts: Joachim Herz and Ilya Bezprozvanny (November 18, 2019)

129. Department of Genetics and Genome Sciences, Case Western Reserve University School of Medicine, Weekly Seminar Series Seminar, "Mechanisms of human brain development and degeneration through the lens of rare genetic disorders." Cleveland, OH. Host: Tony Wynshaw-Boris (September 9, 2020)

130. Waisman Center, University of Wisconsin, Madison, 2020-2021 John D. Wiley Seminar Series Invited Seminar, "Mechanisms of human brain development and degeneration through the lens of rare genetic disorders." Madison, WI. Host: Anita Bhattacharyya (October 2, 2020)

131. Translational Neuroscience Center, Boston Children's Hospital, Monthly Seminar Series Invited Seminar, "Mechanisms of human brain development and degeneration through the lens of rare genetic disorders." Boston, MA. Host: Mustafa Sahin (January 12, 2021)

132. Department of Physiology, McGill University, Weekly Seminar Series Seminar, "Title TBD." Montreal, Canada. Host: Reza Naeini (January 14, 2022)

6. RESEARCH GRANTS

a. Current Grants

1. **NIH/NIMH** 5R01MH105442-06
09/16/2014-05/31/2021 (NCE)
Mechanisms of circuit failure and treatments in patient-derived neurons in autism
Total direct costs: $1,500,000, Total costs: **$2,437,500**.
Current annual direct funds and effort: $107,090, 4% effort.
PI: E.M. Morrow

2. **NIH/NIGMS** 5P20GM119943-04
07/01/2017-06/30/2022
Centers of Biomedical Research Excellence (COBRE) Phase II: *Stem Cells and Aging*
Total direct costs: $60,183, Total costs: **$97,797** (Rhode Island Hospital subaward).
Current annual direct funds and effort: $7,748, 3% effort.
PI: P.J. Quesenberry, Project PI: J. Kreiling, **Mentor: E.M. Morrow**

3. **NIH/NIA** 1F32AG066372-01
09/11/2019-09/10/2022
Christianson Syndrome: A novel endosomal disorder with neurodegeneration

Total direct costs: $186,582, Total costs: **$186,582**.
Current annual direct funds and effort: $61,226, 100% effort.
Postdoctoral Investigator: E.Y. Lee, **Mentor: E.M. Morrow**

4. **NIH/NIA/NINDS** 5R01NS113141-02
09/15/2019-06/30/2024
Neurodegenerative mechanisms in Christianson syndrome and NHE6-related disorders
Total direct costs: $3,129,137, Total costs: **$4,527,317**.
Current annual direct funds and effort: $671,680, 25% effort.
PI: E.M. Morrow

5. **NIH/NIA/NINDS** 3R01NS113141-02S1
07/01/2020-06/30/2021
Neurodegenerative mechanisms in Christianson syndrome and NHE6-related disorders (Admin Supp)
Total direct costs: $48,812, Total costs: **$79,320**.
Current annual direct funds and effort: $48,812, 0% effort.
Postbaccalaureate Investigator: A. Prada, **PI/Mentor: E.M. Morrow**

6. **Falk Medical Research Trust Catalyst Award**
11/30/2020-11/29/2021
Development of a Preventative Treatment for a Novel Neurometabolic Disorder in Childhood
Total direct costs: $272,727, Total costs: **$300,000**.
Current annual direct funds and effort: $272,727, 10% effort.
PI: E.M. Morrow

7. **Brown University/OVPR Research Seed Award**
01/15/2021-06/30/2022
Engineering genetic models for translational research in autism and schizophrenia
Total direct costs: $50,000, Total costs: **$50,000**.
Current annual direct funds and effort: $50,000, 5% effort.
MPI: E.M. Morrow, D. Moreno-De-Luca, E.D. Gamsiz Uzun

b. Completed Grants

Medical Scientist Training Program (PI: Andrews, N.) 09/01/1992-06/15/2001
NIH
MD-PhD Program, Harvard Medical School

Ethel Dupont-Warren Award (PI: Morrow, E.M.) 07/01/2005-06/30/2006
Private/Harvard Department of Psychiatry $55,000
Genetic investigation of neurodevelopmental schizophrenia with cognitive impairment

Livingston Award (PI: Morrow, E.M.) 07/01/2005-06/30/2006
Private/Harvard Department of Psychiatry $10,000

Clinical Investigator Training Program (PI: Hollenberg, A.) 07/01/2005-06/30/2007
Private/MIT-HST/Pfizer/Merck $120,000
Enrollment of pedigrees with autism in special founder populations

Daland Fellow in Clinical Investigation (PI: Morrow, E.M.) 07/01/2005-06/30/2007
Private/American Philosophical Society $100,000
Identifying autosomal recessive genes in familial autism

Pfizer Scholar Grant in Psychiatry (PI: Morrow, E.M.) 07/01/2005-06/30/2007
Private/Pfizer, Medical-Academic Partners $130,000
Genetic determinants of autism spectrum disorders

MGH Rappaport Neuroscience Scholar (PI: Morrow, E.M.) 07/01/2007-06/30/2008
Private/Jerome Lyle Rappaport Family Foundation $50,000

Child Health Research Award (PI: Morrow, E.M.) 08/01/2007-07/31/2009
Private/Charles H. Hood Foundation $150,000
Genetics of autism spectrum disorders

Young Investigator Grant (PI: Morrow, E.M.) 08/01/2007-06/30/2009
Private/NARSAD $60,000
(selected for the Sidney R. Baer, Jr. Foundation Investigator distinction)

K23MH080954 (PI: Morrow, E.M.) 09/10/2007-08/31/2012
NIH/NIMH $930,474
Genetic investigation of cognitive development in autistic spectrum disorders
Mentor: Christopher A. Walsh MD PhD; Co-Mentors: Mark Daly PhD, Sorin Istrail PhD

Collaborative Translational Genetics in Autism 12/01/2008-03/01/2011
(Project 3 PI: Morrow, E.M.)
Fidelity Foundation $200,000

Simons Foundation Autism Research Initiative 07/01/2011-06/30/2012
(Site PI: Morrow, E.M.)
Private $50,000
A Genome-Wide Search for Autism Genes in the Simons Simplex Collection (SSC): The Illumina Genetic Analysis Team

P20RR018728-01 (PI: Padbury, J.; Project PI: Morrow, E.M.) 08/01/2011-07/31/2013
NIH/NCRR $110,000
Perinatal Medicine Center of Biomedical Research Excellence (COBRE)
Trafficking Mechanisms in Axonal Growth in Embryonic and Perinatal Development

Rhode Island Hospital Institutional Funds 03/01/2011-02/28/2014
(PI: Quesenberry, P.J.; Project PI: Morrow, E.M.)
Private $170,000
Stem cell pilot: Human induced pluripotent stem cell (iPSC) technology applied to brain disease

Simons Foundation Autism Research Initiative/ 07/01/2012-06/30/2014
Nancy Lurie Marks Family Foundation for Autism Research
(PI: Morrow, E.M.)
Private $250,000
Role of Endosomal NHE6 in Brain Connectivity and Autism

Burroughs Wellcome Fund Career Award for Medical Scientists 09/01/2007-08/31/2015

(PI: Morrow, E.M.)
Private $700,000
Identification of autism genes in special founder populations using high-density SNP microarrays

P20GM103645-02 (PI: Sanes, J.N.; Project PI: Morrow, E.M.) 08/15/2013-07/31/2018
NIH/NIGMS $1,720,895
Centers of Biomedical Research Excellence (COBRE) Center for Central Nervous System Function
Genetic-imaging study of obsessive compulsive behavior in autism
*Support as Project PI ended on 07/31/2015

Simons Foundation Autism Research Initiative/ 10/01/2013-09/30/2015
Nancy Lurie Marks Family Foundation for Autism Research
(PI: Siegel, M.; Co-I: Morrow, E.M.)
Private $67,245
Autism and Developmental Disorders Inpatient Research Collaborative: Phenotyping of the Severely Affected Autism Population

Scientific Meeting Grant (PI: Morrow, E.M.) 05/01/2015-10/31/2015
Private/The Company of Biologists $2,447
Disease Models and Endosomal Mechanisms in Christianson Syndrome

Weatherstone Predoctoral Fellowship 07/01/2014-06/30/2016
(Predoctoral Investigator: Sciarra, L.; Mentor: Morrow, E.M.)
Private/Autism Speaks $58,953
Na^+-H^+ Exchanger Mechanisms in Autism Pathophysiology and Treatment

Research Seed Award (MPI: Morrow, E.M., Istrail, S.) 07/01/2014-06/30/2016
Private/Brown University $80,000
Genome-wide Sequence Analysis in Severe Autism and Intellectual Disability

R13NS093882-02 (MPI: Morrow, E.M., Walkley, S.U.) 07/15/2015-06/30/2016
NIH/NINDS $20,000
Support for the 1st International Basic Science and Clinical Conference on Christianson Syndrome

Robin Chemers Neustein Graduate Fellowship in Brain Science 01/01/2016-12/31/2016
(Predoctoral Investigator: Maguire, A.; Mentor: Morrow, E.M.)
Private/Brown Institute for Brain Science $50,000
Investigating Cellular Mechanisms in Christianson Syndrome Using Induced Pluripotent Stem Cells

Simons Foundation Autism Research Initiative (PI: Morrow, E.M.) 04/01/2013-03/31/2017
Private $1,248,816
Rhode Island Population and Genetics Study of Autism and Intellectual Disability

Research Seed Award (PI: Morrow, E.M.) 01/01/2017-06/30/2018
Private/Brown University $50,000
Mechanisms in mitochondrial metabolism in brain development and health

F31NS093880 09/01/2016-08/31/2018
(Predoctoral Investigator: Pescosolido, M.F.; Mentor: Morrow, E.M.)
NIH/NINDS $87,620
Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship
Endo-lysosomal mechanisms and treatment in atypical cerebellar neurodevelopment

Simons Foundation Autism Research Initiative/ 10/01/2015-09/30/2018
Nancy Lurie Marks Family Foundation for Autism Research
(PI: Siegel, M.; Co-I: Morrow, E.M.)
Private $173,265
Autism Inpatient Collection: Phase II

Graduate Award in Brain Science 09/01/2018-12/31/2018
(Predoctoral Investigator: Pescosolido, M.F.; Mentor: Morrow, E.M.)
Private/Carney Institute for Brain Science/Macklin Bequest $18,795
Role of Christianson Syndrome Endosomal Na+/H+ Exchanger 6 (NHE6) in Endolysosomal Function

R01MH105442-05S1 (PI: Morrow, E.M.) 08/27/2018-05/31/2019
NIH/NIMH/NIA $369,162
Alzheimer's Disease and its related Dementias (AD/ADRD)-focused Administrative Supplement
Mechanisms of circuit failure and treatments in patient-derived neurons in autism

Graduate Award in Brain Science 09/01/2017-08/31/2019
(Predoctoral Investigator: Baytas, O.; Mentor: Morrow, E.M.)
Private/Carney Institute for Brain Science/Suna Kıraç Fellowship and Research Fund in Molecular Biology $110,000
GPT2's Role in Mitochondrial Metabolism in Brain Development and Neurodegeneration

General Research Grant (PI: Morrow, E.M.) 09/01/2017-08/31/2019
Private/Angelman Syndrome Foundation $200,000
Shared cellular mechanisms in Angelman syndrome and Christianson syndrome

R21MH115392-02 (PI: Morrow, E.M.) 09/18/2017-08/31/2019
NIH/NIMH $446,875
Convergent Cellular Mechanisms Governed by UBE3A and NHEs in Neurons

NARSAD Independent Investigator Grant (PI: Morrow, E.M.) 09/15/2017-09/14/2019
Private/Brain & Behavior Research Foundation $100,000
Genetic Investigation of Mitochondrial Metabolism in Circuit Development and Behavior

Carney Innovation Award 10/01/2018-09/30/2019
(MPI: Morrow, E.M., Moreno-De-Luca, D.)
Private/Brown University/Carney Institute for Brain Science $132,000
Development of Experimental Models for Rare Genetic Disorders in Autism and Schizophrenia

Explorer Award (PI: Morrow, E.M.) 10/01/2018-09/30/2019
Private/Simons Foundation Autism Research Initiative $80,000
Analysis of UBE3A- and NHE6-mutant cells to determine social communication gene networks

R01MH102418-04 (PI: Morrow, E.M.) 04/01/2015-02/29/2020
NIH/NIMH $1,625,000
Autism-linked endosomal mechanisms in neuronal arborization and connectivity

Postdoctoral Training Award 07/01/2019-06/30/2020
(Postdoctoral Investigator: Warren, E.B.; Mentor: Morrow, E.M.)
Private/Autism Science Foundation $35,000
Molecular mechanisms of 17q12 deletion syndrome: Developing a novel mouse model of polygenic ASD

c. Proposals Awarded but Declined by PI

Autism Science Foundation, Bey Predoctoral Fellowship 07/01/2014
(Predoctoral Investigator: Sciarra, Laura; Mentor: Morrow, E.M.) $25,000
Na^+-H^+ Exchanger Mechanisms in Autism Pathophysiology and Treatment
Declined in lieu of Autism Speaks Weatherstone Predoctoral Fellowship

Physician/Investigator Beginning Autism Awards (PIBAR) 07/01/2007
(PI: Morrow, E.M.) $300,000
Translational Genetic Studies in Familial Autism Spectrum Disorders
Declined in lieu of NIMH K-award

Simons Foundation Autism Research Initiative 07/01/2014
(PI: Morrow, E.M.) $250,000
Endosomal NHE6 in Autism Pathophysiology in Patient-derived Neurons
Grant was funded but declined due to overlap with NIH 1R01MH105442-01

7. SERVICE

a. Service to the University

Harvard University/Harvard Medical School (from 2005 to 2009)

2005-2007	Committee Member, Medical and Population Genetics Planning Committee, Broad Institute of MIT and Harvard University
2005-2008	Voting Member, Partners Healthcare IRB Panel C
2006-2009	Genomics Subcommittee, MIND (Mental Illness and Neuroscience Discovery) Institute Clinical Imaging Consortium Study: A Joint Study of First Episode and Chronic Schizophrenia

Brown University (from 2009)

Department of Molecular Biology, Cell Biology and Biochemistry (MCB)

2010	Vice-Chair, Annual Retreat for MCB Graduate Program
2010-2012	Illumina Sequencing Steering Committee
2011	Chair, Annual Retreat for MCB Graduate Program
2011-2018	MCB Curriculum Committee
2012	Ivy Plus Symposium, University of Pennsylvania, Research Talk: *"Novel Genomic Methods in Autism and Related Disorders"*
2012-present	Genomics Core Steering Committee
2014	Ivy Plus Symposium, Harvard University and MIT, Research Talk:

	"Molecular Mechanisms in Disorders of Cognitive Development"
2014	Search Committee, Biomedical Informaticist, MCB and CCMB
2014-2015	MCB Graduate Program Admissions Committee
2015	Committee to Review Administrative Services in MCB
2015-2016	Chair, MCB Curriculum Committee
2015-2016	MCB Graduate Program Executive Committee
2017-2018	Chair, MCB Curriculum Committee
2017-2018	MCB Graduate Program Executive Committee
2018	White Paper Lead Author, Report on Assessment of the MCB Graduate Program Curriculum
2019-2020	Chair, Tenure Committee, MCB, Gregorio Valdez
2019-present	Mentor, MCB, Yu-Wen Alvin Huang, Assistant Professor

Department of Psychiatry and Human Behavior (DPHB), Carney Institute for Brain Science or Center for Computational Molecular Biology (CCMB)

2009-2013	Genetics Working Group, Department of Psychiatry and Human Behavior
2013	Volunteer Instructor, 2nd Suna Kıraç-Brown University Workshop on Neurodegenerative Disease at Bogazici University, Istanbul, Turkey
2014	Organizing Committee, CCMB Symposium, *Modern Genomic Approaches to Heritable Disease*
2015	Grant Review Committee, BIBS/NPNI New Frontiers program
2015-2016	Search Committee, BIBS Director
2015	Presenter, Psychiatry Resident Research Recruitment Day, Research Talk
2015-2017	Search Committee, Senior Molecular Neuroscience Faculty
2016	Presenter, Psychiatry Resident Research Recruitment Day, Research Talk
2016-2017	Search Committee, Director of Division of Child and Adolescent Psychiatry
2017-2018	Co-Director, Center for Neurobiology of Cells and Circuits
2017-2019	Co-Organizer, Brain Science Special Seminars in Molecular and Cellular Neuroscience Series: Michael E. Greenberg, May 16, 2017; Catherine Dulac, September 12, 2017; Nenad Sestan, November 28, 2017; Susan Dymecki, May 8, 2018; Pietro De Camilli, February 12, 2019
2017	Co-Organizer, Joint Stem Cell Mini-Symposium, Atilgan Yilmaz and Sofia B. Lizarraga, June 19, 2017
2017	Presenter, BIBS Advisory Council, Research Talk: *"Mechanism in Neurological and Psychiatric Disorders"*
2017-present	Carney Institute for Brain Science Executive Committee
2017	Presenter, Amgen Representatives, Research Overview: *"Human Neurogenetic Syndromes and Cellular Mechanisms in Brain Disease"*
2018	Computational Biology Graduate Program Admissions Committee
2018	Co-Organizer, Precision Medicine & the Brain Panel Discussion, David H. Ledbetter, Christa L. Martin, and David Housman, March 14, 2018
2018	Director, Center for Neurobiology of Cells and Circuits
2018	Presenter, Psychiatry Resident Research Recruitment Day, Research Talk
2019-present	Director, Center for Translational Neuroscience, Carney Institute for Brain Science and Brown Institute for Translational Science
2019-present	Organizer, Bench to Bedside Seminar Series, Neuroscience Graduate Program

2020-present	Junior Faculty Mentor (Daniel Moreno-De-Luca), Mentored Patient-Oriented Research Career Development Award (K23), *A Genomic Approach to Autism and Schizophrenia Risk Through 17q12 CNVs*
2021	Steering Committee, NIH Neuroscience Development for Advancing the Careers of a Diverse Research Workforce (R25) proposal submitted by the Carney Institute for Brain Science, *Advancing the Research Careers of Women and PEERs in Brain Science*

University and Division of Biology and Medicine

2009-2010	Search Committee, Chair of Division of Clinical Genetics
2010-2012	Freshman Advisor, Sophomore Advisor
2011	Discussion Facilitator, Brown Ethical and Responsible Conduct of Research Education (BEARCORE), Session: *"Research Misconduct"*
2012-2013	Provost's Committee on Research Administration
2014	Participant, Brown University's 250th Opening Celebration, 250+ Open House Presentation: *"Genes, Stem Cells and Autism"*
2014-2015	Academic Investment Design Committee (AIDC), Subcommittee to the Rhode Island Medical Group (RIMG) Board
2015	Proposal Reviewer, Office of the Vice President of Research (OVPR) Research Seed Fund Award Program
2015-2018	Undergraduate Biology Curriculum Committee
2016	Presenter, University Advancement Major Gifts Officers Orientation: Campaign Priorities in the Medical School, Research Talk: *"Genetics and Personalized Medicine"*
2016	Presenter, Brown Medical Alumni Association Annual Alumni-Student Networking Event and Donor Recognition, Research Talk: *"Genetics and Personalized Medicine"*
2016	Search Committee, Director of Transgenic Core
2016	Presenter, Brown University Family Weekend, Research Talk: *"Deciphering Disease: Human Genetics at the Center of Translation and Training"*
2017	Provost's Search Committee, Inaugural Executive Director of Corporate Relations for Brown University
2017	Presenter, The Corporation of Brown University, Research Talk
2017	Proposal Reviewer, Advance Clinical and Translational Research (Advance-CTR) Mentored Research Awards Program
2017	Search Committee, Chief of Division of Pediatric Neurology
2017	Participant and Laboratory Host, HealthCORE summer-intensive course for underrepresented high school students
2017	Presenter, Undergraduate Biology Course, *Living Biology at Brown & Beyond*, Career and Research Presentation
2017	Presenter, MD-PhD Program, *Physician-Scientists on Parade*, Career and Research Presentation
2017	Poster Fair Judge, Young Scholars Conference (YSC), *Atoms, Axons, and Asteroids: Big Data in STEM*
2017-present	Executive Committee Member, MD-PhD Program
2017	Key Personnel and Institutional Representative, Brown University Physician-Scientist Training Program proposal, Burroughs Wellcome Fund Physician-Scientist Institutional Award Program
2017-present	Concentration Advisor (Juliana Simon, 2020; David Suarez, 2020; Bianca Obiakor, 2020)

2017	Laboratory Host for Brunonia/Giving Web Article, Division of Advancement, Advancement Communications (multimedia productions)
2017	Proposal Reviewer, Office of the Vice President of Research (OVPR) Research Seed Fund Award Program
2018	Proposal Reviewer, Advance Clinical and Translational Research (Advance-CTR) Pilot Projects Program
2018	Proposal Reviewer, Summer Undergraduate Teaching and Research Award (UTRA) Program (committee member)
2018	Reviewer, Office of the Vice President of Research (OVPR) Brown University Research Achievement Awards Program
2018-present	Executive Committee Member, Centers of Biomedical Research Excellence (COBRE) Phase II: *Stem Cells and Aging* Award
2018	Search Committee, Faculty position in Alzheimer Research (Committee Chair)
2018	Presenter, Undergraduate Biology Course, *Living Biology at Brown & Beyond*, Career and Research Presentation
2018	Presenter, Medical Parents Committee Meeting
2019	Proposal Reviewer, Advance Clinical and Translational Research (Advance-CTR) Pilot Projects Program
2019-present	Director, Center for Translational Neuroscience, Carney Institute for Brain Science and Brown Institute for Translational Science

Collaborative Research Bridging from Campus to Hospitals

2009-present	Founding Director (2012-2016); Chair, Research Committee (2012-2016); Senior Consultant (2016-present); Rhode Island Consortium for Autism Research and Treatment (RI-CART)
2009-present	Committee Member, Rhode Island Consortium for Autism Research and Treatment (RI-CART)
2015-present	Co-Director, Initiative in Autism Research, Hassenfeld Child Health Innovation Institute (HCHII)
2016-present	Committee Member, Key Component Activity (KCA) Advisory Committee, NIH Institutional Development Award (IDeA) Program Infrastructure for Clinical and Translational Research (IDeA-CTR) Award, RI-Center for Clinical and Translational Science (RI-CCTS) (now termed Advance-CTR)
2017	Presenter, HCHII Advisory Council, Research Talk
2017	Collaboration and Multidisciplinary Team Science (CMTS) Leader for Brain Science, Brown University and University of Rhode Island joint proposal, NIH Clinical and Translational Science Award (CTSA) Program
2017-present	Member, Destination Medicine Workgroup, Emma Pendleton Bradley Hospital
2018	Faculty Trainer and Junior Faculty Mentor, Brown University and University of Rhode Island joint proposal, NIH Clinical and Translational Science Award (CTSA) Program
2019-present	Faculty Executive Committee Member and Mentor, NIH NRSA Institutional Research Training Grant (T32) Program, *Research Training in Child Mental Health*
2019	Presenter, Bradley Hospital Foundation Board of Trustees, Research Talk: *"An Update on Our Progress in Autism Research and Research Training"*

Features in University Publications

2009	Boldly Biomed: Campaign for Academic Enrichment, *"Brain Science"*
2012	Division of Biology and Medicine 2010-2011 Annual Report, *"The Autism Mystery"*
2013	Brown Medicine Spring 2013, *"Needles in a Haystack"*
2013	Giving to Brown Web Story, *"The Genetics of Autism: For Some Families, An Explanation At Last"*
2014	BIBS Brochure
2014	Brown University 2013 Annual Report, *"Growing Hope: Understanding Autism at the Cellular Level"*
2016	BrownTogether Web Article, *"Tackling Our Children's Needs: The Hassenfeld Child Health Innovation Institute"*
2018	Brunonia/Giving Web Article, *"Mapping the Autistic Brain"*
2018	Warren Alpert Foundation 2018 Annual Report (Video Report)
2019	Brunonia/Giving Web Article and Video, *"Decoding Autism"*
2020	Medicine@Brown Winter 2020, *"Hive Mind"*
2020	Impact: Research at Brown 2020, *"Battling Alzheimer's"* (Article and Cover Image)

b. Service to the Profession

Scientific Committees/Advisory Boards

2009-present	Member, Simons Foundation Autism Research Initiative (SFARI) Gene Advisory Board
2014-2019	Committee Member, Autism BrainNet Scientific Review Committee
2014-present	Member, Autism Science Foundation Scientific Advisory Board
2015-present	External Advisory Committee Member, University of Massachusetts Medical School (UMMS) Intellectual and Developmental Disabilities Research Center
2015-present	Committee Member, Simons Foundation Powering Autism Research for Knowledge (SPARK) Medical Genetics Committee
2016-2018	Committee Member, Charles H. Hood Foundation Child Health Research Committee
2018-2019	Committee Member, Simons Foundation Autism Research Initiative (SFARI) Investigator Awards Programs Standing Review Committee

Committees for National and International Scientific Meetings

2011-2013	Program Committee Member, 2013 World Congress of Psychiatric Genetics
2012-2017	Committee Member, Society of Biological Psychiatry Program Planning Committee
2013 & 2014	Abstract Reviewer, International Meeting for Autism Research (IMFAR)
2015	Co-Organizer, 1st International Basic Science and Clinical Conference on Christianson Syndrome (Co-PI on NINDS-funded R13)
2017	Scientific Advisory Committee, 2nd International Basic Science and Clinical Conference on Christianson Syndrome
2018-2020	Committee Member, American College of Neuropsychopharmacology (ACNP) Program Committee, Hot Topics/Data Blitz Subcommittee (2019)

Editorial Boards

2002-2007	Assistant Editor, *Harvard Review of Psychiatry*
2012-present	Editorial Board, Review Editor, *Frontiers in Behavioral and Psychiatric Genetics*
2014	Associate Editor, *BMC Medical Genetics* (declined invitation)
2015	Associate Editor, *Journal of Neurodevelopmental Disorders* (declined invitation)
2016-present	Editorial Board, Journal of the International Society for Autism Research (INSAR), *Autism Research*
2016	Associate Editor, Journal of the International Society for Autism Research (INSAR), *Autism Research* (declined invitation)
2016-present	Editorial Board, *Journal of Neurodevelopmental Disorders*
2016	Associate Editor, *Molecular Autism* (declined invitation)
2016-present	Editorial Board, *Molecular Autism*
2017-present	Editorial Board, *Molecular Neuropsychiatry*
2020-present	Editorial Board of Neurodevelopment, Review Editor, *Frontiers in Neuroscience*

Journal Review (*ad hoc*) (from 2005)

ACS Chemical Neuroscience
Aging Cell
American Journal of Medical Genetics, Part A
American Journal of Medical Genetics, Part B: Neuropsychiatric Genetics
American Journal of Psychiatry
Annals of Neurology
Archives in General Psychiatry/JAMA Psychiatry
Autism Research
BioEssays
Biological Psychiatry
BMC Medical Genetics
Brain and Cognition
Brain Imaging and Behavior
Cell
Cell Reports
Cell Stem Cell
Cerebral Cortex
Clinical Genetics
Current Opinion in Neurobiology
Developmental Biology
Developmental Neurobiology
eLife
European Journal of Human Genetics
Frontiers in Psychiatry
Human Genetics
Human Genome Variation
Human Molecular Genetics
Journal of the American Medical Association (JAMA)
JAMA Neurology
JAMA Psychiatry
Journal of Autism and Developmental Disorders
Journal of Comparative Neurology
Journal of Experimental Medicine

Journal of Neurodevelopmental Disorders
Journal of Neuroscience
Journal of Pediatric Genetics
Journal of Visualized Experiments
Molecular and Cellular Proteomics
Molecular Autism
Molecular Neurodegeneration
Molecular Psychiatry
Nature Medicine
Neurobiology of Disease
Neuron
Neuropsychopharmacology
New England Journal of Medicine
Pediatrics
PLoS One
PLoS Genetics
Proceedings of the National Academy of Sciences (PNAS)
Progress in Neurobiology
Science Reports
Science Translational Medicine
Translational Psychiatry

Scientific Review Boards

Grant Foundation Peer Review

2009	Autism Speaks UK, *ad hoc* reviewer (mail)
2010, 2013, & 2015-2016	Simons Foundation Autism Research Initiative (SFARI) (Scientific Review Board member)
2011	Medical Charities Research Group, *ad hoc* reviewer (mail)
2011	Israel Science Foundation, *ad hoc* reviewer (mail)
2011	National Children's Research Centre, *ad hoc* reviewer (mail)
2012	University of Saudi Arabia, *ad hoc* reviewer (mail)
2013	German Federal Ministry of Education & Research (BMBF), *ad hoc* reviewer (mail)
2013	The Channel 7 Children's Research Foundation, *ad hoc* reviewer (mail)
2014-2015	Autism Speaks, Meixner Postdoctoral Fellowship in Translational Research Program (panel member)
2014-present	Autism Science Foundation (Scientific Review Board member)
2015	Wellcome Trust, Postdoctoral Training Fellowship for Clinician Scientists, *ad hoc* reviewer, August 28, 2015 (mail)
2015	Brain Canada Foundation and the Azrieli Neurodevelopmental Research Program (ANRP), *ad hoc* reviewer, September 15, 2015 (mail)
2015	Charles H. Hood Foundation, Major Grants Initiative to Advance Child Health, *ad hoc* reviewer, November 9, 2015 (mail)
2015	Autism Science Foundation, Research Accelerator Grant Program, *ad hoc* reviewer, November 16, 2015 (mail)
2016	Autism Science Foundation, Pre- and Postdoctoral Training Awards Program, February 12, 2016 (Scientific Review Board member)
2016	United States-Israel Binational Science Foundation (BSF), *ad hoc* reviewer, February 15, 2016 (mail)
2016	Israeli Ministry of Science, Technology and Space, French-Israeli Cooperation Program, invited reviewer, March 5, 2016 (declined)

2016	Canada Foundation for Innovation, *ad hoc* reviewer, September 5, 2016 (mail)
2016-2018	Charles H. Hood Foundation, Child Health Research Awards Program, November 1, 2016, May 3, 2017, November 13, 2017, and May 29, 2018 (Scientific Review Committee member)
2017	Canada Foundation for Innovation, *ad hoc* reviewer, September 20, 2017 (committee member)
2017	Autism Science Foundation, Research Accelerator Grant Program, *ad hoc* reviewer, November 1, 2017 (mail)
2018	Autism Science Foundation, Pre- and Postdoctoral Training Awards Program, March 5, 2018 (Scientific Review Board member)
2018	Autism Science Foundation, Research Accelerator Grant Program, *ad hoc* reviewer, May 15, 2018 (mail)
2018	Kansas City Area Life Sciences Institute, Patton Trust Research Grants Program, *ad hoc* reviewer, June 18, 2018 (mail)
2018	Swiss National Science Foundation, *ad hoc* reviewer, June 28, 2018 (mail)
2018	University of Rochester Medical Center, Schmitt Program on Integrative Neuroscience (SPIN) and Ernest J. Del Monte Institute for Neuroscience Interdisciplinary Research Awards Program, *ad hoc* reviewer, July 6, 2018 (mail)
2018-2019	Eagles Autism Challenge, *ad hoc* reviewer, January 17, 2019 (panel member)
2018-2019	Simons Foundation Autism Research Initiative (SFARI), Pilot Awards and Research Awards Programs, December 13-14, 2018, March 28, 2019, and July 18-19, 2019 (Scientific Review Panel member)
2019	Undiagnosed Disease Network (UDN) Coordinating Center, Gene Function Studies, *ad hoc* reviewer, April 22, 2019 (panel member)
2019	Autism Science Foundation, Research Accelerator Grant Program, *ad hoc* reviewer, July 29, 2019 (mail)
2019	Charles H. Hood Foundation, Major Grants Initiative to Advance Child Health, *ad hoc* reviewer, November 4, 2019 (mail)
2019	Eagles Autism Challenge, *ad hoc* reviewer, December 4, 2019 (panel member)
2020	Autism Science Foundation, Pre- and Postdoctoral Training Awards Program, March 2, 2020 (Scientific Review Board member)
2020	Wellcome Trust India Alliance, Clinical/Public Health Research Centres Program, invited reviewer, November 5, 2020 (declined)

National Institutes of Health Peer Review

2010	Center for Scientific Review, Developing and Advance Centers for Intervention and Service Research Special Emphasis Panel, *ad hoc* reviewer (panel member)
2012	Center for Scientific Review, Early Career Reviewer
2014	Center for Scientific Review, Developmental Brain Disorders Study Section, *ad hoc* reviewer, October 23-24, 2014 (panel member)
2015	Center for Scientific Review, Genetics of Health and Disease Study Section, *ad hoc* reviewer, February 19-20, 2015 (panel member)
2015	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, July 24, 2015 (panel member)

2015	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, November 5, 2015 (panel member)
2016	Center for Scientific Review, Cellular Aspects of Neuropsychiatric and Developmental Disorders Special Emphasis Panel, *ad hoc* reviewer, March 28, 2016
2016	Center for Scientific Review, Genetics of Health and Disease Study Section, *ad hoc* reviewer, June 16-17, 2016 (panel member)
2017	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, March 3, 2017 (panel member)
2017	Center for Scientific Review, Developmental Brain Disorders Study Section, *ad hoc* reviewer, June 1-2, 2017 (panel member)
2018	Center for Scientific Review, Developmental Brain Disorders Study Section, *ad hoc* reviewer, January 29, 2018 (mail)
2018	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, March 1-2, 2018 (panel member)
2018	Center for Scientific Review, Developmental Brain Disorders Study Section, *ad hoc* reviewer, October 18-19, 2018 (panel member)
2019	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, October 10-11, 2019 (panel member)
2020	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, February 13-14, 2020 (panel member)
2020	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, June 11-12, 2020 (panel member)
2020	Scientific Review Branch, NICHD Intellectual and Developmental Disabilities Research Centers 2021 Special Emphasis Panel, *ad hoc* reviewer, November 19-20, 2020 (panel member)
2021	Center for Scientific Review, Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, *ad hoc* reviewer, February 25-26, 2021 (panel member)

Participation in National Genetics Consortia

2004-2009	Co-Director, Homozygosity Mapping Collaborative for Autism (HMCA)
2006-2009	Genomics Subcommittee, MIND (Mental Illness and Neuroscience Discovery) Institute Clinical Imaging Consortium Study
2007-2012	Participant, Gene Discovery Group, Autism Consortium
2008-2012	Member (funded), Simons Simplex Genetic Analysis Working Group
2013-present	Co-Chair, Genomics Research Committee, Autism and Developmental Disorders Inpatient Research Collaborative (ADDIRC)
2014-2016	Member, Autism Sequencing Consortium
2014-2016	Member, Recessive Loci Working Group, Autism Sequencing Consortium

Other Scientific Activities

March 2010	Participant, Simons Foundation Autism Research Initiative (SFARI), Autism Phenotyping Workshops

July 2011	Participant, International Obsessive-Compulsive Disorder Foundation (IOCDF), Co-Morbid OCD and Autism Spectrum Disorders Special Interest Group
March 2011	Participant, National Institute of Child Health and Human Development, Visions Workshop on Cognition
August 2011	Instructor, Marine Biology Laboratory Course, Preparing Faculty to Teach the Neurobiology of Brain Dysfunction
March 2013	Participant, National Database for Autism Research (NDAR), Workshop on Data Usage and Sharing Procedures
2013-present	Co-Investigator, Autism and Developmental Disorders Inpatient Research Collaborative (ADDIRC)
October 2013	Panel Chair, 21st World Congress of Psychiatric Genetics, "Autism and Neurodevelopmental Disorders" Session
May 2014	Participant, *Nature Medicine*/Volkswagen Foundation, Herrenhausen Symposium on Autism and Neurodevelopmental Disorders
2014-present	Collaborator and Contributing Data Source, NIH BD2K Project: Patient-centered Information Commons
April 2015	Participant and Speaker, Cold Spring Harbor Laboratory Meeting on Creating Patient-specific Neural Cells for the In Vitro Study of Brain Disorders
May 2015	Session Chair, Society of Biological Psychiatry 70th Annual Meeting, "Developmental/Pediatric" Oral Session
February 2016	Discussant, National Institute of Mental Health, Workshop on Loss of Skills and Onset Patterns in Neurodevelopmental Disorders: Understanding the Neurobiological Mechanisms, "Moving Forward With Linking Biology to Clinical Observation in Other ASD-related Conditions" Session
February 2016	External Evaluator, Faculty promotion at Harvard Medical School, Solicited Letter of Reference
May 2016	Participant, Canadian Bioinformatics Workshops, Informatics and Statistics for Metabolomics
2016-present	Participant, Harvard Medical School Longwood Mitochondrial Data Club
November 2016	Participant, Hereditary Disease Foundation Milton Wexler Interdisciplinary Workshop, Genetic Modifiers
November 2016	External Evaluator, Faculty promotion at University of Connecticut School of Medicine, Solicited Letter of Reference
November 2016	Participant and Speaker, National Institute of Mental Health, Grantees Workshop on Using Stem Cell-Based Assays for Biological & Drug Discovery, "2D and 3D Disease Assay Phenotypic Discovery" Session
2017 (year-long)	Participant, Brandeis University, C - Change Faculty Mentoring Program
June 2017	Session Chair, 2nd International Basic Science and Clinical Conference on Christianson Syndrome, "Cell Physiological Properties of NHE6: Relevance to CS and Other Disorders" Session
July 2017	External Evaluator, Canada Research Chair in Psychiatric Genetics renewal nominee at McGill University, Solicited review
October 2017	External Evaluator, Faculty promotion at University of Chicago, Solicited Letter of Reference
November 2018	External Evaluator, Nominee as a Fellow of the Royal Society of Canada, Solicited Letter of Reference

Professional Societies

American Society of Human Genetics
International Society for Autism Research
Society of Biological Psychiatry
Society for Neuroscience
American Academy of Child and Adolescent Psychiatry
American Society for Cell Biology
American Association for the Advancement of Science

Sharing of Reagents and Resources

2013-present	Custom anti-NHE6 and anti-NHE9 antibodies freely distributed from Morrow laboratory
2020-present	Christianson syndrome induced pluripotent stem cell (iPSC) lines shared through the NIMH Repository and Genomics Resource
2020-present	SLC9A6 A11S mouse line shared through The Jackson Laboratory

c. Service to the Community

2010-2012	Member, The Autism Project of Rhode Island Advisory Board
2012	Lecture, Annual Conference, RI Developmentally Disabled Nurses Association (RI DDNA)
2013	Contributed to the founding of the Christianson Syndrome Association
2013	Host and Co-Organizer, Inaugural Christianson Syndrome Association Family Conference, June 27-29, 2013, Warren Alpert Medical School of Brown University, Providence, RI
2013-present	Regular contributor of written material for the *Christianson Syndrome Association Newsletter*
2014	Participant, Meet the Doctors, The Autism Project and RI-CART, Providence, RI
2015	Participant, Meet the Doctors, The Autism Project and RI-CART, Providence, RI
2017	Speaker, Mental Tapas, Cure Alliance for Mental Illness, Providence, RI
2017	Participant, Meet the Doctors, The Autism Project and RI-CART, Providence, RI
2018	Career and Research Presentation, Biomedical Club, Wheeler School, Providence, RI
2018	Co-Organizer, Precision Medicine & the Brain Panel Discussion, David H. Ledbetter, Christa L. Martin, and David Housman, March 14, 2018, Brain Week Rhode Island, Providence, RI
2019	Presenter, 1st European Christianson Syndrome Conference, *"An Update on the Christianson Syndrome International Network Study,"* June 14-16, 2019, Parc Spelderholt, Beekbergen, The Netherlands
2019-present	Moderator, *GPT2* page on the Human Disease Genes website
2020-present	Expert Reviewer, *Christianson syndrome* page on the Orphanet website (ORPHA: 85278)

8. TEACHING

Harvard Medical School (from 2005 to 2009)

2006-2007
Course Tutor, Core Human Genetics, Common Pathway First Year Curriculum, Harvard Medical School

2006-2008
Translational Genetics Curriculum Course Director, PGY-2 Psychiatric Neuroscience Curriculum, MGH-McLean Hospital Residency Training Program

Undergraduate Research Supervision
Stacey Tzakas, 2005-2006 (Private practice dentist)
Anna Kane, 2005-2006 (PhD Brown University/NIH, Postdoctoral fellow at Harvard)
Michael Quintin, 2008 (Applications Engineer, Broad Institute)

Medical Student Research Supervision
Dunia Abdul-Aziz, 2005-2009 (Otology/laryngology surgery fellow, Harvard Medical School)
Steve Huffaker, 2006-2007 (Orthopedic surgery fellow, Harvard Medical School)

Brown University (from 2009)

a. Courses Taught

Fall 2009
- *Biol2010*, Quantitative Approaches in Biology, Guest Lecture, "Quantitative Human Genetics," Course Leader: Michael McKeown
- *Neur2930*, Advanced Topics in Neuroscience, Guest Lecture, "Psychiatric Neuroscience," Course Leader: Justin Fallon
- *Developmental/Behavioral Pediatrics Fellowship Training,* Department of Pediatrics, Guest Seminar Leader, "Genetics of Autism"

Spring 2010
- *Neur2930E*, Bench to Bedside: Unraveling Diseases of the Nervous System, Guest Lecture, "Neurobiology of Autism," Course Leader: Diane Lipscombe

Fall 2010
- *Biol2320A*, Cell Fate and Lineage Decisions in Neural Development and Neurological Diseases, Graduate Seminar co-taught with Mark Zervas
  5 students enrolled, 5 respondents, Effectiveness as instructor - mean score=2

  Scores: 1=Very effective, 2=Effective, 3=Somewhat effective, 4=Ineffective, 5=Very ineffective.
- *Biol2010*, Quantitative Approaches in Biology, Guest Lecture, "Quantitative Human Genetics," Course Leader: John Sedivy
- *APMA1970*, Applied Mathematics Undergraduate Independent Study (Jason Kaye)

Spring 2011
- *Biol1540/2540*, Molecular Genetics, 4 Guest Lectures, "Lecture 1: Introduction to Human Genetics," "Lecture 2: Human Genetic Linkage," "Lecture 3: X-linked Intellectual Disability and Sequencing," "Lecture 4: Copy Number Variation and Case-Control Design," Course Co-Instructors: Mark Johnson and Judith Bender
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, "Exploring Molecular Mechanisms in Neuropsychiatric Disease," Course Leader: Gilad Barnea

- *Neur1970*, Neuroscience Undergraduate Independent Study (Mark Sabbagh and Sophie Lin)
- *Child Psychiatry Fellowship Training Curriculum,* Department of Psychiatry and Human Behavior, Guest Seminar Leader, "Reading the Psychiatric Genetics Literature"
- Examiner for Neuroscience Graduate Training Program First Year Graduate Comprehensive Exams (written and oral)

Fall 2011

- *Biol2320A*, Neurogenetics and Disease, Graduate Seminar co-taught with Robert Reenan
  18 students enrolled, 17 respondents, Effectiveness as instructor - mean score=1.18
- *Biol2010*, Quantitative Approaches in Biology, 2 Guest Lectures, "Lecture 1: Genetic Variation in Human," "Lecture 2: Copy Number Variation in Autism," Course Leader: John Sedivy
- *Biol3641*, Integrated Medical Sciences I: Comprehensive, Human Genetics Block, Guest Lecture, "Genetic Variation in Human"
- *Biol3642*, IMS 1: Scientific Foundations of Medicine, Guest Lecture, "Genomics and Personalized Medicine"
- *Biol2980*, MCB Graduate Student Independent Study (Kathryn Coser)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Bonaccorsi)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Mark Sabbagh and Unikora Yang)

Spring 2012

- *Biol1540/2540,* Molecular Genetics, Undergraduate and Graduate Lecture Class co-taught with Judith Bender
  Biol1540 (Undergraduate section) - 13 students enrolled, 12 respondents, Effectiveness as instructor - mean score=1.58
  Biol2540 (Graduate section) - 1 student enrolled, 1 respondent, Effectiveness as instructor - mean score=1
- *Biol1310*, Developmental Biology, Guest Lecture, "Induced Pluripotent Stem Cells," Course Leader: Mark Zervas
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, "Exploring Molecular Mechanisms in Neuropsychiatric Disease," Course Leader: Gilad Barnea
- *Biol2980*, MCB Graduate Student Independent Study (Kathryn Coser)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Bonaccorsi)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Mark Sabbagh, Unikora Yang, and David Stein)

Fall 2012

- *Biol2320A*, Neurogenetics and Disease, Graduate Seminar co-taught with Robert Reenan
  13 students enrolled, 12 respondents, Effectiveness as instructor - mean score=1.08
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Frederick)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Bonaccorsi)
- *Neur1970*, Neuroscience Undergraduate Independent Study (David Stein)
- *Biol3642*, IMS 1: Scientific Foundations of Medicine, Guest Lecture, "Genomics and Personalized Medicine"

Spring 2013

- *Biol1540/2540*, Molecular Genetics, Undergraduate and Graduate Lecture Class co-taught with Judith Bender and Erica Larschan
  Biol1540 (Undergraduate section) - 11 students enrolled, 10 respondents, Effectiveness as instructor - mean score=1.40
  Biol2540 (Graduate section) - 7 students enrolled, 5 respondents, Effectiveness as instructor - mean score=1.60
- *Biol1310*, Developmental Biology, Guest Lecture, "Induced Pluripotent Stem Cells," Course Leader: Mark Zervas
- *Biol2167*, In Vitro Models for Disease, Guest Lecture, "Induced Pluripotent Stem Cells," Course Leader: Jeffrey Morgan
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, "A Primer in Human Genetics," Course Leader: Anne Hart
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Frederick)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Bonaccorsi)
- *Biol1960*, Undergraduate Biology Independent Study (Isaac Berkowitz)
- *Neur1970*, Neuroscience Undergraduate Independent Study (David Stein)

Fall 2013

- *Biol2340* (formerly *Biol2320A*), Neurogenetics and Disease, Graduate Seminar co-taught with Robert Reenan
  15 students enrolled, 12 respondents, Effectiveness as instructor - mean score=1.42
- *Neur2930*, Advanced Topics in Neuroscience, Guest Lecture, "Psychiatric Neuroscience," Course Leader: Justin Fallon
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Frederick)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Sciarra)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)

Spring 2014

- *Biol1540/2540*, Molecular Genetics, Undergraduate and Graduate Lecture Class co-taught with Erica Larschan
  Biol1540 (Undergraduate section) - 19 students enrolled, 15 respondents, Effectiveness as instructor - mean score=2.33
  Biol2540 (Graduate section) - 8 students enrolled, 6 respondents, Effectiveness as instructor - mean score=1.50
- *Biol1960*, Undergraduate Biology Independent Study, Reading on the Biological Basis of Schizophrenia (Vivianne Andersen)
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Frederick)
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, "Exploring Molecular Mechanisms in Neuropsychiatric Disease," Course Leader: Gilad Barnea
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Sciarra)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)

Fall 2014

- *Biol2340*, Neurogenetics and Disease, Graduate Seminar co-taught with Robert Reenan
  18 students enrolled, 15 respondents, Effectiveness as instructor - mean score=1.27
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Frederick)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Sciarra)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)

Spring 2015

- *Biol1540/2540*, Molecular Genetics, Undergraduate and Graduate Lecture Class co-taught with Erica Larschan
  Biol1540 (Undergraduate section) - 8 students enrolled, 6 respondents, Effectiveness as instructor - mean score=1.33
  Biol2540 (Graduate section) - 9 students enrolled, 8 respondents, Effectiveness as instructor - mean score=1.63
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, "Exploring Molecular Mechanisms in Neuropsychiatric Disease," Course Leader: Gilad Barnea
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Maguire)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Sciarra)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)

Fall 2015

- *Biol2340*, Neurogenetics and Disease, Graduate Seminar co-taught with Robert Reenan
  17 students enrolled, 5 respondents, Effectiveness as instructor - mean score=1.6
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Maguire)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Sciarra)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Biol1950*, Undergraduate Biology Independent Study (Jacob Thomas)

Spring 2016

- *Biol1540/2540*, Molecular Genetics, Undergraduate and Graduate Lecture Class co-taught with Erica Larschan
  Biol1540 (Undergraduate section) - 18 students enrolled, 13 respondents, Effectiveness as instructor - mean score=1.08
  Biol2540 (Graduate section) - 9 students enrolled, 6 respondents, Effectiveness as instructor - mean score=1.33
- *Biol2980*, MCB Graduate Student Independent Study (Abbie Maguire)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Laura Sciarra)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Biol1960*, Undergraduate Biology Independent Study (Jacob Thomas)

Fall 2016
On Sabbatical

- *Biol2980*, MCB Graduate Student Independent Study (Abbie Maguire)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Sarah Hays, Dipal Nagda, and Gordon (Chandler) Werthmann)

Spring 2017
On Sabbatical

- *Biol2980*, MCB Graduate Student Independent Study (Abbie Maguire)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)

- *Neur1970*, Neuroscience Undergraduate Independent Study (Sarah Hays, Dipal Nagda, and Gordon (Chandler) Werthmann)

Fall 2017

- *Biol0100*, Living Biology at Brown & Beyond, Faculty Speaker, Career and Research Presentation, Course Leader: Katherine Smith
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Biol1950*, Undergraduate Biology Independent Study (Sophia Kerman and Sangho Myung)

Spring 2018

- *Biol1545/2545*, Human Genetics and Genomics, Undergraduate and Graduate Lecture Class (Newly-designed class)
  Biol1545 (Undergraduate section) - 15 students enrolled, 10 respondents, Effectiveness as instructor - mean score=1.5
  Biol2545 (Graduate section) - 4 students enrolled, 3 respondents, Effectiveness as instructor - mean score=1.33
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)

Fall 2018

- *Biol0100*, Living Biology at Brown & Beyond, Faculty Speaker, Career and Research Presentation, Course Leader: Katherine Smith
- *Biol2340*, Neurogenetics and Disease, Graduate Seminar co-taught with Robert Reenan 16 students enrolled, 13 respondents, Effectiveness as instructor - mean score=1.38
- *Biol2980*, MCB Graduate Student Independent Study (Qing Wu)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Biol1950*, Undergraduate Biology Independent Study (Shoshana Rosenzweig and Lena Joesch-Cohen)

Spring 2019

- *Biol1545/2545*, Human Genetics and Genomics, Undergraduate and Graduate Lecture Class
  Biol1545 (Undergraduate section) - 19 students enrolled, 11 respondents, Effectiveness as instructor - mean score=1.73
  Biol2545 (Graduate section) - 1 student enrolled, 0 respondents
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, “Exploring Molecular Mechanisms in Neuropsychiatric Disease,” Course Leader: Gilad Barnea
- *Biol2980*, MCB Graduate Student Independent Study (Qing Wu)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Biol1960*, Undergraduate Biology Independent Study (Shoshana Rosenzweig and Lena Joesch-Cohen)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Tara Srinivas)

Fall 2019

- *Biol2980*, MCB Graduate Student Independent Study (Qing Wu)

- *Neur2980*, Neuroscience Graduate Student Independent Study (Matthew Pescosolido)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Tara Srinivas, Jimin Shin)
- Organizer, Bench to Bedside Seminar Series, Neuroscience Graduate Program

Spring 2020

- *Biol1545/2545*, Human Genetics and Genomics, Undergraduate and Graduate Lecture Class; *Biol1545* - 20 undergraduates enrolled, *Biol2545* - 3 graduate students enrolled
  Biol1545/*Biol2545* (Combined evaluations) - 18/23 (78%) respondents
  Effectiveness as instructor - mean score=4.83/5
  Effectiveness of course overall - mean score=4.89/5

  Scores: 5=Very effective, 4=Effective, 3=Somewhat effective, 2=Ineffective, 1=Very ineffective.
- *Neur2040*, Advanced Molecular and Cellular Neurobiology II, Guest Lecture, "Exploring Molecular Mechanisms in Neuropsychiatric Disease," Course Leader: Gilad Barnea
- *Biol2980*, MCB Graduate Student Independent Study (Qing Wu)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Biol1960*, Undergraduate Biology Independent Study (TBD)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Tara Srinivas, Juan (Jack) Briano, Jimin Shin, Morgan Miller)
- Organizer, Bench to Bedside Seminar Series, Neuroscience Graduate Program

Fall 2020

- *Biol2980*, MCB Graduate Student Independent Study (Qing Wu)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Morgan Miller)
- Organizer, Bench to Bedside Seminar Series, Neuroscience Graduate Program

Spring 2021
On Sabbatical

- *Biol2980*, MCB Graduate Student Independent Study (Qing Wu)
- *Neur2980*, Neuroscience Graduate Student Independent Study (Ozan Baytas)
- *Neur1970*, Neuroscience Undergraduate Independent Study (Morgan Miller)
- Organizer, Bench to Bedside Seminar Series, Neuroscience Graduate Program

b. High School Research Supervision

1. Mara Quinn, 2010 (Brown University Undergraduate, class of 2017)
2. Elizabeth Clifton, Summer 2013 (Brown University Undergraduate, class of 2018)
3. Ben Sheinkopf, Barrington High School Senior Project, 2013-2014 (Brandeis University Undergraduate, class of 2018)
4. Ben McCormick, Summer 2014, 2015, and 2016
5. Faith Ye, Summer 2018
6. Jordon Herzstein, Summer 2019
7. Isabelle Shub, Summer 2020
8. Jason Chan-Zervas, Summer 2020
9. Zachary Weinstein, Summer 2020
10. Livia Adler, Summer 2020

11. Maddie Watson, Summer 2020
12. Sophia Hall, Summer 2020
13. Erin Herzstein, Summer 2020

c. Undergraduate Research Supervision

1. Mark Sabbagh, 2009-2012 (UTRA Fellowship, Karen T. Romer UTRA Fellowship), Brown University Neuroscience concentrator
2. Helen Johnson, 2010 (PLME SRA Fellowship), Brown University Biology concentrator
3. Angela Santin, 2010 (UTRA Fellowship), Brown University Applied Math concentrator
4. Jason Kaye, 2010-2011, Brown University Applied Math concentrator
5. Sophia Lin, 2010-2011, Brown University Biology concentrator
6. Sudhandra Sundaram, 2011 (BIBS Matthew Siravo Undergraduate Award in Epilepsy UTRA Fellowship), Brown University Neuroscience concentrator
7. Unikora Yang, 2011-2012 (PLME SRA Fellowship), Brown University Neuroscience concentrator
8. David Stein, 2012-2013 (Karen T. Romer UTRA Fellowship), Brown University Neuroscience concentrator
9. Isaac Berkowitz, 2012-2013 (BIBS Matthew Siravo Undergraduate Award in Epilepsy UTRA Fellowship), Brown University Computational Biology concentrator
10. Samuel Reenan, Summer 2012, University of Connecticut
11. Luis (Rod) Hasburn, Summer 2013, Brown University Computational Biology concentrator
12. Emilie Wigdor, Summer 2013, Harvard University Psychology major
13. Vivianne Andersen, Spring 2014, Brown University Biology concentrator
14. Shir Kantor, Summer 2014, University of Maryland Neurobiology major
15. Derrick Cheng, Fall 2014-Spring 2015, Brown University Neuroscience concentrator
16. Dipal Nagda, Fall 2014-Fall 2015, Summer 2016-Spring 2017, Brown University Neuroscience concentrator
17. Sarah Hays, Spring 2015-Spring 2017, Brown University Neuroscience concentrator
18. Gordon (Chandler) Werthmann, Spring 2015-Spring 2017 (Karen T. Romer UTRA Fellowship), Brown University Neuroscience concentrator
19. Jacob Thomas, Summer 2015-Spring 2016, Brown University Computational Biology concentrator
20. Sophia Kerman, Summer 2016, Summer 2017-Spring 2018 (Karen T. Romer UTRA Fellowship), Brown University Applied Math concentrator
21. Emma Freiman, Summer 2016, Cornell University
22. Mitchell McAllister, Summer 2017-Fall 2017, University of North Carolina Biology major (Volunteer Research Assistant)
23. Sangho Myung, Fall 2017, Brown University Biology concentrator
24. Tara Srinivas, Fall 2017-Spring 2020 (Karen T. Romer UTRA Fellowship, Hassenfeld Summer Scholars Internship, Royce Fellowship), Brown University Neuroscience concentrator
25. Bethany Dubois, Spring 2018, Brown University Computational Biology concentrator
26. Lena Joesch-Cohen, Summer 2018-Spring 2019 (Hassenfeld Summer Scholars Internship), Brown University Computational Biology concentrator
27. Shoshana Rosenzweig, Fall 2018-Spring 2019, Brown University Computational Biology concentrator
28. Juan (Jack) Briano, Spring 2019-present (Karen T. Romer UTRA Fellowship, Hassenfeld Summer Scholars Internship), Brown University Neuroscience concentrator
29. Nicolas Mandel, Spring 2019, Brown University Neuroscience concentrator

30. Samer Wahood, Summer 2019 (PLME SRA Fellowship), Brown University Computational Biology concentrator
31. Samuel Bennett, Summer 2019, Brown University Neuroscience concentrator
32. Jimin Shin, Summer 2019-Spring 2020, Brown University Neuroscience concentrator
33. Morgan Miller, Fall 2019-present (Karen T. Romer UTRA Fellowship), Brown University Neuroscience concentrator
34. Kevin Ma, Fall 2019-present, Brown University
35. Jolie Ren, Fall 2019-present (Hassenfeld Summer Scholars Internship), Brown University Biochemistry and Molecular Biology concentrator
36. Christine Schremp, Fall 2019-present (Hassenfeld Summer Scholars Internship), Brown University Neuroscience concentrator
37. Stephanie Vartany, Fall 2019-present, Brown University Neuroscience concentrator
38. Isabel Mirfakhraie, Fall 2019-present, Brown University Biology concentrator
39. Brittany Husnander, Fall 2019-Spring 2020, Rhode Island College Biology major
40. Tori Cook, Spring 2020-present, Brown University Biology concentrator
41. James El-Deiry, Summer 2020, Penn State University
42. Marlene Goetz, Summer 2020 (SPRINT Award), Brown University Biology concentrator

d. Supervisor for Completed Undergraduate Theses

1. Mark Sabbagh, 2012, Neuroscience. Mark was winner of the John Donoghue award for top undergraduate thesis. Mark matriculated with full funding in the MD-PhD Program at Johns Hopkins Medical School in August 2012.
2. Unikora Yang, 2012, Neuroscience. Unikora matriculated at Warren Alpert Medical School of Brown University in August 2012.
3. David Stein, 2013, Neuroscience. David was the 2013 recipient of the Whalen Award for Excellence in Neuroscience and Behavioral Biology. He also won First Prize in the Undergraduate Oral Presentation Competition at the 2013 Biology New England South (BioNES) 7th Annual Meeting. David matriculated in August 2014 in the MD Program at University of Massachusetts-Worcester.
4. Jingyi Gong, 2013, Neuroscience. Jingyi completed her thesis in Julie Kauer's laboratory on a collaborative project with my laboratory. She subsequently completed a gap year in my laboratory. She matriculated in August 2014 in the MD Program at Harvard Medical School in the Harvard-MIT Division of Health Sciences and Technology (HST).
5. Jacob Thomas, 2016, Computational Biology. Jacob matriculated in August 2016 in the MD Program at University of Pittsburgh.
6. Sarah Hays, 2017, Neuroscience. Sarah matriculated at Warren Alpert Medical School of Brown University in August 2017.
7. Dipal Nagda, 2017, Neuroscience. Dipal was awarded a Fulbright Scholarship to conduct research under Prof. Dr. Dieter Chichung Lie at the Friedrich-Alexander University Erlangen-Nuremberg in Erlangen, Germany, from 2017-2018. She matriculated in August 2019 in the MD Program at Harvard Medical School.
8. Gordon (Chandler) Werthmann, 2017, Neuroscience. Chandler matriculated in August 2017 in the MD-PhD Program at University of Texas Southwestern.
9. Bethany Dubois, 2018, Computational Biology. Bethany completed a senior thesis/capstone project in my laboratory for the Icahn School of Medicine at Mount Sinai FlexMed Program.
10. Lena Joesch-Cohen, 2019, Computational Biology. Lena was a 2019 recipient of a Senior Prize in Biology. Lena took a position in computational genetics at the Broad Institute.
11. Shoshana Rosenzweig, 2019, Computational Biology. Shoshana was a 2019 recipient of a CCMB Computational Biology Prize in recognition of the excellence of her undergraduate

thesis. Shoshana completed a senior thesis/capstone project in my laboratory for the Icahn School of Medicine at Mount Sinai FlexMed Program.
12. Tara Srinivas, 2020, Neuroscience. Tara was awarded a Fulbright Scholarship to conduct research under Dr. Manel Esteller and Dr. Sonia Guil at the Bellvitge Biomedical Research Institute in Barcelona, Spain, from 2020-2021 (declined due to COVID-19 pandemic-related program modifications). Tara matriculated in October 2020 in the Master of Philosophy Program in Biological Science (Physiology, Development and Neuroscience) at the University of Cambridge.
13. Jimin Shin, 2020, Neuroscience.
14. Amy Wang, 2020, Computational Biology. Amy was a 2020 recipient of a Senior Prize in Biology.

e. Graduate Research Supervision

Rotation Students
1. Kristen Perkins, 2010
2. Melissa Hoh, 2010
3. Kristin Webster, 2010
4. Hanna Sherrill, 2010
5. Goeffrey Vargish, 2010-2011
6. Rebecca McLean, 2010-2011 (Predoctoral Clinical Psychology Intern, DPHB)
7. Kathryn Coser, 2011-2012
8. Kirk Haltaufderhyde, 2012
9. Rosa Martinez, 2012
10. Daniel DuBreil, 2013
11. Alger Fredericks, 2014
12. Ozan Baytas, 2015
13. Sun Kim, 2015
14. William Jordan, 2015
15. Kathryn Russo, 2017
16. Anthony Crown, 2018
17. Qing Wu, 2018-2019
18. Erin Fingleton, 2019-2020
19. Alissa Oakes, 2020
20. Dallece Curley, 2020

MSc Students
1. Qing Wu, Summer 2017-Summer 2018, Northeastern University Cooperative Education Program, Bioinformatics Intern. Qing matriculated in the Computational Biology Graduate Program at Brown University in September 2018.
2. Maroua Zaoui, January 2020-July 2020, Sorbonne University/University of Strasbourg, Master of Integrative Biology and Physiology Program, Research Student Intern.

PhD Thesis Students
1. Emma Viscidi, 2010-2013 (PhD Thesis student, Statistical Science/Community Health Graduate Student; Co-mentor: Elizabeth Triche). Emma was awarded a BIBS Graduate Student Fellowship. Thesis Title: Autism Spectrum Disorder: Comorbidity and Etiology, successfully defended PhD on July 15, 2013.
2. Laura (Bonaccorsi) Sciarra, 2011-2016 (PhD Thesis student, Neuroscience). Laura was awarded a 2-year Weatherstone Predoctoral Fellowship from Autism Speaks in 2014. Laura

was also awarded a Bey Predoctoral Fellowship from the Autism Science Foundation in 2014. She declined this fellowship in lieu of the Weatherstone Predoctoral Fellowship. Thesis Title: A Distinct Role for Endosomal Na^+-H^+ Exchanger 9 (NHE9) from NHE6 in Neuronal Development, successfully defended PhD on August 5, 2016.

3. Abbie (Frederick) Maguire, 2012-2017 (PhD Thesis student, MCB). Abbie was awarded a BIBS Graduate Research Award for the Fall Semester of 2014. She was also awarded a poster prize at the 2014 MCB Graduate Program Retreat. In 2016, Abbie was awarded the Robin Chemers Neustein Graduate Fellowship in Brain Science, which covered full student costs for 2016 as well as provided for additional resources. Abbie was also awarded the 2nd Prize Research Poster out of 50 posters at the national meeting New York Stem Cell Foundation Annual Conference *Translational Stem Cell Research*, which was held at The Rockefeller University, New York, NY on October 26-27, 2016. Thesis Title: Investigating Christianson Syndrome Neuronal Development in Induced Pluripotent Stem Cells, successfully defended PhD on April 28, 2017.
4. Matthew Pescosolido, 2013-2019 (PhD Thesis student, Neuroscience). Matthew was awarded a 2-year National Research Service Award (F31) from the National Institute of Neurological Disorders and Stroke in 2016. In 2017, Matthew was selected as the John G. Peterson Predoctoral Fellow, a designation made by the Associate Dean for Graduate and Postdoctoral Studies that reflects excellence in graduate training. In 2018, Matthew was awarded a Carney Institute for Brain Science Graduate Award in Brain Science covering stipend and tuition costs for the Fall Semester of 2018. Thesis Title: Neurological and Cellular Effects of *Na^+/H^+ Exchanger 6* (*NHE6*) Mutations, successfully defended PhD on November 15, 2019.
5. Ozan Baytas, 2015-present (PhD Thesis student, Neuroscience). Ozan was awarded a BIBS Graduate Award in Brain Science for the 2017-2018 Academic Year, which covered full student costs as well as provided for additional limited funds to support meeting travel, workshop registration, or research costs. He received an extension of this Award for the 2018-2019 Academic Year.
6. Qing Wu, 2018-present (PhD Thesis student, Computational Biology).

f. Medical Student Research Supervision

1. Justyna Piasecka-Bernabe, 2009-2011 (T32 Predoctoral Mentee)
2. Angela Batchelor, 2010 (PLME SRA Fellowship)
3. Alma Guerrero, 2010-2011 (PLME SRA Fellowship)
4. Deepika Sagaram, 2011 (Summer Assistantship Award)
5. Matthew Schwede, 2011-2015 (Dean's Prize Recipient 2015)
6. Unikora Yang, 2012-2014
7. Vivian Hsiao, 2014-2015 (Summer Assistantship Award)
8. Tess Gabert, 2019-present (Summer Assistantship Award)
9. James Mullin, 2019-present

g. Postdoctoral Research Supervision

1. Qing Ouyang PhD, 2009-present, Postdoctoral Research Associate 2009-2010, Investigator 2010-February 2017, Assistant Professor of Molecular Biology, Cell Biology and Biochemistry (Research) March 2017-present.
2. Natasha Shur MD, 2009-2013, Assistant Professor of Pediatrics. Mentor on Pediatrics Research Seed Grant ($40,000), Rhode Island/Hasbro Children's Hospital. Next position:

Head of Division of Genetics in the Department of Pediatrics at Children's Hospital, Albany Medical Center.

3. Michael Akins PhD, 2010-2013, K99 Advisory Board. Next position: Assistant Professor, Department of Biology, Drexel University.
4. Dilber (Ece) Gamsiz Uzun PhD, 2010-2016, Child Mental Health T32 Fellowship 2014-2016. Awarded a Center for Visual Research Fellowship, and the Norman Prince Neurosciences Institute Fellowship ($128,000). Next position: Assistant Professor of Pathology and Laboratory Medicine, Department of Pathology and Laboratory Medicine, Warren Alpert Medical School of Brown University.
5. Sofia Lizarraga PhD, 2010-2014. Next position: Tenure-track Assistant Professor, Department of Biological Sciences, University of South Carolina.
6. Yamini Howe MD, 2010-2013, Brown Med Developmental Pediatrics Fellow. Next position: Instructor in Pediatrics, Nancy Lurie Marks Autism Center, Harvard Medical School.
7. Hassan Minhas MD, 2010-2015, Adult Psychiatry Resident 2010-2013, Child Psychiatry Fellow 2013-2015. Next position: Forensic Psychiatry Fellowship, Yale Medical School, and Assistant Professor (Clinical), Yale Medical School.
8. Rebecca McLean PhD, 2012-July 2014, Memorial Hospital Neuropsychology Postdoctoral Fellow. Next position: Assistant Professor of Psychiatry and Human Behavior (Clinical), Department of Psychiatry and Human Behavior, Memorial Hospital, Warren Alpert Medical School of Brown University.
9. Ashley Johnson Harrison PhD, 2012-2014, Psychology Postdoctoral Fellow, Child Mental Health T32 Fellowship. Next position: Assistant Professor of Education, University of Georgia-Athens.
10. Eric Zimak PhD, 2012-2014, Bradley Hospital Neuropsychology Postdoctoral Fellow. Next position: Faculty in Clinical Psychology, University of New Mexico.
11. Beth Jerskey PhD, 2013-2015, Assistant Professor of Psychiatry and Human Behavior (Research), Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University. Next position: In 2015, also Vice President of Professional Training and Research and Director of Clinical Training at the May Institute.
12. Li Ma PhD, 2014-present, Investigator 2014-present.
13. Brian Kavanaugh PsyD, 2015-present, Bradley Hospital Pediatric Neuropsychology Postdoctoral Fellow 2015-August 2016, Instructor in Psychiatry and Human Behavior September 2016-June 2017, Assistant Professor of Psychiatry and Human Behavior (Research) July 2017-present. 2020-2021, Mentor on Advance-CTR Pilot Project Award, Emma Pendleton Bradley Hospital.
14. Meiyu Xu PhD, 2015-2017. Next position: Postdoctoral Research Associate, Department of Microbiology and Physiological Systems, University of Massachusetts Medical School.
15. Brandon (Scott) Pruett MD PhD, 2015-2018, Adult Psychiatry Resident 2014-2018. Next position: Assistant Professor, Department of Psychiatry and Behavioral Neurobiology, University of Alabama at Birmingham.
16. Giulia Righi PhD, 2015-present, Bradley Hospital Developmental Disabilities Postdoctoral Fellow 2015-June 2016, Assistant Professor of Psychiatry and Human Behavior (Research) January 2017-present.
17. Daniel Moreno-De-Luca MD, 2016-2018, Bradley Hospital Child and Adolescent Psychiatry Fellow. Recipient of a 2018 Haffenreffer Family House Staff Excellence Award. Next position: Assistant Professor of Psychiatry and Human Behavior (Research), Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University. 2020-2025, Mentor on K23 Award, Emma Pendleton Bradley Hospital.
18. Danielle (Morriss) Sipsock MD, 2016-2020, Bradley Hospital Child and Adolescent Psychiatry Fellow.

19. Abbie Maguire PhD, 2017-2018. Next position: Staff Scientist, Discovery Biology Program, Wave Life Sciences.
20. Emily Warren PhD, 2018-2020, Child Mental Health T32 Fellowship 2018-2020, Autism Science Foundation Postdoctoral Training Award 2019-2020 ($35,000). Next position: Postdoctoral Research Associate, Medical Genomics and Metabolic Genetics Branch, National Human Genome Research Institute of the National Institutes of Health.
21. YouJin (Eugene) Lee PhD, 2018-present, F32 Fellowship 2019-2022 ($186,582).
22. Matthew Pescosolido PhD, 2020. Next position: Postdoctoral Research Associate, Department of Biology, Brandeis University.

h. PhD Qualifying Exams and Thesis Committees (Brown University)

1.	2010-2013	Leila Rieder, MCB (Mentor: Robert Reenan, MCB)
2.	2010-2014	Derek Aguiar, CCMB (Mentor: Sorin Istrail, CS)
3.	2011-2014	Melissa Hoh, MCB (Mentor: Anne Hart, Neuroscience)
4.	2011-2014	Kristin Webster, NSGP (Mentor: Diane Lipscombe, Neuroscience)
5.	2011-2016	Cyrena Gawuga, MPPB (Mentor: Linda Carpenter, DPHB)
6.	2011-2016	Daniel Berg, MCB (Mentor: David Berson, Neuroscience)
7.	2012-2015	Kirk Haltaufderhyde, MPPB (Mentor: Elena Oancea, MPPB)
8.	2013-2016	Molly Boutin, BME (Mentor: Diane Hoffman-Kim, MPPB)
9.	2013-2016	Benedetta Assetta, Pathology (Mentor: Walter Atwood, MCB)
10.	2013-2019	Rosa Martinez Garcia, MCB (Mentor: Barry Connors, Neuroscience) (Committee Chair)
11.	2014	Akash Srivastava, MCB (Mentor: Marko Horb, MCB/MBL)
12.	2014-2015	Arthur Sugden, MCB (Mentor: Barry Connors, Neuroscience)
13.	2014-2018	Aaron Held, MCB (Mentor: Kristi Wharton, MCB) (Committee Chair)
14.	2015-2018	Alger Fredericks, MCB (Mentor: William Fairbrother, MCB)
15.	2015-2020	Sun (Kim) Maybury-Lewis, MCB (Mentor: Ashley Webb, MCB) (Committee Chair)
16.	2016-2020	Zachary DeLoughery, MPPB (Mentor: Alexander Jaworski, Neuroscience) (Committee Chair)
17.	2017-2019	Arjun Mathur, MCB (Mentor: Robert Reenan, MCB) (Committee Chair)
18.	2017-present	Donald Koroma, MPPB (Mentor: Elena Oancea, MPPB)
19.	2017-present	Trenton Woodham, MCB (Mentors: John Sedivy and Ashley Webb, MCB)
20.	2018-present	Kaitlyn Hajdarovic, NSGP (Mentor: Ashley Webb, MCB) (Committee Chair)
21.	2018-present	Mary Tarantino, MCB (Mentor: Sarah Delaney, Chemistry) (Committee Chair)
22.	2019-present	Brendan McCarthy-Sinclair, MCB (Mentor: Judy Liu, MCB)
23.	2019-present	Luis Goicouria, NSGP (Mentor: Judy Liu, MCB)
24.	2020-present	Victoria St. Amand, MCB (Mentor: Rob Reenan, MCB)
25.	2020-present	Kelvin De Leon, NSGP (Mentor: Judy Liu, MCB) (Committee Chair)
26.	2020-present	Dillon Shapiro, MCB (Mentor: Gregorio Valdez, MCB) (Committee Chair)
27.	2020-present	Carin Papendorp, NSGP (Mentor: Judy Liu, MCB)
28.	2021-present	Ryan O'Rourke, Pathobiology (Mentor: Y. Alvin Huang, MCB)

i. PhD Thesis Examination Committees (Brown University)

1.	2013	Leila Rieder, MCB (Mentor: Robert Reenan, MCB)
2.	2014	Derek Aguiar, CCMB (Mentor: Sorin Istrail, CS)
3.	2014	Melissa Hoh, MCB (Mentor: Anne Hart, Neuroscience)
4.	2014	Kristin Webster, NSGP (Mentor: Diane Lipscombe, Neuroscience)
5.	2014	Akash Srivastava, MCB (Mentor: Marko Horb, MCB/MBL)
6.	2015	Kirk Haltaufderhyde, MPPB (Mentor: Elena Oancea, MPPB)
7.	2016	Cyrena Gawuga, MPPB (Mentor: Linda Carpenter, DPHB)
8.	2016	Molly Boutin, BME (Mentor: Diane Hoffman-Kim, MPPB)
9.	2016	Daniel Berg, MCB (Mentor: David Berson, Neuroscience)
10.	2016	Benedetta Assetta, Pathology (Mentor: Walter Atwood, MCB)
11.	2018	Aaron Held, MCB (Mentor: Kristi Wharton, MCB)
12.	2019	Rosa Martinez Garcia, MCB (Mentor: Barry Connors, Neuroscience) (Committee Chair)
13.	2019	Erin Kennedy, MCB (Mentor: Sarah Delaney, Chemistry)
14.	2020	Zachary DeLoughery, MPPB (Mentor: Alexander Jaworski, Neuroscience) (Committee Chair)
15.	2020	Sun (Kim) Maybury-Lewis, MCB (Mentor: Ashley Webb, MCB) (Committee Chair)

j. PhD Thesis Examination Committees (External Reader and Examiner)

1.	2012	Rebecca Levy, Neurobiology and Behavior (Mentors: Maria Karayiorgou and Joseph Gogos, Psychiatry, Physiology and Neuroscience, Columbia University)
2.	2014	Milena Andzelm, Immunology (Mentor: Michael Greenberg, Neurobiology, Harvard Medical School)
3.	2015	Priya Srikanth, Psychiatry (Mentor: Tracy Young-Pearse, Harvard Medical School)
4.	2015	Wenjia You, Neurobiology (Mentor: Constance Cepko, Harvard University)
5.	2019	Jan Tomasz Czerminski, Cell Biology (Mentor: Jeanne B. Lawrence, University of Massachusetts Medical School)
6.	2020	Andy Gao, Neuroscience (Mentor: Anne McKinney, Cell Information Systems, McGill University)

9. PATENTS

2013	BU 2192, Methods for Treatment of Microcephaly Associated Autism Disorders (U.S. Patent Application No.: 14/654,232; International Application No.: PCT/US2013/076609)
2020	TECH ID 3040, Mutations in Mitochondrial Enzyme GPT2 Cause Metabolic Dysfunction and Neurological Disease With Developmental and Progressive Features (U.S. Provisional Patent Application No.: 63/025,740)