

## CURRICULUM VITAE

### 1. NAME, POSITION, ACADEMIC DEPARTMENT

#### **Eric M. Morrow PhD MD**

Associate Professor (with tenure)

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

Department of Psychiatry and Human Behavior (DPHB) (Secondary Appointment)

Director, Developmental Disorders Genetics Research Program (DDGRP), Emma Pendleton Bradley Hospital

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### 2. EDUCATION

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|------|-------|---|
| 1992 | S.B.  | Biology<br>Massachusetts Institute of Technology (MIT), Cambridge, MA   |
| 2001 | Ph.D. | Genetics<br>Harvard University, Cambridge, MA<br>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 Science and Technology (HST)<br>Harvard Medical School, Boston, MA   |
| 2007 | M.Sc. | Clinical Investigation<br>HST, Harvard Medical School, Boston, MA   |

### 3. PROFESSIONAL APPOINTMENTS

#### a. Graduate and Postdoctoral Training

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| 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 of 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, 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-present Visiting Research Scientist, Department of Biology, MIT, Cambridge, MA

#### **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. 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: 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., Moreno-De-Luca, D., Chu, S.H., Moreau, M., Gupta, A., ...[49 authors], **Morrow, E.M.**, Ledbetter, D.H., Fombonne, E., Lord, C., Martin, C.L., Brooks, A.I., Sutcliffe, J., 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.**<sup>\*\*</sup>, and Istrail, S<sup>\*\*</sup>. (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).

<sup>\*\*</sup>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).
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.**, Moskva, 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 (IBDGC), 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).

42. Howe, Y.J., Yatchmink, Y., Viscidi, E.W., and **Morrow, E.M.** (2014). Ascertainment and gender in autism spectrum disorders. *J Am Acad Child Adolesc Psychiatry* 53: 698-700 (PMID: 24839890; PMCID: PMC4288969).

43. Stein, D.M., Gerber, A.H., and **Morrow, E.M.** (2014). Inaugural Christianson Syndrome Association conference: Families meeting for the first time. *J Neurodev Disord* 6: 13 (PMID: 25273398; PMCID: PMC4038054).

44. Gerber, A., **Morrow, E.M.**, Sheinkopf, S.J., and Anders, T. (2014). The Rhode Island Consortium for Autism Research and Treatment (RI-CART): A new statewide autism collaborative. *RI Med J* 97: 31-34 (PMID: 24791265; PMCID: PMC4134665).

45. Pescosolido, M.F., Stein, D.M., Schmidt, M., El Achkar, C.M., Sabbagh, M., Rogg, J.M., Tantravahi, U., McLean, R.L., Liu, J.S., Poduri, A., and **Morrow, E.M.** (2014). Genetic and phenotypic diversity of NHE6 mutations in Christianson syndrome. *Ann Neurol* 76: 581-593 (PMID: 25044251; PMCID: PMC4304796).

46. Pescosolido, M.F., Schwede, M., Johnson Harrison, A., Schmidt, M., Gamsiz, E.D., Chen, W.S., Donahue, J.P., Shur, N., Jerskey, B.A., Phornphutkul, C., and **Morrow, E.M.** (2014). Expansion of the clinical phenotype associated with mutations in *activity-dependent neuroprotective protein*. *J Med Genet* 51: 587-589 (PMID: 25057125; PMCID: PMC4135390).

47. McLean, R.L., Johnson Harrison, A., Zimak, E., Joseph, R.M., and **Morrow, E.M.** (2014). Executive function in probands with autism with average IQ and their unaffected first-degree relatives. *J Am Acad Child Adolesc Psychiatry* 53: 1001-1009 (PMID: 25151423; PMCID: PMC4144046).

48. Harrison, A.J., Zimak, E.H., Sheinkopf, S.J., Manji, K.P., and **Morrow, E.M.** (2014). Observation-centered approach to ASD assessment in Tanzania. *Intellect Dev Disabil* 52: 330-347 (PMID: 25247726; PMCID: In Process).

49. Chaste, P., Klei, L., Sanders, S.J., Hus, V., Murtha, M.T., Lowe, J.K., Willsey, A.J., Moreno-De-Luca, D., Yu, T.W., Fombonne, E., Geschwind, D., Grice, D.E., Ledbetter, D.H., Mane, S.M., Martin, D.M., **Morrow, E.M.**, Walsh, C.A., Sutcliffe, J.S., Lese Martin, C., Beaudet, A.L., Lord, C., State, M.W., Cook, E.H. Jr., and Devlin, B. (2015). A genome-wide association study of autism using the Simons Simplex Collection: Does reducing phenotypic heterogeneity in autism increase genetic homogeneity? *Biol Psychiatry* 77: 775-784 (PMID: 25534755; PMCID: PMC437912).

50. Gamsiz, E.D., Sciarra, L.N., Maguire, A.M., Pescosolido, M.F., van Dyck, L.I., and **Morrow, E.M.** (2015). Discovery of rare mutations in autism: Elucidating neurodevelopmental mechanisms. *Neurotherapeutics* 12: 553-571 (PMID: 26105128; PMCID: PMC4489950).

51. Howe, Y.J., O'Rourke, J.A., Yatchmink, Y., Viscidi, E.W., Jones, R.N., and **Morrow, E.M.** (2015). Female autism phenotypes investigated at different levels of language and developmental abilities. *J Autism Dev Disord* 45: 3537-3549 (PMID: 26100851; PMCID: PMC4609595).



52. Sanders, S.J., He, X., Willsey, A.J., Ercan-Sencicek, A.G., Samocha, K.E., Cicek, A.E., Murtha, M.T., Bal, V.H., Bishop, S.L., Dong, S., Goldberg, A.P., Jinlu, C., Keaney, J.F. 3rd, Klei, L., Mandell, J.D., Moreno-De-Luca, D., Poultney, C.S., Robinson, E.B., Smith, L., Solli-Nowlan, T., Su, M.Y., Teran, N.A., Walker, M.F., Werling, D.M., Beaudet, A.L., Cantor, R.M., Fombonne, E., Geschwind, D.H., Grice, D.E., Lord, C., Lowe, J.K., Mane, S.M., Martin, D.M., **Morrow, E.M.**, Talkowski, M.E., Sutcliffe, J.S., Walsh, C.A., Yu, T.W.; Autism Sequencing Consortium, Ledbetter, D.H., Martin, C.L., Cook, E.H., Buxbaum, J.D., Daly, M.J., Devlin, B., Roeder, K., and State, M.W. (2015). Insights into Autism Spectrum Disorder genomic architecture and biology from 71 risk loci. *Neuron* 87: 1215-1233 (PMID: 26402605; PMCID: PMC4624267).
53. Young-Pearse, T.L. and **Morrow, E.M.** (2016). Modeling developmental neuropsychiatric disorders with iPSC technology: Challenges and opportunities. *Curr Opin Neurobiol* 36: 66-73 (PMID: 26517284; PMCID: PMC4738093). (Invited review for issue on Neurobiology of Disease)
54. Siegel, M., Smith, K.A., Mazefsky, C., Gabriels, R.L., Erickson, C., Kaplan, D., **Morrow, E.M.**, Wink, L., Santangelo, S.L.; and Autism and Developmental Disorders Inpatient Research Collaborative (ADDIRC) (2015). The autism inpatient collection: Methods and preliminary sample description. *Mol Autism* 6: 61 (PMID: 26557975; PMCID: PMC4640153).
55. Brennand, K.J., Marchetto, M.C., Benvenisty, N., Brüstle, O., Ebert, A., Izpisua Belmonte, J.C., Kaykas, A., Lancaster, M.A., Livesey, F.J., McConnell, M.J., McKay, R.D., **Morrow, E.M.**, Muotri, A.R., Panchision, D.M., Rubin, L.L., Sawa, A., Soldner, F., Song, H., Studer, L., Temple, S., Vaccarino, F.M., Wu, J., Vanderhaeghen, P., Gage, F.H., and Jaenisch, R. (2015). Creating patient-specific neural cells for the in vitro study of brain disorders. *Stem Cell Reports* 5: 933-945 (PMID: 26610635; PMCID: PMC4881284).
56. Yeo, R.A., Ryman, S.G., van den Heuvel, M.P., de Reus, M.A., Jung, R.E., Pommy, J., Mayer, A.R., Ehrlich, S., Schulz, S.C., **Morrow, E.M.**, Manoach, D., Ho, B.C., Sponheim, S.R., and Calhoun, V.D. (2016). Graph metrics of structural brain networks in individuals with schizophrenia and healthy controls: Group differences, relationships with intelligence, and genetics. *J Int Neuropsychol Soc* 22: 240-249 (PMID: 26888620; PMCID: In Process).
57. Ouyang, Q., Nakayama, T., Baytas, O., Davidson, S.M., Yang, C., Schmidt, M., Lizarraga, S.B., Mishra, S., El-Quessny, M., Niaz, S., Gul Butt, M., Imran Murtaza, S., Javed, A., Chaudhry, H.R., Vaughan, D.J., Hill, R.S., Partlow, J.N., Yoo, S.-Y., Lam, A.-T.N., Nasir, R., Al-Saffar, M., Barkovich, A.J., Schwede, M., Nagpal, S., Rajab, A., DeBerardinis, R.J., Housman, D.E., Mochida, G.H., and **Morrow, E.M.** (2016). Mutations in mitochondrial enzyme GPT2 cause metabolic dysfunction and neurological disease with developmental and progressive features. *Proc Natl Acad Sci USA* 113: E5598-E5607 (PMID: 27601654; PMCID: PMC5035873). [highlighted in *Brain in the News*, a Charles A. Dana Foundation publication]
58. van Dyck, L.I. and **Morrow, E.M.** (2017). Genetic control of postnatal human brain growth. *Curr Opin Neurol* 30: 114-124 (PMID: 27898583; PMCID: PMC5340196).
59. Gerber, A.H., McCormick, C.E., Levine, T.P., **Morrow, E.M.**, Anders, T.F., and Sheinkopf, S.J. (2017). Brief report: Factors influencing healthcare satisfaction in adults with Autism Spectrum Disorder. *J Autism Dev Disord* doi: 10.1007/s10803-017-3087-3 [Epub ahead of print] (PMID: 28271179; PMCID: In Process).

**c. Editorials, Essays, Commentaries, Workshop Reports**

1. **Morrow, E.M.** and Smoller, J.W. (2006). The Interface of Genetics and Clinical Psychiatry: Introduction. *Harvard Review of 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)

**d. Volumes Edited**

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

**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.<sup>#</sup>, Viscidi, E.<sup>\*</sup>, and **Morrow, E.M.** (2011). Epilepsy and regression in autism: Patients sampled from large population-based and genetic studies. 14<sup>th</sup> Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by MFP. <sup>#</sup>1st Prize Brain Science Research Poster. <sup>\*</sup>Brown Graduate Student
5. Minhas, H.<sup>#</sup>, Vargish, G.<sup>\*\*</sup>, and **Morrow, E.M.** (2011). Genomic structural variation in neurexin-pathway genes using fine-tiling array comparative genomic hybridization in autism. 14<sup>th</sup> Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by HM. <sup>#</sup>2nd Prize Psychiatry Residency Research Poster. <sup>\*</sup>Brown Psychiatry Resident Trainee; <sup>\*\*</sup>Brown Graduate Student
6. Bernabe, J.P.<sup>\*</sup>, Cahill, K.E., and **Morrow, E.M.** (2011). Developmental disorders research in the general psychiatry literature during the decade 1999-2009. 14<sup>th</sup> Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by JPB. <sup>\*</sup>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. 14<sup>th</sup> Annual Research Symposium on Mental Health Sciences, Providence, RI. Poster presented by MFP.
8. Shur, N., Bernabe, J.P.<sup>\*</sup>, 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 61<sup>st</sup> Annual Meeting, Montreal, Canada. Poster presented by NS. <sup>\*</sup>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 61<sup>st</sup> 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 41<sup>st</sup> Annual Meeting, Washington, DC. November 12-16, 2011. Poster presented by MFP.
12. Aguiar, D.<sup>\*</sup>, 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. <sup>\*</sup>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 50<sup>th</sup> 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. 15<sup>th</sup> 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. 15<sup>th</sup> 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. 15<sup>th</sup> 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. 15<sup>th</sup> 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) 12<sup>th</sup> 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. 20<sup>th</sup> 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 51<sup>st</sup> 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) 13<sup>th</sup> 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 166<sup>th</sup> 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 hemizyosity, haplotype sharing, polyploidy, and viral quasispecies. 21<sup>st</sup> 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 52<sup>nd</sup> 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. 26<sup>th</sup>

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) 15<sup>th</sup> 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) 15<sup>th</sup> 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. 1<sup>st</sup> 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 City, 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) 17<sup>th</sup> Annual Meeting, San Francisco, CA. May 10-13, 2017. Poster presented by HT.

#### **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. 3<sup>rd</sup> 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 62<sup>nd</sup> Annual Scientific 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 58<sup>th</sup> 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. 2<sup>nd</sup> 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 68<sup>th</sup> Annual Scientific 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 11<sup>th</sup> 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 43<sup>rd</sup> Annual Meeting, Nanosymposium on Endosomes in Neuronal Trafficking and Neurodegenerative Diseases, Platform Presentation, "The functions of endosomal Na<sup>+</sup>/H<sup>+</sup> 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) 7<sup>th</sup> 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. Host: Kevin DaSalva (May 5-7, 2014)
68. Society of Biological Psychiatry 69<sup>th</sup> Annual Scientific 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<sup>+</sup>/H<sup>+</sup> 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<sup>+</sup>/H<sup>+</sup> 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 Kuruville (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<sup>+</sup>/H<sup>+</sup> 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. 1<sup>st</sup> 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. 1<sup>st</sup> 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. 28<sup>th</sup> 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. 1<sup>st</sup> 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. 2<sup>nd</sup> International Basic Science and Clinical Conference on Christianson Syndrome, Invited Speaker, "TBD." McGill University, Montreal, Canada. Organizers: John Orłowski and R. Anne McKinney (June 29-July 1, 2017)
108. Neuroscience Graduate Program, University of California, San Francisco, 2017-2018 Formal Seminar Speaker Series Seminar, "TBD." San Francisco, CA. Host: Ben Cheyette (January 18, 2018)

## 5. RESEARCH GRANTS

### a. Current Grants

1. **Simons Foundation Autism Research Initiative/Nancy Lurie Marks Family Foundation for Autism Research 296318**

10/01/2015-09/30/2018 (renewed)

*Autism and Developmental Disorders Inpatient Research Collaborative: Phenotyping of the Severely Affected Autism Population*

Total direct costs: \$144,369, Total costs: **\$173,244.**

Current annual direct funds and effort: \$48,123, 5% effort.

PI: M. Siegel, **Co-I: E.M. Morrow**

2. **NIH/NIMH 5R01MH105442-03**

09/16/2014-05/31/2020

*Mechanisms of circuit failure and treatments in patient-derived neurons in autism*

Total direct costs: \$1,250,000, Total costs: **\$2,031,250.**

Current annual direct funds and effort: \$250,000, 19% effort.

**PI: E.M. Morrow**

3. **NIH/NIMH 5R01MH102418-03**

04/01/2015-02/28/2019

*Autism-linked endosomal mechanisms in neuronal arborization and connectivity*

Total direct costs: \$1,000,000, Total costs: **\$1,625,000.**

Current annual direct funds and effort: \$250,000, 19% effort.

**PI: E.M. Morrow**

4. **NIH/NINDS 1F31NS093880-01A1**

09/01/2016-08/31/2018

*Endo-lysosomal mechanisms and treatment in atypical cerebellar neurodevelopment*

Total direct costs: \$87,152, Total costs: **\$87,152.**

Current annual direct funds and effort: \$43,576, 100% effort.

Predoctoral Investigator: M.F. Pescosolido, **Mentor: E.M. Morrow**

5. **Brown University Research Seed Fund Award**

01/01/2017-12/31/2017

*Mechanisms in mitochondrial metabolism in brain development and health*

Total direct costs: \$50,000, Total costs: **\$50,000.**

Current annual direct funds and effort: \$50,000, 0% effort.

**PI: E.M. Morrow**

6. **Brain & Behavior Research Foundation NARSAD Independent Investigator Grant**

09/15/2017-09/14/2019

*Genetic Investigation of Mitochondrial Metabolism in Circuit Development and Behavior*

Total direct costs: \$92,592, Total costs: **\$100,000.**

Current annual direct funds and effort: \$46,296, 4% effort.

**PI: E.M. Morrow**



**b. Completed Grants**

Medical Scientist Training Program (PI: Andrews, N.) NIH <i>MD-PhD Program, Harvard Medical School</i>	09/01/1992-06/15/2001
Ethel Dupont-Warren Award (PI: Morrow, E.M.) Private/Harvard Department of Psychiatry <i>Genetic investigation of neurodevelopmental schizophrenia with cognitive impairment</i>	07/01/2005-06/30/2006 \$55,000
Livingston Award (PI: Morrow, E.M.) Private/Harvard Department of Psychiatry	07/01/2005-06/30/2006 \$10,000
Clinical Investigator Training Program (PI: Hollenberg, A.) Private/MIT-HST/Pfizer/Merck <i>Enrollment of pedigrees with autism in special founder populations</i>	07/01/2005-06/30/2007 \$120,000
Daland Fellow in Clinical Investigation (PI: Morrow, E.M.) Private/American Philosophical Society <i>Identifying autosomal recessive genes in familial autism</i>	07/01/2005-06/30/2007 \$100,000
Pfizer Scholar Grant in Psychiatry (PI: Morrow, E.M.) Private/Pfizer, Medical-Academic Partners <i>Genetic determinants of autism spectrum disorders</i>	07/01/2005-06/30/2007 \$130,000
MGH Rappaport Neuroscience Scholar (PI: Morrow, E.M.) Private/Jerome Lyle Rappaport Family Foundation	07/01/2007-06/30/2008 \$50,000
Child Health Research Award (PI: Morrow, E.M.) Private/Charles H. Hood Foundation <i>Genetics of autism spectrum disorders</i>	08/01/2007-07/31/2009 \$150,000
Young Investigator Grant (PI: Morrow, E.M.) Private/NARSAD (selected for the Sidney R. Baer, Jr. Foundation Investigator distinction)	08/01/2007-06/30/2009 \$60,000
K23MH080954 (PI: Morrow, E.M.) NIH/NIMH <i>Genetic investigation of cognitive development in autistic spectrum disorders</i> Mentor: Christopher A. Walsh MD PhD; Co-Mentors: Mark Daly PhD, Sorin Istrail PhD	09/10/2007-08/31/2012 \$930,474
Collaborative Translational Genetics in Autism (Project 3 PI: Morrow, E.M.) Fidelity Foundation	12/01/2008-03/01/2011 \$200,000
Simons Foundation Autism Research Initiative (Site PI: Morrow, E.M.) Private <i>A Genome-Wide Search for Autism Genes in the Simons Simplex Collection (SSC): The Illumina Genetic Analysis Team</i>	07/01/2011-06/30/2012 \$50,000

P20RR018728-01 (PI: Padbury, J.; Project PI: Morrow, E.M.) NIH/NCRR Perinatal Medicine Center of Biomedical Research Excellence (COBRE) <i>Trafficking Mechanisms in Axonal Growth in Embryonic and Perinatal Development</i>	08/01/2011-07/31/2013 \$110,000
Rhode Island Hospital Institutional Funds (PI: Quesenberry, P.J.; Project PI: Morrow, E.M.) Private <i>Stem cell pilot: Human induced pluripotent stem cell (iPSC) technology applied to brain disease</i>	03/01/2011-02/28/2014 \$170,000
Simons Foundation Autism Research Initiative/ Nancy Lurie Marks Family Foundation for Autism Research (PI: Morrow, E.M.) Private <i>Role of Endosomal NHE6 in Brain Connectivity and Autism</i>	07/01/2012-06/30/2014 \$250,000
Burroughs Wellcome Fund Career Award for Medical Scientists (PI: Morrow, E.M.) Private <i>Identification of autism genes in special founder populations using high-density SNP microarrays</i>	09/01/2007-08/31/2015 \$700,000
P20GM103645-02 (PI: Sanes, J.N.; Project PI: Morrow, E.M.) NIH/NIGMS Centers of Biomedical Research Excellence (COBRE) Center for Central Nervous System Function <i>Genetic-imaging study of obsessive compulsive behavior in autism</i> *Support as Project PI ended on 07/31/2015	08/15/2013-07/31/2018 \$1,720,895
Simons Foundation Autism Research Initiative/ Nancy Lurie Marks Family Foundation for Autism Research (PI: Siegel, M.; Co-I: Morrow, E.M.) Private <i>Autism and Developmental Disorders Inpatient Research Collaborative: Phenotyping of the Severely Affected Autism Population</i>	10/01/2013-09/30/2015 \$67,245
Scientific Meeting Grant (PI: Morrow, E.M.) Private/The Company of Biologists <i>Disease Models and Endosomal Mechanisms in Christianson Syndrome</i>	05/01/2015-10/31/2015 \$2,447
Weatherstone Predoctoral Fellowship (Predoctoral Investigator: Sciarra, L.; Mentor: Morrow, E.M.) Private/Autism Speaks <i>Na<sup>+</sup>-H<sup>+</sup> Exchanger Mechanisms in Autism Pathophysiology and Treatment</i>	07/01/2014-06/30/2016 \$58,953
Research Seed Fund Award (MPI: Morrow, E.M., Istrail, S.) Private/Brown University <i>Genome-wide Sequence Analysis in Severe Autism and Intellectual Disability</i>	07/01/2014-06/30/2016 \$80,000

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*

Simons Foundation Autism Research Initiative (PI: Morrow, E.M.) 04/01/2013-03/31/2017  
 Private \$1,248,814  
*Rhode Island Population and Genetics Study of Autism and Intellectual Disability*

### 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<sup>+</sup>-H<sup>+</sup> 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

## 6. SERVICE

### a. 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-present Curriculum Committee, MCB  
 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 of MCB Curriculum Committee  
 2015-2016 MCB Graduate Program Executive Committee

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

2009-2013 Genetics Working Group, Department of Psychiatry and Human Behavior  
 2013 Volunteer Instructor, 2<sup>nd</sup> Suna Kiraç-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  
 2015-2016 Research Presentation, Psychiatry Resident Recruitment Day  
 2015-2017 Search Committee, Senior Molecular Neuroscience Faculty  
 2016-2017 Search Committee, Director of Division of Child and Adolescent Psychiatry  
 2017-present Co-Director, Center for Neurobiology of Cells and Circuits, Brown Institute for Brain Science

*University and Division of Biology and Medicine*

2009-2010 Search Committee, Chair of Division of Clinical Genetics, Rhode Island Hospital and Warren Alpert Medical School of Brown University  
 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 250<sup>th</sup> 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 Program  
 2015-2016 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

*Collaborative Research Bridging from Campus to Hospitals*

- 2009-present Founding Co-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, Rhode Island Center for Clinical Translational Science (RI-CCTS)
- 2017 Lead Translational Investigator for Brain Science, Brown University and University of Rhode Island joint proposal, NIH Clinical and Translational Science Awards (CTSA) Program

*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 Brown Institute for Brain Science (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*"

**b. To the Profession**

**Scientific Committees/Advisory Boards**

- 2009-present Member, Simons Foundation Autism Research Initiative (SFARI) Gene Advisory Board
- 2014-present 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-present Committee Member, Charles H. Hood Foundation Child Health Research Committee

**Committees for National and International Scientific Meetings**

- 2011-2013 Program Committee Member, 2013 World Congress of Psychiatric Genetics
- 2012-2017 Committee Member, Program Planning Committee for 2012 to 2017 Annual Meetings, Society of Biological Psychiatry
- 2013 & 2014 Abstract Review, International Meeting for Autism Research (IMFAR)

2015 Co-Organizer, 1<sup>st</sup> International Basic Science and Clinical Conference on Christianson Syndrome (Co-PI on NINDS-funded R13)

**Editorial Boards**

2002-2007 Assistant Editor, *Harvard Review of Psychiatry*  
2012-present Review Editor, Editorial Board, *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 Editorial Board, *Molecular Autism*

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

*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*  
*Human Genetics*  
*Journal of the American Medical Association (JAMA)*  
*Journal of Autism and Developmental Disorders*  
*Journal of Comparative Neurology*  
*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*  
*Translational Psychiatry*

### **Scientific Review Boards**

#### *Grant Foundation Peer Review*

2009	Autism Speaks UK, <i>ad hoc</i> reviewer (mail)
2010, 2013, & 2015-2016	Simons Foundation Autism Research Initiative, Scientific Review Board (panel member)
2011	Medical Charities Research Group, <i>ad hoc</i> reviewer (mail)
2011	Israel Science Foundation, <i>ad hoc</i> reviewer (mail)
2011	National Children's Research Centre, <i>ad hoc</i> reviewer (mail)
2012	University of Saudi Arabia, <i>ad hoc</i> reviewer (mail)
2013	German Federal Ministry of Education & Research (BMBF), <i>ad hoc</i> reviewer (mail)
2013	The Channel 7 Children's Research Foundation, <i>ad hoc</i> reviewer (mail)
2014-2015	Autism Speaks, Meixner Postdoctoral Fellowship in Translational Research Program (panel member)
2014-2016	Autism Science Foundation, Scientific Review Board (panel member)
2015	Wellcome Trust, Postdoctoral Training Fellowship for Clinician Scientists, <i>ad hoc</i> reviewer, August 28, 2015 (mail)
2015	Brain Canada Foundation and the Azrieli Neurodevelopmental Research Program (ANRP), <i>ad hoc</i> reviewer, September 15, 2015 (mail)
2015	Charles H. Hood Foundation, Major Grants Initiative to Advance Child Health, <i>ad hoc</i> reviewer, November 9, 2015 (mail)
2016	United States-Israel Binational Science Foundation (BSF), <i>ad hoc</i> 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, <i>ad hoc</i> reviewer, September 5, 2016 (mail)
2016-present	Charles H. Hood Foundation, Child Health Research Awards Program, Scientific Review Committee reviewer, November 1, 2016 (committee member)

#### *National Institutes of Health Peer Review*

2010	Center for Scientific Review, NIMH Developing and Advance Centers for Intervention and Service Research Special Emphasis Panel, <i>ad hoc</i> reviewer (panel member)
2012	Center for Scientific Review, Early Career Reviewer

2014	Center for Scientific Review, Developmental Brain Disorders Study Section, <i>ad hoc</i> reviewer, October 23-24, 2014 (panel member)
2015	Center for Scientific Review, Genetics of Health and Disease Study Section, <i>ad hoc</i> reviewer, February 19-20, 2015 (panel member)
2015	Center for Scientific Review, NIMH Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, <i>ad hoc</i> reviewer, July 24, 2015 (panel member)
2015	Center for Scientific Review, NIMH Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, <i>ad hoc</i> reviewer, November 5, 2015 (panel member)
2016	Center for Scientific Review, NIH Cellular Aspects of Neuropsychiatric and Developmental Disorders Special Emphasis Panel, <i>ad hoc</i> reviewer, March 28, 2016
2016	Center for Scientific Review, Genetics of Health and Disease Study Section, <i>ad hoc</i> reviewer, June 16-17, 2016 (panel member)
2017	Center for Scientific Review, NIMH Molecular and Cellular Substrates of Complex Brain Disorders Special Emphasis Panel, <i>ad hoc</i> reviewer, March 3, 2017 (panel member)
2017	Center for Scientific Review, Developmental Brain Disorders Study Section, <i>ad hoc</i> reviewer, June 1-2, 2017 (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, 21 <sup>st</sup> World Congress of Psychiatric Genetics, "Autism and Neurodevelopmental Disorders" Session
May 2014	Participant, <i>Nature Medicine</i> /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	Chair, Society of Biological Psychiatry 70 <sup>th</sup> 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

### 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

### c. 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 <i>Christianson Syndrome Association Newsletter</i>
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

## 7. 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 58<sup>th</sup> 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)  
 2013 Editors' Choice, *Science Signaling*, feature on *Neuron* paper (October 2013)  
 2013-present 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

## **b. Licensure and Certification**

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

## **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 (now private practice dentist)  
Anna Kane, 2005-2006 (PhD Brown University/NIH, now postdoctoral fellow at Harvard)  
Michael Quintin, 2008 (now Applications Engineer, Broad Institute)

#### **Medical Student Research Supervision**

Dunia Abdul-Aziz, 2005-2009 (now otology/laryngology surgery fellow, Harvard Medical School)  
Steve Huffaker, 2006-2007 (now 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)
- *Biol1950*, 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 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 Chandler Werthmann)

### **Spring 2018**

- *Biol1545/2545*, Human Genetics and Genomics, Undergraduate and Graduate Lecture Class  
\*Newly developed course has been approved, with the initial offering in Academic Year 2017-2018.

#### **b. High School Research Supervision**

1. Mara Quinn, 2010 (now a Brown University Undergraduate, class of 2017)
2. Elizabeth Clifton, Summer 2013 (now a Brown University Undergraduate, class of 2018)
3. Ben Sheinkopf, Barrington High School Senior Project, 2013-2014 (now a Brandeis University Undergraduate, class of 2018)
4. Ben McCormick, Summer 2014, 2015, 2016 (now a high school senior)
5. Elyse Sauber, Summer 2015

#### **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 (2011-2012 Awarded Royce Fellow), Brown University Biology concentrator
6. Sudhendra 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-present, Brown University Neuroscience concentrator
17. Sarah Hays, Spring 2015-present, Brown University Neuroscience concentrator
18. Gordon (Chandler) Werthmann, Spring 2015-present (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 (Karen T. Romer UTRA Fellowship), Brown University Applied Math concentrator
21. Emma Freiman, Summer 2016, Cornell University

**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) 7<sup>th</sup> 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 Science and Technology (HST).
5. Jacob Thomas, 2016, Computational Biology. Jacob matriculated in August 2016 at University of Pittsburgh.
6. Sarah Hays, 2017, Neuroscience.
7. Dipal Nagda, 2017, Neuroscience.
8. Gordon (Chandler) Werthmann, 2017, Neuroscience.

**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

*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<sup>+</sup>-H<sup>+</sup> Exchanger 9 (NHE9) from NHE6 in Neuronal Development, successfully defended PhD on August 5, 2016.
3. Abbie (Frederick) Maguire, 2012-present (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 covers full student costs for 2016 as well as provides for additional resources. Abbie was also awarded the 2<sup>nd</sup> 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 City, NY on October 26-27, 2016.
4. Matthew Pescosolido, 2013-present (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.
5. Ozan Baytas, 2015-present (PhD Thesis student, Neuroscience).

**f. Medical Student Research Supervision**

1. Justyna Piasecka-Bernabe, 2009-2011 (T32 Predoctoral Mentee); now in Yale Medical School, Child Psychiatry Fellowship
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)

**g. Postdoctoral Research Supervision**

1. Qing Ouyang PhD, 2009-present.
2. Natasha Shur MD, 2009-2013, Assistant Professor of Pediatrics. Mentor on Pediatrics Research Seed Grant (\$40K), Rhode Island/Hasbro Children's Hospital. Now 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. Now Assistant Professor, Department of Biology, Drexel University.

4. Dilber (Ece) Gamsiz PhD, 2010-2016. Awarded a Center for Visual Research Fellowship, and the Norman Prince Neurosciences Institute Fellowship (\$128K). Now Assistant Professor of Pathology, Warren Alpert Medical School of Brown University.
5. Sofia Lizarraga PhD, 2010-2014. Now tenure-track Assistant Professor, Department of Biology, University of South Carolina.
6. Yamini Howe MD, 2010-2013, Brown Med Developmental Pediatrics Fellow. Currently an 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. Now Forensic Psychiatry Fellowship, Yale Medical School.
8. Rebecca McLean PhD, 2012-July 2014, Memorial Hospital Neuropsychology Postdoctoral Fellow. Now Assistant Professor of Psychiatry and Pediatrics, Memorial Hospital, Warren Alpert Medical School of Brown University.
9. Ashley Johnson Harrison PhD, 2012-2014, Psychology Postdoctoral Fellow, Child Health T32 Fellowship. Now Assistant Professor of Education, University of Georgia-Athens.
10. Eric Zimak PhD, 2012-2014, Bradley Hospital Neuropsychology Postdoctoral Fellow. Now faculty in Clinical Psychology, University of New Mexico.
11. Beth Jerskey PhD, 2013-2015, Assistant Professor, Department of Psychiatry, Warren Alpert Medical School of Brown University. Now also Vice President of Professional Training and Research at the May Institute.
12. Li Ma PhD, 2014-present.
13. Brian Kavanaugh PsyD, 2015-2016, Bradley Hospital Pediatric Neuropsychology Postdoctoral Fellow.
14. Meiyu Xu PhD, 2015-2017.
15. Brandon (Scott) Pruett MD PhD, 2015-present, Adult Psychiatry Resident 2014-present.
16. Giulia Righi PhD, 2015-2016, Bradley Hospital Developmental Disabilities Postdoctoral Fellow, Psychology Intern 2014-2015. Now Assistant Professor of Psychiatry, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University.
17. Daniel Moreno De Luca MD, 2016-present, Bradley Hospital Child and Adolescent Psychiatry Fellow.
18. Danielle Morriss MD, 2016-present, Bradley Hospital Child and Adolescent Psychiatry Fellow.

#### **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-present | Rosa Martinez Garcia, MCB (Mentor: Barry Connors, Neuroscience)     |
| 11. | 2014         | Akash Srivastava, MCB (Mentor: Marko Horb, MCB/MBL)                 |
| 12. | 2014-2015    | Arthur Sugden, MCB (Mentor: Barry Connors, Neuroscience)            |
| 13. | 2014-present | Aaron Held, MCB (Mentor: Kristi Wharton, MCB) (Committee Chair)     |
| 14. | 2015-present | Alger Fredericks, MCB (Mentor: William Fairbrother, MCB)            |
| 15. | 2015-present | Sun Kim, MCB (Mentor: Ashley Webb, MCB) (Committee Chair)           |
| 16. | 2016-present | Zachary DeLoughery, MPPB (Mentor: Alexander Jaworski, Neuroscience) |

- (Committee Chair)
17. 2017-present Arjun Mathur, MCB (Mentor: Robert Reenan, MCB) (Committee Chair)
  18. 2017-present Donald Koroma, MPPB (Mentor: Elena Oancea, MPPB)

**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)

**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)

**9. PATENTS**

- 2013 BU 2192, Methods for Treatment of Microcephaly-Associated Autism Disorders (U.S. Patent Application No.: 61/739,351; International Application No.: PCT/US2013/076609)