

# Lauren M. McGrath, Ph.D.

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Assistant Professor  
School of Education, Teaching, and Health  
American University  
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## **Professional Appointments**

- Aug 2013 - **Assistant Professor**  
Special Education: Learning Disabilities, School of Education Teaching & Health  
Affiliate, Department of Psychology & Center for Behavioral Neuroscience  
American University, Washington, DC
- 2009-2013 **Postdoctoral Research Fellow**  
Psychiatric & Neurodevelopmental Genetics Unit  
Harvard Medical School, Massachusetts General Hospital, Boston, MA  
Advisors: Jordan Smoller, M.D., Sc.D., & David Pauls, Ph.D.
- Fall 2011 **Adjunct Faculty**  
Department of Psychology, Brandeis University, Waltham, MA
- July 2011 **Visiting Faculty**  
Research Methodology in Health Sciences workshop  
Koç University, Istanbul, Turkey, partnered with Harvard Medical School
- 2006, 2008 **Adjunct Faculty**  
Department of Psychology, Metropolitan State College of Denver, Denver, CO

## **Education**

- 2003 - 2009 **University of Denver, Denver, CO**  
Ph.D. Child Clinical Psychology & Developmental Cognitive Neuroscience  
M.A. Child Clinical Psychology & Developmental Cognitive Neuroscience  
*Doctoral Thesis:* Gene x Environment Interactions in Developmental Dyslexia  
*Master's Thesis:* Speech Sound Disorder: Genes, Environments, and Interactions  
Advisor: Bruce Pennington, Ph.D.
- 1997 - 2001 **Brandeis University, Waltham, MA**  
B. S. Neuroscience with Highest Honors, *summa cum laude*  
B. A. Psychology  
*Honors Thesis:* Conceptual short-term memory: Age invariance in semantic selectivity and trace strength.  
Advisor: Arthur Wingfield, D. Phil.

## **Honors & Awards**

- 2012 Mysell Award finalist, early-career award given by the Harvard Medical School Department of Psychiatry
- 2012 Poster of Distinction Award, 65<sup>th</sup> Annual Meeting of the MGH Scientific Advisory Committee
- 2011 Anxiety Disorders Association of America Travel Award
- 2010 World Congress on Psychiatric Genetics Early Career Travel Award
- 2007 Harry Gollob Award for best first-author student publication in the University of Denver's Psychology Department
- 2005 International Neuropsychological Society Fellowship to attend the Vivian Smith Advanced Studies Institute on *Neurodevelopmental Disorders* in Xylocastro, Greece
- 2005, 2006 Lawrence Miller Fellowship Award, travel award from the University of Denver's Psychology Department
- 2004 John Merck Biology of Developmental Disabilities Summer Institute Fellowship
- 2003 Colorado Graduate Fellowship, merit award to first year graduate students
- 2001 Reis and Sowul Family Prize in Neuroscience, Brandeis University
- 2000 Brandeis University Scholar Award for excellence in the school of science
- 1999, 2000 Howard Hughes Summer Fellowship for research in the neurosciences

## **Grants under review**

### **William T Grant Foundation Scholar Program**

Submitted July, 2014

*Bridging across special education and neuropsychology to advance evidence-based practice for children with learning disabilities*

The goal of this project is to strengthen evidence-based practice in special education by capitalizing on advances in the neuropsychology of learning disabilities.

*Role:* Principal Investigator

*Direct Costs:* \$324,747

## **Grants in revision**

R01 NICHD

### **National Institute of Child Health and Development**

Submitted Oct, 2013

*Obesity and Cognition in Children: A Translational Study*

The goal of this project is to examine the developmental relationships between obesity and specific aspects of cognition in children aged 7-11 years.

*Role:* Co-Investigator

*Direct Costs:* \$2.2 Million

## **Grants Awarded**

### **American University Faculty Research Support Grant**

5/1/14 - 4/30/15

*Disentangling the cognitive web of developmental learning and behavioral disorders*

The goal of this project is to identify cognitive predictors that are shared by learning and behavioral disorders and can account for the high rates of comorbidity among these disorders.

*Role:* Principal Investigator

*Direct Costs:* \$10,000

### **Completed Research Support**

T32 MH16259-32 (post-doctoral NRSA)

6/27/11 – 6/26/13

#### **National Institute of Mental Health**

Harvard Medical School

Stuart T. Hauser Research Training Program in Biological and Social Psychiatry

*Developmental Approaches to the Genetics of Anxiety Disorders*

The goal of this project is to identify genetic risk factors associated with temperamental and neurobiological signatures of anxiety liability.

*Role:* Post-doctoral Research Fellow

*Direct Costs:* \$95,568

F31 DC008726 (pre-doctoral NRSA)

5/14/07 – 6/30/08

#### **National Institute of Deafness and Communication Disorders**

*Genetic Interactions in Developmental Dyslexia*

The goal of this project was to examine the interplay of genetic risk factors for dyslexia with home environmental variables and pre- and perinatal risk factors.

*Role:* Graduate Student Principal Investigator

*Direct Costs:* \$54,201

Dissertation Research Award

9/1/07 – 9/1/08

#### **American Psychological Association**

*Genetic Interactions in Developmental Dyslexia*

This award funded additional data collection for my dissertation on the home literacy environmental and pre- and perinatal risk factors.

*Role:* Principal Investigator

*Direct Costs:* \$1,000

### **Publications in preparation**

**McGrath, L. M.**, Braaten, E. B., Doty, N., Willoughby, B., Wilson, H. K., O'Donnell, E., Colvin, M., Blais, J., Ditmars, H., Metzger, A., Smoller, J.W., Waldman, I., Faraone, S. V., Seidman, L.J., Doyle, A. E. (in prep). Executive functions predict dimensions of three neuropsychiatric conditions in youth.

**McGrath, L.M.**, Dodd, H., Oates, J., Dai, Y., Waxler, J., Clements, C., Weill, S., Hoffnagle, A., Anderson, E., MacRae, R., Mullett, J., McDougale, C., Poher, B., Smoller, J. (in prep). Cognitive contributions to anxiety in Williams Syndrome.

### **Publications under review**

Robinson, E. B, Samocha, K.E., Kosmicki, J., **McGrath, L.M.**, Neale, B. M., Perlis, R., Daly, M.J. (submitted). Autism spectrum disorder severity reflects the average contribution of de novo and inherited genetic influences.

## Refereed Journal Articles

- McGrath, L.M.**, Yu, D., Marshall, C., Davis, L.K., Thiruvahindrapuram, B., Li, B., Cappi, C., Gerber, G., Wolf, A., Schroeder, F., Osiecki, L., O'Dushlaine, C., Kirby, A., Illman, C., Haddad, S., Gallagher, P., Fagerness, J. (...) Cook, E., Pauls, D. L., Wang, K., Scharf, J. (in press). Copy number variation in obsessive-compulsive disorder and Tourette syndrome: A cross-disorder study. *Journal of the American Academy of Child and Adolescent Psychiatry*.
- Samocha, K.E., Robinson, E.B., Sanders, S.J., Stevens, C., Sabo, A., **McGrath, L.M.**, Kosmicki, J.A., Rehnström, K., Mallick, S., Kirby, A., Wall, D. P., MacArthur, D.G., Gabriel, S.B., dePristo, M., Purcell, S. M., Palotie, A., Boerwinkle, E., Buxbaum, J.D., Cook, E.H., Gibbs, R. A., Schellenberg, G.D., Sutcliffe, J.S., Devlin, B., Roeder, K., Neale, B. M., Daly, M. J. (in press). A framework for the interpretation of *de novo* mutation in human disease. *Nature Genetics*.
- Yu, D., Mathews, C., Scharf, J., Neale, B., Davis, L., Gamazon, E., Derks, E., Evans, P., Edlund, C., Crane, J., Fagerness, J., Osiecki, L., Gallagher, P., Gerber, G., Haddad, S., Illman, C., McGrath, L. (...) Cox, N., Pauls, D. (in press). Cross-disorder genome-wide analyses suggest a complex genetic relationship between Tourette Syndrome and Obsessive-Compulsive Disorder. *American Journal of Psychiatry*.
- Robinson, E. B., Kirby, A., Ruparel, K., Abou-Sleiman, P., Yan, J., **McGrath, L.M.**, Anttila, V., Neale, B.M., Merikangas, K., Lehner, T., Daly, M.J., Hakonarson, H., Gur, R., Gur, R. (in press). The genetic architecture of pediatric neurocognitive abilities in the Philadelphia Neurodevelopmental Cohort. *Molecular Psychiatry*.
- Smoller, J. W., Gallagher, P. J., Duncan, L.E, **McGrath, L.M.**, Haddad, S., Holmes, A.J., Wolf, A.B., Hilker, S., Block, S., Weill, S., Young, S., Choi, E. Y., Rosenbaum, J. R., Biederman, J., Faraone, S., Roffman, J., Manfro, G.G., Blaya, C., Hirshfeld-Becker, D., Stein, M.B., Ameringen, M.G., Tolin, D.F., Otto, M.W., Pollack, M.H., Simon, N., Buckner, R. L., Ongur, D., Cohen, B.M. (in press). The Human Ortholog of Acid-Sensing Ion Channel Gene ASIC1a Is Associated With Panic Disorder And Amygdala Structure And Function Simon, *Biological Psychiatry*.
- McGrath, L.M.**, Cornelis, M., Lee, P.H., Perlis, R.H., Robinson, E., Duncan, L., Barnett, J.H., Huang, J., Sklar, P., Sullivan, P., Smoller, J.W. (2013). Genetic predictors of risk and resilience in psychiatric disorders: A cross-disorder genome-wide association study of functional impairment in major depressive disorder, bipolar disorder, and schizophrenia. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 162(8), 779-788. NIHMS #575188
- Davis LK, Yu D, Keenan CL, Gamazon ER, Konkashbaev AI, Derks EM, Neale BM, Yang J, Lee SH, Evans P, Barr CL, Bellodi L, Benarroch F, Berrio GB, Bienvenu OJ, Bloch MH, Blom RM, Bruun RD, Budman CL, Camarena B, Campbell D, Cappi C, Cardona Silgado JC, Cath DC, Cavallini MC, Chavira DA, Chouinard S, Conti DV, Cook EH, Coric V, Cullen BA, Deforce D, Delorme R, Dion Y, Edlund CK, Egberts K, Falkai P, Fernandez

TV, Gallagher PJ, Garrido H, Geller D, Girard SL, Grabe HJ, Grados MA, Greenberg BD, Gross-Tsur V, Haddad S, Heiman GA, Hemmings SM, Hounie AG, Illmann C, Jankovic J, Jenike MA, Kennedy JL, King RA, Kremeyer B, Kurlan R, Lanzagorta N, Leboyer M, Leckman JF, Lennertz L, Liu C, Lochner C, Lowe TL, Macciardi F, McCracken JT, **McGrath LM**, Mesa Restrepo SC, Moessner R, Morgan J, Muller H, Murphy DL, Naarden AL, Ochoa WC, Ophoff RA, Osiecki L, Pakstis AJ, Pato MT, Pato CN, Piacentini J, Pittenger C, Pollak Y, Rauch SL, Renner TJ, Reus VI, Richter MA, Riddle MA, Robertson MM, Romero R, Rosário MC, Rosenberg D, Rouleau GA, Ruhrmann S, Ruiz-Linares A, Sampaio AS, Samuels J, Sandor P, Sheppard B, Singer HS, Smit JH, Stein DJ, Strengman E, Tischfield JA, Valencia Duarte AV, Vallada H, Van Nieuwerburgh F, Veenstra-Vanderweele J, Walitza S, Wang Y, Wendland JR, Westenberg HG, Shugart YY, Miguel EC, McMahon W, Wagner M, Nicolini H, Posthuma D, Hanna GL, Heutink P, Denys D, Arnold PD, Oostra BA, Nestadt G, Freimer NB, Pauls DL, Wray NR, Stewart SE, Mathews CA, Knowles JA, Cox NJ, Scharf JM. (2013). Partitioning the Heritability of Tourette Syndrome and Obsessive Compulsive Disorder Reveals Differences in Genetic Architecture. *PLoS genetics*, 9(10), e1003864.

Nag, A., Bochukova, E.G., Kremeyer, B., Campbell, D.D., Muller, H., Valencia-Duarte, A.V., Cardona, J., Rivas, I.C., Mesa, S.C., Cuartas, M., Garcia, J., Bedoya, G., Cornejo, W., Herrera, L.D., Romero, R., Fournier, E., Reus, V.I., Lowe, T., L., the Tourette Syndrome Association International Consortium for Genetics (TSAICG), Mathews, C.A., **McGrath, L.M.**, Yu, D., Cook, E., Wang, K., Scharf, J.M., Pauls, D.L., Freimer, N.B., Plagnol, V., Ruiz-Linares, A. (2013). CNV Analysis in Tourette Syndrome Implicates Large Genomic Rearrangements in COL8A1 and NRXN1. *PloS one*, 8(3), e59061. PMID: PMC3606459

Stewart, S. E\*. Yu, D.\*, Scharf, J. M.\*, Neale, B. M.\*, Fagerness, J.A.\*, Mathews, C. A.\*, Arnold, P.D.\*, Evans, P.D., Gamazon, E. R., Osiecki, L., **McGrath, L.**, Haddad, S., Crane, J., Hezel, D., Illman, C., Mayerfeld, C., Konkashbaev, A., Liu, C., Pluzhnikov, A., Tikhomirov, A., Edlund, C.K., Rauch, S.L. Moessner, R., Falkai, P., Maier, W., Ruhrmann, S., Grabe, H., Lennertz, L., Wagner, M., Bellodi, L., Cavallini, M.C., Richter, M.A., Cook, E.H., Kennedy, J.L., Rosenberg, D., Stein, D. J., Hemmings, S.M.J., Lochner, C., Azzam, A., Chavira, D.A., Fournier, E., Garrido, H., Sheppard, B., Umaña, P., Murphy, D.L., Wendland, J.R., Veenstra-VanderWeele, J., Denys, D., Blom, R., Deforce, D., Van Nieuwerburgh, F., Westenberg, H.G.M., Walitza, S., Egberts, K., Renner, T., Miguel, E.C., Cappi, C., Hounie, A.G., do Rosário, M.C., Sampaio, A.S., Vallada, H., Nicolini, H., Lanzagorta, N., Camarena, B., Delorme, R., Leboyer, M., Pato, C.N., Pato, M.T., Voyiaziakis, E., Heutink, P., Cath, D.C., Smit, J.H., Samuels, J., Bienvenu, O.J., Cullen, B., Fyer, A.J., Grados, M.A., Greenberg, B.D., McCracken, J.T., Riddle, M.A., Wang, Y., Coric, V., Leckman, J.F., Bloch, M., Pittenger, C., Eapen, V., Black, D.W., Ophoff, R.A., Strengman, E., Cusi, D., Turiel, M., Frau, F., Macciardi, F., Gibbs, J.R., Singleton, A., Hardy, J., Crenshaw, A. T., Parkin, M.A., Mirel, D.B., Conti, D.V., Purcell, S., Nestadt, G., Hanna, G.L., Jenike, M.A., Knowles, J.A., Cox, N., Pauls, D.L. (2013). Genome-wide association study of obsessive-compulsive disorder. *Molecular psychiatry*, 18(7), 788-798. NIHMS #435165

\*co first-authors

**McGrath, L.M.**, Weill, S., Robinson, E.B., MacRae, R., & Smoller, J.W. (2012). Bringing a developmental perspective to anxiety genetics. *Development & Psychopathology*, *24*, 1179-1193. PMID: PMC3721501

**McGrath, L. M.**, Mustanski, B., Metzger, A., Kistner-Griffin, E., Pine, D., Cook, E., Wakschlag, L. (2012). A Latent Modeling Approach to Genotype-Phenotype Relationships: Maternal Problem Behavior Clusters, Prenatal Smoking, and *MAOA* Genotype. *Archives of Women's Mental Health*, *15* (4), 269-282. NIHMS #486919

Middeldorp, C.M.\* , de Moor, M.H.M\* , **McGrath, L.M.**, Gordon, S.D., Blackwood, Costa, P.T., Terraciano, A., Krueger, R. F., deGeus, E.J.C., Dale R. Nyholt, D.R., Tanaka, T., Esko, T., Madden, P.A.F, Derringer, J., Amin, N., Willemsen G., Hottenga, J., Distel, M.A., Uda, M., Sanna, S., Spinhoven, P., Hartman, C.A., Ripke, S., Sullivan, P.F., Realo, A., Allik, J., Heath, A. C., Pergadia, M.L., Agrawal, A., Lin, P., Grucza, R. A., Widen, E., Cousminer, D. L., Eriksson, J. G., Palotie, A., Barnett, J.H., Lee, P.H., Luciano, M., Tenesa, A., Davies, G., Lopez, L.M., Hansell, N.K., Medland, S.E., Ferrucci, L., Schlessinger, D., Montgomery, G.W., Wright, M.J., Aulchenko, Y.S., Janssens, A.C.J.W., Oostra, B.A., Metspalu, A., Abecasis, G. R., Deary, I.J., Rääkkönen, K., Bierut, L.J., Martin, N.G., Wray, N.R., van Duijn, C.M., Smoller, J.W., Penninx, B.W.J.H., Boomsma, D. I. (2011). The genetic association between personality traits and major depression and bipolar disorder. A polygenic score analysis using genome wide association data from five samples. *Translational Psychiatry*, *1*, e50  
doi:10.1038/tp.2011.45. PMID: PMC3309491

\*co-first authors

*Awarded the 2011 European Psychiatric Association (EPA) research prize to C. M. Middeldorp for best article by an early career psychiatrist.*

**McGrath, L. M.**, Pennington, B. F., Shanahan, M. A., Santerre-Lemmon, L. E., Barnard, H. D., Willcutt, E. G., DeFries, J. C., Olson, R. K. (2011). A multiple deficit model of Reading Disability and Attention-Deficit/Hyperactivity Disorder: Searching for shared cognitive deficits. *Journal of Child Psychology and Psychiatry*, *52*, 547-557. PMID: PMC3079018

*Commentary by Taylor, E. (2011). Reading and attention problems – how are they connected? Reflections on reading McGrath et al. (2011). Journal of Child Psychology and Psychiatry*, *52*, 558-559.

Willcutt, E. G., Betjemann, R. S., **McGrath, L. M.**, Chhabildas, N. A., Olson, R. K., DeFries, J. C., Pennington, B. F. (2010). Etiology and neuropsychology of comorbidity between RD and ADHD: The case for multiple-deficit models. *Cortex*, *46*, 1345-61. PMID: PMC2993430

Hodge, S. M., Makris, N., Kennedy, D. N., Caviness, V. S., Howard, J., **McGrath, L.**, Steele, S., Frazier, J. A., Tager-Flusberg, H., Harris, G. J. (2010). Cerebellum, language, and cognition in Autism and Specific Language Impairment. *Journal of Autism and Developmental Disorders*, *40*, 300-316. NIHMS486118.

- Pennington, B. F., **McGrath, L. M.**, Barnard, H., Rosenberg, J., Smith, S. D., Willcutt, E. G., Friend, A., DeFries, J. C., Olson, R. K. (2009). Gene x Environment Interactions in Reading Disability and Attention-Deficit/Hyperactivity Disorder, *Developmental Psychology*, 45, 77-89. PMID: PMC2743891
- McGrath, L. M.**, Hutaff-Lee, C., Scott, A., Boada, R., Shriberg, L., & Pennington, B. F. (2008). Children with comorbid Speech Sound Disorder and Specific Language Impairment are at increased risk for Attention-Deficit/Hyperactivity Disorder. *Journal of Abnormal Child Psychology*, 36, 151-163.
- McGrath, L. M.**, Pennington, B. F., Willcutt, E. G., Boada, R., Shriberg, L. D., Smith, S. D. (2007). Gene x Environment interactions in speech sound disorder predict language and preliteracy outcomes. *Development & Psychopathology*, 19, 1047-1072.
- Little, D. M., **McGrath, L. M.**, Prentice, K. & Wingfield, A. (2006). Semantic encoding of spoken sentences: Adult aging and the preservation of conceptual short-term memory. *Applied Psycholinguistics*, 27, 487-511.
- McGrath, L. M.**, Smith, S. D., Pennington, B. F. (2006). Breakthroughs in the search for dyslexia candidate genes. *Trends in Molecular Medicine*, 12, 333-341.
- Harris, G. J., Chabris, C. F., Clark, J., Urban, T., Aharon, I., Steele, S., **McGrath, L.**, Condouris, K., Tager-Flusberg, H. (2006). Brain activation during semantic processing in autism spectrum disorders via functional magnetic resonance imaging. *Brain and Cognition*, 61, 54-68.
- Joseph, R. M., **McGrath, L.**, & Tager-Flusberg, H. (2005). Executive dysfunction and its relationship to language ability in verbal school-age children with autism. *Developmental Neuropsychology*, 27, 361-378.
- De Fossé, L., Hodge, S. M., Makris, N., Kennedy, D. N., Caviness, V. S., **McGrath, L.**, Steele, S., Ziegler, D. A., Herbert, M., Frazier, J., Tager-Flusberg, H., Harris, G. J. (2004). Language association cortex asymmetry in autism and specific language impairment. *Annals of Neurology*, 56, 757-766.
- Hadjikhani, N., Joseph, R. M., Snyder, J., Chabris, C., Clark, J., Steele, S., **McGrath, L.**, Vangel, M., Aharon, I., Feczko, E., Harris, G. J., Tager-Flusberg, H. (2004). Activation of the fusiform gyrus when individuals with autism spectrum disorder view faces. *NeuroImage*, 22, 1141-1150.
- Hadjikhani, N., Chabris, C., Joseph, R. M., Clark, J., **McGrath, L.**, Aharon, I., Feczko, E., Tager-Flusberg, H., Harris, G. J. (2004). Early visual cortex organization in autism – an fMRI study. *NeuroReport*, 15, 267-270.
- Tadevosyan-Leyfer, O., Dowd, M., Mankoski, R., Winkloski, B., Putnam, S., **McGrath, L.**, Tager-Flusberg, H., Folstein, S. (2003). A principal components analysis of the Autism Diagnostic Interview-Revised. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 864-872.

## Reviews & Chapters

Robinson, E., **McGrath, L.M.**, Santangelo, S. (in press). Lifecourse approaches approaches to the genetic epidemiology of mental illness. In K. Koenen, S. Rudenstine, E. Susser, S. Galea (Eds.) *Life Course Epidemiology of Mental Disorders*, Oxford University Press.

Pennington, B. F., **McGrath, L. M.**, Smith, S. D. (2009). Genetics of dyslexia: Cognitive analysis, candidate genes, comorbidities, and etiological interactions. In T. Goldberg and D. Weinberger (Eds.) *The Genetics of Cognitive Neuroscience*. Cambridge, MA: MIT Press.

### Contributions to Diagnosing Learning Disorders, 2<sup>nd</sup> Edition by B. F. Pennington:

Pennington, B. F., Peterson, R., **McGrath, L. M.** (2008). Dyslexia. In B. F. Pennington (Author), *Diagnosing Learning Disorders, 2<sup>nd</sup> Edition*. New York: Guilford Press.

Pennington, B. F., Peterson, R., **McGrath, L. M.** (2008). Speech and Language Disorders. In B. F. Pennington (Author), *Diagnosing Learning Disorders, 2<sup>nd</sup> Edition*. New York: Guilford Press.

Pennington, B. F., **McGrath, L. M.**, Peterson, R. (2008). ADHD. In B. F. Pennington (Author), *Diagnosing Learning Disorders, 2<sup>nd</sup> Edition*. New York: Guilford Press.

Pennington, B. F., **McGrath, L. M.**, Peterson, R. (2008). Autism Spectrum Disorders. In B. F. Pennington (Author), *Diagnosing Learning Disorders, 2<sup>nd</sup> Edition*. New York: Guilford Press.

Pennington, B. F., **McGrath, L. M.**, Peterson, R. (2008). Intellectual Disabilities. In B. F. Pennington (Author), *Diagnosing Learning Disorders, 2<sup>nd</sup> Edition*. New York: Guilford Press.

Peterson, R. L., **McGrath, L. M.**, Smith, S. D., Pennington, B. F. (2007). Neuropsychology and genetics of speech, language, and literacy disorders. *Pediatric Clinics of North America*, 54, 543 - 561.

## Invited Presentations

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| May 2014      | <i>Symposium Discussant: A Developmentally Sensitive Preventive Framework to Address Academic Gaps Associated with Housing Instability. Society for Prevention Research, Washington, DC.</i> |
| February 2014 | Neuromyths: A citizen science approach. School of Education, Teaching & Health, <i>American University, Washington, DC.</i>  |
| January 2014  | Learning Differences and the Brain. <i>Lab School of Washington parent seminar, Washington, DC.</i>  |



- July 2013 Genetic contributions to dyslexia. *Learning and the Brain Summer Institute* led by John Gabrieli, PhD: The Neuroscience of Reading: Using Research to Understand Reading Acquisition and Disorders, *MIT*, Boston, MA.
- December 2012 ‘Developmental neurocognitive genetics:’ A cross-disciplinary approach to childhood learning and emotional development. School of Education Teaching & Health, *American University*, Washington, DC.
- November 2012 Neurogenetic perspectives on developmental trajectories for language. Lunch symposium presentation at the *Boston University Conference on Language Development*, Boston, MA.
- November 2012 Neurodevelopmental Genetic Disorders. Invited guest Lecture, *Harvard University*, Department of Psychology, upper-level undergraduate/graduate class on Developmental Disabilities taught by Dr. Joanna Christodoulou.
- October 2012 Is it time to worry about anxiety genetics? A consideration of genome-wide and developmental approaches. Institute for Behavioral Genetics, *University of Colorado, Boulder*.
- June 2012 A genome-wide survey of copy number variation in Obsessive-Compulsive Disorder and Tourette’s Syndrome. *International Obsessive Compulsive Disorder Foundation Annual Meeting*, Boston, MA.
- December 2011 Gene x environment interactions in reading and related phenotypes: The puzzle of opposite interactions. Department of Psychology, *Brandeis University*, Waltham, MA.
- April 2011 Copy Number Variation in OCD and Tourette Syndrome: Update on progress. *International Obsessive Compulsive Disorder Foundation Annual Meeting*, Vancouver, British Columbia.
- December 2009 Gene x environment interactions in reading and related phenotypes: The puzzle of opposite interactions. Psychiatric Genetics Program, *Massachusetts General Hospital*, Boston, MA.
- March 2009 Differentiating neurodevelopmental disorders during childhood: Schizophrenia versus autism. Grand Rounds presentation at the *University of Illinois at Chicago* Department of Psychiatry, Chicago, IL.
- January 2009 Gene x environment interactions in reading and related phenotypes: The puzzle of opposite interactions. Department of Psychiatry, *Brown University*, Providence, RI.

January 2009

Gene x environment interactions in reading and related phenotypes: The puzzle of opposite interactions. Institute for Behavioral Genetics, *University of Colorado, Boulder, CO.*

### **Selected Conference Presentations**

**\*\* indicates primary mentee**

**McGrath, L.M.**, Anderson, A., Germine, L. (November 2014). Neuromyths: Perceptions and predictors among educators. Poster accepted for presentation at the *International Mind, Brain, Education Society Conference*, Fort Worth, TX.

Dai, Y.\*\*, **McGrath, L.**, Waxler, J., Oates, J.\*\*, Clements, C., Weill, S., Hoffnagle, A., Anderson, E., MacRae, R., Mullett, J., Dodd, H., McDougle, C., Pober, B., Smoller, J. (May 2014). Cognitive contributions to anxiety in Williams Syndrome. Poster presented at the *Society of Biological Psychiatry Annual Meeting*, New York, NY.

**McGrath, L.M.** on behalf of the Tourette Syndrome Association International Consortium for Genetics (TSAICG) and the International Obsessive Compulsive Disorder Foundation Genetics Collaborative (IOCDFGC) (October, 2013). Copy number variation in obsessive-compulsive disorder and Tourette syndrome: A cross-disorder analysis. Poster presented at the 2013 *American Society of Human Genetics* meeting, Boston, MA.

**McGrath, L.M.**, Braaten, E. B., Doty, N., O'Dushlaine, C., Chambert, K., Moran, J., Toner, D., Hudson, K., Ditmars, H., Blais, J., Hill, E., Neale, B., Smoller, J.W., Faraone, S. V., McCarroll, S., Ferreira, M.A.R., Doyle, A. E. (2013). Relating emerging schizophrenia genes to RDoC cognitive systems in a child clinical cohort. Poster presented at the 2013 *World Congress of Psychiatric Genetics*, Boston, MA.

Wolf, A.\*\* on behalf of the Tourette Syndrome Association International Consortium for Genetics (TSAICG) and the International Obsessive Compulsive Disorder Foundation Genetics Collaborative (IOCDFGC) (2013). Recurrent *de novo* Copy Number Variation within Neurodevelopmental Loci in Obsessive-Compulsive Disorder. Poster presented at the annual meeting of the *World Congress on Psychiatric Genetics*, Boston, MA

Dai, Y.\*\*, **McGrath, L.**, Waxler, J., Clements, C., Weill, S., Hoffnagle, A., Anderson, E., MacRae, R., Mullett, J., Dodd, H., McDougle, C., Pober, B., Smoller, J. (2013). Factors Contributing to Anxiety in Williams syndrome (WS). Poster presented at the annual *MGH Clinical Research Day*, Boston, MA.

**McGrath, L.M.**, Kunwar, P., Snidman, N., Kagan, J., Smoller, J., Schwartz, C. (May 2012). Multivariate genetic association analysis of a complex developmental phenotype defined by infant temperament and adolescent neuroimaging. Poster presented at the 2012 Annual Meeting of the *Society of Biological Psychiatry*, Philadelphia, PA.

**McGrath, L.M.**, Pollastri, A., Lee, P.H., Block, S., Kunwar, P., Haddad, S., Gallagher, P., Gerber, G., Crane, J., Snider, M., Snidman, N., Kagan, J., Biederman, J., Rosenbaum, J., Hirshfeld-Becker, D., Schwartz, C., Smoller, J. W. (April, 2012). Williams-Beuren Syndrome as a Neurodevelopmental Model for Childhood Anxiety Disorders. Oral

presentation in the symposium on “Biological and Environmental Trajectories of Early Clinical Manifestations of Anxiety” at the 2012 *Anxiety Disorders Association of America* Annual Conference, Washington, DC.

### **Editorial Activities**

#### **Ad hoc reviewer:**

*American Journal of Medical Genetics, Part B: Neuropsychiatric Genetics*

*Annals of Dyslexia*

*Behavior Genetics*

*Behavioral and Brain Functions*

*Biological Psychiatry*

*Depression and Anxiety*

*Development & Psychopathology*

*Genes, Brain and Behavior*

*JAMA Psychiatry (formerly Archives of General Psychiatry)*

*Journal of Abnormal Child Psychology*

*Journal of Anxiety Disorders*

*Journal of Autism and Developmental Disorders*

*Journal of Child Psychology & Psychiatry*

*Journal of Pediatrics*

*Molecular Psychiatry*

*PLoS One*

*Psychiatric Genetics*

*Twin Research and Human Genetics*

### **Teaching/Supervision Experience**

Fall 2013- **Assistant Professor**, School of Education, Teaching, and Health, American University, Washington, DC

#### *Graduate courses*

##### **EDU 596 - Neuropsychology of Learning Disabilities**

This course provides an introduction to brain-behavior relationships as they relate to learning and developmental disorders, including dyslexia, language disorders, attention-deficit/hyperactivity disorder, and autism spectrum disorders. Students learn about the ways in which brain and cognitive function contribute to learning disabilities.

#### *Undergraduate courses*

##### **EDU 496/PSYC 496 - Genetics of Human Learning and Behavior**

This class addresses the complex interplay between nature and nurture in explaining human behavior. Emphasis is on current genetic methods and their application to cognition, learning, and developmental disorders.

Fall 2011      **Adjunct Faculty**, Department of Psychology, Brandeis University, Waltham, MA

Behavior Genetics – Developed and taught a semester-long course designed for social science graduate students (N=20) with minimal exposure to biology and genetics. The goals of the class were to provide a survey of current approaches in human behavioral genetics and to instruct students in evaluating and designing behavioral genetic research.

July 2011      **Visiting Faculty**, Koç University, Istanbul, Turkey.

Research Workshop: Taught courses in a one-week workshop on “Research Methods in the Health Sciences” for medical doctors and health professionals in Turkey through a collaboration with Harvard Medical School. I taught introductory workshops on research design and statistics.

2009-2013      **Postdoctoral Research Supervisor**, Psychiatric & Neurodevelopmental Genetics Unit, Harvard Medical School, Massachusetts General Hospital, Boston MA

Research supervisor: Supervised 2 summer interns and 4 research assistants on clinical research methods, working with patient populations, administration of cognitive, clinical, and neuropsychological measures, data analysis, literature reviews, and poster and manuscript preparation.

Spring 2008;   **Adjunct Faculty**, Department of Psychology, Metropolitan State College of Summer 2006 Denver, Denver, CO.

Sensation & Perception – Developed and taught two upper-level, lab-based psychology courses in for undergraduates (N~20). The goals of the class were to review sensory systems and perceptual theories and to develop observational and report-writing skills.

2005 - 2006      **Developmental Neuropsychology Clinic**, University of Denver, Denver, CO.  
Co-Directors: Marge Riddle, Ph.D., Bruce F. Pennington, Ph.D.

Clinic Assistant: Responsible for training clinical psychology graduate students and psychology interns on the administration of neuropsychological and psychodiagnostic measures. Reviewed case files and provided consultation regarding test selection and case formulation.

### ***Curriculum Development***

Spring 2014      Participated in major revision of Special Education: Learning Disabilities MA curriculum and alignment to new Council for Exception Children standards

### ***Master's and Dissertation Committees***

Devon Shook (psychology), MA committee member, American University  
Anila D'Mello (psychology), MA committee member, American University  
Dora Moore (psychology), MA committee member, American University  
Rachael Burgower (psychology), BA/MA committee member, American University

### **Service**

#### ***American University service***

- Feb 2014      Learning and the Brain panelist – discussant in the Learning and the Brain seminar hosted by the Center for Teaching, Research, and Learning (CTRL) with invited speaker Daniel Willingham, Ph.D., from the University of Virginia.
- Nov 2013      Greenberg seminar speaker – spoke to American University doctoral students regarding the academic job search and interviewing process.
- Oct 2013      STEAMystery play panelist – discussant regarding the role of the arts in STEM Education following the debut of the STEAMystery play by American University playwright, Caleen Jennings.

#### ***Civic Service***

- Jan 2014      Learning Differences and the Brain – invited speaker with Doug Fagen, Ph.D. for the Lab School of Washington's monthly parent seminar on topics related to Learning Disabilities.
- Sep 2013 -      Research Consultation, Lab School of Washington. Regular meetings with the Head of School, Director of Speech/Language Pathology, Director of Psychology regarding research resources and design for the Lab School.
- Sep 2013 -      Member, Research Group of Lab School of Washington. The group is tasked with providing updated literature reviews on topics relevant to learning and memory in children with learning disabilities.
- 2011          Review of abstracts, *Anxiety Disorders Association of America*  
2010          World Congress on Psychiatric Genetics Rapporteur  
2007 – 2008      Council of University Directors of Clinical Psychology - Student Liaison  
2005 – 2006      Clinical Area Representative, Psychology Department  
2004 – 2005      Graduate Research Affairs Committee, Psychology Department  
2003 – 2004      Colloquium Committee, Psychology Department

#### ***Memberships***

Member, Association for Psychological Science  
Member, International Mind, Brain, Education Society  
Member, American Educational Research Association; Brain, Neurosciences, and Education special interest group