

Christopher W. Bartlett

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Education:

Ph.D., Rutgers University, Behavioral and Neural Sciences (2003)
B.S., Wright State University, Psychology (1998)

Positions and Employment:

2007- Assistant Professor, Battelle Center for Mathematical Medicine (formerly known as the Center for Quantitative and Computational Biology), The Research Institute at Nationwide Children's Hospital, Columbus, OH

2006- Assistant Professor of Pediatrics, College of Medicine, The Ohio State University, Columbus, OH

2006- Assistant Professor, Center for Molecular and Human Genetics, The Research Institute at Nationwide Children's Hospital, Columbus, OH

2006-2007 Assistant Professor, Center for Quantitative and Computational Biology
The Research Institute at Nationwide Children's Hospital, Columbus, OH

2003-2006 Postdoctoral Research Scholar, Center for Statistical Genetics Research, College of Public Health & Carver College of Medicine, University of Iowa, Iowa City, IA

1998-2003 Graduate Assistant, Rutgers, The State University of New Jersey, Center for Molecular and Behavioral Neuroscience, Newark, NJ

1997-1998 Applied Behavioral Analysis therapist for children with autism, Tipp City, OH

1995-1996 Certified Nurse's Aide, Crestview Manor, Fairborn, OH

1991-1995 Sergeant (E-5), United States Army, 18th Airborne Corps, Fort Bragg, NC

Research Interests

Human disease gene discovery
Genetics of language impairments
Genetics of autism
Cognitive neurogenetics

Honors and Awards Information:

- 2002 Bartlett et. al. (2002) in top ten best research papers on child development by Center of Excellence on Early Childhood Development, Université de Montréal
- 1998 Graduate Fellowship for Academic Excellence, Johnson & Johnson
- 1997 Inducted into Psi Chi, The National Honor Society for Psychology Students

Professional Associations:

- International Genetic Epidemiology Society (2003-)
- American Society of Human Genetics (1999-)
- Society for Neuroscience (1998 -)
- Cognitive Neuroscience Society (1998-)

Committees:

- Chair, CQCB Standards and Nomenclature
- Member, BCMM Faculty Recruitment Committee

Professional Service:

Ad hoc manuscript review

- *American Journal of Medical Genetics Part A* (5/05, 9/05)
- *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics* (4/07)
- *Annals of Human Genetics* (3/05, 2/07, 6/07)
- *Biological Psychiatry* (8/05)
- *Biometrical Journal* (10/07)
- *Brain: A Journal of Neurology* (12/05, 8/06)
- *Genes, Brain and Behavior* (7/05)
- *Genetic Epidemiology* (6/07)
- *Genome Research* (1/08)
- *Human Heredity* (6/05, 8/05, 4/06, 8/06)
- *Journal of Speech, Language and Hearing Research* (1/07, 3/08)
- *Nature Methods* (8/07)
- *Neuropsychobiology* (2/07)
- *PLoS Genetics* (12/06)
- *Psychiatric Genetics* (10/07)

Ad hoc grant review

- National Alliance of Autism Research project grants (9/03)
- MRC Neurosciences and Mental Health Board (5/07)
- Member Department of Defense (DOD) Autism Spectrum Disorder Research Program Study Section (2007)

Editorial

- Associate Editor GAW 15 proceedings to appear in *BMC Genetics*

Invited Lectures

- "Localization of Genes Negatively influencing Language Development" Department of Psychology, University of Jyväskylä, Finland, October 2004
- "Genetics and Neuropsychology: Examples From Autistic Disorder, Multiple Sclerosis and Specific Language Impairment" Kessler Medical Research Center, Neuropsychology Speaker Series, UMDNJ, NJ, July 2003
- "A Major Locus for Specific Language Impairment is Located on 13q21-22: Implications for Autism Research", Autism Genetics Workshop Callaway, GA, March 2002
- "Possible Genetic Overlap Between Specific Language Impairment and Autism: Evidence from a Linkage Study" Autism Genetics Workshop Callaway, GA, March 2001

Teaching Experience:

- TA, Statistical Methods in Cognitive and Behavioral Research, 2001, 2002
- TA, Statistics in Neuroscience I (graduate course), 2000 (Spring and Fall)
- TA, Foundations of Neuroscience (graduate course), 1999

Additional Training:

- Maximizing Team Performance, 3 semester hours, University of Iowa, Iowa City, IA, 2005
- Managerial Economics, 3 semester hours, University of Iowa, Iowa City, IA, 2005
- Theoretical Genetic Modeling, 3 semester hours, Columbia University, NYC, NY, 2002
- Advanced Linkage Course, Rockefeller University, NYC, NY, 2001
- Cognitive Neuroscience Summer Course, University of Helsinki, Helsinki, Finland, 2000

Additional Research Related Skills:

- Computer programming – PERL, Python, C, Pascal, UNIX shell languages
- Laboratory Techniques – PCR, PAGE, SSCP, restriction digest, single-stranded sequencing protocols, BAC cloning, nick translation, ligase detection assays, flow cytometry, DHPLC
- Major Laboratory Equipment Used – Beckman CEQ 2000 capillary electrophoresis, Biotage PSC HS 96 pyrosequencer, Transgenomic WAVE DHPLC, Luminex 200

Grants

Active:

- Co-Investigator, Autism Genome Project, March 14, 2007 to March 14, 2010, Autism Speaks (Co-PI: Veronica Vieland)
- Co-Investigator, A Molecular Genetic Study of Autism and Related Phenotypes in Extended Pedigrees, September 1, 2006 to August 31, 2011, 1 RO1 MH076028 (PI: Piven)
- Co-Investigator, Identification and Functional Assessment of Autism Susceptibility Genes, September 30, 2005 to July 31, 2010, 1R01MH076433 (PI: Veronica Vieland)
- Co-Investigator, Genetic Components of Autism Spectrum Disorders, September 23, 2003 to June 30, 2008, R01 1R01MH070366 (PI: Linda Brzustowicz)

Pending:

- Principle Investigator, NARSAD 2009 Young Investigator Application, "Identification and functional assessment of autism/language impairment susceptibility gene" submitted July 25, 2008
- Principle Investigator, Howard Hughes Medical Institute 2009 Early Career Scientist Competition, submitted June 10, 2008
- Principle Investigator, Molecular Genetics of Language and Related Cognition in Families, NIH R01 submitted March 5, 2008
- Principle Investigator, Uniquely Human: The Multiple Neurogenetic Systems of Normal/Disordered Language, NIH DP2 submitted March 31, 2008

Completed:

- Postdoctoral Fellow, INST NRSA: Molecular and Cellular Biology of the Lung, July 1, 2004 to June 30, 2005, National Heart, Lung and Blood Institute
- Principle Investigator, Localization of Genes Negatively Influencing Language Acquisition, \$89,606, July 1, 2001 to June 30, 2003, National Alliance for Autism Research

Fellowships

- NIH Postdoctoral Fellowship, July 1, 2004 to June 30, 2005, 5 T32 HL07638 (PI: Gary W. Hunninghake)
- Postdoctoral Fellow, Genetic Components of Autism Spectrum Disorders, July 1, 2003 to June 30, 2004, 5R01MH070366-02 (PI: Linda Brzustowicz)
- Johnson & Johnson Graduate Fellowship for Academic Excellence, September 1, 1998 to August 31, 1999

Peer Reviewed Publications:

- Vieland VJ, Huang Y, **Bartlett CW**, Davies TF, Tomer Y (2008). A multilocus model of the genetic architecture of Autoimmune Thyroid Disorder with Clinical Implications. *Am J Hum Genet* 82:1349-1356. (Featured Article)
- Wassink TH, Vieland VJ, Sheffield VC, **Bartlett CW**, Goedken R, Childress D, Piven J (2008). Posterior probability of linkage analysis of autism dataset identifies linkage to chromosome 16. *Psychiatric Genet* 18:85-91.
- Huang Y, **Bartlett CW**, Segre AM, O'Connell JR, Mangin L, Vieland VJ (2007). Exploiting gene x gene interaction in linkage analysis. *BMC Proceedings* 1:S64.
- Cordell HJ, de Andrade M, Babron MC, **Bartlett CW**, BEyene J, Bickeböllner H, Culverhouse R, Cupples LA, Daw EW, Dupuis J, Galk CT, Ghosh S, Goddard KA, Goode EL, Hauser ER, Martin LJ, Martinez M, North KE, Saccone NL, Schmidt S, Tapper W, Thomas D, Trichler D, Vieland VJ, Wijsman EM, Wilcox MA, Witte JS, Yang Q, Ziegler A, Almasy L, MacCluer JW (2007). Genetic Analysis Workshop 15: gene expression analysis and approaches to detecting multiple functional loci. *BMC Proceedings* 1:S1.
- Bartlett CW**, Vieland VJ, on behalf of Group 7 (2007). Discussing gene-gene interaction: Warning - translating equations to English may result in jabberwocky. *Genet Epidem* 31(Supplement 1):S61-S67.
- Autism Genome Project (2007). Mapping autism risk loci using genetic linkage and chromosomal rearrangements. *Nature Genet* 39: 319-328
- Bartlett CW**, Vieland VJ. (2007). Accumulating quantitative trait linkage evidence across multiple datasets using the posterior probability of linkage. *Genetic Epidemiology* 31:91-102
- Bartlett CW**, Goedken R, Vieland VJ. Effects of Updating Linkage Evidence across Subsets of Data: Reanalysis of Autism Genetic Resource Exchange Dataset. *American Journal of Human Genetics*,76:688-695 (2005)
- Bartlett CW**, Vieland VJ. Two Novel Quantitative Trait Linkage Analysis Statistics Based on the Posterior Probability of Linkage: Application to the COGA Families. *BMC Genetics* 6 (Suppl 1): S121 (2005)
- George AW, Mangin LA, **Bartlett CW**, Logue MW, Segre AM, Vieland VJ. Calculation of multipoint likelihoods using flanking marker data: A simulation study. *BMC Genetics* 6(suppl 1): S44 (2005)
- Bartlett CW**, Gharani N, Millonig JH, Brzustowicz LM. Three Autism Candidate Genes: Synthesis of Human Genetic Analysis with Other Disciplines. *International Journal of Developmental Neuroscience*, 23: 221-234 (2005)
- Wassink TH, Piven J, Vieland V, Jenkins L, Frantz R, **Bartlett CW**, Goedken R, Childress D, Spence AM, Smith M, Sheffield VC. Evaluation of the chromosome 2q37.3 gene CENTG2 as an autism susceptibility gene. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics* 136:36-44 (2005)
- Bartlett CW**, Flax JF, Logue MW, Smith BJ, Vieland VJ, Tallal P, Brzustowicz LM. Examination of Potential Overlap in Autism and Language Loci on Chromosomes 2, 7, and 13 in Two

Independent Samples Ascertained for Specific Language Impairment. *Human Heredity*. 57: 10-20, (2004)

Wassink TH, Brzustowicz LM, **Bartlett CW**, Szatmari P. The Search for Autism Disease Genes. *Mental Retardation and Developmental Disabilities Research Reviews*, 10:272-283, (2004)

Flax J, Realpe-Bonilla T, Hirsch LS, Brzustowicz LB, **Bartlett CW**, Tallal P. Specific language impairment in families: Evidence for co-occurrence with reading impairments. *Journal of Speech, Language, and Hearing Research*. 46: 530-543, (2003)

Bartlett CW, Flax JF, Logue MW, Vieland VJ, Bassett AS, Tallal P, Brzustowicz LM. A major susceptibility locus for specific language impairment is located on 13q21. *American Journal of Human Genetics*. 71: 45-55, (2002)

Tallal P, Hirsch LS, Realpe-Bonilla T, Miller S, Brzustowicz LM, **Bartlett CW**, Flax JF. Familial aggregation in specific language impairment. *Journal of Speech, Language, and Hearing Research*. 44: 1172-82, (2001)

Conference Abstracts (Talk and Poster)

Bartlett CW, Vieland VJ. "Why does increasing sample size often dim rather than illuminate? question of locus heterogeneity" Talk#118 American Society of Human Genetics, Oct 2006, New Orleans, LA

Bartlett CW, Vieland VJ. "Defining the Relation Between a Categorical Trait and a Quantitative Endophenotype at a Linked Locus" Poster. International Genetic Epidemiology Society, Oct 2005, Park City, UT

Bartlett CW, Vieland VJ. "Is localization for complex disease genes via linkage analysis really that bad?" Poster#2361 American Society of Human Genetics, Oct 2005, Salt Lake City, UT

Bartlett CW, Vieland VJ "A Novel Quantitative Trait (QT) Posterior Probability of Linkage (PPL) with Specific Adaptations for QT Analysis of Autism" Poster# 2898 American Society of Human Genetics Oct, 2004 Toronto, Canada

Bartlett CW, Flax JF, Li W, Realpe-Bonilla T, Hayter J, Hirsch LS, Logue MW, Zimmerman R, Vieland VJ, Tallal P, Brzustowicz LM. "A Genome Scan of Specific Language Impairment Loci in Families from the United States." Poster#1884, American Society of Human Genetics Oct 2003, Los Angeles, CA

Bartlett CW, Flax JF, Logue MW, Vieland VJ, Tallal P, Brzustowicz LM. "Further evidence for linkage of specific language impairment to 13q21 from an American sample." Poster#1561, American Society of Human Genetics 2002, Baltimore, MD

Bartlett CW, Flax JF, Tallal P, Brzustowicz LM. "Linkage analysis of chromosome 13 in families selected for specific language impairment." Poster#1897, American Society of Human Genetics Oct 2001, San Diego, CA

Bartlett CW, Flax JF, Yabut O, Hirsch LS, Li W, Tallal P, Brzustowicz LM. "A Genome-scan for linkage of Specific Language Impairment: Report on chromosomes 1, 6, and 15." Poster#1710 American Society of Human Genetics Oct 2000, Philadelphia, PA

Bartlett CW, Flax JF, Hirsch LS, Li W, Brzustowicz LM, Tallal P. "Heritability of Language and Reading Measures in a Population Selected for Specific Language Impairment" Cognitive Neuroscience Society, May 2001, New York, NY

Bartlett CW, Flax JF, Tallal P, Brzustowicz LM. "Auditory temporal Processing Measures as Markers for Language Development: Evidence from Genetic COrrleations in Extended Pedigrees." Poster#529.8-TT-12, Society for Neuroscience, Nov 2001, San Diego, CA

Bartlett CW, Flax JF, Yabut O, Hirsch LS, Li W, Brzustowicz LM, Tallal P. "Linkage Analysis of Chromosomes 1,6, and 15 on Families Selected for Specific Lanaguage Impairment."
Poster#737.20-JJ-70, Society for Neuroscience, Nov 2000, New Orleans, LA