

**BIOGRAPHICAL SKETCH**

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NAME Brion S. Maher	POSITION TITLE Assistant Professor		
eRA COMMONS USER NAME maherb			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Pittsburgh, Pittsburgh, PA	BS	1994	Biological Sciences
University of Pittsburgh, Pittsburgh, PA	MS	1997	Human Genetics
University of Pittsburgh, Pittsburgh, PA	PhD	2000	Human Genetics

**A. Positions and Honors.**

Research Assistant/Associate, Center for Education and Drug Abuse Research, University of Pittsburgh Medical Center, Pittsburgh, PA 1990-1995

Graduate Student Researcher, Department of Human Genetics, University of Pittsburgh, 1995-2000

Research Associate, Division of Oral Biology, School of Dental Medicine, University of Pittsburgh, 2000-2002

Assistant Professor, Center for Craniofacial and Dental Genetics, Univ. of Pittsburgh, 2002-2006

Assistant Professor, Dept of Psychiat, Virginia Inst for Psychiat and Behav Genet, 2006-

**B. Peer-reviewed publications (in chronological order)**

Panzak G, Tarter RE, Murali S, Switala J, Maher B, & Van Thiel D (1998) Isometric muscle strength in alcoholic and nonalcoholic liver transplantation candidates. *Am J Drug Alcohol Abuse* 24(3): 499-512.

Maher BS, Marazita ML, Moss HB & Vanyukov MM (1999) Segregation analysis of attention deficit hyperactivity disorder. *Am J Med Genet (Neuropsychiat Genet)* 88:71-78.

Marazita ML, Maher BS, Cooper ME, Silvestri JM, Huffman AD, Smok-Pearsall SM, Kowal MH, and DE Weese-Mayer (2001) Genetic segregation analysis of autonomic nervous system dysfunction in families of probands with idiopathic congenital central hypoventilation syndrome. *Am J Med Genet* 100: 229-236.

Weese-Mayer DE, Silvestri JM, Huffman AD, Smok-Pearsall SM, Kowal MH, Maher BS, Cooper ME and ML Marazita (2001) Case/control family study of ANS dysfunction in idiopathic congenital hypoventilation syndrome. *Am J Med Genet* 100: 237-245

Maher BS, Vanyukov MM, Cooper ME, Neiswanger K, Marazita ML (2001) QTL analysis of the liability underlying a common oligogenic disease. *Genet Epi* 21(Suppl 1):S720-S725

Vanyukov MM, Maher BS, Ferrell RE, Devlin B, Marazita ML, Kirillova GP (2001) The dopamine receptor D5 gene and the liability to substance dependence in males: A replication. *J Child Adol Subst Abuse* 10(4):55-63.

Maher BS, ML Marazita, WN Zubenko, DG Spiker, DE Giles, BB Kaplan, GS Zubenko (2002) Genetic Segregation Analysis of Recurrent, Early-Onset Major Depression: Evidence for Single Major Locus Transmission. *Am J Med Genet (Neuropsychiat Genet)* 114(2):214-221.

Marazita ML, Field LL, Cooper ME, Tobias R, Maher BS, Peanchitlertkajorn S, Liu Y-e. (2002) Non-syndromic cleft lip with or without cleft palate in China: Assessment of candidate regions. *Cleft Palate-Craniofacial Journal*, 39(2):149-156.

Marazita ML, Field LL, Cooper ME, Tobias R, Maher BS, Peanchitlertkajorn S, Liu Y-e. (2002) Genome-scan for loci involved in cleft lip with or without cleft palate in Chinese multiplex families. *Am J Hum Genet* 71(2):349-64.

Al-Bustan SA, El-Zawahri MM, Al-Adsani AM, Bang RL, Ghunaim I, Maher BS, Weinberg S, Marazita ML. (2002) Epidemiological and genetic study of 121 cases of oral clefts in Kuwait. *Orthod Craniofac Res* 5(3):154-60.

Maher BS, Marazita ML, Ferrell RE, Vanyukov MM. (2002) Dopamine system genes and attention deficit hyperactivity disorder: A meta-analysis. *Psychiat Genet* 12(4):207-15.

Maher BS, ML Marazita, WN Zubenko, BB Kaplan, GS Zubenko. (2002) Genetic segregation analysis of alcohol and other substance use disorders in families with recurrent, early-onset major depression. *Am J Drug Alcohol Abuse* 28(4):711-31.

Zubenko GS, Hughes HB, Maher BS, Stiffler JS, Zubenko WN, Marazita ML. (2002) Genetic linkage of region containing the CREB1 gene to depressive disorders in women from families with recurrent, early-onset, major depression. *Am J Med Genet (Neuropsychiat Genet)*, 114(8):980-987.

Weese-Mayer DE, Berry-Kravis EM, Maher BS, Silvestri JM, Curran ME, Marazita ML (2003) Sudden Infant Death Syndrome: Association with a promoter polymorphism of the serotonin transporter gene. *Am J Med Genet* 117A(3):268-274.

El-Gheriani AA, Maher BS, El-Gheriani AS, Sciote JJ, Abu-shahba FA, Al-Azemi R, Marazita ML (2003). Segregation Analysis of Mandibular Prognathism in Libya. *Journal of Dental Research* 82(7): 523-527

- Zubenko GS, Hughes HB, Maher BS, Stiffler JS, Zubenko WN, Marazita ML. (2003) Sequence variations in CREB1 cosegregate with depressive disorders in women. *Mol Psychiatry*. 8(6):611-8.
- Weese-Mayer DE, Zhou L, Berry-Kravis EM, Maher BS, Silvestri JM, Marazita ML. (2003) Association of the serotonin transporter gene with sudden infant death syndrome: A haplotype analysis. *Am J Med Genet*. 2003 Oct 15;122A(3):238-45.
- Vanyukov MM, Tarter RE, Kirisci L, Kirillova GP, Maher BS, Clark DB. (2003) Liability to substance use disorders: 1. Common mechanisms and manifestations. *Neurosci Biobehav Rev* 27(6):507-15.
- Vanyukov MM, Kirisci L, Tarter RE, Simkevitz HF, Kirillova GP, Maher BS, Clark DB. (2003) Liability to substance use disorders: 2. A measurement approach. *Neurosci Biobehav Rev* 27(6):517-26.
- Zubenko GS, Maher B, Hughes HB, Zubenko WN, Stiffler JS, Kaplan BB, Marazita ML (2003) Genome-wide linkage survey for genetic loci that influence the development of depressive disorders in families with recurrent, early-onset, major depression. *Am J Med Genet (Neuropsychiat Genet)* 123B(1):1-18.
- Weese-Mayer DE, Zhou L, Berry-Kravis EM, Silvestri BS, Maher BS, Curran ME, Marazita ML. (2003) Idiopathic Congenital Central Hypoventilation Syndrome: Analysis of genes pertinent to early autonomic nervous system embryologic development and identification of mutations in PHOX2b. *Am J Med Gen* 123A(3):267-78.
- Vanyukov MM, Maher BS, Devlin B, Tarter RE, Kirillova GP, Yu LM, Ferrell RE (2004) Haplotypes of the Monoamine Oxidase Genes and the Risk for Substance Use Disorders. *Am J Med Genet* 125B(1):120-5.
- Moreno LM, Arcos-Burgos M, Marazita ML, Krahn K, Maher BS, Cooper ME, Valencia C, Lidral AC (2004) Genetic analysis of candidate loci in nonsyndromic cleft lip families from Antioquia-Colombia and Ohio. *Am J Med Genet* 125A(2):135-44.
- Zucchero TM, Cooper ME, Maher BS, Daack-Hirsch S, Nepomuceno B, Ribeiro L, Caprau D, Christensen K, Suzuki Y, Machida J, Natsume N, Yoshiura K, Vieira AR, Orioli IM, Castilla EE, Moreno L, Arcos-Burgos M, Lidral AC, Field LL, Liu YE, Ray A, Goldstein TH, Schultz RE, Shi M, Johnson MK, Kondo S, Schutte BC, Marazita ML, Murray JC. (2004) Interferon regulatory factor 6 (IRF6) gene variants and the risk of isolated cleft lip or palate. *N Engl J Med*. 351(8):769-80.
- Zubenko GS, Maher BS, Hughes HB 3rd, Zubenko WN, Scott Stiffler J, Marazita ML. (2004) Genome-wide linkage survey for genetic loci that affect the risk of suicide attempts in families with recurrent, early-onset, major depression. *Am J Med Genet*. 129B(1):47-54.
- Weese-Mayer DE, Berry-Kravis EM, Zhou L, Maher BS, Curran ME, Silvestri JM, Marazita ML. (2004) Sudden infant death syndrome: case-control frequency differences at genes pertinent to early autonomic nervous system embryologic development. *Pediatr Res*. 56(3):391-5.
- Marazita ML, Murray JC, Lidral AC, Arcos-Burgos M, Cooper ME, Goldstein T, Maher BS, Daack-Hirsch S, Schultz R, Mansilla MA, Field LL, Liu YE, Prescott N, Malcolm S, Winter R, Ray A, Moreno L, Valencia C, Neiswanger K, Wyszynski DF, Bailey-Wilson JE, Albacha-Hejazi H, Beaty TH, McIntosh I, Hetmanski JB, Tuncbilek G, Edwards M, Harkin L, Scott R, Roddick LG. (2004) Meta-analysis of 13 genome scans reveals multiple cleft lip/palate genes with novel loci on 9q21 and 2q32-35. *Am J Hum Genet*. 75(2):161-73.
- Spallek H, Etzel KR, Maher BS. (2005) Dental school applicants' use of website information during the application process. *J Dent Educ*. 69(12):1359-67.
- Maher BS, Brock GN. (2005) Approaches to detecting gene x gene interaction in Genetic Analysis Workshop 14 pedigrees. *Genet Epidemiol*. 29 Suppl 1:S116-9.
- Brock GN, Maher BS, Goldstein TH, Cooper ME, Marazita ML (2005) Methods for detecting gene x gene interaction in multiplex extended pedigrees. *BMC Genetics* 2005, 6(Suppl 1):S144.
- Cooper ME, Goldstein TH, Maher BS, Marazita ML (2005) Identifying genomic regions for fine-mapping using genome scan meta-analysis (GSMA) to identify the minimum regions of maximum significance (MRMS) across populations. *BMC Genetics* 6(Suppl 1):S42.
- Todd ES, Weinberg SM, Berry-Kravis EM, Silvestri JM, Kenny AS, Rand CM, Zhou L, Maher BS, Marazita ML, Weese-Mayer DE. (2006) Facial phenotype in children and young adults with PHOX2B-determined congenital central hypoventilation syndrome: quantitative pattern of dysmorphology. *Pediatr Res*. 59(1):39-45.
- Weinberg S, Maher B, Marazita M. (2006) Parental craniofacial morphology in cleft lip with or without cleft palate as determined by cephalometry: a meta-analysis. *Orthod Craniofac Res* 9(1):18-30.
- Maher BS, Marazita ML, Rand C, Zhou L, Berry-Kravis EM, Weese-Mayer DE. Related (2006) 3' UTR polymorphism of the serotonin transporter gene and sudden infant death syndrome: Haplotype analysis. (in press) *Am J Med Genet A*.
- Rand CM, Weese-Mayer DE, Zhou L, Maher BS, Cooper ME, Marazita ML, Berry-Kravis EM (2006) Sudden Infant Death Syndrome: Case-Control Frequency Differences in Paired Like Homeobox (PHOX)2B Gene. (in press) *Am J Med Genet A*.
- Rand CM, Weese-Mayer DE, Maher BS, Marazita ML, Berry-Kravis EM (2006) Sudden Infant Death Syndrome: Case-Control Frequency Differences in Nicotine Metabolizing Genes GSTT1 and CYP1A1. (in press) *Am J Med Genet A*.

## C. OTHER SUPPORT

### Active

R01DA019157-01 Vanyukov (PI) 9-30-04 to 7-31-09  
NIH/NIDA

“Substance use disorder liability: Candidate Gene Systems”

The goal of this grant is to evaluate genetic and environmental factors involved in substance abuse and its precursors.

**Role: Co-I**

1-R01-DE14899 Marazita (PI) 9-30-02 to 9-29-09  
NIH/NIDCR

“Genetic Factors contributing to oral health disparities in Appalachia”

The aim of this grant is to perform longitudinal, population-based, oral health assessments of children and their care-givers in West Virginia in order to identify factors contributing to the poor oral health seen in this population. Genetic factors will be the particular focus of this project.

**Role: Co-I.**

R01-DE014889-S1 Marazita (PI) 12-01-04 to 05-31-09  
NIH/NIDCR

“Psychosocial influences on rural children’s Oral Health”

**Role: Co-I**

### Pending

R03 DE016632 Maher (PI) 12-1-06 to 11-30-08  
NIH/NIDCR

“Statistical Genetic Analyses of Orofacial Cleft Families”

This project seeks to elucidate the contribution of multiple interacting genes to nonsyndromic cleft lip/palate in a large international sample of multiplex extended pedigrees.

R01 Michael M. Vanyukov - University of Pittsburgh (PI) 12-1-06 to 11-30-11  
NIH/NIDA

Gene Systems in Adolescent Female Drug Dependence

The goal of this project is to evaluate the contribution of specific dopamine system related candidate genes to female adolescent onset substance abuse.

**Role: Co-I**

R01 Seth Dobrin – Marshfield Clinic Research Foundation (PI) 12-1-06 to 11-30-09  
NIH/NIMH

Genetic and Genomic Architecture of Bipolar Disorder

The goal of this project is to identify genomic regions contributing to the risk for Bipolar Disorder in a sample of Irish sibpairs and trios.

**Role: Co-I**

R01 HD052953-01 Jeffrey C. Murray – University of Iowa (PI) 4-1-2006 to 3-31-2011  
NIH/NICHD

Identification of Maternal and Fetal Genetic Factors in Preterm Birth

**Role: Co-I**