Dr. Lekki Frazier-Wood
Post doctoral researcher
Departments of Biostatistics and Epidemiology
Ryals Public Health Building, 230P
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Birmingham, AL 35294

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ACADEMIC EXPERIENCE

Sept 2009-present Postdoctoral Trainee

Departments of Epidemiology and Biostatistics (Section on Statistical Genetics), University of Alabama at Birmingham, Alabama. Mentors: Prof. Donna Arnett, Prof. David Allison, Prof. Hemant Tiwari

Sept 2006- Aug 2009 PhD

Social Genetic and Developmental Psychiatry Centre, Kings College London.

Thesis title "The use of objective measures to improve ADHD phenotype definition and understanding of the underlying genetic architecture".

Mentors: Dr. Jonna Kuntsi, Prof. Philip Asherson, Dr. Fruhling Rijsdijk

Sept 2004- Sept 2005 MSc

Social Genetic and Developmental Psychiatry Centre, Kings College London. (Merit). Thesis title: "Genetic Influences on Mechanically-Assessed Activity Level in Children".

Sept 2002- Sept 2003 Post Graduate Certificate in Education

University of Cambridge.

Sept 1999 - June 2003 BSc

University of Warwick. Psychology and Philosophy (1st Class (Hons))

PUBLICATIONS (previously as A.C. Wood).

Peer-reviewed

- 1. **Frazier-Wood, A.C.**, Kabagambe, E.K., Borecki, I.E., Tiwari, H.K., Ordovas, J., & Arnett, D. K., (in press) Preliminary evidence for an association between LRP-1 genotype and body mass index in humans, which is not modified by an interaction with ApoE genotype.
- 2. **Frazier-Wood, A.C.**, Bralten, J., Arias-Vasquez, A., Luman M., Oosterlaan J., Sergeant J., Buitelaar J., Franke B., Kuntsi, J., Rommelse, N, Intra-individual variability (IIV) in ADHD (in press) *American Journal of Medical Genetics: Part B*
- 3. Cheung, H.M., **Wood A.C.**, Paloyelis, Y., Arias-Vasquez, A., Buitelaar, J.K., Franke, B., Miranda, A., Rommelse, N.N.J., Sergeant, J.A., Sonuga-Barke, E.J., Faraone, S.V., Asherson, P.A.,& Kuntsi, J (in press) ADHD, reading difficulties and IQ show shared and non-shared familial influences in a family study of combined type ADHD. *Journal of Child Psychology and Psychiatry and Allied Disciplines*
- 4. **Frazier-Wood, A.C.**, Glasser, S., Garvey, W.T., Kabagambe, E.K., Borecki, I.E., Tiwari, H.K., Tsai, M., Hopkins, P., Ordovas, J., & Arnett, D. K., (in press) How do VLDL, LDL and HDL lipoprotein diameters cluster across the components of the metabolic syndrome? *Lipids in Health and Disease*
- 5. **Wood, A.C.**, Glasser, S., Garvey, W.T., Kabagambe, E.K., Borecki, I.E., Tiwari, H.K., Tsai, M., Hopkins, P., Ordovas, J., & Arnett, D. K., (2011) Lipoprotein Lipase S447V polymorphism associates with VLDL, LDL and HDL diameter clustering. *Lipids in Health and Disease 10:1 143*

- 6. **Wood, A.C.**, Kabagambe, E.K. Borecki, I.B., Tiwari, H.K., & Arnett, D.K. (2011) Dietary carbohydrate modifies the association between dietary saturated fat intake and fasting concentrations of plasma triglycerides and very low density cholesterol *Lipid Insights 4 7-15*
- 7. **Wood, A.C.,** Rijsdijk, F., Asherson, P., & Kunsti J. (2011) Inferring causation from cross-sectional data: the example of ADHD and novelty seeking behaviors *Frontiers in Genetics* 2:6
- Paloyelis, Y., Rijsdijk, F., Wood, A.C., Asherson, P. & Kuntsi, K., (2010) The genetic association between ADHD symptoms and reading difficulties: the role of inattentiveness and IQ. *Journal of Abnormal Child Psychology* 38(8) 1083-95
- Kuntsi, J., Wood, A.C., Rijsdijk, F., Johnson, K.A. Andreou, P., Albrecht, B., Arias-Vasquez, A., Buitelaar, J.K., McLoughlin, G., Rommelse, N.N.J., Sergeant, J.A., Sonuga-Barke, E.J., Uebel, H., van der Meere, J.J., Banaschewski, T., Gill, M., Manor, I., Miranda, A., Mulas, F., Oades, R., Roeyers, H., Rothenberger, A., Steinhausen H.C., Faraone, S., Asherson, P., (2010) Separation of Cognitive Impairments in Attention Deficit/Hyperactivity Disorder into 2 Familial Factors. Archives of General Psychiatry 40(6) 1027-1037
- Wood, A.C., & Neale, M., C (2010) Twin studies and molecular genetics. Endophenotypes integrate quantitative and molecular genetic analysis in ADHD research. *Journal of the American Academy of Child and Adolescent Psychiatry* 49:9 874-883
- 11. **Wood, A.C.,** Rijsdijk, F., Johnson, K., Andreou, P., Albrecht, B., Arias-Vasquez, A., Buitelaar, J.K., Mcloughlin, G., Rommelse, N.N.J., Sergeant, J.A., Sonuga-Barke, E.J.S., Uebel, H., van der Meere, J.J. Banaschewski, B., Gill, M., Manor, I., Miranda, A., Mulas, F., Oades, R.D., Roeyers, H., Rothenberger, A., Steinhausen, H.C., Faraone, S.V., Asherson P. & Kuntsi, J., (2010) The relationship between ADHD and key cognitive phenotypes is not mediated by shared familial effects with IQ. *Psychological Medicine* 4:1-11
- 12. **Wood, A.C.,** Buitelaar, J., Rijsdijk, F., Asherson, P, & Kuntsi, J (2010) Rethinking shared environment as a source of variance underlying attention-deficit/ hyperactivity disorder symptoms: Comment on Burt (2009). *Psychological Bulletin* 36 (3) 331-40
- 13. Ilott N., Saudino K.J., **Wood, A,** Asherson, P. (2010) A genetic study of ADHD and activity level in infancy. *Genes, Brain and Behavior* 9 (3) 296-304
- 14. **Wood**, **A.C.**., Rijsdijk, F., Van De Meere, J.J., Asherson , P & Kuntsi J., (2009) Separation of genetic influences on ADHD symptoms and reaction time performance from those on IQ. *Psychological Medicine*. I1 1-11
- 15. **Wood, A.C**. Asherson, P., Rijsdijk, F., & Kuntsi, J., (2009) Is overactivity a core feature in ADHD? Familial and ROC-curve analysis of mechanically-assessed activity level. *Journal of the American Academy of Child and Adolescent Psychiatry*. 48:10 1023-1030
- 16. **Wood**, **A.C.**, Rijsdijk, F., Asherson, P., & Kunsti J., (2009) Hyperactive-impulsive symptom scores and oppositional behaviours reflect alternate manifestations of a single liability *Behavior Genetics* 39 (5) 447 460
- 17. Kuntsi, J., **Wood, A.C**, Van Der Meere, J., & Asherson, P., (2009) Why cognitive performance in ADHD may not reveal true potential: Findings from a large population-based sample. *Journal of the International Neurological Society* 15, 570-9
- 18. **Wood**, **A.C.**, Kuntsi, J., Asherson, P., & Saudino, K., (2008) Actigraph data are reliable, with functional reliability increasing with aggregation. *Behavior Research Methods, Instruments and Computers* 40(3) 873-8.
- 19. **Wood, A.C**. Rijsdijk, F., Saudino, K., Asherson, P., & Kuntsi, J., (2008) High heritability for a composite index of children's activity level measures. *Behavior Genetics* 38 (3) 266-76.
- 20. **Wood, A.C.**, Saudino, K., Rogers, H., Asherson, P., & Kuntsi, J., (2007) Genetic Influences on Mechanically-Assessed Activity Level in Children. . *Journal of Child Psychology and Psychiatry and Allied Disciplines*. 48(7) 695-702.

Submitted data

- 21. **Frazier-Wood, A.C.,** Garvey, W.T., Pourfarzib, R., Opportunities for Using Lipoprotein Subclass Concentration and Size Profiles by Nuclear Magnetic Resonance Spectroscopy For Assessing Insulin Resistance and Diabetes Prediction *International Journal of the Metabolic Syndrome, under review*
- 22. **Frazier-Wood A.C.**, Ordovas, J.M, Hixson, J.E., Borecki, I.B., Arnett, D.K The PPARA gene is associated with triglyceride, lipoprotein, and inflammation marker response to fenofibrate intervention: The GOLDN Study *The Pharmacogenomics Journal; revised manuscript under review*
- 23. Loop, M.S., **Wood, A.C.**, Thomas, A.S., Dhurandhar, E.J., Shikany, J.M., Gadbury, G.L., and Allison, D.B. Submitted for Your Consideration: Potential Advantages of a Novel Clinical Trial Design and Initial Patient Reaction. *PloS ONE; under review*
- 24. Pinto, R., Rijsdijk, F., **Wood, A.C.**, PLomin, R., Asherson, P & Kuntsi, J Bigger families fare better: rater bias in parental ratings on ADHD symptoms *Behavior Genetics; revised manuscript under review*
- 25. Kunsti, J., Pinto, R., Ilott, N., Price, T.S., van der Meere, J.J., **Wood, A.C**. & Asherson, P. The separation of ADHD inattention and hyperactivity-impulsivity symptoms: specific pathways from genes to cognitive impairments and symptoms. *Archives of General Psychiatry; revised manuscript under review*

Pre-submission (drafts with co-authors or publications committees)

- 26. Banaschewski, T., Jennen-Steinmetz, C., Kunsti, J., Sergeant, J. A., Brandeis, D., Buitelaar, J.K., Poutska, L., Schlotz, W., Sonuga-Barke, E.J., Frazier-Wood, A.C., Albrecht, B., Andreou, P., Uebel, H., Marco, R., van der Meere, J.J., Gill, M., Manor, I., Miranda, A., Mulas, F., Oades, R.D., Roeyers, H., Rothenberger, A., Steinhausen, H., Faraone, S.V., & Aserson, P., Neuropsychological correlates of emotional lability in children with ADHD. (Target journal: *Journal of Child Psychology and Psychiatry and Allied Disciplines*).
- 27. **Frazier-Wood, A.C**, Manichaikul A., Aslibekyan, S., Borecki, I.B., Goff, D.C., Hopkins, P.M., Lai, C.M., Ordovas, J.M., Post, W.S., Rich, S.S., Sale, M.M., Szklo, M., Siscovick, D., Straka, R.J., Tiwari, H.K., Tsai, M.Y., Rotter, J.I., Arnett, D.K. Genetic variants associated with VLDL, LDL and HDL particle size differ with race/ethnicity. (Target journal: *Circulation: Cardiovascular Genetics*)
- 28. **Frazier-Wood, A.C.**, Aslibekyan, S., Straka, R.J., Borecki, I. B., Tiwari, H.K., Tsai, M.Y. Hopkins, P.N., Ordovas, J.M. Arnett, D.K. Genome-wide association study of lipoprotein diameter response to fenofibrate. (Target journal: *Pharmacogenetics and Genomics*)
- 29. Kessler, E, **Frazier-Wood, A.C.** & Lichtenstein, P. Heritable covariance among economic behaviors (Target journal: *Proceedings of the National Academy of Sciences*)

Invited book chapter (under review)

30. Frazier-Wood, A.C., & Kuntsi, J., Quantitative Studies on ADHD

AWARDS

NORC "Creativity is Decision": 1st Place; June 2011

Center for Cardiovascular Disease Biology Annual Retreat: 1st Place; May 2011

Center for Cardiovascular Disease Biology Annual Retreat: 2nd Place; May 2011

SOPH 3rd Annual Public Health Research day: 1st Place; April 2011

AHA EPI/NPAM conference: Young Investigator Award Finalist; March 2011

2nd Annual International Congress on ADHD: **Young Investigator Award**; May 2009

COMPETITIVE TRAVEL AWARDS

Diabetes Research Training Center; \$1,000; June 2011

Center for Cardiovascular Disease Biology; \$800; May 2011

OPE Postdoctoral Scholar's Award; \$1,500; Feb 2010

World ADHD Federation €1,000; June 2009

Behavior Genetics Association; \$600; June 2008

Behavior Genetics Association; \$600; June 2007

Vrijie Universitat; €300; Oct 2006

INVITED TALKS

"K99 applications"*; American College of Sports Medicine (Early Career Day), San Fransisco, California, USA; May 2012

"Genetically-sensitive phenotype development"*; University of Alaska at Fairbanks, Fairbanks, Alaska, USA; Jan 2012

"Towards a new understanding of gene-environment interplay in complex traits"; Texas School of Public Health, Houston, Texas, USA; Jan 2012

"Using Biomarkers of Cognitive Performance to Understand the Aetiology of Attention Deficit/Hyperactivity Disorder"*; St Jude's Children's Hospital. Memphis Tennesee, USA; Jan 2012

"Twin studies and molecular genetics. Are endophenotypes the key to integrating quantitative and molecular genetic analysis?"; Section on Statistical Genetics, University of Alabama at Birmingham, Alabama, USA; Nov 2009

RESEARCH SEMINARS

"K99 applications to NIH"; Grant writing seminar series, University of Alabama at Birmingham, Alabama, USA.; June 2011

"Whole genome approaches to quantitative genetics"; Journal club, Section on Statistical Genetics, University of Alabama at Birmingham, Alabama, USA.; June 2010

"Twin approaches in genetics"; Journal club, Section on Statistical Genetics, University of Alabama at Birmingham, Alabama, USA.: Jan 2010

"Are Hyperactivity-Impulsivity and Conduct Problems Alternate Manifestations of a Single Liability?". Weekly seminar series, Social, Genetic and Developmental Psychiatry Centre, London, UK.; June 2008

"The Overlap between Mechanical and Behavioural Measurements of Activity Level".; Weekly seminar series, Social, Genetic and Developmental Psychiatry Centre, London, UK; June 2007

"Genetic Influences on Mechanically Assessed Children's Activity Level".; Weekly seminar series, Social, Genetic and Developmental Psychiatry Centre, London, UK.; June 2006

*Provisional title

CONFERENCE PRESENTATIONS

Oral

"An association between the LRP-1 I10701 polymorphism and body mass index in humans may be modified by an interaction with ApoE genotypes" *American Heart Association Scientific Sessions 2011, Orlando, Florida, USA; Nov 2011*

- "Using full-information maximum likelihood estimation, to determine whether we can combine variables across samples in genomewide association studies. The example of cognitive data" *American Society of Human Genetics*, 60th *Annual Meeting*, *Washington DC*, *Virginia*, *USA*; Oct 2010
- "Validating genetic homogeneity across samples for GWAS". Office of Postdoctoral Education, University of Alabama, Birmingham, USA; Feb 2010
- "Is overactivity a core feature in ADHD? A ROC-curve and familiality analysis of mechanically-assessed activity level in ADHD and control sibling pairs". 2009 Behavior Genetics Association 39th Annual Meeting, Minneapolis, USA
- "Investigating genetically-informed composite scores in ADHD research: Reaction time and actigraph data". 2nd Annual International Congress on ADHD, Vienna, Austria; May 2009
- "A genetic examination of the relationship between hyperactivity-impulsivity and novelty seeking". 2008 Behavior Genetics Association 38th Annual Meeting, Kentucky, USA; June 2008
- "A Longitudinal Investigation of the Association Between ADHD and Later Problem and Risk-taking Behaviours in Adolescence". British Psychological Society Developmental Section Annual Conference, Egham, UK.; Sept 2006

Posters (selected)

- **Frazier-Wood, A.C.**, Aslibekyan, S., Straka, R.J., Borecki, I. B., Tiwari, H.K., Tsai, M.Y. Hopkins, P.N., Ordovas, J.M. Arnett, D.K. Genome-wide Association Study suggests that Inflammation and Insulin Regulation Pathways may mediate Lipoprotein Diameter Response to Fenofibrate. *Nutrition, Physical Activity and Metabolism / Cardiovascular Disease Epidemiology and Prevention 2012 Scientific Sessions, Atlanta, Georgia, USA; March 2012*
- **Wood, A.C.**, Glasser S., Kabagambe, E.K., Borecki, I.E., Tiwari, H.K., Tsai, M., Hopkins, P., Ordovas, J., Arnett D.A., "Lipoprotein Lipase S447X polymorphism associates with VLDL, LDL and HDL diameter clustering" *American Diabetes Association* 71st *Scientific Sessions, San Diego, California, USA; June* 2011
- **Wood, A.C.**, Glasser S., Garvey, W.T., Kabagambe, E.K., Borecki, I.E., Tiwari, H.K., Tsai, M., Hopkins, P., Ordovas, J., Arnett D.A., "VLDL, LDL and HDL diameter clustering in insulin resistance" *Nutrition, Physical Activity and Metabolism / Cardiovascular Disease Epidemiology and Prevention 2011 Scientific Sessions, Atlanta, Georgia, USA; March 2011*
- Pinto, R., **Wood, A.,** Plomin, R., Asherson, P., Rijsdijk, F., & Kuntsi, J. An examination of the sources of rater bias in parental ratings on ADHD symptoms *Eunethydis 1st international ADHD conference: from data to best clinical practice Amsterdam, The Netherlands; May 2010*
- Celeste H.M.C, **Wood**, **A.C**., Buitelaar, J.K., Miranda, A., Rommelse, N.N.J., Sergeant, J.A., Sonuga-Barke, E.J., Faraone, S.V., Asherson, P., Kuntsi. J. An examination of the sources of rater bias in parental ratings on ADHD symptoms *World Congress on Psychiatric Genetics*, *Athens, Greece, October 2010*
- **Wood, A.C,** Rijsdijk, F., Asherson, P., & Kuntsi, J., "Using quantitative genetic analyses to inform future studies: the example of using ADHD symptom scores and objective measures of behaviour to refine the ADHD phenotype for future molecular genetic investigations." 2009 Behavior Genetics Association 39th Annual Meeting, Minneapolis, USA; June 2009
- **Wood, A.C.,** Rijsdijk, F., Andreou, P., Christiansen, H., Gabriels, I., et al. "Familial factors underlying ADHD and cognitive task performance" 2nd Annual International Congress on ADHD, Vienna, Austria; May 2009
- **Wood, A. C.,** Rijsdijk, F., Asherson, P., & Kuntsi, J., "Are hyperactivity-impulsivity and oppositional behaviours in the general population alternate manifestations of a single underlying liability 2nd Annual International Congress on ADHD, Vienna, Austria; May 2009
- **Wood, A.C.,** Rijsdijk, F., Andreou, P., Christiansen, H., Gabriels, I., et al "Uses of genetically heterogeneous cognitive processes in ADHD". *Biomedical Research Centre for Mental Health Spring Seminar: Enhancing Translational Research in Mental Health through Genetics, London, UK; March 2009*
- **Wood, A.C.**, Saudino, K., Rogers, H., Asherson, P., & Kuntsi, J., Genetic Influences on Mechanically-Assessed Activity Level in Children. "Shared Genetic Influences across Different Measurements of Children's Activity Level". *SRCD biennial Meeting, Boston, USA: March* 2007

Wood, A.C., Saudino, K., Rogers, H., Asherson, P., & Kuntsi, J., "The Genetics of Mechanically Assessed Children's Activity Level". XIV World Congress on Psychiatric Genetics, Cagliari, Sardinia; Oct 2006

GRANTSMANSHIP

Nov 2011 American College of Sport Nutrition, Research Endowment Award

Score: pending

July 2011 National Institutes of Health K99/R00 (resubmission)

Score: 28. Payline: pending

Jan 2011 American Heart Association Postdoctoral Fellowship

Score: 1.7. Payline: 1.4; unfunded

Oct 2010 National Institutes of Health K99/R00

Score: 37. Payline: 30; resubmitted

TEACHING AND MENTORING

2009-2010 Supervision of a final dissertation for a final year MSc Psychology student.

Student: C. M. Cheung

Dissertation title: "The Genetic Relationship between ADHD, Reading Difficulties and IQ in a Sibling-

Pair Sample Selected for ADHD Combined Subtype"

Grade: Merit

2008-2009 Supervision of a final dissertation for a final year MSc Psychology student.

Student: R. Pinto.

Dissertation title: "Bigger families fare better: rater bias in parental ratings on ADHD symptoms" Grade:

Merit

July 2009 Scientific Director & Tutor

Social, Genetic and Developmental Psychiatry 10th Summer School.

Twin model fitting stream.

July 2007 Tutor

Social, Genetic and Developmental Psychiatry 8th Summer School.

Twin model fitting stream.

2005-2006 Supervision of an undergraduate dissertation for a final year BSc Psychology student. Student:

R. Whittemore

Dissertation title: "Attention Deficit Hyperactivity Disorder and oppositional behaviour: Examining rates of co-occurrence in clinical ADHD and control samples during middle childhood and adolescence".

2003–2005 Class Teacher

Waverley School. Enfield, London, UK.

ACADEMIC SERVICE

Nov 2011 Abstract reviewer, American Heart Association

Oct 2011 Editorial Board, Psychological Medicine

May 2011 Review board member, Frontiers in Genetics

April 2011 Grant Reviewer, Medical Research Council UK

July 2008- present Ad hoc Reviewer, Journal of Lipid research, Journal of Abnormal Child Psychology, The Association

for Child and Adolescent Mental Health, Progress in Neuro-Psychopharmacology & Biological Psychiatry, Journal of Child Psychology and Psychiatry and Allied Disciplines, Behaviour Genetics, Psychological Medicine, Obesity, PLoS Genetics; American Journal of Epidemiology; Medicine & Science in Sports & Exercise; Annals of Human Genetics, Computational Statistics; Journal of Clinical

Lipidology, Nucleic Acids in Research

March 2008 Named student reviewer, Journal of Child Psychology and Psychiatry and Allied Disciplines

Sept 2007 PhD Student research group co-ordinator

ADDITIONAL TRAINING

Dec 2010 EPI610 Graduate course in Epidemiological Design and Methods

Grade: B

August 2011 BY511 Graduate course in Molecular Genetics.

Grade: A

March 2010 Family-based Genetic Analysis, **Rotterdam, The Netherlands**

March 2009 Multilevel modeling of longitudinal data. Maryland, USA

Oct 2007 Biotechnology YES 2007 Competition. Oxford, UK.

Sept 2006 4th Workshop on Methodology for Behavior Genetics & Genetic Epidemiology. Egmond-aan-Zee,

Netherlands

July 2005 Social, Genetic and Developmental Psychiatry 6th Summer School. **London, UK**.

Twin model fitting stream

OTHER INFORMATION

Nationality: United Kingdom. Current visa status: J-1. US permanent residency application submitted October 2011.