

Miles Benton

PERSONAL DETAILS

Name: Miles C Benton

Organisation: Institute of Health and Biomedical Innovation, Queensland University of Technology

Address: Genomics Research Centre, Institute of Health and Biomedical Innovation, Queensland University of Technology, 60 Musk Avenue, Kelvin Grove Urban Village, Kelvin Grove, 4059 QLD, Australia.

Mobile: +64212472229

Email: m.benton@qut.edu.au or miles.benton84@gmail.com

Website: <http://sirselim.github.io/>

PROFESSIONAL POSITIONS HELD

| | | |
|-----------------------|-------------------|-------------------------------------|
| 2013-2014 | PostDoc (Nov-Feb) | ESR |
| 2014 (present) | PostDoc (Feb-) | Queensland University of Technology |

EDUCATION

2010-2014: PhD School of Medical Sciences, Griffith University, Queensland, Australia.

Thesis: "*Identification of Susceptibility Genes for Metabolic Syndrome in the Isolated Population of Norfolk Island*"

2009: MSc (HONS) Cell and Molecular Biology, Victoria University of Wellington.

Thesis: "*Mitochondrial Genome Variation and Metabolic Traits in a Maori Community*"

2007: BBMedSc. Biomedical Science, Majors: Human Genetics, Molecular Pathology, Victoria University of Wellington.

PRESENT RESEARCH/PROFESSIONAL SPECIALITY

I am a computational geneticist interested in all facets of biology and technology. I am currently working at QUT (Queensland University of Technology) in a PostDoc position.

I have just completed my PhD exploring the underlying genetic susceptibility to obesity and metabolic disorders in the Norfolk Island population isolate. My main areas of interest are Bioinformatics and Computational Genetics, and I also have an active interest in population genetics. My current work involves the creation of methods to deal with, and analyse, large genomic data sets, including incorporation of multiple layers of both phenotypic and genomic data.

LIST OF PUBLICATIONS

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Göring HH, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Harper JL, Blangero J and Griffiths LR. *Mapping eQTLs in the Norfolk Island Genetic Isolate Identifies Candidate Genes for CVD-risk Traits*. (2013) American Journal of Human Genetics 93(6): 1087-99

Benton MC, Macartney-Coxson D, Eccles D, Griffiths L, Chambers G and Lea, R. (2012) *Complete Mitochondrial Genome Sequencing Reveals Novel Haplotypes in a Polynesian Population*. PLoS ONE 7(4): e35026

Maheer BH, Lea RA, **Benton MC**, Cox HC, Bellis C, Carless M, Dyer TD, Curran J, Charlesworth JC, Buring JE, Kurth T, Chasman DI, Ridker PM, Schürks M, Blangero J, Griffiths LR. (2012) *An X Chromosome Association Scan of the Norfolk Island Genetic Isolate Provides Evidence for a Novel Migraine Susceptibility Locus at Xq12*. PLoS ONE 7(5): e37903

Aya-Bonilla C, Green MR, Camilleri E, **Benton MC**, Keane C, Marlton P, Lea RA, Gandhi MK, Griffiths LR. (2013) *High resolution loss of heterozygosity screening implicates PTPRJ as a potential tumor suppressor gene that affects susceptibility to non-Hodgkin's lymphoma*. Genes, Chromosomes and Cancer 52(5):467-79

Rodriguez-Acevedo AJ, Maheer BH, Lea RA, **Benton MC**, Griffiths LR. (2013) *Association of oestrogen-receptor gene (ESR1) polymorphisms with migraine in the large Norfolk Island pedigree*. Cephalalgia. 33(14):1139-1147

Stuart S, Maheer BH, Sutherland H, **Benton MC**, Rodriguez A, Lea RA, Haupt LM, Griffiths LR. (2013) *Genetic Variation in Cytokine-Related Genes and Migraine Susceptibility*. Twin Res Hum Genet 20:1-8

Graves MC, **Benton MC**, Lea RA, Boyle M, Tajouri L, Macartney-Coxson D, Scott RJ and Lechner-Scott J (2013) *Methylation changes at the HLA-DRB1 locus in CD4+ T-Cells are associated with multiple sclerosis*. Multiple Sclerosis Journal.

LIST OF PUBLICATIONS IN PREPARATION

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Göring HH, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Harper JL, Blangero J and Griffiths LR. *A Phenomic Scan Identifies a Pleiotropic Effect Locus Associated with CVD risk in the Genetic Isolate of Norfolk Island*. (2014)

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Blangero J and Griffiths LR. *UDP-glucuronosyltransferase (UDPGT) Variants Modify Serum Bilirubin Concentration and Influence Reduced Risk of Type-2 Diabetes in the Norfolk Island Genetic Isolate*. (2014)

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Blangero J and Griffiths LR. *Genomic Structure of the NI core-pedigree*. (2014)

Benton MC, Johnstone A, Eccles D, Harmon B, Hayes MT, Lea RA, Griffiths LR, Hoffman E, Stubbs RS, Macartney-Coxson D. *Significant differential DNA methylation after gastric bypass induced weight loss in human subcutaneous and omental adipose tissue*. (2014)

Bosch P, **Benton MC**, Macartney-Coxson D, Kivell B. (2014) *Investigation of mRNA and miRNA changes in the rat ventral tegmental area following methamphetamine self-administration*. Under review at Addiction Biology

LIST OF ORAL PRESENTATIONS

Benton MC, Lea RA, Macartney-Coxson D, Cox H, Hanna M, Eccles D, Chambers GK, Griffiths L. *A Phenome Scan for Metabolic Syndrome in the Norfolk Island Isolate*. Goldcoast Health and Medical Research Council Conference 2011.

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Göring HH, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Blangero J and Griffiths LR. *eQTL identification and mapping in the population isolate of Norfolk Island*. Genemappers Conference. Port Douglas, Australia, 26-29th August 2012.

Benton MC, Eccles D, Lea R, Sutherland H, Macartney-Coxson D, Griffiths L. *Epigenetics – where the environment meets the genetics of disease: Interpreting high-throughput DNA Methylation data*. WHBRS 2012, Victoria University of Wellington, Wellington, New Zealand.

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Göring HH, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Blangero J and Griffiths LR. *Mapping eQTLs associated with CVD risk in the Norfolk Island genetic isolate*. Biomarkers Discovery Conference 2012, Shoal Bay Resort and Spa, NSW, Australia, 3rd - 6th December 2012.

Benton MC, Eccles D, Macartney-Coxson D. *What High-throughput 'Omics' and Bioinformatics can do for you!* Malaghan Institute Seminar, Wellington, New Zealand, 24th May 2013.

Graves MC, **Benton MC**, Lea RA, Boyle M, Tajouri L, Macartney-Coxson D, Scott R, Lechner-Scott J. (2013) Epigenetic changes in CD4⁺ T cells isolated from relapsing-remitting multiple sclerosis patients. ECTRIMS Lecture: Multiple Sclerosis Journal 19: (S1) 18–73

Benton MC, Johnstone A, Eccles D, Harmon B, Hayes MT, Lea RA, Griffiths LR, Hoffman E, Stubbs RS, Macartney-Coxson D. *Global DNA methylation profiling reveals significant differential methylation of subcutaneous and omental adipose tissue before and after weight loss*. Queenstown Molecular Biology Meeting, Queenstown, New Zealand, August 2013 Epigenetics Satellite.

Benton MC, Lea RA, Macartney-Coxson D, Carless MA, Göring HH, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Blangero J and Griffiths LR. *A pedigree-based GWAS identifies UDP-glucuronosyltransferase (UGT) variants associated with serum bilirubin concentration and risk of Type-2 Diabetes in the Norfolk Island genetic isolate*. Genemappers Conference 2014, Novotel Barossa Valley Resort, SA, Australia, 11th – 14th May 2014.

LIST OF POSTER PRESENTATIONS

Benton MC, Macartney-Coxson D, Eccles D, Griffiths L, Chambers GK, Lea RA. *A Mitochondrial Genome Scan for Thrifty Genes in Maori*. WHBRS 2010, Wellington, New Zealand.

Benton MC, Lea RA, Macartney-Coxson D, Cox H, Hanna M, Eccles D, Chambers GK, Griffiths L. *A Phenome Scan for Metabolic Syndrome in the Norfolk Island Isolate*. HGSA Conference, Seaworld, Queensland, Australia, 3-6th December 2011.

Griffiths LR, **Benton MC**, Cox H, Bellis C, Blangero J, Lea RA. *Identification of a pleiotropic effect locus associated with a composite CVD risk trait in the genetic isolate of Norfolk Island*. ASHG 2012.

Benton MC, Johnstone A, Eccles D, Harmon B, Hayes MT, Lea RA, Griffiths LR, Hoffman E, Stubbs RS, Macartney-Coxson D. *Global DNA methylation profiling reveals significant differential methylation of subcutaneous and omental adipose tissue before and after weight loss*. AMATA 2013, Surfers Paradise, Oct 13-16 – Australasian Microarray and Associated Technologies Association Conference.

Jones A, **Benton MC**, Stubbs RS, Macartney-Coxson D. *A comparison of plasma miRNA levels in insulin sensitive, insulin resistant and type 2 diabetic obese individuals versus lean controls: differential miRNA levels between groups*. AMATA 2013, Surfers Paradise, Oct 13-16 – Australasian Microarray and Associated Technologies Association Conference.

Miles Benton, Ronald D. Hagan, Alice Johnstone, Richard Stubbs, Michael A. Langston, Donia Macartney-Coxson. *A tale of two [adipose] tissues: DNA methylation markers associated with weight-loss and tissue specificity*. Genemappers Conference 2014, Novotel Barossa Valley Resort, SA, Australia, 11th – 14th May 2014.

LIST OF AWARDS AND SCHOLARSHIPS

Best Poster Presentation, Genemappers Conference 2014, Novotel Barossa Valley Resort, SA, Australia, 11th – 14th May 2014.

Inaugural Grasshopper prize for Scientific Innovation. Wellington Health and Biomedical Research Society annual students and early researchers meeting, Victoria University of Wellington, Wellington, New Zealand, 19th November 2012.

Best Student Presenter. 2nd Biomarker Discovery Conference, Shoal Bay Resort and Spa, NSW, Australia, 5th December 2012.

Griffith University Higher Degree Research Scholarship 2010-2013