

# 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: +64 21 247 222 9

Email: [m.benton@qut.edu.au](mailto:m.benton@qut.edu.au) or [miles.benton84@gmail.com](mailto:miles.benton84@gmail.com)

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

## PROFESSIONAL POSITIONS HELD

<b>2013 - 2014</b>	Casual Senior Scientist (Bioinformatics)	Environmental Science Research (ESR)
--------------------	--	--------------------------------------

<b>2014 (ongoing)</b>	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) as a post-doctoral researcher.

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 the incorporation of multiple layers of both phenotypic and genomic data. I am working on a range of complex human disorders, including; obesity and type-2 diabetes, multiple sclerosis, glaucoma, migraine, ovarian cancer and asthma.

## LIST OF PUBLICATIONS

**Benton MC**, Johnstone A, Eccles D, Harmon B, Hayes MT, Lea RA, Griffiths LR, Hoffman E, Stubbs RS, Macartney-Coxson D. (2015) *An analysis of DNA methylation in human adipose tissue reveals differential modification of obesity genes before and after gastric bypass and weight-loss.* Genome Biology (accepted 09/12/2014, awaiting publication in January)

Aya-Bonilla C, Camilleri E, **Benton MC**, Haupt LM, Marlton P, Lea RA, Gandhi MK and Griffiths LR. (2014) *Fine mapping of the 15q21 region implicate TP53BP1 and B2M in the lymphomagenesis of Follicular and Diffuse Large B-Cell lymphomas.* Carcinogenesis & Mutagenesis Accepted 30/10/2014.

Gunawardhana LP, Gibson PG, Simpson JL, **Benton MC**, Lea RA, Baines, KJ. (2014) *Characteristic DNA methylation profiles in peripheral blood monocytes are associated with inflammatory phenotypes of asthma.* Epigenetics 9(9)

**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

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 20(8):1033-1041

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, Maher 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, Maher 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

Maher 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

**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

## LIST OF SUBMITTED MANUSCRIPTS

**Benton MC**, Stuart S, Bellis C, Macartney-Coxson D, Curran JE, Chambers GK, Lea RA, and Griffiths LR. (2014) *'Mutiny on the Bounty': The Genetic History of Norfolk Island reveals extreme gender biased admixture.* Under revision at Scientific Reports

**Benton MC**, Lea RA, Macartney-Coxson D, Carless MA, Bellis C, Hanna M, Eccles D, Chambers GK, Curran JE, Blangero J and Griffiths LR. (2014) *Discrete UGT1A1 Haplotypes Modify Serum Bilirubin Concentration and Influence Risk of Type-2 Diabetes in the Norfolk Island Genetic Isolate.* Under review at PLoS One

**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. (2014) *A phenomic scan of the Norfolk Island genetic isolate identifies a major pleiotropic effect locus associated with renal disorder markers.* Submitted to Nature

Bosch P, **Benton MC**, Macartney-Coxson D, Kivell B. (2014) *Methamphetamine modulates miRNA and mRNA expression of key addiction pathways in the rat brain.* Under review at Genes, Brain and Behaviour

## **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).

ESR Masters Research Scholarship (2007-2009).