Projects beginning in 2006

**2006/001**

*An investigation into geno-type phenotype relationships using gene variants known to alter traits related to type 2 diabetes*

**Aims**

To analyse common variants that reproducibly alter fasting glucose, triglycerides, HDL or type 2 diabetes risk.

**Investigators**

- Dr Brenda Powell, WAIMR
- Prof Lyle Palmer, WAIMR
- Dr John Beilby, Department of Biochemistry, PathCentre
- Dr Tim Frayling, University of Exeter

**Project status**

In progress

**2006/002**

*Predictors of the development of cancer in the 1981 Busselton cohort*

**Aims**

1. To determine if a high white cell count predicts onset of cancer
2. To determine whether left-handedness increases the risk of breast cancer

**Investigators**

- Dr Lin Fritschi, WAIMR
- Prof Matthew Knuiman, School of Population Health, UWA

**Project status**

In progress

**Publications**

**Abstract.**

2006/003

**The prevalence of sleep apnoea and sleep apnoea symptoms in Busselton**

**Aims**

To conduct a new cross-sectional survey of a random sample from the Busselton population and use these data together with longitudinal data to:

1. determine the current prevalence of sleep apnoea and sleep disordered symptoms in a normal Australian adults population
2. estimate the effects of sleep apnoea on asthma and COPD
3. investigate relationships between sleep disorders and other conditions

**Investigators**

- Clin Assoc Prof Alan James, WA Sleep Disorders Research Institute, SCGH
- Dr Stewart Cullen, WA Sleep Disorders Research Institute, SCGH
- Prof Matthew Knuiman, School of Population Health, UWA
- Prof Lyle Palmer, WAIMR
- Dr Sutapa Mukherjee, WA Sleep Disorders Research Institute, SCGH

**Project status**

In progress

2006/004

**Validation of genetic associations in asthma and allergy in Canadian and Australian families**

**Aims**

To test if common susceptibility gene variants are associated with asthma and allergy in two well phenotyped collections of cases.

**Investigators**

- Clin Assoc Prof Alan James, Department of Pulmonary Physiology, SCGH
- Clin Prof Bill Musk, Department of Respiratory Medicine, SCGH
• Dr John Beilby, Department of Clinical biochemistry, Pathwest
• Prof Lyle Palmer, WAIMR
• Dr Thomas Hudson, McGill University
• Prof Peter Pare, University of British Columbia

**Project status**

Completed

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**2006/005**

**Estimates of mortality attributable to obesity and regression dilution**

**Aims**

To assess whether regression-dilution effects can help explain the present uncertainty about the level of mortality attributable to obesity.

**Investigators**

• Dr James Greenberg, University of New York

**Project status**

Seeking funding (not yet commenced)

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**2006/006**

**Analysing the familial and environmental factors of asthma using visualisation and statistical techniques**

**Aims**

To develop novel techniques to visualise pedigrees on a population scale, and test these techniques using the Busselton Health Study data.

**Investigators**

• Dr Angeline Loh, WAIMR
• Dr Kim Carter, WAIMR
• Prof Lyle Palmer, WAIMR

**Project status**
Thyroid function and autoimmunity in the Busselton Health Study: a longitudinal community-based study

Aims

To study baseline serum levels of thyroid hormones in relation to development of hypothyroidism

Investigators

- Prof John Walsh, Department of Endocrinology and Diabetes, SCGH
- Prof Peter Leedman, Department of Medicine and Pharmacology, UWA
- Dr Peter O’Leary, Department of Health, WA Government
- Dr Alexandra Bremner, School of Population Health, UWA

Project status

In progress