**Project Title:** Towards a novel genome-wide association study for cardiovascular disease risk  
**Code:** SMS12

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<th>Host School / Institute: Sydney Medical School/ NHMRC Clinical Trials Centre</th>
<th>Address: Medical Foundation Building, 92-94 Parramatta Rd, Camperdown, NSW</th>
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**Certificates & Clearances required:** No

**Primary Supervisor:** A/Prof David Sullivan

**Phone:** 02 95155246  
**Email:** dsullivan@sydney.edu.au

**Co-Supervisor/team:** Prof Alicia Jenkins, NHMRC CTC & Statistics team, NHMRC CTC

**Project Type:** Data Analysis; Clinical; genetics

**Project Category:** Bioinformatics; Cardiovascular

**Skills / Attributes of a successful student:**
- Familiarity with the principles of data analysis  
- Competence in statistics

**Project Keywords:** Diabetes; cardiovascular; creatinine; homocysteine; fenofibrate

**Project Description:** The project will utilise the rich clinical and laboratory data generated by the FIELD study of cardiovascular disease prevention in diabetes by fenofibrate. The intervention achieved pre-specified reductions in cardiovascular disease (CVD) and diabetic microvascular disease. Its active run-in design allowed examination of the relationship between metabolic response to drug and the subsequent risk of CVD. Change in biomarkers such as creatinine, homocysteine, uric acid etc were strong predictors of future CVD risk. At this stage, it is not known which of these was the strongest predictor. Furthermore, it is not known whether the changes are associates with a specific genetic locus. The project will examine these questions, and in the process, it may be possible to identify a novel target for therapeutic intervention.