Impact on health from transitioning away from fossil fuels to new alternate energy sources

This project is supervised by UNSW Medicine, CSIRO and the NSW Ministry of Health.

Project description:
Air pollution and climate change have considerable impacts on the health of the NSW population. Fossil fuels are the major source of energy in NSW, and the combustion of fossil fuels contribute to both air pollution and climate change. Thus there are potential co-benefits for health from transitioning energy generation away from fossil fuels. This project will use a range of quantitative modelling approaches including life cycle analysis and health impact assessment to determine the cumulative benefit to health from transitioning over a period of time from fossil fuels to alternative energy technologies. For example, CSIRO is investigating the use of ammonia as a hydrogen carrier for fuel for motor vehicles. There are potential environmental health benefits and detriments associated with this novel alternate energy technology and one of the aims of the project will be to conduct a health impact assessment to quantitatively determine the net health impact.

What skills and experience does the ideal candidate require?
The ideal candidate will have an honours or Masters degree with a strong cross-disciplinary background, with solid bases in applied maths, physics or chemistry. A background in engineering or environmental science would be an advantage. Other attributes that the candidate will be required to possess include: strong programming skills, strong organisational skills in both academic and professional careers; independent and creative thinker; consistent history of producing high quality results; excellent communication skills; and potential research leadership skills. Excellent written expression in English is essential.

Location
The successful candidate will be primarily located at the Ingham Institute for Applied Medical Research, Liverpool Hospital. However, the candidate will also be expected to spend time in the NSW Ministry of Health, North Sydney, and CSIRO, Melbourne.