

# GenIMPACT

## CENTRE FOR ECONOMIC IMPACTS OF GENOMIC MEDICINE



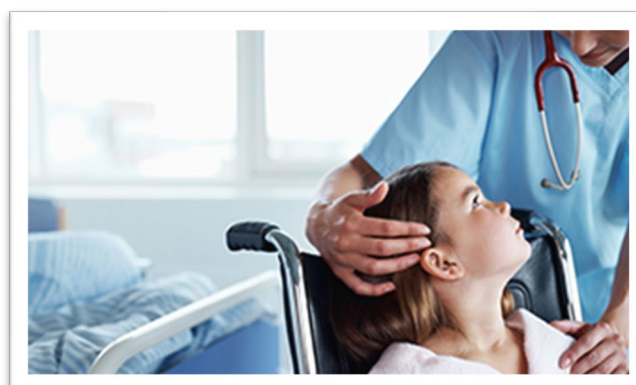
GenIMPACT aims to capture the paradigm shift in genomic medicine and the resulting far reaching economic and social impacts on individuals, families, the health system and the government.

GenIMPACT: Centre for Economic Impacts of Genomic Medicine focuses primarily on the potential of genomics and similarly path-breaking new innovations that improve human health, where these advances have significant impacts on the economy and society. The impacts not only have the potential to transform individual lives but also have marked impacts across multiple Federal and State government portfolios addressing health, economic, and social policy priorities as well as the economy.

### OUR RESEARCH

GenIMPACT aims to capture the impacts of these frontiers of science across the life course, and in many cases, for generations.

The resulting rapid expansion of the capacity for genome sequencing is revolutionising research into human diversity and the causes of disease. Combined with other new technologies and personalised medicine it will fundamentally alter the course of modern medicine, with the potential to diagnose, effectively treat and prevent many costly and highly disabling conditions. This paradigm shift in medicine will also have far reaching social and economic consequences. This is the focus of research for GenIMPACT.



We conduct world-leading research on the contribution of genomics to not only improve health outcomes, but also to improve the social and economic prospects of families and thereby deliver on some of the most compelling and complex policy objectives of government.

GenIMPACT has a broad scope of research encompassing health and economic research covering application of genomics to intellectual disability, preconception carrier screening, rare diseases, childhood cancer, mitochondrial disease, genetic blindness, arthritis, mental health and Parkinson's disease. Our work on the economic impacts of genomics is complemented by our long-standing research program on productivity and health.



## DIRECTOR

### Professor Deborah Schofield

Professor Schofield is the inaugural Director of GenIMPACT, in Macquarie Business School, Macquarie University. Professor Schofield has established herself as one of a handful of international leaders in the new field of economics of genomic medicine (econogenomics). Professor Schofield previously pioneered the applications of microsimulation modelling to health and developed our internationally leading research program on productivity impacts of illness.

## DEPUTY DIRECTOR

### Associate Director Rupendra Shrestha

Associate Professor Rupen Shrestha is an applied statistician and specialises in the application of statistical methods in large-scale complex microsimulation models for health economics research. His research program focuses on the lost productivity and the costs of chronic illness, mainly the societal costs. His research interests are in the development of economic models to analyse the economic impacts of genetic disorders and the cost-effectiveness analysis of genomic sequencing both from health care and the societal perspectives.

## ECONOMIC MODELLING OF GENOMICS

GenIMPACT is involved in numerous genomics projects including those on prenatal testing, depression, neurocognitive disorders, and rheumatoid arthritis and leads projects on:

- the economic and social impacts of genetic sequencing for intellectual disability
- the economic and social impacts of genetic sequencing for inherited retinal dystrophies
- the economic impact of precision medicine in high risk and aggressive childhood cancer
- the economic impact of providing precision medicine through whole genome sequencing for mitochondrial disorders, non-familial intellectual disability, epileptic encephalopathy and Mendelian disorders
- the economic impacts of preconception carrier screening.

## COLLABORATE WITH US

The GenIMPACT team and our colleagues from universities, health and policy organisations across Australia and internationally have a history of establishing long term partnerships important to demonstrating the economic impact of illness and novel interventions particularly in genomic medicine.

If you are interested in collaborating with us, contact:

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