

Centre For Health Economics Seminar Series 2017

UNDERSTANDING THE GENETIC & ENVIRONMENTAL CONTRIBUTION TO SCHIZOPHRENIA

Presenter: Dr Rachel Hill, Monash University
Date: Wednesday 15th March 2017
Time: 12.00pm -1.00pm
Venue: RB Scotton Room
Centre for Health Economics



Abstract:

Schizophrenia is a complex severe neuropsychiatric disorder plausibly attributable to a combination of genetic abnormalities and environmental insults. It is clinically highly heterogeneous with patients presenting with varying symptom combinations and degrees of severity. While a strong genetic component is evident in schizophrenia, how gene variation contributes to the pathophysiology of the disorder is unknown. We hypothesize that schizophrenia, rather than being one disorder, is a spectrum of disorders with distinct genetic and environmental patterns and symptom presentations. Our research aims to dissect the functional role of genetic and environmental risk factors that are strongly associated with schizophrenia. Our approach is to model specific risk factors (e.g. prenatal exposure to infection, or genetic deletions) in mice so that we may comprehensively assess the effect of these factors on brain function and behaviour. If we can determine the pathways by which these risk factors lead to behavioural dysfunction then we may be able to target these pathways for treatment strategies.

This work could lead towards patient-specific treatment paradigms based on their genetic and environmental risk profile.

Presenter:

Dr Hill is a NHMRC Career Development Fellow and head of the Behavioural Neuroscience laboratory, Department of Psychiatry, Monash Medical Centre. She currently holds competitive grants from the Australian government and US foundations, and supervises a team of post-doctorates, PhD students and honours students from Monash University. The behavioural neuroscience lab is working toward better treatments for psychiatric disorders. Psychiatric disorders are thought to be caused by a combination of genetic and environmental disturbances or 'risk-factors'. Our laboratory models these risk factors in mice to understand at the molecular, physiological and behavioural level how these disturbances contribute to mental health. We use a number of different techniques, including genetic manipulation, mouse behavioural testing, molecular biology, in vivo electrophysiology and human clinical studies. Our collaborative research team endeavours to provide the most optimal treatment strategy for people with a mental illness.

VISITORS ARE MOST WELCOME

The Seminar Series is free of charge. For further information please phone 9905 0733 or email che-enquiries@monash.edu

Over 25 Years of Health Economics at Monash University