



HRB Neonatal Encephalopathy PhD Training Network (NEPTuNE)

PhD Project Title:

PANDA: Psychological And Neurodevelopmental assessment of Neonatal Encephalopathy – TCD

Supervisors

- Professor Elizabeth Nixon, School of Psychology, Trinity College Dublin.
- Professor Jean Quigley, School of Psychology, Trinity College Dublin.
- Professor Eleanor Molloy, Chair of Paediatrics & Child Health, Trinity College Dublin.

Description

The aim of this project is to characterise the developmental and psychological outcomes of infants with hypoxic ischaemic encephalopathy. Neonatal brain injury is a common cause of mortality and disability. Neonatal encephalopathy (NE) is one of the commonest causes of neonatal brain injury in full term infants. For every baby that dies from NE, another will survive with significant lifelong disability. Ireland is at the forefront of research in the field of neonatal brain injury and a recent HRB funded study by researchers in this consortium has shown that even infants with mild encephalopathy can have cognitive impairments at 5 years of age.

This project will focus on the neurodevelopmental, cognitive, linguistic and socio-emotional follow-up of NE infants, using standardised developmental assessments. A further focus of the study will be on parent-infant interactions as predictive of a host of developmental outcomes, including self-regulation, linguistic and cognitive competencies and executive functioning. The influence of neurobiological risk, such as that which may arise from NE, may disrupt parent-infant interaction and influence the course of development, as has been shown in the context of prematurity. To date, no research has considered the nature of parent-infant interactions in the context of NE.

The successful applicant will join a team of PhD students working on similar questions with various clinical and community groups and will experience the holistic overview of research in this area involving the entire translational paradigm from basic science research, translational clinical research, clinical trials to epidemiology and population health while gaining in depth expertise in their chosen area. The applicant will work closely with the directors of the Infant & Child Research Laboratory to collect new data with this clinical cohort using observational methods and developmental assessments, for which training will be provided. In addition to the research expertise, this collaboration will allow the development of advanced standardisation of reporting and discussing neurodevelopmental findings with families.

Essential Qualities

- BA/BSc honours level degree in psychology from an accredited course (minimum 2.1 award)
- Research assistant experience
- Experience in data analysis
- Experience with child research participants
- Excellent English writing skills

Desirable Skills

- MA/MSc in Psychology
- Experience with standardised test administration (e.g., BSID, WAIS, WPPSI)
- Experience of observational methodology and coding
- Experience with relevant software