



RACP Foundation Research Awards

FINAL REPORT

Project / Program Title		Observership - Neonatal Hypoglycaemia and Congenital Hyperinsulinism, University College London Institute of Child Health, Great Ormond Street Hospital for Children, London, England
Name		A/Prof Louise Conwell
Award Received		2019
Report Date		25 November 2019
Funding Period	Start Date:	8 November 2019
	Finish Date:	23 November 2019

PROJECT SUMMARY

Hypoglycaemia (low blood glucose levels) are very common in neonates and is an important clinical issue due to a wide range of conditions. A delay in the diagnosis and inappropriate management may lead to permanent brain damage. The most severe forms are due to congenital hyperinsulinism, a disorder of the pancreas causing low blood glucose levels. This is a field in which I have recognised leadership and expertise in Australia and New Zealand. This study grant supported an Observership visit to an international centre of excellence in this field at the Great Ormond St Hospital in London, United Kingdom.

PROJECT AIMS / OBJECTIVES

The Study Grant was to support an Observership in the field of neonatal hypoglycaemia and congenital hyperinsulinism at the University College London Institute of Child Health, Great Ormond St Hospital, London, England.

The aims of the study grant were to:

- Enhance my international profile and clinical linkage with an International Centre of Excellence in the field of neonatal hypoglycaemia
- Enhance my clinical expertise in my lead clinician role
- Facilitate potential research partnerships and other collaborations.

The Observership was undertaken between the dates 8th-23rd November. My supervisor was Dr Pratik Shah, the lead consultant paediatric endocrinologist in the hyperinsulinism team.

My clinical experiences to achieve these aims included:

- Attendance at inpatient ward rounds and multidisciplinary team meetings
- Attendance at clinics
 - Hypoglycaemia clinic

- Hyperinsulinism clinic
- Transition Hyperinsulinism clinic (also attended by an adult endocrinologist)
- Discussions with and opportunity to ask questions of individual team members (medical, nursing, dietetic, psychology)
- Review of relevant policies and procedures

I also had other clinical experiences related to the field of neonatal endocrinology.

These included:-

- Attendance at the monthly Disorders of Sexual Development Multi Disciplinary ward rounds
- Inpatient and outpatient reviews I discussion, for example
 - Congenital ventriculomegaly with annular pancreas and hypopituitarism (including neonatal diabetes insipidus)
 - Hypopituitarism in the context of a severe congenital brain anomaly

SIGNIFICANCE AND OUTCOMES

The opportunities above will enable me to optimise and share knowledge and protocols I procedures including

- Acute hypoglycaemia management
- Chronic hypoglycaemia management including the administration of medical therapies such as glucagon, Octreotide (immediate release and long acting) and Sirolimus
- Fasting studies (diagnostic, safety and curative)
- Preparation and transport for 18F-DOPA PET/CT scans of the pancreas
- Nutritional management
- Peri-operative management for pancreatic resection

Collaborative networks with the Hypoglycaemia and Hyperinsulinism Team at Great Ormond St Hospital have been established. The team members are from a range of professional groups including consultant paediatric endocrinologists, clinical nurse specialists, dietician, and psychologist. A potential collaborative outcome under discussion is an interprofessional and patient/family neonatal hypoglycaemia and hyperinsulinism conference to be held in Brisbane, Australia. This would likely be conducted with the input and support of the patient advocacy organisation Congenital Hyperinsulinism International. The Great Ormond St Hospital hyperinsulinism team are working with Congenital Hyperinsulinism International on the program for the patient and family conference to be held in Liverpool in September 2020, which I am likely to be invited to participate in.

Dr Shah has provided introductory emails to pharmaceutical companies conducting trials of new medications (e.g. dasiglucagon) to explore if Australia may be able to become a trial site; or at a minimum have compassionate access to such medications.