**The Pregnancy and Neonatal Diabetes Outcomes in Remote Australia (PANDORA) study: *2024 RACP Australian Diabetes Society Research Establishment Fellowship.***

**Aim**: 1. To identify differences in cardiometabolic risk among offspring exposed and not exposed to hyperglycaemia in-utero (gestational diabetes (GDM) or pre-existing type 2 diabetes (T2D)) and identify modifiable factors early in life. 2.To describe the incidence and predictors of diabetes, CVD and CKD, among women who had hyperglycaemia during pregnancy.

**Methods:** The PANDORA study is a longitudinal cohort study of First Nations and non-First Nations mothers and their offspring across the Northern Territory. 1139 women were recruited during pregnancy and followed up until the birth of their offspring (n=1170), and pregnancy and birth outcomes were assessed. Women and their children were then followed up at 1.5- 6 years postpartum (Wave 1) and then again at 5.5-12 years postpartum (Wave 2). This fellowship focused on the Wave 2 follow up of this cohort.

**Results:** By ages 5.5 to 12 years, offspring exposed to GDM or T2D had higher BMIs compared to those exposed to normal glycaemia. Longitudinal analysis comparing Wave 1 with Wave 2 showed that BMI decreased for offspring exposed to normal glycaemia but increased for those exposed to GDM or T2D in pregnancy, signifying “rebound” growth. Women with GDM had a high risk of developing T2D, with 22% of First Nations mothers with GDM developing T2D within 2.5 years postpartum, compared to 5% of non-Indigenous mothers.

**Conclusion:** PANDORA is in a unique position to offer unparalleled comprehensive longitudinal data to rigorously better understand and explore the impact of GDM and T2D in pregnancy and early life. Wave 3 -now 12-18 years postpartum-will be crucial for identifying early origins of youth-onset T2D, enabling early identification of high-risk children and efficient health resource allocation.