

**THE
ORIGINS
PROJECT**



**TELETHON
KIDS
INSTITUTE**
Discover. Prevent. Cure.

 **Joondalup
Health Campus**
Part of Ramsay Health Care



The ORIGINS Project Biobank

Biobank Consultation Meeting: 29th October 2018

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A HEALTHY START for a Better Future

The ORIGINS Project is funded by the Paul Ramsay Foundation and the Commonwealth Government



The ORIGINS Project and the ORIGINS Biobank

- The ORIGINS Project aims to improve the health of the next generation through a better understanding of how to optimise the early environment.
- ORIGINS will study 10,000 pregnant women and their families, whose babies are born at the Joondalup Health Campus.
- This longitudinal cohort study includes a comprehensive Biobank, projected to collect in the region of 1.5 million aliquots of blood, stools, urines, saliva, breastmilk etc. over 10 years.



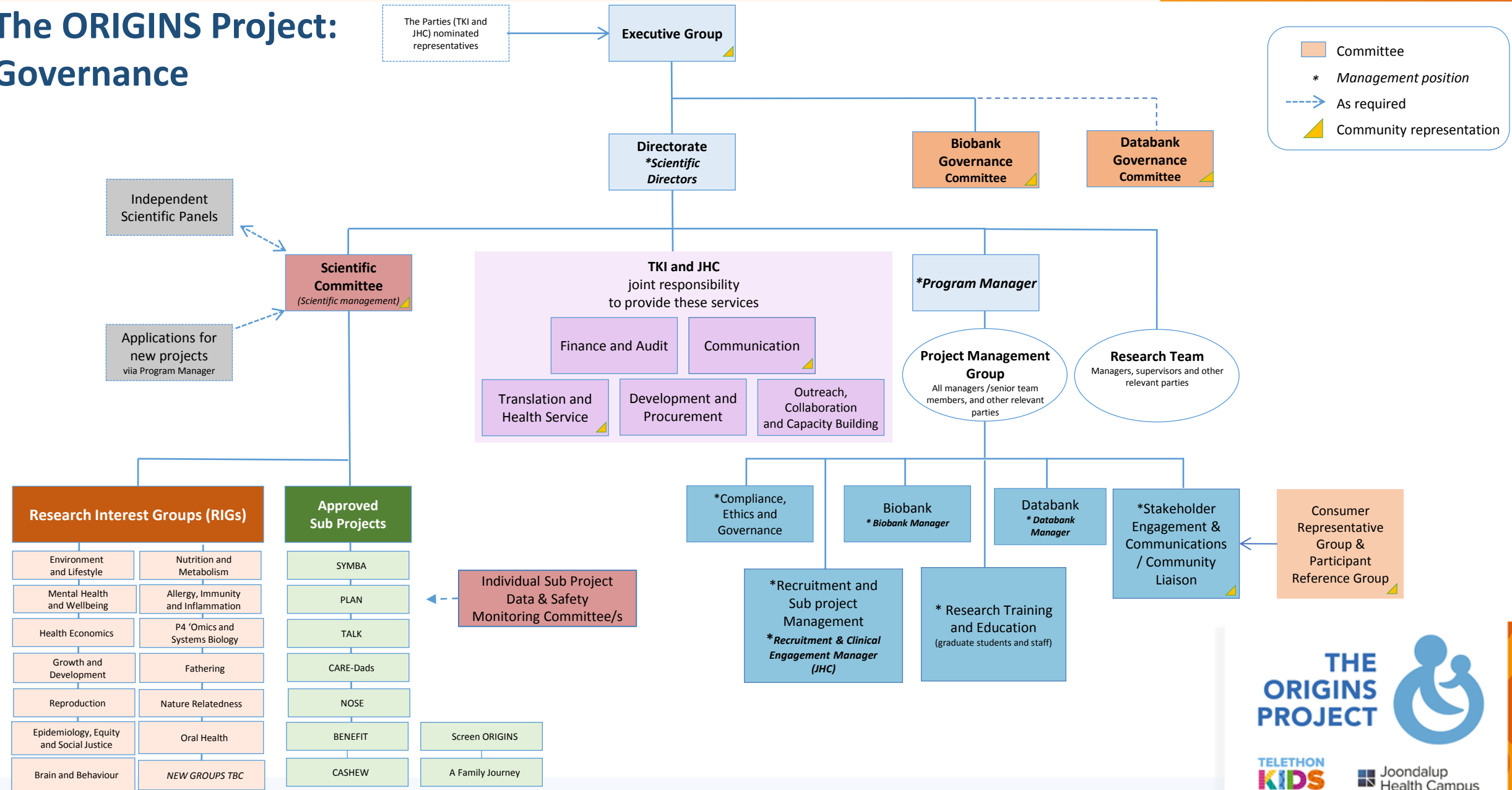
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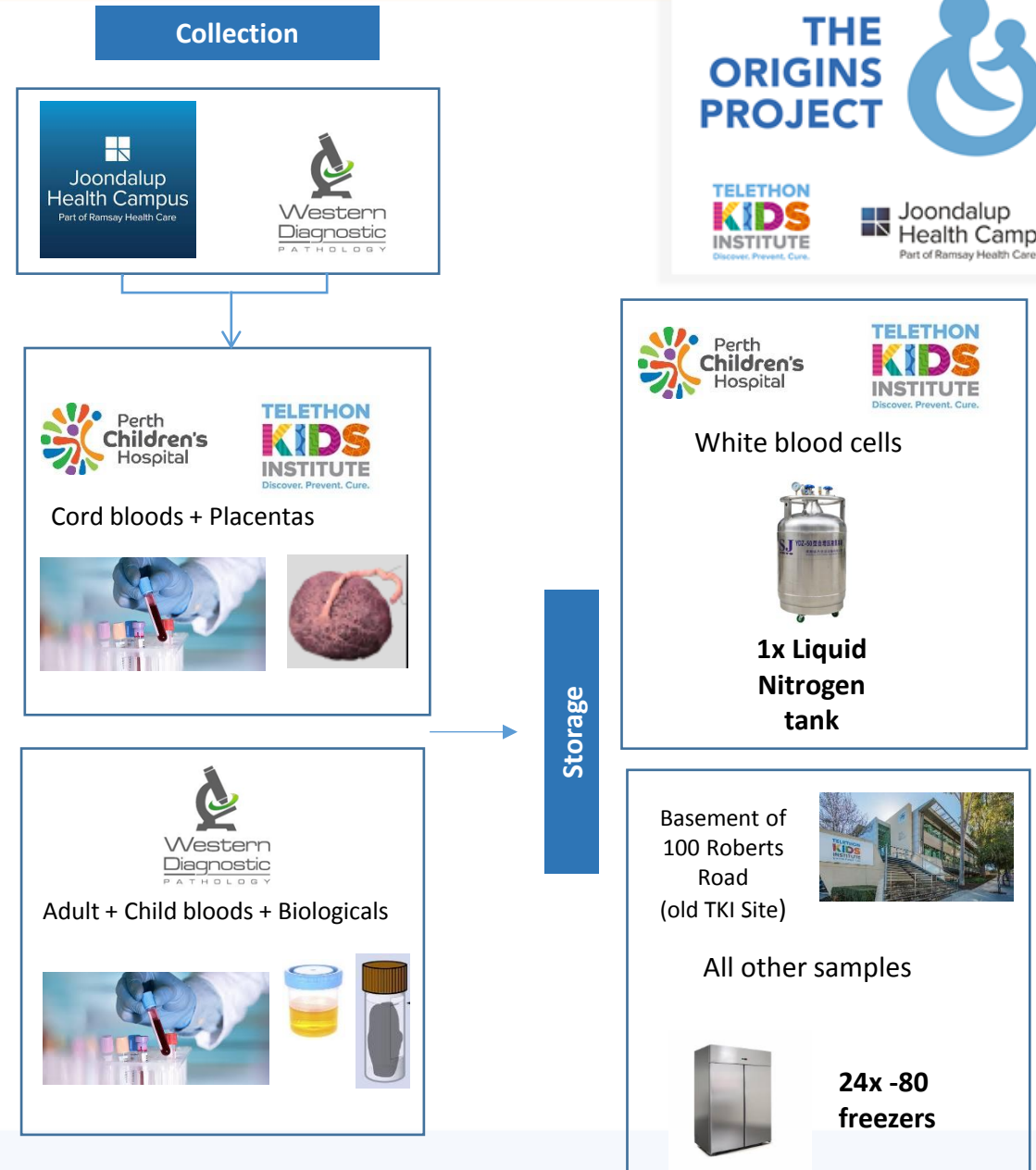
	Antenatal		Postnatal					Childhood						
	20 or 28 weeks	36 weeks	Birth	2 mths	4 mths	6 mths	9 mths	1 yr	1.5 yrs	2 yrs	2.5 yrs	3 yrs	4 yrs	5 yrs
BIOBANK COLLECTIONS														
Blood	M, F	M						C			C			C
Urine	M	M			M, C	M, C		C			C			C
Buccal swab	M, F	M	F			M*, C*		M, C			C			C
Saliva	M, F	M	F		M*, C*	C*		M, C			C			C
Stool	M	M		M, C	M, C	M, C		C			C			C
House dust		M						M			M			M
Meconium			C											
Cord blood			C											
Cord tissue			C											
Placenta			C											
Colostrum			M											
Breast milk				M	M	M		M						
Hair	F	M						M, F						
CLINICAL ASSESSMENT														
PEA POD			C											
Bod Pod											C			C
TEWL		M						C			C			C
Skin prick test								C			C			C
Eczema assessment								C			C			C
Anthropometry								C			C			C
Developmental review								C			C			C
Developmental assessment**								C			C			C

The ORIGINS Project: Governance



What are the current key challenges?

- Facilities and logistics:
 - Need for lab and freezer space with adequate capacity
 - Impact on time critical samples
 - Lack of dedicated facilities eg cryosite facilities
- Data management of sample information – Laboratory Information Management System (LIMS)
- Consistency across sites and processes
- Governance of implementing protocols for collecting and storing samples / managing complexity of ORIGINS
- Staff
 - Experienced staff
 - Training staff
- Engaging stakeholders to comply (clinical staff / participants)
- Protecting longitudinal samples – finite resource
- Ethics considerations eg children turning 18, future use
- Future-proofing and new technologies eg ‘omics analysis for genome sequencing.



White blood cells



1x Liquid Nitrogen tank

Basement of 100 Roberts Road (old TKI Site)



All other samples



24x -80 freezers

A Vision for Centralised Biobanking



PCH/TKI



UWA



PERKINS

