

Establishing a Biobank in a Private Hospital Setting: Successes and Lessons Learnt



Epworth
Research

Le CP¹, Johnston HM¹, Brooks NG¹, Fox LC¹, Prince HM¹ and Yannakou CK¹

1. Department of Molecular Oncology and Cancer Immunology (MOCI), Epworth HealthCare, Richmond VIC

Introduction and Aims

Biobanks have a central role in unravelling the biology that drives malignant disease. In October 2018 we established the Molecular Oncology and Cancer Immunology (MOCI) Biobank Study at Epworth HealthCare. The purpose of this study is to create and maintain a repository of biospecimens and clinical information from patients with a variety of cancer types. This resource will drive investigator-initiated research focused on the prognostication, treatment and monitoring of cancer in the pursuit of increasingly personalised medicine.

Methodology

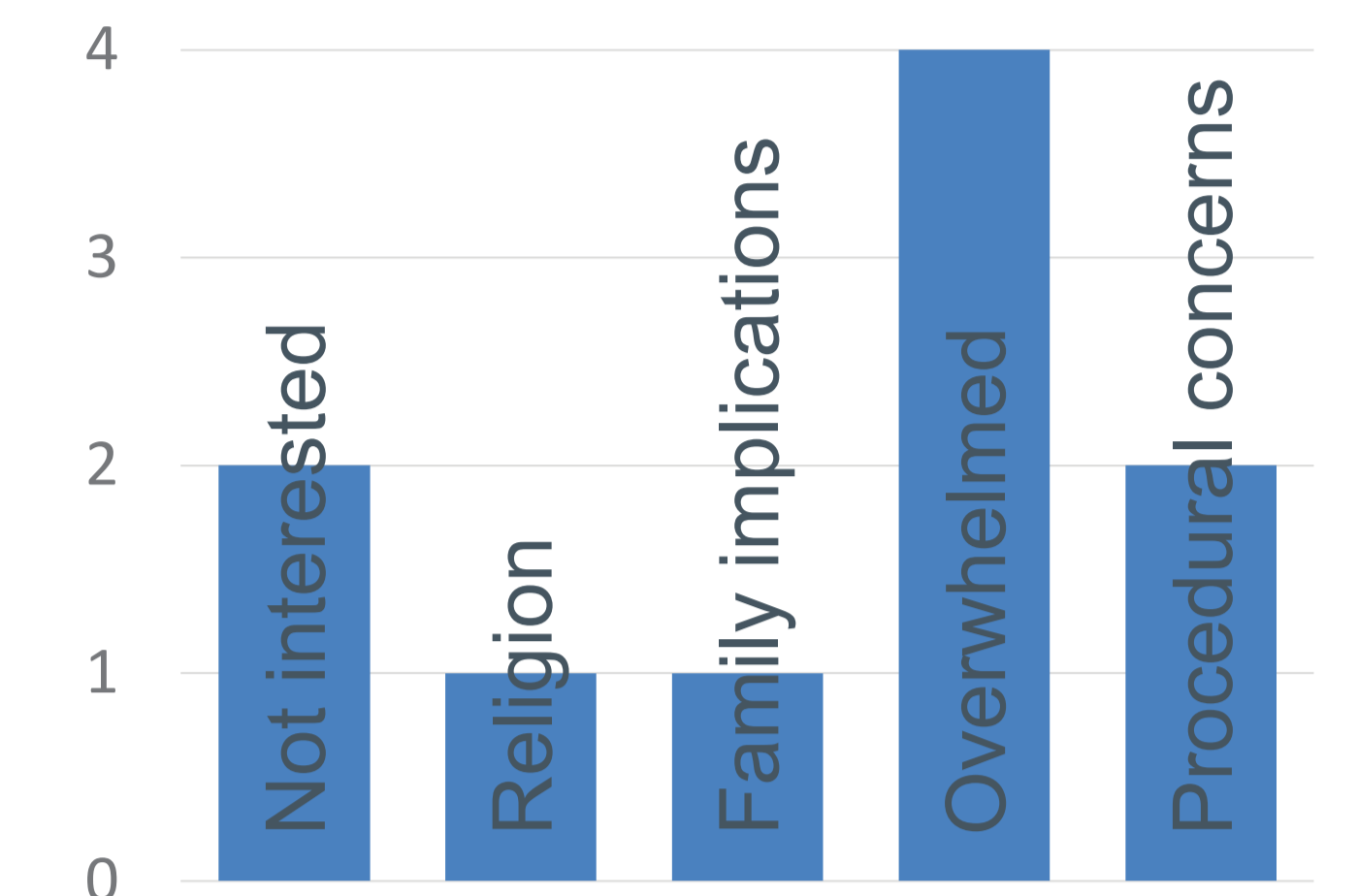
This is a single site, multi-centre study to be opened across Epworth HealthCare's 11 Victorian campuses. The first phase of implementation involved Epworth Freemasons and Richmond and focused on optimising study enrolment and logistical procedures, including:

- Ethics approval
- Governance authorisation
- SOP development
- Laboratory policies
- Governance framework
- Funding arrangements
- Physical security
- Digital security
- Hospital policies
- Quality management systems
- Material release and transfer agreements (MTAs)

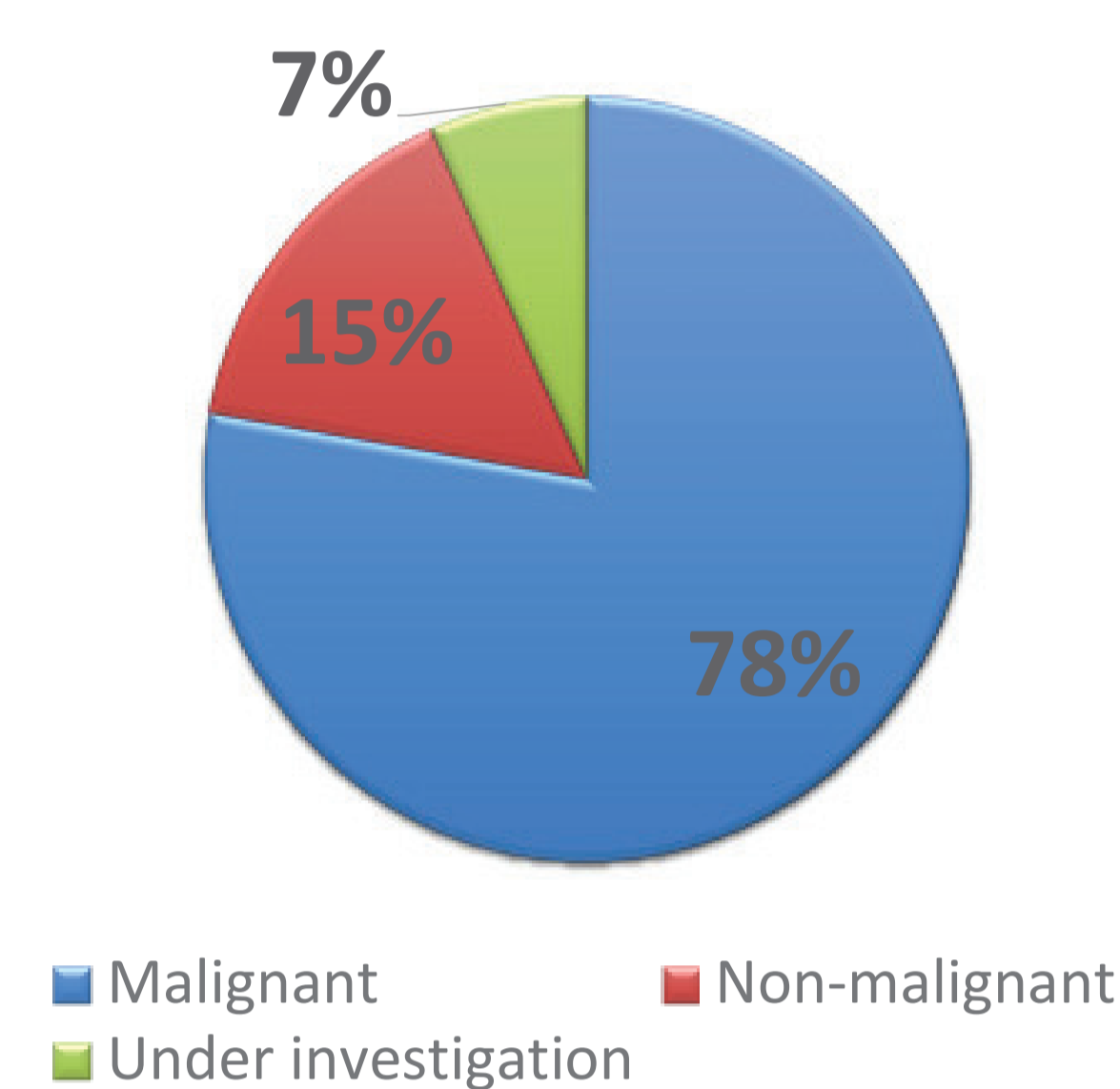
Results

- 101 potential participants
- 91 consented
- Accrual = ~10 patients/month
- 1,296 frozen aliquots (-80°C)
- 9 cancer sub-types

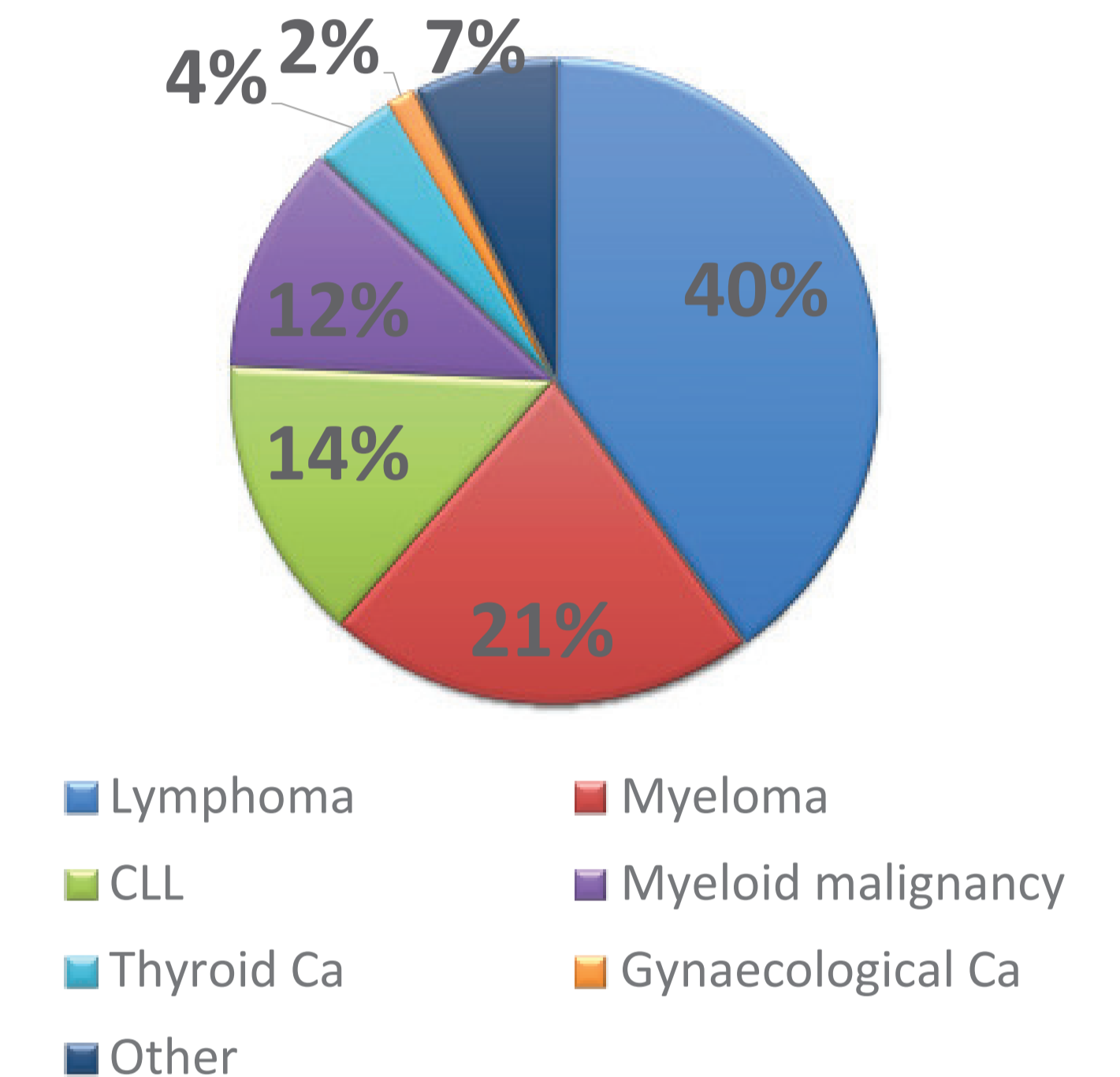
Reasons for declining consent



Malignant vs. non malignant



Neoplasm categories



Collaborations

- Australian National University ACT Haematology Research Tissue Bank
- THE UNIVERSITY OF MELBOURNE Myelofibrosis and Related Disorders Fellowship
- MOVEMBER FOUNDATION GAP4 Clinical Trial

Co-Consenting Studies

CABL (ctDNA as a Biomarker of B-cell NHL) Study

PI: Dr Costas Yannakou

Genomic Profiling using NGS of Thyroid FNA Samples

PI: Mr James Lee

CODEC (ctDNA in Endometrial Cancer) Study

PI: Dr Rachel Delahunty

The goal is for the MOCI Biobank to expand and facilitate the co-consenting and biospecimen collection for other Epworth Investigator-Initiated Trials.

Conclusions and Future Directions

Establishing a Biobank in the private hospital setting requires substantial infrastructural support from all units visited by the participant. Appropriate management of human resources (eg. independent study team) and interdepartmental communication have proven to be vital to the success of the MOCI Biobank. Of note, the initial stages of implementation involved education of the research team, doctor's consulting room staff, hospital wards and service providers (radiology, operating theatre, pathology).

Next steps:

- Expand biospecimen collection to other disease sub-types
- Expand protocols to accommodate isolation and storage of buffy coat and PBMCs
- Open participant enrolment to other Epworth Sites

