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**ThermoFisher**  
SCIENTIFIC

**BIOBANKING-  
BLUE SKY  
HORIZONS**

**2022  
OCTOBER  
19-21**

**19TH ANNUAL CONFERENCE**

Rendezvous Hotel Scarborough  
Perth, Western Australia



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## GENERAL INFORMATION

### Venue:

Rendezvous Hotel Scarborough, Perth, WA

### Meeting Dates:

October 19 - 21, 2022

### Conference Registration:

Mentelle Foyer area  
11:00 Wednesday, Oct 19  
09:00 Thursday, Oct 20  
09:00 Friday, Oct 21

### Corporate Sponsors:

Exhibit bump in from 9am Wednesday, Oct 19  
Exhibit bump out by 4pm Friday, Oct 21

### ABNA Conference Dinner:

Registration for the dinner is on the ABNA conference website. The cost of the dinner tickets is not included in the price of the conference registration. Additional guests may attend the dinner, please contact conference committee if extra tickets are required. Delegates, guests and industry partners will need to provide their ticket and name tag for verification. There are a limited number of tickets available, please book early.

### Full Conference Registration inclusions:

Wednesday - Friday: entrance to all workshops, speaker sessions, access to corporate sponsor exhibits and posters with lunch, morning and afternoon tea.

### Conference Name Badges:

All delegates, including all presenters, will be provided with a name badge, this must be worn at all times within the conference venue, as it is required for access to all sessions on Wednesday to Friday, including the Conference Dinner.

### Conference Proceedings:

Selected power point slides will be available on the ABNA website following the conclusion of the conference. Speakers will be requested to sign a release form or provide verbal consent.

### Conference WiFi:

Delegates have access to complimentary WiFi for the duration of the conference. The Registration Desk will supply instructions for connecting to the conference network.

### Dress Code:

Smart casual for all conference sessions.

### Oral Presentations:

Please be aware of your allocated speaking time and do not exceed this. Reminders will be given by the session chair to assist with keeping the schedule running as listed in the conference program.

### Poster Presentations:

Posters will be displayed in the Mentelle Foyer area. Judging will occur during the lunch break on Thursday. Please be sure to make time to talk to the poster presenters.

### Security:

The members of the conference organising committee, The Rendezvous Hotel Scarborough and La Capannina Restaurant, accept no liability for personal accident or loss or damage suffered by any participant, accompanying person, invited observer or any other person by whatever means. We do not accept liability for any equipment or software brought to the conference by delegates, speakers, sponsors or any other party. Please be responsible for your own items and do not leave valuable items unsecured. Report any inconsistencies around people or items to venue staff or conference committee.

### Social Media:

Please use #ABNA2022Perth when posting on LinkedIn or Twitter.

### Disclaimer:

The ABNA 20202 Conference Committee reserve the right to amend or alter any advertised details relating to dates, program and/or speakers if necessary, without notice, as a result of circumstances beyond our control. All attempts will be made to keep any changes to a minimum.



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## CASSANDRA GRIFFIN - 2022 ABNA PRESIDENT

Third time really is the charm!

After two false starts I think we were all incredibly excited to finally be on our way to stunning Perth. For anyone who has been involved in the planning and delivery of an annual conference, you know that it takes an army. ABNA is extremely fortunate to have several committees of dedicated and driven individuals who have been planning and developing this meeting (as well as the 'small' matter of a wildly successful mid-pandemic hybrid meeting) since 2019. I honestly can't thank them enough for their continued enthusiasm, innovation, and sheer hard work during incredibly challenging times. I'd also like to say a huge thank you to our sponsors and exhibitors who have provided unwavering support to the ABNA community. Many of you have been with us for a number of years and we feel extremely fortunate to continue our partnership - without you, these events would simply not be possible so thank you!

I am now beyond excited to say that on behalf of the ABNA Management and Conference Organising committees – welcome to ABNA's 19th Annual Meeting 'Biobanking: Blue Sky Horizons!'

As we recognised last year, the pandemic and rapid transition to online and hybrid models of working have resulted in a change to the way we network and develop relationships. We've also had time to reflect on our daily operations, strategic models and what it means to be biobankers and biospecimen scientists.

Today, we have a unique opportunity; a blue sky from which to explore the role that our profession will play in an ever-expanding research ecosystem. It's an exciting time where we can plan for new pathways and for new horizons in biospecimen science and support infrastructure. As we reconnect in person or finally meet face-to-face with new members of our community, we're reminded of the diversity and heterogeneity within the ABNA member base. This is an inherent strength of our community and as research moves towards collaborative and multi-disciplinary models of working, we now have an opportunity to lead by collaborative example and to learn from each other.

Be it cancer or coral, whales or wheat, forensic samples or biological data registries, the core principles of biospecimen science and biobanking remain consistent. As we move into a post-pandemic world, we're reminded of the importance of integrated working and as a fundamental stakeholder in the research sector, it's imperative that we form partnerships and deconstruct historic silos. I'm incredibly excited that this meeting affords us the space to continue to do that as a community.

A celebration of diversity and focus on collaborative optimism is what we hope you'll experience at Biobanking: Blue Sky Horizons. From a personal standpoint, ABNA has provided this relatively new biobanker (new when compared with some of the stalwarts of our community) with an opportunity to learn, network and expand my appreciation for collaborative opportunities. I'm incredibly excited that here, at our 19th Annual Meeting, among colleagues and friends we are able to continue providing these opportunities to the biobanking and biospecimen scientist community.

We trust you'll enjoy the next few days and look forward to continuing to build and advance the ABNA with you.

*Cassandra Griffin*



PRESIDENTS MESSAGE



## **AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION**

ABNA is committed to providing an opportunity for individuals who have an interest in tissue banking and biorepositories to share information and experience.

ABNA supports and promotes best practice biobanking in Australasia.

### **ABNA AIMS**

#### **SUPPORT**

Supporting new and emerging biobanks through protocol sharing and collegiate support.

#### **BIOSPECIMEN ACCESS**

Promoting biobanks throughout Australia and New Zealand to ensure high quality biospecimens are provided to support high quality research.

#### **NETWORKING**

Networking co-operatively and collaboratively with funding bodies and regulators to promote the interests of biobanking.

ABNA is an affiliated member of ISBER.

ABNA serves the biobanking community, research community and the general public and is managed by a committee structure elected by the membership.

# 2022 CONFERENCE SPONSORS

Thank you to all our conference sponsors, we look forward to welcoming everyone to Perth in October

## PLATINUM



## GOLD



## SILVER



## EVENT SPONSOR



## SESSION SPONSOR



COFFEE CART



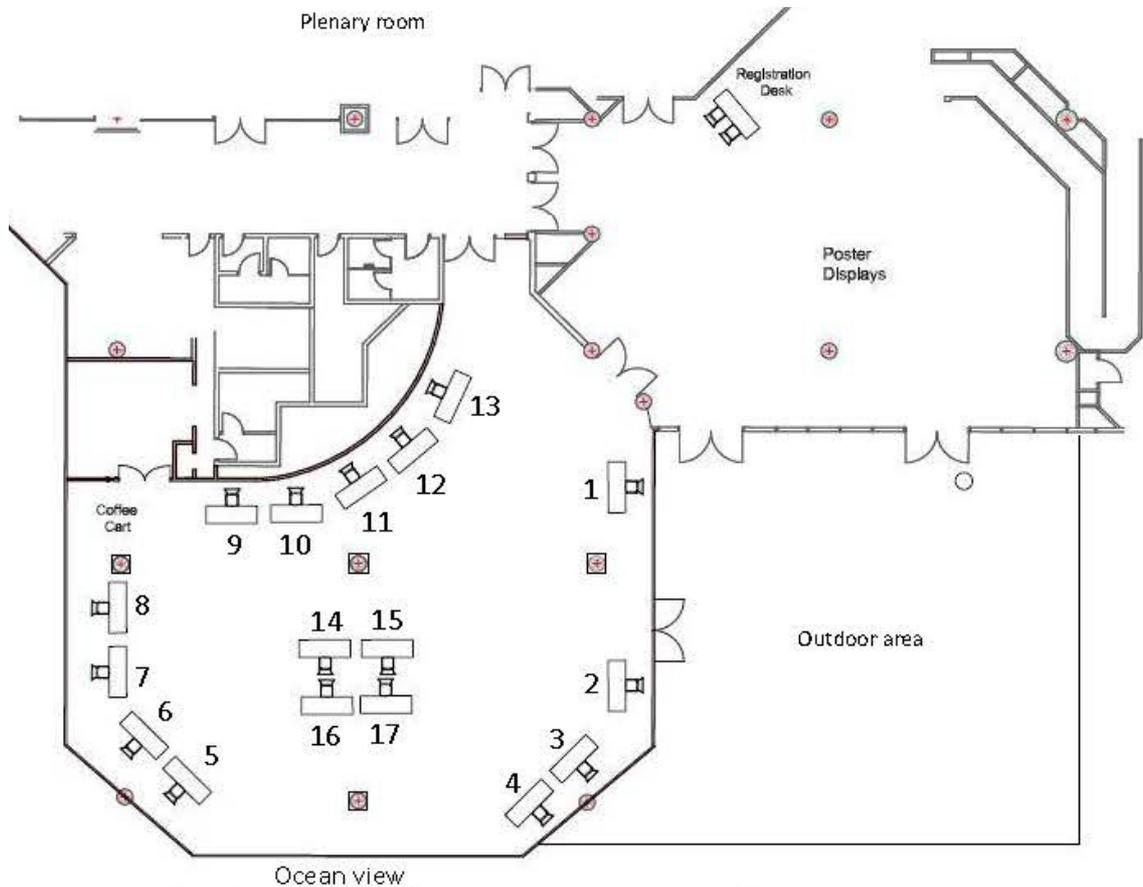
## SPEAKER PRIZES





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# RENDEZVOUS HOTEL SCARBOROUGH



# VENUE LAYOUT

SPONSOR	TABLE
<b>PLATINUM</b>	
Thermo Fisher Scientific	7
<b>GOLD</b>	
AXT	2
Bio-Strategy-Hamilton	13
<b>SILVER</b>	
Askion	14
Autoscribe	8
BioTools	4
Bluechiip	9
ISBER	5
LVL	1
Merck	12
ParagonCare/LabGear	3
Testo	11

ROOM GUIDE	CONFERENCE EVENT
Culver	Workshop 3 Biobanker Speed Dating
Mentelle Foyer	Registration Desk Poster Boards
Mentelle Room	Corporate Sponsor Exhibits
Preston A	Workshop 2
Preston B/C	Main Auditorium



Cassandra Griffin  
President



Georget Reaiche-Miller  
ABNA Vice President



Nina D'Vaz



Chris Gorman



Anusha Hettiaratchi



Jennie Hui



Valerie Jakrot  
ABNA Treasurer



Catherine Kennedy  
ABNA Treasurer



Louise Ludlow



Leanne Wallace  
ABNA Secretary



Li Zhou

CONFERENCE ORGANISING COMMITTEE



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# 2022 PROGRAM

## WEDNESDAY 19 OCTOBER

### OPENING SESSION

Welcome to Country

- Olman Malley

Keynote

- Professor Dominic Mallon

Panel 1

- Dr Jugnu Jain/Professor Georgina Hold

### AFTERNOON TEA

### WORKSHOP

Workshop 1

- Accreditation Seminar 4

### AQUAMARINE HORIZON

Aquatic Biobanking

- Dr Simon Jarmon
- Dr Greta Frankham
- Gold Sponsor Presentation

### SPONSOR COCKTAIL MIXER

## THURSDAY 20 OCTOBER

### WORKSHOPS

Workshop 2 (concurrent)

- How to dress your biobank for success

Workshop 3 (concurrent)

- Data management & governance

### MORNING TEA

### COBOLT HORIZON

Donors and Beneficiaries

- Professor Lyn Griffiths
- Dr Raelene Endersby and Dr Jessica Buck
- Panel Discussion - Consumer Advocate Margaret Wood, Raylene Endersby, Jessica Buck, Lyn Griffiths

### LUNCH

### MIDNIGHT HORIZON

Challenging Ideas

- Panel 2 - Dr Craig Willers/Dr Amanda Rush
- Dr Clare Madden
- Dr Gail Alvares
- Rapid Fire Presentations

### AFTERNOON TEA

### SAPPHIRE HORIZON

Precious Resources in Biobanking

- Dr Ronny Baber
- Ms Julie Hibbert
- Platinum Sponsor Presentation
- Rapid Fire Presentations

### NETWORKING DINNER

La Capannina



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## FRIDAY 21 OCTOBER

### PEACOCK HORIZON

Zoological biobanking

- Dr Lara Mouttham
- Dr Lachlan Howell
- Gold Sponsor Presentation

### MORNING TEA/ ABNA AGM

### CORNFLOWER HORIZON

Agricultural Biobanking and Biodiversity

- Dr David Merritt
- Dr Alan Humphries
- Dr Jonathan Daly
- Ms Samantha Higgins

### LUNCH/ BIOBANKER SPEED DATING

### AGEAN HORIZON

Biobanking and Innovation

- Lyle Palmer
- Paul Kennedy
- Rapid Fire Presentations

### AFTERNOON TEA

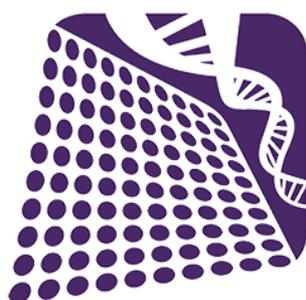
### CYAN HORIZON

Biobanking Research Network

- Rapid Fire Presentations
- Prize Presentation

### MEETING CLOSE

# 2022 PROGRAM



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**WEDNESDAY PROGRAM**

**REGISTRATION  
MENTELLE FOYER**

**11:00 - 12:00** Conference Registration & Poster hanging

**OPENING SESSION  
PRESTON B/C**

**12:00 - 12:30** Conference Opening

Welcome to Country

ABNA President's welcome

**12:30 - 13:15** Keynote Address - Professor Dominic Mallon

**13:15 - 14:00** Panel 1: Industry collaborators: From Foe to Friend

**14:00 - 14:30** Afternoon Tea/Corporate Sponsor exhibits (Mentelle Room)  
Poster Viewing (Mentelle Foyer)

**WORKSHOP 1  
PRESTON B/C**

**14:30 - 16:00** Accreditation Seminar 4

**AQUAMARINE HORIZON: AQUATIC BIOBANKING  
PRESTON B/C**

**16:00 - 16:30** Professor Simon Jarman

**16:30 - 17:00** Dr Greta Frankham

**17:00 - 17:30** Gold Sponsor Presentation

**SPONSOR COCKTAIL MIXER, ELEVATOR PITCH AND  
POSTER VIEWING  
MENTELLE ROOM & FOYER**

**17:30 - 18:30** Dr Amanda Rush  
Kim Powell  
Professor Daniel Catchpoole  
A/Professor Jennie Hui

**WEDNESDAY 19 OCTOBER**  
**CONFERENCE OPENING & KEYNOTE**  
**CHAIR: CASSANDRA GRIFFIN**  
**12:00 - 14:00 PRESTON B/C**

**12:00 - 12:30 CONFERENCE OPENING**

**OLMAN MALLEY**

Welcome to Country

Olman Malley is traditional owner of the Whadjuk Noongar region who has dedicated his career to sharing and promoting Noongar culture locally and internationally through performance, tourism and education. As a small business owner, educator and performing artist, Olman is passionate about improving the awareness, revival and maintenance of Noongar culture in the South West.

**CASSANDRA GRIFFIN**

Welcome from ABNA President

**12:30 - 13:15 KEYNOTE**

**PROFESSOR DOMINIC MALLON**

Head of Clinical Service, Immunology, Fiona Stanley Hospital, WA, Australia

**TITLE:** How Biobanks have transformed my understanding of disease; Left us better prepared to understand the Western Australian COVID-19 pandemic; and a proposed framework of how clinical researchers may engage future biobank services in Western Australia.

**ABSTRACT:** Preparation for this talk has caused me to reflect on the role Biobanks have played in enhancing my understanding of the patients I treat including those with splenectomy, HIV-infection, Coeliac disease, respiratory allergic disease and, more recently, COVID 19. Each of these have come from studies of disease specific Biobanks with specimens collected with the view to answer specific clinical questions in patient populations sampled at times that are informative to their disease process. Advances in data collection and specimen analysis offers the prospect of routine collection of relevant clinical data with every patient's contact with the health system and multi-parameter analysis of co-incidentally collected centralised biobanked specimens that would remove the need for a hypothesis to initiate collection of these data and specimens. Each of these models has its strengths and weaknesses.

Should Western Australia invest in a model that more resembles the latter (eg resembling the New South Wales Health Pathology Biobank), I would like to propose a conceptual framework under which clinical researchers may best engage with such a service.

**13:15 - 14:00 PANEL 1 - INDUSTRY, FRIEND OR FOE?**

**DR JUGNU JAIN - Affirmative**

**PROFESSOR GEORGINA HOLD - Negative**

Biospecimens are essential for research both in the academic and industrial space. From the outside looking in, biobank/industrial partnerships appear a logical conclusion; Industry has financial resources and research infrastructure yet requires access to biological samples. Biobanks on the other hand have an abundance of biological resource, yet often struggle with financial stability and uncertain futures.

Industry partnerships across the biomedical, pharmaceutical, agricultural, veterinary and botanical sectors afford stability and increased visibility for biobanks while accelerating research findings leading to improved outcomes – but at what cost? Mismatches in practice, incongruent ideologies and concerns over the central precepts of custodianship, governance and consent all muddy the waters of collaboration and are exacerbated by the ever present pink elephant of commercial gain.

So is collaboration the source of mutual benefit or fraught with dichotomy?

**WEDNESDAY 19 OCTOBER**  
**WORKSHOP 1**  
**CHAIR: SAMANTHA HIGGINS & HELEN TSIMIKLIS**  
**14:30 - 16:00 PRESTON B/C**

**14:00 - 14:30 AFTERNOON TEA**

Corporate Sponsor exhibits (Mentelle Room)  
Poster Viewing (Mentelle Foyer)

**14:30 - 16:00 WORKSHOP 1**

**TITLE:** Accreditation Seminar 4 (Workshop 1): Climbing the Accreditation Spiral Staircase

- ABNA Seminar 1-3 recap:
  - Introduction to ISO 20387 and QMS
  - Key concepts & terminology
  - Accreditation Success Stories
  - Pathways: Accreditation vs Certification
- Breaking down IS20387 clauses
  - Mission statement / Ethics (Section 4)
  - Governance Structures (Section 5)
  - Competency (Section 6)
  - Equipment records (Section 6)
  - Transport of materials (Section 7)
- QMS requirements
- Resources



**WEDNESDAY 19 OCTOBER**  
**AQUAMARINE HORIZON: AQUATIC BIOBANKING**  
**CHAIR: GEORGET REAICHE-MILLER**  
**16:00 - 17:15 PRESTON B/C**

**16:00 - 16:30**

**PROFESSOR SIMON JARMAN**

University of Western Australia, Perth, WA, Australia

**TITLE:** Biobanking in Environmental Genomics

**ABSTRACT:** Biobanks have significant value for genomic research on environmental questions. Environmental samples such as water, soil, or filtered air, are becoming widely used for “environmental DNA” (eDNA) analysis. The primary use for eDNA is to identify “DNA barcodes”, unique short sequences that are used to mark the presence of any species or organism. eDNA analysis can identify the presence of a huge range of organisms from residual DNA in environmental samples by fairly simple, affordable analyses using high throughput DNA sequencing. It is being applied as a marine biodiversity monitoring tool in particular because ocean biodiversity is difficult to measure by other methods, and because seawater contains easily purified DNA bound up with other biomolecules derived from recently living cells. eDNA analysis is an experimental method dependent of DNA sequencing technology that is continually evolving. This means that the results of eDNA surveys performed now, or in the past, will not be comparable to the results of surveys analysed with future DNA sequencing technologies. Biobanks of environmental samples are the only long-term solution to this problem, as they allow all samples to be analysed at a future time point with a single technology. Biobanks are also significant for environmental genomics research focused on single species. An excellent example is the development of “epigenetic clocks”, which are a molecular tool for estimating the age of animal species from tissue samples. Epigenetic clocks solve a problem in management of animal populations, where the age profile of the population is a critical factor, but in many species is very hard to estimate. A key aspect of developing an epigenetic clock is that samples with known age must be available to calibrate the rate of change of methylated DNA that the clock measures. I developed the first epigenetic clock for wild animals to determine the age of humpback whales. With this method, we can take a skin sample from a whale and determine its age. Age estimates of humpback whales are otherwise almost impossible without lethal sampling, as they are fully grown at 5-9 years old and may live as long as 95 years, with no obvious external features that indicate their age. To develop this epigenetic clock, I used tissue samples from a long-term biobank of whale biopsies.

I will talk about applications of biobanked environmental samples in environmental monitoring, and biobanks of tissue samples from animals in epigenetic clock development. Both types of biobank have great value in gathering the scientific knowledge that we need to manage our environment well. in nesting animals using ShellBank’s Rookery Database. The remaining had either been identified in foraging animals using the In-Water Database or were ‘orphan’ / new haplotypes that had not yet been encountered in either database to date. The next phase of ShellBank is to roll out the standardised framework for collection to law enforcement, forensic laboratories, and conservation researchers across the Asia-Pacific and beyond. This will continue to build a network of countries contributing to the development of ShellBank as a conservation management, wildlife forensic and law enforcement tool.

**WEDNESDAY 19 OCTOBER**  
**AQUAMARINE HORIZON: AQUATIC BIOBANKING**  
**CHAIR: GEORGET REAICHE-MILLER**  
**16:00 - 17:30 PRESTON B/C**

**16:30 - 17:00**

**DR GRETA FRANKHAM**

Centre for Forensic Science, University of Technology Sydney, Australia

**TITLE:** ShellBank: Development of a DNA Database and forensic toolkit to trace the illegal Tortoiseshell Trade

**ABSTRACT:** It's estimated that nearly 9 million hawksbill turtles (*Eretmochelys imbricata*) have been harvested for the tortoiseshell trade over the past 150 years. Despite being listed on CITES Appendix I, the hawksbill turtle trade continues, threatening the survival of this species. Here we present an overview of ShellBank, a World Wide Fund for Nature (WWF) led initiative, aiming to enable scientists, conservationists and policy makers to track the illegal trade of hawksbill turtle products ("sale to source") and to identify populations most at risk, along with improving training and capacity building amongst turtle range countries. One of the key components of ShellBank is to help coordinate the collection and the development of a standardised framework for biobanking biological reference material and DNA data for the use in conservation management programs, as well as intelligence collection and/or forensic investigation of the illegal trade of this species. This includes the development of three databases, a Rookery Baseline Database (nesting animals), an In-Water Database (foraging, stranded, by-catch animals) and a Confiscation Database (poached, traded animals and manufactured items). Under the umbrella of ShellBank, and supported by the Australian Government, between December 2020 – June 2021, the Surrender Your Shell (SYS) initiative was implemented in order to develop the Confiscation Database in Australia and pilot the useability of the current Rookery Baseline and In-Water Databases in identifying the source of traded items. It also aimed to create public awareness of the impact of illegal trade on hawksbill turtles. SYS encouraged members of the public to surrender tortoiseshell products without the risk of prosecution for any illegal items they owned. 328 individual items were surrendered. DNA was extracted and analysed from 69 items. Of the 62 identified as hawksbill turtle, 58% of haplotypes had been previously identified in nesting animals using ShellBank's Rookery Database. The remaining had either been identified in foraging animals using the In-Water Database or were 'orphan' / new haplotypes that had not yet been encountered in either database to date. The next phase of ShellBank is to roll out the standardised framework for collection to law enforcement, forensic laboratories, and conservation researchers across the Asia-Pacific and beyond. This will continue to build a network of countries contributing to the development of ShellBank as a conservation management, wildlife forensic and law enforcement tool.

**17:00 - 17:15**

**LISA SIMMONS**

Gold Sponsor Bio-Strategy

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**WEDNESDAY 19 OCTOBER**  
**SPONSOR COCKTAIL MIXER AND POSTER VIEWING**  
**HOSTED BY**  
**CASSANDRA GRIFFIN & GEORGET REAICHE-MILLER**  
**18:30 - 18:30 MENTELLE ROOM & FOYER**

**18:00 - 18:10 ELEVATOR PITCH PRESENTATIONS**

**DR AMANDA RUSH**

Menzies Centre for Health Policy and Economics, The University of Sydney, Camperdown, NSW, Australia

**TITLE:** Costs and publication outputs of an academic cancer biobank cohort

**ABSTRACT ID #5**

**KIM POWELL**

MCRI, Parkville, VIC, Australia

**TITLE:** A population-wide, representative pregnancy and childhood biobank in Victoria, Australia

**ABSTRACT ID #6**

**A/PROFESSOR JENNIE HUI**

School of Population and Global Health, The University of Western Australia, Perth, Western Australia, Australia

**TITLE:** Using archived serum samples to understand historical human exposure trends of Per- and poly-fluoroalkyl substances (PFASs)

**ABSTRACT ID #7**

**PROFESSOR DAN CATCHPOLE**

The Tumour Bank, CCRU, Kids Research, The Sydney Children's Hospital Network, Westmead, NSW, Australia

**TITLE:** A Demonstration of Immersive Analytics of Biospecimen Derived Data: Introducing Virtual Reality for the Observation of Oncology Models (VROOM)

**ABSTRACT ID #8**



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## WORKSHOPS (CONCURRENT)

- 09:00 - 10:00**    **Workshop 2**  
**PRESTON A**    How to dress your biobank for success
- 09:00 - 10:00**    **Workshop 3**  
**CULVER**    Data management & governance
- 10:00 - 10:30**    Morning Tea/Corporate Sponsor exhibits (Mentelle Room)  
 Poster Viewing (Mentelle Foyer)

## COBALT HORIZON: DONORS AND BENEFICIARIES PRESTON B/C

- 10:30 - 11:00**    **Professor Lyn Griffiths**
- 11:00 - 11:30**    **Dr Raelene Endersby and Dr Jessica Buck**
- 11:30 - 12:00**    **Panel Discussion**
- 12:00 - 12:45**    Lunch/Corporate Sponsor exhibits (Mentelle Room)  
 Poster Viewing (Mentelle Foyer)

## MIDNIGHT HORIZON: CHALLENGING IDEAS PRESTON B/C

- 12:45 - 13:30**    **Panel 2: Consent – one model fits all?**
- 13:30 - 14:00**    **Dr Clare Madden**
- 14:00 - 14:30**    **Dr Gail Alvares**
- 14:30 - 15:00**    **Rapid Fire Presentations**
- 15:00 - 15:25**    Afternoon Tea/Corporate Sponsor exhibits (Mentelle Room)  
 Poster Viewing (Mentelle Foyer)

## SAPPHIRE HORIZON: PRECIOUS RESOURCES IN BIOBANKING PRESTON B/C

- 15:25 - 15:55**    **Dr Ronny Baber**
- 15:55 - 16:25**    **Ms Julie Hibbert**
- 16:25 - 16:40**    **Platinum Sponsor presentation**
- 16:40 - 17:10**    **Rapid Fire Presentations**

## CONFERENCE DINNER LA CAPANNINA

- 18:30 - 20:00**    **La Capannina**

**THURSDAY PROGRAM**

## THURSDAY 20 OCTOBER

### WORKSHOP 2 CHAIR: NINA D'VAZ 09:00 - 10:00 PRESTON A

#### 09:00 - 10:00 WORKSHOP 2

**TITLE:** How to dress your biobank for success

Cornell Veterinary Bank

The financial sustainability of biobanks are an ongoing concern for many in the sector, but a new challenge in sustainability is gaining importance. Stakeholder relationships are an essential aspect of building a sustainable biobank and involve juggling consumer interests, funding bodies, philanthropic support and intuitional standards creates a formidable burden for biobank managers. This becomes further complicated when one considers the importance of public relationships and biobank image in an ever evolving research ecosystem where performance, profile and presence are gaining importance. Accreditation is one pathway to ensuring biobanking operations are standardised and aligned to best practice and undertaking the process points to a number of key strategic measures that pave the way to social sustainability. So in an age where biobank profiles and public opinion are gaining importance - what can you do to dress your biobank for success?

### WORKSHOP 3 CHAIR: GEORGET REAICHE-MILLER 09:00 - 10:00 CULVER

#### 09:00 - 10:00 WORKSHOP 3

**TITLE:** Data management & governance

Data management and governance - University of Adelaide, DivSeek and Victorian Cancer Bank

This workshop provides a critical overview of developments in governance and data management, taking a look at three evolving models of governance at varied stages of implementation. In this session we will explore the opportunities and challenges presented by various models of governance and work with attendees to explore their own models, challenges and opportunities.

#### 10:00 - 10:30 MORNING TEA

Corporate Sponsor exhibits (Mentelle Room)

Poster Viewing (Mentelle Foyer)

**THURSDAY 20 OCTOBER**  
**COBALT HORIZON: DONORS AND BENEFICIARIES**  
**CHAIR: CASSANDRA GRIFFIN**  
**10:30 - 12:00 PRESTON B/C**

**10:30 - 11:00**

**PROFESSOR LYN GRIFFITHS**

Genomics Research Centre, Centre for Genomics and Personalised Health and School of Biomedical Sciences, Queensland University of Technology, Brisbane, Qld, Australia

**TITLE:** Developing a DNA Biobank to aid in identifying recovered historical military remains

**ABSTRACT:** There are approximately 30,000 Australian service members unaccounted for from previous conflicts including from World War I and World War II. The Australian Army's Unrecovered War Casualties team (UWC-A) are continually investigating the fate of those who fought for Australia, and identification requires a comprehensive collaboration of scientific expertise, historical records, volunteers, family descendants and DNA analyses. Funded by a Department of Defence, Innovation Hub contract, we will assist these investigations through establishing a DNA biobank in Australia designed to aid in identifying recovered historical military remains. Our first focus is to develop family trees for around 500 missing soldiers who were selected based on their proximity to recovered remains. These pedigrees were and are continuing to be established by our Genealogist and involve extensive searches to establish accurate family trees, using information from records such as Birth, Death & Marriages, State Archive records, Military records, newspaper articles, electoral rolls, etc. The pedigrees are used to identify relatives alive today to develop a family DNA biobank that can potentially improve the accuracy, reliability, and time required for the identification of recovered remains. For each pedigree we are focusing on obtaining a saliva sample from two maternal and two paternal genetic relatives to establish the biobank of approximately 2000 DNA samples. Initially, samples will be used to generate mitochondrial DNA haplotypes (maternal relatives) and Y-Chromosomal short tandem repeat (STR) profiles using Y-Filer Plus (paternal relatives) for comparison against DNA profiles obtained from recovered historical military remains. This database will have significant future utility for DNA profile comparisons to aid in identifying the remains of missing servicepersons. The biobank and DNA profiling results will complement the existing family reference DNA data established by Defence and will continue to grow as required to support the identification of remains yet to be recovered.

**11:00 - 11:30**

**DR RAELENE ENDERSBY AND DR JESSICA BUCK**

Telethon Kids Institute, Nedlands, WA, Australia

**TITLE:** The Telethon Kids Cancer Centre biobank

**ABSTRACT:** Paediatric brain cancer is a rare but often deadly disease, so biobanking forms an important part of research. Dr Endersby will discuss the structure of the Telethon Kids Cancer Centre biobank, which includes not only frozen and FFPE samples, but viable cells in culture, and a "clinic" of mouse avatars bearing implanted cancer cells. These samples are being actively used in clinical and preclinical research for the development of new therapies. Dr Endersby will also discuss how we engage our child donors, and their families, in our long-term research projects with particular focus on the importance of quality stakeholder engagement. Our community engagement is vital to the success of our biobank and the effective use of these precious resources. Dr Buck, a Kamilaroi researcher, will expand on this from an Indigenous perspective, and discuss the community engagement and challenges involved in undertaking biological research in the Aboriginal Health space, including cultural considerations and the importance of an Aboriginal research team.

**11:30 - 12:00 PANEL DISCUSSION**

**CONSUMER ADVOCATE MARGARET WOOD, DR RAELENE ENDERSBY, DR JESSICA BUCK, PROFESSOR LYN GRIFFITHS**

**12:00 - 12:45 LUNCH**

Corporate Sponsor exhibits (Mentelle Room)

Poster Viewing (Mentelle Foyer)

# THURSDAY 20 OCTOBER

## MIDNIGHT HORIZON: CHALLENGING IDEAS

### CHAIR: CATHERINE KENNEDY

### 12:45 - 14:30 PRESTON B/C

#### 12:45 - 13:30 PANEL 2 - INFORMED CONSENT – DOES ONE MODEL FITS ALL?

**DR CRAIG WILLERS - Affirmative**

**DR AMANDA RUSH - Negative**

Consent is at the heart of best practice research. There is a cloudy history of consent practices (or lack thereof) relevant to our profession, with deviations and indeed violations notable across human research, environmental research and conservation based research. In a united commitment to ensuring that best practice models of informed consent, compliant with national and international legislation, are at the fore of our operations – a number of key models have been developed and implemented into daily practice. These range from opt in, to opt out, delayed consent, broad consent and waivers of consent. If we as a profession share a commitment to be best practice models of consent, are we splitting hairs by developing models directly related to individual research projects or should we be striving for a single, best practice, model of consent?

To the question of informed consent – does one model fit all?

#### 13:30 - 14:00

**DR CLARE MADDEN**

Sea World, Main Beach, QLD

**TITLE:** Tissue Sample Collection in Veterinary Conservation Medicine

**ABSTRACT:** Tissue sample collection in the conservation and rescue context comes with some great challenges that go beyond the sample collection itself. Working with marine wildlife, we are often faced with scenarios where animals die well before we can access them and/or the animals strand in very remote locations making accessibility a challenge. Couple these innate complexities with the many stakeholders that are involved with marine wildlife events, makes sample collection for research and diagnostics purposes challenging, time consuming and often leaves us in situations where sample collection just isn't possible.

Obtaining samples from marine wildlife can be invaluable to the assessment of the health of a species on a population level as well as allowing us an insight into the ecological health of the ocean. Thus sample collection and conducting post mortem analysis on all animals is pivotal to understanding the health of our marine ecosystem. Veterinarians, University bodies, Government agencies, Indigenous Peoples and local community members are just a few of the many stakeholders that need to be engaged for every marine wildlife stranding. Each of these bodies have different agendas thus making decision making a complex process.

This presentation is hoped to give you an insight into the steps required for marine animal sampling, the stakeholder engagement and a discussion about the importance of tissue sampling.

**MIDNIGHT HORIZON CONTINUES ON NEXT PAGE**

**THURSDAY 20 OCTOBER**  
**MIDNIGHT HORIZON: CHALLENGING IDEAS**  
**CHAIR: CATHERINE KENNEDY**  
**12:45 - 14:30 PRESTON B/C**

**14:00 - 14:30**

**DR GAIL ALVARES**

Telethon Kids Institute, Perth

**TITLE:** The Australian Autism Biobank – a national initiative to accelerate autism discovery science

**ABSTRACT:** The enormous clinical and genetic heterogeneity within and between individuals diagnosed with Autism Spectrum Disorder represent significant challenges to advancing knowledge about etiological pathways and clinical outcomes. Considerable progress in this area has been made through collaborative and large-scale projects, necessitating a similarly large resource to be established in Australia.

Established in 2014, the Australian Autism Biobank was initiated by the Cooperative Research Centre for Living with Autism (Autism CRC). In this presentation, I will discuss the clinical and demographic features of the 1581 children who participated in the Australian Autism Biobank, highlighting significant novel findings from the first few years, and reflecting on the challenges and lessons learned from this study. The Australian Autism Biobank is a valuable and detailed resource comprising uniquely deep clinical phenotype data alongside an array of biological samples, significantly advancing our understanding of the mechanisms associated with an autism diagnosis.

**14:30 - 15:00 RAPID FIRE PRESENTATIONS**

**DR ALBERT CHETCUTI**

University of New South Wales, Sydney, NSW, Australia

**TITLE:** An online biobank catalogue: A valuable tool for Researchers looking for biospecimens of interest

**ABSTRACT ID #46**

**DR ANJALI K HENDERS**

The University of Queensland, Brisbane, QLD, Australia

**TITLE:** Pivoting in a Pandemic – New Methods of Engagement

**ABSTRACT ID #22**

**DR CARMEL QUINN**

Health Precincts Biobank, UNSW Biospecimen Services, Mark Wainwright Analytical Centre, UNSW Sydney, Sydney, NSW, Australia

**TITLE:** From the Health Science Alliance (HSA) Biobank to the Health Precincts Biobank: lessons learnt and future directions

**ABSTRACT ID #48**

**15:00 - 15:30 AFTERNOON TEA**

Corporate Sponsor exhibits (Mentelle Room)

Poster Viewing (Mentelle Foyer)

**THURSDAY 20 OCTOBER****SAPPHIRE HORIZON: PRECIOUS RESOURCES IN BIOBANKING  
CHAIR: ANUSHA HETTIARATCHI  
15: 25 - 16:40 PRESTON B/C****15:25 - 15:55****DR RONNY BABER**

University of Leipzig, Germany

**TITLE:** From population-based towards healthcare integrated biobanking - the journey of the Leipzig Medical Biobank**ABSTRACT:** The Leipzig Medical Biobank (LMB) at the University Leipzig is a state-of-the-art biobank for the quality-assured collection, processing, storage and provision of biospecimens. Founded in 2010, it initially collected, processed, stored and made available for research projects mainly liquid samples such as urine, serum, plasma and saliva from epidemiological studies of the Leipzig Research Centre for Civilisation Diseases (LIFE).

In 2017 healthcare integrated biobanking was started with clinical partners and the Institutes of Pathology and Laboratory Medicine in oncology. The samples are processed in a highly standardised and traceable manner and stored predominantly at temperatures of -80°C or <-150°C in the vapour phase of liquid nitrogen. Storage is carried out in strict compliance with an uninterrupted cold chain and constant monitoring. All samples are identified by a barcode and can thus be linked to quality-relevant data such as processing and storage times as well as to clinical data of the donor. In 2021 also the collection of liquid, tissue and plaque samples from patients with cardiovascular disease started.

More than 1.4 million samples and data sets are available from around 60.000 visits (35.000 donors) for researchers and more than 620 projects have been realized using data from the LIFE project. The biobank has been able to support researchers with samples and data in more than 90 projects to date. In addition to basic research topics such as stress, allergy, heart disease and dementia, improvements have also been made in the field of diagnostics. Reference ranges of certain biomarkers in childhood, adolescence and adulthood have been investigated. These are now used at the University Hospital Leipzig.

**15:55 - 16:25****JULIE HIBBERT**

Telethon Kids Institute, Perth

**TITLE:** Tiny Babies: Challenges and Opportunities for Biospecimen Collection from Very Pre-term Infants**ABSTRACT:** Neonatal sepsis is a life-threatening blood infection with a global burden affecting an estimated 1.3-3.0 million infants annually. Premature infants are at the highest risk of developing sepsis. Despite considerable improvements in health outcomes, the clinical and translational research needed to understand neonatal sepsis better is limited by the lack of access to high-quality, prospective biospecimen collection. This presentation will highlight challenges in collecting blood samples from very preterm infants with sepsis and suggest opportunities to improve collection feasibility for multicentre studies.**SAPPHIRE HORIZON CONTINUES ON NEXT PAGE**

**THURSDAY 20 OCTOBER**

**SAPPHIRE HORIZON: PRECIOUS RESOURCES IN  
BIOBANKING**

**CHAIR: ANUSHA HETTIARATCHI**

**15: 25 - 16:40 PRESTON B/C**

**16:25 - 16:40**

**WILFREDO MARIN**

Platinum Sponsor Presentation

**ThermoFisher**  
**SCIENTIFIC**

**16:40 - 17:10 RAPID FIRE PRESENTATIONS**

**ALICE RYKERS**

Te Ira Kāwai – The Auckland Regional Biobank, Auckland, New Zealand

**TITLE:** Finding Our Place

**ABSTRACT ID #24**

**LEANNE WALLACE**

The University of Queensland, St Lucia, QLD, Australia

**TITLE:** Enabling System Genomics Strategies in Biobanking – “getting your sample’s worth”

**ABSTRACT ID #25**

**YEUKAI MANGWIRO**

Murdoch Children’s Research Institute, Melbourne, Victoria

**TITLE:** Precious resources in biobanking: Breast Milk and Stool Collection for the Largest Birth Cohort in Australia

**ABSTRACT ID #26**

**CONFERENCE DINNER**

**LA CAPANNINA**

**171 THE ESPLANADE, SCARBOROUGH**

**18:30 - 20:00**



australasian  
biospecimen  
network  
association

**FRIDAY PROGRAM**

**PEACOCK HORIZON: ZOOLOGICAL BIOBANKING  
PRESTON B/C**

- 09:00 - 09:30** Dr Lara Mouttham
- 09:30 - 10:00** Dr Lachlan Howell
- 10:00 - 10:10** Gold Sponsor presentation
- 10:10 - 10:30** **ABNA AGM** (concurrent to Morning Tea)  
Morning Tea/Corporate Sponsor exhibits (Mentelle Room)  
Poster Viewing (Mentelle Foyer)

**CORNFLOWER HORIZON: AGRICULTURAL  
BIOBANKING AND BIODIVERSITY  
PRESTON B/C**

- 10:30 - 11:00** Dr David Merritt
- 11:00 - 11:30** Dr Alan Humphries
- 11:30 - 12:00** Dr Jonathan Daly
- 12:00 - 12:30** Ms Samantha Higgins
- 12:30 - 13:30** **Biobanker Speed Dating (Culver)**  
Lunch/Corporate Sponsor exhibits (Mentelle Room)  
Poster Viewing (Mentelle Foyer)

**AEGEAN HORIZON: BIOBANKING AND INNOVATION  
PRESTON B/C**

- 13:30 - 14:00** Professor Lyle Palmer
- 14:00 - 14:30** Professor Paul Kennedy
- 14:30 - 15:00** Rapid Fire Presentations
- 15:00 - 15:30** Afternoon Tea/Corporate Sponsor exhibits (Mentelle Room)  
Poster Viewing (Mentelle Foyer)

**CYAN HORIZON: BIOBANKING RESEARCH NETWORK  
PRESTON B/C**

- 15:30 - 16:10** Rapid Fire Presentations
- 16:10 - 16:30** Prize presentations  
Meeting Close

**FRIDAY 21 OCTOBER**  
**PEACOCK HORIZON: ZOOLOGICAL BIOBANKING**  
**CHAIR: LOUISE LUDLOW**  
**09:00 - 10:10 PRESTON B/C**

**09:00 - 09:30**

**DR LARA MOUTTHAM**

Cornell Veterinary Biobank, Ithaca, NY, United States

**TITLE:** Purpose, Partnership and Possibilities - The Dog Aging Project Biobank

**ABSTRACT:** Age is the single greatest risk factor for many diseases in humans, including nearly every major cause of mortality in developed nations. Short-lived laboratory animals as model species do not always adequately reflect human physiology and disease, highlighting the need for a more comprehensive and relevant model of human aging. Canines and humans share numerous similarities that make dogs a promising translational model for identifying risk factors that influence longevity.

Companion dogs experience patterns of actuarial aging and age-trajectories analogous to humans, and share the same environment, including exposure to the same naturally occurring pathogens, with similar risk for disease. Furthermore, dogs age at a considerably faster rate, making them a practical model of aging for humans. The Dog Aging Project (DAP) is a longitudinal study of aging that follows tens of thousands of companion dogs across the United States to identify the biological and environmental factors that affect aging. By using a powerful multi-institutional infrastructure, the DAP recruits participating dog-owner pairs and collects survey data, publicly available environmental data, and biospecimens for whole genome sequencing, clinical chemistry, and -omic measures. Studying aging in the companion dog provides an opportunity to better understand the biological and environmental determinants of healthy lifespan in our pets, and to translate those findings to human aging. In addition to supporting specific DAP research goals, biological material and associated data (BMaD) collected by the DAP are made accessible to external researchers. As such, the DAP Biobank was created to support both the immediate goals of the DAP, as well as future research by the broader scientific community, and to ensure the integrity and fitness-for-purpose of its BMaD.

The DAP Biobank is housed and operated by the Cornell Veterinary Biobank, the first biobank in the world to receive accreditation to ISO 20387:2018, utilizing standardized biobanking processes and supporting accurate and reproducible research outputs. The DAP Biobank employs a risk-based dynamic strategy to prioritize the collection, preservation, storage, and distribution of BMaD that are of the highest value and impact to the research community and enable rapid adjustments in response to QA/QC activities and user feedback. Additionally, proactive marketing strategies are utilized to ensure that researchers around the world are aware and take full advantage of the DAP Biobank collection, impacting translational research and benefiting animal and human health.

**PEACOCK HORIZON CONTINUES ON NEXT PAGE**

**FRIDAY 21 OCTOBER**  
**PEACOCK HORIZON: ZOOLOGICAL BIOBANKING**  
**CHAIR: LOUISE LUDLOW**  
**09:00 - 10:10 PRESTON B/C**

**09:30 - 10:30**

**DR LACHLAN HOWELL**

Deakin University, Melbourne, VIC, Australia

**TITLE:** Arguments for the development of assisted reproductive technologies and biobanking in the iconic and imperiled koala

**ABSTRACT:** Managed breeding programs for threatened species held across zoo-based networks typically face high economic costs and can be at risk of adverse genetic effects typical of unavoidably small captive colonies. Emerging evidence suggests that biobanking and associated assisted reproductive technologies could address these economic and genetic challenges. We recently developed a modelled scenario, supported by detailed costings, where these technologies are optimized and could be integrated into conservation breeding programs of koalas. Genetic and economic modelling presented in this study suggests that supplementing captive koala populations with cryopreserved founder sperm using artificial insemination or intracytoplasmic sperm injection could substantially reduce inbreeding, lower the required colony sizes of conservation breeding programs, and greatly reduce program costs. Ambitious genetic retention targets (maintaining 90%, 95% and 99% of source population heterozygosity for 100 years) could be possible within realistic cost frameworks, with output koalas suited for wild release. This presentation will summarise the modelling system and major findings of this study, the viral media campaign following the studies release, and the broad utility of these cost and policy-based arguments as leverage tools to argue for the further development of assisted reproduction and biobanking protocols in threatened species.

**10:00 - 10:10**

**SRIKANTH ADIGA**

Gold Sponsor presentation



**OPENSPECIMEN**  
 a krishagni product

**10:10 - 10:30 ABNA AGM (concurrent)**

**10:10 - 10:30 MORNING TEA (concurrent)**

Corporate Sponsor exhibits (Mentelle Room)

Poster Viewing (Mentelle Foyer)

**FRIDAY 21 OCTOBER**  
**CORNFLOWER HORIZON: AGRICULTURAL BIOBANKING &**  
**BIODIVERSITY**  
**CHAIR: CATHERINE KENNEDY**  
**10:30 - 12:30 PRESTON B/C**

**10:30 - 11:00**

**DR DAVID MERRITT**

Kings Park Science, Biodiversity and Conservation Science, Department of Biodiversity, Conservation and Attractions, Perth

**TITLE:** Seed banking for the conservation of plant biodiversity

**ABSTRACT:** Seed banking is a primary strategy for plant conservation and vast collections of seeds amassed over many decades contribute to global food security and biodiversity conservation. There are more than 1700 seed banks across the globe conserving the genetic diversity of the world's crops, crop wild relatives, and wild plants. For wild plants, seed banks serve to prevent species extinctions and to complement on-ground conservation efforts to protect and restore ecosystems. In Australia, seed banking of wild species is a co-ordinated and collaborative venture through the Australian Seed Bank Partnership. Over the past 20 years of this Partnership, more than 18,000 collections of over 13,000 species have been secured in seed banks. A premise of the efficiency of seed banking in providing secure, long-term, and low-maintenance storage of germplasm is the ability of most seeds to survive extreme desiccation and storage at sub-zero temperatures. Seeds are most commonly banked at -18°C following their drying to c. 5% moisture content, and such conditions form the basis of internationally accepted standards for seed banking. However, diverse wild species have diverse responses to standardised storage conditions. Identifying the storage behaviour and predicting the lifespan of seeds is fundamental to the effective curation of seed collections and to the realisation of their conservation functions. We still do not possess the means to predict how long individual collections of seeds will survive during storage. This inability to forecast the onset of seed viability decline challenges the curation and monitoring programs of seed banks as their collections grow ever-larger, older, and more precious as opportunities to recollect from the wild diminish. Current research foci for seed banking include identifying species performing poorly in storage, exploring relationships between longevity and seed, plant, and environmental traits, and exploring various approaches to studying the mechanisms of seed ageing.

**11:00 - 11:30**

**DR ALAN HUMPHRIES**

South Australian Research and Development Institute, Adelaide

**TITLE:** Conservation of Pasture Seeds at the Australian Pastures Genebank

**ABSTRACT:** Plant genetic diversity as it relates to agriculture is central to human food security and its conservation is considered a global obligation. The Australian Pastures Genebank (APG) is the custodian of one of the world's most diverse and significant pasture and forage collections. The APG was established in 2014 from the consolidation of eleven pasture seed collections in Australia and represents a long-term strategy for the conservation of pasture genetic resources of both existing and potential value to Australian agriculture. The APG holds 79,545 accessions from 2619 species, collected from 178 countries. The collection is recognised as globally unique, with almost 90% of the accessions collected from the wild by Australian scientists over the last 70 years.

The management of a living seed collection is critical to the success of the long-term conservation strategy. The seed collection is stored at -20° C and 5% relative humidity with high level risk mitigation including national and international safety backup seed storage. The health of each accession is routinely monitored, and seed is regenerated when the inventory of living seeds falls to a critical level. GRIN-Global database software (USDA) is employed for managing data associated with each accession; seed inventories, passport data from the collection origin, measured plant traits (observation data), and customer orders. The GRIN-Global database has an on-line store, <https://apg.pir.sa.gov.au/gringlobal/>, where users can retrieve database information and request seed. The APG database is also linked with genesy-pgr.org, the online platform for housing information from world-wide plant genetic resources, linking Australia's plant genetic resources to the world.

**CORNFLOWER HORIZON CONTINUES ON NEXT PAGE**

# FRIDAY 21 OCTOBER

## CORNFLOWER HORIZON: AGRICULTURAL BIOBANKING & BIODIVERSITY

**CHAIR: CATHERINE KENNEDY**

**10:30 - 12:30 PRESTON B/C**

**11:30 - 12:00**

**DR JONATHAN DALY**

Taronga Conservation Society Australia, Sydney/University of New South Wales, Sydney

**TITLE:** Securing coral reef biodiversity with cryopreservation and biobanking

**ABSTRACT:** With coral reefs likely to face a significant loss of species and genetic diversity in the coming decades, the need for innovative tools to conserve and secure existing coral biodiversity is urgent. One of the most effective methods to secure biodiversity is the storage of cryopreserved genetic material at ultra-low temperatures in biorepositories, which can maintain living cells, tissues, and germplasm in a frozen state indefinitely. Cryopreservation of living coral samples from healthy reefs can help to mitigate the loss of diversity and can provide support for a range of reef restoration initiatives, for example by storing reproductive material for breeding facilities, securing the genetics of valuable research strains, and providing material for restoration programs. Cryopreservation efforts have so far focussed on coral gametes, and cryopreserved sperm from 40 coral species representing Caribbean, Hawaiian, French Polynesian, Florida Reef Tract, and Great Barrier Reef populations are currently held in biorepositories in the US and Australia. The transfer of advanced cryopreservation technologies, such as laser nanowarming, to coral on the Great Barrier Reef is underway to facilitate the cryopreservation of coral larvae and microfragments of adult coral tissue. The development and application of innovative cryopreservation and warming technologies to recover large and complex coral tissues has great potential to expand the range of species and samples that could be secured, and permit biobanking activities to occur year-round. Alongside technology development, efforts are underway globally to unify biobanking efforts for cryopreserved and living coral samples, through groups like the Coral Restoration Consortium Cryopreservation and Biobanking Working Group, and the Coral biobank Alliance. These cryopreservation technologies and global biobanking initiatives, together with knowledge and partnerships with First Nations Peoples, will be essential to securing coral reef biodiversity and maximizing the genetic diversity that is available to reef restoration efforts now and in the future.

Acknowledgements:

The coral cryopreservation and biobanking work in Australia is part of the Reef Restoration and Adaptation Program and supported by the Great Barrier Reef Foundation and the Taronga Foundation.

**11:00 - 12:30**

**SAMANTHA HIGGINS**

Victorian Cancer Biobank, Melbourne, VIC, Australia

**TITLE:** Introduction to ISBER Tools and Resources

**ABSTRACT:** The International Society for Biological and Environmental Repositories (ISBER) is a well-known global biobanking organisation that provides networking and education opportunities as well as innovative technologies, products, and services. This presentation aims to provide an update on the latest ISBER tools and resources available, including the Qualification of Repository Science (QBRs), Biobanking Assessment Tool (BAT) and ISBER Best Practices that enhance knowledge and promote best practices for a broad range of repositories.

**12:30 - 13:30 BIOBANKER SPEED DATING (concurrent)**

(Culver Room)

**12:20 - 13:30 LUNCH (concurrent)**

Corporate Sponsor exhibits (Mentelle Room)

Poster Viewing (Mentelle Foyer)



**FRIDAY 21 OCTOBER**  
**AEGEAN HORIZON: BIOBANKING AND INNOVATION**  
**CHAIR: JENNIE HUI**  
**13:30 - 15:00 PRESTON B/C**



Proteomics International

**13:30 - 14:00**

**PROFESSOR LYLE PALMER**

University of Adelaide, Adelaide, South Australia

**TITLE:** The Biospecimen and Data Linkage Resource (BIOLINKeR)

**ABSTRACT:** In the current precision healthcare focused, Big Data era, countries with the highest chances of success in using molecular information in clinical and public health applications are those with extensive population-based longitudinal clinical data linked to high quality biospecimens. Access to expert informatic and analytic resources, particularly applied AI, are also critical. The capacity to create and maintain extensive human biospecimen collections linked to rich phenotypic data is an essential 'Big Data' precursor to molecular medicine and precision healthcare, and to enable industry partnerships that develop and implement new therapies and health care solutions.

We are building new national infrastructure for biomedical research to address these needs. The Biospecimen and Data Linkage Resource (BIOLINKeR) will take existing SA biospecimen banking resources, integrate them into a single new and cohesive core platform, and greatly expand their capacities and potential impact through linkage to clinical and other administrative datasets. New partnerships with SA Pathology will allow ~6.5M historical biospecimens to be visible and accessible for the first time. BIOLINKeR will provide the potential for national access to SA biospecimen resources and facilitate collaboration and research into national priority diseases across the life course. Integration with the Australian Institute for Machine Learning (AIML) will allow the application of artificial intelligence to both operational and analytic problems.

**14:00 - 14:30**

**PROFESSOR PAUL KENNEDY**

Australian Artificial Intelligence Institute, Faculty of Engineering and IT, University of Technology, Sydney, Australia

**TITLE:** Cross-disciplinary approaches to analysing biomedical data

**ABSTRACT:** Increasingly it is important to take cross-disciplinary approaches to analysing biomedical data from tissue banks and biorepositories. This is because the requisite skills are broad, crossing disciplines ranging from wet lab skills dealing with biological samples through to histopathological skills with microscopes and to computing skills writing scripts and building artificial intelligence and bioinformatics models. Research advances quickly in all of these disciplines and arguably no one individual can keep abreast of all fields. Consequently, we need to work together to solve problems, understanding our respective strengths, approaches and points of view. This talk is about the cross-disciplinary work we have been doing in the Biomedical Data Science Laboratory in the UTS Australian Artificial Intelligence Institute, which is currently ranked 10th worldwide and first in Australia (AI Research Index, Software Policy and Research Institute). The BDS Lab and the Tumour Bank at The Children's Hospital at Westmead have been working together since 2003, initially on two colour gene expression microarrays for acute lymphoblastic leukaemia, but latterly on stained tissue microarrays.

We will discuss some of the research we have done using image processing and neural networks on the data from stained tissue microarrays in paediatric neuroblastoma and rhabdomyosarcoma domains. Next we will talk about some of the outcomes of a novel co-learning workshop we ran to understand the drivers and inhibitors to cross-disciplinary research. Finally, we will show some of the recent work we have done in visualising spaces of data derived from patients, including a virtual reality system to explore oncology models.

**AEGEAN HORIZON CONTINUES ON NEXT PAGE**

**FRIDAY 21 OCTOBER**  
**AEGEAN HORIZON: BIOBANKING AND INNOVATION**  
**CHAIR: JENNIE HUI**  
**13:30 - 15:00 PRESTON B/C**



Proteomics International

**14:30 - 15:00 RAPID FIRE PRESENTATIONS**

**A/PROFESSOR DANIEL CATCHPOOLE**

Biospecimen Research Services, CCRU, The Children Hospital at Westmead, Westmead, New South Wales, Australia

**TITLE:** From Storage to Service: Recognising When Big Change Is Required

**ABSTRACT ID #21**

**DR GEORGET REAICHE-MILLER**

The University of Adelaide, Adelaide, SA, Australia

**TITLE:** A centralised facility designed to futureproof research, but how secure and disaster ready is it?

**ABSTRACT ID #47**

**DR ANUSHA HETTIARATCHI**

UNSW Biospecimen Services, University of NSW, Sydney, New South Wales, Australia

**TITLE:** Mapping A Sunburnt Country: An Australasian National Biospecimen Locator

**ABSTRACT ID #23**

**15:00 - 15:30 AFTERNOON TEA**

Corporate Sponsor exhibits (Mentelle Room)

Poster Viewing (Mentelle Foyer)

**FRIDAY 21 OCTOBER**  
**CYAN HORIZON: BIOBANKING RESEARCH NETWORK**  
**CHAIR: NINA D'VAZ**  
**15:30 - 16:30 PRESTON B/C**

**15:30 - 16:10 RAPID FIRE PRESENTATIONS**

**CASSANDRA P GRIFFIN**

University of Newcastle, Newcastle, NSW, Australia/School of Medicine and Public Health, University of Newcastle, Newcastle, NSW, Australia

**TITLE:** Understanding the Perceived Value of Post-Mortem Brain Donation for Research

**ABSTRACT ID #11**

**DR EMMA L DALZIELL**

University of Western Australia, Perth/Kings Park Science, Department of Biodiversity Conservation and Attractions, Perth

**TITLE:** Predicting seed lifespan for the improved curation of conservation seed banks

**ABSTRACT ID #12**

**LOUISE E LUDLOW**

Murdoch Children's Research Institute, Parkville, VIC, Australia/Children's Cancer Centre, The Royal Children's Hospital, Parkville, VIC, Australia

**TITLE:** Using video media as an information and consent tool

**ABSTRACT ID #13**

**BRYN FUNNEKOTTER**

Kings Park Science, Department of Biodiversity, Conservation and Attractions, Kings Park, WESTERN AUSTRALIA, Australia/Curtin Medical School, Curtin Health Innovation Research Institute, Curtin University, Perth, Western Australia, Australia

**TITLE:** Biobanking Threatened Plant Species: Understanding the stresses of cryopreservation for long-term conservation

**ABSTRACT ID #14**

**16:10 - 16:30 PRIZE GIVING & MEETING CLOSE**

Cassandra Griffin & Dr Georget Reaiche-Miller



australasian  
biospecimen  
network  
association

## 2022 KEYNOTE SPEAKER

### PROFESSOR DOMINIC MALLON

Professor Dominic Mallon is the Head of Clinical Service, Immunology at Fiona Stanley Hospital.

Dominic is a clinician who practises a broad range of immunopathology, allergy and clinical immunology looking after both children and adults with immunological and allergic disorders. Dominic also collaborates in clinical research projects into the mechanisms of tolerance induction in immunotherapy for allergic diseases; and impairment of tolerance mechanisms in autoimmunity. During 2020 Dominic became involved in clinical redesign, leading the successful establishment of the Virtual Immunology Clinic at Fiona Stanley Hospital.

Dominic is also Coordinating Principle Investigator of the Western Australian Covid-19 Immunity Collaborative – a FHRI funded prospective cohort study of nature and duration of immunity to SARS-CoV-2 in naturally infected and immunised subjects who live in WA.



2022 SPEAKERS

## 2022 INVITED SPEAKERS



### DR GAIL ALVARES

Dr Gail Alvares is a Senior Research Fellow in the CliniKids Autism Research Team, leading a program of research into autism and mental health. She has extensive experience coordinating large multi-site clinical trials and research projects, and lead coordinated the Australian Autism Biobank, currently the largest detailed biological and clinical repository of information about autism in Australia. She has extensively published (62 journal articles, 4 book chapters) and been awarded competitive grant funding (>\$1.2 million as lead investigator, >\$2.6 million as associate/co-investigator). In 2016, she was awarded a "Top 5 Under 40" award by ABC's Radio National and is passionate about science communication of research outcomes to the community.



### DR RONNY BABER

Dr. Ronny Baber works in the Institute of Laboratory Medicine, Clinical Chemistry, and Molecular Diagnostics at the University Hospital Leipzig. He is the head of the Leipzig Medical Biobank and the Preanalytical laboratory in the Leipzig Research Center for Civilisation Diseases (LIFE). Dr. Baber is a member of the working group in the German Institute for Standardization (DIN) which supports the ISO TC 276 responsible for ISO 20387 on biobanking and other related standards and BBMRIERIC workgroups for the evaluation of CEN standards. He is a voted member of the Steering Committee of the "German Biobank Alliance" (GBA) with responsibilities for stakeholder management and part of different working groups in the GBA (e.g. Education, Stakeholder, Quality, Industry Collaboration). Since September 2017 he is designated as part of the Executive Board of the European, Middle Eastern & African Society for Biopreservation and Biobanking (ESBB). In 2020 he also joined the Ethics Committee at the Medical Faculty of the University Leipzig.



### DR JONATHAN DALY

Dr Jonathan Daly is an aquatic cryobiology specialist based at Taronga Conservation Society Australia and the University of New South Wales, and leads the Cryopreservation Sub-program of the federally-funded Reef Restoration and Adaptation Program. He has more than 18 years' experience in cryopreservation in aquatic species and has worked on cryopreservation of coral gametes, larvae, symbionts, and fragments since 2016 in Australia, Hawaii, French Polynesia, and the Caribbean. Dr Daly has led coral biobanking activities in the Great Barrier Reef Marine Park since 2016 and is a world leader in the development of advanced cryopreservation technologies for coral reef species. He is co-chair of the global CRC Working Group on Coral Cryopreservation and Repository Building, and a member of the Coral Biobank Alliance group of living coral biorepositories.



### DR RAELENE ENDERSBY

Dr Raelene Endersby co-leads the Brain Tumour Research Program – part of the Telethon Kids Cancer Centre at the Telethon Kids Institute in Perth, WA. She completed a PhD in the field of leukaemia in 2003 at the Harry Perkins Institute for Medical Research, and then undertook postdoctoral training in the Neurobiology and Brain Tumor Program at St Jude Children's Research Hospital in Memphis (USA). In 2011, Raelene was awarded a Fellowship to return to Australia where her translational research team seeks to discover improved treatments for childhood brain cancers. This multi-disciplinary and collaborative team uses a suite of preclinical models to understand the underlying biology of paediatric brain tumours, as well as to evaluate novel agents and identify the best therapies that should progress to clinical trial. Raelene is passionate about performing high-quality research and actively seeks a diversity of opinions in her work especially from those with non-traditional and non-academic career paths.

## 2022 INVITED SPEAKERS



### DR GRETA FRANKHAM

Dr Greta Frankham is a conservation geneticist and wildlife forensic scientist at the Australian Centre for Wildlife Genomics (ACWG) at the Australian Museum Research Institute. She completed her PhD at the University of Melbourne in 2012 and her academic research has focused on the conservation genetics of threatened Australian marsupial species. When she joined the ACWG in 2011 she also moved into the field of DNA-based wildlife forensics. Dr Frankham was part of the team that established the ACWG as the first ISO17025 accredited wildlife forensics lab and biobanking facility in Australia. Her research interests now span conservation and forensic science, working on species such as; long nosed potoroos, eastern pygmy possums, long nosed bandicoots, koalas (as part of the Koala Genome Consortium), echidnas, red-tail black cockatoos, shingleback lizards and Hawksbill turtles. Dr Frankham also regularly carries out casework for a range of state and federal agencies involved in wildlife and biosecurity compliance in Australia.



### SUSAN GARRISON

Susan Garrison is a licensed veterinary technician (LVT) with over twenty years of clinical experience specializing in shelter medicine, anesthesia, medical genetics and clinical research. She received her AAS and BT degrees in Animal Science from the State University of New York (SUNY) College of Agriculture and Technology at Cobleskill. She received her AAS degree in Veterinary Science Technology from SUNY Delhi (summa cum laude). She joined Cornell University Hospital for Animals at the Cornell University College of Veterinary Medicine as an LVT in 2003. She began her biobanking career with the Cornell Veterinary Biobank (CVB) in 2008, where she currently serves as the Assistant Director of Biobank Clinical Services. Susan oversees clinical biospecimen recruitment, collection, tissue preservation and storage. She also acquires and manages relevant clinical data associated with these samples, consulting with board-certified veterinary specialists for phenotypic confirmation to ensure accurate data entry in the CVB database. She is involved in project management, tissue sample and blood derivative distributions, and handling client and researcher communications during studies and ahead of clinical trial protocol development. She is part of the quality management team that prepared the CVB to be the first biobank in the world to achieve accreditation to ISO 20387: 2018 General Requirements for Biobanking in April 2019 and has been actively involved in maintaining its accreditation status since.

Susan is also an instructor for American Association for Laboratory Accreditation Workplace Training (A2LA WPT) training biobankers and A2LA assessors in understanding the requirements of ISO 20387: 2018. Susan is the co-author of several biobank and medical genetics related peer-reviewed articles and recently (August 2022), for the first time, became the first author of an article published in *Biopreservation and Biobanking* (Garrison SJ et al. Banking on the Last Gift: Cornell's Signature Program of Postmortem Tissue Procurement. *Biopreservation and Biobanking*. 2022 Aug 5).

Her areas of interest include biospecimen science including cryopreservation and storage, quality management systems, clinical research and translational medicine biobanking. She enjoys speaking with clinicians and researchers about the importance of high-quality biospecimens in reproducible research and utilizing biobanks for this purpose. She also enjoys introducing the public to biobanking and recruiting precious animal family members to contribute biospecimens for CVB associated research projects (oncology and osteoarthritis diagnoses of special interest). Susan is passionate about animal health and supporting research for both human and animal medical advancements.

## 2022 INVITED SPEAKERS



### **DISTINGUISHED PROFESSOR LYN GRIFFITHS**

Distinguished Professor Griffiths is an active and respected molecular geneticist with more than 30 years' experience. DProf Griffiths established and heads the Genomics Research Centre at QUT undertaking research focused on identifying genes involved in common traits and disorders including migraine, cardiovascular disease risk traits, memory and concussion. For this research she has established a significant bank of population genomics resources including case-control, multigenerational pedigree and genetic isolate (from Norfolk Island) cohorts. She is also Director of the Centre for Genomics and Personalised Health which aims to discover better methods of diagnosing disease, develop targeted treatments based on genetic information, and training the next generation of translational genomics scientists. In addition, DProf Griffiths is a passionate advocate of the translation of medical research through commercialisation and is the Director of the MTP Connect and industry led Bridge and BridgeTech programs, undertaking commercialisation training for the pharmaceutical and medical devices-technology fields across Australia, respectively. DProf Griffiths' own genetics research at the Genomics Research Centre has led to diagnostic breakthroughs for several neurogenetic disorders, including familial migraine, ataxia, epilepsy and hereditary stroke. Her research has appeared in more than 400 peer-reviewed international journals and she has obtained significant competitive and industry research funds to support her research team.



### **JULIE HIBBERT**

Julie Hibbert is an early career postdoctoral researcher passionate about improving sepsis diagnosis, particularly in preterm infants. Julie is a Research Project Manager with the Neonatal Infection and Immunity at Telethon Kids Institute and Murdoch University in Western Australia. Julie has over 15 years of experience in medical research, of which 7 years have focused on managing and coordinating clinical studies in human neonates. Julie's current research combines cellular and molecular 'omics' methodologies to discover biomarkers that improve neonatal sepsis diagnosis. Along with this, Julie is working on improving the feasibility of small blood sample collection in neonatal clinical studies to maximise progress, translation, and impact of research findings.



### **SAMANTHA HIGGINS**

Samantha is the Quality Manager of the Victorian Cancer Biobank (VCB) located in Melbourne, Australia, currently leading the VCB Consortium of 5 tissue banks through a Quality transformation towards CTRNet and ISO-accreditation. Samantha holds a Master of Science (Biomedical) and Bachelor of Science (Pathology). She draws from over 10yrs of laboratory accreditation experience in Forensic Pathology and Donor Tissue Banking (Australia and USA) and is passionate about organisational improvement that instils product and public confidence in biobanking.

## 2022 INVITED SPEAKERS



### PROFESSOR GEORGINA HOLD

Georgina Hold is the Professor of Gut Health at the Microbiome Research Centre, St George and Sutherland Clinical School at UNSW. Her research focusses on understanding the impact of gastrointestinal microbes on human health and disease. Developing greater understanding in this area allows us to further appreciate the contribution that gut microbes play in diseases and potentially develop therapeutic strategies to maintain and restore health. Her lab has an internationally renowned reputation for microbiome analysis which has been achieved by

- a) developing robust protocols for collecting and processing the most clinically relevant samples, and
- b) ensuring the science is clinically driven.

The main challenges in microbiome research relate to:

- 1) defining the point at which microbiota changes occur, which is often in advance of clinical symptoms/disease presentation,
- 2) understanding the metabolic capabilities of the gut microbiota,
- 3) defining the effect of therapeutic regimens on the gut microbiota and ultimately identifying how to manipulate these factors to promote/maintain health.

This requires multi-disciplinary research strategies harnessing clinicians, microbiologists, nutritionists, epidemiologists, bioinformaticians and also public health analysts. To achieve this, she collaborates with groups all over the world to ensure the skills sets required to address these multi-faceted research questions are brought together. She has an impressive publication record with over 100 peer-reviewed papers to date. Her work has contributed significantly to understanding the role of the gut microbiome in colonic disease.

Her group was the first to identify an over-representation of epsilon Proteobacteria (non-pylori Helicobacter and emerging Campylobacter) in ulcerative colitis and was also the first to publish a detailed assessment of the paediatric gut microbiota in treatment naive de-novo presenting children with IBD, demonstrating that changes in microbial diversity in established disease are not present at disease onset. She is a leading authority on emerging Campylobacter and heads an international effort to whole genome sequence clinical strains in order to understand their role in intestinal disease. She was awarded a Fulbright scholarship in 2014 and spent a year at Harvard School of Public Health studying microbe/microbe interactions and their role in colonic disease.



### DR LACHLAN HOWELL

Dr Howell is a Research Fellow at Deakin University's Centre for Integrative Ecology and an Honorary Associate Lecturer at The University of Newcastle. Dr Howell's research focuses on developing economic arguments for the uptake and optimization of emerging technologies for more effective wildlife conservation. Dr Howell's current postdoctoral research is a cross-disciplinary project evaluating new approaches for monitoring wildlife populations (e.g., kangaroos, waterbirds, and koalas) using drones and emerging aerial-imagery approaches. Dr Howell also has a keen research interest in developing cross-disciplinary policy arguments for the development of assisted reproductive technologies for threatened wildlife. This includes several modelling studies on the genetic benefits and cost-effectiveness of assisted reproduction in wildlife which have attracted international media attention.

## 2022 INVITED SPEAKERS



### DR ALAN HUMPHRIES

Dr Alan Humphries the curator of the Australian Pastures Genebank, which is located at SARDI, in South Australia. The APG is a collection of temperate and tropical legumes, grasses and forbs that benefit Australian agriculture and the environment. The APG contains some 84,000 accessions representing 2619 species collected from 178 countries. Today Alan will discuss the conservation, monitoring, distribution, and information systems used in this biobank of agricultural plants.



### DR JUGNU JAIN

Dr Jugnu Jain is the CEO and co-founder of Sapien Biosciences, one of the top ten biobanks in the world, based in India. Dr. Jain is a cell and molecular biologist with more than 30 years' experience in life sciences and healthcare industry. Dr. Jain has a PhD in Genetics from Cambridge University, UK, and postdoc training in Immunology from Boston's Dana Farber Cancer Institute, a teaching hospital of Harvard Medical School. Dr. Jain gained drug discovery experience at Vertex Pharmaceuticals, USA, where she handled several projects successfully across multiple therapeutic areas including autoimmune-inflammation, cancer, diabetes and neurobiology. In 2011, Dr. Jain returned to India to devote her global experience, skills and resources to co-found Sapien, a pioneer sustainable biobank, in partnership with Apollo Hospitals. Sapien has ethically obtained ~280,000 human samples with associated medical, diagnostic and treatment data. The real-world data is digitized and integrated with samples, genetics and images in a structured manner. These valuable patient samples and data are being used for the discovery and validation of novel diagnostics and drugs for the development of better personalized treatments for future patients. Dr. Jain has been the recipient of many entrepreneur excellence awards including the prestigious "Women Transforming India" bestowed by the Niti Aayog, Govt of India.



### PROFESSOR SIMON JARMAN

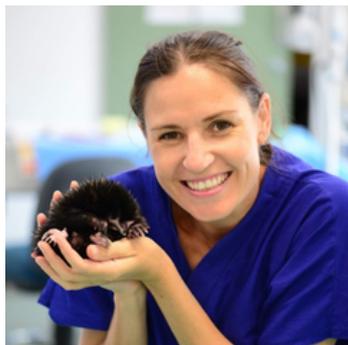
Professor Jarman is interested in applications of genomics in environmental research. He has worked extensively with environmental DNA analysis and its application to diverse ecological questions. Biobanking of environmental DNA or samples that contain it is one of his specific interests in this area as this is the only way to utilise the potential for environmental DNA to measure long-term ecological change. His research interests also include genomic analysis of animal population biology. A specific interest in this area is the development of epigenetic clocks to measure animal age from tissue samples. The calibration of these clocks requires sets of tissue samples from animals of known age and he worked with biobanked material to develop the first epigenetic clocks for estimating the age of whales. He is currently Professor of Biodiversity Genomics at the University of Western Australia and has held research positions at Curtin University, the University of Porto, CSIRO and the Australian Antarctic Division.



### PROFESSOR PAUL KENNEDY

Professor Paul Kennedy is Head of the Computer Science school in the Faculty of Engineering and IT, University of Technology Sydney (UTS). He leads the Biomedical Data Science Laboratory in the UTS Australian Artificial Intelligence Institute and is co-director of the UTS Ontario Tech Joint Research Centre for AI in Health and Wellness. His research focuses on biomedical data science, particularly in paediatric cancer; text analytics of social media data and scientific literature; and bioinformatics approaches for use in vaccine discovery. Since 2003, he had co- led projects with the Children's Hospital Westmead, developing AI methods to predict patient outcomes. He is currently developing approaches to map population-level cancer treatment pathways. He is on the ISO/IEC SC42 committee for standards development in Artificial Intelligence.

## 2022 INVITED SPEAKERS



### DR CLAIRE MADDEN

Dr Madden graduated with a BVSc degree from The University of Queensland in 2013. Since then she has undertaken a Small Animal Medicine and Surgery internship at Veterinary Specialist Services on the Gold Coast. Since completing this internship, Dr. Madden has been employed by Currumbin Wildlife Sanctuary, Australia Zoo and Zoos Victoria (Healesville Sanctuary). During this time Dr. Madden gained membership to the Australian and New Zealand College of Veterinary Scientists by examination in Australian Wildlife Medicine. Currently Dr Madden is the Head Veterinarian for Village Roadshow Theme Parks where she oversees the veterinary health and care of Sea Worlds marine animal collection, Paradise Countries native terrestrial collection and all wildlife rescues that occur through the Sea World Research and Rescue Foundation. Prior to doing her veterinary studies Dr. Madden completed a Bachelor of Science, Animal studies majoring in wildlife biology. During this degree she completed her honours research year studying the reproductive biology of the short beaked echidna. After completing these studies, Dr. Madden was employed by Currumbin Wildlife Sanctuary and Australia Zoo working in their presentations and Big Cat departments as a zookeeper. Dr Madden specialises in Australian Wildlife Medicine and has extensive experience in rehabilitation, chemical restraint, preventative health programs, zoonotic disease, and threatened species programs in a wide range of species.



### DR DAVID MERRITT

Dr Merritt is a Principal Research Scientist for the Department of Biodiversity, Conservation and Attractions, based at Kings Park and Botanic Garden in Perth. Dr Merritt's research interests include fundamental and applied aspects of the biology, physiology, and ecology of seeds. His work focuses on supporting the ex situ conservation of Western Australia's plants through conventional seed banking and cryopreservation, and on developing techniques for the propagation and use of seeds for ecological restoration and threatened species translocations. He is a member of the National Steering Committee for the Australian Seed Bank Partnership, and the IUCN Seed Conservation Specialist Group.



### DR LARA MOUTTHAM

Dr. Lara Mouttham obtained a PhD in Zoology and Wildlife Conservation from Cornell University in 2016 in collaboration with the Smithsonian Conservation Biology Institute (SCBI) as part of the Cornell-Smithsonian Joint Training Program for her work on primordial follicle activation and ovarian tissue cryopreservation in cattle and domestic cats. In addition to her graduate research and subsequent postdoctoral fellowship, she maintained the SCBI Genome Resource Bank which stores gametes and genetic materials from wildlife species. She joined the Cornell Veterinary Biobank (CVB) at the Cornell University College of Veterinary Medicine in 2018, where she is now a research associate and the Assistant Director of Biobank Laboratory Services. She is part of the quality management team that prepared the CVB to be the first biobank in the world to achieve accreditation to ISO 20387 in 2019 and has been actively involved in maintaining its accreditation status since. She is also an assessor for the American Association for Laboratory Accreditation (A2LA), performing assessments of other biobanks for accreditation to ISO 20387. Her areas of interest include biospecimen science, quality management systems, cryobiology, and translational biobanking in support of medical advancements for both humans and animals. She is passionate about educating fellow scientists on the importance of quality assurance in research and introducing the public to the field of biobanking.

## 2022 INVITED SPEAKERS



### PROFESSOR LYLE PALMER

Professor Palmer relocated to Adelaide from Toronto in 2014 to take up a new opportunity as Professor of Genetic Epidemiology at the University of Adelaide. He is currently leading the creation of several new resources in Adelaide, including the South Australian Family Connections Project. Before moving to Adelaide, Professor Palmer was a Senior Principal Investigator and Program Director at the Ontario Institute for Cancer Research, and a Professor of Biostatistics, Epidemiology, and Obstetrics & Gynecology at the University of Toronto. Together with many partner organizations across Ontario, Professor Palmer led a large-scale expansion of the provincial capacity in translational epidemiology. From 2010 to 2014, he was the founding Executive Scientific Director of the Ontario Health Study ([www.ontariohealthstudy.ca/](http://www.ontariohealthstudy.ca/)), the largest population-based cohort study (n=230,000) ever undertaken in Canada. Prior to moving to Canada, Professor Palmer was the foundation Winthrop Chair in Genetic Epidemiology and the founding Director of the Centre for Genetic Epidemiology & Biostatistics at the University of Western Australia, where he was also a Professor in the Schools of Medicine & Pharmacology and Population Health. Whilst in Perth, he was responsible for establishing over ten major clinical and general population-based cohorts, including the WA Twins Register, in addition to National research programs in glioma and mesothelioma. Until 2003, he was an Assistant Professor of Medicine at Harvard Medical School and the Director of Statistical Genomics at the Channing Laboratory, Boston. His background includes training in clinical epidemiology, human genetics, bioinformatics, and biostatistics. He has a particular interest in the areas of life-course genetic epidemiology, the developmental origins of health and disease (DoHAD), and chronic disease clinical and genetic epidemiology. Professor Palmer has been recognized for his leadership role in biomedical research by numerous awards, including Fulbright and Churchill Fellowships. He has chaired and/or given invited symposia at over 60 international scientific meetings, has delivered over 300 invited lectures, has produced over 300 publications, and has co-edited a commercially successful encyclopedia of genetic epidemiology that has become a standard reference work. Professor Palmer has extensive experience in constructing and using 'big data', particularly linked health data, for translation-oriented research. His research team in Adelaide is focused on applying deep learning methods to clinical problems and is active in producing new software and methods for data analysis and visualization.



### DR AMANDA RUSH

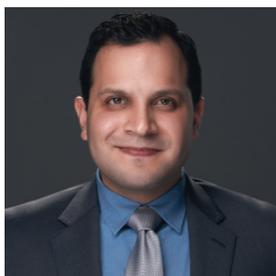
Dr Amanda Rush is a Research Fellow (Health Policy Analysis) at the Menzies Centre for Health Policy and Economics, University of Sydney. She has a mixed methods PhD on the policy and funding implications of the current model for biobanking, including a bibliometric analysis of outputs, a cost analysis of biobank supported publications and a national survey of biospecimen users. Her publications focus on value and sustainability, capacity building, certification and accreditation, research governance, and stakeholder engagement and perspectives. Amanda was an Associate Editor for the most recent International Society of Biological and Environmental Repositories Best Practices: Recommendations for Repositories, and is an Editorial Board member for the journal Biopreservation and Biobanking.



### DR CRAIG WILLERS

Craig recently established the 'Western Australian Biobanking Model' and is currently leading statewide efforts to implement and sustain the Model in his role as Statewide Biobanking Director (Acting) with PathWest and related work with the WA Department of Health. Previously, Craig was National Director of the Australian Arthritis and Autoimmune Biobank Collaborative (A3BC) from inception in 2016 to 2022, building the project from its small headquarters at the Kolling Institute in Sydney, into 8 operational nodes across the country. The A3BC collect and link a broad array of longitudinal biospecimens and datasets, including Commonwealth health data. In invited advisory roles, Craig was Chair of the Kolling Institute Data and Informatics Committee and is currently a member of the ISBER Ethical, Legal and Social Implications (ELSI) Working Group, who are drafting the upcoming 5th Edition ISBER Best Practices. Craig has worked in many health and medical research projects, including roles with university, state health, hospital, biotech and charity. Of note, Craig guided the foundations of NSW biobanking and bioinformatics strategy while employed by the NSW Office for Health and Medical Research and has worked with several national biobank groups.

## 2022 CORPORATE SPONSOR SPEAKERS



**WILFREDO MARIN**

Platinum sponsor - Thermo Fisher Scientific/Chart MVE

Wilfredo is a Senior Product Application Scientist at Thermo Fisher Scientific. He is an experienced Laboratory Manager with a demonstrated history of working in the higher education industry. Skilled in Molecular Biology, Biospecimen processing/storage, Zebrafish animal model, CRISPR and In-situ Hybridization. Strong research professional with a Master of Science (MS) focused in Biology/Biological Sciences, Psychology (BA) from Stanford University.



**LISA SIMMONS**

Gold Sponsor - Bio-Strategy-Hamilton

I have been involved in the life sciences sample management industry for 20 years. My last four years have been with Hamilton Storage promoting automated sample management systems for ambient to -80°C applications typically for biobanking, diagnostic, and compound management applications.



**SRIKATH ADIGA**

Gold Sponsor - AXT/OpenSpecimen

Sri is the CEO and founder of OpenSpecimen. He leads the development of OpenSpecimen - the world's most widely adopted open source biobanking (biospecimen) LIMS platform. We today work with 80+ clinical research centers across 20+ countries including  
 USA: Johns Hopkins, Emory, MSKCC, UMass, Utah, UPitt, UPenn, UC Davis, UT Southwestern & Galveston, WashU, UIC, KUMC, UNMC, HSS, Columbia University.  
 Australia: U of New South Wales, Griffith, SAHMRI, U of Auckland,  
 UK: U of Leicester, Cambridge, Nurture Biobank, Univ of Basel, FIND Diagnostics.





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# ABSTRACTS

## ABSTRACT ID: #5 POSTER & ELEVATOR PITCH PRESENTATION

### COSTS AND PUBLICATION OUTPUTS OF AN ACADEMIC CANCER BIOBANK COHORT

**Amanda Rush (1,2,3)**, Daniel R Catchpoole (4,5), Rod Ling (6,7), Andrew Searles (6,7), Peter H Watson (8), Jennifer A Byrne (2,9)

1. Menzies Centre for Health Policy and Economics, The University of Sydney, Camperdown, NSW, Australia
2. NSW Health Statewide Biobank, The University of Sydney, Camperdown, NSW, Australia
3. Children's Cancer Research Unit, Kids Research, Westmead, NSW, Australia
4. Biomedical Research Data Laboratory, Faculty of Engineering and IT, University of Technology, Sydney, NSW, Australia
5. Biospecimens Research Services, CCRU, Kids Research, Westmead, NSW, Australia
6. Health Research Economics, Hunter Medical Research Institute, New Lambton, NSW, Australia
7. School of Medicine and Public Health, University of Newcastle, New Lambton, NSW, Australia
8. Biobanking and Biospecimen Research Services, BC Canada, Victoria, British Columbia, Canada
9. Faculty of Medicine and Health, The University of Sydney, Camperdown, NSW, Australia

Sustainability for biobanks represents an ongoing economic challenge, with numerous closures of high profile facilities (1,2,3). We have previously discussed the lack of focus on valuing biobanks and their associated outputs, and the threats to sustainability that this may confer (4). To better understand the biobank costs and outputs that contribute to biobank value, we performed an in-depth analysis of annual monetary and in-kind support, and supported publications and their metrics, for a cohort of 12 academic cancer biobanks in New South Wales.

Through a combination of interviews and desktop analysis, comprehensive costing and supported publication data were obtained. Biobanks were grouped and compared according to two classifications: open- versus restricted- access (5), and high- versus low- total annual costs.

Median total costs, as well as median staffing and in-kind costs, were comparable for open- and restricted- access biobanks, as were the quantity and journal impact metrics of supported publications. High- and low-cost biobanks supported similar median numbers of publications, however, high-cost biobanks supported publications with higher median Journal Impact Factor and Altmetric scores. Overall, 9 of 10 biobanks had higher Field Weighted Citation Impact scores than the global average for similar publications.

To our knowledge, this is the first analysis of the costs and supported publications of any academic biobank cohort. Through assessing explicit cost and output data, academic biobanks can engage in or support informed re-direction of resourcing and/or benchmark setting, particularly in light of the range of available collection and access models. Funders and policymakers can also benefit through greater accountability for decision making enabled by evidence-supported business models of biobank operations.

**Acknowledgement:** We would like to thank the staff of the participating biobanks for their time and efforts in sharing biobank costings and outputs for this project.

1. Ontario Institute for Cancer Research. Ontario Tumour Bank to Cease Operations in 2022-23. April 8, 2021 At: <https://oicr.on.ca/wp-content/uploads/2021/07/otb-closure.pdf> Accessed 28/7/22
2. Wai CT. The closure of the National Bio-bank in Singapore. At: [https://www.academia.edu/2357156/The\\_Closure\\_of\\_the\\_National\\_Bio\\_bank\\_in\\_Singapore](https://www.academia.edu/2357156/The_Closure_of_the_National_Bio_bank_in_Singapore) Accessed 28/7/22
3. Larsson A, Savage C, Brommels M and Mattsson P. Structuring a research infrastructure: A study of the rise and fall of a large-scale distributed biobank facility. *Social Science Information* 2018; 57(2): 196 – 222
4. Rush A, Catchpoole DR, Ling R, Searles A, Watson PH and Byrne JA. Improving biobank sustainability through an outputs focus. *Value in Health*. 2020; 23(8): 1072 - 1078
5. Rush A, Christiansen JH, Farrell JP, Goode SM, Scott RJ, Spring K and Byrne JA. Biobank classification in an Australian setting. *Biopreservation and Biobanking*. 2015; 13(3): 212 - 218

# ABSTRACTS

## ABSTRACT ID: #6 POSTER & ELEVATOR PITCH PRESENTATION

### A POPULATION-WIDE, REPRESENTATIVE PREGNANCY AND CHILDHOOD BIOBANK IN VICTORIA, AUSTRALIA

**Kim L Powell (1)**, Yeukai Mangwi (1), Jennifer Zhang (1), Melanie Williams (1), Marco Rubina (1), Tony Frugier (1), Will Siero (1), Melissa Wake (1), Richard Saffery (1,2)

1. *MCRI, Parkville, VIC, Australia*

2. *Department of Paediatrics, University of Melbourne, Melbourne, VIC, Australia*

**Introduction:** Non-communicable diseases arising in-utero and in early childhood pose a great burden on healthcare systems. Large, population-based biobanks, commencing early in life, have the potential to identify cellular, molecular, and genetic determinants of adverse pregnancy and child health outcomes. Parents of every child born in Victoria over a 2-year period (commencing 4 October 2021; n~150,000) are being offered the chance to participate in the Generation Victoria (GenV) initiative, providing a range of data and biosamples.

**Methods:** Two classes of samples are included in the GenV biobank:

1. GenV collected – child and parental saliva, infant stool, breast milk
2. Excess clinical – longitudinal pregnancy serum, plasma, Group B Streptococcus (GBS) swabs, newborn screening blood spots

The Victorian Clinical Genetics Service (pregnancy first trimester foetal screening and newborn blood screening samples) and Victorian Pathology providers (pregnancy serum and/or plasma and third trimester GBS swabs) store deidentified excess clinical samples in 2D-barcoded tubes in our purpose-built, fully automated -80°C biobanking facility.

**Results:** As of 15th July 2022, 50,560 participants including 19,704 infants have consented to GenV, representing all regions (including rural) and sectors (including multiple languages) of Victoria's parent-child population; around 90% consent to saliva samples and genetic research. 40,621 saliva, 76,941 first trimester serum and plasma samples and 2,243 GBS swabs have been collected.

**Discussion:** The GenV biobank offers a unique opportunity to reveal more about environmental exposures during pregnancy and the child's early life that may impact later outcomes in childhood, biological pathways underpinning a range of pregnancy problems that remain poorly understood and potential biomarkers to predict those at greatest risk of adverse pregnancy or later childhood outcomes. It is evident that GenV's antenatal and perinatal biobanking model is viable, efficient, and achieved for a fraction of the cost of collecting the same number of stand-alone research samples.

# ABSTRACTS

## ABSTRACT ID: #7 POSTER & ELEVATOR PITCH PRESENTATION

### USING ARCHIVED SERUM SAMPLES TO UNDERSTAND HISTORICAL HUMAN EXPOSURE TRENDS OF PER- AND POLY-FLUOROALKYL SUBSTANCES (PFAS)

Sandra Nilsson (1), Jennifer Bräunig (1), Renee Carey (2), **Jennie Hui (3)**, Kayla Smurthwaite (4), Leisa-Maree Toms (5), Martyn D Kirk (4), Lin Fritschi (2), Jochen F Mueller (1)

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**Background;** Per- and poly-fluoroalkyl substances (PFASs) are a group of manmade compounds produced since the 1950s and used in a range of industrial processes and consumer products. Due to the high persistence and bioaccumulation potential of some PFASs, they have been detected in the environment, wildlife and humans globally. PFASs were first detected in non-occupationally exposed individuals in the early 2000s. In Australia, PFAS serum concentrations have been measured in the general population since 2002. However, few have retrospectively measured PFAS concentrations in serum samples representative to a general population prior to 2000, none of which have been conducted in Australia. To understand the general population's exposure to PFAS prior to 2002, longitudinal PFAS serum concentration measurements are required.

**Method;** In the current study, we accessed 'The Busselton Health Study Data Bank' to retrospectively analyse archived serum samples for PFASs. Repeat serum samples collected in 1975, 1981 and 1995 were obtained from 17 participants for PFAS analysis.

**Results and Discussion;** We detected 13 PFASs in the serum samples collected in 1975, and both the detection frequency and  $\Sigma$ PFAS serum concentrations increased between 1975 and 1995. Median  $\Sigma$ PFAS serum concentration increased over 7-fold; from 3.3 ng/mL in 1975 to 26 ng/mL in 1995. The increase in serum concentrations reflects the global production history of these PFASs during this period in time.

**Conclusion;** This study provides new insight on the trends of PFAS serum concentrations in individuals living in a rural Australian town with no known major point source of PFAS contamination. Using archived specimen samples to measure emerging contaminants is a practical method to understand historical exposure trends.

# ABSTRACTS

## ABSTRACT ID: #8 POSTER & ELEVATOR PITCH PRESENTATION

### A Demonstration of Immersive Analytics of Biospecimen Derived Data: Introducing Virtual Reality for the Observation of Oncology Models (VROOM)

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As biobanking operations develop to facilitate biospecimen management that integrates with data generation technologies as well as data analytics pipelines, understanding biospecimen from a health informatics viewpoint is vital. The significant advancement of inexpensive and portable virtual reality (VR) and augmented reality (AR) devices has re-energised the research in the immersive analytics field. The immersive environment is different from a traditional 2D display used to analyse 3D data as it provides a unified environment that supports immersion in a 3D scene, gestural interaction, haptic feedback and spatial audio. Genomic data analysis has been used in oncology to understand better the relationship between genetic profile of biospecimens, cancer type, and treatment option. We shall describe, and indeed demonstrate, a novel immersive analytics tool for cancer patient cohorts in a virtual reality environment, Virtual Reality to Observe Oncology data Models (VROOM) (1). We utilise immersive technologies to explore the tumour sample gene expression linked to patient clinical data in a cohort of cancer patients. Various machine learning algorithms and visualisation methods have also been deployed in VR to enhance the data interrogation process. This is supported with established 2D visual analytics and graphical methods in bioinformatics, such as scatter plots, descriptive statistical information, linear regression, box plot and heatmap into our visualisation. Our approach allows the analysts to interrogate the information that is familiar and meaningful to them while providing them immersive analytics capabilities to make new discoveries toward personalised medicine.

1. Chng Wei Lau, Zhonglin Qu, Daniel Draper, Rosa Quan, Ali Braytee, Andrew Bluff, Dongmo Zhang, Andrew Johnston, Paul J. Kennedy, Simeon Simoff, Quang Vinh Nguyen, Daniel Catchpoole, "Virtual Reality for the Observation of Oncology Models (VROOM): Immersive Analytics for Oncology Patient Cohorts.", *Scientific Reports*, 12, 11337, 2022.

# ABSTRACTS

## ABSTRACT ID: #11 POSTER & RAPID FIRE PRESENTATION

### UNDERSTANDING THE PERCEIVED VALUE OF POST-MORTEM BRAIN DONATION FOR RESEARCH

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Of adult patients diagnosed with Glioblastoma Multiforme (GBM) only 5% survive 5 years. GBM research remains hampered by an incomplete understanding of brain tumour biology, partially attributed to limited access to human brain tumour samples. Post-Mortem Brain Donation (PMBD) programs allow researchers a unique insight into the pathogenesis of glioblastoma and address the challenge posed by tissue shortages.

There is available data representing the experience and impact of consenting to brain donation programs for patients with neurodegenerative and psychiatric diseases, but not for primary brain cancer patients. Consequently, biobanking professionals have limited opportunities to maximise the psychosocial value of PMBD programs for those who participate. Our aim was to conduct a systematic review of existing literature to identify and characterise the perceived benefits and harms posed by PMBD programs to better understand the potential psychosocial value.

A systematic search identified relevant studies investigating the motivations, barriers, psychosocial impact or personal experiences of PMBD programs among patients, family and carers. Thirty-eight studies were identified for data extraction with quantitative and qualitative data grouped into key perceptions of benefit and harm.

The perceived benefits of PMBD were characterised into themes including: altruism, contributions to science/medical research, comfort/consolation and control/empowerment. An aversion to 'waste' was a key benefit identified across multiple participant groups. Perceived harms included physical harm and emotional distress, disfigurement, delay to funeral and withdrawal of clinical care to accelerate donation timelines.

Some perceived harms reflect misconceptions of the brain donation process, indicating the need for increased education and outreach to patient communities. Understanding patient experiences with inter-disciplinary PMBD programs will allow for an evidence based, best practice model to support GBM clinical research programs. Recognising the variability within respondent groups confirms the need for further investigation, particularly with respect to brain donation in the setting of GBM.

# ABSTRACTS

## ABSTRACT ID: #12 POSTER & RAPID FIRE PRESENTATION

### PREDICTING SEED LIFESPAN FOR THE IMPROVED CURATION OF CONSERVATION SEED BANKS

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The storage of seeds in seed banks is a primary strategy for plant conservation in the face of unprecedented biodiversity loss. For seeds of wild species, the effective and evidence-based curation of collections is an ever-increasing challenge as the size and diversity of the collections grow. For example, the Department of Biodiversity Conservation and Attractions and Kings Park and Botanic Gardens in Western Australia are jointly responsible for >16,000 accessions of >3,500 wild species, including sole remaining wild populations and some collections that represent populations now extinct in the wild.

However, a number of phenomena are only now becoming apparent as data accumulate regarding the behaviour of desiccation tolerant seeds of diverse species that have been stored and monitored over a number of decades in seed banks globally: (1) For an increasing number of species there are anomalies in the relationship between storage temperature and seed longevity and storage at colder temperatures does not translate to greater longevity; (2) Even for seeds with orthodox storage behaviour, their longevity is not as expected or predicted for many species and; (3) The variation in seed longevity, both within and between collections of a particular species, can be vast – up to orders of magnitude, even for relatively genetically uniform crop species.

This new evidence challenges the premise that seed banking offers extinction-proofing of wild, diverse species through storage of viable germplasm over decades and centuries. In this presentation I will discuss some of our recent work investigating the utility of measuring metabolic rates (MRs) for stored seed to better understand viability and longevity for wild species. We hope that with further technological refinement we can utilise metabolic measurement to predict longevity and monitor viability loss in an efficient and accurate manner.

# ABSTRACTS

## ABSTRACT ID: #13 POSTER & RAPID FIRE PRESENTATION

### USING VIDEO MEDIA AS AN INFORMATION AND CONSENT TOOL

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The Children's Cancer Centre (CCC) Biobank at the Royal Children's Hospital (RCH) and Murdoch Children's Research Institute was established in 2014 and represents a valuable collection of biological specimens linked to health information contained in hospital medical records. Each year approximately 180 participants and their guardians offer consent to donate their tissues and data to advance paediatric cancer research.

International studies have established the benefits of communicating medical information and informed consent using video media amongst both paediatric and adult populations<sup>1,2,3</sup>. Further, videos enhance comprehension amongst those with reading difficulties and linguistically diverse communities<sup>4,5</sup>. There is a high degree of technological device ownership and literacy amongst Australian children and teenagers<sup>6,7</sup>. Research on the efficacy of information and consent videos amongst Australian paediatric patients is limited. In November 2021, the CCC Biobank launched a video to assist in the consent process (<https://www.youtube.com/watch?v=IHZPmiDvGIs>). This video received approval by the RCH Human Research Ethics Committee and was produced by Sathana Dushyanthen of Science in Motion.

The attitudes and perceptions towards the CCC Biobank video amongst both CCC clinicians/researchers and patients/guardians who consented to the CCC Biobank were assessed. Approximately 100 patients/guardians who consented to the CCC Biobank since the video launch received a text based survey and approximately 30 CCC researchers/clinicians received a personalised survey via email. Participation was voluntary and completely confidential. Feedback received on the video offered an opportunity to determine whether videos in general are an effective communication tool to inform patients/guardians about research and facilitate the informed consent process. The secondary objective gauged researcher/clinician interest in an evidence-based video development toolkit to provide practical advice on creating videos for any research project on campus.

\*Equal contribution: Jennifer Munro and Louise E Ludlow

1. Occa, A., & Morgan, S. E. (2019). Animations about clinical trial participation for cancer patients and survivors. *Journal of health communication*, 24(10), 749-760.
2. Occa, A., Stahl, H. M., & Julien-Bell, S. (2022). Helping Children to Participate in Human Papillomavirus-Related Discussions: Mixed Methods Study of Multimedia Messages. *JMIR Formative Research*, 6(4), e28676.
3. Fissler, S., & Ryan, M. (2016). G226 (P) Information videos for use within the Paediatric Emergency Department.
4. Franceschini, S., Bertoni, S., Ronconi, L., Molteni, M., Gori, S., & Facoetti, A. (2015). "Shall we play a game?": Improving reading through action video games in developmental dyslexia. *Current Developmental disorders reports*, 2(4), 318-329.
5. Ali Batel, E. (2014). The Effectiveness of Video vs. Written Text in English Comprehension and Acquisition of ESL Students. *Arab World English Journal*, 5(4).
6. Screen time and kids: What's happening in our homes? Australian Child Health Poll, The Royal Children's Hospital (2017) Retrieved 05 May 2022 from [https://www.rchpoll.org.au/wp-content/uploads/2017/06/ACHP-Poll7\\_Detailed-Report-June21.pdf](https://www.rchpoll.org.au/wp-content/uploads/2017/06/ACHP-Poll7_Detailed-Report-June21.pdf)
7. Young people and social media usage, eSafety Commissioner Poll, Australian Government (2018) Retrieved 05 May 2022 from <https://www.esafety.gov.au/research/youth-digital-dangers/social-media-usage>

# ABSTRACTS

## ABSTRACT ID: #14 POSTER & RAPID FIRE PRESENTATION

### BIOBANKING THREATENED PLANT SPECIES: UNDERSTANDING THE STRESSES OF CRYOPRESERVATION FOR LONG-TERM CONSERVATION

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Cryopreservation is a valuable tool for the long-term conservation of threatened and valuable plant species. Cryo-storage at Kings Park has been used since the early 1990s to provide a long-term conservation collection for species that are threatened in their native habitat, with cryopreservation used to store a wide range of plant tissue types including seeds, tissue cultured shoots and callus as well as symbiotic mycorrhizal fungi for orchid seeds. However, the process of cryopreserving a species imposes various stresses, including ice formation, oxidative stress, mitochondrial damage, and solute toxicity, all of which can limit survival rates after cryopreservation. Cryobiotechnology aims to understand and mitigate these cryo-stresses, resulting in the continued development of new and improved cryopreservation protocols. Research conducted at Kings Park Science using in vitro cultures and shoot tip material has cryopreserved 37 of our rare and threatened species, with a range of cryobiology tools used to help develop the successful cryopreservation protocols. This has included work on optimising the cryogenic protocols, thermal analysis to understand ice formation and effectiveness of the cryoprotective agents used, lipidomics studies to assess membrane compositions and membrane leakage, changes to the redox environment and the effect cryopreservation has on mitochondrial function.

## ABSTRACT ID: #21 POSTER & RAPID FIRE PRESENTATION

### FROM STORAGE TO SERVICE: RECOGNISING WHEN BIG CHANGE IS REQUIRED

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Biobanks are critical resources for paediatric translational research and are fundamental for better healthcare for children in the future. However, due to the rarity of childhood diseases, small specimen volumes, and the parochial scope of paediatric cancer research, the maintaining the ongoing impact of paediatric biobanks is a huge challenge. The Tumour Bank in The Children's Hospital at Westmead (TB-CHW) operates as a single institutional biobank within CHW. Within 20 years of practice, it persistently explored different biobanking models to best remain a relevant research infrastructure. It started as a retrospective biobank where sample storage with passive biospecimen distribution but grew to be an active push-out distribution model when our holdings became sufficient to drive meaningful research. With the growth of precision medicine and targeted therapy clinical trials in paediatric cancer management, the need for biospecimens to be immediately distributed to a range a testing centres has increased dramatically. Hence, the role of the biobank for sample storage for extended periods of time no longer aligns with the needs of the clinic-research community. Recognising that change in our practice was required we describe here how we have drawn on of expertise in tissue handling for research has built shift our focus to biobanking service provision and consultancy. We will describe...

1. Why does biobank need to shift from sample storage facility to biobanking resource?
2. How will biobank shift to biobanking resources or processes involved?
3. What impact does the model shift have on biobanks?
4. What is the outcome of the repositioning?
5. How does this alter biobanks' role within the precision medicine era?

To conclude, biobank exists to facilitate health care. Therefore, in order to achieve long term impact, biobank needs to transform, adapt and develop following health care's advancement and potential needs. Survival of the fittest!

# ABSTRACTS

## ABSTRACT ID: #22 POSTER & RAPID FIRE PRESENTATION

### PIVOTING IN A PANDEMIC – NEW METHODS OF ENGAGEMENT

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Progressing human research projects during the COVID pandemic has necessitated flexibility and dynamic methods to manage the changing landscape of restrictions and infection control. The Human Studies Unit (HSU) supported researchers through this period by rapidly pivoting methods for recruitment of participants and collection of biological samples from around Australia. Pressures on staff, infrastructure, logistics and containment management impacted human research projects at clinical and research institutions and challenged conventional methods of biospecimen collection, handling and processing.

The HSU rapidly validated alternative less invasive sample collection methods for system genomics applications which could be collected outside of clinical and research settings, and by the participants themselves. With projects at various stages of implementation the HSU also developed a full e-consent platform to collect informed consent from adults participating in high-risk genetic projects. Access to research staff by self-booking appointment interfaces enabled participants to contact the research team with specific questions around participation. Developing functionality within the HSU's research Content Management System (CMS) supported staff working from home by automating emails containing links to online surveys and triggering the preparation of sample collection kits; office tasks normally undertaken manually.

The challenges of continuing to support human research projects during the pandemic has necessitated the development of new methods for recruitment, engagement, sample collection and processing. We discuss the successes of this process and how they applied specifically to a project looking to understand the differences in people's response to COVID-19 infection influenced by underlying genetic factors– The COVID OZGenetics project.

# ABSTRACTS

## ABSTRACT ID: #23 POSTER & RAPID FIRE PRESENTATION

### MAPPING A SUNBURNT COUNTRY: AN AUSTRALASIAN NATIONAL BIOSPECIMEN LOCATOR

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7. *Sir Peter MacCallum Department of Oncology, University of Melbourne, Melbourne, Victoria, Australia*

#### Statement of the Problem

The Australasian biobanking landscape has grown rapidly in response to the increasing demand for high quality biospecimens. While inherently positive, rapid national growth has contributed to inconsistencies in practice and a fragmentation of the biobanking community resulting in redundant resource expenditure, inefficient use of existing collections and limitations on collaboration for biobankers and researchers alike. This is particularly problematic in disciplines where sample rarity and scarcity are enduring challenges and where collaborative working is essential to achieve critical mass or a multi-disciplinary focus. Likewise, with the increasing emphasis on 'One Health' approaches to research, the integration of agricultural, zoological, microbial, environmental and human biological collections is imperative. To achieve this, visibility of existing collections is paramount.

#### Proposed Solution

The Australasian Biospecimen Network Association (ABNA), following on from the foundational work of ABN-Oncology, is launching an expanded iteration of the TSL/National Biospecimen Locator. Inspired by existing infrastructure, such as that of BBMRI-ERIC, the Biospecimen Locator will be multi-disciplinary and provide a central source of information for sample custodians as well as academic and industrial researchers. Increasing usability and maximising research utility of catalogued samples, the platform will also include research services embedded within biobanking infrastructure such as sample processing, collection protocol development and clinical trial support. Extensive stakeholder engagement through the ABNA network is currently underway with the first upload of sample data intended for April 2022. A core focus is the recognition and inclusion of new collections from emerging research priorities and the integration of cross-disciplinary collections to maintain an emphasis on representation and diversity. Following a pilot phase there is scope for expansion through ABNA's Australasian network and for integration with international colleagues and aligned platforms.

#### Conclusion

A concerted approach to promoting harmonisation and maximising biospecimen research utility can only be achieved through increased visibility and networking on a national scale. The National Biospecimen Locator will fulfil this unmet need while fostering collaboration between biobankers, academic research teams and industry partners – providing return on investment for all.

# ABSTRACTS

## ABSTRACT ID: #24 POSTER & RAPID FIRE PRESENTATION

### FINDING OUR PLACE

**Alice Rykers (1)**

1. *Te Ira Kāwai – The Auckland Regional Biobank, Auckland, New Zealand*

Te Ira Kāwai – The Auckland Regional Biobank started as an endeavour to centralise the collection of future unspecified samples across the Auckland region. Starting in 2010 the Middlemore tissue bank was created then gifted to and became a corner stone of Te Ira Kāwai. On 3 February 2016, Kaumātua Jacobs performed a karakia and blessing before the opening of the new Te Ira Kāwai – Auckland Regional Tissue Bank in the Faculty of Medical and Health Sciences (Grafton Campus). The premise to unite the 3 metropolitan district health boards alongside the University of Auckland has allowed us to become the complex and innovative resource that we are today for researchers locally, nationally, and internationally.

Our journey has been one of integration and collaboration, listening to our researchers and clinical staff for strategic direction/ guidance. Allowing us to use the resources that we have, to facilitate research and guide researchers around the art of biobanking. We have developed pathways of service for our researcher to assist their projects along. From assisting in the consenting and identifying patients all the way to storing samples in our long-term cryostore facility.

Our place within the university is a platform to provide services and guidance to researchers, in a way that is not only equitable but also protective of our patients who we represent. Acting as a sole contact for clinical staff for human tissue research, we help solve and mitigate risk for researchers.

In Auckland we have also seen the need for assistance in processing PBMNC samples for research and clinical trials. Rapidly gaining experience in this area we are now able to provide as a service to our stakeholders. With the rapidly moving research environment it is pertinent that we adapt to what is needed as well as remain sustainable to help continue the legacy of our patients amazing donations.

## ABSTRACT ID: #25 POSTER & RAPID FIRE PRESENTATION

### ENABLING SYSTEM GENOMICS STRATEGIES IN BIOBANKING – “GETTING YOUR SAMPLE’S WORTH”

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Every sample donated by participants for research is invaluable and irreplaceable. Multi-omic strategies rely on data generation from multiple components of biological samples at single timepoints maximising the participant’s donation. Extracting every useful and useable component from whole blood samples enables system genomics analyses and generates deep phenotyping of clinical and disease traits. The Human Studies Unit has developed specific and cost effective methodology to generate a biological resource that can provide multiple omic data types, specifically both genetic and expression data from a single blood collection.

PAXgene tubes specifically used to stabilise the whole genome RNA expression profile are expensive and where recruitment rates are low, run the risk of expiry prior to use. Here we describe a method to generate whole genome expression data and genome-wide genetic data from a single 10mL EDTA collection tube. Validation of this technique has shown that RNA seq data generated via this method is highly concordant with data collected via PAXgene tubes for the same individuals at the same time point. Implementation of this protocol sees the collection of a blood sample for RNA expression profiling drop from ~\$18 / sample to \$3.50. The ability to maximise every component of a blood sample to generate system genomics data creates valuable sample collections and enables downstream use of samples as technologies evolve.

## ABSTRACTS

### ABSTRACT ID: #26 POSTER & RAPID FIRE PRESENTATION

#### PRECIOUS RESOURCES IN BIOBANKING: BREAST MILK AND STOOL COLLECTION FOR THE LARGEST BIRTH COHORT IN AUSTRALIA

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**Introduction:** While almost all Australian women (96%) initiate breastfeeding, by 4 months less than 40%, and by 6 months only 15% of babies are exclusively fed breast milk. Breast milk is a major modifier of the developing gut microbiome and early cessation may have adverse health consequences from infancy onwards. Large biobanks play a major role in understanding factors contributing to early breastfeeding cessation and related adverse health issues in infants, including perturbations to the gut microbiome. As the first longitudinal study of its kind, Generation Victoria (Gen V) has established an inclusive and diverse population-based biorepository spanning early pregnancy and infancy, that includes both early breast milk and stool samples. This will enable research into the identification of biomarker signatures in breast milk predictive of low breast milk supply and early breastfeeding cessation as well as the potential impact on the infant gut microbiome.

**Methods:** Parents of every child born in Victoria over a 2-year period (commenced 4 October 2021) are being offered the chance to participate in Gen V - providing access to a wide range of data and biospecimens. Beginning 5 October 2022, the Gen V biobank will be supplemented with breastmilk and infant stool samples collected in early infancy. Over 15,000 take-home kits will be distributed to GenV to achieve this goal, using stool and breast milk sampling systems that maintain sample integrity for days at room temperature.

**Discussion:** Studies on Human breast milk collection as well as the Gen V Vanguard Pilot study on infant stool collection confirm that participants are willing to consent, self-collect and return breast milk and stool biosamples. At this large scale, the breastmilk and stool samples will provide a myriad of unique opportunities for research investigation and collaboration both within Australia and internationally. Importantly it will facilitate research to support mothers in breastfeeding their infants, improve infant health outcomes, and reduce the incidence of preventable health consequences.

### ABSTRACT ID: #36 POSTER

#### BUILDING AN INTRICATE GENOMICS BIOBANK FOR BIDIRECTIONAL DATA FLOW

**Karena Pryce (1)**

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Our intricate biobank comprises of heterogenous clinical, commercial and laboratory-derived samples from multiple internal and external collaborators. This poses unique challenges concerning data management. We are creating an agile biobank which allows for bilateral flow of information with collaborators whilst maintaining the fidelity of confidential patient data.

The biobank currently houses samples for 7 clinical and 3 non-clinical studies with 3 additional studies in the pipeline. Of these 13 studies, 10 are internal and 3 are external or collaborations. Due to the nature of some of the data collected for the clinical specimens, security is major point that is handled by storing all LIMs data on an internal server.

The way our LIMs has been set up, gives us the ability to distinguish between the different projects, whether they be clinical or non-clinical. Each interface is specifically designed to collect/ record data that is unique for the projects. It is these interfaces that will help us to link with other databases, giving us the ability to populate them to avoid double entry.

To combat double entry of data into two separate databases, we are looking at linking the LIMS through API's to another database that will house the majority of the clinical data. The question currently in scope is: Do we link it unidirectional or bidirectional? Both options are possible.

Our challenge going forward – integrating the LIMs with REDCap and ensuring a secure directional flow of highly sensitive data.

# ABSTRACTS

## ABSTRACT ID: #37 POSTER

### THE CHARLES DAY TISSUE BANK- A REPOSITORY OF SAMPLES FROM PATIENTS WITH HAEMATOLOGICAL MALIGNANCIES

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1. PathWest Laboratory Medicine WA, NEDLANDS, WA, Australia

The Charles Day Tissue Bank (CDTB) was established in 2012 to facilitate research into haematological malignancies and other blood disorders. The collaboration between Sir Charles Gairdner Hospital (SCGH) and PathWest Laboratory Medicine WA is supported by the Day family and the Charlie's Leukaemia and Lymphoma Fund and has to date, over 10,000 samples in storage. Currently patients from SCGH and Fiona Stanley Hospital undergoing a bone marrow biopsy for diagnostic testing are consented. Bone marrow and peripheral blood samples are taken for cell processing prior to storage in liquid nitrogen or at -80°C. This unique biospecimen collection includes viable peripheral blood and bone marrow mononuclear cells, serum and tissue samples. Currently however, our utilisation rate is low, and samples are mainly released for further diagnostic testing requirements. The Openspecimen Biospecimen Management System has recently been implemented and we aim to focus on the utilisation of these valuable samples. This poster will showcase the Charles Day Tissue Bank including the standard processes, range of samples available and how these samples can be accessed to facilitate research in haematological cancers and related diseases.

## ABSTRACT ID: #38 POSTER

### ADVANCING BIOSPECIMEN APPLICATIONS IN THE CHILDREN'S CANCER CENTRE BIOBANK

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The Children's Cancer Centre (CCC) Biobank is an established bioresource research platform for paediatric malignancy. Adjacent to The Royal Children's Hospital in Melbourne, the CCC Biobank uses its advantageous location to foster collaborations that deliver specimens for pre-clinical and clinical research to improve the detection, treatment and prevention of childhood cancer.

Since its inception in 2014, approximately 1,500 participants have offered consent to donate their specimens and health information across the span of their treatment. Through the governing Access and Oversight Committee, specimens have been distributed towards 40 translational research projects in Australia and internationally. Clinical trials driven by genomic analysis are supported via a sample processing service and banked samples are provided for further clinical testing. In total, 57% of CCC Biobank participants have had a sample distributed for research and clinical purposes.

Over the years, the types of specimens and processing methods have evolved with the development of new techniques and research questions. In 2019, storage of cerebro spinal fluid commenced, leading to the distribution of 92 samples for liquid biopsy research. Formalin-fixed paraffin-embedded tissue blocks prepared from solid and CNS tumours are currently in demand for techniques such as digital spatial transcriptomics. Working closely with the Anatomical Pathology department, the CCC Biobank seeks to increase the storage and utilisation of this sample type. Another asset to the biobank is the establishment of 20 neurosphere cell lines from high-grade CNS tumours, of which 8 have been distributed to national and international research groups and paediatric precision medicine programs. Strengthening research partnerships nationally & internationally has placed the CCC Biobank in a position to provide high quality, fit for purpose samples now and well into the future.

# ABSTRACTS

**ABSTRACT ID: #39 POSTER**

## **THE HEALTH SCIENCE ALLIANCE (HSA) BIOBANK: 10 YEARS OF SUPPORTING CANCER RESEARCH**

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### BACKGROUND

The Health Science Alliance (HSA) Biobank was established in 2012 as a commitment of the Cancer Institute NSW-funded Translational Cancer Research Center, the Translational Cancer Research Network (TCRN). The HSA Biobank was a collaborative initiative between the South-East Sydney Local Health District (SESLHD), NSW Health Pathology (NSWHP, then known as South-Eastern Area Laboratory Service, SEALS) and the University of NSW (UNSW). The HSA Biobank was initially introduced at the Prince of Wales Hospital, Randwick, but was expanded to other hospitals within the SESLHD.

### AIM

The HSA Biobank was established to collect resected tissue and a blood sample under a universal consent, from all known or suspected cancer surgeries, and to make these specimens available to any cancer researcher around the world with ethical approval for their project.

### METHODS

- Ethical and governance approvals were obtained
- Patient consent materials were developed including an official SESLHD consent form
- Surgical tissue was allocated at anatomical pathology (AP)
- Biospecimens and consent status were managed using 'OpenSpecimen' (OS)
- An IT solution to link university and hospital IT systems was developed
- A robust governance structure was established
- A pre-defined minimal data was used to standardize the clinical annotation of specimens
- 

### RESULTS

After 10 years, the HSA Biobank held >20,000 biospecimens from >4000 consented participants. The collection reflects areas of strength within the participating hospitals, including gynecological and upper gastrointestinal cancers, and sarcoma. Importantly, as the collection grew, research access increased: 40 projects were directly supported, >60 publications and presentations were generated, and 28 grants to a total of >\$9 million were influenced.

### CONCLUSIONS

The HSA Biobank as a translational resource for cancer research has led to the generation of significant research outcomes; it continues to provide biospecimens and data under a new name, the Health Precincts Biobank.

# ABSTRACTS

## ABSTRACT ID: #40 POSTER

### PUTTING A BIOBANK CONTINGENCY PLAN TO THE TEST: LESSONS LEARNED FOLLOWING HOSPITAL CYBER-THREAT INCIDENT

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**Background:** The Victorian Cancer Biobank (VCB) is a consortium operating with a hub-and-spoke model, comprising a Lead Agency (Cancer Council Victoria) with five cancer tissue banks, including the Eastern Health Tissue Bank (EHTB). The VCB recently developed a consortium-wide Business Continuity Management (BCM) policy adapting the contingency and risk framework of the Cancer Council Victoria to align with the established VCB governance structures and incorporate our COVID-19 pandemic response experiences.

In March 2021, the Eastern Health public health service responded to a cyber-threat incident that included suspension of all staff use of IT infrastructure (including at EHTB). The incident resulted in immediate and direct impacts to EHTB operations including suspension of research activity and reduced access to VCB biospecimen and data records, resulting in the instigation of the VCB business continuity plan for a 4-week period.

**Method:** During the cyber-threat response the EHTB diligently documented critical events. Upon return to routine operations, the VCB performed a retrospective case review of the EHTB incident response against established VCB BCM policy, including assessment of the theoretical plan against real events. Mitigations for identified consortium risks were also reviewed.

**Results:** Analysis of the EHTB incident response demonstrated EHTB initiated adequate escalation, stakeholder communication, and maintenance of critical services as per the VCB BCM plan. Reliance on VCB consortium partners for assistance was proven as a successful strategy. Lessons learned, such as identifying the need for improved communication action plans, were used to inform Policy improvement.

**Discussion/Conclusion:** BCM is now a focus of biobanks globally due to the COVID-19 pandemic. However, limited biobanking BCM models are available, particularly for consortium biobanks or biobanks embedded within larger institutions or for response to cyber incidents. Analysis of VCB policy using a real incident as a case study demonstrates VCB BCM as a viable framework for biobanking.

# ABSTRACTS

## ABSTRACT ID: #41 POSTER

### THE ST VINCENT'S BIOBANK – BIOBANKING IN THE HOSPITAL SETTING

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The St Vincent's Institute Biobank was established in 2015 to support the research needs of scientists and clinicians across the St Vincent's Hospital Melbourne (SVHM) campus and beyond. Housed at the National Serology Reference Lab (NRL), the Biobank operates in a quality-controlled environment according to GLP.

Our Biobank works with clinicians and researchers from a range of departments across the hospital, including Surgery, Gastroenterology, Addiction Medicine, and the St Vincent's Institute of Medical Research. Here, we present an overview of the diverse range of studies we support across these departments, along with our working model for establishing and managing these projects. Generally, the clinician/researcher obtains informed consent from the participant, specimens are collected by SVHM pathology, and delivered to Biobank. Biobank processes, stores, manages, and distributes the samples according to standard operating procedures, informed by biobanking best practices publications and guidelines. Our ethics approval allows for collection of samples for biobanking across the SVHM campus which any clinician or researcher may apply to utilise for their research project.

We also support clinical trials undertaken at the hospital, and present here a case study of a Phase II trial in new-onset Type 1 Diabetes, the BANDIT trial. Prior to commencing this trial we undertook a pre-study comparison of Lithium heparin versus CPT blood collection tubes. We compared PBMC yield and post-thaw recovery to determine the optimal collection method to ensure fitness for intended purpose of biospecimens collected. This research was instrumental in our client's selection of the blood collection tube utilised across the entire clinical trial.

A Biobank such as ours, positioned at the interface between clinical and research settings, has multiple and varied opportunities to support biospecimen collection and management. However, flexibility and adaptability are essential to exploit these disparate studies.

## ABSTRACT ID: #42 POSTER

### TISSUE MICROARRAYS: TURNING HIDDEN RESOURCES IN RESEARCH GEMS

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It is expected that biobanks provide critical tissue resources to researchers to conduct fundamental investigation into disease states and to ensure the best research use of all tissue biospecimens by linking them to key questions being asked in research. Recognizing the rarity of childhood cancers, small tumour specimen volumes, and the burgeoning need for tissue-directed research we describe here our the impact of a research focussed biospecimen resource The Tumour Bank at The Children's Hospital at Westmead (TB-CHW) has initiated alongside the main source of all such tissue, our histopathology department. In 2012 we leveraged the hospital's formalin fixed paraffin embedded tissue (FFPE) tissue block archive to commence a tissue microarray (TMA) construction program. Our purpose was to provide rationalised access to FFPE tissue whilst not impacting on the availability of blocks for future diagnostic or medico-legal review. Construction of the TMAs that represented a single childhood cancer subtypes required a deep dive into the block archives with blocks selected covering sample collected over a couple of decade long period or more. This resulted in a tissue resource where enough rare paediatric tumours representing all patient seen at a single centre are drawn together to provide meaningful results in their own right. The TB-CHW TMA selected blocks from the past two or more decades, establishing a workable pipeline for the construction of TMAs involving block selection, pathologist review, block construction and QA processes, staining and review, digital microscope and downstream image analyses. The program constructed 25 TMAs which has subsequently supported 21 international studies with a total of 828 individual slides released novel technical evaluation, image analyses and biological assessment that have shifted beyond routine chromogenic and immunohistochemical staining into spatial assessment of targeted regions for protein and gene expression activity as well as deep learning and artificial intelligence.

# ABSTRACTS

## ABSTRACT ID: #43 POSTER

### THE ISBER/ASCP BOC QUALIFICATION IN BIOREPOSITORY SCIENCE (QBRs) EXAMINATION IS NOW ONLINE

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**Background:** Well-trained repository staff are essential for assuring high-quality research specimens. The International Society for Biological and Environmental Repositories (ISBER), the leading international repository society, and ASCP BOC (American Society for Clinical Pathology Board of Certification), an organization providing excellence in global medical laboratory professional certification, have developed a shared qualification category through which individuals may earn a biorepository qualification credential, the Qualification in Biorepository Science (QBRs).

**Methods:** A Qualification in Biorepository Science (QBRs) Workgroup (WG) was established as a standing committee of the ASCP BOC. The WG's task was to develop, review and update the biorepository qualification examination itself, perform job task analyses, develop the examination content guidelines, eligibility requirements, and candidate professional experience documentation forms needed for the QBRs credential. All QBRs credentials awarded will be time-limited. Individual qualification must be revalidated every three years with documentation of continuing education or other educational activities as defined by ASCP BOC. ISBER and ASCP BOC responsibilities have been established, and an annual review by each will be performed.

**Conclusion:** ISBER has joined forces with ASCP BOC to develop a QBRs credential program. ASCP BOC is an experienced, well-recognized organization for certifying professional competency among individuals worldwide, while ISBER Workgroup participants provide content knowledge and biobanking expertise. This agreement has allowed ISBER to fully participate in the development of a global QBRs credential program, requirements of which are essential for the future of sustainable quality biobanking. 43 individuals have obtained their credential to date.

# ABSTRACTS

## ABSTRACT ID: #44 POSTER

### DEVELOPMENT OF PLASTIC-CONTROLLED PROTOCOL FOR MATERNAL URINE COLLECTION AND BIOBANKING

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**Background:** Bisphenols and phthalates are plastic chemical additives (PCs), which are incorporated in the plastic manufacture process to provide specific properties such as flexibility or durability. PCs may leach from plastic objects and enter humans through oral, dermal, or respiratory pathways. Parent PC compounds and their metabolites have been identified in multiple biospecimen types. Higher concentrations of PCs in pregnant mothers' urine have been associated with lower infant birth weight and developmental delays. As many pregnancy PC studies lack plastic-controlled collection methods, these results may draw criticism.

**Objectives:** The aim of this project is to identify sources of plastic contamination during participant self-collection and biobanking process of maternal urine.

#### Methods:

Part A) We have devised an innovative plastic-minimal and thoroughly controlled protocol for the self-collection of maternal urine at 36-weeks' gestation and subsequent biobank storage. The self-collection protocol involved 6 urine samples collected at 2 timepoints (AM, PM) over 3 consecutive days, and 2 negative controls (MilliQ water and synthetic urine). We also implemented negative controls during consumable preparation, laboratory processing, and freezer storage.

Part B) Additionally, we performed quality control on traditional urine collection and biobanking procedure (using plastic consumables), using negative controls.

Part C) Mass spectrometry was performed on all samples and controls to assess where PC contamination occurred in the novel plastic-minimal procedure and traditional collection and biobanking methodology.

**Results:** Mass spectrometry results will be generated by Queensland Alliance for Environmental and Health Sciences, and further analysed for improved biobanking strategies. These results will be available for presentation at ABNA 2022.

**Discussion:** The results will inform the validity of the novel plastic-minimal procedure, which may be expanded to other biobanks. The extent of PC contamination during traditional urine biobanking will also be identified, and therefore their accuracy and utility in PC research.

# ABSTRACTS

## ABSTRACT ID: #45 POSTER

### WA BIOBANKING MODEL 2022: STATE INNOVATION AND NATIONAL SCALABILITY

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WA is home to many independent biobanks, containing invaluable biospecimens and data. However, realising their potential as drivers of innovative and investable pre-clinical research and digital health, requires unified and transparent governance, improved and harmonised quality practices, forward-thinking sample/ data curation, integrated omic and e-research infrastructure, and accredited collection-to-storage facilities and services. Accordingly, WA's health and research sectors have combined to support capability and capacity building through the new WA Biobanking Model 2022.

The four key elements of the Model are: (1) World-Class Governance and Quality - secured by inclusive governance and ethics policy reform and a new dynamic e-consent toolkit, participating biobank SOPs will be harmonised, guided by a statewide quality manual and monitored by quality audits and proficiency testing; (2) Information Integration and Sharing - an online information hub and inventory search will be established for greater visibility and connectivity, a new common biobank data management system will be created using REDCap, and new streamlined state/ national biobank-health data linkage processes will be introduced; (3) Enabling Services and Facilities - within the new statewide pathology-managed biobank service model, skills will be enhanced using validated training and certification resources, accrual of an ongoing shared-use control collection will commence, and new centralised processing/ coordination and scalable storage facilities will be designed and built; (4) E-Research and Digital Health - a multi-omics, e-research and digital health network will form to unite leading infrastructure and talent, and work with the WA Digital Health Strategy and UWA Centre for Entrepreneurial Research and Innovation to better support holistic pre-clinical research and digital health towards a new level of evidence, clinical decision-making and commercialisation.

The Model is a comprehensive platform to advance WA biobanking and big data into the age of artificial intelligence, while also providing a compelling model to consider for national biobanking strategy.

# ABSTRACTS

## ABSTRACT ID: #46 POSTER & RAPID FIRE PRESENTATION

### AN ONLINE BIOBANK CATALOGUE: A VALUABLE TOOL FOR RESEARCHERS LOOKING FOR BIOSPECIMENS OF INTEREST

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#### BACKGROUND

Biospecimens are an important resource for many aspects of medical research, particularly in the cancer field. Searching for biospecimens is not an easy task and requires researchers to search for and contact many biobanks around the world. This task can be very time consuming and can be made easier with the use of online searchable catalogues that reflect the biospecimens available at a biobank.

#### AIM

To develop an online, publicly accessible real-time catalogue that researchers can use to find cancer biospecimens that meet their precise research requirements.

#### METHODS

The Health Precincts Biobank and UNSW Biospecimens Services employ the OpenSpecimen software package (v8.0, Krishangi Solutions) to manage patient and biospecimen information. The OpenSpecimen software query and catalogue functions were used to build an online biospecimen catalogue made available in our website. This can be used by researchers to find biospecimens and make initial contact.

#### RESULTS

Using OpenSpecimen, a biospecimen catalogue search tool was built which can be accessed online without the need for a login nor registration. The tool is intuitive to use and can be used to quickly determine if suitable biospecimens are available. De-identified biospecimens can be searched based on sample type (DNA, tissue, etc.), patient gender, anatomical site (breast, colon, etc.) or pathological status (malignant, etc.). The catalogue automatically updates as new biospecimens become available. The catalogue allows the researcher to add biospecimens of interest to a 'cart', add their contact details, and then initiate contact with our biobank.

#### CONCLUSIONS

The challenge of finding cancer biospecimens both from the researcher point of view, and biobanker point of view, can represent significant investments in time. By developing an online web-based catalogue, the time taken to identify if a biobank has appropriate sample has been reduced. The online biobank catalogue represents the first point of communication between prospective researchers and retrospectively collected cancer biospecimens.

# ABSTRACTS

## ABSTRACT ID: #47 POSTER & RAPID FIRE PRESENTATION

### A CENTRALISED FACILITY DESIGNED TO FUTUREPROOF RESEARCH, BUT HOW SECURE AND DISASTER READY IS IT?

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Ultra-cold freezers are used across Universities for the storage of biological and non-biological material used in research, these include human, animal and environmental material. Due to the diversity of samples, their value varies significantly. Nevertheless, the majority of these sample are costly to generate and many are irreplaceable. A centralised facility to efficiently manage the storage of these materials is critical to reduce the financial burden and research risks. However, such a centralised facility must have effective risk management, emergency and disaster response plans for both the samples stored and the data associated with such samples.

The University of Adelaide Biobank is a purposely-built central, secure, comprehensive, state of the art PC2 facility. It currently houses 48 Ultra-cold freezers and is fitted with multiple redundancies, alarm monitoring, extensive preventative maintenance and emergency response plans.

There are some important factors to consider when developing a successful emergency plan; Risk Identification, Risk Assessment, Risk Mitigation, Emergency Preparedness, Emergency Response and Emergency Recovery. With these in mind, The Adelaide Biobank developed a university wide cold storage management policy which includes; the use of the centralised facility for the storage of high risk material; the use of a Laboratory Information Management System to catalogue the material stored in all Ultra-cold freezers; and guidelines for the physical management and monitoring of all Ultra-cold freezers.

Since the introduction of the policy, the number of research interruptions and insurance claims resulting from freezer failures was dramatically reduced, with only one confirmed claim in the last 7 years. Due to its success, the policy now includes materials stored in liquid nitrogen vessels and -20oC degree freezers and the demand for extra storage has increased. As a result, The Adelaide Biobank is expanding to include cryogenics and -20oC degree storage as well as sample processing and other biospecimen services.

# ABSTRACTS

## ABSTRACT ID: #48 POSTER & RAPID FIRE PRESENTATION

### FROM THE HEALTH SCIENCE ALLIANCE (HSA) BIOBANK TO THE HEALTH PRECINCTS BIOBANK: LESSONS LEARNT AND FUTURE DIRECTIONS

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6. *St George Hospital Cancer Care Centre, Kogarah, NSW, Australia*
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#### BACKGROUND

The Health Science Alliance (HSA) Biobank was established in 2012 as a collaborative initiative between the South-Eastern Sydney Local Health District (SESLHD), NSW Health Pathology (NSWHP, then known as South-Eastern Area Laboratory Service, SEALS) and the University of NSW (UNSW). At that time, compiling collections of human tissue to create biobanks was a global development, with cancer researchers amongst the most prolific users. After 10 years the biobank now has a new name and lessons have been learnt about operating sustainably into the future.

#### AIM

To transition from a universal, 'classic' cancer biobank to a more sustainable model, expanding an established translational resource to help answer a wide range of health and disease research questions.

#### METHODS

A wide-reaching review was undertaken, examining the anticipated biospecimen and data needs for UNSW-affiliated researchers. Building on the established infrastructure, governance structure and relationships established within the hospitals and pathology service, UNSW sought to retain the HSA Biobank, incorporating it as a core research facility.

#### RESULTS

The HSA Biobank is now the Health Precincts Biobank, part of the newly restructured UNSW Biospecimen Services (formerly UNSW Biorepository). Core business remains the acquisition and clinical annotation of resected tissue, predominantly from cancer cases; the collection reflects areas of surgical strength within the participating hospitals. Alongside the biobank, which deals with allocation of already acquired biospecimens and data, UNSW Biospecimen Services can assist those researchers requiring bespoke, prospective collections in all necessary aspects in establishing and managing their own collections.

#### CONCLUSIONS

The Health Precincts Biobank as part of the broader UNSW Biospecimen Services is built upon the success of the HSA Biobank. Importantly, this provides more than just a continuing collection of biospecimens but leverages the wider infrastructure to allow for expansion beyond cancer. Valuable lessons in sustainability from the HSA Biobank are informing future directions.

## DELEGATES

LAST NAME	FIRST NAME	ORGANISATION
Adiga Almond Alvares Anderson	Srikath Theodora Gail Stevie	OpenSpecimen CSIRO Australian Autism Biobank Mater RIO CTU
Baber Buck Bull	Ronny Jessica Caroline	Leipzig Medical Biobank Telethon Kids Institute CSIRO
Castillo Catchpoole Chabierski Chami Chen Chetcuti Choudhury Clarke Colyer Creaney	Lloyd Daniel Stefan Sam Katherine Albert Chaitali Megan Allise Jenette	Bio-Strategy The University of Technology Askion Thermo Fisher Proteomics International Pty Ltd University of New South Wales Thermo Fisher Scientific Aust Pty Ltd Hunter Cancer Biobank – University of Newcastle PathWest Laboratory Medicine WA National Centre for Asbestos Related Diseases
Daly Dalziell Daraj Davies Dela Cruz D'Vaz	Jonathan Emma Ghazal Claire Helen Nina	Taronga Conservation Society Aust University of Western Australia STEMCELL Technologies ANZGOG Paragon Care Telethon Kids Institute
Endersby Epis	Raelene Michael	Telethon Kids Institute University of WA
Felici Fernandez Filonzi Firth Frankham Frugier Funnekotter Furlong	David Elena Rick Tina Greta Tony Bryn Sarah	Thermo Fisher Scientific Murdoch Children's Research Institute Bio-Strategy National Centre for Asbestos Related Disease Australian Museum Research Institute Murdoch Children's Research Institute Department of Biodiversity, Conservation and Attractions Macquarie University
Garrison Goodman Gorman Griffin Griffiths	Susan Ashley Chris Cassandra Lyn	Cornell University Pathtech Pty Ltd Telethon Kids Institute NSW Regional Biospecimen and Research Services Queensland University of Technology

## DELEGATES

LAST NAME	FIRST NAME	ORGANISATION
Haessner Hanly Harrison Henders Heng-Chin Hettiaratchi Hibbert Higgins Hodges-Langford Hold Howell Hui Hume Humphries Hunter	Tobias Thomas Kate Anjali Ashleigh Anusha Julie Samantha Michael Georgina Lachlan Jennie Susan Alan Steve	LVL Technologies Singular Health Group SA Cancer Research Biobank, Central Adelaide Local Health Network (CALHN) The University of Queensland Telethon Kids Institute University of NSW Telethon Kids Institute/Murdoch Uni Victorian Cancer Biobank Wesley Medical Research University of New South Wales Deakin University Busselton Population Medical Research Institute Eastern Health The Australian Pastures Genebank AXT Pty Ltd
Jain Jakrot Jarman Jeong Johnson Jorgensen	Jugnu Valerie Simon Gloria Louise Mike	Sapien Biosciences Melanoma Institute Australia University of Western Australia Garvan BOC Scientific Fisher Biotech
Kennedy Kennedy Kidd Kliese	Paul Catherine Courtney Rachel	University of Technology, Sydney Westmead Hospital, WIMR, The University of Sydney Telethon Kids Institute Merck Pty Ltd
Lau Ludlow	Vivien Louise	VCCC Alliance Murdoch Children's Research Institute
Macapagal Foliaki Macky Madden Mallon Mangwiro McLellan Merritt Mohd Mountain Moutham	Jena Dirk Claire Dominic Yeukai Andrew David Sheeraz Angela Lara	Centre for Brain Research Testo Pty Ltd Village Roadshow Theme Parks Fiona Stanely Hospital Murdoch Children's Research Institute Bluechiip Department of Biodiversity, Conservation and Attractions South Metro Health Service Victorian Cancer Biobank Cornell Veterinary Biobank

## DELEGATES

LAST NAME	FIRST NAME	ORGANISATION
Nair Nayyar Netting Ng	Umesh Sona Angus Wayne	Merck Pty Ltd Telethon Kids University of Adelaide Cancer Council Victoria
Ormsby	Rebecca	Flinders University
Palmer Payton Perera Phillips Poole Powell Prakash Priebe Pryce Pryme Pudney Pyne	Lyle Sarah Gayathri Kathleen Jodie Kim Ron Ilka Karena Gareth Melanie Natasha	University Of Adelaide CSIRO Melanoma Institute Australia NSW Health Statewide Biobank Autoscribe Informatics MCRI Thermo Fisher Scientific CSIRO Westmead Insitute of Medical Research Bio-Strategy Pty Ltd South Australian Cancer Research Biobank SAHMRI
Quinn	Carmel	University of NSW
Reaiche-Miller Renouf Rouse Rush Rykens	Georget Bailee Ebony Amanda Alice	The University of Adelaide Telethon Kids Institute National Centre for Asbestos Related Disease The University of Sydney University of Auckland
Schagen Schwartzing Shaw Simmons Soares Mendes Sobti Sundholm	Johanna Hardi Natalie Lisa Rosanna Rajeev James	University of Queensland BioTools Pty Ltd Paragon Care Hamilton Storage PathWest Laboratory Medicine WA BioTools Pty Ltd BioTools Pty Ltd
Treloar	Gillian	NATA
Tsimiklis Tully	Helen Nathan	Monash University Autoscribe Informatics

## DELEGATES

LAST NAME	FIRST NAME	ORGANISATION
Vall Velickovic	Oscar Rebecca	Bluechiip Melanoma Institute Australia
Wallace Wee Willers Williams Wood Woods	Leanne Shirley Craig Ricky Margaret Katherine	The University of Queensland Griffith University PathWest Laboratory Medicine WA University of Adelaide Telethon Kids Cancer Centre Community Reference Group National Serology Reference Lab
Yuksel	Aysen	The Childrens Hospital at Westmead
Zhou	Li	The Children Hospital at Westmead

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