



BIO-BABBLE

AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION
NEWSLETTER
MAY 2019

2019 ABNA Committee

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Vice President: Anusha Hettiaratchi
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Nina D'Vaz, Cassandra Griffin,
Bharvi Manek, Kathleen Phillips,
Ussha Pillai, Georget Reaiche, Phillip Shepherd, Helen Tsimiklis.

ABNA Annual Conference update

Announcing that internationally renowned scientist Dr Fay Betsou will be a keynote speaker at ABNA's Annual Conference *The FNQ of Biobanking: Futureproof, Network, Quality*. This will be a fantastic opportunity for ABNA members to hear from Dr Betsou who is a leading authority on biospecimen quality assurance schemes and validation of biospecimen QC methods.



The ABNA Conference Organising Committee looks forward to welcoming Dr Betsou back to Australia for this event.

Since February 2010 Dr Betsou has been Chief Scientific Officer at IBBL (Integrated Biobank of Luxembourg), where she is directing activities of the Biorefinery and Biospecimen Research laboratory. She is a molecular biologist with 25 years of experience in molecular diagnostics, disease-oriented biobanking and biospecimen research, and 18 years of experience in ISO 9001 and ISO 17025 application to biobanks. Dr. Betsou holds 3 patents and is the author of more than 90 peer-reviewed publications, including many fundamental and experimental works on biospecimen research. After her PhD, Dr Betsou worked in the diagnostics industry on the development of molecular and immunological diagnostic tests in microbiology. She then became Head Laboratory Manager at a European biobank where she led the work bringing the biobank to ISO certification for all biobanking activities, including Quality Control and methods validation. She is an active member of ISBER (International Society for Biological and Environmental Repositories), acting as the chair of the ISBER Biospecimen Science Working Group and of the Proficiency Testing Advisory Group. She is also Luxembourg national delegate in ISO REMCO and ISO TC276, and teaches biospecimen science and quality control in several biobanking training courses in Europe.



The FNQ of Biobanking: Futureproof, Network, Quality

ABNA 17TH ANNUAL CONFERENCE

SAVE THE DATE
October 16TH – 18TH 2019
Pullman Cairns International

SPOTLIGHT ON WESTERN AUSTRALIAN BIOBANKS

Nina D'Vaz, Biobank Manager, The ORIGINS Project.

Jeff Keelan, Professor, University of Western Australia.

Aggie Bouckley, Operations Manager, The RAINE Study.

Although WA does not have a centralised Biobanking service, in 2010 the WA Dept of Health released the WA guidelines for Biobanking which provided a set of principles and best practices. Currently most research groups manage their own collections of biological samples in freezers and cryo facilities within their research institutions. A recent state-wide survey revealed over 100 biobanks in WA, both large and small, many of which have poor external visibility profiles and low usage. Further attempts are now being made to provide organisation and oversight to WA Biobanks including the assembly a biobank registry for wider access.

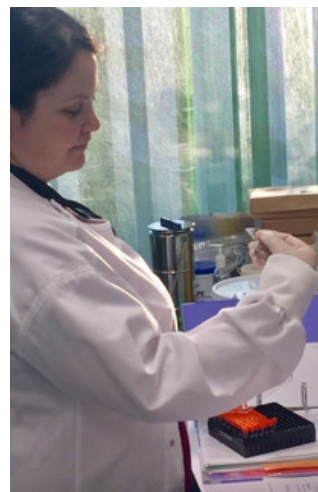
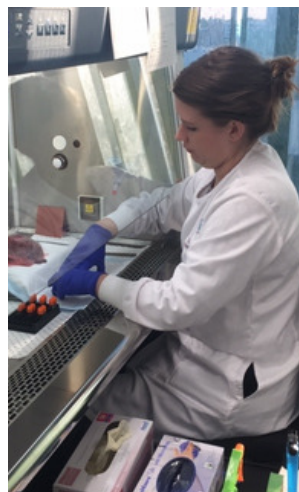


*The WA DNA Bank team
Photo credit: Jeff Keelan*

The WA DNA bank (WADB)

Established in the early 2000s the WADB stores whole blood, buffy coats, serum, plasmas, RNA and DNA and holds over 130,000 samples from 36,186 subjects and has been utilised by 38 research studies over the past 7 years. Initially funded by the Federal Government through an NHMRC grant, the WA DNA Bank is based at two separate sites in Perth, which maximises the safety and security of samples. The project is currently managed by the Centre for Genetic Origins of Health and Disease. To manage these samples, an open source LIMs "The Ark" has been developed and this software has been implemented in several international locations. However, although WADB has been well utilised, once the initial setup funding period had ended, acquiring ongoing full cost recovery has proven an ongoing challenge. Negotiations are underway regarding a potential long-term funding and support solution.

<https://www.gohad.uwa.edu.au/enabling-resources/biobanking>



*The ORIGINS technicians Courtney (L) and Minda (R)
Photo credit: Nina D'Vaz*

The ORIGINS Project

Established in 2016, The ORIGINS Project is a collaborative project between The Telethon Kids Institute and Joondalup Health Campus in Perth. The ORIGINS Project currently has 2000 participating families and aims over 5 years to recruit a further 8000 families. From the ORIGINS families serum, plasma, whole blood, PBMC, saliva, buccal swabs, urine, stools, CMBCs, placentas, hair and dust samples are collected. The biobank currently contains approximately 110,000 sample aliquots from the core cohort, as well as samples from a number of nested intervention studies, all aimed at improving infant and family health outcomes and participants' relatedness to nature and the environment. While the ORIGINS biobank was established on a very small budget, major long-term funding has recently been received. This has enabled the implementation of a high density FluidX cryo systems and a software upgrade to 'Open Specimen', which will replace the dreaded medieval spreadsheets!

<https://originsproject.telethonkids.org.au/>

SPOTLIGHT ON WESTERN AUSTRALIAN BIOBANKS

The Busselton Health Study

Established in 1966 this is a large adult health cohort study aimed at studying a wide range of health conditions and measures; it is one of the longest running studies of its kind, publishing over 200 papers since its inception. Extensive information on demography, lifestyle and behaviour have also been collected at each of the studies along with blood samples for biochemical measures and genetic studies from around 3,000-5,000 participants.

<http://bpmri.org.au/>

The Raine Study

Established in 1989 to investigate the effect of pregnancy ultrasounds on infant health outcomes this was the world's first pregnancy-based large cohort study. From its antenatal origins it has branched out to many areas of health from infancy through to adolescence and into adulthood. The Raine Study has been collecting biological samples from the same participants and their families, originally 2900, for almost 30 years currently stores 70,000 whole blood, buffy coats, serum, plasma and DNA samples. Around 45 papers per year are now being published from the Raine Study resource, with 519 publications in total to date. The Raine Study has a high retention rate, with over 90% of active participants supplying biological samples at the last follow-up, and now with 4 generations attending follow-up assessments and sample collections, this biorepository is likely to keep growing for many years.

<https://www.rainestudy.org.au/>

In addition to the abovementioned, there are numerous small and large institution-specific biorepositories in Perth and across WA. It is widely recognised by WA researchers that there is a need for centralisation of biobanking activities, dissemination of information on the existence of/access to the biobanks and their contents, as well as a unified general approach to sample processing and curation to ensure best practice is observed where possible.

A biobanking workshop, held in October 2018, organised by the WA Health Translation Network (WAHTN), at which representatives from biobanks, ethics committees, host institutions and researchers were present identified a number of major issues to be addressed in order to progress the goal of improving biobanking sustainability, quality, access and curation in WA. Sub-committees were formed to focus on specific areas and these are due to report back soon. In conjunction with the WAHTN initiative, initiatives are underway to generate a virtual biobank catalogue of all biological samples in WA as well as establish centralised biobanking facilities that will ensure the uniform processing and cryo preservation of biological samples. A workshop representative was subsequently invited to be part of the National Biobanking working group to ensure there was a flow of information between WA and the rest of Australia on this initiative, and to ensure that the state would be involved in, and benefit from, any future progress and funding applications related to biobanking. An expression of interest application is proposed for 2020 to apply for NRIS funds to scope out grants to support a national biobanking strategy to be submitted around 2022. There is an awareness among the group that the large Genomics initiative underway in Australia requires proper biobanking facilities and coordination in order to allow the push into precision medicine, but to date the biobanking aspects have not received appropriate attention or funding support.

It is hoped that WA can learn from the more advanced initiatives around Australia and benefit from the support of organisations such as ABNA when undertaking the upgrades to centralisation and becoming part of a larger uniform approach to biobanking Australia wide.

ISBER IRL

The International Repository Locator (IRL) is an initiative by ISBER to help investigators locate biospecimen and data repositories by developing a directory of repository information that can be searched online. The IRL also seeks to increase the profile of research and biobanking activities being supported by individual repositories amongst key global stakeholders including scientific societies, researchers, funding bodies, governments, consortia and private industry. If you would like to list your repository head to: <https://www.irlocator.isber.org/>

RCPAQAP Workshop

On 28 March The Royal College of Pathologists of Australasia Quality Assurance Program (RCPAQAP) - Molecular Genetics department held a workshop event "Tissue Biobanking and Access to Disease Material". The focus of the workshop was for pathologists to learn about all aspects of Biobanking and biobankers to learn about the requirements of the RCPAQAP program in terms of access to material for their programs. The outcome would be that pathologists would be able to access samples for their own QC programs etc and be assured of the quality and range of Biobank samples and Biobanks being able to access samples from pathologists in a mutually beneficial collaboration.

The workshop allowed a number of biobanks from across the country to showcase the services they provide and to discuss common challenges with some of the core topics covered including access to tumour tissue for clinical trials, various points and strategies for obtaining informed consent, rapid autopsy programs, ethics and sustainability.

The day was well attended by local and interstate biobankers and provided an excellent networking opportunity for established biobanks with a number of ABNA members both in attendance and presenting.



*Martin Horan opens the RCPAQAP workshop
Photo credit: Dan Catchpoole*



Lylee Ye (L) CCI Tumour Bank, Snr Technical Assistant and Dan Catchpoole (R) ISBER President-Elect

If you have any suggestions for a short article for Bio-Babble, please contact :
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<http://abna.org.au/>



*Cassandra Griffin, Biobank Manager, Hunter Cancer Biobank presenting
Photo credit: Dan Catchpoole*