

Newsletter of the Australasian Biospecimen Network Association

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## ABNA ACCREDITATION SEMINAR SERIES

ABNA's inaugural 2022 Seminar Series kicked off on April 20th with Seminar 1: "Why Work Towards Accreditation?" chaired by ABNA President Cassandra Griffin. This first seminar had presentations from by Clare Allocca, Senior Advisor for Standardisation, Standards Coordination Office at the US National Institute of Standards & Technology and Dr. Lara Mouttham, Assistant Director of Biobank Laboratory Services at the Cornell Veterinary Biobank (CVB).



Clare guided attendees through the background to the development of ISO20387, including the central concepts and how it fits in with the biobanking process landscape. Clare has made her slide pack from this presentation available for download, it includes links to reference documents and information she did not have time to cover. She has also provided a copy of her poster (Allocca, CM et al, "ISO 20387, ISBER Best Practices, and other ISBER Tools: Working Together to Ensure Fitness-for-an-Intended-Purpose (FIP)") which we have attached to the end of her slide pack [HERE](#).

Dr Lara Mouttham was part of the CVB team who were the first biobank to be accredited by the American Association for Laboratory Accreditation to ISO20387. Lara spoke to the process from a biobankers perspective from the time of publication of the standard to CVB receiving accreditation. This involved not only institutional involvement, but developing and implementing a Quality Management System and then the preparation for the assessment. Dr Mouttham's paper titled "A Biobank's Journey: Implementation of a Quality Management System and Accreditation to ISO 20387" which won the 2021 Rosalind Franklin Society/Mary Ann Liebert Award Best Biobanking Paper Written by Women in Sciences, is available for download from the ABNA [website](#).

ABNA thanks both Clare and Lara for bringing their expertise to this seminar and so generously sharing their knowledge and experiences with our audience.

We hope attendees found the seminar useful and informative. The second session in this Seminar Series will have a local focus with presentations from Biobanking Victoria who are the first Australian biobank accredited by NATA to ISO20387. Further information and registration details can be found on the Seminar Series [website](#).

# BIOBANK TO ASSIST WITH IDENTIFICATION OF UNRECOVERED WAR CASUALTIES

With every commemoration of ANZAC Day, we are reminded of the 30,000 Australian service members missing in action who have yet to be recovered and identified. Many of the recovered war casualties are not identified due to the absence of appropriate genomic tools for remains that are almost 100 years old and each investigation requires a comprehensive collaboration of expertise, historical records, volunteers, family descendants and DNA analyses.

The Australian Army's Unrecovered War Casualties team are continually investigating the fate of those who fought for Australia. Funded by a Department of Defence Innovation Hub contract, Distinguished Professor Lyn Griffiths will assist these investigations through leading a team of researchers from QUT's Centre for Genomics and Personalised Health to establish the first DNA biobank in Australia designed to aid in identifying recovered historical military remains.

Professor Griffiths said one of the key aims of their study is to develop family trees from 500 missing soldiers. The pedigrees will be used to identify relatives alive today to develop a family biobank that can potentially improve the accuracy, reliability and time to identification of recovered remains. For each pedigree they will focus on obtaining a non-invasive sample from two maternal and two paternal genetic relatives to establish the biobank. The biobank will be used to develop DNA profiles of potential familial relatives of unrecovered war casualties for comparison with the DNA profiles that the team will generate from the remains of fallen soldiers accessed with the aid of the Department of Defence.

For more information, please contact [fallensoldiers@qut.edu.au](mailto:fallensoldiers@qut.edu.au)



Prof Griffiths is confirmed to speak at ABNA's 2022 Annual Conference. Registrations for this event will be opening in the coming month for anyone interested in learning more about this project.

# HARNESSING CROP DIVERSITY



by Dr Colette Blyth

Project Coordinator, DivSeek Australasian Hub

As a planet, our long-term food security depends largely on the genetic diversity of our crops. The genetic makeup of plant populations underpins their ability to adapt to a changing climate. This is true not only for agricultural crops, but also wild plant populations - the lungs of the Earth. Both economically and environmentally speaking, plant genetic diversity is one of the world's most valuable assets.

Learning how to capture, utilise, manage and share plant genetic resources on a global scale will be crucial to securing a safe and sustainable future.

The DivSeek International Network Inc. (<https://divseekintl.org/>) is a global community that connects, combines and communicates expertise among stakeholders engaged in the management and characterization of plant genetic resources. The network exists to improve the accessibility of plant genetic resources for the global community. They have created a network for researchers, gene bank curators, breeders, conservationists, farmers and policy makers to collaborate and share knowledge, resources and data. Working Groups and Task Teams have also been established to tackle specific challenges, such as adopting innovative approaches that address obligations under international treaties and protocols for access and benefit sharing alongside recognition of Indigenous traditional ownership and IP.

Technological advances, particularly in DNA sequencing and other 'omics, imaging, sensors, robotics, computation, information science and the management of big data can now transform the way in which plant genetic resources are managed and utilized.

In order to harness the potential of plant genetic resources to meet a range of global challenges, several limiting factors must be addressed:

1. Paucity of information about accessions currently housed in gene banks
2. Limited use of genomic, phenomic and information technologies
3. Obstacles in implementing national and international policies for benefit sharing

The key international agreements governing plant genetic resources include: the 1993 Convention on Biological Diversity, the 2014 Nagoya Protocol to the Convention, and the 2004 International Treaty for Plant Genetic Resources in Food and Agriculture.

DivSeek International has eleven regional and thematic Hubs, established on five continents to reach a wider audience of practitioners and stakeholders. These regional hubs include Canada, Latin America, West Africa, and Australasia. The DivSeek International **Regional Hub for Australasia** was established in 2021. It is co-led by Andy Lowe of University of Adelaide, and Kioumars Ghamkar, AgResearch, New Zealand. Here in Australia and New Zealand, the ability to characterise new, minor, and emerging native crops is of vital interest, as well as developing ethical procedures for utilising native crops.

## DIVSEEK CONNECT

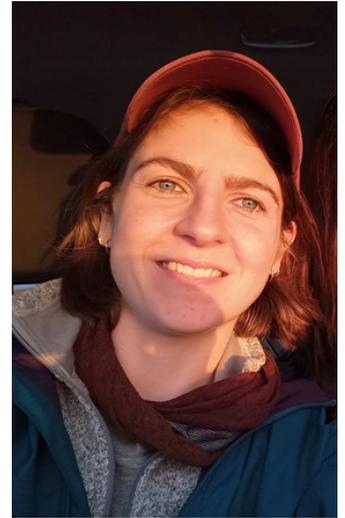
**DivSeek Connect** has been launched by DivSeek International as a periodic newsletter for members, hubs and stakeholders. DivSeek holds webinars and presentations/videos from recent series of workshops (Jan 2022) are available **online**. Details on the DivSeek five year strategic plan can be found **here**.



In 2022, in partnership with Bioplatforms Australia, the newly established **[Australasian Regional Hub](#)** is laying down the foundations for a project that will culminate in an open-source database of plant genetic resources across Australasia. Project Co-ordinator Dr Colette Blyth hopes the project will create a robust sample and data sharing framework that will streamline 'omics studies and improve accessibility to underutilised resources that could more broadly benefit society and the environment.

Colette is a Scottish-Australian scientist with a background in conservation. Her PhD research used population genetics to develop seed sourcing strategies for climate-resilient carbon-offset revegetation. "During my PhD, I found the sample collection phase was hugely resource-intensive," she says. "This is true across industries - whether its agriculture, conservation, or forestry. Sampling individuals from across a region is expensive and time-consuming for various reasons."

A wealth of plant specimens has already been collected, however these are held in biobanks and tissue collections across Australia often catalogued in separate institutional formats. The Australasian Hub is currently conducting research into the breadth and scope of these untapped archives, and over the next few months, they will be working alongside curators to start building a database of plant specimen collections for the region.



*Dr Colette Blyth*

"We're hoping that this will become a living catalogue of data, genebanks, biobanks, and even smaller collections that scientists across sectors will be able to tap into," explains Colette. "It will streamline the process of scientific enquiry, and it will ensure that these valuable specimens are being utilised to their full scientific potential."

## WORKING GROUPS

The Working Groups advance the mission and aims of DivSeek Intl to help harness the power of crop diversity for food and nutritional security and for societal and economic benefits. Three working groups have been established to address the identified limitations, each with defined goals and outcomes, with group leaders assigned according to expertise.

**Genomics of Genebanks** - To catalyse the advanced conservation, management and traceability of plant genetic resources resulting in a globally cohesive plant genetic resources community that can exchange standardized information and resources.

**Phenotyping, Ontologies and Standards** - To add value to plant genetic resources, facilitating wider utilisation and accelerating crop improvement, through management of phenotypic information and related resources contributing to the diversity of crops, plant cultivars and ecosystems to address global and regional challenges for the sustainable production of food and other products.

**International Policy and Training** - To increase awareness and education about the biodiversity and relevance of Plant Genetic Resources for a deeper understanding of mechanisms, obligations and technologies available to facilitate access to and the use of plant genetic resources, particularly for access, benefit sharing and a greater awareness of the challenges/opportunities in managing data relating to plant genetic resources.



DivSeek are actively seeking to grow their network.

If you would like to join or have any questions, please contact Dr Colette Blyth ([colette.blyth@adelaide.edu.au](mailto:colette.blyth@adelaide.edu.au)).

# 5 MINUTES WITH PROFESSOR DOMINIC MALLON



**We approach a different professional in the biobanking arena with the same five questions each month.**

Prof Dominic Mallon is the Coordinating Principle Investigator at Western Australian COVID-19 Immunity Collaborative ([WACIC](#)).

Prof Mallon is a coffee drinker and a dog person who chooses Star Trek over Star Wars. He will also be the keynote speaker at ABNAs Annual Conference in Perth, Oct 19 – 21, 2022.

**1. How long have you been working in biobanking?**

On and off for 23 years.

**2. What has been the biggest biobanking challenge you have faced in your career so far?**

Selling the idea to funding bodies that establishment of WACIC was worthwhile, as part of the WA Health Research Community's response to the COVID pandemic. We overcame it through: A) The establishment of a unique collaboration between Public Health, Clinical and Research Virology, Infectious Diseases, Microbiology, Respiratory Medicine, Clinical Immunology and Vaccinology experts; and B) Effective advocacy for funding from various sources, culminating in more substantial grants from the Future Health Research and Infrastructure (FHRI) Fund (WA Health), and the Stan Perron Foundation.

**3. What are you excited about that is happening in your biobank/what is your biobank doing that is new and innovative?**

The WACIC biobank has been established in a way that allows patient recruitment and sampling to adapt to changing phases of the pandemic and it's response – eg the initial recruits were convalescent subjects following natural infections acquired overseas; then health individuals being immunised against COVID-19 using the various vaccines; then immunocompromised subjects receiving the vaccinations; then paediatric subjects receiving the vaccinations; and more recently people (newly and already enrolled; healthy and immunocompromised) with newly diagnosed Omicron variant infections.

**4. What is your one wish as a biobanker?**

That the specimens we've worked so hard to collect are analysed in studies that provide a greater understanding of disease processes that affect our community.

**5. Three words that best describe your biobanking career:**

Focused, Fortunate, Clinical

## ABNA 19TH ANNUAL CONFERENCE

### Biobanking – Blue Sky Horizons

19 – 21 October 2022

Rendezvous Hotel Scarborough, Perth, Western Australia



**SAVE THE DATE**

# NSW HEALTH STATEWIDE BIOBANK SEMINARS

The NSW Health Statewide Biobank presents a regular Virtual Seminar Series, hosting experts in the use of biospecimens in research, biospecimen science, and infrastructure planning and research. The 2022 series will commence on May 10, 12-1pm (AEST) with Dr Lisa Parker. Dr Parker is a university researcher and ethicist at School of Pharmacy, Charles Perkins Centre, The University of Sydney, New South Wales, Australia and Center for Bioethics and Humanities, University of Colorado Anschutz Medical Campus, Colorado, USA, with particular interests in health ethics, research ethics and industry influences in health.

These seminars are free to join and you can register [HERE](#).

## NSWHSB Seminar Series



Health  
Statewide Biobank

### How to be a Research Detective – screening studies for fake research



**Dr. Lisa Parker**  
School of Pharmacy, Charles Perkins Centre, The University of Sydney,  
New South Wales, Australia  
and  
Center for Bioethics and Humanities, University of Colorado Anschutz  
Medical Campus, Colorado, USA

**10 May 2022 Tuesday , 12pm - 1 pm**



NATA @NATAAUS · Apr 20

Today the ABNA 2022 Accreditation Seminar Series launches, & it will investigate 'Why work towards accreditation?'. NATA #biobanking accreditation to ISO 20387 increases confidence in a biobank's output & assures customers that crucial requirements are consistently being met.



australasian  
biospecimen  
network  
association

NATA proudly supports  
**ABNA 2022  
ACCREDITATION  
SEMINAR SERIES**  
Commencing 20 APRIL 2022

## FEATURED TWEETS

Don't forget to tag ABNA on your biobanking tweets, we are always interested to see what our members are up to and share with our followers. In the last few weeks our feed was mostly about accreditation but there is always room for some biobanking news.



ABNA @ABNAonline · Apr 5

A new exciting chapter for @RBGSydney #Biobank / #Herbarium!



smh.com.au

Sydney's seed bank moves to new premises seemingly from a James B...  
The temperature-controlled vaults house plants that can be used to solve crimes, track climate change and paint a picture of what Australi...

If you have any suggestions for a short article for Bio-Babble, please contact: [abna.biobabble@gmail.com](mailto:abna.biobabble@gmail.com)

Content deadline for May edition: 20.05.22



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