



ABNA EXCHANGE

OFFICIAL NEWSLETTER OF THE AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION

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Conference Update

ABNA's 21st Annual Conference website has been launched!

Be sure to revisit the site regularly, as details are updated weekly.

As in previous years, this web portal will enable you to register as a delegate, pay for your registration and submit your abstracts.

The categories for abstract submission will be announced shortly. Abstracts may be chosen for a rapid fire oral or poster presentation, prizes will be awarded for each presentation type. We hope to increase the number of abstract submissions for this years event and encourage all our members to consider submitting an abstract (or multiple abstracts!).

If you have a biobanking related topic you are interested in learning more about or would like to suggest a speaker at this years event please get in touch with the 2024 Conference Organising Committee on: info@abna.org.au

Click on the 2024 conference banner to access the conference website.

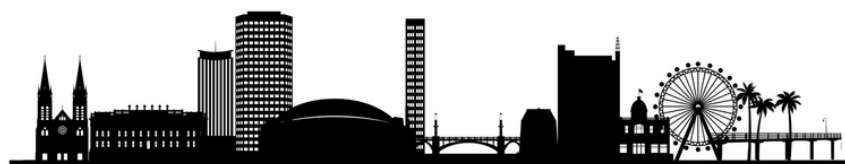


Seminar Season Begins!!

Welcome to the March edition of ABNA Exchange! This month as we launch into autumn we are excited to also launch our 2024 Seminar Series themed around biobanking models. Our series is titled "Revolutionising Biobanking Models: Centralised, Distributed, Harmonised." Our first Seminar will take place on April 23 and will focus on centralised models of biobanking. This Seminar will include Professor Jennifer Byrne who will speak about the NSW Health Statewide Biobank and is also our "5 minutes with a Biobanker" feature this month. We will also hear from Dr Alan Humphries representing the Australian Pastures Genebank, and Dr Alison Parry-Jones from the Wales Cancer Biobank. It is sure to be a stimulating session so please ensure you register to attend.

Our feature article this month explores the fascinating Wollemi pine which has been cloned and successfully grown around the world to promote its sustainability - all with the help of biobanking! We would also like to extend our congratulations to Dr Gregory Grossman, recently announced as the incoming ISBER President-Elect. We look forward to seeing many of you at the ISBER 2024 Annual Meeting in Melbourne next month where Greg and many of our ABNA community will be present! Our own conference committee are hard at work for the ABNA 2024 meeting so don't forget to save the date for ABNA 2024 in Glenelg, Adelaide.



Louise



ABNA 2024 - GLENELG, ADELAIDE
BIOBANKING: SHAPING THE FUTURE TOGETHER
16 - 18 OCTOBER 2024

ABNA 2024 SEMINAR SERIES

Revolutionising Biobanking Models:
Centralised, Distributed, Harmonised

 #ABNA2024Seminars 



2024 Seminar Series

ABNA's 2024 Seminar Series will explore the theme "Revolutionising Biobanking Models: Centralised, Distributed, Harmonised".

This four-part series aims to inform and educate our audience around the biobanking models that have been established and managed in Australasia and globally. Our speakers in each seminar will share their expertise on how they utilise these models to offer high-quality research support to their users.

Seminar 1: Centralised Models in Biobanking

Seminar 2: Thinking Outside the Box - Breaking Away from Centralised Models

Seminar 3: Harmonisation of SOPs, Protocols & Data

Seminars 1-3 will be virtual events with the 4th instalment held as an in-person event during the 2024 Annual Conference in Glenelg, Adelaide. Registration for Virtual Seminars 1-3 is free, the cost of Seminar 4 will be included in the conference registration fee.

Seminar 1 will feature presentations from Prof Jennifer Byrne, Dr Alan Humphries and Dr Alison Parry-Jones.

Click [HERE](#) to register
for the 2024 Seminar Series



Melbourne is waiting.
Dreaming Beyond Barriers: The Future of Biobanking
#ISBER #ISBER2024
www.isber.org
Inside the Millenium Seed Bank Photo credit: RBG Kew

isber
MELBOURNE AUSTRALIA
IN-PERSON APRIL 9-12, 2024
VIRTUAL MAY 28-29, 2024
ANNUAL MEETING

5 Minutes with a Biobanker

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



Professor Jennifer Byrne is the Director of Biobanking- NSW Health at the [NSW Health Statewide Biobank](#).

Prof Byrne will be presenting as part of ABNA's 2024 Seminar Series "Revolutionising Biobanking Models: Centralised, Distributed, Harmonised". The first seminar in this series "Centralised Models of Biobanking" will be on April 23.

Register for the Seminar Series [HERE](#)

THE QUICK QUESTIONS

Chilli on food?

None for me thanks

What is better the book or the movie?

Book - It can depend, I've seen some great movie adaptations, but the book allows the reader to create their own universe

Is it football or soccer?

Football - My husband is from Iran, a particularly football-mad country. It's only football there

Are you usually 5min early or 5min late?

5 minutes early - I think I'm only early at work. One friend says that I'm reliably 10 minutes late! It could be true....

1. How long have you been working in biobanking?

That probably depends on how you define "working in biobanking", but I've been working around and then in biobanking for over 35 years.

2. What has shaped your views on biobanking?

Realising in around 2014 that despite having worked in biobanking for 20+ years, I knew nothing about it. Reading a lot of papers helped!

3. What is the craziest thing you have done to save a sample/s?

Probably going into operating theatres to retrieve samples (a long time ago now). I remember thinking that operating theatres would be super-serious places, but instead people were having conversations about what they were planning on doing on the weekend.

4. What has been your favourite moment (so far) in your biobanking career?

Publishing our first paper on biobanking in 2015 was a big milestone. It was like a new world opening up.

5. What was the last conference you attended and where was it?

My last conference was the Cochrane Colloquium in London in September 2023, about evidence synthesis in medicine. Although my session wasn't about biobanking, one of the other speakers was a biobanker from Africa. Biobankers - they're everywhere!!

Where's Wolli?

By Anusha Hettiaratchi

Wollemia is a genus of coniferous trees in the family Araucariaceae, endemic to Australia. The genus only has a single known species, *Wollemia nobilis* which was discovered in 1994 in a temperate rainforest wilderness area of the Wollemi National Park in New South Wales. The genus is named after the National Park. In both botanical and popular literature, the tree has been almost universally referred to as the Wollemi Pine, although it is not a true pine, nor a member of the pine family.



Wollemi pine trees at the Royal Botanic Gardens Sydney. Photo credit: Jaime Plaza © Botanic Gardens Trust

Fossil evidence of this species dates back 90 million years, but 10 million years ago the trees begin to vanish from the fossil pollen record and 2 million years ago they disappeared altogether, indicating perhaps that the climate had shifted in a way that made their widespread survival untenable. That is until a chance discovery in 1994 of a small grove of living trees in a remote rainforest canyon of the Greater Blue Mountains in NSW, Australia. To help protect the last wild population of Wollemi pines of only 46 adult trees and 43 juvenile trees, from human disturbance and introduced weeds and diseases, this sensitive site isn't accessible to the public.

Assets of Intergenerational Significance

The National Parks and Wildlife Act 1974 was amended to allow the Minister for Environment to declare an area to be an Asset of Intergenerational Significance (AIS). Under the Amendment Act 2021, it's now an offence for person to interfere with, damage, harm or disturb an environmental or cultural value of any land declared as an AIS. Practically, it means that the NSW National Parks and Wildlife Service will have increased ability to prioritise management at these sites and identify emerging threats, so rapid interventions can take place. It allows for a dedicated Conservation Action Plan to be developed for each AIS to meet NSW National Parks and Wildlife Service's commitment of zero extinctions and restore threatened species populations.

This rare species is extremely vulnerable to catastrophic events and at very high risk of extinction, leading to the Blue Mountains site being the first declared Asset of Intergenerational Significance in NSW. To reduce this risk, the Wollemi pine has been cloned by scientists and successfully grown around the world to help preserve the species via cultivation. A seed bank and living collection of trees is maintained at the Australian Botanic Garden, Mount Annan. These support a range of research activities that benefit ongoing conservation and management of the wild population.

In 2005, a batch of Wollemi pines was sent from Australia around the world, including to the world-famous Royal Botanical Gardens at Kew, London for hardiness trials. They were grown in soils with differing pH values and those planted in acidic soil did the best. After the trials finished in 2008, the pines were planted in the [Arboretum](#) at Kew. In addition, seeds from the cones of the mature Wollemi pine trees were collected, to either grow more seedlings or add to the seeds stored in the Millennium Seed Bank, which will help protect this incredible species for future generations.

There is also a considerable amount of collaborative plant science research on Wollemi pines occurring in academic, governmental and botanic garden settings. Conservation activities include a translocation program which aims to increase the total size and geographic distribution of the wild population. Monitoring post-fire recovery of the wild trees, following the devastating 2019 bushfires, is also ongoing. The successful cultivation of these pines means you can safely see and enjoy this critically endangered species at locations across the world, from Australia's many botanic gardens and as already mentioned London's Kew Gardens, and even Disneyland in Tokyo.

Millenium Seed Bank

Hidden underground in rural Sussex is the world's largest collection of seeds from wild plants. The Millennium Seed Bank (MSB) is home to over 2.4 billion seeds, representing over 39,000 different species of the world's storable seeds.

This is the most diverse wild plant species genetic resource on Earth – a global insurance policy to store and conserve seeds from common, rare or endangered useful plants. Seeds are largely collected by global partners as part of the [Millennium Seed Bank Partnership](#), as well as during field work led by Kew scientists.

A world-class automated state-of-the-art research facility, the MSB is flood, bomb and radiation proof. Deep freeze chambers store seeds at -20°C , using international standards. Fully kitted laboratories and seed preparation facilities are also on-site for botanists and geneticists to germinate and study seeds.



Inside the Millenium Seed Bank Photo credit: RBG Kew

Seeds arriving at the Millenium Seed Bank are taken to an initial drying room, kept at 15°C with a 15% relative humidity. Every 1% reduction a seed's moisture content doubles its life span. The initial drying phase increases a seed's life 40 times over. This can take between two weeks and six months. Seeds are then cleaned by hand or using an aspirator before using X-ray analysis to identify damaged or empty seeds that can be discarded. They are placed in the main drying room, operating at $18^{\circ}\text{C}/15\%$ relative humidity to ensure seeds are dry enough to withstand freezing. After which, they are placed in labelled jars and stored in the sub-zero chambers. These collections are curated to international gene-bank standards. Research is underway to also develop ways to bank recalcitrant species whose seeds cannot be dried and banked conventionally.

Wollemi pines have become a symbol of survival and shows how biobanking can play a part in a collaborative effort to protect a natural resource.



ISBER 2024 Conference, Election Results & Awards

Want to have your say at ISBER 2024?

As a core part of the 2024 program, ABNA will once again participate in ISBER's Global Biobanking Partnerships session. As part of this session, we're asking our members to share their thoughts on key questions relating to the future of biobanking. To have you say complete our survey [HERE!](#)

ISBER'S 2024 election results are out! Two new Board Members have been announced: Gregory Grossman and Jason Chen. Greg will be familiar to ABNA members as a co-chair of ISBER's 2024 meeting in Melbourne (see the Feb edition of ABNA Exchange for Greg's '5 minutes with a Biobanker' segment); he joins the Board in the role of President-Elect. Jason is currently the Director of Partnerships and Communications Department, China National GeneBank and been actively engaged in numerous national and international biobanking initiatives for 16 years. You can read more about Greg and Jason [HERE](#).



PRESIDENT-ELECT
- GREGORY GROSSMAN -



DIRECTOR-AT-LARGE CHINA
- JASON CHEN -

ABNA congratulates the two new Board Members as well as the 2024 Award recipients below!

ISBER 2024 Award Recipients

Congratulations to the 2024 ISBER Award winners.

You can read more about each of the recipients on the ISBER website [HERE](#).

ISBER 2024
OUTSTANDING
ACHIEVEMENT IN
BIOBANKING

- MARTA CASTELHANO -



ISBER 2024
LEADERSHIP AWARD

- DIANE McGARVEY -



ISBER 2024 SPECIAL
SERVICE AWARD

- ROCIO
AGUILAR-QUESADA -



ISBER 2024 SPECIAL
SERVICE AWARD

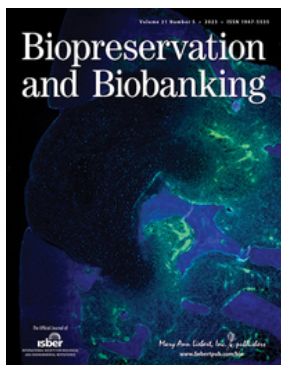
- KOH FURUTA -



Call for Papers

A reminder that Biopreservation and Biobanking is planning a special issue intending to showcase the truly unique and innovative work within the Australasian region. Celebrating diversity and individuality, the issue will highlight novel approaches to challenges of relevance for regional stakeholders as well as the global research community.

Interested parties are encouraged to contact the guest editor [Cassandra Griffin](#) to discuss their plans further prior to submission.



Click [HERE](#) to upload your paper using the manuscript category Special Issue: A Window Into Australasian Biobanking.

BBMRI-ERIC Ten Years

In late February the European health and life science research infrastructure for biobanking and biomolecular resources (BBMRI-ERIC) marked their 10th anniversary of successful operation with a workshop at the Permanent Representation of Austria to the European Union, Brussels. BBMRI-ERIC has 20 Member State National Nodes (with an additional 5 Observer Nodes) each of which act as contact points for local biobanks. They bring together all the main players from the biobanking field, connecting over 400 biobanks across Europe as well as researchers, industry, and patients – to boost biomedical research. To that end, BBMRI-ERIC offer quality management services, support with ethical, legal and societal issues, and a number of online tools and software solutions.



Biobanking tourism?

The Tasmanian [Seed Conservation Centre](#) is working in partnership with the Tas Walking Company to help achieve their goal to map and collect rare and precious seeds on Bruny Island. During this unique travel experience, participants are offered the chance to walk the stunning Labillardiere Track with James Wood, manager of Tasmania's Seed Collection Centre. Previous seed collection walks have included the Overland Track and Cradle Mountain. Over the 6 day walk, seed collections were made of from 4 different shrubs. Additionally, a sample of a distinctive, white-flowered, Epilobium was collected from Mt Pelion East. With samples secured, some of the material collected was pressed as an herbarium specimen and some of it was grown at the Royal Tasmanian Botanical Garden nursery. These samples will assist ongoing work at the Tasmanian Herbarium to ascertain the identity of a distinctive, and possibly very restricted alpine herb.

There are more than 400 threatened plant species in Tasmania alone. So far the Seed Conservation Centre has collected 57% of Tasmania's rare and threatened species. The Seed Conservation Centre is part of the Millennium Seed Bank at the UK's Royal Botanic Gardens, Kew, which stores billions of seeds from 190 countries in flood-, bomb- and radiation proof freezers.



If you have any suggestions for a short article for ABNA Exchange, please contact: info@abna.org.au

Content deadline for April edition: 22.04.24



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