



ABNA EXCHANGE

OFFICIAL NEWSLETTER OF THE AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION

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Conference Update

The preliminary program is available on the conference website now!

Click [HERE](#) to see the details

Invited speaker abstracts will be added as they become available. Meanwhile the Conference Organising Committee is now finalising the details for the following conference events:



Biobanker Speed Dating breakfast at Noah's on the Beach



Networking Dinner at Ravella



Site visit at Earp Distillery

Maximise your ABNA experience by adding each of these events to your conference at the time of registration.

Before it slips through your fingers!

Welcome to July - and just like that, we're only 3 months away from the ABNAs 2025 Annual Conference: Biobanking Evolving Through Time ... and time IS of the essence, with early bird registration closing tomorrow!

ABNA remains committed to offering our membership opportunities to explore key topics and share educational content. A heartfelt thank you to all members who contributed pieces for this edition and especially to those who provided feedback for ABNA's consolidated **response** to the Human Tissue Law Review which was submitted under the incredible leadership of our Clinical Trials SIG.

On the topic of educational resources, Part 3 of our Seminar Series is just around the corner so **REGISTER** now to secure your place! This will bring together the themes of Seminar 1 (Upstream Considerations) and Seminar 2 (Downstream Applications), to now **Seminar 3** Connecting Protocols to Applications: Enabling Seamless Data Sharing & Linkage. Our speakers include; Dr Lisa Eckstein, on ensuring appropriate ethics and consent for data sharing in Australian health and medical research, with a focus on the inFORMed project; Professor Lyle Palmer, sharing examples of major data linkage projects including the SA-NT initiative; and Dr Andre Zerge, presenting the Atlas of Living Australia, an open-access platform showcasing the power of a comprehensive platform on data sharing.

Enjoy this edition, including 5 Minutes with a Biobanker, featuring conference speaker Professor Carolyn Hogg, expert in Biodiversity and Conservation. Explore ancient civilisations whilst you test your knowledge and check out details on upcoming conferences and seminars.

Georget

5 Minutes with a Biobanker

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

This month Carolyn Hogg, Professor of Biodiversity and Conservation, School of Life & Environmental Sciences, and Deputy Director Engagement, Sydney Environment Institute answers our questions. Prof Hogg is an invited speaker at ABNAs 2025 Annual Conference and will be speaking on her work as part of the [Australasian Wildlife Genomics Group](#).



THE QUICK QUESTIONS

Are you left or right handed?

Right

Would you rather play it safe or risk it all?

Risk it all

Should pineapple go on pizza?

No,no,no

Do you prefer to type or hand-write meeting notes?

Hand-write

Dark vs milk chocolate, which one would you chose?

Dark chocolate, the darker the better

1. What was your first job in biobanking?

Developing a biobank for captive Tasmanian devils to determine how they were related

2. How long has your biobank been operating and what is your 'elevator pitch' for your biobank/job?

I run the Threatened Species Initiative, a program generating genetic resources for Australia's threatened species. Without biobanks, our job is exceedingly difficult as it can be hard to find samples for cryptic threatened species.

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

I once carried cell-lines in my bra to keep them warm on a flight home

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

Working with a range of wildlife species



Did you know that this year's conference website features a curated guide to some of the best spots for coffee, dining, drinks, and local exploration in and around Newcastle?



This list has been thoughtfully compiled by Novocastrian biobankers to help you make the most of your visit. Whether you're looking to unwind, connect, or discover something new, we've got you covered.

The July Newcastle Blog explores some of the historic sites within walking distance from our conference venue. And you will get a sneak peek at the Ice Age Session – Cold Climate, Research “Cold Cases” and Cryopreservation. Yes, it's all VERY cool!

Read the July blog on our conference website

[CLICK HERE](#)

CONNECTING THE DOTS:

Upstream, Downstream, and the Data Journey

Seminar 3
Connecting Protocols to Applications:
Enabling Seamless Data Sharing and Linkage

August 12, 12pm (AEST)



Dr Lisa Eckstein



Professor Lyle Palmer

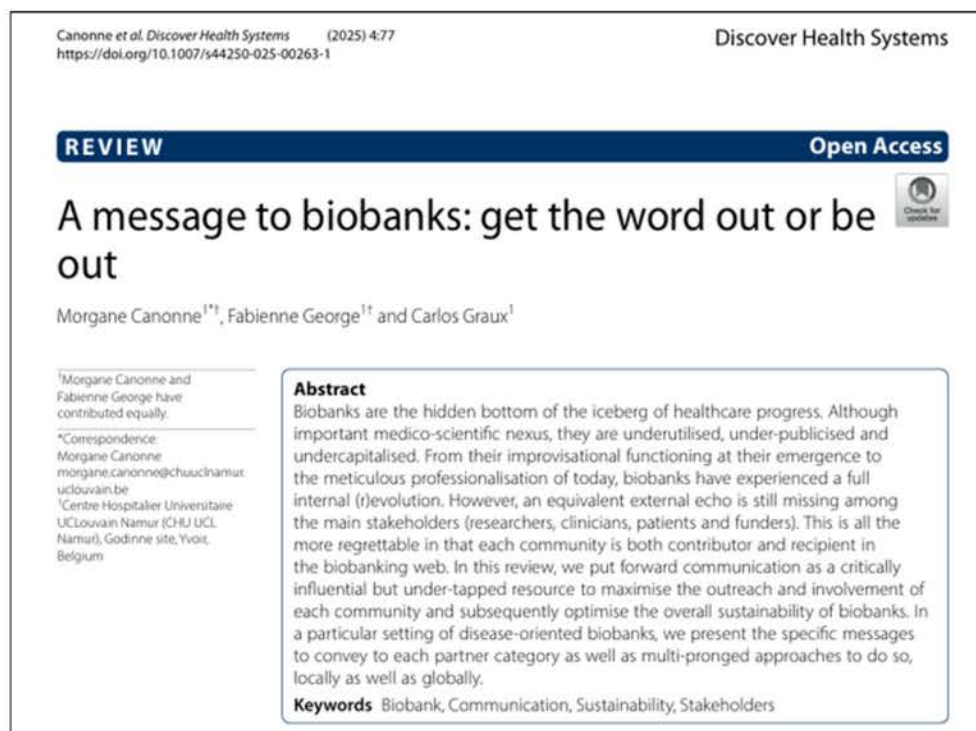


Dr Andre Zerger



ABNA 2025 SEMINAR SERIES

Why Communication is Key to Biobank Survival



Biobanks are often touted as the unsung heroes of biomedical research – housing invaluable biological samples that fuel discoveries in genetics, disease prevention, and personalised medicine. Yet despite their scientific importance, many biobanks face a critical challenge: lack of visibility.

In this thought-provoking article, the authors argue that biobanks must evolve beyond internal excellence and embrace external engagement. Without a clear, strategic communication, even the most advanced biobank risks being overlooked by researchers, funders, and the public.

Key Takeaways:

- **Visibility is Vital:** Biobanks must actively promote their value to stakeholders – researchers, clinicians, patients, and policymakers.
- **Tailored Messaging:** Different audiences require different messages. One-size-fits-all outreach just won't cut it.
- **Performance Transparency:** Sharing metrics like sample usage and research impact builds trust and attracts support.
- **Global & Local Outreach:** Biobanks should think globally but act locally – engaging communities while aligning with international standards.

The bottom line is that Biobanks are at a crossroads. To remain relevant and sustainable, they must shift from being sample-centric to stakeholder-centric. That means investing in communication, demonstrating impact, and building relationships. In short: get the word out – or risk being left out.

Click on the image above to access the full article. If your institution does not subscribe, get in touch with the ABNA Editor (anusha@unsw.edu.au) who will be able to provide you with a pdf.

Unearthing the Past: Tracing Ancient Civilisations Through Artifacts and DNA

By Dr Georget Reaiche-Miller

The story of human civilisation is one of ingenuity, resilience, and legacy. Among the most iconic ancient cultures to have shaped our understanding of the past include the Egyptians, the Incas, and the Maya, to name a few. Though separated by oceans and millennia, each of these civilisations developed sophisticated systems of governance, architecture, agriculture, and belief, which still fascinate us today. The integration of genetic data with archaeological context has proven to be a transformative approach in understanding these civilisations, not merely as isolated phenomena, but as dynamic and biologically diverse societies embedded within broader human history, and guess what? None of this would be possible without appropriately curate artifacts and biospecimens. Welcome to the fabulous and diverse world of collections and biobanking.

For decades, much of what we knew about these ancient civilisations came from carefully preserved artifacts found within pyramids, gold-laden tombs hidden in the Andes, and even glyphs carved into stone. More recently, the recovery and analysis of ancient DNA (aDNA) from human remains has allowed for the reconstruction of population histories, kinship patterns, migration events, and disease exposure. Genetic studies of Egyptian mummies have challenged earlier assumptions about ancestry and health, while genomic analyses of Incan and Mayan remains are beginning to clarify their genetic continuity and interactions with surrounding populations. The history preserved across time through rich archaeological records, is enabling researchers to reconstruct aspects of their cultural, technological, and biological histories.

Egypt: Mummification, Museum Collections, and the Genomic Revolution

Egypt has played a central role in the study of ancient civilisations, thanks to its monumental architecture, extensive written records, and exceptionally well-preserved human remains. Thousands of Egyptian mummies held in renowned institutions, like the [Egyptian Museum](#), the [British Museum](#), the [Louvre](#), and work done at locations such as the [University of Tübingen](#), offer a rare window into both the cultural and biological lives of ancient individuals. These carefully curated collections have enabled recent advances in aDNA recovery, despite Egypt's challenging preservation conditions.



The Pyramids of Giza, one of the most recognisable symbols of ancient Egypt.

Image credits: Wikipedia

A landmark study published in [Nature Communications](#) analysed genome-wide data from three mummies and 90 mitochondrial genomes spanning 1,300 years—from the New Kingdom to the Roman Period. The findings revealed close genetic ties between ancient Egyptians and Near Eastern populations, challenging outdated 19th-century notions of dominant African or European ancestry. Originally excavated in the 19th and early 20th centuries, these mummies are now being re-examined with modern techniques such as radiographic imaging, isotopic analysis, and genomics. This multidisciplinary approach is reshaping our understanding of health, kinship, and population dynamics across Egypt's dynastic history.

In an article published earlier this month in *Nature*, scientists announced the successful sequencing of the full genome of a man buried in Nuwayrat, Middle Egypt, dating back approximately 4,500 to 4,800 years, during the Old Kingdom era. This marks a major milestone in ancient DNA research, especially given Egypt's climate, which typically degrades DNA. The burial was in a sealed ceramic pot within a rock-cut tomb, which is believed to have helped preserve the genetic material.

The human remains, excavated from the Nuwayrat necropolis near Beni Hasan, Egypt, were donated between 1902 and 1904 by the Egyptian Antiquities Service to the members of the Beni Hasan excavation committee and subsequently donated to the Institute of Archaeology, University of Liverpool, UK, and exported under the John Garstang export permit. The human remains were then donated to the World Museum (previously the Liverpool City Museum) in 1950. The sampling permit was granted by the World Museum.

The Inca: High-Altitude Burials and the Biology of Empire

The Inca Empire, which flourished across the Andes prior to Spanish conquest, left a wealth of archaeological and bioarchaeological material, much of which is curated in South American institutions and international collections. Perhaps the most striking are the capacocha mummies, also known as the Children of Llullaillaco, who were ritually sacrificed and buried atop Andean peaks. These remains are among the best-preserved in the world, thanks to the freezing conditions at high altitudes.



Left: The Inca Empire at its greatest extent c1525. Middle: Machu Picchu often referred to as the "Lost City of the Incas" and one of the most iconic symbols of the Inca civilization. Right: The oldest of the three mummies of Inca children discovered in 1999 near Llullaillaco.

Image credits: Wikipedia

The Children of Llullaillaco have been on exhibition in the Museum of High Altitude Archaeology since 2007. However, their display has sparked significant controversy, particularly regarding indigenous rights. Some Indigenous leaders argue that exhuming and exhibiting the remains is a violation of sacred traditions. The Indigenous Association of Argentina described the exhibition as a desecration, saying the children "should not be on display like a circus attraction." and have called for their return, criticising the museum for profiting from what he sees as cultural property. In response to such concerns, the director of the Museum of High Altitude Archaeology, stated that no further mummies would be removed from the Andes in an effort to maintain good relations with Indigenous communities.

However, not all Indigenous voices oppose the research. The Third World Congress of the Quechua Language, held in 2004, supported the scientific study of the mummies, emphasizing its role in preserving and honouring ancestral knowledge.

The region is believed to contain at least 40 similar burial sites. Biological studies of these mummies, have provided insight into ritual practices, nutritional status, and disease markers. Recent genomic analyses have also begun to explore the genetic structure of Inca populations and their relationships with contemporary Andean communities. Notably, these studies are shedding light on the mechanisms of imperial expansion and population assimilation, as well as resistance to European pathogens during colonisation. That said, any such work must be conducted in a way that respects Indigenous heritage and spiritual practice

The Maya: Glyphs, Burial Contexts, and Reconstructing Kinship Through aDNA

The Maya civilisation occupied a wide territory that included southeastern Mexico and northern Central America and left behind an extensive written tradition in the form of hieroglyphic inscriptions, which, when paired with burial contexts and architectural sequencing, offer a detailed view of dynastic history. Elite burials discovered at sites such as Copán, Tikal, and Palenque have long been central to Maya studies. These remains, curated in national museums and site-based research facilities, are now being revisited for genetic analyses.



Left: One of two simian sculptures on Temple II in Copan, Honduras. Middle: Temple of the Great Jaguar in the ancient ruins of Tikal, Guatemala. Right: The Palace in Palenque as seen from the courtyard, Mexico. Image credits: Wikipedia

The genetic history of early populations in southeastern Mexico and northern Central America – later the heart of the Maya civilization – remains poorly understood due to the region's poor preservation conditions, which hinder the recovery of ancient skeletal material. Recently, researchers analysed genome-wide aDNA from 20 individuals found in Belize rock shelters dating from 9,600 to 3,700 years ago, which has shed new light on this period. These individuals were not mummified but preserved in burial contexts typical of the humid neotropics, the researchers were able to combine the genetic data with stable isotope dietary data to trace changes in subsistence strategies.

The findings suggest that agriculture in the Maya region was not a purely local innovation but was influenced by incoming populations. Around 5,600 years ago, a significant genetic shift occurred with the arrival of a new population linked to present-day groups from southern Central America. This migration brought substantial genetic influence and coincided with the earliest evidence of forest clearing and maize horticulture – key developments in the region's transition toward complex societies. In addition, mitochondrial DNA and isotopic analysis are being used to study population mobility and dietary variation across class lines, further expanding our understanding of life and hierarchy within Maya society.



In summary, the merging of traditional archaeological methods with molecular genetics is redefining how we are able to study ancient civilisations. Museum collections, once built for display, are now being repurposed as vital biological biobanks. From Egypt's royal mummies to Andean child sacrifices and Mayan dynastic burials, the integration of aDNA research highlights the lived experiences, health, ancestry, and movements of past populations. As museum policies evolve and biobank practices become more standardised, ethical access to and analysis of these collections will be critical. What remains clear is that the physical remnants of these great civilisations, carefully curated and well on the way of being molecularly decoded, continue to advance our understanding of human history.



Careers in Focus

by Jennifer Byrne

Director of Biobanking-NSW Health, Professor of Molecular Oncology, University of Sydney

Welcome to the second edition of “Careers in Focus”, where we talk about how we can promote and develop careers in biobanking and for biobankers. We also want to warm up conversations in preparation for the ABNA 2025 conference in Newcastle, where we’ll hold a dedicated careers session.

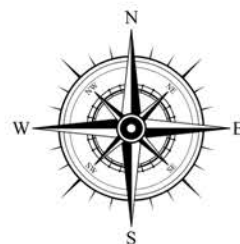


First, let’s talk about **homework** from our June column. How many of you have **updated your CV** in the last month? If you haven’t updated your CV in a while, **put aside some time** and get to it. The second piece of homework was to **set aside time to think about your career**. We’ll get to that in a minute. Finally, how many of you have set up **regular job alerts**? Even if you’re not applying for roles now, it’s good to keep an eye on new opportunities.

So, back to the second point – **making time to think about your career**. There are usually more urgent things that need attention, so scheduling time in your diary is one way to make this happen. For example, career discussions don’t only need to only happen during yearly performance reviews – this can be a regular discussion point, every 2-3 months.

Coffee or walking meetings with other colleagues can also be opportunities to talk about careers. **Find someone who has the job that you want and ask to meet with them**. Think about how you can also help this person in return, so the exchange isn’t all one way.

If you’re not sure about what career direction you’d like to head towards, help is at hand. Exercises like the “Career Values Card Sort” can help to identify your personal career values. There are many different values lists online, but they generally require choosing your top 2-5 values from a longer list. This can really help to identify **what matters to you in the workplace**. You can then think about whether your current position aligns with these values, and if not, how you could work towards changing this.



Let’s talk about career changes next month!!

If anyone finds a helpful resource, or you’d like to suggest a topic or career story, please write to me at:

jennifer.byrne@health.nsw.gov.au or at info@abna.org



Educational Webinar

Join ISBER's Educational Webinar: "[Writing a Successful, High-Quality Biobanking Manuscript for Journal Publication](https://www.isber.org/event/biobanking-publication-webinar)"



Led by editors from Biopreservation and Biobanking, this session will cover:

- Key elements of a strong manuscript
- Common reasons for rejection – and how to avoid them
- Tips for navigating peer review

 Free for ISBER members | \$50 USD for non-members

Don't miss this opportunity to sharpen your writing and publishing skills.

The Declaration of Taipei

Adopted by the World Medical Association, the Declaration of Taipei sets out ethical principles for the collection, storage, and use of identifiable health data and biological materials in health databases and biobanks. It complements the Declaration of Helsinki and addresses the unique ethical challenges posed by large-scale data and sample repositories.

The ethical principles include:

- **Respect for Individuals:** Upholds dignity, autonomy, privacy, and confidentiality. Individuals must have control over how their data and biological materials are used.
- **Informed Consent:** Requires clear, voluntary, and informed consent for the use of identifiable data and samples.
- **Public Benefit:** Research using biobanks and databases should aim to improve public health and serve the common good.
- **Transparency & Accountability:** Institutions must be transparent about how data is used and ensure robust governance and oversight.
- **Global Standards:** Encourages alignment with international ethical, legal, and regulatory norms without compromising individual protections.

As biobanks and health databases grow in scale and importance, the Declaration of Taipei provides a critical ethical foundation. It ensures that innovation in health research does not come at the cost of individual rights and public trust.

The World Medical Association has announced that the Declaration of Tapei on Ethical Considerations regarding Health Databases and Biobanks will be revised and is inviting interested individuals to sign up for their newsletter to stay informed. This process typically takes two to three years and involves hearings and discussions in various locations around the world.

If you are interested in following this revision process, we invite you to sign up for related news:

[CLICK HERE TO SIGN UP](#)

Biobanking in the News

WA biobank featured on ABC's Four Corners program

This month, an episode of Four Corners, 'Generation Cancer' aired on the ABC, investigating the rise of cancer diagnoses in younger adults. The Origins study, housed at The Kids Research Institute in WA, featured in the program.

Diagnoses of prostate, pancreatic, liver, uterine and kidney cancer in 30- to 39-year-olds have risen significantly between 2000 and 2024. Australia is well positioned to determine why early-onset cancer diagnoses are on the rise, which is illustrated by the ORIGINS study, an example of a longitudinal cohort study helping to uncover how the early environment may influence the development of chronic disease.

ORIGINS is uniquely positioned to determine the causal pathways of chronic disease through its rich collection of biological samples and data from 10,000 Western Australian families.

To date, ORIGINS has collected over 400,000 biological samples, with data, capturing information ranging from children's diets to parental mental health. Samples and data are collected during pregnancy and throughout the early years of children whose families agree to take part.

Details of the Four Corners episode are available on the [ABC website](#).



The Deep-sea Biobank Initiative

Just last month at the third United Nations Ocean Conference in Nice, France, the International Seabed Authority (ISA) launched the Deep-sea Biobank Initiative (DBI) to advance global access to deep-sea biological samples and genetic data. The deep seabed, defined as the seabed at ocean depths greater than 200m, contains a variety of mineral resources, unique geological formations and a range of marine life.

The ISA is an autonomous international organisation which manages the mineral resources of the seabed beyond national jurisdiction for the shared benefit of humankind. The area covers around 54 per cent of the total area of the world's oceans encompassing remote ecosystems. ISA ensures that all economic activities in the deep seabed, including mining and harvesting of sea life, are regulated and responsibly managed.

The initiative aims to create a global repository to enhance access to deep-sea biological samples and genetic data collected from the international seabed area to promote research and scientific collaboration. DBI will also develop standard operating procedures for sampling, processing and sharing of biological samples and genetic data to enhance data quality, sharing and utilisation.

More information can be found [here](#).



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

Content deadline for the August edition 22.08.25



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