OCTOBER | 2023

# **BIO-BABBLE**



Newsletter of the Australasian Biospecimen Network Association

PRESIDENT: Georget Reaiche-MillerVICE PRESIDENT: Louise LudlowTREASURERS: Leanne Wallace, Chris GormanSECRETARY: Samantha HigginsDIGITAL MEDIA OFFICERS: Valerie Jakrot, Ussha PillaiEDITOR: Anusha HettiaratchiORDINARY COMMITTEE MEMBERS: Cassandra Griffin, Jennie Hui, Catherine Kennedy, Carmel Quinn, HelenTsimiklis, Duncan Villanueva,

### **A NEW DECADE OF ABNA**

By Dr Georget Reaiche-Miller

Hello ABNA! It is with great honour and humility that I step into the role of President of this incredible Association, and I am truly excited about the journey ahead! I want to express my deepest gratitude to all of ABNA past presidents as your hard work, commitment and determination have been instrumental in ABNA's collective success and have shaped ABNA into what it is today.

ABNA's 20-Year Anniversary Conference was a momentous occasion that celebrated two decades of the organization's rich history – a special gathering done in style! We honoured one of ABNA founders, Lisa Devereux by presenting her with the first ABNA Achievement in Biobanking award, introduced exciting avenues for collaboration through the launch of the Special Interest Groups, and demonstrated a commitment to nurturing the next generation of biobankers and biospecimen scientists through the ABNA Emerging Leader Scholarship, awarded to Dr Rose Upton as the first recipient. The conference served as a testament to ABNA's enduring legacy of fostering meaningful connections and promoting excellence in various fields of Biobanking.

As we move forward, my main goal is to continue what all of our previous Presidents have achieved, and that is to foster an environment for biobankers and biospecimen scientists that promotes communication, collaboration, and innovation.



We are thrilled to introduce Dr. Louise Ludlow as ABNA's new Vice President.

Together, we remain committed to upholding ABNA's values and vision, and eagerly anticipate leading our network towards even more growth and success.

Let's embark on this exciting new chapter together!

Georget Reaiche-Miller

## LAUNCHING ABNA'S SPECIAL INTEREST GROUPS

ABNA is committed to expanding network and fostering diversity within the biobanking and biospecimen science community, however recognises the need for ongoing networking with likeminded colleagues to facilitate collaboration. Following an EOI process ABNA has launched four Special Interest Groups (SIGs) which aim to; encourage collaborative efforts for a "one-health" approach; increase effective utilisation of data and specimens; and encourage collaborations within respective fields or sub-disciplines of biobanking. We strongly encourage you to engage with this new initiative by reaching out to the co-chairs of the SIGs below.

#### **Quality Management and Improvement Special Interest Group:**

A community that identifies quality and improvement gaps and areas of interest and facilitates forums to tackle identified topics.

SIG Chairs: Samantha Higgins - samantha.higgins@cancervic.org.au

Beth Caruana - Beth.Caruana@health.nsw.gov.au

#### **Post-mortem Tissue Collection Special Interest Group:**

A collaborative task force to consolidate learnings and best practice in post-mortem biobanking, support new banks establishing protocols and lobby for infrastructure support in adult, paediatric and veterinary research.

SIG Chairs: Cassandra Griffin - Cassandra.Griffin@newcastle.edu.au

Louise Ludlow - louise.ludlow@mcri.edu.au

#### Banking for Biodiversity Special Interest Group:

This SIG aims to understand, improve and promote the use and implementation of biobanking as a conservation action for the management of Australasia's biodiversity. Their aim is to share information between biobanks to improve program sustainability, collaboration and promote the value of biobanking to relevant stakeholders.

SIG Chairs: Emma Dalziell: emma.dalziell@uwa.edu.au

Rose Upton: rose.upton@newcastle.edu.au

#### Clinical trials and Population Cohort Biobanking Special Interest Group:

This SIG aims to bring together expertise to facilitating improvements and promote excellence in biobanking for clinical trials and cohort studies, and related research, across Australasia. It aims to provide a formal networking space for likeminded biobank teams within Australasia

SIG Chairs: Ilka Priebe – Ilka.Priebe@csiro.au

Jennie Hui – Jennie.Hui@health.wa.gov.au

Wayne Ng - Wayne.Ng@cancervic.org.au

### 2023 AGM RECAP

The 2023 ABNA AGM held on 18 October ushered in a period of change for the Management Committee. Following the Presidents and Treasurers report, committee elections were held and ABNA is delighted to welcome Georget Reaiche-Miller to the role of President, Louise Ludlow to the role of Vice President and Chris Gorman to the role of co-Treasurer – with thanks given to those who held the roles previously.

The AGM also saw the introduction of the ABNA Editor, a position external to the committee to assist with outgoing communications. ABNA is delighted to congratulate Past-President Anusha Hettiaratchi on her election to this role in recognition of her leadership years of support to ABNA.

Minutes from the AGM will be made available on our website in the coming weeks.



President Georget Reaiche-Miller



Vice President Louise Ludlow



Co-Treasurer Chris Gorman



ABNA Editor Anusha Hettiaratchi

### 2023 ANNUAL CONFERENCE AWARDS & PRIZES



Winners of the Submitted Abstract Elevator Pitch and Poster Prizes at this year's conference received a special treat: a dolphin encounter en route to the Conference Dinner.

Congratulations to Katherine Woods winner of the Elevator Pitch presentation and Milon Pang winner of the Poster Prize.









Left: Cassandra Griffin & Georget Reaiche-Miller announcing the recipient of ABNAs Achievement in Biobanking Award. Right: We are thrilled to present the inaugural award to Lisa Devereux to recognise her contribution to our field. Congratulations, Lisa!



Congratulations to Maria Villalva for her winning talk titled "Implementing high throughput workflow "ch-ch-changes" to streamline Peripheral Blood Mononuclear Cell (PBMC) Isolation," in the Rapid Fire Presentation catagory.

We are thrilled that this was her first presentation at a conference, making the win even more memorable.



ABNA cranked up the volume with a musical quiz contest at this years conference, featuring brain-busting questions at the end of each session. Members had to speak with sponsors, committee members, and even do some sneaky googling to unearth the answers. But, we hope they had a blast. The prize? A shiny ABNA membership and major bragging rights. Drumroll, please. The winner of the competition was none other than the music mastermind, Alice Rykers! Want to know more about this rockstar? Check out the "5 minutes with a biobanker" segment in this edition.

### **BIOBANKING ON RECORD - FROM THE ARTIST FORMERLY KNOWN AS TWITTER**



Georget Reaiche @georget81 · 5d And we have kicked off ABNA 2023! 20 years of biobanking on record! An amazing introduction by our current president @CassPGriffin #ABNA2023GoldCoast



NSW Health Statewide Biobank @NS... • 4d Se ----Diversity in #biobanking & building partnership with @NushHet Paula Nihot georget81 Xander Bickedorf @teleth & Very Rev Dr Peter Catt "Drives for efficiency undermine our capacity to be inclusive "Complex processes need to be principle based" #ABNA2023GoldCoast



ABNA @ABNAonline · 4d #ABNA2023GoldCoast

shark bay! @ABNAonline

#ABNA2023goldcoast

Seorget Reaiche @georget81 · 4d

Welcome to our speed dating event at

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ABNA @ABNAonline · 5d Biospecime #ABNA2023GoldCoast

> --- NSW Health Statewide Biobank · 5d First sessions at #ABNA2023... listening consumer perspectives on #biobanking, preferences expressed for sample storage in a biobank that is well managed, so that samples "can be used for research that hasn't been thought of vet" @ABNAonline @NushHet





ABNA @ABNAonline · 3d #ABNA2023GoldCoast twitter.com/ georget81/stat...

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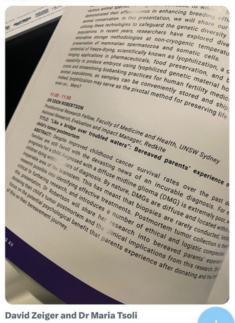
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Eden Robertson, PhD @Eden\_Roberts... · 4d ···· Thx #ABNA2023GoldCoast for inviting me to present on parents' experiences donating their child's tumour postmortem. Our study highlights reciprocal altruism - parents chose to donate to help others, and this also helped them in bereavement. doi.org/10.1093/ noajnl...@CEwakefield



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Q 171 Georget Reaiche @georget81 · 3d And the fun continues at the jellyfish encounter #abna2023g



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NSW Health Statewide Biobank @NS... · 4d Congratulations @NushHet @UNSWMedicine on being appointed as first @ABNAonline Editor... who better to drive outreach within the Australasian #biobanking community #ABNA2023GoldCoast



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dra Griffin @CassPGriffin · 5d #abna2023goldcoast here we go! NSW Health Statewide Biobank · 5d

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There will be no going over time at #ABNA2023!! Nice work @CassPGriffin @georget81 @ABNAonline "We have a chicken and a turkey and we're not afraid to use them

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NSW Health Statewide Biobank @NS... · 4d New @ABNAonline Special Interest Groups on (1) #QualityManagement @VicCancBiobank @NSWH5Biobank (2) Postmortum @CassPGriffin @MCRI\_for\_kids (3) #Biodiversity @Rose\_Uptor (41 #ClinicalTrials/ #Population se\_Upton1 Interested? Please get in touch!

#ARNA2023

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### **ABNA ON RECORD**



Carmel Quinn

The 20th annual ABNA conference took place from 18-20 October at SeaWorld on the Gold Coast. Commemorating such a milestone called for something special – and the meeting, with the memorable theme 'Biobanking on Record' certainly delivered! From the diverse offerings of the conference sessions to the unforgettable extra-curricular experiences, and the inspired music theme on show throughout, the meeting was stimulating and enjoyable from beginning to end.

#### Day One

Before the conference had officially opened, 2 pre-conference workshops were held; firstly we had 'Dazed and Confused' ably led by Chris Gorman (Telethon Kids, WA) discussing scenarios of how to go about biobanking in less than straightforward scenarios; this was followed by 'Both sides Now – Tissue Custodianship' where an engaging panel including consumers (Joan Carlini & Zehnab Vayani) and a pathologist-researcher (Sunil Lakhani, UQ & Pathology Qld) discussed how the apparently simple request to access tissue from a consented patient for research is more complicated than it may first appear.

The conference was officially opened by Cassandra Griffin, and after a Welcome to Country from Uncle John Graham, the Keynote presentation was delivered by the celebrated and inspirational Krishnan Ramanujan, (Director, Cedars Sinai Biobank & Research Pathology, Los Angeles). Krishnan eloquently described how 'Human Factors' research, which investigates how people respond to e.g., new infrastructure and processes, can and should be applied to biobanking practices. With his view that the future of biobanks will go beyond that of repositories of materials for research and toward curation of specimens for precision medicine, Krishnan gave the audience much food for thought. Four Rapid Fire presentations kept to the 'History – Past, Present, Future' session theme, and showcasing their biobanks journeys' were Jennie Hui (The Busselton Study), Tom Lynch (A3BC Biobank), Angus Netting (Adelaide Biobank) and Alexandra Smith (KConFab).

Session two of the afternoon, 'Dark Side of the Moon' centred around examples of out-of-hours biobanking, beginning with the eloquent Clare Gordon (University of Melbourne) describing the Australian Donation & Transplantation Biobank, one of the rapid autopsy programs allowing access to tissue immediately after death. Clare explained that priority is given to viable organs for transplantation, but they are able to acquire tissue unsuitable for transplant, but which is vital for studying resident memory T-cells; the considerable logistics involved at all stages of this process were described.

Solal Chauquet was up next, describing his research aiming to improve human liver viability to improve transplantation statistics and explaining the key role of circadian rhythms in influencing outcomes. A heartfelt call was made for all biobankers to begin routinely recording the time that samples are collected which would allow for more circadian rhythm research.

A fascinating talk followed wherein Lee McMichael shared her passion for bats, in particular the 4 species of Australian flying foxes. Research in this field is important for learning about Hendra virus, bat health and biodiversity more broadly, but there may also be opportunities for comparative health projects where e.g., information about human health and disease can be obtained by studying bats. Bat samples collected for this research include faeces, urine and blood depending on circumstance with a valuable resource of over 50K specimens now banked. Two Rapid Fire presentations from Cassandra Griffin and Leanne Wallace wrapped up the formal part of the day, which was followed by the sponsor cocktail event which included the highly competative Elevator Pitch presentations.



Chris Gorman speaking at Workshop 1. Workshop 2 panelists – Joan Carlini, Zehnab Vayani, Prof Sunil Lakhani. Cassandra Griffin 'gets the band back together' at the conference opening. Uncle John Graham during his Welcome to Country. Assoc Prof Krishnan Ramanujan delivers his keynote presentation.

#### Day Two

Day two began with the biobanker speed dating event leading into a session all about 'living biobanks' with emphasis on the importance of biodiversity. First up, Dean Miller (MD & co-founder, Great Barrier Reef Legacy) reminded us of the peril in which the Great Barrier Reef corals exist and described the intensive efforts his team are making to collect and bank examples of all 400+ species, in the 'Forever Reef' project. These samples are banked along with their metadata in different formats, including as living collections. Kylie Pitt (Griffith Sea Jellies Research Laboratory) spoke next about jellyfish - reminding us that they are not actually fish! They are however an important field of study in part due to their interaction with humans e.g., disruption caused by jellyfish blooms as well as the harm via painful, and sometimes deadly stings - but it is also vital to understand the role they play in the marine ecosystem. Kylie heads a research lab based within SeaWorld and those at the conference were lucky enough to be invited to tour the facility early the following morning and see some of the impressive specimens on show - a real highlight of the meeting. Our third presentation was delivered by Dale Arvidsson (Brisbane Botanic Gardens) who brought some 'props' along - examples of plants his team were trying to save, taken from the niche habitat of the Queensland tropical mountains which is under threat from climate change. The team is trying to establish which of these plants can adapt to different environments and which cannot; the 'living biobank' is essential as it is difficult to maintain seed viability for some of these species. A Rapid Fire presentation from Rose Upton (University of Newcastle) with an update about her work in frog conservation ended this session.

Session 4 focussed on fertility and paediatric banking, combining talks from human and animal fields, beginning with cryopreservation in human IVF by Daniel Morgan (Monash IVF Group). The talk centred around the increasing activity of oocyte freezing, for both medical and non-medical reasons. Andres Gambini (UQ) followed this with a talk about in vitro embryo production in animals and how lyophilised (rather than frozen) sperm has logistical advantages, even postulating that this methodology might be useful for animal husbandry on the future long trips to Mars! Eden Robertson (UNSW) presented some qualitative work around the attitudes of parents toward donating their child's tumour for research postmortem. Rapid Fire presentations from Lachlan Howell (on economics of animal reproduction) and Louise Ludlow (on establishing a biobank of neoplasms from childhood cancer survivors) closed the session.



A shark cruises past during the biobanker speed dating event. Dale Arvidsson presenting with his plant props. Andres Gambini being introduced for his talk. The Gala Dinner side show alley games.

Session 5 touched on support for culturally safe biobanking, with the first presentation by Cristin Print (Te Ira Kāwai - The Auckland Regional Biobank) highlighting cultural inequities in biobanking by describing the experience of Māori people. Indigenous people are underrepresented in biobanking worldwide and with regard to the efficacy of precision medicine, research concerning genomics of Indigenous peoples is essential - Cris described some of the culturally sensitive initiatives being developed in this space for working with Māori people. Chris Richards (Centre for Population Genomics) continued this theme with his description of the 'OurDNA' project, partnering with Australian CALD (culturally and linguistically diverse) communities to boost genetic variation representation, thus aiming to improve the generalisability of genomic data sources within Australia. Next, we had a joint presentation from Ashleigh Lin and Xander Bickendorf (Telethon Kids Institute) focussing attention on the unique circumstance of biobanking among trans and gender diverse people; they discussed a study they are running, the GiMS study, which is investigating possible changes to the immune profile of young trans people as a consequence of hormone treatment.

The final session for the afternoon included the launch of the four inaugural ABNA Special Interest Groups, along with a reflective session with the ABNA presidents, and concluded with a virtual presentation by ISBER president, Alison Parry-Jones, along with our own Director-at-Large, Indo Pacific Rim, Wayne Ng.

Although sessions had finished for the day, the evening saw the ABNA Gala Dinner take place, beginning with an unforgettable dolphin show which had all in attendance gasping in delight. The entertainment continued from there, with everyone given the opportunity to test their skills at 'sideshow alley', which was thoroughly embraced – along with a delicious food and a great DJ, this was a conference dinner that will live long in the memory!

### **Day Three**

It was an early start on the final day of the conference with a unique opportunity to be visit the SeaWorld aquarium, 'Shark Bay', before the park opened to the public, as well as a tour of the jellyfish facility. Tamsin Robb (University of Auckland) began the sessions with a fascinating talk describing the determination of a terminally ill cancer patient and her family to ensure that her tissue could be used for research postmortem. The logistics involved were significant, but the multiple tissue samples obtained from multiple metastatic sites, along with collaboration with scientists from computational disciplines, enabled the development of an interactive extended reality visualisation of the temporal and spacial progression of the disease. The audience was spellbound by the video which illustrated the capability of the research output.

Hamish McDonald (UQ) followed this with a talk about the Nagoya Protocol and benefit-sharing of environmental collections with local Indigenous peoples; followed by Peter Thrall who described the enormous undertaking of digitising CSIRO's natural history collection, including specimens that date back to the voyages of Captain Cook, with the aim of making the collection accessible to all. A Rapid Fire presentation from Maria Villalva (NSW Health Pathology) on transitioning to high throughput blood cell isolation closed the session.

The middle session kicked off with Andrew Rayfield (Clem Jones Centre for Neurobiology and Stem Cell Research, Griffith University) describing pioneering research into spinal cord injuries. Nicola Rivers (Monash University) followed with a passionate plea about the Australian Frozen Zoo, a biobank that holds reproductive and other tissue from endemic Australian species, but due to under-resourcing has not been managed appropriately and comprehensive cataloguing of this potentially priceless resource is required. Anna Russo (South Australian Museum) spoke to the appalling treatment of Aboriginal remains by doctors and scientists of the late 19th and into the 20th century, who regarded them as 'specimens'; Anna described the attempts to repatriate these remains with the living descendants in the Adelaide area and elsewhere in Australia. This is ongoing, sensitive work and emphasis was placed upon the process for how to engage appropriately with Indigenous communities when making such arrangements. Felicity Poulsen (NSW Health Pathology Forensic & Analytical Science Service) ended the session with an enlightening talk about how forensic scientists do their own in-house research in order to fine-tune, improve and extend the forensic methods that they use.

Some fascinating presentations were saved until the final session of the meeting, which was begun by Nigel McMillan (Griffith University) who delivered an entertaining talk about biobanking microorganisms including some of the important scientific discoveries placing microorganisms as the cause of non-communicable diseases, e.g., cervical cancer and hepatitis. Next was the 'spider-man', Volker Herzog talking about arachnid venoms – no one will forget the video of Volker 'milking' a large Queensland tarantula. Volker has an extensive venom bank, which is of interest in many fields of research, including Volker's which uses compounds to selectively target varroa mites currently plaguing bee populations worldwide. Chloe Yap closed out the 'bugs' session, describing a study involving the banking of microbiome samples from people with autism; a large metagenomics study investigated a possible link between microbiota and autism.

The final presentation of the meeting was given by Jennifer Byrne (Director of Biobanking, NSW Health Pathology), providing an update about the inclusion of 'Biobanking and Collections' within the latest National Research Infrastructure Roadmap; a paper is soon to be released for consultation and Jenny asked the ABNA audience to stay in touch.

And so, after 3 packed days, the meeting was closed by retiring ABNA President, Cassandra Griffin and the baton handed to incoming President Georget Reaiche-Miller. The meeting confirmed the importance of biobanking in many diverse fields of research within Australasia, and the vital role that ABNA can play in connecting the biobanking community. Special mention to the Conference Organizing Committee for the imaginative use of song and album titles throughout the meeting, in line with the 'Biobanking on Record' theme; many of the presenters bought into this and some inspired creativity was on display. The ABNA annual meeting moves to Adelaide in 2024 – with some high expectations to meet!

Missed out on the Conference? Didn't get a chance to listen to the Spotify playlists? Want to experience the conference again? You can still download and listen to all the song/album titles mentioned in the ABNA 2023 program.





🖞 ABNA 2023: The Sessions

### **5 MINUTES WITH A BIOBANKER**

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



This month we speak with: Alice Rykers, Technical Manager, Te Ira Kawai - <u>The Auckland Regional Bioban</u>k (and winner of the ABNA 2023 conference quiz)

#### THE QUICK QUESTIONS Red or white wine?

White – as long as it's sparkling (preferably champagne) Mac or PC? PC Batman or Superman? Batman Lord of the Rings or Harry Potter? LOTR – I have way too many LOTR t-shirts and I'm a Kiwi, how could I not pick it!

1. How long have you been working in biobanking?6 years

- 2. Which advance in science/research do you think has had the most impact on you as a biobanker? One of my first specified projects that I worked on as a biobanker was a longitudinal collection from late-stage melanoma patients undergoing immunotherapy. These patients were receiving this treatment as a last resort, uncertain whether they would be around for much longer. My role was to see them every few weeks and coordinate blood to be taken before their infusion then process before handing over to the researchers. While not everyone responded, it was such a privilege to be able to see how this treatment gave some people more time with their loved ones and especially to see some have little side effects. Talking with the patients and their family and friends every 3 weeks before treatment felt extremely important when handling the samples. I had just seen the patient that the blood belonged to and could see the importance of the work that I was doing as a bigger picture.
- 3. In retrospect, given the experience you have now, what one piece of advice would you give to yourself at the start of your biobanking career?

To enjoy the time I had as a technician to connect with patients. Being in a management role now I don't have as many opportunities to meet with and consent patients and it's such a rewarding experience to be able to sit down with someone and discuss biobanking/tissue donation for the first time.

4. What is the craziest thing you have done to save a sample/s? I've taxied to many different locations to pick up rogue samples been sent to other labs, crawled on my

stomach to pick up a dropped sample fallen under a bench, come in over long weekends to collect explanted lungs at 3am. All for ensuring that we can use the precious donations that our patients give us.

5. Your career on record: name 3 songs/albums that best tell the story of your biobanking career: Currents - Tame Impala

Gunfighter Ballads and Trail Songs – Marty Robbins Bigger Than Both of Us – Daryl Hall and John Oates

## **AUSTRALIAN REFERENCE GENOME ATLAS**



The <u>Australian Reference Genome Atlas (ARGA)</u> is a new service empowering Australia's researchers to discover, select and access genomics data and resources to answer biological questions in conservation, biosecurity, agriculture, biodiversity, evolution, biopharmaceuticals and other natural products, environmental resilience and more.

ARGA realises true interoperability, bringing together genomic and genetic data from a number of international and domestic data repositories, and intersecting these data with authoritative taxonomy, specimen browsing, and curated ecological and phenotypic traits sets. While it was designed to enable richer data discovery for Australia's biosciences scientists, researchers and policy-makers, ARGA will become everyone's starting point to learn more about genomic data for species relevant to Australia.

The ARGA Project commenced in April 2022 as an NCRIS (National Collaborative Research Infrastructure Strategy) partnership between the Atlas of Living Australia (ALA) and the Australian BioCommons, supported by BioPlatforms Australia. Additional support for the project was received from the Australian Research Data Commons (ARDC) <u>Bushfires Data Challenges Program</u>.

The inter-organisational project team has worked hard to create an innovative web application to find and access genomic data for species relevant to Australia.

Please join ARGA for a webinar to celebrate the launch of this new service.

SPEAKERS: Ms Sarah Richmond, General Manager – Science Program, BioPlatforms Australia Dr Andre Zerger, Director – Atlas of Living Australia, CSIRO Dr Kathryn Hall, Product Champion – ARGA Project, Atlas of Living Australia, CSIRO
DATE: 3 November 2023
TIME: 1:00pm – 2:00pm (AEDT) – Canberra, Hobart, Melbourne, Sydney
10:00am – 11:00am (AWST) – Perth
11:30am – 12:30pm (ACST) – Darwin
12:00 midday – 1:00pm (AEST) – Brisbane
12:30pm – 1:30pm (ACDT) – Adelaide

Please register for this webinar here: https://www.biocommons.org.au/events/agra-launch





If you have any suggestions for a short article for Bio-Babble, please contact: abna.biobabble@gmail.com Content deadline for November edition: 24.11.23





