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ABNA ANNUAL CONFERENCE UPDATE

ABNA appreciates that the negative impact of the COVID pandemic has limited many of us with respect to conference travel. As such, we've decided on a hybrid format to maximise the networking potential of this years conference, while also ensuring participation is possible for all.

Each state will host a meeting hub that will be networked into the wider conference. Registrants will have the option to register for virtual participation from home, or your institution, or to attend a hub in person.

Each hub will log into the central event to share a combination of both live and online speakers throughout the day. Each hub will provide opportunities for in person engagement, sponsors and be a fully catered event, including a conference dinner which will be arranged on a state by state basis.

Abstract submission for rapid fire and poster presentations will again be through the conference website - keep an eye on your inbox for details. Posters will be displayed on the conference website.

Key Dates

Registrations open: 30 August

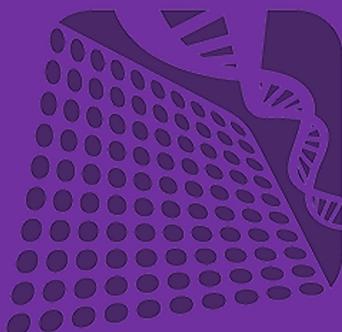
Abstract submission deadline: 23 September

Abstract outcome notification: 1 October

We are honoured to have Professor Alex Brown open this years conference as keynote speaker presenting from the Adelaide Hub. Speaker profiles will be updated on the conference website.

ABNA 18th Annual Meeting
21 October 2021
Hybrid Event

**TOGETHER APART:
REDEFINING THE NETWORK**



KEYNOTE SPEAKER PROFILE: PROFESSOR ALEX BROWN

Professor Alex Brown (BMed, MPH, PhD, FRACP (hon.), FCSANZ, FAAHMS) is the Aboriginal Health Equity Theme Leader at SAHMRI, and Professor of Medicine at the University of Adelaide.

Alex is an internationally leading Aboriginal clinician/researcher who has worked his entire career in Aboriginal health in the provision of public health services, infectious diseases and chronic disease care, health care policy and research. He has established three highly regarded research groups over the last 15 years, and currently leads a large research group (50% of whom identify as Aboriginal and/or Torres Strait islander Australians). Much of his work has been at the difficult interface of geographical isolation, complex cultural context, severe socioeconomic disadvantage, inequitable access to and receipt of care and profound health disparities.

His transdisciplinary program of research focuses on documenting the burden and contributors to health inequality in Indigenous Australians, with a primary focus on cardiovascular disease (CVD), diabetes and cancer. Since commencing at SAHMRI 8 years ago, he has overseen the establishment of an integrated centre of excellence in Indigenous chronic disease and public health research. He leads projects in CVD epidemiology and policy; the social, clinical, and biological correlates of diabetes and its complications; intervention trials; documenting cancer inequalities and how best to overcome them; innovative mixed-methods primary care research; and evaluations of health care models, systems and programs.



SPEAKER PROFILE: A/PROFESSOR MIKA SAKURAI

Associate Professor Mika Sakurai joined Tohoku Medical Megabank Organization (ToMMo), Tohoku University, Japan in 2013 where she manages microarray-based genotyping facility and education and training section under the ToMMo's missions to conduct genome cohort studies and develop biobank.

Prior to joining ToMMO she received a Ph. D. in molecular biology from the University of Tokyo where she also worked as a Research Associate.

ToMMo was established to restore community medical services from the Great East Japan Earthquake and to establish a large-scale medical information system

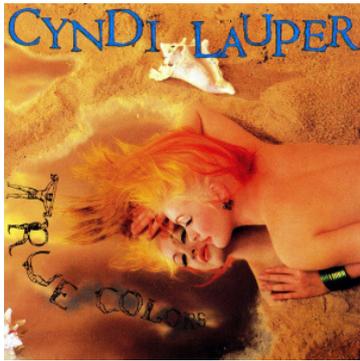


Click [HERE](#) for more information on ToMMo

BIOBANKING GREATEST HITS - A RETROSPECTIVE

PART TWO

By Cassandra Griffin



6. True Colours

For a change of pace, at the start of the decade scientists experienced an exciting revolution in paleontology which gave them their first look at the true colour of dinosaurs! This was possible due to the extraction and analysis of melanosomes – organelles that contain pigment – isolated from biobanked paleontological samples. The first analysis occurred on the fossilized feathers of *Sinosauropteryx*, a dinosaur that lived in China some 120 to 125 million years ago and revealed that it had reddish-brown tones and stripes along its tail.

The study of biobanked pigment fossils has continued to expose new information about prehistoric life, suggesting the presence of countershading and camouflage as potential survival strategies. This new ability to identify and study the colours of dinosaurs will continue to support paleontological research as scientists study the evolution of past life.

Album: True Colours
Artist: Cyndi Lauper
Release date: 14 October 1986



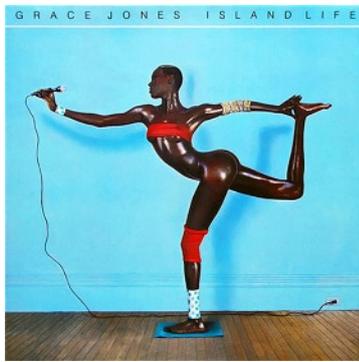
7. Progress

The recent discovery of fossils in Africa and the Philippines documenting a new hominin species, has expanded the human family tree significantly and provided exciting specimens for phylogenetic analysis when compared with archival and biobanked specimens from similar species. The discovery and identification of *Australopithecus sediba*, a hominin species that lived nearly two million years ago in present-day South Africa represents a transitional phase between the genus *Australopithecus* and the genus *Homo*, with some traits of the older primate group but a style of walking that resembled modern humans.

Also discovered in South Africa, *Homo naledi* who lived 335,000 to 236,000 years ago, and *Homo luzonensis* discovered in the Philippines and said to have lived some 50,000 to 67,000 years ago. These species hominin were originally identified as *Homo sapiens*, but a 2019 competitive analysis determined that the bones belonged to an entirely unknown species.

Analysis of these three major finds in the last ten years and comparison with museum and other paleontological specimens suggests that additional links in the evolutionary history of mankind are yet to be uncovered. Many believe the bones of more species of ancient human relatives are likely hidden in the caves and sediment deposits of the world, waiting to be discovered. Until this time it is imperative that we continue paleoarcheological biobanking to preserve these samples for future analysis and comparison.

Album: Progress
Artist: Take That
Release date: 15 November 2010



8. Island Life

The health of our oceans is an increasing concern, with data suggesting many of the world's coral reefs may be under threat due to climate change. Scientists at the Smithsonian National Zoo and Conservation Biology Institute are working to address this and have successfully thawed previously biobanked cryopreserved coral larvae from a species of mushroom coral. The ability effectively biobank and revive coral larvae will allow conservationists to safeguard at-risk species and preserve genetic diversity within our oceans.

Following this, Smithsonian researchers and partners collected more than 150,000 live eggs from endangered elkhorn coral which were then fertilised with frozen elkhorn sperm from other biobanks across Florida, Puerto Rico and Curacao. This was the first successful attempt to support gene migration in coral populations that would otherwise remain geographically and genetically isolated.

Album: Island Life
Artist: Grace Jones
Release date: 3 December 1985

Silverchair



9. Frogstomp

Amphibians play an essential role in the earth's ecosystem. Though once common along highland streams in western Costa Rica and Panama, the variable harlequin frog is now endangered throughout its range. It is especially sensitive to the amphibian chytrid fungus, which has pushed many frog species to the brink of extinction in Central America. In January, Smithsonian researchers released 500 variable harlequin frogs (bred in human care) in Panama's Colon province as a first step toward full-scale reintroduction of the species.

The Harlequin frog is just one of many amphibian species currently under threat due to parasites, pests and changes in climate. While many programs focus on population maintenance with live breeding programs, the recent Australian bushfires and subsequent near-extinction event for many species of Australian frog, has demonstrated the value of cryopreserved collections of frog gametes for assisted reproduction. Renewed focus in this area has demonstrated that should live breeding programs become insufficient to sustain populations, cryopreservation and offspring generation via IVF is a feasible conservation tool for threatened species of amphibians.

Album: Frogstomp
Artist: Silverchair
Release date: 27 March 1995



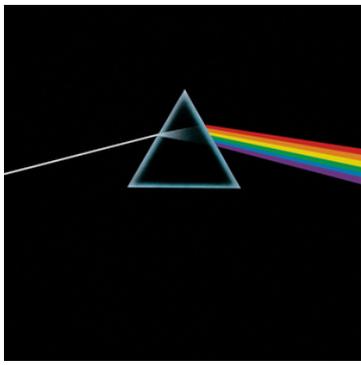
10. The End of the World?

The Doomsday Vault - not many biobanks can claim a remit with nearly this much 'theatrical' impact. While perhaps best the topic of a future biobabble article that could look at this incredible biobank in depth, we'd be remiss not to include the Svalbard Global Seed Vault which contains over 1,074,533 varieties of seeds. Curated with the intention of guaranteeing global food security the vault is located deep inside a mountain on a remote island of the Svalbard archipelago and is designed to withstand the challenge of man-made or natural disasters.

Worldwide more than 1,700 genebanks hold collections of food crops yet many are vulnerable and it was with this in mind that the vault was designed. Layers of permafrost and thick rock ensure the seed samples will remain frozen without power.

Be sure to keep an eye on future editions of Bio-babble for a detailed look at this incredible facility!

Song: It's the End of the World as We Know It (And I Feel Fine)
Artist: REM
Release date: 16 November 1987



11. Dark side of the Genome

In 2010 researchers sequenced an ancient genome using a hair preserved in permafrost for nearly 4000 years. The data obtained revealed the physical traits and even the blood type of a member of one of the first cultures to settle in the Northern Hemisphere. This was the first 'nearly' complete reconstruction of a genome from ancient DNA and opened the door for anthropologists and geneticists to embark on an exciting age of discovery utilising many of the large scale biobanked collections of ancient DNA samples housed around the world.

While exciting, the extraction of ancient DNA is a major challenge and the need to effectively preserve and catalogue successfully extracted, high quality samples, is paramount. Thousands of ancient human genomes have been sequenced since the first success in 2010, revealing new details of lost civilisations and human migration.

Album: The Dark Side of the Moon
Artist: Pink Floyd
Release date: 1 March 1973



12. Bat Outta Hell

In recent years, mankind experienced the worst outbreak of Ebola virus in history. The epidemic is believed to have begun with a single case of an 18-month-old-boy in Guinea infected by bats in December 2013. The disease quickly spread to neighboring countries, reaching the capitals of Liberia and Sierra Leone, providing an unprecedented opportunity for the transmission of the disease. Two and a half years after the initial case, more than 28,600 people had been infected, resulting in at least 11,325 deaths.

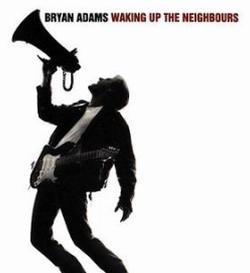
The epidemic prompted health officials to increase their efforts to collect, store and process viral isolates with the aim of achieving an effective vaccine and improved treatments. Two of the largest collections of Ebola virus used in research efforts are housed in Sierra Leone and the United Kingdom and governed by the Ebola Biobank Governance group, who ensure the finite resource is used only for research protocols with relevance to the people Sierra Leone. Collection and research into these isolates lead to the development of a vaccine known as Ervebo, which was tested in a clinical trial in Guinea performed toward the end of the outbreak and was deemed effective. In November 2019, Ervebo was approved by the European Medicines Agency (EMA), and a month later it was approved in the U.S. by the FDA.

In addition to a preventative vaccine, researchers have been seeking a cure for Ebola in patients who have already been infected by the disease. Two treatments have recently shown promise in a clinical trial in the DRC. With a combination of vaccines, therapeutic treatments and continued research efforts, healthcare officials hope to one day eradicate the infection.

Album: Bat out of Hell
Artist: Meatloaf
Release date: 21 October 1977

Have your say

How did we do? Do you have an important biobanking enabled discovery we missed? Do you have appropriately themed album/single to match? If so send it through to the newsletter team, we are looking for 150-250 words. If we get enough we will publish a readers version.



2021 NATIONAL RESEARCH INFRASTRUCTURE ROADMAP

A reminder for ABNA members to register for the Ideas Jams and Scoping Study reviews.

An online forum to brainstorm how NRI can enable better collaborate with industry, particularly small to medium enterprises has been launched. The action is taking place on the 2021 Roadmap 'Ideas Jam' platform. While it's too early to advertise any biobanking consultation, it would be good for biobankers to register for the Ideas Jam, so that you can receive these notifications in real time.

Register [HERE](#) to be part of the Ideas Jam - Closes Friday, 3 September 2021

NSWHSB Seminar Series



Health
Statewide Biobank

"How many biobanks are there?...
Why count, who cares, what does it
matter?"

Dr Peter Watson
BC Cancer Agency, University of
British Columbia
31 AUGUST 2021



Click [HERE](#) to register for Peter Watson's seminar

NSWHSB Seminar Series



Health
Statewide Biobank

Research Infrastructure, Research
Community Building and
Research Impact

Andrew Gilbert
Bioplatforms Australia Limited
14 SEPTEMBER 2021



Click [HERE](#) to register for Andrew Gilbert's seminar

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

Content deadline for September edition: 24.09.21