

ABNA Updates

2020 ABNA Committee

PRESIDENT: Anusha Hettiaratchi
VICE PRESIDENT: Cassandra Griffin
TREASURERS: Valerie Jakrot & Catherine Kennedy
SECRETARY: Leanne Wallace

COMMITTEE MEMBERS:
Nina D'Vaz, Wayne Ng,
Ussha Pillai, Georget Reaiche,
Helen Tsimiklis, Li Zhou.

ABNA's 2020 AGM will be a virtual meeting held on Friday October 23rd. A meeting invitation and agenda will be emailed to current members next month.

Thank you to members who alerted us to an issue with the membership portal, this has now been rectified. For current members renewal rates are available until the end of August.

Number of members	New	Renewal
1	\$70	\$50
3	\$190	\$135
4	\$235	\$180
5	\$275	\$220
6	\$305	\$250

A change is coming...

ABNA is soon to have a new online home! Behind the scenes, the ABNA management committee have been working with the support of ABN-Oncology to finalise a new website that includes increased resources for biobankers and revitalised Tissue Specimen Locator.

Launch of the new page is intended for the next month and we look forward to receiving feedback from our membership!

Qualification in Biorepository Science

Upon meeting specific educational and experience requirements for the qualification, candidates will be eligible to complete an online examination and, if successful, gain recognition for their skills and competencies as biobankers. This new qualification will further advance the field of biorepository science. Biobanks are vital to medical research and precision medicine and require qualified professionals to obtain high quality results that will be useful in advancing biomedicine.



**QUALIFICATION in
BIOREPOSITORY SCIENCE**
a partnership between ISBER and ASCP



**ISBER and the ASCP BOC
are pleased to announce
a new Qualification in
Biorepository Science!**

Eligibility requirements are now available!
For more information on requirements,
topic outline, reading list, and more, visit:
www.isber.org/qualification

**Application for this qualification
is available online now!**

Application Fee: \$240

Please visit www.isber.org/qualification for more information on eligibility, applications, FAQs, and more!

Helicobacter pylori biobank

Dr Alfred Tay

In 1983, Professor Barry Marshall and Professor Robin Warren discovered the causative agent of gastric diseases, *H. pylori*, and were awarded the Nobel Prize in 2005. After almost 40 years of great work, Australia has become one of very few countries in the world to have very low prevalence of *H. pylori* (around 10-15%). This outcome has directly led to a significant decrease of gastric cancer in Australia. Although there are around 1 million new gastric cancer cases reported annually worldwide, Australia has only approximately 2200 new cases reported annually. As a result, Australia has frequently been used as an example to demonstrate the benefit of eradicating *H. pylori*.



In 1997, due to the limitation of research capacity at that time, Professor Barry Marshall started his own biobank to collect stomach biopsies from his patients for

future research purposes, some of which preserved the very original *H. pylori* strains. To date, Professor Barry Marshall has collected ~3,000 stomach biopsies and ~1,500 *H. pylori* pure isolates. Some basic metadata collected include gender, age, birthplace, endoscopy report, histology report, treatment history, antibiotic resistance profile of *H. pylori* and typing of *H. pylori* strain.

Prior to 2005, the biobank focused on any patient undergoing endoscopy examination following presentation with gastric disease. As a result, many stomach biopsies collected during this time were negative of *H. pylori* (Figure 1). Since 2005, this strategy has been revised to focus on patients with confirmed *H. pylori*. In the past decade, due to the rise of antibiotics resistance cases, Professor Marshall switched his focus on to multi-drug resistant strains.

The *Helicobacter* Research Laboratory and biobank, are situated within the University of Western Australia – Marshall Centre of Infectious Disease and Training and are currently managed by Dr Alfred Tay. In 2010 Dr Alfred Tay joined the team to facilitate the *H. pylori* genome sequencing project, focusing on maternal transmission of *H. Pylori* and it's associations for studying study historic human population structure based on geographical regions.

Perth, not only that it is the most isolated city in the world, it is also a migrant city populated by people from all around the world. As the local *H. pylori* prevalence decreased, most of the multi-drug resistant strains were imported from foreign countries (Figure 2). As a result, this biobank has a good collection of *H. pylori* strains from all around the world. The metadata of the patients and the antibiotic resistant profile of the *H. pylori* strains have become a powerful surveillance tool to monitor the progress of global antibiotic resistance in *H. pylori*.

40 years since discovery, it's still unclear as to why only 1% of those who are infected with *H. pylori* develop cancer. The mechanism of how this occurs remains unclear. Many scientists have proposed that links between different CagA and VacA toxin genotypes may have contributed to the cancer development, however there is still not enough clinical evidence to support the claim. As a result, this biobank has the potential to become very important for comparative studies, providing specimens storied from 20 years ago.

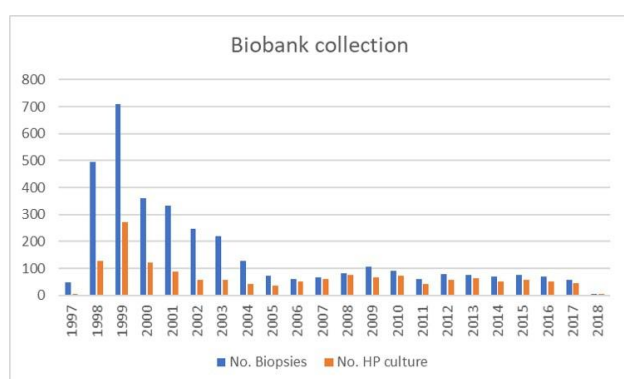


Figure 1. Report of annual collection of stomach biopsies and *H. pylori* culture

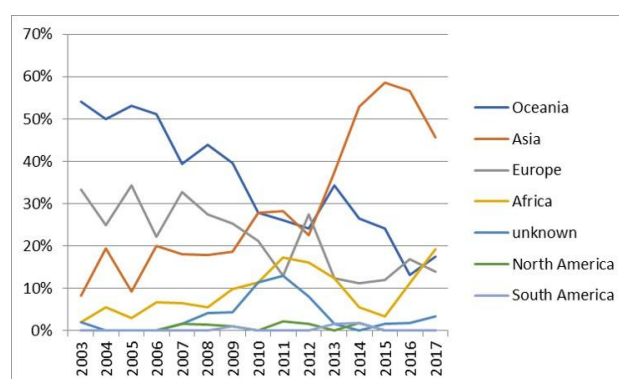
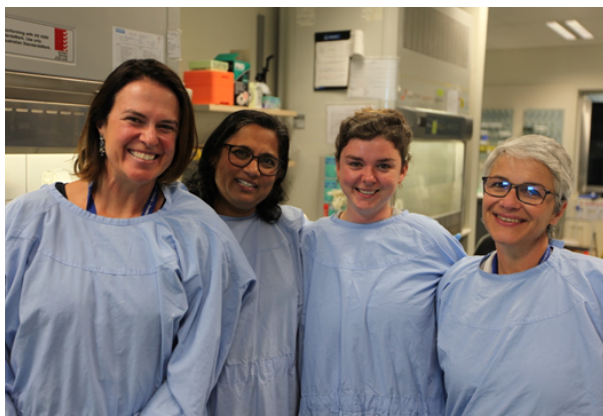


Figure 2. Report of annual patient's ethnicity proportion

St Vincent's Centre for Applied Medical Research Biorepository

Kate Merlin



SVH AMR Biorepository Clinical Trials Laboratory Processing team, from left: Kate Merlin, Sri Meka, Shannen Butterly and Bertha Fsadni

The St Vincent's Centre for Applied Medical Research Biorepository was established in 2010, our goal is to provide the St Vincent's Hospital Darlinghurst Research Precinct with expertise and infrastructure to help facilitate biobanking in biomedical research and clinical trials to aim for the best possible outcome for patients.

Strong foundations for the biorepository were provided by the extensive collections of blood and tissue derivative biospecimens collected, processed and stored from individuals living with HIV who generously and actively participated in clinical research projects. Existing collections date back to the mid 1990's. Research has since expanded to viral Hepatitis and other emerging infectious diseases (influenza, tuberculosis, sexually transmissible infections).

The collections are primarily (but not limited to) serum, plasma and viably cryopreserved Peripheral Blood Mononuclear Cells, vital for immunological research. The contributions to the biorepository are received through a variety of established and recognised local, national and international networks, including large scale multicentre, observational, epidemiological and clinical research studies.

Senior HIV/Immunology research and operational leaders at St Vincent's in Sydney recognised very early on the importance of high quality, comprehensive biospecimen storage. This acknowledgement and support has meant that we have been able to maintain a highly proficient technical team as well as purchase and maintain the ultracold equipment necessary to house the biospecimens that enter and leave the facility. In the mid 2000's it became obvious as the collections grew that the spreadsheet inventories we were using to track the vials and their usage were becoming unwieldy so an inhouse ORACLE database was commissioned and built. The database is now a focal point for inventory work, activity monitoring, cost recovery and remote site data collection. We have the support of a database coordinator which has proved to be essential for adjusting to new challenges. At around the same time that we offered biorepository style services to the wider precinct we also implemented a cost recovery billing system to support our labour and equipment costs and also to encourage researchers to carefully evaluate the utility of proposed future biospecimen storage.

Our history of working under PC2 and PC3 conditions with biospecimens known to contain pathogens meant that we were in a strong position to provide processing and cryopreservation services for SARS-CoV-2 clinical research studies offered at St Vincent's and thus we have experienced a very busy period of activity in the first half of 2020! It was gratifying to witness the sharing of resources and collegiality displayed by both ABNA, ISBER and the biobanking community in general in the early stages of this pandemic. The ISBER Town Hall – April 15, 2020 available as a recording on the ISBER website is very informative and (as previously referenced in Bio-babble), we found the following resources useful (check for updates).

<https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html>

[https://www.who.int/publications/i/item/laboratory-biosafety-guidance-related-to-coronavirus-disease-\(covid-19\)](https://www.who.int/publications/i/item/laboratory-biosafety-guidance-related-to-coronavirus-disease-(covid-19))

Enquiries / feedback welcome, and, keep washing your hands!

Kate Merlin, k.merlin@amr.org.au



**ST VINCENT'S
CENTRE FOR APPLIED
MEDICAL RESEARCH**



ISBER 2020 Virtual Symposium
In Partnership with UHN Biospecimen Services
October 22 – 23, 2020

ISBER and UHN Biospecimen Services, Canada have partnered to provide a two day virtual symposium for the international biobanking community. The symposium will include interactive educational sessions, networking opportunities, abstract presentations, and an exhibit hall.

The meeting will feature presentations on utilization, informatics and big data, liquid biopsies, microbiome, patient engagement and consent, and biobank sustainability and business planning.

For more information, visit: <https://www.isber.org/page/ISBER2020Symposium>

Regular Registration	\$75 USD - member
	\$75 USD - UHN Staff*
	\$125 USD - non-member
Student/Technician**	\$50 USD - member
	\$100 USD - non-member





isber2020

Educational Program Series

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**PROVIDING THE CONTENT FROM THE ISBER 2020 ANNUAL
MEETING VIRTUALLY AS LIVE, INTERACTIVE SESSIONS**

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<https://www.isber.org/page/isber-2020>

Biobanks have been portrayed as having the promise to unlock biological processes and promote a better tomorrow. Following the advent of the human genome project, biobanks have become the bedrock to accelerating scientific discoveries. Stemming from the success stories is a blueprint that places the biobank community at the forefront of research infrastructure for many generations to come.

Global leaders and disruptors were set to converge in April, 2020 at the largest international biobank conference, the ISBER 2020 Annual Meeting & Exhibits, to address the impact of biobanks on science and how the related discoveries are establishing a roadmap to extend our knowledge network. Unfortunately, the ISBER 2020 Annual Meeting & Exhibits was cancelled as a result of the SARS-COV-2 (COVID-19) pandemic.

The goal of the ISBER 2020 Educational Program Series is to provide as much of the educational content from the ISBER 2020 Annual Meeting virtually as possible. While this series incorporates a large proportion of the invited speakers and abstract presenters scheduled to present in Anaheim, it does not include every scheduled speaker and session.

Registration	ISBER Member	Non-Member
Full Educational Series*	\$200	\$350
Full Educational Series* – Student/ Technician	\$120	\$210
Single Webinar	\$50	\$75
Corporate Session	Free	Free
Workshops, Contributed Paper Sessions, and Round Table Discussions	<i>Only accessible to individuals registered for the full educational series.</i>	

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

Content deadline for September 2020 edition: 18.09.20