

2020

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## **BIO-BABBLE**

AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION NEWSLETTER JUNE 2020

## ABNA Annual Conference & Membership update

The 2020 ABNA Conference Organising Committee has made the difficult decision to postpone ABNA's 18th Annual Conference. The conference will now run from Wednesday 20th to Friday 22nd October 2021.

Although travel restrictions may have eased by the original October 2020 conference dates, with many institutions experiencing financial difficulties we are acutely aware that funding for travel and conferences may not be as readily available for the latter part of this year and feel postponing the conference to Oct 2021 is the correct decision.

The conference host city Perth, remains unchanged as does the venue at the Rendezvous Hotel, Scarborough with panoramic views out over the Indian Ocean. We look forward to welcoming our members and corporate sponsors to Perth in 2021 for Biobanking - Blue Sky Horizons.

ABNA is pleased to announce a new structure for member pricing which will allow an increased number of staff from one biobank to be included on an institutional membership.

Membership allows access to the members section of the ABNA website, the monthly Bio-Babble newsletter delivered to your inbox and member registration rates for the annual conference.

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

ABNA member biobanks will also be listed on the new ABNA website with a link back to their homepage - more information on the website rebuild will be available soon.



## **Biomarker Insights Special Collection**

A reminder to ABNA members that Professor Jennifer Byrne as Editor-in-Chief of the journal Biomarker Insights along with Professor Peter Watson are co-editing a new Special Collection on "Biobanking for Biomarker Research - Future Planning, Future Proofing". Click on the banner below to take you directly to the journal submission page which includes the manuscript submission guidelines for this collection.



From Prof Byrne: "As biobankers, you're all aware that biobank planning is crucial to ensure the effective support of biomarker and other forms of medical research. At the same time, biobanks may be asked to adapt to urgent challenges in biomarker discovery, such as those presented by the COVID-19 pandemic. The dual challenges of forward planning for biobanks, combined with the need for operational flexibility, have rarely been discussed within the biobanking or biomarker research literature. We are therefore inviting submissions that describe original research, case studies or review articles to add to the current body of knowledge on biobank planning to meet future biomarker research needs."

Following initial triage, suitable manuscripts submitted to this Special Collection will be peer reviewed before publication. Manuscripts accepted to this collection will receive a 50% discount off the article processing charge. The current deadline for manuscript submissions is 31 October 2020.

You are welcome to contact Prof Byrne at jennifer.byrne@health.nsw.gov.au with your ideas for possible submissions.

ABNA encourages Australasian biobanks to be represented in this collection.

## **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.

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



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

## A Group Experience of Participation in IBBL Proficiency Testing

By Li Zhou, Louise Ludlow, Sarah Purdy, Mellissa Maybury, Daniel Kilmartin, Lylee Ye, Aysen Yuksel, Dan Catchpoole

Four paediatric tumour banks engaged in the IBBL Proficiency Testing (PT) program to verify the precision, accuracy and efficiency of the biospecimen processing methods both individually and as a group. We see increased consistency between our biobanks as a means to improve our service provision to children's oncology clinical trials across Australia.

Details of participation in the PT program are shown in the box to the right.

Post registration, for each scheme we received standardised samples produced and shipped by IBBL which were then extracted at each biobank using their own routine methods. Each PT scheme provides a Processing Item Information Sheet which identifies processing requirements, scheme specifications and the data points required at submission from each biobank.

The report from IBBL includes:

- general information
- general statistics
- data analysis of results
- evaluation of performance

#### **PARTICIPATION DETAILS**

#### SITES:

The Children's Hospital at Westmead Tumour Bank (CHWTB) Children's Cancer Centre Tissue Bank (CCCTB) Children's Cancer Institute Tumour Bank (CCITB) Queensland Childrens Tumour Bank (QCTB)

#### SCHEMES:

DNA Extraction from Whole Blood (DNA scheme) Total RNA Extraction from Frozen Tissue (RNA scheme) Viable PBMC Isolation (PBMC scheme)

#### COST:

\$316 per scheme per biobank (funded by ANZ-CHOG Tourde-Cure mini grant) \$2400 shipping (funded by CHWTB)

#### TIMELINE:

08-2019: Registration 10-2019: Samples arrive at CHWTB Distribution to participating sites 11-2019: Sites return derived samples to CHWTB Online data submission Derivatives returned to IBBL 02-2020: Results & certificates received

	DNA scheme	RNA scheme	PBMC scheme
# Countries:	24	10	13
Total # facilities:	50	19	31
Not specified	40	14	26
Hospital	5	5	4
Private laboratory	1	0	1
University	4	0	0
Extraction technique:			
Automated	52%	26%	0%
Manual	48%	74%	100%
Parameters tested:	Total DNA yield	Total RNA yield	Isolated Viable PBMC Yield
	260/280 ratio	230/260 ratio	Isolated PBMC Viability
	ds DNA yield	RNA integrity	Isolated PBMC Apoptosis/Necrosis
	DNA integrity		IFN-gamma ELISPOT assay
	DNA amplifiability		(CPI, CEF, PHA)

Table 1

Snapshot of the worldwide sites in this round of PT for each of the three schemes the paediatric biobanks participated in. Included is a breakdown of the types of participating facilities, the level of automation and the parameters tested in each scheme.

Basic statistical procedures were used to calculate the efficiency of each schemes participants. For each of the parameters listed in Table 1, the mean of all participants was taken as the assigned value. The standard deviation was the standard deviation of all the participants, and a scoring system based on deviation from the assigned value was then assigned for each parameter (z score). This scoring system highlights the proficiency of participants to obtain higher yield and integrity than the consensus mean.

### A Group Experience of Participation in IBBL Proficiency Testing

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Advice and educational feedback to us as participants was available on demand. A history of the z scores generated are made available for future scheme participation and will allow us to track our performance.

Scatter plots were provided for all assessed parameters in each scheme (listed in Table 1) which allowed us to compare our results as a group to all other participants and within our own group (see Figure 1).



Figure 1 A scatter plot for DNA 260/280 ratio z scores (x-axis) for all participating sites (y-axis). The four paediatric banks are shown within the red box.

In general our results have indicated that:

- all four paediatric biobanks are competent in all three schemes compared to the total participants - both DNA and RNA purity and integrity showed minimal variation within all four of our biobanks three of our biobanks submitted a low yield on DNA when compared to the average of all participantsworldwide (which is consistent with the silica membrane-based used in these labs compared to the anion exchange chromatography-based method)

- only one of our biobanks achieved a high RNA yield compared to average of all participants

One notable variation identified that PBMC viability in one biobank was significantly lower than the average of not only the paediatric biobanks but all participants worldwide. Consultation within our four biobanks along with PT experts at IBBL led to a review of the SOP from this biobank and key differences in cell counting methodology and centrifugation braking were pinpointed as potential differences leading to this discrepancy. As a result the SOP has been updated with the findings and will be reviewed again in 3 months time as part of a larger quality assurance self-audit.

This is the first time that multiple banks from a biobank network participated in an external quality assurance program together. The experience offered an opportunity for each biobank to identify any problems in their practice, improve performance and decrease discrepancies within the network. In addition, it has significantly strengthened the relationship and collaboration between the biobanks that participated. More consistent procedures and better quality samples promotes our paediatric biobanks as a valuable united resource to the international paediatric oncology research community. We are working together toward success!

More information on IBBL's PT program can be found at: https://www.ibbl.lu/ibbl-bioservices/biospecimen-proficiency-testing/



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

Content deadline for July 2020 edition: 24.07.20





# REGISTER NOW!

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

## 2020 Educational Program Series REGISTRATION NOW OPEN!

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 Only accessible to individuals registered for the full educational series.