2017 isber ANNUAL MEETING

TORONTO, CANADA

Due North: Aligning Biobanking Practice with Evolving Evidence and Innovation

MAY 9-12, 2017

WESTIN HARBOUR CASTLE HOTEL

SCIENTIFIC PROGRAM

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INTERNATIONAL SOCIETY FOR BIOLOGICAL AND ENVIRONMENTAL REPOSITORIES

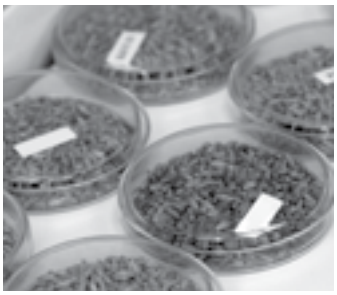
ISBER 2017 ANNUAL MEETING & EXHIBITS

Due North: Aligning Biobanking Practice with Evolving Evidence and Innovation

May 9 – 12, 2017 • Toronto, Canada

ISBER MISSION

ISBER is a global biobanking organization which creates opportunities for networking, education, and innovations and harmonizes approaches to evolving challenges in biological and environmental repositories.



ISBER VISION

ISBER will be the leading global biobanking forum for promoting harmonized high-quality standards, education, ethical principles, and innovation in the science and management of biorepositories.

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MESSAGE FROM THE SCIENTIFIC PROGRAM COMMITTEE AND PRESIDENT

Dear colleagues and friends,

On behalf of the International Society for Biological and Environmental Repositories (ISBER) Board of Directors and the Co-Chairs of the 2017 Annual Meeting and Exhibits, we welcome you to Toronto, Canada's largest and most vibrant city.

The city is home to a diverse population and is widely recognized as one of the most multicultural and cosmopolitan cities in the world. The city's focus on innovation and diversity makes it the perfect place to host the 2017 ISBER meeting. To reflect this, the Scientific Program Advisory Committee chose **"Due North: Aligning Biobanking Practice with Evolving Evidence and Innovation"** as the meeting theme.

Biobanking activity has grown tremendously in the last twenty years and the fruits of the collective labour have started to emerge. Developments in medical, environmental, microbial and veterinary fields have benefitted hugely from the knowledge, experience and activity of biobanks around the world. Biospecimen research and biobanking has been instrumental in facilitating new discoveries, the implementation of new processes and creating innovative ways of approaching and solving problems. The challenge now is to keep biobanking current and relevant by learning from the successes (and failures) and evolving to change biobanking practice when the evidence supports a shift. Even in the face of compelling evidence or new innovations, change can be a challenge… but to improve, the biobanking community needs to learn from and build on the evidence presented. When we 'know better', how do we 'do better'?

Over the past year, the Scientific Program Committee has worked hard to ensure the Annual Meeting delivers interesting, innovative and educational content relevant to all members to cater to all of ISBER's stakeholder groups. Bringing together the diverse global biobanking communities in discussion and introducing new biobankers to ISBER will advance not only the Society and the field of biobanking and biospecimen research, but the global research capabilities.

Program Highlights

For the first time, the 2017 Annual Meeting is incorporating the topic-driven educational workshops as part of the main conference program. These workshops are now complimentary to attend for all conference registrants. The workshops are designed to inform attendees about specific types of repository activities and will open up great learning and knowledge exchange opportunities.

The program includes seven symposia sessions, four contributed paper sessions, an Innovative Technologies session and opportunities to attend workshops and symposia run by ISBER's Corporate Partners. In addition, at lunchtime on Tuesday there will be roundtable discussions where you can join the conversations around various biobanking hot topics, including an update on the changes to the US Common Rule. Additional networking opportunities include: discussions with vendors in the large exhibition space, interactions with poster presenters, and relaxing social time, including a gala evening on Thursday. The ISBER Working Groups and Committees have the opportunity for in-person meetings, with pre-scheduled meeting times and room bookings for groups to get together and discuss and move forward their exciting work. We welcome your participation in the ISBER Working Group discussions.

The symposia, which have invited speakers from across the biobanking communities, have been developed to give the foundation for exciting discussions of ideas and innovative solutions. Symposium 1, entitled 'Polar Shift: How Biobanking is Changing our Thinking and the World' showcases four diverse projects from different corners of the biobanking world. It launches the conference on Tuesday and focuses on projects that have biobanking as a key component to their success. We hope that sharing their lessons learned with the wider scientific community can support pushing back the boundaries of scientific knowledge.

Dr. Hannes Dempewolf from the Global Crop Diversity Trust is our keynote speaker. His talk will describe the work being done at the Trust to conserve and make available the diversity of plants that underpins the global food supply.

The other talks in the plenary will give fascinating insight into three projects and include: an overview of major findings from the TCGA, what we've learned, and how that can be brought back to the care of individual patients; an introduction to the MetaSub project and how this catalog of microbiological specimens is generating a deeper understanding of our urban biome and related data , informing us on how to design and build "smarter" cities; and how NASA has implemented a biobanking program for capturing specimens from both its astronauts and plant/animal species in orbit.

Symposia 2A and 2B will run concurrently on Tuesday afternoon. Symposium 2A addresses the practical aspects of returning research results to participants and Symposium 2B focuses on the use of liquid specimens to pave the way for new, less invasive research and diagnostic methodologies.

The Special Topic session will describe the new methodologies and techniques being developed in 'Emerging Tools for Biobanking and Biospecimen Research.' It will highlight three tools, their impact on research, and strategies for incorporating these new innovations into biobank operations. The audience will benefit from a discussion on how each tool may be adapted to or used by other projects.

On Wednesday morning Symposia 3A focuses on social sustainability of biobanks within their stakeholder communities and running concurrently, Symposia 3B addresses biospecimen quality needs for next generation sequencing technologies.

On Friday morning, we open with two concurrent symposia. Symposium 4A takes a fascinating look at responses to emerging global threats in Low and Middle Income Countries and highlights the involvement of biobanks in those response efforts. Symposium 4B is all about data and novel data exploitation to drive research and maximize the use of biospecimen collections.

Working Group meetings and Contributed Papers sessions

There are four contributed papers sessions during the program. From the 201 submitted abstracts, 24 were selected for oral presentations in the two concurrent sessions and an additional nine abstracts will be presented in the Innovative Technologies session. Two poster sessions will highlight the 162 abstract topics that were accepted as posters, and these will be on display in the Exhibit Hall. The contributed papers sessions and posters demonstrate the diversity of activity across the ISBER membership and give a flavour of the international expertise and breadth of biospecimen research that takes place around the world.

The ISBER Working Groups and Special Interest Groups are scheduled to meet during the conference. Please feel free to join any of the open sessions listed in the program and consider joining the groups in discussions throughout the year, between our annual meetings.

5K Fun Run/Walk/Sleep

The 6th Annual Fun Run/Walk/Sleep has been organized by the ISBER Membership and Marketing Committee and will take place along the harbour on Queen's Quay, beginning at 6am on Wednesday. All proceeds from the 5K Fun Run will be used to benefit the ISBER Travel Award, which provides complimentary registration and travel support for biobankers from low and middle-income countries to attend the ISBER Annual Meeting. Register for the Fun Run/Walk/Sleep at the registration desk on-site and join us for an invigorating start to Wednesday.

Gala Evening

The Gala Evening will take place in Toronto's 'majestic castle', Casa Loma on Thursday evening. The event will provide great networking opportunities in a beautiful setting, with dinner and musical entertainment. Separate registration is required.

ISBER Business Meeting

The ISBER Annual Business Meeting on Friday afternoon will give you a chance to find out about our society's achievements from the last year and a look forward to the exciting developments ahead. ISBER President, Brent Schacter will also announce the results of the recent elections for President Elect, Directors-at-Large, Treasurer and Secretary roles. He will also present the annual awards: the ISBER Distinguished Leadership and Service Award, the ISBER Special Service awards, the ISBER Award for Outstanding Achievement in Biobanking (sponsored by Worthington Industries), the ISBER Founder's Award (sponsored by Chart MVE), the ISBER Travel Award and the 5K Fun Run/Walk/Sleep trophy.

Acknowledgements

Many thanks are due to the members of the ISBER 2017 Scientific Program Committee, the Organizing Advisory Committee and the ISBER Head Office staff for the huge amount of input and effort over the last year that has resulted in the great program that you will experience. The Chairs and members of the Education and Training Advisory Committee and the Membership and Marketing Committee have worked hard to organise the workshops, the 5K Fun Run and

the Exhibition. We thank our invited speakers and workshop presenters for their contributions to the program.

We greatly appreciate the support from our vendors, sponsors and Corporate Partners, without whom the Annual Meeting would not be possible. Please do visit the Exhibition Hall to support the vendors and check out the Corporate Partner workshops throughout the schedule.

Your feedback is very important to ISBER. The Annual Meeting is run by the membership, for the membership and the success of future Annual Meetings relies on your participation and input. Please fill out the survey that will be sent to you at the end of the week and help shape future meetings.

On behalf of the ISBER leadership, we welcome you to Toronto and hope you have an enjoyable, interesting and stimulating four days.

Monique Albert

Co-Chairs of the ISBER 2017
Scientific Program Advisory Committee

Alison Parry-Jones

Brent Schacter, MD FRCPC

ISBER President
2016-2017

Join us for an exciting evening at Casa Loma!

Enjoy dinner and network with your colleagues.

Date: Thursday, May 11, 2017
Time: 7:00pm – 11:00pm
Venue: Casa Loma

Tickets available at Registration Desk
Ticket Price: $75 USD*

Transportation will be provided to from the Westin Harbour Castle Hotel to Casa Loma.
Please meet at in the hotel lobby at 6:45pm. **All prices subject to 13% Harmonized Sales Tax*

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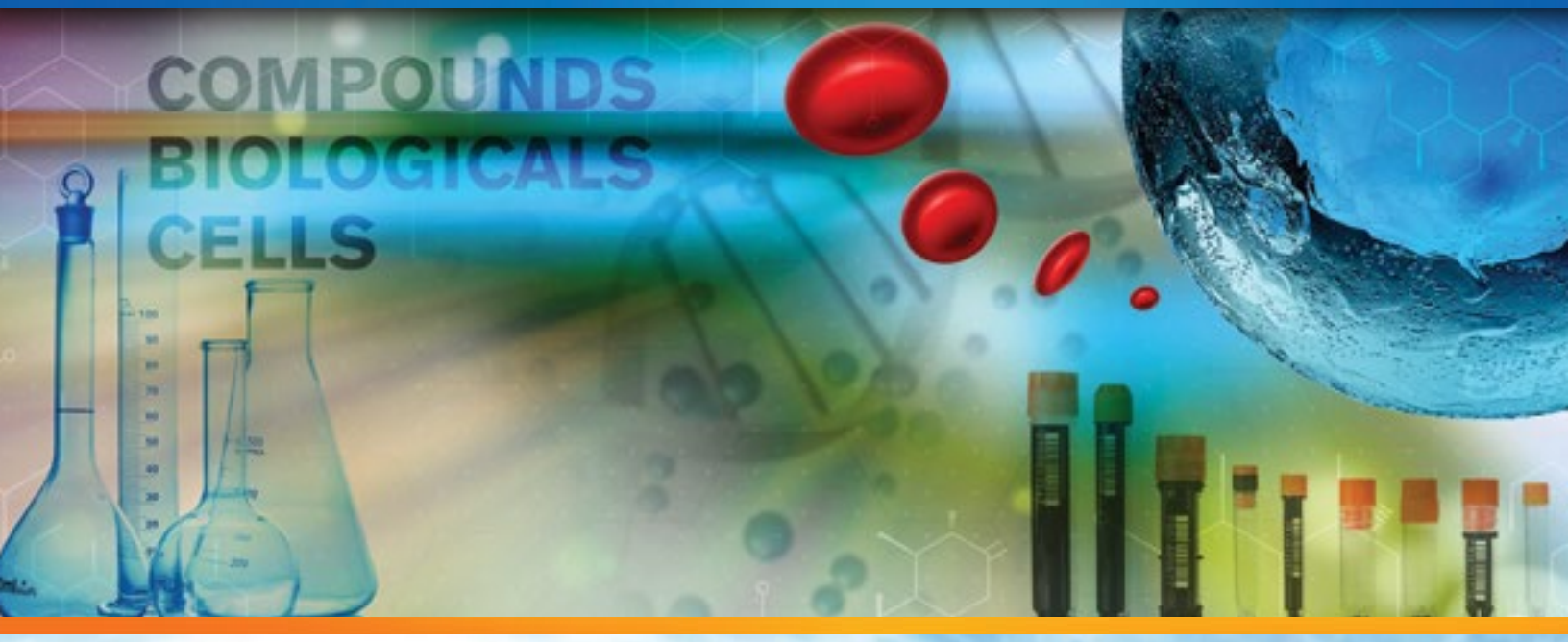
ISBER WORKING GROUPS

- Biospecimen Science
- Enviro-Bio
- Informatics
- Integrated Biobanking Workflows
- International Repository Locator
- Pharma
- Public Education
- Rare Diseases
- Regulatory and Ethics
- Trans-Omics

SPECIAL INTEREST GROUPS

- Automated Repositories
- CSF Biobanking
- Hospital-Integrated Biorepositories
- Management of Investigator-Returned Research Results



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ISBER 2017 AWARD WINNERS

ISBER Award for Outstanding Achievement in Biobanking

WORTHINGTON INDUSTRIES

The ISBER Award for Outstanding Achievement in Biobanking, sponsored by Worthington Industries, is designed to recognize individuals who have made outstanding contributions to the field of biobanking. The award can be given for a single outstanding achievement or a life-time body of outstanding work in the field.

Allison Hubel (USA)

ISBER Founder's Award

SECURITY THROUGH MVE SYSTEMS

The ISBER Founders Award, sponsored by Chart MVE, recognizes individuals who have provided outstanding leadership to the founding, support, and incorporation of ISBER as an international biobanking society.

Phil Baird (USA)

ISBER Distinguished Leadership & Service Award

This award is designed to honor ISBER members who have demonstrated exceptional leadership to further the mission and goals of the society and/or significant, long-standing contributions to the society.

Katherine Sexton (USA)

ISBER Special Service Award

The ISBER Special Service Awards recognize individuals who have made exceptional contributions towards the goals of the Society through the performance of a special service or act on behalf of the organization.

Debra Garcia (USA)

Daniel Simeon-Dubach (Switzerland)

ISBER Travel Award

The ISBER Travel Award provides travel support for individuals from emerging countries who are planning, or are currently managing, a repository to attend the ISBER Annual Meeting.

Rogers Kisuule (Uganda)

GENERAL INFORMATION

Venue

Westin Harbour Castle Hotel
1 Harbour Square
Toronto, ON M5J 1A6
Canada

MEETING DATES: MAY 9 – 12, 2017

Conference App

Download the 2017 Conference App and get access to all the conference information and the latest updates. Scan the QR Code at left to download the app or search for 'ISBER 2017' in your device's app store.

Symposium 3A - Spotlight on Innovation in Social Sustainability: Developing Evidence-Driven Best Practices in Biobanking will utilize an interactive survey through the ISBER 2017 mobile app – be sure to download the app in advance to participate!

Conference Registration

Metropolitan Foyer

Monday, May 8	4:00pm – 7:00pm
Tuesday, May 9	6:30am – 6:30pm
Wednesday, May 10	7:00am – 6:00pm
Thursday, May 11	7:00am – 5:30pm
Friday, May 12	7:00am – 4:00pm

Speaker Services

Queens Quay

Monday, May 8	4:00pm – 7:00pm
Tuesday, May 9	7:00am – 5:00pm
Wednesday, May 10	7:00am – 4:30pm
Thursday, May 11	7:00am – 4:15pm
Friday, May 12	7:00am – 1:30pm

Exhibits

Metropolitan Ballroom

EXHIBIT INSTALLATION:

Tuesday, May 9	4:00pm – 8:00pm
Wednesday, May 10	7:00am – 4:15pm

EXHIBIT TAKEDOWN:

Friday, May 12	2:30pm – 8:00pm

EXHIBIT HOURS:

Wednesday, May 10	5:15pm – 7:30pm
Thursday, May 11	9:00am – 6:30pm
Friday, May 12	9:15am – 2:30pm

Annual Meeting Registration (Prices in USD)

	Regular Rate	On-Site Rate
Member	$930	$1,055
Non-Member	$1,230	$1,355
Technician/Student	$680	$700
One Day Pass	$500	$500
Exhibit Hall Pass	$395	$395

Please note: All rates are subject to 13% Ontario Harmonized Sales Tax.

FULL CONFERENCE REGISTRATION:

Includes participation in all scientific sessions, educational workshops, delegate bag, refreshments and conference meals and networking evenings.

EXHIBIT HALL PASS:

Access to the Exhibit Hall, conference meals served in the Exhibit Hall, and access to the Exhibitor and Poster Networking Evenings.

EDUCATIONAL WORKSHOPS
(Pre-Registration Required)

See page 48 for workshop presentation summaries.

WEDNESDAY, MAY 10 – 3:00PM - 4:00PM

- Educational Workshop 1: Thinning the Collection - can biobanks ever discard samples?
- Educational Workshop 2: Limitations affecting the Use of Human & Animal Tissues in Research: What the Literature Tells Biorepositories
- Educational Workshop 3: Business Planning for Biobanking

THURSDAY, MAY 11 – 11:30AM - 1:00PM

- Educational Workshop 4: Commercialization and Access and Benefit-Sharing Part 1: Public and Community Perspectives on Sample Use
- Educational Workshop 5: The Practice (and Art) of Biospecimen Governance
- Educational Workshop 6: First, Do No Harm: Best Practices and Regulatory Requirements when Procuring Tissue Specimens in the Clinical Setting

THURSDAY, MAY 11 – 1:45PM - 3:30PM

- Educational Workshop 7: Commercialization and Access and Benefit-Sharing Part 2: Private & Legal Perspectives and Commercialization Use Cases
- Educational Workshop 8: Public Education about Biobanks
- Educational Workshop 9: Best Practices for Storage Equipment and Environment

5K FUN RUN/WALK/SLEEP WALK
(Separate Registration Required)

- Date: Wednesday, May 10, 2017
- Time: 6:00am – 7:30am
- Location: Toronto Harbour area
- Ticket Price: $30 USD for Pre-registration, $40 USD for On-site registration

Participants will walk from the Westin Harbour Castle Hotel to the run site. Please meet in the hotel lobby at 5:45am.

ISBER GALA EVENING
(Separate Registration Required)

- Date: Thursday, May 11, 2017
- Time: 7:00pm – 11:00pm
- Venue: Casa Loma
- Ticket Price: $75 USD

Transportation to and from the venue will be provided. Please meet in the hotel lobby by 6:30pm.

Tickets are available at Registration Desk.

Please note: All prices subject to 13% Harmonized Sales Tax

CERTIFICATES OF ATTENDANCE:

All attendees will receive a certificate of attendance by email after the meeting.

WIFI

Hotel guests have access to complimentary WiFi included with their stay.

Non-hotel guests can access WiFi in the meeting areas by connecting to the network **Westin-MeetingRoom**. The password is **ISBER17**.

PLENARY SESSION WEBCAST

Please note that the Plenary Session on Tuesday, May 9, 2017 will be broadcasted live and recorded.

The webcast can be viewed at:

https://livestream.com/fmav/isberc2017

on Tuesday, May 9 from 9:15am - 12:15pm EDT.

Use the hashtag #ISBERLIVE on Twitter and Facebook to participate in the conversation!

POSTER PRESENTATION INFORMATION

SESSION 1

Poster Set up: Wednesday, May 10	2:30pm – 3:30pm
Presentation: Wednesday, May 10	5:30pm – 7:30pm
Poster Take down: Thursday, May 11	10:45am – 11:45am

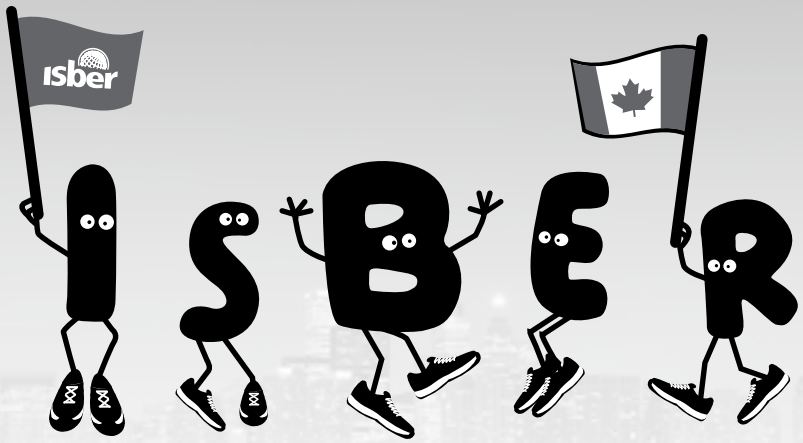
SESSION 2

Poster Set up: Thursday, May 11	11:45am – 12:45pm
Presentation: Thursday, May 11	5:00pm – 6:30pm
Poster Take down: Friday, May 12	1:15pm – 2:30pm

Session 1
Biodiversity/Environmental/Animal Repositories
Biobanking Profiles
Biospecimen Research and Science
Ethical, Legal, and Social Issues
Human Specimen Repositories
Biobanking Education Tools

Session 2
Hot Topics
Repository Automation Technology
Repository Management
Repository Standards
Late-Breaking

SIGN UP FOR THE 5K FUN RUN AND HELP RAISE FUNDS FOR THE ISBER TRAVEL AWARD!



NOT A RUNNER? JOIN THE GROUP TO WALK OR SIGN UP TO SLEEP IN!

All proceeds will be used to fund the ISBER Travel Award winner.

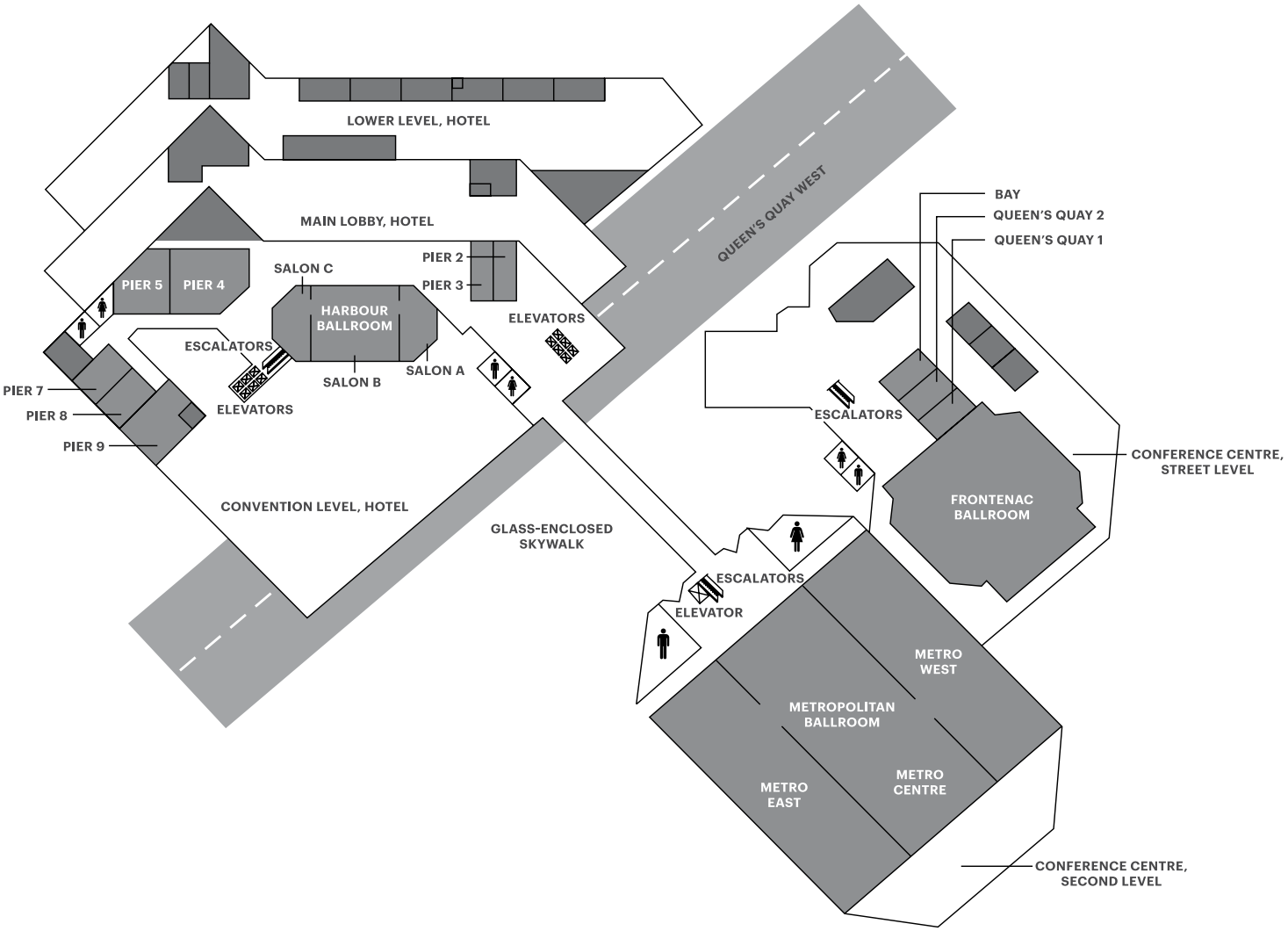
Date: Wednesday, May 10, 2017
Time: 6:00am – 7:30am
Location: Toronto Harbour area

Tickets available at Registration Desk
Ticket Price: $30 USD for Pre-registration,
$40 USD for On-site registration

Please meet at the Westin Castle Harbour Hotel lobby to be escorted to the starting point by 5:45am.
Please note all prices subject to 13% HST.

VENUE MAP

Westin Harbour Castle Hotel
1 Harbour Square,
Toronto, ON M5J 1A6
Canada



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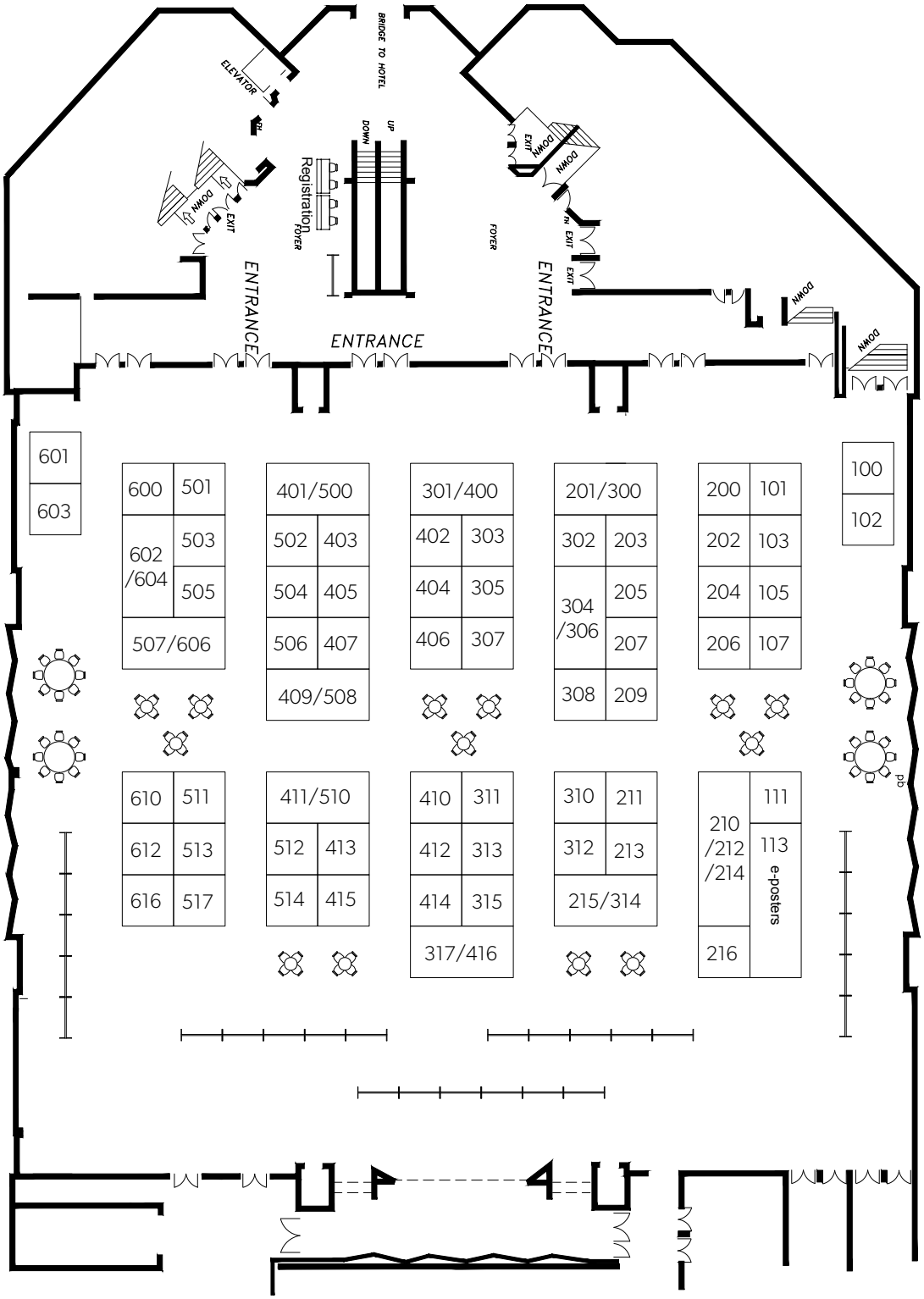
- Global distribution and cold chain supply
- Scalability to fit your needs

Stop by our booth #606/507, or
visit www.atcc.org/biorepository for more information.

ATCC®

EXHIBIT FLOOR PLAN

Metropolitan Ballroom



EXHIBITORS

COMPANY NAME	STAND NUMBER
Abbott Informatics	403
ABS Inc.	200
Agilent Technologies	211
Artificial Intelligence in Medicine	303
ATCC	507/606
Autogen, Inc.	414
Autoscribe Informatics, Inc.	504
BioFortis, Inc.	502
Biologix Group Limited	317/416
Biomatrica, Inc.	603
BioMicroLab, Inc.	616
Biosero	411/510
BioStor Systems, LLC	415
BioTillion, LLC	312
Bluechiip, Ltd.	511
Brooks Life Science Systems	401/500
BSI Systems	301/400
Chart MVE	409/508
CloudLIMS.com	405
College of American Pathologists	313
Core Cryolab	513
Coriell Institute for Medical Research	111
CryoBio System	506
Cryotherm Inc.	315
Custom BioGenic Systems	210/212/214
Datazoom Solutions Inc.	103
ELPRO Services, Inc.	101
Freezerworks	302
GA International, Inc.	402
Genohm, Inc.	204
Greiner Bio-One North America, Inc.	307
Haier BioMedical	517
Hamilton Storage	406

COMPANY NAME	STAND NUMBER
ISBER	602/604
iSpecimen	203
Kairos GmbH	207
KAYE	514
LabVantage Solutions, Inc.	601
LabWare, Inc.	202
LiCONiC AG	304/306
Longhorn Vaccines and Diagnostics	216
LVL Technologies GmbH & Co. KG	311
Mayo Clinic Bioservices	308
Micronic	305
Modul-Bio	612
OpenSpecimen	404
Pacific Bio-Material Management, Inc.	412
Panasonic Healthcare Corporation of North America	610
PerkinElmer	501
Praxair Distribution, Inc.	206
Rees Scientific	512
Retisoft, Inc.	102
RUCDR Infinite Biologics	503
RURO, Inc.	410
Scinomix, Inc.	505
So-Low Environmental Equipment Co., Inc.	205
Stirling Ultracold	107
Technidata America Medical Software	413
TerumoBCT	600
Thermo Fisher Scientific	215/314
Titian Software	213
TTP Labtech	310
TWD TradeWinds, Inc.	407
Worthington Industries	201/300
Z-SC1 Biomedical	100
Zhejiang Sorfa Life Science Research Co., Ltd.	209

AT A GLANCE PROGRAM

MONDAY, MAY 8

8:00am-5:30pm	ISBER Board of Directors Meeting *(Invitation Only)*	***Pier 9***
1:00pm-5:30pm	Marble Arch Meeting *(Invitation Only)*	***Pier 7&8***
4:00pm-7:00pm	Registration / Speaker Services Open	***Metropolitan Foyer/Queens Quay***
5:30pm-7:00pm	Biopreservation and Biobanking Editorial Meeting *(Invitation Only)*	***Dockside 3***

TUESDAY, MAY 9

6:30am-6:30pm	Registration Open	***Metropolitan Foyer***
6:45am-8:45am	Coffee & Pastries	***Harbour Foyer***
7:00am-5:00pm	Speaker Services Open	***Queens Quay***
7:00am-8:00am	Committee Meetings	***Pier 2/Pier 3/Pier 4/Pier 5***
7:30am-9:30am	Coffee and Pastries	***Frontenac Foyer***
8:00am-9:00am	Getting to Know ISBER	***Frontenac***
9:15am-12:15pm	Symposium 1	***Frontenac***
10:15am-10:45am	Coffee Break	***Frontenac Foyer***
12:15pm-1:30pm	General Lunch in the Foyer	***Harbour Foyer***
12:20pm-1:20pm	Roundtable Discussions / Update on the Changes to the Common Rule	***Pier 4&5/Harbour***
1:30pm-4:00pm	Symposium 2A/2B *(Concurrent)*	***Fontenac/Harbour***
2:30pm-3:00pm	Coffee Break	***Frontenac Foyer/Harbour Foyer***
4:00pm-8:00pm	General Exhibitor Installation	***Metropolitan Ballroom***
4:15pm-5:15pm	Special Topics Session	***Frontenac***
5:15pm-6:15pm	Special Interest and Working Group Meetings	***Pier 2/Pier 3/Pier 4/Pier 5***

WEDNESDAY, MAY 10

6:00am-7:30am	5K Run/Walk/Sleep	***Offsite***
7:00am-9:30am	Coffee & Pastries	***Harbour Foyer/Frontenac Foyer***
7:00am-4:30pm	Speaker Services Open	***Queens Quay***
7:00am-6:00pm	Registration Open	***Metropolitan Foyer***
7:00am-4:15pm	General Exhibitor Installation	***Metropolitan Ballroom***
7:45am-8:45am	Platinum Corporate Partner Workshop 1A	***Pier 2&3***
9:00am-12:00pm	Symposium 3A/3B *(Concurrent)*	***Frontentac/Harbour***
10:30am-11:00am	Coffee Break	***Frontenac Foyer/Harbour Foyer***
12:00pm - 1:30pm	General Lunch	***Harbour Foyer***
12:15pm-1:15pm	Lunch Corporate Symposium – Global Specimen Solutions	***Harbour***
1:30pm-2:30pm	Innovative Technologies	***Frontenac***
2:30pm-3:00pm	Coffee Break	***Frontenac Foyer***
2:30pm-3:30pm	Poster Installation for Session 1	***Metropolitan Ballroom***
3:00pm-4:00pm	Education & Training Workshops 1/2/3 *(Concurrent)*	***Pier 2&3/Pier 4/Pier 5***
4:15pm-5:30pm	Contributed Paper Session 1/2 *(Concurrent)*	***Frontenac/Harbour***
5:30pm-7:30pm	Exhibitor & Poster Networking Evening	***Metropolitan Ballroom***

THURSDAY, MAY 11

7:00 am-5:30pm	Registration Open	***Metropolitan Foyer***
7:00am-4:15pm	Speaker Services Open	***Queens Quay***
7:30am-9:15am	Coffee & Pastries	***Harbour Foyer***
8:00am-9:00am	Platinum Corporate Partner Workshops 2A/2B/2C *(Concurrent)*	***Pier 2&3/Pier 4/Pier 5***
9:00am-6:30pm	Exhibit Hall Open	***Metropolitan Ballroom***
9:15am-11:30am	Contributed Paper Session 3/4 *(Concurrent)*	***Frontenac/Harbour***
10:00am-10:30am	Coffee Break	***Metrolpolitan Ballroom***
10:45am-11:45am	Poster Take down for Session 1	***Metropolitan Ballroom***
11:30am-1:00pm	Education & Training Workshops 4/5/6 *(Concurrent)*	***Pier 2&3/Per 4/Pier 5***
11:45am-12:45pm	Poster Installation for Session 2	***Metropolitan Ballroom***
12:45pm-1:45pm	General Lunch in Exhibit Hall	***Metropolitan Ballroom***
1:45pm-3:30pm	Education & Training Workshops 7/8/9 *(Concurrent)*	***Pier 2&3/Per 4/Pier 5***
3:30pm-4:00pm	Coffee Break	***Metropolitan Ballroom***
4:00pm-5:00pm	Platinum Corporate Partner Meeting with Board of Directors	***Pier 7&8***
5:00pm-6:30pm	ISBER 2017 Networking Cocktail Reception	***Metropolitan Ballroom***
7:00pm-11:00pm	ISBER Gala Dinner	***Offsite***

FRIDAY, MAY 12

7:00am-8:00am	Vendor Meeting	***Pier 9***
7:00am-8:00am	Working Group and Committee Meetings	***Harbour/Pier 7/Pier 8***
7:00am-1:30pm	Speaker Services Open	***Queens Quay***
7:00am-4:00pm	Registration Open	***Metropolitan Foyer***
7:45am-8:15am	Coffee & Pastries	***Harbour Foyer***
8:00am-9:00am	Platinum Corporate Partner Workshops 3A/3B/3C *(Concurrent)*	***Pier 2&3/Pier 4/Pier 5***
9:15am-2:30pm	Exhibit Hall Open	***Metropolitan Ballroom***
9:15am-12:15pm	Symposium 4A/4B *(Concurrent)*	***Frontenac/Harbour***
10:15am-10:45am	Coffee Break	***Metropolitan Ballroom***
12:15pm-1:15pm	General Lunch in Exhibit Hall	***Metropolitan Ballroom***
1:15pm-2:15pm	ISBER Annual Business Meeting	***Frontenac***
1:15pm-2:30pm	Poster Takedown for Session 2	***Metropolitan Ballroom***
2:15pm-2:30pm	Coffee Break	***Metropolitan Ballroom***
2:30pm-3:30pm	Working Group Meetings	***Pier 2/Pier 3/Pier 4/Pier 5***
2:30pm-8:00pm	Exhibitor Takedown	***Metropolitan Ballroom***
3:30pm-4:30pm	Committee, Working Group, and Special Interest Group Meetings	***Pier 4/Pier 5/Pier 7/Pier 8***
5:30pm-7:00pm	ISBER Board of Directors Meeting	***Pier 9***

FULL PROGRAM

MONDAY, MAY 8, 2017

8:30am – 5:30pm	**ISBER BOARD OF DIRECTORS MEETING** *(Invitation Only)*	***Pier 9***
1:00pm – 5:30pm	**MARBLE ARCH MEETING** *(Invitation Only)*	***Pier 7&8***
4:00pm – 7:00pm	Registration Open	***Metropolitan Foyer***
4:00pm – 7:00pm	Speaker Services Open	***Queens Quay***
5:30pm – 7:00pm	**BIOPRESERVATION AND BIOBANKING EDITORIAL BOARD MEETING** *(Invitation Only)*	***Dockside 3***

TUESDAY, MAY 9, 2017

6:30am – 6:30pm	Registration Open			***Metropolitan Foyer***
6:45am – 7:30am	Coffee and Pastries			***Harbour Foyer***
7:00am – 5:00pm	Speaker Services Open			***Queens Quay***
7:00am – 8:00am	**COMMITTEE MEETINGS** *(Invitation Only)*			
	Pier 2	***Pier 3***	***Pier 4***	***Pier 5***
	Publications Advisory Committee	Education and Training Advisory Committee	Organizing Advisory Committee and Chairs of the 2017 Program and 2018 Program Committees	Science Policy Advisory Committee
7:30am – 9:15am	Coffee and Pastries			***Frontenac Foyer***
8:00am – 9:00am	**GETTING TO KNOW ISBER** Find out more about ISBER and get the chance to interact with new members. All meeting participants welcome and encouraged to attend. ***Chairpersons: Kathi Shea*** *(USA)* ***and Rita Lawlor*** *(Italy)*			***Frontenac***
9:15am – 12:15pm	**SYMPOSIUM 1 : POLAR SHIFT: HOW BIOBANKING IS CHANGING OUR THINKING AND THE WORLD** ***Chairpersons: Alison Parry-Jones*** *(United Kingdom)* ***and Monique Albert*** *(Canada)* *This session will be broadcasted live in the first ever ISBER webcast! Join the conversation by using the hashtag #ISBERLIVE on Twitter and Facebook.* This plenary session will focus on demonstrating how biobanking has changed, and is still changing the world. The talks will highlight how evidence derived from biobanking, and its associated practices, is shown to be instrumental in new discoveries, new processes, and new ways of thinking that are changing practices in medicine, agriculture and environmental arenas. It's about showing the successes, and lessons learned from the last 20 years that are now informing the wider scientific community and pushing back the boundaries. It's why we're all here…			***Frontenac***
	9:15am – 9:30am	ISBER Welcome and Opening Remarks Brent Schacter, ISBER President, 2016-2017		
	9:30am – 10:15am	Keynote Lecture: A Search & Rescue Mission for the Genes to Feed a Hot and Crowded Planet Hannes Dempewolf *(Germany)*		
	10:15am – 10:45am	Coffee Break		***Frontenac Foyer***
	10:45am – 11:15am	What's Under the Hood? The Hidden Wiring of Tumors Revealed with Pan-Cancer Analysis Joshua Stuart *(USA)*		
	11:15am – 11:45am	Metagenomics Discoveries from Subways to Space Sofia Ahsanuddin, MetaSUB Executive Director *(USA)* on behalf of Christopher Mason *(USA)*		
	11:45am – 12:15pm	The NASA Ames Life Sciences Data Archive: Biobanking for the Final Frontier Jon Rask *(USA)*		
11:00am – 8:00pm	Custom Exhibit Builds *(by request only)*			***Metropolitan Ballroom***

TUESDAY, MAY 9, 2017

12:15pm – 1:30pm	General Lunch in the Foyer	***Harbour Foyer***
12:20pm – 1:20pm	**UPDATE ON THE CHANGES TO THE COMMON RULE** ***Chairperson: Marianna Bledsoe*** *(USA)* Hear the latest on the changes to the Common Rule and their impacts on your daily operations! ***Presenter: Michele Russell-Einhorn*** *(USA)*	***Harbour***
12:20pm – 1:20pm	**ROUNDTABLE DISCUSSIONS** Sign up at the registration desk to join us at a roundtable to discuss the latest hot topics in biobanking!	***Pier 4&5***
	Designing the Quality Management Plan of a Hospital-based Biorepository Shannon J. McCall *(USA)*	
	Creating Industry Standards for Biospecimen Collection, Processing and Storage Jim Doherty *(USA)*	
	Mapping it Out: An Organic Alignment of Biobanking and Data Integration Jennifer Cheeseman *(USA)*	
	Considerations for Implementing Automation into your Biobank Steve Broach *(USA)*	
	The Next Generation Bio-repository Michael Tanen *(USA)*	
	Selecting an Informatics System Cheryl Michels *(USA)*	
	Self-Consent as a Model for Biobanking and Genetic Research: Doing Right by Patients Kristy Crooks *(USA)* and Stephen Wicks *(USA)*	
	Risk Management Strategy for Biobanks: Principles and Practice Berthold Huppertz *(Austria)*	
1:30pm – 4:00pm	**SYMPOSIUM 2A (CONCURRENT) – TO TELL OR NOT TO TELL: THE PRACTICAL ASPECTS OF RETURNING INDIVIDUAL RESEARCH RESULTS AND INCIDENTAL FINDINGS TO PARTICIPANTS** ***Chairpersons: Marianna Bledsoe*** *(USA)* ***and Catherine Kennedy*** *(Australia)* There has been considerable discussion and many publications in the literature about the return of research results and incidental findings to participants who have contributed their specimens for research. Much of this discussion has focused on the ethical arguments for and against returning research results and incidental findings, when findings should be returned and some of the practical implementation problems with doing so. In this session, biobankers will share their policies and actual experiences with returning research results to participants, challenges that they faced and approaches that they used to overcome them. The session will consist of a series of short presentations followed by an extensive interactive panel and audience discussion period.	***Frontenac***
	1:30pm – 1:45pm — Obtaining Research Results: A Review of the Experience of One Individual vs One IRB Michele Russell-Einhorn *(USA)*	
	1:45pm – 2:00pm — Lost in translation: Returning Germline Genetic Results in Genome-Scale Cancer Research Amber Johns *(Australia)*	
	2:00pm – 2:15pm — Returning Medically Actionable Research Results in the Geisinger MyCode Community Health Initiative William A. Faucett *(USA)*	
	2:15pm – 2:30pm — Return of Results: Experience from the Telethon Network of Genetic Biobanks Mirella Filocamo *(Italy)*	
	2:30pm – 3:00pm — Coffee Break	***Frontenac Foyer***

TUESDAY, MAY 9, 2017

1:30pm – 4:00pm	3:00pm – 3:15pm	Industry Perspective – Where do We Fit Against Proposed Frameworks for Feedback of Results? Kirstin Goldring *(United Kingdom)*	
	3:15pm – 4:00pm	Panel Discussion	
1:30pm – 4:00pm	**SYMPOSIUM 2B(CONCURRENT) – LIQUID SPECIMENS - NEW FRONTIER FOR APPLICATIONS OF EMERGING TECHNOLOGIES** ***Chairpersons: Dianne Chadwick*** *(Canada)* ***and Teresa Selander*** *(Canada)* Analyses of "Liquid Specimens" focusing on the analysis of circulating tumor cells (CTCs), circulating cell-free nucleic acids (DNA, RNA, miRNA) and exosomes in body fluids (e.g., blood, urine, cerebrospinal fluid) of patients has received enormous attention because these procedures are less invasive than tissue biopsies and allow real-time monitoring of dynamic changes in disease conditions. Analyses of "Liquid Specimens" have paved new diagnostic avenues with obvious clinical implications for personalized medicine. The session will focus on key areas of the emerging technologies, current applications and future perspectives of "Liquid Specimens" including detection of cancer, prenatal diagnostics, and organ transplant rejection.		***Harbour***
	1:30pm – 1:40pm	Introduction Klaus Pantel *(Germany)*	
	1:40pm – 2:00pm	Clinical Implications of Liquid Biopsy in Cancer Patients Klaus Pantel *(Germany)*	
	2:00pm – 2:30pm	Detection, Characterization and Ex Vivo Expansion of Viable Circulating Tumor Cells Catherine Alix-Panabières *(France)*	
	2:30pm – 3:00pm	Coffee Break	***Harbour Foyer***
	3:00pm – 3:20pm	Live Cell Leukemia Bank – Evolving Ethics Mark Minden *(Canada)*	
	3:20pm – 3:40pm	Application of Proteomics-Based Technologies for the Analysis of Biofluids Ana Konvalinka *(Canada)*	
	3:40pm – 4:00pm	Maternal Peripheral Blood Leukocytes as Biomarkers of Pregnancy Complications Oksana Shynlova *(Canada)*	
4:00pm – 8:00pm	General Exhibitor Installation		***Metropolitan Ballroom***
4:15pm – 5:15pm	**SPECIAL TOPIC SESSION – WHAT'S ON THE HORIZON: EMERGING TOOLS IN BIOBANKING AND BIOSPECIMEN RESEARCH** ***Chairpersons: Piper Mullins*** *(USA)****, Sheila O'Donoghue*** *(Canada)****, Elizabeth Matzke*** *(Canada)* This session will focus on how researchers are developing new biobanking tools/methodologies to improve research. The presentations will describe the new methodologies and techniques, their impact on research, and strategies for incorporating these new innovations into biobank operations. The audience will benefit from a discussion on how each tool can be adapted to or used by other projects.		***Frontenac***
	4:15pm – 4:35pm	B3Africa´s "eB3Kit": An Informatics Platform Erik Bongcam-Rudloff *(Sweden)*	
	4:35pm – 4:55pm	The Global Biodiversity Information Facility (GBIF) and Its Role as an Aggregator of Environmental Biorepository Data Robert Hanner *(Canada)*	
	4:55pm – 5:15pm	Tool Building for a Collaborative Scientific and Ethics Future in the Data Intensive Sciences Vasiliki Rahimzadeh *(Canada)*	
5:15pm – 6:15pm	**WORKING GROUP MEETINGS** *(Open to all Participants)*		

Pier 2	***Pier 3***	***Pier 4***	***Pier 5***
Enviro-Bio Working Group	Hospital-Integrated Biorepositories Special Interest Group	Biospecimen Science Working Group *(Invitation Only)*	Automated Repositories Special Interest Group

WEDNESDAY, MAY 10, 2017

6:00am – 7.30am	**ISBER 5K RUN/WALK/SLEEP** *(Separate Registration Required)* Meet in the Westin Harbour Castle lobby to be escorted to the starting point for a beautiful run/walk through the Toronto Harbour area.	
7:00am – 7:45am	Coffee & Pastries	
7:00am – 4:30pm	Speaker Services Open	***Queens Quay***
7:00am – 6:00pm	Registration	***Bay***
7:00am – 4:15pm	General Exhibitor Installation	***Metropolitan Foyer***
7:45am – 8:45am	**PLATINUM CORPORATE PARTNER WORKSHOPS** *(Open to all Participants)* **WORKSHOP 1A – ATCC®** MJFF and ATCC® Partnering for Success Maryellen de Mars *(USA)*, Liz Kerrigan *(USA)* and Nicole Polinski *(USA)*	***Pier 2&3***
9:00am – 12:00pm	**SYMPOSIUM 3A (CONCURRENT SESSIONS) – SPOTLIGHT ON INNOVATION IN SOCIAL SUSTAINABILITY: DEVELOPING EVIDENCE-DRIVEN BEST PRACTICES IN BIOBANKING** ***Chairpersons: Daniel Simeon-Dubach*** *(Switzerland)**, Marianne Henderson*** *(USA)**, Kirstin Goldring*** *(United Kingdom)* *This session will utilize an interactive survey through the ISBER 2017 mobile app – be sure to download the app in advance to participate!* Biobank Sustainability consists of focus and attention on the Financial, Environmental, Operational and Societal aspects to be successful. This 2017 ISBER symposium focuses on importance of stakeholder involvement and engagement to develop and maintain social sustainability of biobanks in all sectors. Topics that will be presented and discussed include communications with stakeholder communities; social networking strategies; engaging in the science/policy interface to raise awareness of relevant policy and legal frameworks; development of strategies/business planning to ensure long-term quality and value for contributor and user communities.	***Frontenac***
9:00am – 9:10am	Introduction to Social Sustainability Symposium	
9:10am – 9:35am	Sustaining Biobanks in Cancer Research - Lessons Learned by the Terry Fox Research Institute Victor Ling *(Canada)*	
9:35am – 10:00am	The Importance of Reciprocal Transparency between Biobank and End Users of Samples Ann Cooreman *(United Kingdom)*	
10:00am – 10:25am	Crop Genebanks: Sustainability through Joint Action Hannes Dempewolf *(Germany)*	
10:25am – 10:30am	Opening of Interactive Survey on Sustainability *Download the ISBER 2017 mobile app to participate in the interactive survey!*	
10:30am – 11:00am	Coffee Break	***Frontenac Foyer***
11:00am – 11:30am	Marketing Biobanking Concept Using Social Media: Engaging Stakeholders with a Click Ahmed Samir Abdelhafiz *(Egypt)*	
11:30am – 12:00pm	Panel Discussion	

WEDNESDAY, MAY 10, 2017

9:00am – 12:00pm	**SYMPOSIUM 3B (CONCURRENT SESSIONS) – BIOSPECIMEN QUALITY FOR THE NEXT GENERATION: INNOVATIONS AND IMPLICATIONS** ***Chairpersons: Nigel Brockton*** *(Canada)* ***and Bonginkosi Duma*** *(South Africa)* Biospecimens are the essential substrates for the "Next Generation" sequencing technologies that have revolutionized genomics and molecular biology. This session will present the reciprocal impacts of biospecimen quality on Next Generation technologies, the diverse applications and quality considerations associated with these technologies and the anticipated future demands and best practices.		***Harbour***
	9:00am – 9:30am	Opportunities and Challenges in Tissue Procurement for Personalized OncoGenomics Andrew Mungall *(Canada)*	
	9:30am – 10:00am	Enhancing Bovine Genomic Research through High Quality Banked Genetic Materials in South Africa Avhashoni Zwane *(South Africa)*	
	10:00am – 10:30am	Use of Genetic Markers to Evaluate DNA Sample Quality in Biobanks Victor Alejandro Iglesias *(Switzerland)*	
	10:30am – 11:00am	Coffee Break	***Harbour Foyer***
	11:00am – 11:30am	Tomorrow's Needs for Biospecimens in Pharma Research Pascal Puchois *(Canada)*	
	11:30am – 12:00pm	Panel Discussion	
12:00pm – 1:30pm	General Lunch		***Harbour Foyer***
12:15pm – 1:15pm	**LUNCH CORPORATE SYMPOSIUM – GLOBAL SPECIMEN SOLUTIONS** Making your Data eValuable ***Speakers:*** Amelia Wall Warner, *PharmD, RPh, CEO and founder, Global Specimen Solutions* Deb Reinhard, *Group Director, Clinical Sample Strategy and Operations* Pharmaceutical companies collect vast amounts of data during a clinical trial, yet only ~20% of the data is used. Disparate data sources, unaligned data, and incomplete data sets prevent in-life interventions, lead to delays in go-to-market, and can lead to non-compliance with regulations. In this symposium, industry leaders will share their experiences with large data sets and how they have been able to incorporate tools into their departments. The audience will glean: • How to navigate through their department/company to demonstrate that handling large data is complex • How to evaluate tools to handle large data sets		***Harbour*** GLOBAL SPECIMEN SOLUTIONS Unlocking the Future of Medicine®
1:30pm – 2:30pm	**INNOVATIVE TECHNOLOGIES** ***Chairpersons: Andy Zaayenga*** *(USA)* ***and David Lewandowski*** *(USA)*		***Frontenac***
	1:30pm – 1:35pm	Introduction	
	1:35pm – 1:40pm	Albumin Oxidizability as a Metric of Blood Plasma/Serum Integrity Chad Borges, Arizona State University *(USA)*	
	1:40pm – 1:45pm	Liquid Biospecimen Volume-Specific Cryopreservation and Aliquoting without Freeze-Thaw Amanda Riffel, Children's Mercy Hospital *(USA)*	
	1:45pm – 1:50pm	Counting the Costs: The True Price of Manual and Automated Cold Storage Paul Lomax, TTP Labtech *(United Kingdom)*	
	1:50pm – 1.55pm	Ultimate Sample Storage – The New Panasonic TwinGuard Helps Biorepositories Become More Efficient Joe LaPorte, Panasonic Healthcare *(USA)*	

WEDNESDAY, MAY 10, 2017

1:30pm – 2:30pm	1:55pm – 2:00pm	Brooks ISIDOR Portal: Bringing Efficiency and Usability to Biobanking Applications Colin Thurston *(United Kingdom)*	
	2:00pm – 2:05pm	Secure High-Density Automated Sample Storage in a Small Footprint Jim Doherty, Hamilton Storage *(USA)*	
	2:05pm – 2:10pm	The Marketplace for Human Biospecimen Collections: Biorepositories in the Cloud to Fuel Research Christopher Ianelli, iSpecimen *(USA)*	
	2:10pm – 2:15pm	BioLix™ SAB: A Novel Automated Storage Platform To Increase Biosample Utilization Steve Broach, Liconic *(USA)*	
	2:15pm – 2:20pm	Enhancing Specimen, Specimen-derived Data and Consent Tracking for Registries Scott Clark, Global Specimen Solutions, Inc. *(USA)*	
	2:20pm – 2:30pm	Wrap Up	
2:30pm – 3:00pm	Coffee Break		***Frontenac Foyer***
2:30pm – 3:30pm	Poster Installation for Session 1 (Categories: BEAR, BP, BRS, ELSI, HSR, BET)		***Metropolitan Ballroom***
3:00pm – 4:00pm	**EDUCATION AND TRAINING WORKSHOPS** *(Open to all Participants)*		
	Pier 2&3	***Pier 4***	***Pier 5***
	Educational Workshop 1: Thinning the Collection – Can Biobanks Ever Discard Samples	Educational Workshop 2: Limitations affecting the Use of Human and Animal Tissues in Research: What the Literature Tells Biorepositories	Educational Workshop 3: Business Planning for Biobanking
	Presenters: Rebekah Rasooly *(USA)****, Bartha M. Knoppers*** *(Canada)****, Sherilyn J. Sawyer*** *(USA)*	***Presenters: William E. Grizzle*** *(USA)****, Dennis Otali*** *(USA)****, Daniel S. Atherton*** *(USA)****, Katherine C. Sexton*** *(USA)*	***Presenters: Erik Steinfelder*** *(Netherlands)****, Alison Parry-Jones*** *(United Kingdom)*
4:15pm – 5:30pm	**CONTRIBUTED PAPER SESSION 1 (CONCURRENT SESSIONS) – ALIGNING ETHICAL, LEGAL, SOCIETAL ISSUES: 'EXPECTATIONS, EVIDENCE AND DIVERSITY'** ***Chairpersons: Helen Morrin*** *(New Zealand)* ***and Michele Russell-Einhorn*** *(USA)*		***Frontenac***
	4:15pm – 4:30pm	A Survey of Cancer Patient Biospecimen Donors' Views About Broad Informed Consent for Using Biospecimens in Future Research, in Collaboration with NCI's Biospecimen Preanalytical Variables Program Chris Andry *(USA)*	
	4:30pm – 4:45pm	Informed Broad-Consent at Duke: Modification of "Boiler-plate" Language Increases Comprehensibility and Decreases Time Burden Shannon McCall *(USA)*	
	4:45pm – 5:00pm	Effect of Deliberation on the Public's Attitudes Toward Consent Policies for Biobank Research: A Mixed Methods Study Tom Tomlinson *(USA)*	
	5:00pm – 5:15pm	The Comparative Study of Willingness of Chinese Children and their Guardian Towards Biospecimens Donation Shijian Liu *(China)*	
	5:15pm – 5:30pm	Some Aspects of Ethical Issues in Biobanks in the Czech Republic Judita Kinkorova *(Czech Republic)*	

WEDNESDAY, MAY 10, 2017

4:15pm – 5:30pm	**CONTRIBUTED PAPER SESSION 2 (CONCURRENT SESSIONS) – PLANNING AND SHARING: TOOLS AND APPROACHES FOR REPOSITORY MANAGEMENT** ***Chairpersons: Rebekah Rasooly*** *(USA)* ***and Menghong Sun*** *(China)*		***Harbour***
	4:15pm – 4:30pm	DiscovEHR Browser: A Portal for Sharing Genomic Data from Geisinger MyCode® Community Health Initiative Ming Ta Michael Lee *(USA)*	
	4:30pm – 4:45pm	Developing a Dashboard and Balanced Scorecard as an Administrative Tool to Rapidly Assess the Overall Health of a Biobank Program Monique Albert *(Canada)*	
	4:45pm – 5:00pm	NIST's Marine Environmental Specimen Bank: Impacts and Future Directions Debra Ellisor *(USA)*	
	5:00pm – 5:15pm	Biobanking Sustainability: How a Strategic Paper Helps in Operating a Biobank Berthold Huppertz *(Austria)*	
	5:15pm – 5:30pm	Innovative Solutions for Swiss Biobanking Platform Sustainability Christine Currat *(Switzerland)*	
5:15pm – 7:30pm	Exhibit Hall Open		***Metropolitan Ballroom***
5:30pm – 7:30pm	**EXHIBITOR AND POSTER NETWORKING EVENING** Join us for drinks and hors d'oeuvres and to visit the ISBER exhibits and posters!		***Metropolitan Ballroom***

THURSDAY, MAY 11, 2017

7:00am – 5:30pm	Registration		***Metropolitan Foyer***
7:00am – 4:15pm	Speaker Services Open		***Queens Quay***
7:30am – 8:15am	Coffee & Pastries		***Harbour Foyer***
8:00am – 9:00am	**PLATINUM CORPORATE PARTNER WORKSHOPS** *(Open to all Participants)*		
	Pier 2&3	***Pier 4***	***Pier 5***
	WORKSHOP 2A – BSI SYSTEMS Engage the Full Potential of Your Biorepository Network Steven Marroulis *(USA)* and Joseph Krzystan *(USA)*	**WORKSHOP 2B – BROOKS LIFE SCIENCE SYSTEMS** Smarter Sample Management – Establishing a Sustainable Biobank by Connecting Stored Samples with Actionable Data Balwir Matharoo-Ball *(United Kingdom)* and Mark Fish *(United Kingdom)*	**WORKSHOP 2C – CHART MVE** Sample Storage Integrity in Remote Locations Buzz Bies *(USA)* and Bruce Edel *(USA)*
	BSI SYSTEMS	Brooks LIFE SCIENCE SYSTEMS	SECURITY THROUGH MVE SYSTEMS
9:00am – 6:30pm	Exhibit Hall Open		***Metropolitan Ballroom***
9:15am – 11:30am	**CONTRIBUTED PAPER SESSION 3 (CONCURRENT SESSIONS) – FIT-FOR-PURPOSE APPLICATIONS - BIOSPECIMEN RESEARCH AND SAMPLE QUALITY** ***Chairpersons: Ayat Salman*** *(USA)* ***and Ping Guan*** *(USA)*		***Frontenac***
	9:15am – 9:30am	How Important Is the Time of Cold Ischemia to Molecular Research and When Do Most Changes Secondary to Cold Ischemia Occur? William E. Grizzle *(USA)*	
	9:30am – 9:45am	Room Temperature Storage Solutions: An Alternative to Cold Chain Management within Biobanks and/or Diagnostics and Research Laboratories in Africa Shafieka Isaacs *(South Africa)*	

THURSDAY, MAY 11, 2017

9:15am – 11:30am	9:45am – 10:00am	A Laser Capture Microdissection (LCM) Study of PAXgene-Fixed Paraffin-Embedded (PFPE) Biospecimens Abhi Rao *(USA)*	
	10:00am – 10:30am	Coffee Break in Exhibit Hall	
	10:30am – 10:45am	Evaluation of mRNA Integrity by RNAscope ISH in Archival and Prospectively Collected FFPE Tissue Samples Stephen McQuaid *(United Kingdom)*	
	10:45am – 11:00am	The Effect of Pre-Mortem Patient Conditions on RNA Integrity of Metatastic Tumors Dianne Chadwick *(Canada)*	
	11:00am – 11:15am	RNA and miRNA Expression Profiles in FFPE Tissues Subjected to Extended Ischemic and Formalin-Fixation Times William Mathieson *(Luxembourg)*	
	11:15am – 11:30am	Utilization of Mobile APP for Better Implementation of GCP in Sample Collecting Process for Biorepository Lei Tian *(China)*	
9:15am – 11:30am	**CONTRIBUTED PAPER SESSION 4 (CONCURRENT SESSIONS)** ***Chairpersons: Koh Furuta*** *(Japan)* ***and Daniel Catchpoole*** *(Australia)*		***Harbour***
	SESSION 1 – BIOBANK ACCREDITATION FOR LARGE FACILITIES AND NETWORKS		
	9:15am – 9:30am	Preparing a Large Biorepository for College of American Pathologists (CAP) Accreditation Renee Root *(USA)*	
	9:30am – 9:45am	Biospecimen Commons: Building a Worldwide Listing of Biorepositories Joseph Miceli *(USA)*	
	9:45am – 10:00am	Adaptation of a Biobank Certification Program for Australia Jane Carpenter *(Australia)*	
	10:00am – 10:30am	Coffee Break in Exhibit Hall	***Metropolitan Ballroom***
	SESSION 2 – CREATIVE BIOBANKING FOR TARGETED COLLECTIONS		
	10:30am – 10:45am	(Epi)genetic Study of Spontaneous Preterm Birth with Prebanked Specimens: A Model of Multi-Center Biobanks for Reproductive Research in Developing Countries Jing Pan *(China)*	
	10:45am – 11:00am	Tissue Biobanking To Understand Molecular Signatures of Space Radiation Induced Tissue Degeneration Dawn E. Bowles *(USA)*	
	11:00am – 11:15am	The Genotype-Tissue Expression Project: Charting the Human Transcriptome Using a Multi-Individual, Multi-Tissue Sample Collection Kristin Ardlie *(USA)*	
	11:15am – 11:30am	Biobanking of Marine Oomycetes from Philippine Mangrove Leaves Gina Dedeles *(Philippines)*	
10:45am – 11:45am	Poster Take down for Session 1		***Metropolitan Ballroom***

THURSDAY, MAY 11, 2017

11:30am – 1:00pm	**EDUCATION AND TRAINING WORKSHOPS** *(Open to all Participants)*			
	Pier 2&3	***Pier 4***	***Pier 5***	
	Educational Workshop 4: Commercialization and Access Benefit-Sharing Part 1: Public and Community perspectives on sample use	Educational Workshop 5: The Practice (and Art) of Biospecimen Governance	Educational Workshop 6: First, Do No Harm: Best Practices and Regulatory Requirements when Procuring Tissue Specimens in the Clinical Setting	
	Presenters: Piper Mullins *(USA)****, Gilbert Lau*** *(Malaysia)****, Marta Castelhano*** *(USA)****, William E. Grizzle*** *(USA)*	***Presenters: Marianna Bledsoe*** *(USA)****, Helen Morrin*** *(New Zealand)****, Nicole Sieffert*** *(USA)*	***Presenter: Shannon McCall*** *(USA)*	
	Panelists: Kirstin Goldring *(United Kingdom)****, Judith Giri*** *(USA)*			
11:45am – 12:45pm	Poster Installation for Session 2 (Categories: HT, RAT, RM, RS and LB)			***Metropolitan Ballroom***
12:45pm – 1:45pm	General Lunch in the Exhibit Hall			***Metropolitan Ballroom***
1:45pm – 3:30pm	**EDUCATION AND TRAINING WORKSHOPS** *(Open to all Participants)*			
	Pier 2&3	***Pier 4***	***Pier 5***	
	Educational Workshop 7: Commercialization and Access Benefit-Sharing Part 2: Private & Legal Perspectives and Commercialization Use Cases	Educational Workshop 8: Public Education about Biobanks	Educational Workshop 9: Best Practices for Storage Equipment and Environment	
	Presenters: Mark Barnes *(USA)****, Gilbert Lau*** *(Malaysia)****, Kirstin Goldring*** *(United Kingdom)*	***Presenters: Suzanne Vercauteren*** *(Canada)****, Sheila O'Donoghue*** *(Canada)*	***Presenters: John Fink*** *(USA)****, Marta Castelhano*** *(USA)*	
	Panelist: William E. Grizzle *(USA)*			
3:30pm – 4:00pm	Coffee Break in Exhibit Hall			***Metropolitan Ballroom***
4:00pm – 5:00pm	**PLATINUM CORPORATE PARTNER MEETING WITH THE ISBER BOARD OF DIRECTORS** *(Invitation Only)*			***Pier 7&8***
5:00pm – 6:30pm	**ISBER 2017 NETWORKING COCKTAIL RECEPTION** Join us for drinks and hors d'oeuvres in the exhibit hall to mingle with other attendees and network with the exhibitors!			***Metropolitan Ballroom***
7:00pm – 11:00pm	**ISBER GALA DINNER** *(Separate Registration Required)* Join us for an exciting evening at Casa Loma! Enjoy reception and dinner while you mingle with your biobanking colleagues from around the world.			Offsite

FRIDAY, MAY 12, 2017

7:00am – 8:00am	**VENDOR MEETING** *(Invitation Only)* Vendors – join us to provide feedback about the conference and future opportunities!			***Pier 9***
7:00am – 8:00am	**WORKING GROUP MEETINGS** *(Open to all Participants)*			
	Harbour	***Pier 7***	***Harbour***	***Pier 8***
	Biospecimen Science Working Group	Standards Advisory Committee *(Invitation Only)*	Pharma Working Group	International Repository Locator Working Group
7:00am – 1:30pm	Speaker Services Open			***Queens Quay***
7:00am – 4:00pm	Registration			***Metropolitan Foyer***
7:45am – 8:15am	Coffee & Pastries			***Harbour Foyer***

FRIDAY, MAY 12, 2017

PLATINUM CORPORATE PARTNER WORKSHOPS *(Open to all Participants)*

	Pier 2&3	*Pier 4*	*Pier 5*
8:00am – 9:00am	**WORKSHOP 3A – THERMO FISHER SCIENTIFIC** Use of Mobile Technology to Enhance Biospecimen Quality and Biobank Efficiency James V. Lacey, Jr.*(USA)* and Amy Hendricks *(USA)*	**WORKSHOP 3B – LICONIC INSTRUMENTS** Case Studies: Implementation of the BiOLiX™ Automated Biobanking Platform Steve Broach *(USA)* (Moderator), Rostislav Chernomorsky *(USA)*, Patrice Vaillancourt *(Canada)* and Tanja Weis *(Germany)*	**WORKSHOP 3C – WORTHINGTON INDUSTRIES** Global Standardization, Harmonization and Collaboration III Marianna Bledsoe *(USA)*, Rita Lawlor *(Italy)* and Koh Furuta *(Japan)*

9:15am – 2:30pm	Exhibit Hall Open	***Metropolitan Ballroom***

SYMPOSIUM 4A (CONCURRENT SESSIONS) – EXPECTED TO DELIVER: BIOBANKING RESPONSES TO EMERGING GLOBAL THREATS FOR AND IN LMICS

Chairpersons: Maimuna Mendy *(France)****, Zisis Kozlakidis*** *(United Kingdom)****, Judith Giri*** *(USA)*

Frontenac

Biobanks are increasingly involved in the responses to emerging global threats. These vary and can include medical emergencies as well as natural disasters, they can be mounted through a distributed network or in the field in low and middle income countries. In this session we will highlight cases where the involvement of biobanks has been central to the response effort and present the evidence and innovation that has allowed them to do so.

9:15am – 12:15pm	9:15am – 9:45am	Ready and Willing: Biobanking Leads a New Paradigm for Collaborative Response to the Zika Outbreak Mars Stone *(USA)*
	9:45am – 10:15am	Biobank in NHTD: The Effort and Achievement Vu Thi My Hanh *(Vietnam)*
	10:15am – 10:45am	Coffee Break in Exhibit Hall ***Metropolitan Ballroom***
	10:45am – 11:15am	Biodiversity and the need for Standard Biological Reference Materials (SBRMs) Robert Hanner *(Canada)*
	11:15am – 12:15pm	Panel Discussion

FRIDAY, MAY 12, 2017

9:15am – 12:15pm	**SYMPOSIUM 4B (CONCURRENT SESSIONS) – ACCELERATING CLINICAL AND SOCIAL OUTCOMES WITH SAMPLE DATA: IT'S ALL ABOUT THE BASE…AND THE EXPLOITATION** ***Chairpersons: Clive Green*** *(United Kingdom)* ***and Tatsuaki Tsuruyama*** *(Japan)* Biospecimens offer huge potential for improving the lives of patients and the natural world. To unlock this potential, researchers must: 1) establish a knowledge base of critical data that can be derived from the samples, and 2) apply novel data exploitation techniques to drive research and/or enable high quality biospecimen management. This session will explore challenges and solutions in developing an all-important knowledge base and showcase sophisticated data analysis techniques for clinical and social impact.		***Harbour***
	9:15am – 9:25am	Introduction Tatsuaki Tsuryama *(Japan)*	
	9:25am – 9:50am	The SAIL DataBank: Linking Real World Population-Scaled Data to a Nation's Bio-Repositories. Easy? David Ford *(United Kingdom)*	
	9:50am – 10:15am	Facilitating Research Utilization of the Mayo Clinic Biobank Janet Olson *(USA)*	
	10:15am – 10:45am	Coffee Break in Exhibit Hall	***Metropolitan Ballroom***
9:15am – 12:15pm	10:45am – 11:25am	Building Large-Scale Resources for Companion Animal and Translational Research through Personalized Canine Genomics Adam Boyko *(USA)*	
	11:25am – 12:05pm	FAIR Sample and Data Access David van Enckevort *(Netherlands)*	
	12:05pm – 12:15pm	Conclusion Clive Green *(United Kingdom)*	
12:15pm – 1:15pm	General Lunch in the Exhibit Hall		***Metropolitan Ballroom***
1:15pm – 2:15pm	**ISBER ANNUAL BUSINESS MEETING** Members – join us to learn more about ISBER's activities, financials, strategic plan and leadership!		***Frontenac***
1:15pm – 2:30pm	Poster Takedown for Session 2		***Metropolitan Ballroom***
2:15pm – 2:30pm	Coffee Break		***Metropolitan Ballroom***
2:30pm – 3:30pm	**WORKING GROUP MEETINGS** *(Open to all Participants)*		
	Pier 2	***Pier 3***	***Pier 4***	***Pier 5***
	Rare Disease Working Group	Informatics Working Group	Integrated Biobanking Workflows Working Group	Regulatory and Ethics Working Group
2:30pm – 8:00pm	Exhibitor Takedown			***Metropolitan Ballroom***
3:30pm – 4:30pm	**COMMITTEE AND WORKING GROUP MEETINGS**			
	Pier 4	***Pier 7***	***Pier 8***	
	Public Education Working Group *(Open to all Participants)*	Science Policy Advisory Committee *(Invitation Only)*	Membership and Marketing Advisory Committee *(Invitation Only)*	
5:30pm – 7:00pm	**ISBER BOARD OF DIRECTORS MEETING** *(Invitation Only)*			***Pier 9***

ROUND TABLE SESSIONS

Tuesday, May 9 • 12:20pm - 1:20pm Harbour Ballroom

DESIGNING THE QUALITY MANAGEMENT PLAN OF A HOSPITAL-BASED BIOREPOSITORY

Shannon J. McCall (USA)

An overall quality management plan is necessary for a hospital-based biorepository to provide consistent, high quality service to clinicians, researchers, and patients. The primary purpose of the quality management plan (QMP) is to ensure all aspects of the research process are ethical, transparent, and do not interfere with patient care. The QMP is designed to monitor, evaluate, and (as necessary) improve processes and as such the QMP must be regularly reviewed for effectiveness.

Learning objectives:

1. What are the components of an overarching quality management plan?
2. What are some of the most commonly omitted components?
3. What strategies can be employed to keep the quality management plan effective and up-to-date?

CREATING INDUSTRY STANDARDS FOR BIOSPECIMEN COLLECTION, PROCESSING AND STORAGE

Jim Doherty (USA)

- Will other biobanks follow the All of Us Research Program Biobank (at Mayo Clinic) standardization practices?
- How are biobanks ensuring sample integrity?
- How are they maintaining chain of custody?

Learning objectives:

Determine how biobanks currently set up their collection, processing and storage practices and see if any will be changing practices to follow the All of Us Research Program's standardization. This will help determine if there will be an industry-wide standardization moving forward, or if other biobanks will maintain their current practices.

MAPPING IT OUT: AN ORGANIC ALIGNMENT OF BIOBANKING AND DATA INTEGRATION

Jennifer Cheeseman (USA)

This discussion will engage and inform the audience on the organic emergence of a novel, innovative and adaptable approach to enterprise-wide biobanking. This will include examples from the Duke Heart Repository and BioSight (Eye Bank) and show evolution of biobanking from a departmental service to a research support model by fostering relationships across cross-functional partnership comprised of Research Administration, Clinical Research, Information systems and Regulatory Oversight & Research Initiatives.

The coordination and collaboration of individual biobanks within a single academic institution is a significant challenge facing academic biobanking. Traditionally, such coordination and alignment is undertaken in a linear direction in which established processes and controls drive the alignment. This method is often met with resistance and fear of reduction in sample control in terms of individual investigator's specific research interests. Academic research institutions are complex and adaptive systems that are well equipped for a multi-dimensional to large scale research initiatives. This approach is guided by interactions, relationships, and feedback loops. This allows understanding and enhanced interdependence of entities within the institution, their role in the larger research picture and their needs to maximize their collaborative potential.

Learning objectives:

- The attendees will learn to look beyond linear directed biobanking implementation
- Importance of sharing across active biobanks to advance innovation in research
- How to meet research needs through biobank alignment
- Lessons learned from an organic growth experience

CONSIDERATIONS FOR IMPLEMENTING AUTOMATION INTO YOUR BIOBANK

Steve Broach (USA)

Biobanking is undergoing an unprecedented expansion in diversity of organizations, sample types, and processes.

Correspondingly, automation storage solutions and their advantages are being more thoroughly analyzed.

This discussion endeavors to give a forum to a spectrum of needs, from early stage awareness of the novice automation adopter, to an informational update for the more experienced users and technology providers.

Learning objectives:

1. Establish the current top 5 drivers in biobanking organizations.
2. Explore how automated storage and/or automated processes address these drivers.
3. Look at ROI considerations for automated storage/ processes
4. Update on automated storage solutions
5. Wish list discussion

THE NEXT GENERATION BIO-REPOSITORY

Michael Tanen (USA)

As translational and personalized medicine continue to advance, the ability to access high quality bio-specimens for the development of diagnostic tests, to drive combination therapies, and discover new targets will bring the biobank/ biorepository to the forefront in integrating the many data elements back to patients. The ability to link highly annotated specimens "in real time" to various disparate databases that house clinical, molecular, and specimen data will define the next generation biobank/biorepository.

Learning objectives:

1. Pharmaceuticals, vendors, academics have all begun moving toward solutions. Can we begin to understand the different solutions and see how various solutions can be integrated through sophisticated informatics
2. Define critical data elements needed to drive personalized medicine
3. Can we organize the information thru data standards
4. Understand the Bed to Bench philosophy

SELECTING AN INFORMATICS SYSTEM

Cheryl Michels (USA)

ISBER members frequently ask the Informatics Working Group to provide assessments of available software. While we cannot do that, we can and will offer advice and best practices in developing system requirements, identifying available systems, and evaluating solutions.

Learning objectives:

1. Developing system requirements
2. Identifying available systems
3. Evaluating solutions

SELF-CONSENT AS A MODEL FOR BIOBANKING AND GENETIC RESEARCH: DOING RIGHT BY PATIENTS

Kristy Crooks (USA) and Stephen Wicks (USA)

We will discuss the advantages and challenges of self-consent with regard to 1. Subjects' understanding of the proposed research studies; 2. Whether self-consent offers a more authentic reflection of subjects' desire to consent or decline; 3. Different models that can be used for self-consent; 4. Under what circumstances the study and its implications are too complex to be appropriate for self-consent; 5. Under what circumstances additional consent or re-consent is necessary (e.g., return of clinically-actionable results).

Learning objective:

Identify a number of advantages and disadvantages of self-consent for research and clinical biobanking.

RISK MANAGEMENT STRATEGY FOR BIOBANKS: PRINCIPLES AND PRACTICE

Berthold Huppertz (Austria)

- What are general and what are specific risks for biobanks?
- Risk categories: biological, chemical, physical, ethical, financial
- Risk management plans for biobanks including risk identification, analysis, response planning, monitoring and management tools

Learning objectives:

1. General strategies for biobanking risk management
2. Practical examples for the implementation of a risk management plan
3. Description of specific risks in biobanking and possible coping processes

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ISBER PRESENTATION SUMMARIES

KEYNOTE LECTURE: A SEARCH & RESCUE MISSION FOR THE GENES TO FEED A HOT AND CROWDED PLANET

Hannes Dempewolf *(Germany)*

The genetic diversity of our crops and their wild relatives represents a vast pool of resources to help the planet and those who live on it to survive and strive in the challenging times ahead. Ensuring the effective conservation and use of crop diversity depends on long-term, ready access as well as a strong policy framework that governs access and benefit-sharing of these resources. We at the Crop Trust have the mission to ensure the conservation and availability of plant diversity essential for food and agriculture, forever. This presentation will provide an overview of strategic interventions that the Crop Trust is engaged in to build and strengthen an emerging global system of ex situ conservation of plant genetic resources in agricultural genebanks – and synthesize some key recommendations for the conservation and use of biodiversity more generally.

WHAT'S UNDER THE HOOD? THE HIDDEN WIRING OF TUMORS REVEALED WITH PAN-CANCER ANALYSIS

Joshua Stuart *(USA)*

The varieties of cancer seem numberless. Are tumors that arise in different tissues distinct? Is every patient's tumor distinct? Or are there underlying connections to help construct a molecular taxonomy of cancer's forms? In this talk, I will present results from the TCGA Pan-Cancer analysis project to investigate cancer's forms in the most comprehensive study of tumor subtypes attempted to date. We derived a map of tumor classes encompassing an integrated view of six different omics datasets. While most tumors (90%) cluster with others from the same tissue of origin, a significant fraction (10%) are reclassified into groups of multiple tissue types. The study highlights the power of coupling genomics investigations with large scale biobanking of cancer specimens.

METAGENOMICS DISCOVERIES FROM SUBWAYS TO SPACE

Sofia Ahsanuddin, MetaSUB Executive Director *(USA)* ***on behalf of Christopher Mason*** *(USA)*

Here, we show that evolution moves at the genetic, epigenetic, transcriptional, and epitranscriptional level, enabling many means by which cancer can resist therapy. Notably, some of these changes can be resolved by single-cell analysis and enable prognostic relevance. We reveal new biochemical methods and algorithms to examine these changes. Finally, pilot data will be shown for enabling patients to become more involved in their 'omics data, including an integrative genomics view of entire cities (MetaSUB.org) that leverages longitudinal metagenome and microbiome profiles of the world's cities to map global dynamics of DNA/RNA. All of these methods and molecular tools work together to guide the most comprehensive, longitudinal, mutli-omic view of human physiology in the NASA Twins Study and the NASA Biomolecule Sequencer Mission to enable new technologies that can sequence, quantify, and engineer nucleic acids and entire genomes for long term human space travel.

THE NASA AMES LIFE SCIENCES DATA ARCHIVE: BIOBANKING FOR THE FINAL FRONTIER

Jon Rask *(USA)*

The NASA Ames Institutional Scientific Collection involves the Ames Life Sciences Data Archive (ALSDA) and a biospecimen repository, which are responsible for archiving information and non-human biospecimens collected from spaceflight and matching ground control experiments. The ALSDA also manages a biospecimen sharing program, performs curation and long-term storage operations, and facilitates distribution of biospecimens for research purposes via a public website (https://lsda.jsc.nasa.gov). As part of our best practices, a tissue viability testing plan has been developed for the repository, which will assess the quality of samples subjected to long-term storage. We expect that the test results will confirm usability of the samples, enable broader science community interest, and verify operational efficiency of the archives. This work will also support NASA open science initiatives and guides development of NASA directives and policy for curation of biological collections.

OBTAINING RESEARCH RESULTS: A REVIEW OF THE EXPERIENCE OF ONE INDIVIDUAL VS ONE IRB

Michele Russell-Einhorn *(USA)*

Reporting research results has become a major topic of conversation in national and international arenas. In the United States, there are laws and regulations that impose conflicting responsibilities on institutions and institutional review boards that significantly impacts the ability to manage an individuals request to obtain research results in certain situations. This presentation will describe one such incident and the various

issues it involved as well as its final resolution.

LOST IN TRANSLATION: RETURNING GERMLINE GENETIC RESULTS IN GENOME-SCALE CANCER RESEARCH

Amber Johns *(Australia)*

The return of research results (RoR) remains a complex and well-debated issue. Despite the debate, actual data related to the experience of giving individual results back, and the impact these results may have on clinical care and health outcomes is sorely lacking. Through the work of the Australian Pancreatic Cancer Genome Initiative (APGI) we: 1) delineate the pathway back to the patient where actionable research data was identified and 2) report the clinical utilisation of individual results returned. Using this experience we discuss barriers and opportunities associated with a comprehensive process of RoR in large-scale genomic research.

RETURNING MEDICALLY ACTIONABLE RESEARCH RESULTS IN THE GEISINGER MYCODE COMMUNITY HEALTH INITIATIVE

William A. Faucett *(USA)*

Geisinger Health System launched the MyCode Community Health Initiative in 2007. In 2014 we revised the consent and made a commitment to return medically actionable research results to participants. We have consented over 140,000 participants and completed exome sequencing on 62,000+. Our Return-of-Results (ROR) process has contacted over 300 individuals to share medically actionable results. Over 50% of the participants have chosen to be seen by a genetic counselor or a medical geneticist. This presentation will discuss the process that the Geisinger ROR team developed, the infrastructure needed for a successful program and some initial estimates on program cost. We will also share some stories on the significant medical impact of the program. Early results have shown participant and healthcare provider acceptance of the process with no undue anxiety.

RETURN OF RESULTS: EXPERIENCE FROM THE TELETHON NETWORK OF GENETIC BIOBANKS

Mirella Filocamo *(Italy)*

One of the aims of the Telethon Network of Genetic Biobanks has been to start a dialogue with Patient Organisations via promotion of dedicated meetings and round-tables to discuss and draft biobank policies and procedures, including those concerning ethical issues. From the debates, it became clear that the concerns of lay members are particularly related to the difficulty of obtaining access to the research results. Based on the principle that patients have the right to decide if they want to know or not know the research results, the central question is who should communicate the results and which results should be returned. We have disclosed that while the biobank staff must ensure the return of research results, they may not have the expertise required to communicate such results and should rather act as a link between the researchers and the health personnel who are best suited to contact the patients.

INDUSTRY PERSPECTIVE – WHERE DO WE FIT AGAINST PROPOSED FRAMEWORKS FOR FEEDBACK OF RESULTS?

Kirstin Goldring *(United Kingdom)*

The presentation will cover the Industry perspective, policies and practices in feedback of results, focusing on where it fits against existing frameworks.

- Guidelines and framework
- The complexity in pharma
- The AstraZeneca position and considerations
- AstraZeneca the practice
- Other experience of feedback of results

CLINICAL IMPLICATIONS OF LIQUID BIOPSY IN CANCER PATIENTS

Klaus Pantel *(Germany)*

CTC enumeration and characterization with certified systems provides reliable information on prognosis and may serve as liquid biopsy to identify therapeutic targets or mechanisms of resistance on metastatic cells. Metastatic cells might have unique characteristics that can differ from the bulk of cancer cells in the primary tumor currently used for stratification of patients to systemic therapy. Moreover, monitoring of CTCs during therapy might provide unique information for the future clinical management of the individual cancer patient and might serve as surrogate marker for response to therapy. Functional characterization using specialized in vitro and in vivo test systems might serve as models for drug testing. Besides CTCs the analysis of circulating nucleic acids and exosomes provides complementary information. Thus, the molecular and functional analysis of CTCs can be used to improve cancer therapy.

DETECTION, CHARACTERIZATION AND EX VIVO EXPANSION OF VIABLE CIRCULATING TUMOR CELLS

Catherine Alix-Panabières *(France)*

Circulating tumor cells (CTCs) in blood are promising new biomarkers potentially useful for prognostic prediction and monitoring of therapies in patients with solid tumors including colon cancer. Moreover, CTC research opens a new avenue for understanding the biology of metastasis in cancer patients. However, an in-depth investigation of CTCs is hampered by the very low number of these cells, especially in the blood of colorectal cancer patients. Thus, the establishment of cell cultures and permanent cell lines from CTCs has become the most challenging task over the past year.

In 2015, we described for the first time the establishment of a permanent cell line from CTCs of one colon cancer patient. Such data may supply insights for the discovery of new biomarkers to identify the most aggressive CTC sub-populations and for the development of new drugs to inhibit metastasis-initiator CTCs in colon cancer.

LIVE CELL LEUKEMIA BANK-EVOLVING ETHICS

Mark Minden *(Canada)*

The ethics of tissue banking is continuously evolving in step with the changing awareness and wants of society that includes the public, researchers, ethicists and regulators. In addition, advances in technologies such as genetic manipulation and sequencing provide the stresses for re-evaluation and change. While all forms of tissue procurement, storage and dissemination are faced with the problems of protecting the identity of its donors and yet allow for advancement, live cell banking has the added confounder of being able to generate permanent cell lines that can be propagated in tissue culture or in animals. As well, with current and evolving methods of re-programming and genetic engineering it is possible to use banked cells to create cells with stem cell properties that can be used for creating tissues that can be introduced into patients. In 2016 the Common Rule, the US federal regulations for ethical conduct of human-subjects research, was updated and will go into effect in 2018. Aspects of these new rules as they relate to tissue banking in general and live cells in specific will be discussed.

APPLICATION OF PROTEOMICS-BASED TECHNOLOGIES FOR THE ANALYSIS OF BIOFLUIDS

Ana Konvalinka *(Canada)*

Biospecimens derived from patients may overcome some limitations of traditional disease models. Proximal fluids are particularly attractive, as they contain tissue-specific biomarkers.

A system called renin angiotensin system (RAS) and its main effector, angiotensin II (AngII), are active in native and transplant kidney disease, causing kidney fibrosis. Although RAS inhibitors constitute the main therapy of kidney disease, they do not uniformly prevent fibrosis. Furthermore, clinical measures of kidney RAS activity are lacking. We previously defined proteomic markers of AngII in primary kidney cells and demonstrated that these markers were increased in fibrotic kidneys, in animal models and humans. We have since developed targeted assays for monitoring of these proteins in urine and our preliminary studies demonstrate that these proteins reflect kidney fibrosis and are modified by RAS inhibition in a cohort of kidney transplant recipients with fibrosis and matched stable controls.

MATERNAL PERIPHERAL BLOOD LEUKOCYTES AS BIOMARKERS OF PREGNANCY COMPLICATIONS

Oksana Shynlova *(Canada)*

Major pregnancy complications (including intrauterine growth restriction, preeclampsia and preterm birth) impact ~15% of all pregnancies, resulting in significant maternal/fetal mortality and morbidity. Maternal peripheral blood leukocytes contribute to many processes during pregnancy including placental development, uterovascular remodeling, as well as remodeling of the fetal membranes and cervix in preparation for labour. They receive signals from multiple sources and in response to these signals orchestrate physiologic processes within uterus that contribute to a successful pregnancy; inappropriate or premature activation of maternal peripheral leukocytes contribute to pregnancy complications. Thus leukocytes are an attractive source of information and can serve as biomarkers to predict adverse pregnancy outcomes. This is a base for developing predictive/diagnostic tests and novel therapeutic interventions that will reduce the incidence of pregnancy complications.

B3AFRICA´S "EB3KIT": AN INFORMATICS PLATFORM

Erik Bongcam-Rudloff *(Sweden)*

B3Africa is a 3-year project, during which the eB3Kit is being designed, developed and tested in 8 pilot centres. It includes a plan for sustainability and for dissemination of the eB3Kit and training material beyond the lifetime of the project.

The eB3Kit is an Informatics Platform based on Open source software that integrates through an ID management system and contains:

- Laboratory Information Management System customised for biobanks (e.g., Baobab LIMS).
- A collection of Bioinformatics tools and workflows selected from the eBioKit project.
- Azizi biorepository and freezer monitoring system and ODK field sampling tools.

During my presentation, I will present the eB3Kit modular system and the work done so far by the B3Africa partners.

THE GLOBAL BIODIVERSITY INFORMATION FACILITY (GBIF) AND ITS ROLE AS AN AGGREGATOR OF ENVIRONMENTAL BIOREPOSITORY DATA

Robert Hanner *(Canada)*

The Global Biodiversity Information Facility is an open-data research infrastructure funded by the world's governments and aimed at providing access to data about all types of life on Earth. Coordinated through its Secretariat in Copenhagen, the GBIF network of member states and organizations—formally known as Participants—provides data-holding institutions around the world with common standards and open-source tools that enable them to share information about where and when species have been recorded.This includes species occurrence data derived from observations as well as species occurrence data derived from repository specimens. Concerning the latter, GBIF has the potential to serve as an overarching directory to the world's environmental biorepositories, presuming they hold suitable data that can be shared (for example, the World Federation for Culture Collections is a GBIF member). This talk proposes a case for partnership between GBIF and ISBER to advance best practices in biodiversity data collection and sharing, while also increasing the visibility of the participating repositories.

TOOL BUILDING FOR A COLLABORATIVE SCIENTIFIC AND ETHICS FUTURE IN THE DATA INTENSIVE SCIENCES

Vasiliki Rahimzadeh *(Canada)*

This presentation will discuss the contemporary governance and policy challenges of research ethics review for collaborative, multi-site/jurisdictional research in the data-intensive sciences. The adoption of single ethics review policies in some Canadian provinces and, most recently, in the United States, substantiates the need for tools that enable institutions to in fact operationalize such policies. Based on a comparative analysis of select international research consortia, the Ethics Review Equivalency Task Team of the Global Alliance for Genomics and Health developed the Ethics Review Recognition (ERR) Policy. Its objective is to provide a common platform of procedurally equivalent requirements that inspire both timely and proportionate ethics review of studies typified in the data-intensive sciences. The ERR Policy serves as both a model and a tool in this regard, able to achieve responsible governance while facilitating collaborative research in the post genomic era.

SUSTAINING BIOBANKS IN CANCER RESEARCH - LESSONS LEARNED BY THE TERRY FOX RESEARCH INSTITUTE

Victor Ling *(Canada)*

The lack of a culture to support translational research was recognized as a major gap in incorporating innovations into the Canadian health system. The Terry Fox Research Institute (TFRI) was founded in 2007 with a vision to catalyze translational cancer research in Canada. It was recognized that advances in technologies such as genome sciences, advanced imaging, and big data analytics were providing unprecedented opportunities to investigate patient samples with the potential to impact patient outcomes. Central to such a vision is the availability of well-annotated biobanks for cancer research. Working with the Canadian Tissue Repository Network TFRI has learned over the years that a major challenge is to secure resources to fund and sustain biobanks. Cancer is a progressive disease and good quality bio-samples need to be collected and maintained over decades. Another challenge is to harmonize biobanks across the country so that samples and data can be usefully shared.

THE IMPORTANCE OF RECIPROCAL TRANSPARENCY BETWEEN BIOBANK AND END USERS OF SAMPLES

Ann Cooreman *(United Kingdom)*

Traceability of biospecimens should be mandatory good practice in research as it is in drug clinical trials. Mutual traceability allows control not only over the ethical, regulatory, and legal provenance and final use of samples but also over the processes that control the pre-analytic variables. Control over these avoids unintended artefacts, biases or errors in the results. Since different laboratory practices, environmental, ethnic, socio-economic and genetic factors may impact final drug target or biomarker selection and validation, those factors must be known. Lack of traceability leaves also end users open to potentially and unknowingly participating in illegal and unethical practices. Transparency between donors (via biobanks) and end users would help in countering a climate of social distrust and suspicion between public and private research sectors and improve quality of research, reproducibility as well as save money in case of irreproducibility of results.

CROP GENEBANKS: SUSTAINABILITY THROUGH JOINT ACTION

Hannes Dempewolf *(Germany)*

Agricultural gene banks harboring the genetic resources that underpin our food supply are an essential foundation for global food security. The diversity of our crops conserved in these facilities is considered a global common good on which all nations are interdependent. The international community has come together and established a multi-lateral system to ensure sustainable long-term conservation, as well as an access and benefit-sharing framework that pertains to these important resources. In this talk, I will explore how stakeholders around the world deliver joint, effective action to conserve and utilize humanity's common agricultural heritage. Global partnerships and coordinating institutions, such as the Crop Trust, are essential to ensure the sustainable conservation and characterization of this resource to allow future generations to use the myriad of options contained within the genomes of our crops. Only then do we stand a chance to adapt agricultural production systems to to adapt agricultural production systems to the immense challenges ahead.

MARKETING BIOBANKING CONCEPT USING SOCIAL MEDIA: ENGAGING STAKEHOLDERS WITH A CLICK

Ahmed Samir Abdelhafiz *(Egypt)*

Social media networks provide easy, affordable and accessible methods of communication. Being the largest social media platform nowadays, Facebook has evolved into a common marketing platform for products, services as well as ideas. Facebook can be used in association with other methods for effective marketing of biobanking concepts. Using diversified content on Facebook leads to better results. YouTube is another social media platform that can also be used to communicate with stakeholders, get their feedback and help them spread the word about biobanking. Creating specific, engaging and informative content represents challenges for using this approach for marketing. Other social media platforms can also be considered for the same purpose. Sound knowledge of the science of marketing, the potentials of the platform and its limitations is essential to achieve positive results. Moreover, using clear indicators of success is a must to measure the effectiveness of any of these approaches.

OPPORTUNITIES AND CHALLENGES IN TISSUE PROCUREMENT FOR PERSONALIZED ONCOGENOMICS

Andrew Mungall *(Canada)*

Personalized cancer treatment based on whole genome and transcriptome analyses can be clinically useful when applied at scale. The British Columbia Cancer Agency's POG clinical research program involves a multidisciplinary team to identify tumour-specific therapeutic targets to aid treatment decision-making for patients with advanced cancers. Genomics and bioinformatics activities within our Genome Sciences Centre are amenable to scale as patient enrolment increases. However, a significant challenge in scaling the POG program to a population level is the collection of specimens suitable for sequence analysis. I will describe how we have integrated technicians in biopsy suites to collect the highest quality specimens, the impact of biopsy type on specimen quality and pathology review to establish tumour content and cellularity. I will also discuss our nucleic acid extraction process and the impact of DNA and RNA quality on analyses required for evidence-based treatment decision making.

ENHANCING BOVINE GENOMIC RESEARCH THROUGH HIGH QUALITY BANKED GENETIC MATERIALS IN SOUTH AFRICA

Avhashoni Zwane *(South Africa)*

South Africa (SA) has a number of farming regions with diverse climatic conditions, vegetation, soil types, farming practices and different agricultural activities. In 1999, the Agricultural Research Council (ARC) established a biobank for livestock biodiversity conservation. Biological samples are collected and banked, and are used for current and future genomic research. The initiation of the SA Beef and Dairy Genomic Projects, and the development of the ARC Biotechnology platform, has opened an opportunity for genomic research such in cattle. These research programs form the basis for genomic selection, and the detection of traits of economic importance SA cattle populations. The availability of these new initiatives will enhance the status of genomics research in SA, and allow preservation of valuable genetic resources. Continuing data collection will not only conserve the SA genetic resources, but also improve the status of multidisciplinary research in SA livestock populations.

USE OF GENETIC MARKERS TO EVALUATE DNA SAMPLE QUALITY IN BIOBANKS

Victor Alejandro Iglesias *(Switzerland)*

Whole genome and tumor sequencing are becoming a standard procedure in clinical trials. Roche/Genentech is embarked on a large project to obtain genetic data from consenting patients recruited in clinical studies. High DNA sample quality is a key to success in this costly undertaking. We are applying genetic markers and other methods to guarantee best possible purity, integrity and uniqueness of the DNA samples before sequencing, significantly reducing sequencing failures. We are also using post-sequencing algorithms to again confirm sample quality parameters.

TOMORROW'S NEEDS FOR BIOSPECIMENS IN PHARMA RESEARCH

Pascal Puchois *(Canada)*

Scientists need collections of more complex biospecimen collections: specific mutations (e.g. Alk for lung cancers), biospecimen format (e.g. liquid biopsies), associated clinical data (medical outcome after specific therapy), serial collections (for new drug efficacy biomarkers). Existing retrospective biospecimen collections in biobanks do not necessarily meet these current needs and solutions must be found in order to reply to this growing research demand. What are the main bottlenecks to meeting these current and future needs? How can one biobank or network of biobanks reply efficiently to this challenge?

READY AND WILLING: BIOBANKING LEADS A NEW PARADIGM FOR COLLABORATIVE RESPONSE TO THE ZIKA OUTBREAK

Mars Stone *(USA)*

The global emergence of Zika and the severe neurological outcomes associated with infection caused World Health Organization to declare Zika a public health emergency of international concern. Unlike responses to previous PHE, the unprecedented collaborative reaction and sharing of resources by the scientific and public health communities has driven advances in understanding Zika infection and its effects at an unparalleled rate. At Blood Systems Research Institute we have capitalized on existing infrastructure and networks to collaborate with blood banks, commercial diagnostics and blood screening companies, researchers and national and international government agencies to develop and perform follow up studies of Zika infected blood donors to develop a unique, comprehensive and well pedigreed biorepository of longitudinally collected Zika specimens. This shareable biorepository has facilitated detailed studies characterizing the pathogenesis, persistence and compartmentalization of virus, characterization of viral dynamics, immune parameters and correlation of clinical outcomes, as well as identification and validation of predictive biomarkers. These findings inform government and public health agencies on diagnostic testing recommendations, donor screening and deferral policies, and patient and pregnancy management.

BIOBANK IN NHTD: THE EFFORT AND ACHIEVEMENT

Vu Thi My Hanh *(Vietnam)*

National Hospital for Tropical Diseases is a leading teaching hospital in patient care and research on tropical diseases in Vietnam. NHTD has an ambitious effort that seeks to extend precision medicine approaches by building a national infrastructures for sustained research on tropical diseases. This project focuses on biobanking and research on the biological determinants of disease. Since 2007, NHTD started Medical Microbiology Gene Bank Project – Vietnam, a long term project which in cooperation with DTRA/CBEP to stored isolated microorganism and biospecimens from patients' samples positive with certain pathogens combined with all related laboratory and clinical informations. Now, NHTD is storing over 50000 samples in biobank. Moreover, NHTD recently implemented a bioinformatics system to management and analysis samples informations. This project has initiated the first collaborative network with prestigious health and research institutions in the country, and with the other international partners offering its services to the scientific community, in favor of excellence of our clinical research, education programs. This also helps improve the biosafety and biosecurity activities in Vietnam. NHTD willing to join in local and international repositories networks.

BIODIVERSITY AND THE NEED FOR STANDARD BIOLOGICAL REFERENCE MATERIALS (SBRMS)

Robert Hanner *(Canada)*

The advancement of DNA sequencing technologies are making inroads into the study of biodiversity at varied scales, from whole genome sequencing of model organisms to marker gene surveys of entire communities and/or taxonomic assemblages. This information can be used in a plethora of downstream applications, including for example, the identification of pests, parasites and vectors of zoonotic diseases. To this end, the Convention on Biological Diversity has advocated the use of tools like DNA Barcoding to address the taxonomic impediment and identify genomic resources globally. This is a powerful approach when reference sequences used for the identification of unknown samples are linked to expert-identified repository specimens. However, as a finite resource, those specimens are not suitable for use as positive controls or for proficiency testing of labs that seek to use DNA sequencing as a molecular diagnostic tool. This talk will discuss innovative approaches for biobanks to respond to the emerging need for wide-spread access to standard biological reference materials in order to facilitate emerging molecular diagnostic applications.

THE SAIL DATABANK: LINKING REAL WORLD POPULATION-SCALED DATA TO A NATION'S BIO-REPOSITORIES. EASY?

David Ford *(United Kingdom)*

Systematically harvesting all the data from a country's health and care providers is hard. Technical and data barriers are significant and, increasingly, public support cannot always been relied upon. Wales' SAIL Databank has made significant progress over the last decade and now it turning its sights on the task of linking the country's many bio-banks into the SAIL system, to provide significantly enhanced data facilities for research - from the molecule through to the population.

FACILITATING RESEARCH UTILIZATION OF THE MAYO CLINIC BIOBANK

Janet Olson *(USA)*

The Mayo Clinic Biobank, is a research collection of blood-based specimens, patient reported data and clinical data on 56000 Mayo Clinic patients. It began in 2009 and has been available since 2010 to researchers within the Mayo Clinic system as well as to researchers external to Mayo Clinic. More than 200 projects have been approved for use of the resource since its inception. Dr. Janet Olson will present a history of the Mayo Clinic Biobank, summarize key uses of the collection to date as well as lessons learned as to how to best facilitate use of the biobank over time as current research needs change.

BUILDING LARGE-SCALE RESOURCES FOR COMPANION ANIMAL AND TRANSLATIONAL RESEARCH THROUGH PERSONALIZED CANINE GENOMICS

Adam Boyko *(USA)*

Although biobanking resources for companion animals has been steadily growing, developing large-scale repositories of tissues and DNA with associated genetic information is much more difficult. The cost of genotyping or sequencing very large cohorts is prohibitive for most research projects, so even when large biobanks can be built, genetic analysis is only performed on a subset of the samples. However demand by owners and breeders for personalized genetic information for their dogs can be used to drive both sample acquisition and genetic analysis for companion animal biobanks, and may be a promising route for supporting large-scale cross-sectional or longitudinal studies aimed at understanding the genetics of complex traits, diseases and aging in these animals.

FAIR SAMPLE AND DATA ACCESS

David van Enckevort *(Netherlands)*

Biobank directories (e.g. BBMRI-ERIC Directory, ISBER Resource Locator) and workflow systems for sample and data requests (e.g. BBMRI-NL Request Portal, BBMRI-ERIC Negotiator) are generic ways to increase visibility of biobank collections and improve the use of samples and associated data. Adoption of these systems however requires a significant effort from the biobanks to properly annotate and publish their collections. We have developed a flexible software system (MOLGENIS) to easily build directories based on a flexible data model and advanced tools for data integration (MOLGENIS/connect) to address this burden. Together with the development of the MIABIS information model this provides a solution that meets the FAIR (Findable, Accessible, Interoperable and Reusable) principles for data stewardship and enables biobanks to more easily harmonise and publish their data.

ISBER EDUCATION & TRAINING WORKSHOP SUMMARIES

Wednesday, May 10 • 3:00pm-4:00pm

EDUCATIONAL WORKSHOP 1: THINNING THE COLLECTION - CAN BIOBANKS EVER DISCARD SAMPLES?

Pier 2&3

Presenters: Rebekah Rasooly *(USA)****, Bartha M. Knoppers*** *(Canada)****, Sherilyn J. Sawyer*** *(Canada)*

As population-based studies and precision medicine approaches become more popular, the collections in biobanks are growing dramatically. In the US, for example, the All of Us Research Program (Precision Medicine Initiative®) and the Million Vets Program each plan to collect samples from one million individuals. However, it is extremely expensive to maintain such collections and this poses challenges for the institutions or funding agencies supporting the repository.

This workshop will examine how human biosample repositories manage their collections ethically and appropriately in a sustainable manner. Can a biobank discard some of its human samples? How do we consider the participant's perspective when deaccessioning samples? Would the participant prefer that the samples be discarded or used for research with very little merit ('having a garage sale for samples')? For how long is a repository obliged to maintain a sample where the consent does not specify an end date? Should samples to be discarded be returned to the collecting investigator or just destroyed?

EDUCATIONAL WORKSHOP 2: LIMITATIONS AFFECTING THE USE OF HUMAN & ANIMAL TISSUES IN RESEARCH: WHAT THE LITERATURE TELLS BIOREPOSITORIES

Pier 4

Presenters: William E. Grizzle *(USA)****, Dennis Otali*** *(USA)****, Daniel S. Atherton*** *(USA)****, Katherine C. Sexton*** *(USA)*

Some requests for tissues including associated specimen requirements specified by investigators as well as some requirements used by biorepositories in their operations are based on hearsay and anecdotal information; in contrast, all such requirements should be based on scientific studies. This workshop will focus on how the literature in biorepository sciences aids biorepositories in selecting requirements for biorepository operations and in educating investigators as to standards for research tissues. Thus, the workshop supports the mission and vision of ISBER in their goals of educating the biorepository community and investigators in order to pursue optimal tissue quality for supporting research.

EDUCATIONAL WORKSHOP 3: BUSINESS PLANNING FOR BIOBANKING

Pier 5

Presenters: Erik Steinfelder *(Netherlands)****, Alison Parry-Jones*** *(United Kingdom)*

Biobanking is a relatively young scientific discipline that requires multiple skills and competences that go way beyond being a good custodian of valuable collected materials. Challenges around governance, ethics, data management, logistics and quality are faced by many biobanks in their daily routine. This session will discuss:

1. General business planning for biobanking
2. Making your biobank visible and adding value
3. Financials – sustain after the first 5 years
4. ELSI and business planning; is it a threat or can it help moving forward

Thursday, May 11 • 11:30am-1:00pm

COMMERCIALIZATION AND ACCESS AND BENEFIT-SHARING (ABS) WORKSHOPS

Translating basic research discoveries into practical application involves private industry, the public sector, and academia, from human to animal to environmental research. However, there are complex policies and ELSI issues involved in these sectors' biobanking activities and sample uses in research. This two-part workshop series will highlight ELSI issues related to the commercial development and/or use of specimens and associated phenotypic data, ownership of/rights to use specimens and associated data, and benefits sharing arising from specimen access and use.

EDUCATIONAL WORKSHOP 4: COMMERCIALIZATION AND ABS PART 1: PUBLIC AND COMMUNITY PERSPECTIVES ON SAMPLE USE

Pier 2&3

Presenters: Piper Mullins *(USA)****, Marta Castelhano*** *(USA)****, William E. Grizzle*** *(USA),* ***Gilbert Lau*** *(Malaysia)*

Panelists: Kirstin Goldring *(United Kingdom),* ***Judith Giri*** *(USA)*

Workshop Part 1, "Public and Community Perspectives on Sample Use," will present speakers from the museum, veterinary, and human academic sectors. The speakers will discuss a) access and benefit sharing (ABS) policies stemming from the Nagoya Protocol, and applicable to science policy for all biobankers, and b) universities' and public sectors' experience sharing benefits and working with companies for commercial use of specimens. The presentations will be followed by a group-led discussion to contextualize the policy implementation approaches discussed.

EDUCATIONAL WORKSHOP 7: COMMERCIALIZATION AND ABS PART 2: PRIVATE & LEGAL PERSPECTIVES AND COMMERCIALIZATION USE CASES

Pier 2&3 *(1:45pm - 3:30pm)*

Presenters: Mark Barnes *(USA)****, Gilbert Lau*** *(Malaysia)****, Kirstin Goldring*** *(United Kingdom)*

Panelist: William E. Grizzle *(USA)*

Workshop Part 2, "Private & Legal Perspectives and Commercialization Use Cases," will present three speakers from the legal, private, and government sectors. The speakers will discuss a) ownership and use of human specimens; b) a private industry perspective on commercial use and working with the public sector; and c) a government use case on commercializing specimens using the Nagoya Protocol. This series of short presentations will be followed by audience discussion.

EDUCATIONAL WORKSHOP 5: THE PRACTICE (AND ART) OF BIOSPECIMEN GOVERNANCE

Pier 4

Presenters: Marianna Bledsoe *(USA)****, Helen Morrin*** *(New Zealand)****, Nicole Sieffert*** *(USA)*

Biospecimen governance is essential to the development and continuation of successful biorepositories and biospecimen-related research efforts. Defining the authorities, processes, and procedures required to guide key operational decisions however, can be difficult. This workshop will include interactive discussion, share working examples, and provide an introduction to the following aspects of research biospecimen governance:

- Governance definition, purpose, models
- Responsibilities of the PI, IRB, etc.
- Participant Engagement
- Biospecimen access concerns (policies,ELSI, etc.)
- Biospecimen distribution concerns (coding, tracking, consent, etc.)

EDUCATIONAL WORKSHOP 6: FIRST, DO NO HARM: BEST PRACTICES AND REGULATORY REQUIREMENTS WHEN PROCURING TISSUE SPECIMENS IN THE CLINICAL SETTING

Pier 5

Presenter: Shannon McCall *(USA)*

While some biorepositories focus primarily on processing, storage, management, and distribution of specimens that arrive for accessioning via courier service, biorepositories associated with hospitals often also manage specimen procurement in the clinical setting in partnership with the hospital's Pathology department and clinical laboratories. The pathologist's unique medical training allows them to function as patient advocate, ensuring the fidelity of the diagnostic process. This workshop will review specimen procurement from the perspective of a physician-pathologist.

Thursday, May 11 • 1:45pm-3:30pm

EDUCATIONAL WORKSHOP 8: PUBLIC EDUCATION ABOUT BIOBANKS

Pier 5

Presenters: Suzanne Vercauteren *(Canada)****, Sheila O'Donoghue*** *(Canada)*

It is clear that the vast majority of the general public has no or little concept about what biobanks are and what their purpose is. There is an obvious need to educate the public so that they can make an informed decision when asked to participate in biobanking or research. A number of excellent videos and pamphlets have been designed to educate the public on what biobanks are and will be presented as part of the introduction to the workshop. The BC Transplant media kit will be presented as an example of a tool used to educate the public about a similar topic.

The objective of the workshop is to have attendees identify key messages to include in the contents of a public education biobank kit in different formats (print ad, online ad, fact sheet, letter, radio, video). These items will be drafted by workshop attendees.

(Up to 6) members of the public interested in engaging in the workshop will be identified by local (Toronto-based) colleagues. An orientation to biobanking, including a one hour teleconference, will be presented to the invited members of the public prior to the workshop.

Pre-registered attendees of the workshops will be put into working groups comprised of members of the public, researchers, biobankers and others interested in the topic. Non-registered attendees will be assigned to groups based on their professions and personal interests. Following a brief introduction to the purpose of the session and the working groups tasks, the groups will be invited to describe key messages to include in a biobank public education kit. Each working group will present the unique aspects of their education kit to the whole group.

Finally, if there is time there will be a discussion about ISBER's role in public education about biobanks. We will also discuss how/if messages need to be adjusted for the global ISBER audience.

EDUCATIONAL WORKSHOP 9: BEST PRACTICES FOR STORAGE EQUIPMENT AND ENVIRONMENT

Pier 4

Presenters: John Fink *(USA)****, Marta Castelhano*** *(USA)*

ISBER best practices advocate transferring samples as quickly as possible, but how fast is quick and is it fast enough? Recent research demonstrates vials at cryogenic temperatures can warm as fast as 2°C per second when exposed to an ambient environment. The type of sample, consumable, exposure environment and time will all affect the temperature rise of the sample. Additionally, research shows that warming events can adversely affect post-thaw sample quality and viability.

Biobanking professionals need to identify the variables that affect sample warming in order to understand the scale of the transient event and its effect. Only then, can they implement controlled and monitored processes to ensure valuable samples are never damaged from excessive temperature elevations.

In this workshop attendees will learn about the latest temperature excursion research and the effect of temperature change on biobank samples. This workshop will foster a discussion on:

- Causes and rates of sample warming and all variables
- How increasing cell-based research and therapies are changing the temperature needs of researchers
- Current practices vs. best practices on maintaining sample temperature and viability
- How to build more rigor into the cold-chain management of your sample inventory
- Methods to improve standardization and monitoring of sample temperature control in a biobank
- How new technologies can enable better sample protection and monitoring

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POSTER SESSIONS

Poster Session 1

Abstract ID	Title	Presenter	Country
BEAR-1	THE "POWER" IS IN COLLABORATION: VASCULARIZED COMPOSITE ALLOTRANSPLANTATION COLLABORATIVE INITIATIVE (VCACI) BIOBANK	Mary-Beth Joshi	United States
BEAR-2	THE NASA AMES LIFE SCIENCES DATA ARCHIVE: HISTORY, BEST PRACTICES, AND SCIENTIFIC OPPORTUNITIES	Jon Rask	United States
BEAR-3	THE MICROORGANISMS & VIRUSES CULTURE COLLECTION CENTER (MVCCC) IN CHINA	Shu Shen	China
BET-2	DRIVE DATA SHARING, COLLABORATIVE RESEARCH AMONG THE NETWORK OF BIOBANKS USING CLOUD	Shonali Paul	United States
BP-1	SHANGHAI EAST HOSPITAL STEM CELL BANK	Hongmei Zhou	China
BP-2	CHINA NATIONAL GENEBANK AS AN OPEN PLATFORM FOR LEADING THE NEW ERA OF LIFE SCIENCE	Xun Xu	China
BP-3	BIOBANK AND TRANSLATIONAL MEDICINE IN CHINA	Mingyu Ni	China
BP-5	THE GUIDING SIGNIFICANCE OF THE ISO9001:2015 REVISION FOR CLINICAL BIOBANK	Xin Ni	China
BP-6	THE BIOLOGICAL SAMPLE BANK INTRODUCTION OF TIANJIN FIRST CENTRAL HOSPITAL IN CHINA	Zheng Wang	China
BP-9	THE BIOBANKERS IN CHINA ARE CLOSELY COMBINED	Xuexun Zhou	China
BRS-1	THE TUBE REALLY DOES MATTER - AN ASSESSMENT OF FOUR DIFFERENT BLOOD COLLECTION TUBES FOR AUTOMATED RNA EXTRACTION IN A BIOREPOSITORY ENVIRONMENT.	Emily Hale	United States
BRS-2	RESIDUAL FORMALIN IN A TISSUE PROCESSOR PREVIOUSLY USED FOR FFPE BLOCKS REDUCES NUCLEIC ACID YIELD AND QUALITY IN PAXGENE-FIXED TISSUES	William Mathieson	Luxembourg
BRS-3	DEVELOPING A GENOMIC BIG-DATA PROGRAM BASED ON HIGH-QUALITY CANCER BIOBANK	Haixin Li	China
BRS-4	THE EFFECT OF SPECIMEN COLLECTING AND PLACING TIME ON CYTOKINE DETERMINATION	Ling Qin	China
BRS-5	ETIOLOGY COMPARATIVE ANALYSIS OF HAND, FOOT AND MOUTH DISEASE FROM 2013 TO 2015.	Ting Liu	China
BRS-6	CLINICAL DATA OF CERVICAL CANCER AND CERVICAL INTRAEPITHELIAL NEOPLASIA IN THE MANAGEMENT INFORMATION SYSTEM	Yinmei Dai	China
BRS-7	EXAMINING THE EFFECTS OF DIFFERENT RED BLOOD CELL (RBC) LYSING AGENTS ON SEPARATED PERIPHERAL BLOOD MONONUCLEAR CELL (PBMC) RECOVERY AND VIABILITY POST CRYOPRESERVATION AND THAW	Robyn Osborne	United States
BRS-8	THE EFFECT OF LIQUID NITROGEN STORAGE ON CTDNA EXTRACTION FROM PLASMA	Jessica Kenney	United States
BRS-9	INFLUENCE OF FREEZE-THAWING ON RNA INTEGRITY OF GASTROINTESTINAL CANCER AND MATCHED ADJACENT TISSUES	Ying Hu	China
BRS-10	FUNCTIONAL STUDY OF DIFFERENTIAL EXPRESSION PLASMA MIRNAS IN PATIENTS WITH HBV-RELATED LIVER DISEASES	Jun Cheng	China
BRS-11	TO REFLECT THE DIVERSITY OF RNA VIRUSES IN BOOPHILUS MICROPLUS TICKS FROM YUNNAN PROVINCE, CHINA	Junming Shi	China
BRS-12	OPTIMIZING A PROTOCOL FOR DNA EXTRACTIONS FROM FFPE TISSUE: DIFFERENT PROTEINASE K DIGESTS AND DEPARAFFINISATION IN CENTRIFUGE TUBES OR ON MICROSCOPE SLIDES	Manveer Sroya	United Kingdom
BRS-13	STABILITY OF RNA AND MIRNA IN PAXGENE-FIXED PARAFFIN-EMBEDDED TISSUE BLOCKS AFTER SEVEN YEARS STORAGE	Ignacio Sanchez	Luxembourg
BRS-14	BIOSPECIMEN SCIENCE RESEARCH RESOURCES GENERATED FROM THE NCI'S BPV PROGRAM	Ping Guan	United States

Abstract ID	Title	Presenter	Country
BRS-15	ADIPOSE-DERIVED AUTOLOGOUS MESENCHYMAL STEM CELLS FOR TREATMENT OF DEEP BURNS IN THE HAND	Abdurrahman Abo Elkheir	Egypt
BRS-16	AUTOLOGOUS STEM CELL TRANSPLANTATION IN PATIENTS WITH IDIOPATHIC PREMATURE OVARIAN FAILURE	Abdurrahman Abo Elkheir	Egypt
BRS-17	NOVEL METHOD FOR COLLECTION OF BLOOD FOR DOWNSTREAM NUCLEIC ACID EXTRACTION	Angela Muise	United States
BRS-18	A COST EFFECTIVE METHOD FOR TEMPERATURE MAPPING OF LIQUID NITROGEN VAPOR STORAGE TANKS. MARSH, W; ARANGO, J; BURROWS, BT; CARPENTIERI, D PHOENIX CHILDREN'S HOSPITAL BIOLOGICAL MATERIAL PROGRAM. 1919 E THOMAS RD, PHOENIX, AZ 85016	Will Marsh	United States
BRS-19	FREEZER TEMPERATURE EXCURSION EFFECTS ON BIOSPECIMEN TEMPERATURES	Matthew Dool	United States
BRS-20	VAPOR SHIPPER DEWARS AS TEMPORARY STORAGE DEVICES AT CLINICAL SITES	Scott Launius	United States
BRS-21	THE IMPORTANCE OF QUALITY CONTROL AND CLINICAL INFORMATION COLLECTION FOR GASTROINTESTINAL BIOBANK IN SHANGHAI RUIJIN HOSPITAL	Yingyan Yu	China
BRS-22	FLOW CYTOMETRY CHARACTERIZATION OF PATIENT BONE MARROW SAMPLES	Emma Brooks	United States
BRS-25	THE MOLECULAR CLASSIFICATION OF ORAL CANCER BASED ON BIO-TISSUE AND BIO-INFORMATION BANK	Wantao Chen	China
BRS-26	BEST PRACTICES VS. TRADITIONAL PRACTICES OF PROCEDURES AND TECHNOLOGY FOR PRESERVING VIABILITY AND FUNCTIONALITY OF T-CELLS AT BOTH -80C AND -190C	John Fink	United States
BRS-27	EFFECT OF ULTRA-LOW -80C TEMPERATURE STORAGE ON INTEGRITY OF DNA EXTRACTED FROM WHOLE BLOOD SAMPLES.	Claire Lewis	United Kingdom
BRS-28	CPTAC PHASE III, CONTINUATION OF THE PROTEOGENOMIC ANALYSIS OF CANCERS	Linda Hannick	United States
BRS-29	ANALYSIS OF DEGRADATION PRODUCTS FROM COMPLEMENT C4B SHOWS THAT VACUUM DRIED PLASMA SAMPLES ARE STABLE AT ROOM TEMPERATURE FOR AT LEAST ONE YEAR	Jaimie Dufresne	Canada
BRS-30	THE CONSTRUCTION OF CLINICAL AND BIOSPECIMEN INFORMATION INTEGRATION PLATFORM OF ORTHOPAEDIC DEGENERATIVE DISEASES IN CHINA	Danhui Zhao	China
BRS-31	EFFECTS OF PRE-ANALYTICAL VARIABLES ON THROMBOSIS BIOMARKERS IN CANCER PATIENTS: STUDY PLANNING AND LAUNCH	Jasmin Bavarva	United States
BRS-32	LONG-TERM STORAGE OF PLASMA PROTEINS AS FILTER PAPER DRIED SPOTS FOR DOWNSTREAM PROTEOMIC APPLICATIONS	David Carpentieri	United States
BRS-33	BANKING OF HUMAN PLURIPOTENT STEM CELLS	Aikaterini Ntai	Italy
BRS-34	TOTAL PROTEOME AND PHOSPHOPROTEOME ANALYSIS AND COMPARISON OF CRYOPRESERVATION IN LIQUID NITROGEN AND DRY ICE VERSUS PAXGENE-FIXED TISSUES AT VARYING POST MORTEM INTERVALS USING LC-MASS SPECTROMETRY	Anna Smith	United States
BRS-35	COMPREHENSIVE ANALYSES OF LONG NON-CODING RNA EXPRESSION PROFILES IN NSCLC IDENTIFIED AFAP1-AS1 AS A PROGNOSTIC BIOMARKER	Rong Yin	China
BRS-36	EFFECTS OF STORAGE CONDITIONS ON PROTEIN MEASUREMENTS: A BIOSPECIMEN PREANALYTICAL VARIABLES PROGRAM STUDY	Lokesh Agrawal	United States
BRS-37	THE NIH GENOTYPE TISSUE EXPRESSION PROJECT (GTEX) LEGACY EFFORT	Nancy Roche	United States
ELSI-1	USE OF HUMAN SPECIMENS IN COLLABORATIVE RESEARCH WITH CORPORATIONS: THE PRACTICE AT KYOTO UNIVERSITY.	Tatsuaki Tsuruyama	Japan
ELSI-2	"UNIVERSAL PATIENT LANGUAGE" – IMPROVING INFORMED CONSENT	Debra Reinhard	United States
ELSI-4	IMPROVING QATAR BIOBANK CONSENT COMPREHENSION	Mariam Mostafa	Qatar
ELSI-5	THE COLLABORATIVE BIOBANK – ESTABLISHING A BIOBANK UNDER THE GERMAN LEGAL PATCHWORK	Carolin Haase	Germany
ELSI-6	PROSPECTIVE BIOSPECIMEN RESOURCE: SUBJECT CONSENT TYPES APPROVED FOR PROCUREMENT, 2016	Randal Mandt	United States
ELSI-7	REFERENCE OF THE HUMAN BIOBANK MANAGEMENT ACT (BIOBANK ACT) IN TAIWAN AREA TO ETHICS CONSTRUCTION AND CLINICAL RESEARCH BIOBANK IN CHINA	Lihua Bai	China

Abstract ID	Title	Presenter	Country
ELSI-8	DEVELOPMENT OF A STRATEGY FOR PERSONAL AND PUBLIC INVOLVEMENT (PPI) FOR THE NORTHERN IRELAND BIOBANK	Priscilla Clark	United Kingdom
ELSI-10	RETURN OF RESEARCH FINDINGS: EXPERIENCE FROM THE HEART CENTRE BIOBANK REGISTRY	Tanya Papaz	Canada
HSR-1	DEVELOPMENT OF QUALITY INDICATORS FOR BIOSPECIMENS IN THE CANADIAN LONGITUDINAL STUDY ON AGING	Josko Ivica	Canada
HSR-2	HIGH QUALITY BIOSPECIMEN COLLECTION FROM A DIVERSE PATIENT POPULATION, IN COLLABORATION WITH NCI'S BIOSPECIMEN PREANALYTICAL VARIABLES PROGRAM.	Chris Andry	United States
HSR-3	PATIENT-DERIVED ORGANOID RESEARCH USING RESOURCES AT UC DAVIS CANCER CENTER BIOREPOSITORY	Eric Huang	United States
HSR-4	EXPERIENCE OF ORGANIZING THE FIRST ICMR NATIONAL TUMOUR TISSUE REPOSITORY (INTTR) IN INDIA	Sangeeta Desai	India
HSR-5	LONG-TERM STABILITIES OF SELECTED TUMOR MARKERS IN SERUM	Marie Karlikova	Czech Republic
HSR-6	RECRUITING BIOSPECIMEN RESOURCES FOR THE NATIONAL CANCER INSTITUTE'S SPECIMEN RESOURCE LOCATOR	Joanne Demchok	United States
HSR-7	FACILITATING ACCEPTANCE OF AN INSTITUTIONAL BIOBANKING PROTOCOL THROUGH AN ESTABLISHED RESEARCH SUPPORT MODEL	Mary-Beth Joshi	United States
HSR-8	SURGICAL CRITICAL CARE INITIATIVE (SC2I) TISSUE AND DATA ACQUISITION PROTOCOL: SUPPORTING INNOVATIONS IN PRECISION MEDICINE FOR WOUNDED WARRIORS	Jennifer Cheeseman	United States
HSR-9	INTRODUCTION OF TIMESTAMP SYSTEM IN HANDLING OF SURGICAL SPECIMENS FOR THE QUALITY CONTROL: CALCULATION OF THE WARM ISCHEMIA TIME AS A CRITICAL ISSUE	Yohei Miyagi	Japan
HSR-10	QUALITY ANALYSIS OF DNA FROM ABORTION WITH BIRTH DEFICITS FOLLOWING A STANDARDIZED COLLECTION PROCEDURE	Hong Gao	China
HSR-11	ROBOTIC HIGH VOLUME TISSUE MICROARRAY (TMA) CONSTRUCTION FROM LUNG ADENOCARCINOMAS	Umesh Bhanot	United States
HSR-12	IMPACT OF ROOM TEMPERATURE ON TISSUE QUALITY AS ASSESSED BY RNA INTEGRITY NUMBER (RIN)	Umesh Bhanot	United States
HSR-13	THE COMPLEX SCIENCE OF BIOBANKING: THE NHLS/STELLENBOSCH UNIVERSITY BIOBANK (NSB), A SOUTH AFRICAN CASE STUDY	Carmen Swanepoel	South Africa
HSR-14	THE EVALUATION AND MANAGEMENT OF PATHOLOGICAL MORPHOLOGY IN BIOBANK	Yue Hu	China
HSR-15	HUMAN SPECIMEN BIOBANK FOR MATERNAL AND CHILDREN HEALTH	Xiaoying Zheng	China
HSR-16	BIOSPECIMEN PREANALYTICAL VARIABLES (BPV) PROGRAM SAMPLE COLLECTION AVAILABILITY	Dana Valley	United States
HSR-17	CANADIAN PARTNERSHIP FOR TOMORROW PROJECT: CANADA'S LARGEST POPULATION STUDY	Treena Mcdonald	Canada
HSR-18	GREAT LAKES BIOREPOSITORY RESEARCH NETWORK (GLBRN) IN ACTION	Scott Jewell	United States
HSR-19	IMPLEMENTING AND VALIDATING COLLECTION AND SHIPPING PROCEDURES FOR THE ALL OF US RESEARCH PROGRAM PRECISION MEDICINE INITIATIVE (PMI)	Abby Willkomm	United States
HSR-20	MIDWESTERN COOPERATIVE HUMAN TISSUE NETWORK (MW CHTN/NCI) PROVIDES INVESTIGATOR REQUESTED CUSTOM BIOSPECIMEN PREPARATION AND PRESERVATION TYPES, 2016.	Randal Mandt	United States
HSR-22	ELP: STRATEGIC IMPLEMENTATION TO ESTABLISH A BIOREPOSITORY FOR COHORT STUDIES WITHOUT DISRUPTING CLINICAL PRACTICE	Weiye Wang	China
HSR-23	THE SEER VIRTUAL TISSUE REPOSITORY PILOT: LEVERAGING POPULATION-BASED BIOSPECIMENS	Radim Moravec	United States
HSR-24	THE IMPORTANT ROLE OF CONTROL POPULATION COLLECTIONS IN BIOBANKS	William Mathieson	Luxembourg
HSR-25	PROSPECTIVE MODELLING TO BUILD BIOBANK SYSTEM AT UNIVERSITAS GADJAH MADA, INDONESIA	Jajah Fachiroh	Indonesia

Abstract ID	Title	Presenter	Country
HSR-26	MANCHESTER CANCER RESEARCH CENTRE BIOBANK – DEVELOPING AN INFRASTRUCTURE FOR RARE CANCER TISSUE COLLECTION	Sharzad Moghadam	United Kingdom
HSR-28	SURGICAL CRITICAL CARE INITIATIVE: EVIDENCE TO INFORM PRACTICES OF CLINICAL DATA STANDARDIZATION ACROSS MULTI-SITE CONSORTIUMS	Mary Davis	United States

Poster Session 2

Abstract ID	Title	Presenter	Country
HT-1	TOWARDS SUSTAINABILITY: APPROACHES TO ASSESS SPECIMEN DEMAND - THE NATIONAL AMYOTROPHIC LATERAL SCLEROSIS (ALS) BIOREPOSITORY EXPERIENCE	Marianna Bledsoe	United States
HT-2	EFFECT OF LEEP ON HPV INFECTED MODERATE CERVICAL INTRAEPITHELIAL NEOPLASIA	Wang Jiandong	China
HT-3	ANALYSIS OF SHORT-TERM EFFICACY AND PATHOLOGICAL OUTCOME OF PACLITAXEL PLUS PLATINUM AS NEOADJUVANT CHEMOTHERAPY IN THE TREATMENT OF LOCALLY ADVANCED CERVICAL CANCER	Yu-Mei Wu	China
HT-4	A NEW ERA FOR ENERGY EFFICIENCY: ENERGY STAR FOR LABORATORY FREEZERS AND REFRIGERATORS	Allison Paradise	United States
HT-5	PATHOLOGY AND ITS RECOGNIZED AND UN-RECOGNIZED LINKS TO QUALITY BIOBANKING	Marianne Henderson	United States
RAT-1	INTEGRATION OF A BIOBANK SOFTWARE INTO A CLINICAL LABORATORY WORKFLOW	Marie Karlikova	Czech Republic
RAT-2	GENERIC PORTAL TO REQUEST ACCESS TO BIOBANK DATA AND SAMPLES	Erik van Iperen	Netherlands
RAT-3	WHEN TO AUTOMATE	David Lewandowski	United States
RAT-4	UPPSALA BIOBANKS MODEL FOR MIMICKING AUTOMATION BY USING A WEB BASED APPLICATION THAT ENABLES SAMPLE COLLECTION EVERYWHERE	Karolin Bergenstråhle	Sweden
RAT-5	AN EFFICIENT AND COST EFFECTIVE SILICA-BASED DNA EXTRACTION FROM WHOLE BLOOD	Alberto La Spada	Italy
RM-2	ESTABLISHING A REPOSITORY OF FORMALIN-FIXED PARAFFIN-EMBEDDED (FFPE) TISSUE FOR A LARGE NATIONAL COHORT	Gretchen Van Lom	United States
RM-3	THE DESIGN OF QUALITY CONTROL SYSTEM FOR BIOSPECIMEN RESOURCES	Qian Zhang	China
RM-4	CONTRIBUTION OF A POPULATION-BASED BIOBANK TO IMPROVING THE HEALTH STATUS OF THE JAPANESE POPULATION	Naoko Minegishi	Japan
RM-5	SOCIAL SUSTAINABILITY: PERSPECTIVE FROM A COMMUNITY HOSPITAL	Jennifer Wong	United States
RM-6	LEVERAGING CLOUD TECHNOLOGY TO MANAGE PROCESSES AND DATA TO MAINTAIN HIGH-QUALITY STORAGE SERVICES AT THE UNIVERSITY OF SHEFFIELD BIOREPOSITORY	Shonali Paul	United States
RM-7	THERE IS NO "MASTER" IN MASTER DATA	Angel Morgan	United States
RM-8	ENABLING BIOBANK DATA EXCHANGE: THE CHALLENGES OF DATA INTEGRATION AND ADVANTAGES OF VIRTUALIZING A CENTRALIZED TECHNOLOGY SOLUTIONS PLATFORM	Colin Thurston	United Kingdom
RM-9	UTILIZING SYSTEM ENGINEERING METHODS TO SUPPORT RAPID SCALE UP OF BIOREPOSITORY OPERATIONS: THE MAYO CLINIC EXPERIENCE	Julie Jensen	United States
RM-10	OPERATING A FEDERATED BIOREPOSITORY MODEL FOR THE CANADIAN PARTNERSHIP FOR TOMORROW PROJECT	Treena McDonald	Canada
RM-11	THE IMPORTANCE OF BIOBANKING IN HEALTH CARE RESEARCH.	Mantombi Maseme	South Africa
RM-12	UNSUSTAINABLE? CAP SURVEY OF PATHOLOGY DIRECTORS HIGHLIGHTS INCONSISTENT SUPPORT FOR TISSUE PROCUREMENT	Shannon McCall	United States
RM-13	SCIENTIFIC RESEARCH PROJECT MANAGEMENT BASED ON BIOBANK PLATFORM	Yanhong Liu	China
RM-14	PROOF OF CONCEPT FOR CUSTOM TMAS; BUILD ON DEMAND	Barbara Richardson	United States

Abstract ID	Title	Presenter	Country
RM-15	OPENSPECIMEN - EXPERIENCES OF COLLABORATIVE DEVELOPMENT OF AN OPEN SOURCE BIOBANKING INFORMATICS PLATFORM	Srikanth Adiga	India
RM-16	ESTABLISHING A GLOBAL INFRASTRUCTURE FOR CLINICAL TRIALS THROUGH INTEGRATED BIOREPOSITORY SERVICES AND HARMONIZED QUALITY ASSURANCE PLATFORMS	Jesse Gore	United States
RM-17	AN EFFICIENT AND RELIABLE SAMPLE REQUEST PROCEDURE AT CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	Beth Cobb	United States
RM-18	HAVE YOU ALREADY STARTED MANAGING YOUR RISKS? HOW A RISK MANAGEMENT PLAN CAN BE IMPLEMENTED IN A BIOBANK	Karine Sargsyan	Austria
RM-19	ADDING VALUE TO YOUR CLINICAL STUDY THROUGH A SUCCESSFUL BIO-BANKING STRATEGY	Balwir Matharoo-Ball	United Kingdom
RM-20	LIMS REPLACEMENT AND MANAGEMENT OF BIOREPOSITORY DATA	Joshua Spencer	United States
RM-21	CHALLENGES OF BIOBANK – SUSTAINABILITY, EXPANSION AND NETWORKING - DEVELOPING COUNTRY PROSPECTIVE	Rania Labib	Egypt
RM-22	CONVERTING A REGIONAL TISSUE PROCUREMENT PROGRAM TO ENTERPRISE LEVEL: IMPLEMENTATION CHALLENGES FOR PANCREATIC TUMOR BIOREPOSITORY.	Arvind Rishi	United States
RM-23	QUALITY INDICATORS AS A MEASURE OF GOOD PRACTICE AT A NATIONAL BIOBANK IN SOUTH AFRICA.	Mantombi Maseme	South Africa
RM-24	IT ARCHITECTURE FOR SUPPORTING BIOREPOSITORY AUTOMATION	Corey Carlson	United States
RM-25	BUILDING A BIOBANK NETWORK IN INDONESIA	Ery Dwianingsih	Indonesia
RM-26	NOVEL APPROACH TO BIOBANKING SUSTAINABILITY THROUGH AN INSTITUTIONAL SHARED RESOURCE AND DIVERSIFICATION OF A RESEARCH SUPPORT PORTFOLIO	Jennifer Cheeseman	United States
RM-27	BIOBANK SOPS DEVELOPMENT AS THE TECHNIQUE ADVANTAGES	Menghong Sun	China
RS-2	QUALITY CONTROL PROTOCOLS FOR DOCUMENTATION OF TUMOR PROCUREMENT AND -80°C STORAGE OF BONE MARROW MONONUCLEAR CELLS IN PROGRESS AT THE MEDICAL COLLEGE OF WISCONSIN TISSUE BANK	Ellen Schneider	United States
RS-3	NATIONAL CANCER INSTITUTE'S BIOSPECIMEN EVIDENCE-BASED PRACTICES (BEBP): THE DEVELOPMENT OF EVIDENCE-BASED GUIDELINES FOR HUMAN BIOSPECIMEN COLLECTION, PROCESSING, AND STORAGE	Lori Campbell	United States
RS-4	VALIDATION OF THE COUNTESS™II AUTOMATED CELL COUNTER FOR COUNTING PERIPHERAL BLOOD MONONUCLEAR CELL (PBMC)	Robyn Osborne	United States
RS-6	EVALUATION OF BIOBANK SAMPLE CORRECTNESS AND INTEGRITY IN TMM BIOBANK	HIsaaki Kudo	Japan
RS-7	ENSURING HIGH QUALITY SAMPLES AND DATA FROM THE CANADIAN PARTNERSHIP FOR TOMORROW PROJECT BIOREPOSITORY	Wendy Powell	Canada
RS-8	MONITORING THE STABILITY OF KEY ANALYTES IN FROZEN POOLED SERUM AND PLASMA OVER 20+ YEARS	Megan Herndon	United States
RS-9	THE U.S. NATIONAL CANCER INSTITUTE'S 2016 BEST PRACTICES FOR BIOSPECIMEN RESOURCES	Abhi Rao	United States
RS-11	THE DNA INTEGRITY NUMBER: A NOVEL APPROACH FOR OBJECTIVE INTEGRITY CLASSIFICATION OF GENOMIC DNA SAMPLES	Rainer Nitsche	Germany
RS-12	TOWARDS A BETTER SAMPLE QUALITY: IMPLEMENTATION OF HARMONIZED PRACTICES IN SWISS HOSPITALS	Laurence Chapatte	Switzerland
RS-13	SAMPLE STORAGE TUBES AS QUALITY-CRITICAL COMPONENTS IN BIOBANKING	Sven Muehlfriedel	Germany
RS-14	USE OF AGILENT TAPESTATION FOR EXTERNAL QUALITY ASSURANCE OF GENOMIC AND CFDNA	Olga Kofanova	Luxembourg
RS-15	ASSESSING THE QUALITY OF RNA FROM FRESH FROZEN HUMAN TUMOUR TISSUES STORED LONG-TERM AT CRYOGENIC TEMPERATURES	Rachel Kelly	Canada
RS-16	QUALITY MANAGEMENT AND CLINICAL DATA MANAGEMENT IN CANCER BIOBANKING	Tanya Krubit	United States

Late Breaking Abstracts

Abstract ID	Title	Presenter	Country
LB-1	AN OPEN-SOURCE SYSTEM TO REPRESENT BIOLOGICAL DATA IN THE CONTEXT OF A STUDY	Joel Freyss	Switzerland
LB-2	ESTABLISHING THE RISK MANAGEMENT PLAN FOR A PEDIATRIC BIOBANK	Daniel Catchpoole	Australia
LB-3	A BUSINESS MODEL TO HARNESS THE POTENTIAL OF YOUR PATHOLOGY DEPARTMENT TO DRIVE TARGETED TREATMENT STRATEGIES AND IMPROVE OUTCOMES	Donna Russell	United States
LB-4	SPEAKING THE SAME BIOBANKING LANGUAGE: A BIOBANKING ONTOLOGY DEVELOPED FOR AND WITH DIVERSE SUBJECT MATTER EXPERTS	Helena Ellis	United States
LB-5	REGULATORY REQUIREMENTS FOR ROBUST TRACKING OF COMPLETE COLD STORAGE CHAINS	Matt Klusas	United States
LB-6	URINE SAMPLES WERE RECOMMENDED FOR RAPID DETECTION OF MT3243 A>G MUTATION	Yinan Zhang	China
LB-7	EFFECT OF PH ON THE STABILITY OF URINE BIOMARKERS IN DIABETIC NEPHROPATHY PATIENTS	Congrong Wang	China
LB-8	INTERUNIVERSITY BIO-BACKUP PROJECT (IBBP) FOR LIFE SCIENCE	Hiroaki Taketsuru	Japan
LB-9	BIOBANKING EFFORTS OF THE PHILIPPINE NATIONAL COLLECTION OF MICROORGANISMS (PNCM) TO CONSERVE THE COUNTRY'S MICROBIAL DIVERSITY	Rosario Monsalud	Philippines
LB-11	QUALITY IMPROVING ACTIVITY OF THE KOREA NATIONAL HUMAN BIOREPOSITORY NETWORK CENTER	Young Joo Cha	Korea (the Republic of)
LB-12	THE BIOBANKING COMPLEXITY MATRIX, KEY ETHICAL AND GOVERNANCE CONSIDERATIONS FOR EMERGING BIOBANKS: A SOUTH AFRICAN PERSPECTIVE	Mantombi Maseme	South Africa
LB-13	THE DEVELOPMENT OF A CLINICAL SERVICE BY A RESEARCH BIOBANK	Yu Hui Cheng	Singapore
LB-14	A BIOREPOSITORY TO SUPPORT CDX DEVELOPMENT AND NEW BIOMARKER DISCOVERY	Lotte Glück	Germany
LB-15	SAMPLES AND DATA MANAGEMENT FOR A LARGE EPIDEMIOLOGICAL AND CLINICAL STUDY AT THE MRC/UVRI BIOREPOSITORY: A CASE OF H3AFRICA DIABETES STUDY	Rogers Kisuule	Uganda
LB-16	ADVANCES IN BIOSPECIMEN SCIENCE TECHNOLOGY VIA THE INNOVATIVE MOLECULAR ANALYSIS TECHNOLOGIES (IMAT) PROGRAM OF NCI	Lokesh Agrawal	United States
LB-17	A PROACTIVE APPROACH: A CLINICAL PROGRAM DESIGNED TO INCREASE BIOBANK ACTIVITY	Isabel Hernandez	United States
LB-18	SAMPLE ANALYSIS AUTOMATION FOR BIOREPOSITORY QUALITY CONTROL	Jemma Iano-Fletcher	United States
LB-19	BIOBANK SELF-CONSENT METRICS ACROSS THE UNIVERSITY OF COLORADO HEALTH SYSTEM: DATA FROM THE FIRST 100,000+ PROSPECTIVE SUBJECTS	Stephen Wicks	United States
LB-20	ESTABLISHING A CONTINUOUSLY EVOLVING TISSUE COLLECTION PROGRAM FOR THE CORNELL VETERINARY BIOBANK	Susan Garrison	United States

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ARTIFICIAL INTELLIGENCE IN MEDICINE — BOOTH 303

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ATCC — BOOTH 507/606

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fully automated genomic DNA extraction and isolation from large volumes of whole blood. It purifies long- stranded genomic DNA from up to 10ml volumes of whole blood, starting from the primary sample tubes and ending in the final DNA storage tubes ready to move to the freezer. The automated system uses Qiagen's proven FlexiGene precipitation chemistry to produce high- quality DNA, free of RNA and other contaminants, and perfect for long- term storage, as well as many downstream assays.

AUTOSCRIBE INFORMATICS, INC. BOOTH 504

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BIOFORTIS, INC. BOOTH 502

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BIOLOGIX GROUP LIMITED BOOTH 317/416

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BIOMICROLAB BOOTH 616

BioMicroLab is an innovator of benchtop sample automation instruments to provide productivity tools for life science researchers in drug discovery, R&D, biorepositories and molecular genetics testing laboratories. BioMicroLab manufactures automated sample management platforms for tube and vial based handling, labeling, liquid handling, volume verification, barcode reader systems and more for tube racks and many other common labware formats. Our instrument offering helps improve laboratory efficiency by automating tasks associated with sample handling and by integrating multiple laboratory applications onto a single automation platform.

BIOSERO BOOTH 411/510

Biosero addresses the daily tasks and requirements faced in laboratories by providing scientists with products and services for fields including compound management, bio-banking and sample management. Instruments and consumable solutions include scanners, tubes, seals, software and automated solutions. Products are designed to ensure laboratories the most efficient and effective solution for their process.

BIOSTOR SYSTEMS, LLC — BOOTH 415

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BIOTILLION, LLC — BOOTH 312

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BLUECHIIP, LTD. — BOOTH 511

bluechiip has developed an IT-based temperature and identification tracking solution for biosamples in the health and life sciences industry. The system is well differentiated vs current methods such as labels (hand-written and pre-printed), barcodes (linear and 2D) and RFID (Radio Frequency Identification).

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BROOKS LIFE SCIENCE SYSTEMS — BOOTH 401/500

Brooks Life Science Systems, a division of Brooks Automation, provides comprehensive sample lifecycle management solutions including sample automation, cryogenics, consumables, compound and biological storage and flexible onsite or offsite sample storage models. Our expert sample management consultants deliver the highest quality management of research samples utilizing our industry-leading automation and cold-chain products, temperature-controlled storage facilities, global logistics services including Relofleet® mobile biorepository, innovative sample bioprocessing solutions and ISIDOR® transformational technology platform which integrates research samples and data. Our products, services and technology solutions support hundreds of bioscience customers around the world.

BSI SYSTEMS — BOOTH 301/400

BSI Systems (BSI, BioShare, and SRL Advantage) is a collection of web-based specimen inventory and resource management products that provide a variety of helpful workflows, specimen inventory, and location tracking services for your facility.

BSI manages your biobank with a validated software that tracks the complete life cycle of all specimens within your repository.

BioShare is a platform for sharing specimens and/or datasets with others in the research community by providing a central location for researchers to search, submit requests, and track requester correspondence.

SRL Advantage can aid researchers to search, locate, and request specimen resources across a biobanking network.

CHART MVE — BOOTH 409/508

Chart MVE, the leading innovative manufacturer of secure cryogenic storage, features a complete line of stainless steel freezers, aluminum vapor shippers, and nitrogen handling equipment. Chart MVE's stainless steel freezers achieve the longest hold time and lowest LN2 consumption of comparable freezers, with vial capacities ranging from 3,200 to 94,000.

The lightweight aluminum tank line is designed for efficient storage, with capacities ranging from 120 to 6,000 and both liquid and vapor storage options. Cryogenic shipping became more secure with the introduction of Chart MVE's newest shippers that provide savings on packaging, shipping costs, dry ice, and disposal.

CLOUDLIMS.COM — BOOTH 405

CloudLIMS provides SaaS Laboratory Management software for biobanks, clinical and diagnostic laboratories. Hosted on the cloud, BioTracer and CloudLIMS Lite are essential for any laboratory wanting to automate their operational workflows in a secure and reliable environment at virtually zero capex. BioTracer and CloudLIMS Lite support complete sample life-cycle management including subjects, consents, sample acquisition, storage, request management, and test results management, with a strong focus on data security and compliance (HIPAA & 21 CFR Part 11). With truly configurable, extensible and scalable products, CloudLIMS meets the ever-changing business requirements of both large and small organizations. To learn more, visit www.cloudlims.com

COLLEGE OF AMERICAN PATHOLOGISTS — BOOTH 313

As the world's largest organization of board-certified pathologists and leading provider of laboratory accreditation and proficiency testing programs, the College of American Pathologists (CAP) serves patients, pathologists, and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine worldwide. The CAP laboratory accreditation, more than 55 years old, currently accredits approximately 8,000 laboratories.

CORE CRYOLAB — BOOTH 513

Core Cryolab specializes in biorepository services including: cryo-storage, cryo-shipping, cryo-biological equipment sales & service, and biorepository design & build. We are a cryogenic solution provider for biobanks, clinical laboratories, transplant centres, medical research, trials, and biopharma companies. As a full service biorepository resource, we can ship individual samples or large collections around the world. We provide safe, secure storage of master cell lines, clinical grade products, research and clinical trial specimens. We assist biobank start-ups from design through to equipment installation, validation and on-going maintenance. Our success has been built on extreme dedication to quality management and customer care.

CORIELL INSTITUTE FOR MEDICAL RESEARCH — BOOTH 111

Coriell Institute for Medical Research is recognized as one of the world's leading biobanks, distributing biological samples and offering research and biobanking services to scientists around the globe. A pioneer in genomics, Coriell is examining the utility of genetic information in clinical care through the Coriell Personalized Medicine Collaborative (CPMC) research study. The Institute is also unlocking the promise of induced pluripotent stem cells and their role in disease research and drug discovery.

CRYOBIO SYSTEM — BOOTH 506

Exclusively dedicated to the human life science, CryoBio System manufactures and markets cryopreservation and storage solutions for biological samples. From primary tube to final aliquot storage allotment, CryoBio System covers a range of innovative High Security devices, instruments and software. Product lines include CBS™ High Security

straws, CBS™ High Security tube, filling, sealing and labeling equipment, storage devices for nitrogen tank or mechanical freezers. State-of-the-art cryopreservation technology provider, CryoBio System, is the reference in biorepositories, biobanks and biological resources centers for applications such as epidemiological studies and Assisted Reproductive Technologies (ART).

CRYOTHERM INC. BOOTH 315

Cryotherm®

Cryotherm specializes in the construction and manufacturing of vacuum super-insulated transport and storage containers and transfer pipes for cryogenic liquid gases (LIN, LOX, LHe, LAr, LH2, LNG) that are used in chemical, medicine, foodstuffs, research or biotechnology industries. Cryotherm develops innovative and market-oriented solutions for customers' individual processes. Applications include preserving and storing of biological samples, plus design of cryobanks.

CUSTOM BIOGENIC SYSTEMS BOOTH 210/212/214

Custom BioGenic Systems

Custom BioGenic Systems is a global leader in the design and manufacture of state of the art liquid nitrogen laboratory freezers, cryogenic equipment and accessories. The CBS Isothermal Liquid Nitrogen Vapor Storage System was patented in 2000 and Custom BioGenic Systems continues to be an innovative leader in the design of cryogenic equipment and supplies.

DATAZOOM SOLUTIONS INC. BOOTH 103

DATAZOOM

Datazoom Solutions based out of Mississauga, Ontario, Canada is the leading healthcare IT cloud solutions provider in North America. The company provides state-of-the-art one-stop IT solutions for biobanking repositories, clinical research and healthcare system integration. Datazoom's Cloud model ensured a successful, cost-effective delivery of challenging projects to several leading institutions including Mcgill University Medical Centre, Montreal, Georgetown Medical Centre Washington DC, University Health Network, CHU de Quebec and Winnipeg Health Sciences Centre among others. Powerful analytics combined with privacy and security of healthcare data are the key features of Datazoom's platforms based on a robust Oracle database.

ELPRO SERVICES, INC. BOOTH 101

ELPRO

ELPRO, founded in 1986, is a leading Swiss manufacturer of innovative monitoring solutions for pharmaceutical facilities and transportation of temperature sensitive healthcare products. The LIBERO PDF Logger monitors shipments (-200C...+200C) & requires no software/hardware for data download. Access your facility via internet browser to remotely see temperature, CO2, RH, Pressure or any 4-20mA signal. Ask about our temperature mapping service with GMP-compliant report. We support healthcare companies around the world to simplify their cold chain by reducing manual work, while ensuring product quality. ELPRO's US subsidiary has been established in Marietta, OH since 2003 with a full technical support staff.

FREEZERWORKS BOOTH 302

Freezerworks
Sample Management Software

Configurable software solutions for sample and laboratory management. Track samples and data across multiple freezers, departments and labs while managing workflow. Flexible and user-friendly, Freezerworks puts the laboratory in control with easy to build fields, screens, and reports. Safeguard data with comprehensive security features, 21 CFR part 11 compliance, and cryogenic-safe barcode labeling. State of the art security features maintains patient confidentiality.

GA INTERNATIONAL, INC. BOOTH 402

GA INTERNATIONAL

GA International is the leading manufacturer of specialty labels and tags for biorepositories and biomedical laboratories.

Since its establishment in 1999, GA International has been committed to the development of new and innovative

materials and products. Our experienced R&D team of scientists is dedicated to test and ensure high-performance products for a wide range of applications.

Using advanced technologies, we manufacture and provide labels for complete labeling and identification solutions including hardware & accessories, software, customization, as well as free consulting & technical support.

Our passion is constant innovation. Our mission is to deliver exceptional quality products unmatched in the industry.

GENOHM, INC. BOOTH 204

Genohm

Genohm is the creator of SLims, a feature complete software platform that provides laboratories with one integrated LIMS + ELN + workflow tracking + order management environment. This software can track information from the original sample shipment down to the results from lab equipment and in-silico analysis pipelines. SLims fully accommodates the needs of any research/next-generation sequencing, clinical service facility, biobank or QC lab.

GLOBAL SPECIMEN SOLUTIONS, INC.

GLOBAL SPECIMEN SOLUTIONS
Unlocking the Future of Medicine®

Global Specimen Solutions, Inc. provides innovative pipeline data management and analytics solutions and services designed to optimize drug development. GSS was founded in 2013 by global specimen management experts with extensive big pharmaceutical experience. A specialized Clinical Research Organization(CRO) delivering Good Clinical Practice (GCP) accredited products and services, GSS works with clients designing and managing specimen collections with accompanying metadata—from planning to protocol, collection to management, all real-time accessible via targeted analytics and reporting. GSS serves pharmaceutical, biopharma and diagnostic companies and academic institutions. GSS is WBENC certified and a Women & Minority-Owned Business.

GREINER BIO-ONE NORTH AMERICA, INC. BOOTH 307

greiner bio-one

Greiner Bio-One North America, Inc., located in Monroe, North Carolina, provides product manufacturing, distribution logistics and product application support to clinical laboratories, research laboratories at Universities, startup companies, and to the world's largest hospitals, Pharmaceutical and Biotechnology corporations. Greiner Bio-One's products offer solutions for the collection of human samples and plastic labware products specifically related to the medical research field.

HAIER BIOMEDICAL BOOTH 517

Haier

Haier BioMedical founded in 1998 is based in Qingdao, China. We design, manufacture and market laboratory equipment for the global market. Our products are designed to enable scientific researchers across the globe to preform research projects and to assist in the production of pharmaceutical products. Our product line includes: Ultralow temperature freezers, laboratory freezers, blood bank refrigeration, laboratory & pharmacy refrigerators, ice lined vaccine refrigerators, biosafety cabinets and much more.

HAMILTON STORAGE BOOTH 406

HAMILTON STORAGE
SAMPLE MANAGEMENT FOR LIFE SCIENCE

Hamilton Storage provides ultra-low temperature automated sample management solutions for the life science industries. Our product line includes –150°C cryopreservation, –80°C biobanking, –20°C high-throughput tube and plate management systems, and consumables. Visit Booth 406 to learn about our new products: SAM HD for high-density –80°C sample storage in a small footprint, ColdScan on the LabElite® I.D. Reader for 2-D barcode reading of frozen samples, and the 6-channel head on the LabElite decapping devices to decap 24-well tube racks. Furthermore, our systems integrate with Hamilton Robotics' automated liquid handling workstations for complete biobanking solutions.

ISPECIMEN — BOOTH 203

iSpecimen is the marketplace for human biospecimen collections, providing researchers with the specimens they need from the patients they want. The company uses proprietary cloud-based technology to match qualifying samples and associated data from its diverse network of hospitals, labs, biobanks, blood centers, and other clinical organizations to biomedical researchers' specimen requests. iSpecimen sources biofluids, solid tissue, and primary cells, offering clinical remnants, banked samples, and samples collected prospectively for research. Scientists gain easy access to the high-quality samples they need. Partner sites gain an opportunity to further contribute to biomedical discovery as well as their bottom line. And ultimately, healthcare advances for all.

KAIROS GMBH — BOOTH 207

KAIROS has >10 years of experience in building holistic software platforms that supply medical researchers with IT-tools they need. Our headquarters are in Germany, where we have installations at 28 - from a total of 36 - university hospitals. In 2016, we added our first North American project in Toronto to our list of clients.

Our product CentraXX is a state-of-the-art, web-based application that captures and imports all relevant research data into one system and provides query and reporting tools. The three foundational modules of CentraXX are CXX Biobank, CXX Study Management, and CXX Meta.

KAYE — BOOTH 514

Visit booth #514 and check out the NEW Kaye RF ValProbe II.

Kaye launches new Kaye RF ValProbe II Wireless Loggers and Base Station - high accurate measurement of temperature and humidity providing superior validation and monitoring functionality. Check out the Kaye Validator AVS - Next Generation Validation System!

The Kaye Validator AVS combines accurate sensor measurements with all GMP requirements for calibration and traceability to national standards - not compromising compliance but significantly improving data handling and data management. With this Kaye is introducing a change to current validation concepts and is lifting validation to the next level.

LABVANTAGE SOLUTIONS, INC. — BOOTH 601

LABVANTAGE, the most configurable, web-based LIMS in the market, is trusted by industry leaders worldwide. We help customers run their labs more efficiently and with fewer errors by automating tasks and integrating with instruments and systems. Our vast experience allows us to minimize risk of project delays or failures. Our system can adapt to changing business needs after initial implementation.

With over 35 years of experience, LABVANTAGE powers hundreds of laboratories, large and small, worldwide. LABVANTAGE is the best choice for industries ranging from pharmaceuticals and consumer goods to molecular diagnostics and biobanking.

LABWARE, INC. — BOOTH 202

LabWare is the world's leading specialist in laboratory workflow automation. We empower our customers to succeed because we engineer and deliver a full featured, configurable, enterprise solution that provides results and retains its value. LabWare's solution for biorepositories and biobanks combines powerful specimen receipt, storage, and request management capabilities with study definition, informed consent, specimen processing, and testing workflow management tools. LabWare's biospecimen storage management tools are used by over 100 customers, including CRO's, pharma, government research, health care, and public health organizations, who have realized benefits in efficiency, quality, compliance,and flexibility to quickly accommodate new business requirements.

LICONIC AG — BOOTH 304/305

Liconic is well known worldwide as a leading manufacturer of automated incubators and plate hotels for life sciences. Customers include top pharmaceuticals, biotech companies, governments, and academic research institutes. By investing in R&D, Liconic creates products that address the growing complexity of laboratory automation. Building on 25 years of providing automated solutions, Liconic offers a robust line of biobanking systems, each built "fit-for-purpose".

The BioLix™ line includes:

- STT (Fully automated biorepository, smallest footprint)
- SAB (High-density, high-throughput, rack based)
- FAB (High-density, high-throughput, tube based)
- STC (Widest range of capacities and applications)
- STV (Fully automated, wide capacity range, cryogenic (<-180°C) automation)

LONGHORN VACCINES AND DIAGNOSTICS — BOOTH 216

Privately held Longhorn's PrimeStore® Molecular Transport Medium facilitates and simplifies sample collection and shipments to biobanks and diagnostic laboratories without the cold chain by effectively killing viral and bacterial pathogens and preserving RNA and DNA at ambient, even elevated, temperatures over extended periods. PrimeStore MTM® provides safe, non-hazardous samples for molecular diagnostics, viral loads and next-generation/whole genome sequencing of different human, clinical trial, veterinary, environmental, plant and other samples, including blood/plasma/serum, fecal, urine, sputum, nasal and other secretions/bodily fluids/swabs, cloacal samples, insect vectors and tissue. The samples can be biobanked in the same cryotube for long-term studies.

LVL TECHNOLOGIES GMBH & CO. KG — BOOTH 311

Since the launch of the product line of 2D Biobank tubes called Samplosophy® in 2013, LVL technologies was able to win numerous customers in sectors such as biobanking, cryopreservation and compound management.

At the moment LVL has to offer storage tubes with various volumes starting at 300µl up to 5ml, external and internal thread types and a highly customizable 2D tube rack system to fit all the different needs of our customers. Associated infrastructure such as scanners and cappers are also part of the product range.

To ensure that all of our 2D biobank tubes will work with your automated storage systems we can provide a certificate of compatibility.

MAYO CLINIC BIOSERVICES — BOOTH 308

Our laboratory services combine specimen accessioning, processing, nucleic acid extraction, specimen tracking, storage, shipping, kit building, microbiome services, and a variety of histology and tissue-based services in a highly integrated core laboratory vital to basic, translational and epidemiological research.

We also provide highly curated and annotated specimens from the Mayo Clinic Biobank. Unlike most collections that are disease-specific, the Mayo Clinic Biobank is a unique collection of health information and biological samples derived from blood from over 50,000 participants.

These samples and laboratory services can be offered in conjunction with our bioethics and genetic counseling expertise as they relate to biobanking.

MICRONIC — BOOTH 305

Micronic's goal is to advance research by serving scientists in finding solutions that contribute to a higher quality of life. We develop and manufacture a range of Dutch-designed products to enhance the process of sample preservation and storage.

MODUL-BIO — BOOTH 612

Modul-Bio specializes in IT solutions for the management of biospecimen collections.

Modul-Bio's products portfolio includes:

- MBioLIMS BioBanking: a software specially designed for biobanks and cohorts projects that manages the entire life cycle of samples and their associated data in compliance with biobank regulations.
- MBioLABEL: biological samples identification solutions for long term storage, from labelling to scanning.
- eMBioBANK: a centralized biospecimen inventory web catalogue for sharing biorepositories sample collections with researchers.

We deploy our software solutions dedicated to biobanking, for biological resource centres, cohort projects, diagnostic laboratories, cosmetics and biotechnology companies.

modul-bio.com

OPENSPECIMEN — BOOTH 404

OpenSpecimen is a free and open source biobanking informatics platform used by 55+ leading biobanks across 15 countries including Stanford, Johns Hopkins, Emory, Univ of Pennsylvania, University of Melbourne, Leicester, Victorian Cancer Biobank, etc. OpenSpecimen is feature-rich, highly configurable, easy to customise, open source, unlimited user license, and worldwide community of adopters. OpenSpecimen enables tracking of human and animal biospecimens throughout its lifecycle from collection through utilisation, including collecting high-quality specimen annotations, inventory management and powerful reporting engine.

PACIFIC BIO-MATERIAL MANAGEMENT, INC. — BOOTH 412

Pacific Bio-Material Management, Inc. (PBMMI) is a cold chain, logistic management service provider to the life science community. We operate regulatory compliant biorepositories, an extensive fleet of custom mobile biological transport vehicles, and quality focused management systems.

Through our four, separate cGMP compliant biorepositories, PBMMI's biological storage services satisfy the industry's most stringent regulatory requirements. Complete biorepository management solutions make collecting, using, storing, and retrieving biological specimens with PBMMI both safe and efficient.

Our commitment starts with a promise of the the highest level of security, convenience, and accountability.

PANASONIC HEALTHCARE CORPORATION OF NORTH AMERICA — BOOTH 610

Panasonic Healthcare Corporation of North America is a subsidiary of Panasonic Healthcare Co., Ltd, Tokyo, Japan. Panasonic Healthcare Co., Ltd. is a global leader in development, design and manufacturing of laboratory equipment for biopharmaceutical, life sciences, academic, healthcare and government markets. For information call Panasonic Healthcare Corporation of North America at 800-858-8442.

PERKINELMER — BOOTH 501

Chemagen from PerkinElmer is a leading supplier of automation and reagents for fast and reliable magnetic bead based DNA and RNA extraction for sample volumes from 10 ul to 10 ml for blood, tissues, saliva, bacteria, food, PCR products. All functions can be performed on the one instrument. Advantages of this unique system are fast processing, unmatched sample volume range and robust chemistry.

PRAXAIR DISTRIBUTION, INC. BOOTH 206

PRAXAIR
Making our planet more productive

Praxair has teamed with the world's leading manufacturers of vacuum-insulated products and cryogenic systems to provide the latest in cryogenic storage freezers and shippers. We offer a comprehensive selection of sample holding racks, boxes, canisters, frames and cassettes. We also supply carbon dioxide back-up systems for -80°C mechanical freezers, dry ice storage containers and production systems, and controlled rate freezers, along with a wide variety of cryogenic accessories including safety equipment, changeover systems and transfer hoses. As a fully integrated supplier, Praxair provides cryogenic liquid nitrogen in dewar, microbulk and bulk scales and can implement a complete turnkey liquid nitrogen distribution system that's right for your facility.

REES SCIENTIFIC BOOTH 512

Rees Scientific
www.reesscientific.com

Since 1982, Rees Scientific has been the industry standard for automated temperature monitoring. Our wide range of systems is a complete solution for all monitoring needs. Monitor critical equipment for temperature, humidity differential pressure and much more. Our systems help meet compliance for AAALAC, FDA, GAMP, GxP, HACCP, USP797, and other regulatory requirements. Our goal remains to ensure that your critical equipment and devices are monitored and maintained at all times.

RETISOFT, INC. BOOTH 102

RETISOFT
SMART APPROACH TO AUTOMATION

Retisoft Inc. is a Canadian company specializing in the life science market. Since it was founded in 1998, the company has been focusing on the development of the industry's most reliable, flexible, and powerful scheduler for the laboratory automation market, Genera.

We understand that evolving science requires state of the art technology and innovation. We take great pride in helping scientists with their automation projects so that they can focus on research and development. As more labs incorporate automation into their process, our team is ready to provide them with first class customer service and help them get the best return on their investment.

RUCDR INFINITE BIOLOGICS BOOTH 503

RUCDR
INFINITE BIOLOGICS

RUCDR, a world leader in global biobanking and bioprocessing of biospecimens, supports the bioscience research community by providing comprehensive solutions in sample preparation, genetic, gene and cell-based services, bioinformatics and biostorage. Using a state-of-art infrastructure and the highest quality biomaterials, our scientists work to convert precious biosamples to renewable resources.

RURO, INC. BOOTH 410

RuRo
Laboratory Information Bliss™

Headquartered in the heart of Maryland's biotechnology corridor RURO, Inc. develops state of the art computer software for research, biotechnological, pharmaceutical, healthcare and government (homeland security) laboratories in the US and worldwide. RURO is a web applications leader, combining world-class innovation and industry experience so individuals can use computer software in new ways and places. Our recent line of biological applications is designed to increase the productivity of scientific, biotech and pharmaceutical laboratories while maintaining the highest level of security, versatility and knowledge.

SCINOMIX, INC. BOOTH 505

scinomix

Scinomix is a provider of laboratory automation systems to customers in the life science industry. Our mission is to provide our customers with solutions by committing to quality, reliability, value, and customer service. Over the years, we have helped customers by providing configurable solutions to increase efficiency in the laboratory. Currently we meet a strong market-niche for labeling tubes, vials, and plates in

many life science applications. Our focus on high quality and prompt service elevates our brand. Innovation and creativity continue to play a strong role in our vision for the future.

SO-LOW ENVIRONMENTAL EQUIPMENT CO., INC. — BOOTH 205

Since 1959, So-Low has manufactured ultra-low temperature freezers for research, storage, and industrial needs. We also supply laboratory freezers, refrigerators, undercounter freezers, and undercounter refrigerators for a variety of applications. Our goal is to provide a level of reliability, quality construction, and value unequaled anywhere in the world for our customers.

STIRLING ULTRACOLD — BOOTH 107

Stirling Ultracold develops and manufactures a new generation of environmentally friendly ultra-low temperature freezers which operate from -20°C to -86°C. These freezers do not use compressor-based or cascade refrigeration systems, using a patented free-piston Stirling engine technology developed for critical energy, aerospace and industrial applications. Offering unsurpassed sustainability benefits, this ULT storage solution uses less than half the power of leading cascade ultra-low freezers and uses 100% natural refrigerants.

Stirling Ultracold ultra-low freezers are sold worldwide to life science, pharmaceutical, biomedical/clinical and biotechnology customers.

TECHNIDATA AMERICA MEDICAL SOFTWARE — BOOTH 413

TECHNIDATA specializes in developing and distributing Laboratory Information Systems (LIS) together with a suite of software products and services offering the laboratory and users of laboratory services a wide range of information management solutions.

Our collaborators cumulate over 40 years' experience providing unrivaled know-how in the fields of laboratory production and data management, LIS and analyzer workstation design and development, instrument interfacing and integration.

TERUMOBCT — BOOTH 600

A global leader in blood component, therapeutic apheresis and cellular technologies, and the only company with the unique combination of apheresis collections, manual and automated whole blood processing, and pathogen reduction. We believe in the potential of blood to do even more for patients than it does today. This belief inspires our innovation and strengthens our collaboration with customers.

THERMO FISHER SCIENTIFIC — BOOTH 215/314

Thermo Fisher Scientific is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. Through our Thermo Scientific, Applied Biosystems, Invitrogen and Fisher BioServices brands, we help customers accelerate innovation and enhance productivity. Thermo Fisher Scientific supplies innovative solutions for the world's biobanking industry. With applications that span the biobanking process and sample protection, we provide a broad range of products and services that support sample collection, preparation, analysis, transport, storage and off-site storage.

TITIAN SOFTWARE — BOOTH 213

Founded in 1999, Titian Software supplies software and consultancy services to improve sample management (of compounds, reagents and biologics) for client's vital life science research. Mosaic is Titian's customisable, modular software product to control and track all aspects of sample storage, preparation and delivery. Companies worldwide, from small biotech to global pharma, trust Mosaic to provide a seamless, error-free sample supply chain. SampleBank and

FreezerManagement provide optimised and pre-configured subsets of Mosaic software available for rapid deployment.

TTP LABTECH — BOOTH 310

Sample integrity is assured with TTP Labtech's modular, high-density biostores (comPOUND® at ambient, 4oC and -20oC and arktic® at -80oC). Advanced cherry picking ensures sample security and avoids unnecessary freeze/thaw cycles. Based on proprietary pneumatic technology, the biostores have continuous monitoring systems and in the case of arktic, backup refrigeration. TTP Labtech's mosquito® liquid handlers and range of automation accessories enable full or partial automation of your workflow. TTP Labtech is a world leader in the design and development of automated instrumentation and consumables for life science applications. Meet our experts at booth #310!

TWD TRADEWINDS, INC. — BOOTH 407

TWD is the industry leader in permanent barcode technologies. With manufacturing facilities centrally located in the United States, TWD provides a wide variety of permanently barcoded glass and plastic sample vials, serving the pharmaceutical and life science research community, particularly in compound management and bio-banking. TWD prides itself with superior customer services and highest quality of products.

WORTHINGTON INDUSTRIES — BOOTH 201/300

Worthington Industries, a leading global manufacturing company headquartered in Columbus, Ohio, USA with 10,000 employees worldwide, is proud to offer secure cold chain sample storage, transportation and data management for the life sciences market. With more than 60 years of manufacturing excellence, the company will build on the heritage of the CryoScience by Taylor-Wharton line, acquired in Dec. 2015. Products are shipped around the globe from the Theodore, Alabama facility. To view the complete line of liquid nitrogen storage freezers, refrigerators, dewars and accessories, visit WorthingtonIndustries.com/LifeSciences.

Z-SC1 BIOMEDICAL — BOOTH 100

Z-SC1 Biomedical manufactures high quality lab equipment, including the safest ULT freezer on the market. Our unique TwinCore™ technology utilizes dual refrigeration systems enabling each autocascade compressor to maintain -82C independently and indefinitely.

Z-SC1 Biomedical also manufactures undercounter -80C freezers, premium vaccine/blood bank and pharmaceutical refrigerators, as well as rapid cooling freeze dryers (lyophilizers).

ZHEJIANG SORFA LIFE SCIENCE RESEARCH CO., LTD. — BOOTH 209

Invested in 2009, Zhejiang Sorfa Life Science Research Co., Ltd. is mainly engaged in developing, manufacturing and sales of high-end lab consumable products. At present, Sorfa has four major series of products: biobank consumables, cell culture consumables, food testing consumables and rapid diagnostic consumables, nearly 1,000 varieties.

ISBER PROVIDES THE FOLLOWING TOOLS TO THE BIOBANKING COMMUNITY:

SELF-ASSESSMENT TOOL (SAT) FOR REPOSITORIES

Assists repository operators in determining how well their repository follows the ISBER Best Practices for Repositories. Participants receive an individualized report which includes:

- Final Score - represents the percent compliance with the ISBER Best Practices
- Questions of Concern – includes questions which most contributed to the overall score.

BIOREPOSITORY PROFICIENCY TESTING (PT) PROGRAM

Allows laboratories working with biospecimens to compare their performance to that of other expert laboratories from different sectors all over the world. PT works as an external quality assessment tool to verify the accuracy, precision and efficiency to laboratories' processing and testing methods.

PRE-ANALYTICAL BIOREPOSITORY EXTERNAL QUALITY ASSESSMENT (EQA) SURVEY

Allows participants to benchmark their pre-analytical practices to other biorepositories. Participants receive and individualized report which includes the results and statistics obtained by all biorepositories who have participated.

INTERNATIONAL REPOSITORY LOCATOR (IRL)

Helps investigators locate biospecimen data repositories by developing a directory of repository information that can be searched online.

STANDARD PRE-ANALYTICAL CODE (SPREC)

Identifies and records the main pre-analytical factors that may have impact on the integrity of sampled clinical fluids and solid biospecimens and their simple derivatives during collection, processing and storage.

BIOSPECIMEN STABILITY TESTING CALCULATOR (STABCALC)

Determines sample stability, including freeze-thaw stability and storage stability. STABCALC facilitates stability studies performed by biobanks on different types of biospecimens by identifying potential variabilities in pre-analytical procedures.

NEUROLOGICAL DISEASE METADATA

Access metadata related to the biorepository level, the collection level and the individual sample level. Housed in a RedCap server, this tool has been configured in the scope of neurological disease collections, but can be used for other disease collections too.

ALL ISBER TOOLS ARE AVAILABLE FREE TO MEMBERS

VISIT ISBER.ORG

NOTES

NOTES

UPCOMING MEETINGS

CRYO 2017

JULY 20 -24, 2017 • HEFEI, CHINA
WWW.SOCIETYFORCRYOBIOLOGY.ORG/REGISTER-NOW

Cryopreservation and Banking Bio-resources for Advanced Research, Modern Agriculture and Precision Medicine

REGISTER NOW

ISBER is pleased to present a plenary and workshop at the CRYO 2017 meeting in Hefei China.

GLOBAL BIOBANK WEEK

SEPTEMBER 13-15, 2017 • STOCKHOLM, SWEDEN
WWW.GLOBALBIOBANKWEEK.ORG

Towards Harmony in Biobanking

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Seizing BIG opportunities in biobanking through data, collaboration and innovation

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Connecting Repositories Globally through Best Practices. **Leading since 1999.**

isber2018

DALLAS, USA ★ MAY 8-11, 2018

Annual Meeting & Exhibits

Thinking BIG in TEXAS

SEIZING **BIG** OPPORTUNITIES IN **BIOBANKING**
THROUGH DATA, COLLABORATION AND INNOVATION

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INTERNATIONAL SOCIETY FOR BIOLOGICAL AND ENVIRONMENTAL REPOSITORIES