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About

ISBER is the only global forum that addresses the harmonization of scientific, technical, legal, and ethical issues relevant to repositories of biological and environmental specimens.

ISBER fosters collaboration; creates education and training opportunities; provides a forum for the dissemination of state-of-the-art policies, processes, and research findings; and provides an international showcase for innovative technologies, products, and services. Together, these activities promote best practices that cut across the broad range of repositories that ISBER serves.

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

VISION

To be the leading network in the global biobanking and biorepository community.

MISSION

ISBER advances the expertise and quality of biorepositories and biobanking science worldwide.
Message from the President

Dear ISBER members,

I am pleased to present to you the 2022 annual report. This document provides our membership with a summary of what the association accomplished on your behalf since the 2021 Annual Meeting.

Foci of the ISBER Board of Directors (BOD) during this past year included:

- Revision of our structure to reflect our strategic plan
- Recasting of communications mechanisms, including our annual meeting, to reflect the evolving needs of our membership
- Reflection on the growing importance of biobanking to complementary fields

To advance the strategic plan, the BOD spent significant time developing the restructuring proposal that was approved via membership ballot in June 2022. Thank you to all who voted. This is your association, and we appreciate your active input. The resultant structure builds on the strengths of our volunteers and staff to add agility and resilience to what was already a strong foundation for ISBER. A more agile ISBER structure will enable the evolution of our portfolio of products, services, and knowledge to better match the changing needs of ISBER members and the biobanking community. Increased efficiencies will minimize administrative work for volunteers, enabling them to refocus activities to advance the ISBER mission and vision.

The BOD is aware that change takes time. We therefore are targeting the implementation of the revised structure in time for the 2023 Annual General Meeting. We intend to report early results, but we anticipate that it won’t be until 2024 until the full impact of this new structure will be felt. I would like to thank all of the committee chairs and members for their tremendous work for the association over the years. ISBER has advanced because of the great work done by these biobanking leaders.

We were pleased that many of you were able to join us in Atlanta for our first live meeting since 2019! I know many of us left that meeting energized, having spent five days with our colleagues in learning, discussing, and debating. Thank you to the many ISBER volunteers who worked to make the meeting so strong.

These past two years have been extremely challenging for all organizations. Many difficult decisions had to be made. However, it is wonderful to see that ISBER has thus far weathered the storm. While the pandemic is not over, we do see a pathway forward and know that the organization will continue to thrive. Thank you to our BOD members, who have worked tirelessly to advance the ISBER mission and vision. I encourage all members to consider putting their names forward for the association’s committees, working groups, special interest groups, task forces and communities of practice!

Finally, you are all invited to our 2023 Annual Conference in Seattle, US (May 3 to 6, 2023)! This is just one of many planned activities during which we hope to see many new participants. Let’s raise biobanking to an even higher standard!

Sincerely,

Clare M. Allocca
President-of-the-Board
Listing of Organization Leadership and Staff

BOARD OF DIRECTORS

**Clare Allocca, MS, PMP**  
PRESIDENT-OF-THE-BOARD  
May 2022 – May 2023  
National Institute of Standards & Technology  
Maryland, United States

**Piper Mullins, MS**  
PAST PRESIDENT-OF-THE-BOARD  
May 2022 – May 2023  
Smithsonian Institution  
Washington DC, United States

**Alison Parry-Jones, PhD, MA, MRSc**  
PRESIDENT ELECT-OF-THE-BOARD  
May 2022-May 2023  
Wales Cancer Bank – Cardiff University  
South Glamorgan, United Kingdom

**Jane Carpenter, MAppSci**  
TREASURER May 2020 – May 2023  
NSW Health Pathology  
New South Wales, Australia

**Monique Albert, MS**  
SECRETARY May 2020 – May 2023  
Ontario Institute for Cancer Research  
Ontario, Canada

**Engela Conradie, PhD, Pr.Sci.Nat**  
DIRECTOR-AT-LARGE — Europe Middle East, Africa  
May 2022 - May 2025  
Centre for Human Metabolics  
Potchefstroom, South Africa

**Xun Xu, PhD**  
DIRECTOR-AT-LARGE – China  
China National GeneBank  
Guangdong, China

**Diane McGarvey, QBRScm**  
DIRECTOR-AT-LARGE – Americas  
CHTN Eastern Division  
Pennsylvania, United States

**Koh Furuta, MD, PhD**  
DIRECTOR-AT-LARGE – Indo-Pacific Rim  
Director, Urayasu Warakuen Clinic  
Urayasu, Japan

COMMITTEE CHAIRS

**Science Policy Advisory**  
**Helen Morrin, MA**  
Christchurch, New Zealand

**Standards Advisory**  
**Daniel Simeon-Dubach, MD, MHA**  
Medservice  
Walchwil, Switzerland

**Education and Training Advisory**  
**Tamsin Tarling, BSc, MSc**  
University of British Columbia  
British Columbia, Canada

A special thank you for the committees from May 2021 – May 2022: Communications, Member Relations, Organizing Advisory.

**Communications Advisory**  
**Catherine Seiler, PhD**  
H3 Biomedicine  
Massachusetts, United States

**Member Relations Advisory**  
**Shonali Paul, MBA**  
CloudLIMS.com  
Wilmington, United States

**Organizing Advisory**  
**Zisis Kozlakidis, PhD, MBA, FLS**  
IARC/WHO  
Lyon, France

2022 SCIENTIFIC PROGRAM ADVISORY COMMITTEE CO-CHAIRS

**Rohit Gupta, BS, APM**  
TMRW Life Sciences  
California, United States

**Emma Snapes, MSc, BSc**  
BioConsulting  
Cork, Ireland

**Billy Schleif, MS, MT (AAB)**  
Johns Hopkins All Children’s Pediatric Biorepository  
St Petersburg, USA

2021 VIRTUAL SYMPOSIUM PROGRAM ADVISORY COMMITTEE CHAIRS

**Heidi Wagner, PA, BSc (Chair)**  
UHN Biospecimen Services  
Canada

**Ana Bolanos, MD, BSc (UHN Project Lead)**  
UHN Biospecimen Services  
Canada

**Alexander Avgoustis (UHN Project Co-Lead)**  
UHN Biospecimen Services  
Canada
Organization Leadership and Staff

**WORKING GROUP AND SPECIAL INTEREST GROUP CHAIRS**

- **Automated Repositories Special Interest Group**
  - Andy Zaayenga, Jessica Bilyeu

- **Biospecimen Science Working Group**
  - Fay Betsou, Kathi Shea

- **Enviro-Bio Working Group**
  - Piper Mullins

- **Informatics Working Group**
  - TBD

- **International Repository Locator Working Group**
  - Yaffa Rubinstein

- **Pediatric Special Interest Group**
  - Suzanne Vercauteren

- **Pharma Working Group**
  - Suenne Orth

- **Rare Diseases Working Group**
  - Yaffa Rubinstein

**ISBER HEAD OFFICE**

- **Executive Director**
  - Ana Torres, BA (Hons), MPub, CAE

- **Senior Project Manager**
  - Samantha Wale, BA (Hons), PMP

- **Project Manager**
  - Elizabeth Sun, BSc, MM

- **Senior Association Coordinator**
  - Kimberly Morales

- **Association Administrator**
  - Alison McDonald

- **Meetings Director**
  - Paul Fogerty, BA

- **Database Director**
  - Paul Kool, BSc, AIT
ISBER 2021 Membership Mid-Year Report

The membership query was performed on July 11, 2022.

In 2022, there are a total of 1019 memberships to date. This number includes Individual Memberships, Organizational Sub-Accounts, Student/Technician Memberships, and Emeritus Memberships – the last two categories are new categories ISBER has begun tracking. Organizational Memberships have Sub-Accounts which are allocated with the following specifications:

- Small Organizations: 2 Sub-accounts with 1 journal subscription to BIO, 1 without.
- Medium Organizations: 4 Sub-accounts with 2 journal subscriptions to BIO, 2 without.
- Large Organizations: 8 Sub-accounts with 4 journal subscriptions to BIO, 4 without.
In 2022, ISBER’s global membership spans 54 countries! The following countries were present in 2021 but are not present in the 2022 country distribution: Ecuador, Pakistan, Sudan, Zimbabwe. ISBER gained presence in the following countries: Cameroon, Georgia, Mexico, Saudi Arabia, Slovakia, Sri Lanka, Thailand.

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Activity Report

BOARD ACTIVITIES

The board focused on a number of activities this past year:

STRATEGIC PLANNING

The ISBER strategic plan was completed in 2020. Several proposed outputs and outcomes are detailed on page 23. Please see below a status update for the various strategies:

Strategy 1: With the passing of the restructuring proposal presented to the membership via ballot in June, the ISBER Board positioned itself to complete all the outputs listed.

Strategy 2: This strategy is in progress. We expect to focus on this strategy this upcoming fall and in the new year.

Strategy 3 and 4: A draft decision making matrix has been completed and is under review. A communications plan was completed in Q3 2021. This will need to be updated to reflect the new organizational structure.

Strategy 5: The ISBER Board launched the ISBER Leadership Alumni program earlier this year. A soft launch was held at the ISBER annual conference in Atlanta. A certificate, pin and email signature has been developed and will be rolled out later this year.

Strategy 6: An internal communications plan was developed this past year. This needs to be updated to reflect the new organization structure. Namely, we wish to ensure that this internal communication plan ensures engagement from members and volunteers.

Strategy 7: The management contract was reviewed by the ISBER executive committee and a contract was negotiated.

Strategy 8: A regional strategy for the EMEA region was completed in Q2 2022. Regional strategies for the IPR and Americas region are in progress. Discussions to conduct a strategy for the China region are due to start in Q4 2022.

As you can see, most of the activities for the current plan are completed. Most of the work that remains outstanding is related to Strategy 2 and Strategy 8.

The ISBER Board will need to work through developing its new plan in the upcoming year. We fully expect that the new plan will build upon the new ISBER structure and build upon the successes of this current plan.

ANNUAL CONFERENCE

ISBER Board and staff spent considerable time and effort ensuring that the return to our in person meeting was successful. We are extremely thankful that our meeting went off without a hitch and exceeded registration and revenue targets. We then held an online component, making the conference a hybrid meeting. Combined attendance for our meeting was over 550 attendees. Attendees represented over 35 countries!

BEST PRACTICES, FIFTH EDITION

The ISBER Board of Directors contracted Emma Snapes to work as Editor-in-Chief of the ISBER Best Practices, Fifth Edition. She is supported by the ISBER Best Practices Steering Committee. She has put together an impressive team of associate editors, contributors and reviewers. The group is currently working on reviewing and revising the document. It is expected that the new edition will be ready in Spring 2023. We would like to thank the many expert voices that are currently working on ensuring that our Best Practices provide the most current and accurate knowledge to the biobanking community.
ISBER hosted its first ever hybrid annual meeting in 2022, featuring both an in-person portion in Atlanta, USA from May 17-20 and a virtual portion from June 14-15. The Scientific Program Committee was co-chaired by EmmaSnipes, Billy Schleif, and Rohit Gupta and the meeting theme was “Biobanking: Shaping the Scientific Journey”.

The in-person meeting featured two keynote presentations, six live symposium sessions, one on-demand symposium session, five educational workshops, three contributed paper sessions, eight corporate workshops, two round table discussion sessions consisting of a total of ten discussion topics, and 39 exhibitors.

The virtual meeting consisted of session recordings from the in-person meeting in Atlanta, USA. In particular, the virtual meeting featured recordings of all symposium sessions, corporate workshops, and contributed paper sessions. Furthermore, two live and interactive round table discussion sessions took place featuring seven discussion topics. All exhibitors from the in-person meeting prepared a virtual booth space for the virtual meeting.

The ISBER 2023 Annual Meeting welcomed 552 delegates. Of these delegates, 405 attended in-person and an additional 157 attended virtually only.

The meeting featured two keynote presentations:

1. “Reflections From An Unconventional Scientific Journey”, presented by David Vigerust, Spectrum Solutions, USA
2. “Innovation at the Intersection of Global Health, Health Technology, and Life Sciences” presented by Clark Dean, Transwestern Commercial Services, USA

A pre-conference Biobanking 101 workshop was held virtually in advance of the conference. A total of 74 people registered to attend this workshop. Session topics included:

1. The Biobank Assessment Tool (BAT) – Your Personal Guide Along the Road for Higher Quality, Presented by Karolin Bergenstrahle, Uppsala Biobank, Sweden
2. Let’s Talk Cost Recovery, presented by Sindy Babinszky, Jodi LeBlanc, Tamsin Tarling, and Kate Lawrence, BC Cancer Agency, Canada
3. Preservation and Management of Samples from Collection to Utilization, presented by Stella Somiari, Windber Research Institute, USA and Dayong Gao, University of Washington, USA

A number of networking activities took place on-site in Atlanta, USA, including ISBER’s first ever speed networking activity. A total of 28 tickets were sold for this event and it received very positive reviews by attendees. There was a request for ISBER to continue hosting this event at future meetings.

To view the meeting program, click here.
ISBER 2021 VIRTUAL SYMPOSIUM, IN PARTNERSHIP WITH UHN BIOSPECIMEN SERVICES

ISBER and University Health Network (UHN) Biospecimen Services partnered to host a virtual symposium from October 4-5, 2021. The Scientific Program Committee was chaired by Heidi Wagner and the meeting theme was “Back to the Future: How Biobanking Can Help Move Science from Bench to Bedside”.

The meeting welcomed 232 delegates from 35 countries.

To view the meeting program, click here.

QUALIFICATION IN BIOREPOSITORY SCIENCE (QBRS)

ISBER, in partnership with the American Society for Clinical Pathology Board of Certification (ASCP BOC), provides the Qualification in Biorepository Science (QBRS) online examination for biobanking professionals. Given the global growth in the field of modern biobanking, there is a need for ongoing education and professionalization of this important biomedical sector. Biobanks are vital for medical research, precision medicine and biomarker development and require qualified professionals to obtain high quality results that will be important in advancing biomedicine. While ISBER provides the content for the examination, ASCP BOC has a well established record of developing credentialing programs on a worldwide level. The QBRS exam that has been developed, implemented and diffused now provides a designation earned by biobanking professionals that will establish their ability to provide skilled work as a benchmarked quality biorepository scientist. The QBRS qualification establishes the biobank in which the qualified biobanker works as one that promotes and establishes quality within its biobanking staff.

Over the course of the last year, presentations have been made at biobanking meetings and numerous webinars for biobanking professionals have been done at worldwide locations. To June 30, 2022, 43 biobanking professionals worldwide have achieved the QBRS qualification. While most of these biobankers are in North America, the qualification has also been achieved by biobankers in Australia, Hong Kong, Ireland, United Kingdom, UAE and Nigeria.

Questions about the QBRS can be directed to info@isber.org. For information on requirements, topic outline, reading list, application process and more visit www.isber.org/qualification.
ISBER has recently updated its Biobank Assessment Tool.

WHAT IS THE ISBER BIOBANK ASSESSMENT TOOL?

The ISBER Biobank Assessment tool was developed to assist repositories in evaluating how well they follow ISBER’s Best Practices including the LN2 Addendum and, on a higher level, also the ISO 20387 Standards.

It is a questionnaire that consists of nearly three hundred questions, each question has “risk-balanced assessment score” attached to it. The questions cover general quality management for biobanking and corresponds to areas including:

- Facility planning and design
- Installation and maintenance
- Safety
- Quality Control and Auditing
- Disaster Planning/Risk Mitigation

WHAT IS IN IT FOR USERS OF THE BAT?

Upon completion of the BAT survey, the participants will receive a certificate of completion with a score showing a level of how well the repository’s current practices confirm to the ISBER Best Practices and the LN2 Addendum.

The score can be shared with the end users of the biobank in order to give them an indicator of which level of quality the biobank currently has.

Participants will also receive a personalized report that includes:

- Areas of improvement
- References to sections in the ISBER Best Practices and the LN2 Addendum
- Where applicable references to ISO 20387 (where compliance on a higher level)

The report can be downloaded as a CSV file which can be imported into a database of the user’s choice, which opens up for the user to set own filters depending on areas of interest, for example areas of improvement.

The BAT can be used repeatedly, which allows follow up every year, giving it a natural place for any quality management system were implementation and follow up of qualitative indicators are required.
ISBER COMMITTEE INITIATIVES

EDUCATION AND TRAINING COMMITTEE INITIATIVES

The Education and Training Committee (E&T) was very active from 2021 to 2022. Committee projects included:

**Biobanking 101 Workshop**

The Biobanking 101 Series has been supported by E&T since its inception. This year the E&T committee helped to determine the two Biobanking 101 workshops that were held virtually. The workshops were focused on Cost Recovery and Cryopreservation and were a huge success.

**Survey approvals**

The E&T committee approved two surveys to be circulated amongst ISBER members this year:

- A survey regarding updates to the 5th edition of the ISBER Best Practices
- A Pharma Working Group led survey regarding the use of biobanked biospecimens in industry

**Travel Grants**

Traditionally the E&T have awarded one in person travel grant to a biobanker in an LIMC. This year the E&T approved ten virtual travel grants to allow more LIMC members to attend the virtual meeting.

In addition Tamsin Tarling, on behalf of the E&T has been active in the Steering Committee that was assembled to oversee the development of the the 5th edition of the ISBER Best Practices as well as reviewing and providing input into the ISBER restructuring.

SCIENCE POLICY COMMITTEE INITIATIVES

The purpose of the ISBER Science Policy Advisory Committee is to coordinate and to be a voice for the perspectives of the ISBER membership and the Society on policy issues related to biological and environmental repositories.

During the past year, the Committee continued to work on priority issues for policy engagement in addition to supporting established Task Force initiatives, including the Regional Policy, Return of Results, and ELSI Covid-19 Task Forces. The Community Engagement for Biobanking Task Force led by Dr. Carol Weil, has been meeting monthly to explore effective approaches for community engagement and to create lasting resources within ISBER. The Task Force is currently reviewing literature in the field to identify important issues and successful community approaches.

The Committee continued to monitor, analyze and submit comments on global regulatory and policy developments including:

- NOT-OD-22-029 Proposed Updates and Long-Term Considerations for the NIH Genomic Data Sharing Policy.

The Committee continued to provide educational opportunities on the ethical, legal and societal issues associated with biobanking and human specimen research including:

- Organized and presented joint programs and workshops with public responsibility in medicine and research to educate the research ethics community about biobanking and staffed an ISBER virtual booth at the annual conference.
- Organized and presented the ISBER Best Practices Webinar: Legal and Ethical Issues for Human Biospecimens (and Associated Data)
- Participated in and presented at ISBER annual conference round tables and workshops
Participated in and presented at UHN-ISBER joint virtual conference sessions including Return of Research Results, and Bridging Health Disparities.

Disseminated the International Pharma Working Group (IPWG) Survey on the Return of Genomic Research Results. The Committee Leadership have been participating in important policy discussions of the R3 Regulatory Roundtable. The R3 strives to foster a broader understanding of the laws and regulations that influence therapeutic innovation, product approval, and the protection of human research participants on the global stage by gathering stakeholders from academia, industry, and regulatory agencies in a non-partisan environment. During the past year, R3 held several meetings on important issues relevant to biobanking including an extensive discussion of recent developments in the trans-atlantic processing and shipment of personal data for research purposes.

Next year, the Committee will continue to further explore community engagement for biobanking, return of research results, and challenges related to international specimen and data sharing. In addition, the Committee will continue to collaborate with R3 to help shape regulations and policies with broad impact on the biobanking community. It is hoped that these efforts will facilitate the broad sharing of biospecimens and data while at the same time promoting the ethical conduct of research and protecting research participants.

STANDARDS COMMITTEE INITIATIVES

The ISBER Standards Advisory Committee serves as a conduit between ISBER and the biobanking standardization community and its stakeholders.

Committee activities include:

- Internal Audit Tool
- Development of a Qualification in Biorepository Science (QBRS) program for biobank technicians: update of educational tools, promotion of the program
- Update of ISBER BAT (Previously the Self-Assessment Tool)
- Facilitation of ISBER input into ISO 20387:2018 Biobanking – General requirements for biobanks
- Translation of Best Practices (Korean, Chinese, Spanish, Russian, Japanese, Farsi and French)
- Translations of Best Practices – Cryobiology Addendum 1 (Chinese, Japanese, Russian)
- Glossary
- COVID19 TF
- Strategic plan and restructuring

For more information on committee activities, please refer to Best Practices, QBRS and BAT project reports, which are included in this document.
ISBER members in the Americas region have had another active year. We have continued to interact with our membership through the forum and social media, and were pleased to welcome the community to the 2022 Hybrid Annual Meeting, for which the in-person portion took place in Atlanta, USA.

Below are a few highlights from the DAL and each of the Americas Regional Ambassadors from the past year:

**Dee McGarvey:** Ms. McGarvey was a member of the following Committees: Governance Committee; Nominating Committee; and the Organizing Advisory Committee. She is also an advisor to the Education and Training Advisory Committee. Prior to the ISBER 2022 Annual Meeting, she co-chaired the Biobanking 101 Workshop (with M. Henderson and D. Garcia) which was followed up with a round table at the ISBER Annual Meeting in Atlanta “Biobanking 101 Workshop Debrief”. Also at the Annual Meeting, she presented a Lightning talk on the Qualification in BioRepository Science (QBRS) for Symposium 4A: Quality in Context. Ms. McGarvey was also a co-author (with Z. von Menchhofen) on a poster “Data Mining Pathology Reports for Crucial Biomarkers for Samples Held in a Biobank”.

**Ayat Salman:** Ms. Salman is the Vice Chair of the Communications Advisory Committee and a member of the Organizing Advisory Committee.

**Billy Schleif:** Mr. Schleif was Vice-Chair of the Organizing Advisory Committee as well as an active member of the Governance Committee. He co-chaired, with Emma Snapes and Rupta Gupta, the Scientific Program Committee for the ISBER 2022 Annual Meeting in Atlanta. At this meeting he co-chaired Symposium 1: “Inspiring Innovative Trials” and also co-chaired the session on “Innovative Technologies”.

**Marianne Henderson:** We extend our thanks to Ms. Henderson, who ended her term as Ambassador this past year. At the Annual Meeting in May 2022, she received the ISBER Pioneer’s Award, acknowledging her past and continuing work for the society. Prior to the annual meeting, she co-chaired the Biobanking 101 Workshop. She then co-chaired the round table at the ISBER Annual Meeting in Atlanta as a follow up to this workshop, “Biobanking 101 Workshop Debrief”. During the Annual Meeting: she co-chaired (with Joseph Kessler) a Round Table on “What do You Really Know About the Value of Your Biospecimens?”; Co-Chaired (With Z. Kozlakidis and W. Marin) Symposium 4B: “Real World Data for Global Research Collaboration”; and presented a poster “Setting Up for Success: Preplanning Repository Meta-Data Collection for Operational Sustainability”. She was active as a member of Organizing Advisory Committee.

**Ana Bolanos:** We are happy to announce that Dr. Bolanos began her role as a Regional Ambassador in May 2022. As a practicing MD who has worked in several Latin American countries she brings a unique and welcome perspective to this position.

**Antonio Hugo Campos:** Dr. Campos continues to support the ISBER objectives and was excited about the LMIC grant opportunity for the QBRS program. He has promoted this program through his network in Brazil.
Over the past year, Chinese ISBER members continued to participate in various ISBER committees. The China Regional Director, the Regional Ambassadors, together with local biobankers, have built virtual workshops to boost knowledge sharing and raise public awareness of the importance of biobanking in China.

Four video testimonials from China were submitted to be evaluated to publish on ISBER’s website. The testimonials focused on “Why did you join ISBER?”, “Why do you stay with ISBER?”, and “Explain why ISBER was a good experience?” to showcase how the members have benefitted from being a part of ISBER.

Other activities carried out in the China region include:

• On December 29, 2021, the National Children’s Regional Medical Center and Guangzhou Women’s and Children’s Medical Center held an inauguration ceremony for a fully automated biobank of clinical biological resources. The first set of the automated repository in China that uses specialized motors to achieve -80° storage, and is also the first Chinese hospital to store over one million samples.

• At the end of 2021, China’s national standard “Management Specification for Human Biobank” was published. This standard applies to all institutions engaged in the conservation of human biological samples. This standard specifies human biobank’s organizational structure, personnel, facilities, equipment, reagents & consumables, and information system.

• On June 17, 2022, T/LTIA 16-2022 “Cryogenic Automated Biological Sample Storage System” group standard was released by Shenzhen Life-Tech Industry Alliance.

It proposes technical requirements for the construction design, classification and labelling, and test methods/ regulations of the cryogenic automated biological sample storage system.

Chinese biobankers continued to push forward the development of the standards on collection, processing, transportation and storage requirements for biological resources and related data:

• Chinese experts have participated as project leaders for five published standards in biological material and biobank area, including “ISO 21710:2020 Biotechnology - Specification on data management and publication in microbial resource centers”, “ISO 20388:2021 Biotechnology - Biobanking - Requirements for animal biological material”, “ISO 23105:2021 Biotechnology - Biobanking - Requirements for plant biological material for research and development”, “ISO/TS 22859:2022 Biotechnology - Biobanking - Requirements for human mesenchymal stromal cells derived from umbilical cord tissue” and “ISO 24603:2022 Biotechnology - Biobanking - Requirements for human and mouse pluripotent stem cells”.

• “Biotechnology - Data interoperability for Stem Cell - Part 1: Framework” has been approved as NP and is developing in ISO/TC 276 WG5.

• Chinese experts introduced a new preliminary working item “Biotechnology - biobanking of deep-sea biological material” in the ISO/TC 276 WG2 meeting in June and the proposal has been encouraged for further development.
ISBER members from Europe, the Middle East and Africa (EMEA) continue to be very active in ISBER. EMEA members participated in the Best Practices webinars, ISBER virtual symposium and the 2022 annual meeting. One of the co-chairs of the annual meeting Program Committee (Emma Snapes) and many of the session champions and committee members were from the region giving broad input.

Throughout the year, the EMEA Director-At-Large (DAL) and the Regional Ambassadors (RA) worked with ISBER’s Executive Director (ED) on recommendations for a regional strategy as per strategy 8 in Pillar B of the 2021/22 ISBER Strategic Plan to ‘Review and Revitalise the Regional Structure’. The DAL and ED jointly developed the framework to undertake a needs assessment for the region and from that, a process to review and develop recommendations to present to the Board of Directors. The DAL and RAs drafted a survey for circulation to the region’s members and the resulting data was integrated with data from EMEA responses in the wider, 2020, member survey. A number of stakeholder interviews were conducted with key partner organisations and key opinion leaders in the region. After analysing the survey and interview data, themes were identified and the DAL, RAs and ED conducted SWOT and PESTLE analyses. Seventeen recommendations were presented to the Board; six of those were short term goals and the remaining eleven longer term aspirational suggestions. These recommendations will be considered during future strategic planning for the region and the organisation.

During 2021 one of the Regional Ambassadors stepped down and another moved out of the region. A call was issued to recruit additional RAs and four new RAs took up the role in the first half of 2022. All four hail from Africa, giving good representation from the area. They join the three RAs from Europe and one from the Middle East to form an excellent group of regional champions.

A new DAL, Elne Conradie, took up the reins at the 2022 Annual meeting following the election of the previous DAL, Alison Parry Jones, to President-Elect.
INDO-PACIFIC RIM (IPR)

The IPR regional ambassadors continue to be active, meeting monthly to discuss their direction and projects. This group has been involved in the following recent activities:

ALL RAS AND DAL:

ISBER 2022 Annual Meeting:
• Roundtable discussion (Virtual): Decarbonization in Biobanking: Do We Have A Chance to Contribute?

IBS (International Biobanking Symposium) 2022, February 22nd, 2022 organized by BBIF (Biobank India Foundation)
• In preparation: Barriers in Biobanking (Mixed structure of LMICs and HICs)

Manuscripts:
• For online release: Improving Public Trust in Biobanking: Report proceeding round table discussions in 2021 ISBER Annual Meeting
• In press: Decarbonization In Biobanking: A potential new scientific area.

HANH: IPR RA, VIETNAM, SINCE OCTOBER 2020:
• ISBER 2022 Program Committee Member, Organized and Chaired “Rising Stars” session

WAYNE: IPR RA, AUSTRALIA, SINCE MARCH 2019:
• Member of Steering Committee for Australian Donation and Transplantation Biobank
• Co-organiser (with Gold Coast Biobank) and co-chair of National forum – The Business Matrix: 
  • Session 1: Professionalism and Career Prospects (August 2021)
  • Session 2: The National Biobanking Strategy (October 2021)
• Chair for ABNA 2022 Accreditation Seminar Series session 2: Experiences of the Accreditation Process (22 June 2022)
• Member of Management Committee for ABNA
• Guest lecturer for MSc Biobanks and Complex Data Management from University of Cote D’Azur (November 2021)
• Speaker for ISBER Best Practices Educational Webinar Series: Session of Utilisation (November 2021)
• Guest speaker for ISBER Annual Meeting 2022, Atlanta, USA (May 2022)
• VCB nominated as a finalist for Melbourne Awards 2022 (a city-based community award)

Publications:
• ‘An expert walks us through all the incredible work cancer researchers are doing right now’, Pedestrian. TV, 2021 https://www.pedestrian.tv/health/cancer-research-progress/
• Victorian Cancer Biobank Key Achievements FY2020-21 https://viccancerbiobank.org.au/2021/12/10/key-achievements-fy2020-21/
BIREN德拉: IPR RA, INDIA, SINCE MARCH 2019:

- September 2021: Organized webinars with DAL and other RAs
- June 2021 – May 2022: Member of the ISBER Organizing Advisory Committee
- May 2021 – May 2022: Member of the ISBER 2021 Conference Program Committee
- September 2021: Present Member of ISBER Education and training committee
- October 2021 - February 2022: Organizer of BBIF INTERNATIONAL Biobank Symposium 2022
- April 2022 - May 2022: Session Chair of ‘Differing International Biobanking Practices and Impact for Partnerships’
- June 2022 – Present: ISBER 2023 Conference Program Committee Co-chair
- March 2022 – Present: BBIF-IBS organizing Chair -23-24 February 2023

JAHAH: IPR RA, INDONESIA, SINCE NOVEMBER 2019:

- Organized 2021 Indonesia annual biobank workshop under the Indonesia biobank for health research network activity. Through the preparation of an online course material, there is a need for hands on wet lab training, basic biobank requirements, costing (and cost recovery), as well as sample management system.
- Early 2022-Present: Involved in coordinating the development of Indonesia national health biobank under the ministry of health, with several ISBER IPR ambassadors involved in discussions. As this effort includes several hospitals in Indonesia, the development of such infrastructures may require the involvement of biobank organization.

TATSUIKI: IPR RA, JAPAN, SINCE MARCH 2019:

- Involved in biobank seminars at the Japanese Academic Society of Pathology (2018-2022) for pathologists, clinicians, and biobank staff, including:
  - Introduction to biobank and ISBER history
  - Introduction to ISBER Best Practices
  - Text publication on genomic pathology from the Japanese Academic Society of Pathology
- Involved in Biobank Network Project and biobank handbook creation project at Japan Agency for Medical Development.
- Conducted Biobank Personnel Examinations (CIBER examination)
- Involved in surgical pathology guidance documents as technical specification of ISO20387 according to ISBER Best Practices

KOH: IPR DAL, SINCE JULY 2019:

- At the 2nd ISO 20387 Feedback Workshop (26th meeting of ISO/TC 276/WG 2 “Biobanks and bioresources”) on December 14th 2021, Koh provided a presentation regarding “Current Situation & State of Readiness” focusing on biobanks in LMICs and IPR with Zisis Kozlakidis.

The IPR DAL and RAs are working to contribute to the following areas in the IPR region:

**Cooperation and Collaboration:**
- To facilitate setting up better environment for citizens, private sectors, and academics. Public private partnership is a keyword.

**Embracing Diversity:**
- To facilitate setting up a better environment not only for the non-human biobanking field, but also for various countries and regions of different economical stages.

**Education and Training:**
- To facilitate setting up a better environment for dissemination of basic knowledge and skills in biobanking, such as preparing infrastructure of biobanking, education, training, certification, and so on. Dissemination of knowledge and skills by non-English language media is also a focus.
Strategic Plan Update

Please see the results of the strategic plan below. For more details you can download the full document at www.isber.org/about.

**PILLAR A: OPTIMIZE ISBER’S MANAGEMENT, INFRASTRUCTURE, AND COMMUNICATION SYSTEMS**

**STRATEGY 1**
Audit, evaluate, review current leadership and management structure, practices and operations (ensure that we clarify roles between paid and volunteer staff). Move management of the organization to be program/performance-driven versus structure/design-driven.

**OUTPUT:**
- Create a task force that will audit, evaluate, and review current leadership and management structure to make recommendations to the BOD.
- New organizational chart; job descriptions for roles; terms of reference for committees.
- Optimize staff and volunteer structure to best support the work of the society and maintain focus.

**STRATEGY 2**
Move from member-driven organization to quality-driven, product-driven, expertise-driven, and service-driven organization. Evaluate what ISBER gains and what is lost from this new approach. Provide assessment to the BOD. BOD to decide new focus for the organization.

**OUTPUT:**
- Evaluate the benefits of moving from a member-driven organization to a quality, product, expertise, and service driven organization.
- Develop a list of ISBER stakeholders for ISBER products and services based on this new approach—members, non-members, educational content consumers, Best Practices consumers, etc.
- Identify products and services to meet the needs of various stakeholders.
- Set up organization to be able to meet the needs of each of the stakeholder groups.
- Develop a Market Research Report.

**STRATEGY 3**
Streamline processes to reduce redundancies and bottlenecks (for example, decision making, communication, and rigid committee structure). Develop areas of “authority” for each role and “committee”.

**OUTPUT:**
- Decision making flowchart
- Communication flowchart

**STRATEGY 4**
Streamline, clarify and communicate decision-making structure. Ensure decision making at the appropriate level.

**OUTPUT:**
- Decision making flowchart
- Communication flowchart

**MEASURES**
- Develop annual operating plan henceforward
- Develop and implement delegated authority chart
- Internal communications plan to be completed by May 2021
- Survey committees and leadership; identify redundancies and bottlenecks to be eliminated by June 30, 2021
- Update management contract to be signed for July 1, 2021
STRATEGY 5

Develop programming for long-established members/leaders, such as an experienced leadership track or leadership alumni offering (e.g., past presidents forum).

OUTPUT:

- Develop framework for programming for long-established members/leaders to implement in the subsequent strategic plan.

STRATEGY 6

Develop internal communications plan to provide relevant, timely information to the person(s)/groups(s) as needed.

OUTPUT:

- Internal communications plan, approved by the BOD, will outline clear, direct, transparent communication lines for members, volunteers and stakeholders.

STRATEGY 7

Craft a management contract that is aligned with the new strategic plan. Ensure that the programs have the support that they need to develop and grow.

OUTPUT:

- Update/revise current management contract to reflect the new strategic goals.

PILLAR B: REVIEW AND REVITALIZE THE REGIONAL STRUCTURE

STRATEGY 8

Conduct a review of regions and modify the regional structure if needed. Ensure that new structure supports under represented areas.

OUTPUT:

- Conduct needs assessment in each of the regions. Ensure that needs assessment incorporates a translation strategy for each of the regions.
- Evaluate the boundaries of each of the regions.
- Engage the regional ambassadors in the needs assessment.

MEASURES

- Update leadership, management and governance structure to be implemented by December 2021
- Updated bylaws to reflect new leadership, management and governance structure to be presented to membership annual general meeting 2022

MEASURES

- New regional structure and organization chart.
Biopreservation and Biobanking (BIO)

As noted on its website, “Biopreservation and Biobanking (BIO) is the first journal to provide a unifying forum for the peer-reviewed communication of recent advances in the emerging and evolving field of biospecimen procurement, processing, preservation and banking, distribution, and use. The journal continues to publish a range of original articles focusing on current challenges and problems in biopreservation, and advances in methods to address these issues related to the processing of macromolecules, cells, and tissues for research. It also explores the ethical, legal, and societal considerations surrounding biobanking and biorepository operation. Ideas and practical solutions relevant to improved quality, efficiency, and sustainability of repositories, and relating to their management, operation and oversight are discussed as well.”

The impact factor for BIO as of June 2022 is 2.256. The 2022 impact factor reflects citations of BIO papers in 2021, for articles published in 2019 and 2020. Note that the most-cited paper included in the impact factor calculation was the article, “Strategies to Minimize Various Stress-Related Freeze-Thaw Damages During Conventional Cryopreservation of Mammalian Spermatozoa,” authored by Kumar et al. The next most-cited article in that timeframe was, “Advancing Professionalization of Biobank Business Operations: Performance and Utilization,” authored by Henderson et al. In 2020 and 2021, the impact factors were 2.0 and 2.3, respectively. Since BIO publishes about 60 to 70 research articles each year, a difference of only a few citations can affect the impact factor significantly. During 2022, we are concentrating on attracting more high-quality manuscripts, especially review articles.

Full text downloads of BIO articles have continued to increase significantly every year. There were 169,657 full-text downloads in 2021, up 87% over 2020. The top download users by country were China, USA, Australia, S. Korea, Germany, Netherlands, UK, Canada, Belgium and Italy. Full text download statistics are an indication of both the interest of readers in the journal’s articles, as well as promising for the long-term prospect for BIO in terms of subscriptions. However, for the impact factor to increase, these downloads need to translate into citations of BIO articles. In terms of manuscript submissions, we had a total of 133 in each of 2018 and 2019. We had record 167 submissions in 2020, an increase of 25% over 2019, and 171 in 2021. In 2022, we are on track to have over 200 submissions. This allows us to continue to be selective in the articles that we accept for publication. As a result, in 2022 the rejection rate is over 50%.

The Editorial Board and ISBER colleagues have been very proactive in suggesting ideas for special topics. Often such ideas from ISBER annual meeting sessions, and the session
chairs will send one of the BIO editors a note to suggest a special issue or section. A special section on biobanking education appeared in the February 2020 issue. In April 2021 we published a special issue on Biobanking for Pediatric Research, which was comprised of research papers that outlined many of the special considerations needed in collecting, processing and analyzing pediatric biological samples. One of this special issue’s articles, “Tiny Bodies, Big Needs: Prospective Biobanking of Clinical Remnant Samples,” was the paper that had the highest number of downloads in 2021.

2022 is the 20th anniversary of the journal, which was first published in 2002 as Cell Preservation Technology, under the leadership of Dr. John Baust, who was Editor-in-Chief for 10 years. Beginning in 2008, the journal became Biopreservation and Biobanking. This year, two special anniversary issues will be published: Cryobiology in Biobanking and Emerging Markets and Technologies. With these two special issues the journal will cover advances in the technologies of biobanking and biopreservation over the past 20 years, with topics that make our journal unique.

As always, many thanks to BIO’s Editor in Chief Jim Vaught, and Deputy Editors Marianna Bledsoe, Dayong Gao, and Peter Watson, European Editor William Mathieson, and Asian Editor Junmei Zhou. In 2021, manuscript submissions from China continued to be higher than any other country, with manuscripts being received from 44 countries. We are also happy to be working with Associate Journals Manager Jamie Devereaux, who works with us on communication among the senior editors, as well as strategic planning for the journal.

The editorial board members’ excellent efforts in selecting reviewers and recommending action for articles are critical to BIO’s continued success. BIO’s authors, reviewers, and readers of course also are critical elements in the journal’s advancement. The feedback BIO is getting in terms of most-read articles, and the unique perspective of the journal in terms of subject matter, continue to be critical to the journal’s success and support of ISBER’s mission.
2022 Award Recipients

**ISBER 2022 OUTSTANDING ACHIEVEMENT IN BIOBANKING**

Dr. Nahla M. Afifi  
Qatar Biobank  
Qatar

**ISBER 2022 PIONEER’S AWARD**

Marianne Henderson  
National Cancer Institute  
USA

**ISBER 2022 DISTINGUISHED LEADERSHIP AND SERVICE AWARD**

Dr. Brent Schacter  
CancerCare Manitoba  
Canada

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**ISBER 2022 SPECIAL SERVICE AWARDS**

David Lewandowski  
Azenta Life Sciences  
USA

Amanda Moors  
National Institute of Standards and Technology  
USA

Benjamin Otto  
Eppendorf Group  
Germany

Tamsin Tarling  
University of British Columbia  
Canada
ISBER 2022 OUTSTANDING NEW PRODUCT AWARD

BIOMARK X BY FLUIDIGM

ISBER 2022 BEST PAPER AWARD

“MICROSATELLITE MARKERS IN BIOBANKING: A NEW MULTIPLEXED ASSAY”

Co-authored by:
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