



INTERNATIONAL SOCIETY FOR BIOLOGICAL AND ENVIRONMENTAL REPOSITORIES



Isber Annual Report 2019

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About

ISBER is the only global forum that addresses 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.



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 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.



- 1. Disseminate information on repository management issues
- 2. Educate and share information and tools within the society and with stakeholders
- 3. Act as the voice for repositories to influence regulations and policy
- 4. Develop best practice guidelines
- 5. Provide centralized information about existing repositories
- 6. Bring members together to work on emerging issues



Message from the Presidents

Dear ISBER members,

We are pleased to present to you the 2019 annual report. The goal of the report is to provide you with a summary of what the association leadership accomplished on your behalf since the 2018 annual general meeting.

This past year has been a busy year for the association! The Board of Directors (BOD) continues to be led by its strategic plan which outlined five key directions for the association:

- 1. Strengthen the Association
- 2. Policy Influence
- 3. Advance the Science of Biobanking
- 4. Global and Sectoral Presence
- 5. Increased Awareness of ISBER

After a very successful conference in Dallas, the ISBER leadership focused on organizing the February 2019 Berlin biospecimen science meeting in partnership with the German Biobank Node. The Berlin meeting moderated an excellent program that was well received by the biobanking community. In March of 2019, ISBER participated in the first biobanking meeting in Qatar, presenting the 4^{th} edition of ISBER's Best Practices.

ISBER celebrated its 20th anniversary in Shanghai, China partnering with the Biobank Branch, China Medicinal Biotech Association (BBCMBA) and China National Gene Bank (CNGB). The meeting held in May 2019 attracted more than 700 attendees. We wish to thank the three conference co-chairs: Dr. Rongxing Gan, Andy Pazahanick, and Zisis Kozlakidis, who devoted much time and effort into making this a successful meeting. During the annual meeting, we launched an addendum to the 4th edition of ISBER's Best Practices, "Liquid Nitrogen-Based Cyrogenic Storage of Specimens". This addendum developed in partnership with the Society for Cryobiology addresses a need in the industry. We were very pleased and thankful for the Standards Committee Chair, Dr. Daniel Simeon Dubach for leading this initiative, Editor in Chief Dr. Lori Campbell, Associate Editor Dr. Alison Hubel and the many contributors and reviewers that shared their expertise and helped build consensus around this important project. As of July 2019, there were 564 downloads of the addendum.

Since the release of the 4th edition of the ISBER Best Practices in 2018, we are proud to announce that it has been translated to Chinese, Japanese, and Russian. Translations to Farsi, French and Spanish are currently in the works. To date we have seen more than 3000 number of downloads of the best practices so far.



We are very pleased to announce the launch of our Regional Ambassador (RA) program under the direction of our Directors-At-Large! We wish to thank all who volunteered and would like to introduce you to our RAs:

- **Americas:** Hugo Barrera, Antonio Hugo Campos, Ayat Salmon, Andy Zaayenga
- **China:** Jufang Huang, Weihua Jia, Liangliang Ruan, Weiye Charles Wang, Lianhai Zhang, Xuexun Zhou
- **Europe, Middle East and Africa:** Nahla Afifi, Sergey Anisimov, Judita Kinkorova, Manuel Rodriguez Maresca, Stephen Marrs, Sureya Nassimbwa
- **Indo-Pacific Rim:** Mt Wayne Ng, Tatsuaki Tsuruyama, Birendra Yadav

ISBER has also convened a task force working on developing the new Biobanking Practitioner Qualification examination, which will be launched in the Spring of 2020. This exam will help biobankers and technical staff to professionalize and formalize their biobanking knowledge and skills. It is our goal to open registration for the exam in early 2020.

We would like to take this opportunity to thank the BOD and Committee Chairs who have worked tirelessly to advance the mission and vision of the association. They have been innovative, creative, resourceful and passionate on your behalf. We also wish to thank the members of the various committees, working groups, special interest groups, review boards, writing groups, and task forces that have contributed their time and expertise to the association. You have made the business of biobanking stronger and you have helped the association! Thank you!

Finally, we would encourage all members to get involved in the association's committees, working groups and special interest groups. We are always looking for creative, innovative ideas and leaders to strengthen the association and biobanking community in years to come.

Sincerely,

Debra Leiolani Garcia, President 2019-2020 David Lewondowski, President 2018-2019



Listing of Organization Leadership and Staff

BOARD OF DIRECTORS AND COMMITTEE CHAIRS

BOARD MEMBERS:



President
May 2018 – May 2019 **Debra Leiolani Garcia,** MPA
Americas
Independent Consultant

San Francisco, United States



Past President
May 2018 – May 2019

David Lewandowski, BA
Americas
Brooks Life Science Systems
Chelmsford, United States



President-Elect
May 2018 – May 2019
Daniel Catchpoole, PhD, FFSc
Tumor Bank, The Children's Hospital at Westmead
Westmead, Austrailia



Director-at-Large – Americas May 2018 – May 2021 **Monique Albert** Ontario Institute for Cancer Research Toronto, Canada



Director-at-Large – China May 2018 – May 2021 **Xun Xu** China National GeneBank Guangdong, China



Director-at-Large – Europe, Middle East, Africa May 2017 – May 2020 **Alison Parry-Jones,** MD Wales Cancer Bank – Cardiff University Cardiff, United Kingdom



Director-at-Large – Indo-Pacific Rim May 2019 – May 2022 Koh Furuta, MD, PhD President, Council for Industrial Use of Biological and Environmental Repositories (CIBER) Tokyo, Japan



Treasurer
May 2017 – May 2020

Piper Mullins, MS
Smithsonian Institution
Washington, United States



Secretary May 2017 – May 2020 Nicole Sieffert, MBA, CCRS MD Anderson Cancer Center Houston, United States



COMMITTEE CHAIRS



Science Policy Advisory Committee Chair **Marianna J. Bledsoe**, MA Silver Spring, MD, United States



Organizing Advisory Committee Chair **Marianne Henderson**, MS NCI/NIH/DHHS, Bethesda, MD, United States



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



Communications Advisory Committee Chair Catherine Seiler, PhD Kaleido Biosciences Bedford, MA, United States



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



Education and Training Advisory Committee Chair

Kristina Hill, MPH, MT (ASCP) Eastern Virginia Medical School Virginia, United States



Marketing Advisory Committee Chair **Kerry Wiles** Vanderbilt University Medical Center/ CHTN, Tennessee, United States

2018 Program Committee Co-Chairs Marianne Henderson, Nicole Sieffert

2019 Symposium Program Co-Chairs Michael Hummel, Cristina Villena 2019 Program Committee Co-Chairs Rongxing Gan, Zisis Kozlakidis, Andy Pazahanick

WORKING GROUP AND SPECIAL INTEREST GROUP CHAIRS

Biospecimen Science Working Group Fay Betsou and Katheryn Shea	Automated Repositories Special Interest Group Andy Zaayenga, Jessica Lesko, and Jessica Erbsen	International Repository Locator Working Group Yaffa Rubenstein and David Van Enckevort	Next Generation Living Biobank Special Interest Group Xuefeng Liu and Jedd Lewi		
Informatics Working Group Kevin Meagher	Enviro-Bio Working Group Piper Mullins	Pharma Working Group Clive Green and Rose Redfield	Pediatrics Special Interest Group Suzanne Vercauteren		
Hospital-Integrated Biorepositories Special Interest Group Daniel Catchpoole	Rare Diseases Working Group Samuel Hughes and Yaffa Rubinstein	Regulatory and Ethics Working Group Scott Jewell and Madeline Williams			

ISBER HEAD OFFICE



Executive Director

Ana Torres,
BA (Hons), MPub



Project Manager Samantha Wale, BA (Hons)



Project Manager Elizabeth Sun, BSc, MM



Association Coordinator **Veronica Dabrowski**, BSc



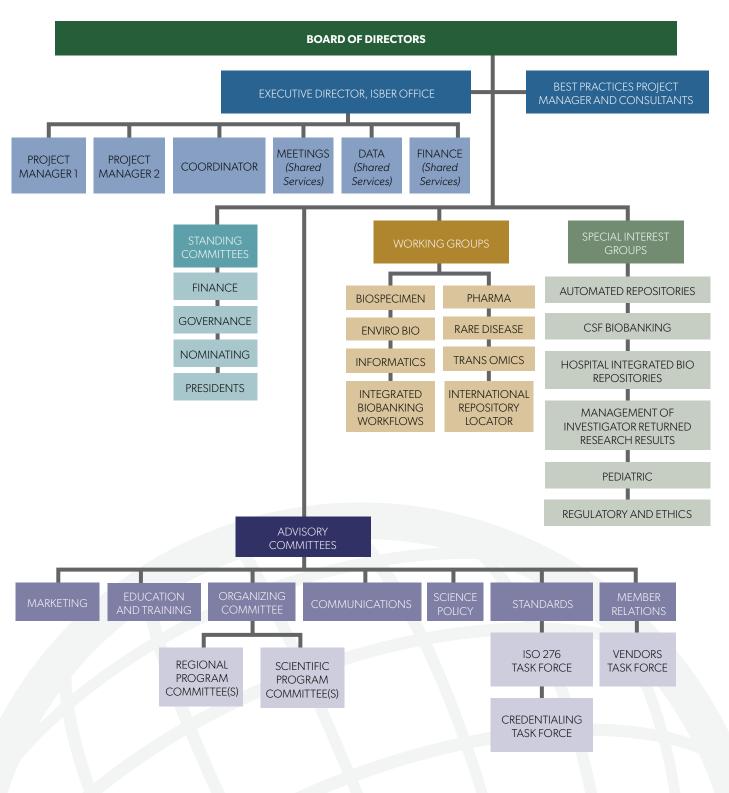
Meetings Director Paul Fogerty, BA



Database Director, **Paul Kool**, BSc. AIT



The ISBER organization chart was updated as follows:





Membership Statistics

The membership query was performed on April 12, 2019.

In 2019, there were a total of **939 memberships** to date. This number includes Individual Memberships and Organizational Sub-Accounts. Organizational Memberships have Sub-Accounts which are allocated with the following specifications:

- Small Organizations: 2 Sub-Accounts. 1 with a journal subscription to BIO, 1 without.
- Medium Organizations: 4 Sub-Accounts. 2 with journal subscriptions to BIO, 2 without.
- Large Organizations: 8 Sub-Accounts. 4 with journal subscriptions to BIO, 4 without.

TOTAL ISBER MEMBERSHIP

939 TOTAL MEMBERS, WHICH INCLUDES:



Individual Members

355



Small Organization

127 Up from 115 in 2018



Medium

62Up from 60 in 2018



35Up from 30 in 2018



er Annual Report **2019**

INDIVIDUAL MEMBERSHIPS & SUB-ACCOUNTS PER REGION 2019



ORGANIZATIONAL MEMBERSHIPS PER REGION 2019



Annual Report 2019 Isber



2019 DISTRIBUTION BY COUNTRY

Country	Indiv.	Small	Medium	Large	Sub- Accounts	2019	2018	2017
United States	192	44	40	29	374	566	553	658
Canada	22	12	5	0	38	60	56	56
Australia	24	10	2	1	22	46	34	38
United Kingdom	12	4	2	0	19	31	26	26
China	5	15	0	1	18	23	33	34
Germany	6	5	2	0	12	18	18	12
Belgium	3	4	2	0	14	17	15	9
Japan	11	1	0	0	1	12	12	8
Korea, South	2	2	0	1	10	12	14	8
South Africa	4	3	1	0	8	12	10	8
Switzerland	6	3	0	0	5	11	13	8
India	8	2	0	0	2	10	4	4
Ireland	2	1	1	0	6	8	4	3
Singapore	1	1	1	0	7	8	7	10
Uganda	1	0	0	1	7	8	5	5
France	6	2	0	0	1	7	7	5
Norway	5	2	0	1	2	7	4	5
Luxembourg	1	1	1	0	5	6	6	5
Netherlands	4	0	0	0	2	6	4	4
Spain	2	2	0	0	4	6	6	5
Sweden	2	0	0	1	4	6	4	8
Czech Republic	3	1	0	0	2	5	2	2
Denmark	5	2	0	0	0	5	4	3
Finland	0	0	1	0	5	5	5	5
Indonesia	4	0	1	0	0	4	3	2
Italy	1	2	0	0	3	4	3	3
Austria	1	1	0	0	2	3	2	3
Russia	1	3	0	0	2	3	2	3
Saudi Arabia	3	0	0	0	0	3	3	4



Country	Indiv.	Small	Medium	Large	Sub- Accounts	2019	2018	2017
Ukraine	0	0	1	0	3	3	1	2
Israel	1	1	0	0	1	2	1	3
New Zealand	1	1	0	0	1	2	3	3
Nigeria	0	0	1	0	2	2	1	1
Pakistan	2	0	0	0	0	2	0	0
Qatar	1	1	0	0	1	2	1	2
Argentina	1	0	0	0	0	1	0	0
Brazil	1	0	0	0	0	1	1	1
Cameroon	1	0	0	0	0	1	0	0
Colombia	1	0	0	0	0	1	0	0
Egypt	1	0	0	0	0	1	0	0
Gambia	1	0	0	0	0	1	0	0
Kuwait	1	0	0	0	0	1	0	0
Mexico	1	0	0	0	0	1	0	0
Philippines	1	0	0	0	0	1	0	0
Puerto Rico	0	0	1	0	1	1	1	1
Taiwan	1	0	0	0	0	1	0	0
Trinidad and Tobago	1	0	0	0	0	1	0	0
Vietnam	1	0	0	0	0	1	0	0
Zimbabwe	1	0	0	0	0	1	0	0
Estonia	0	1	0	0	0	0	0	0
TOTAL	355	127	62	35	584	939	868	957



Liquid Nitrogen-Based Cryogenic Storage of Specimens Best Practices Addendum





Building on the Fourth Edition of the ISBER's Best Practices released in 2018, ISBER in collaboration with the Society for Cryobiology (SFC) released of the Liquid Nitrogen-based Cryogenic Storage of Specimens Best Practices Addendum in conjunction with the 20th

Annual Conference in Shanghai. (Available for download at: https://www.isber.org/page/BPR).

"The new Liquid Nitrogen Best Practices Addendum will be a go-to resource for the growing number of repositories being asked to store cellular products being used in adoptive therapy research and manufacturing. We are grateful to the team of contributors who are world leaders, who have shared their expertise in building and managing facilities to support collections requiring sub-Tg (glass transition, -135°C) storage," said David Lewandowski, Past President who started this initiative and developed the partnerships with the Society for Cryobiology.

As with the ISBER Best Practices, we expect the addendum to provide timely and meaningful guidance to the industry. In developing this addendum, consultation was solicited from a large number of international resources with experience and expertise in LN-based cryogenic storage of biological and environmental specimens for research and clinical use. Development of best practices is a rigorous, consensus-based process that reflects advances in research and technology. This document will impact the policies and procedures of the community and serve as a strong foundation for future standards and best practices.

"Liquid nitrogen provides an ideal low temperature environment (at -196°C) to keep living cells and

tissues dormant but potentially alive for long-term cryopreservation. The ISBER Liquid Nitrogen Best Practices Addendum systematically details the high standards of using liquid nitrogen in biobanking research and practice, which will have a great and profound impact on the field," said Dr. Dayong Gao, President, SFC.

"This Addendum is a good example of the flexibility of the ISBER Best Practices. If a need in a specific area is identified by stakeholders, a corresponding addendum can be developed relatively quickly in collaboration with experts in the field," said Dr. Daniel Simeon-Dubach, Chair ISBER Standards Committee.

We wish to thank the Society for Cryobiology for the collaboration on this initiative.

Furthermore, we wish to thank the following individuals for their contributions to this initiative:

ISBER BEST PRACTICES EDITORIAL BOARD

EDITOR-IN-CHIEF

Lori D. Campbell

ASSOCIATE EDITOR

Allison Hubel

INDIVIDUAL CONTRIBUTORS

Donald Fish, Johnny Greene, Carlo Largiader, Dominik Lermen, Annette Schlueter, Charles Sims, Erik Woods, Steffen Zeisberger

EXPERT REVIEWERS

Jason Acker, Sindy Babinszky, Buzz Bies, Alex Esmon, Jim Gordon, Michael Lebbin, Ian Pope, Elena Popova, Dean Rainbolt, Albert Ribickas, Mitchell Schiewe, Steve Shaw

STANDARDS COMMITTEE REVIEWERS

Daniel Simeon-Dubach (Committee Chair), Monique Albert, Sergey Anisimov, Yehudit Cohen, Annemieke De Wilde, Koh Furuta, Shannon McCall, Brent Schacter, Weiping Shao, Tim Sharp, Rajeev Singh, Dana Valley



Activity Report - Conference Report



In 2019, ISBER partnered with the German Biobank Node (GBN) to host the 2nd Biospecimen Research Symposium, ISBER's European regional meeting in 2019. The symposium was held from February 5-6, 2019 in Berlin, Germany at the Mercure Hotel MOA Berlin.

The symposium featured three sessions - In Vivo Preanalytics, Ex Vivo Preanalytics, and Microbiome - and featured 16 invited speakers from across Europe, Australia, and the United States of America. The symposium also welcomed 15 exhibitors from around the world.

The Keynote Presenter was Helen Moore with her presentation on "Putting Biospecimen Best Practices in Action for the Cancer Moonshot". Day Two of the symposium featured a Debate/Workshop on "SPIDIA4P – CEN & ISO Standards on Liquid Biopsy: Do We All Agree?" Of the 50 abstracts that were submitted, there were 34 abstracts accepted for Poster-Only presentation and 5 abstracts accepted for Oral-Only presentation. The Best Poster Abstract award was presented to Mar Iglesias Coma and her team for her abstract "OPTIMARK project: search for quality markers for paraffin-embedded tissue samples".

In addition, the symposium featured a sold out site visit to the Central Biomaterial Bank Charité.



The International Society for Biological and Environmental Repositories (ISBER) held its 20th Annual Meeting and Exhibits in Shanghai, China at the Shanghai International Convention Center from May 7-10, 2019.

The annual meeting had a final delegate count of 738. All ISBER regions were represented at the meeting with the China region leading the majority at 58% of registrants. The Americas region followed with 16% of delegates, and the Europe, Middle East, and Africa (EMEA) and Indo-Pacific Rim (IPR) regions each with 13%.

The meeting included ten symposia sessions and four special topics sessions, including the plenary session titled



"Next Generation Biobanking". Abstract submission was strong with 215 submissions. The abstracts were evaluated by the Program Committee and the accepted abstracts were published in the online 2019 Abstract Supplement of the Journal of Biopreservation & Biobanking (BIO), ISBER's official journal.

ISBER organized nine educational workshops as well as a full day of pre-conference workshops through the Education and Training Committee, all of which were included in the Final Program.

ISBER presented several awards at the meeting to recognize individuals and achievements in the field of biobanking. The following awards were presented at the Meeting:

- SBER Award for Outstanding Achievement in Biobanking, Sponsored by Worthington Industries Marianna Bledsoe (USA)
- SISBER Founder's Award, Sponsored by Chart MVE William Grizzle (USA)
- SER Distinguished Leadership & Service Award Daniel Simeon-Dubach (Switzerland)
- S ISBER Travel Award Anna Piddubna (Ukraine)
- SER Special Service Awards Monique Albert (Canada), William Mathieson (Luxembourg), Alison Parry-Jones (UK), Catherine Seiler (USA), and Xiaoyan Zhang (China)
- SBER Outstanding New Product Award 2019 by GENEPOINT for the Hatch Lite Automated Storage Unit

This year, ISBER hosted the Riverwalk instead of the Annual 5K Fun Run/Walk/Sleep in support of the ISBER Travel Award. The proceeds are used to support individuals from low and middle income countries (LMICs), who are planning or currently managing a repository, to attend the ISBER Annual Meeting and Exhibits.

The ISBER 2019 Annual Meeting and Exhibits received generous support from its corporate supporters. This year, ISBER had 2 Diamond Partners, 7 Gold Partners, and 11 Bronze Partners. The Exhibit Hall hosted 47 exhibitors with a total of 61 booths.





ISBER Committee Initiatives

COMMUNICATION COMMITTEE INITIATIVES

The goals of the Communication Committee are to provide leadership to the association's internal and external communication activities and to provide recommendations to the Board regarding the association's communications initiatives. The primary initiative that the Committee has been working on is the ISBER website redesign. The committee, in concert with Head Office, developed, distributed and evaluated the responses to a request for proposal for an external consultant to analyze the current website and make recommendations for the optimal way to update the website to increase usability and drive membership. A consultant was selected, the evaluation completed, and recommendations made. We are in the process of a phased implementation of these recommendations with the goal of completion by May 2020.

Additionally, the Communication Committee has contributed to the promotions of the ISBER Best Practices 4th Edition translations through the development and distribution of press releases. The committee also contributed to the distribution of a survey to evaluate the impact that the Best Practices have had on individuals and biobanks. These results were presented at the ISBER Annual Meeting and Shanghai and several upcoming meetings.

The Communications Committee also provides an outlet for internal communications by publishing short news articles from ISBER membership in the ISBER News Blog (news.isber.org) and for external communications by coordinating the ISBER Corner in Biopreservation and Biobanking.

MEMBER RELATIONS COMMITTEE INITIATIVES

The Member Relations Committee creates opportunities for a diverse global membership to participate in sharing ideas and innovations in biobanking and provide guidance in retainment and engagement activities.

In the past year, the Committee has contributed to the approval of new membership categories for the Society in future years, including discounted memberships for Students, Technicians, and Patient Advocates. The Committee is also working to encourage membership from more diverse sectors within biobanking to increase involvement from groups such as IVF clinics, eye banks, entomological and veterinary biobanks.

In addition, the Member Relations Committee is in the process of putting together a volunteer recognition program as well as discussing the possibility of forming a mentorship program for the benefit of both new and experienced biobankers based on feedback from ISBER members.

ORGANIZING ADVISORY COMMITTEE INITIATIVES

The Organizing Advisory Committee coordinates the logistics for the Society's meetings and oversees any active Scientific Program Committees. This year, the OAC organized the first Annual Meeting in the China Region with BBCMBA and CNGB. As the 20th Anniversary of ISBER, the Committee added elements of the history of ISBER and future-casting of biobanking in this meeting.



Additionally, the OAC supported the 2nd Biospecimen Research Symposium in Berlin, Germany in February 2019; partnered with ESBB, QBB and BBMRI for the IBCQ in Qatar in March 2019; created new tools to reach out to biobanking sectors and communities; and identified ISBER speakers/planned sessions for non-ISBER biobanking meetings around the globe. The OAC is currently leading the program planning process for the ISBER 2019 Regional Meeting in Minneapolis, USA and the ISBER 2020 Annual Meeting in Anaheim, CA; as well as strategically planning meeting locations for future years.

SCIENCE POLICY ADVISORY COMMITTEE INITIATIVES

The purpose of the ISBER Science Policy Advisory Committee (Sci Pol) 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 identified a number of priority issues for policy engagement, such as the EU-General Data Protection Regulations (EU-GDPR) and the revisions to the US Common Rule. In addition, a plan was drafted for policy engagement at the regional level, so that ISBER can follow more closely relevant policy developments at the regional level and provide input when needed.

The Committee continued to analyze and submit comments and policy statements on behalf of ISBER on important regulatory and policy issues globally. During the past year, the Committee submitted comments on the following regulatory and policy documents:

EU-GDPR GUIDELINES ON TERRITORIAL SCOPE

Notice of Proposed Rulemaking from the US Food Drug Administration "Institutional Review Board Waiver or Alteration of Informed Consent for Minimal Risk Clinical Investigations"

GLOBAL ALLIANCE FOR GENOMICS AND HEALTH (GA4GH) PRIVACY AND SECURITY POLICY

In addition to providing input on important regulatory and policy documents, the Committee provided background information for the development of a video by the US Department of Health and Human Services Office for Human Research Protections, "Research Use of Information and Samples from Patient Care". The video provides basic information for research participants about research use of information and biological samples from clinical care and is available for viewing at https://www.hhs.gov/ohrp/education-and-outreach/about-research-participation/informational-videos/index.html.

In order to help address the challenges of implementation of the EU-GDPR for biobanks, the Committee has established an EU-GDPR Taskforce. A taskforce will also be established to follow policy developments related to the revisions of the Common Rule and engage as needed to address any issues that may arise.



ISDET Annual Report 2019

Introduction to Biobanking





ISBER is pleased to partner with CTRNet to offer you the Introduction to Biobanking Course. The purpose of the Introduction to Biobanking Course is to give ISBER Members and non-members a general overview of the key issues in establishing, maintaining and accessing a biobank. The education program includes 9 online modules designed to provide 'how-to' knowledge for researchers and biobankers. Upon completion of this course, members receive a Record of Completion for their use. This course is offered in English and French.

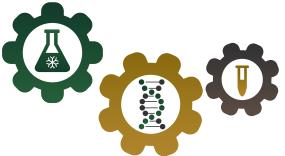
The modules for this course:

- Basics of Biobanking Provides an introductory overview of biobanking including key issues in establishing, maintaining and accessing a biobank.
- Governance Introduces participants to the concept of biobank governance and its importance to the everyday operations of a biobank.
- Ethics, Privacy and Security Discusses the importance of ensuring that biospecimens and personal healthrelated information are used ethically and optimally for research purposes.
- Facility Design and Safety Provides participants with information on the fundamental physical components of a biobank facility. It also covers the importance of biobank facility design and security in maintaining a safe environment.
- Quality Management and Process Improvement Provides general information on the importance of quality management and process improvement for biobanks.
- Informed Consent Identifies and describes processes related to informed consent in the biobank setting.
- Biospecimen Collection and Processing Provides an overview of the types of biospecimens commonly collected and stored in a biobank and the procedures involved in biospecimen collection and processing.
- Biospecimen Storage and Distribution Provides an overview of proper biospecimen storage, retrieval and sample distribution procedures for a biobank.
- Data Systems and Records Management Provides an overview of the types of data systems and records management systems used for storing biospecimen data.



ISBER Tools





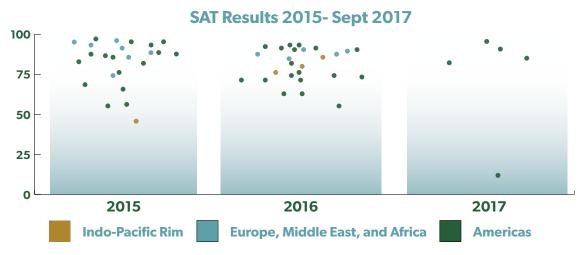


Scan the QR for more information about the ISBER Tools!



SELF-ASSESSMENT TOOL (SAT) FOR REPOSITORIES

The Self-Assessment Tool will be updated to accommodate the changes made in the Fourth Edition of the ISBER Best Practices. The ISBER Self-Assessment Tool (SAT) assists repositories in evaluating how well their repository follows ISBER's Best Practices (BP) for Repositories. Developed by the ISBER Education and Training Committee, the tool contains 152 questions which may be answered in a single or multiple sessions. Each page of the survey corresponds to a section of ISBER BP. After completion of the SAT, personalized results, including a "risk-balanced assessment score" will help evaluate how well the repository's current practices conform to the ISBER BP. The score is based on possible risk to specimens, frequency of implementation of each practice, and the ease with which deviations can be detected. ISBER members can access the latest version of the SAT on the ISBER website at no cost. The cost for non-ISBER members to access the latest version of the SAT is \$180 USD.





STANDARD PRE-ANALYTICAL CODE (SPREC)

The ISBER Biospecimen Science Working Group developed the Standard PRE-Analytical Code (SPREC) that 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.

SPREC comprises seven elements for both fluid and solid samples, defining the sample and primary container type, periods of cold and warm ischemia, and subsequent handling steps including speed and temperature of centrifugation and final storage temperature.



The ability to manage and track pre-analytical variations impacting biospecimen integrity is fundamental to the provision of high quality tissue samples for research, and the effective and efficient interconnectivity and interoperability between national and international biobanks.

SPREC 3.0 was published in the February 2018 Issue of Biopreservation and Biobanking (BIO), ISBER's Official Journal. This tool is available free of charge to members and non-members alike.



PRE-ANALYTICAL BIOREPOSITORY EXTERNAL QUALITY ASSESSMENT (EQA) SURVEY

The Pre-Analytical External Quality Assessment Survey is for the pre-analytical phase in biorepositories. It is based on a collection of information about pre-analytical biorepository procedures (Biochemia Medica 2014; 24:114-122), developed by the ISBER Biospecimen Science Working Group, and approved by the ISBER Education and Training Committee. The scheme is applicable to all biorepositories, both clinical and environmental.

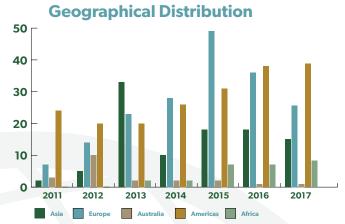
The scheme has 63 questions including questions relative to quality assurance and quality control. At the end of the survey, participants will receive a personalized report, showing results and statistics obtained by all biorepositories who have completed the survey. The benefit of participating in this scheme is to be able to compare one's preanalytical practices to those of all other biorepositories and benchmark. The EQA Survey is free to all biorepositories.



BIOREPOSITORY PROFICIENCY TESTING (PT) PROGRAM

The ISBER endorsed IBBL Biorepository Proficiency Testing (PT) Program provides laboratories working with biospecimens, including biorepositories, clinical laboratories, research organizations, and bioservice providers with a tool to validate routine lab methods. The program is designed to:

- Allow biorepositories to assess the accuracy of their quality control assays and their characterization of biospecimens
- Compare results with those obtained in other laboratories around the world
- Allow biorepositories to identify testing problems that may be related to individual staff performance or calibration of instrumentation used in biospecimen quality control
- Provide an external quality assessment (EQA) tool and guidance to biorepositories and laboratories testing biospecimens with the ultimate goal to support their quality control activities and to offer organizations who are seeking compliance with ISO 17025, CLIA, or equivalent the possibility to fulfill the respective normative requirements. This tool verifies the precision and accuracy of your biospecimen testing methods, and the efficiency of processing methods.







BIOSPECIMEN STABILITY TESTING CALCULATOR (STABCALC)

There is a strong interest of biobank end-users in research for new disease markers. For this purpose, biospecimens are commonly stored for many years in biobanks in order to relate biomarker levels to long-term clinical outcome measures at follow-up. Research is often hampered by variability in pre-analytical procedures, which is an important source of variation in study outcomes.

One important variability factor is time: collection time, processing time, or long-term storage time. The impact of this time can be assessed by short- or long-term stability studies. The new ISBER Biobanking for Neurodegenerative Diseases Working Group presents standardized tools to perform stability studies and examine biomarker stability in biospecimens, e.g., body fluids.

The Biospecimen Stability Testing SOP and Calculator Tool (STABCALC) has been developed by the JPND BIOMARKAPD and JPND Biobanking Working Group projects, and is being made available to the community by ISBER. The tool will facilitate stability studies performed by biobanks on different types of biospecimens.



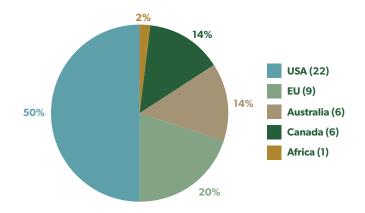
INTERNATIONAL REPOSITORY LOCATOR (IRL)

The International Repository Locator (IRL) is an initiative by ISBER to help investigators locate biospecimen and data repositories by developing a directory of repository information that can be searched online. The International Repository Locator also seeks to increase the profile of research and biobanking activities being supported by individual repositories amongst key global stakeholders including scientific societies, researchers, funding bodies, governments, consortia and private industry.

The website for the IRL was established courtesy of Information Management Services, Inc. (IMS) and managed by Steve Marroulis (IMS).

The IRL working group chairs are Yaffa Rubinstein and David van Enckevort.

Geographical Representation of Participants





Regional Reports

AMERICAS

The Americas region presently has over 800 ISBER members, covering 2 continents. Members from the Americas region have been very active, contributing to every committee, working group, and SIG, and of course adding valuable commentary to the ISBER forum.

ISBER has had a presence at a number of non-ISBER meetings or conferences to communicate its resources, either through exhibiting with a booth, offering a workshop, attending or providing speakers. These include:

- Maturing Cell Therapy Logistics, Turning Cell Preservation Advances into Clinical Opportunities, Washington, D.C., July 2018 (Piper Mullins and David Lewandowski)
- UHN GU Biobank Symposium, Toronto, Canada, September 2018 (speakers, Marianne Henderson and Monique Albert)
- PRIM&R, San Diego, California, November 2018 (Marianna Bledsoe and Nicole Sieffert).
- BBMRI-ERIC workshop, Rio de Janeiro, Brazil, January 2019 (attendee, Monique Albert)
- Phacilitate Leaders Conference, Miami, Florida, January 2019 (booth, Billy Schleif and David Lewandowski)
- Latin-American Symposium and training in biobanking of the Barretos Cancer Hospital, Barretos, Brazil, May 2019 (speakers, Zisis Kozlakidis and Marianne Henderson)

A number of IBSER-Americas members are also continuing to contribute their expertise to the development of *ISO/TC 276 – Biotechnology* by participating in their country's respective mirror committees (Canada: Ayat Salman, Brent Schacter, Rebecca Barnes, Monique Albert; USA: Clare Allocca, Marianna Bledsoe, Marta Castelhano and Nilsa Ramirez).

Newly launched, the Regional Ambassadors program will contribute to the interests of the Americas region, which will work to communicate ISBER events and resources more broadly, but also identify opportunities where ISBER's resources can be further developed to meet unique needs in the region. ISBER welcomed Ayat Salman (Canada), Andy Zaayenga (USA), Hugo Barrera Saldana (Mexico), and Antonio Hugo Campos (Brazil) to the role of Regional Ambassador, announced at the ISBER annual meeting in May 2019 in Shanghai.

In the coming year, the Americas region is pleased to welcome the membership back to the U.S.A.: Firstly, a regional meeting in Minneapolis, USA, November 3-5, and in May 2020, the annual meeting in Anaheim, California, USA.





CHINA

China has seen rapid development of biobanking. More and more biobankers started to engage in international communication, networking and interaction. Each of the BBCMBA 2018 and Annual Biobank & Precision Medicine China 2018 has attracted around 1,000 biobankers. The release of the Chinese translation of ISBER Best Practices was announced during the BBCMBA 2018 meeting, and the BBCMBA rheumatic immune biobank working group was established. China also plays an active role in the ISBER 2019. China National GeneBank (CNGB), Shanghai Clinical Research Center (SCRC), the Biobank Branch, China Medicinal Biotech Association (BBCMBA), and Shanghai Biotechnology Corporation (SBC) co-organized ISBER 2019 in Shanghai, to celebrate ISBER's 20th anniversary. The event established the Chinese ISBER website and increased ISBER's impact in China. BBCMBA, the International Society for Biological and Environmental Repositories (ISBER), and the Integrated Biobank of Luxembourg (IBBL) signed an agreement on joint project about China biobank laboratory quality assessment, to provide external quality assessment for biobanks and laboratories in China, and to verify the accuracy of biological sample detection methods.

China continued to push forward the standard development in collection, processing, transportation and storage requirements for plant and animal genetic resources. In addition, a new standard proposal led by Chinese experts has been started in ISO/TC 276 WG2 to address the establishment, maintenance, characterization and distribution requirements for pluripotent stem cells. The Quality, Safety and Standards Department of China National Genebank participated in the second phase of the GGBN BPTF (Biobank Procedure Task Force) Working Group Project to improve the establishment of standard processes among biobanks and to incorporate ISBER practice references.

ISBER's Chinese members has contributed to the ISBER official magazine Biopreservation and Biobanking. The published article covers the preservation of biological samples and the management of biobanks. The Issue 6 in 2018 is a special issue for the ABC conference.

ISBER's Chinese members have joined and been contributing to many ISBER committees. Six Regional Ambassadors were carefully selected from China's biobanking talent pool with strong influence and good reputation from East China (Shanghai), South China (Guangzhou, Shenzhen), Central China (Changsha) and North China (Beijing, Tianjin) to build the ISBER Biobank Network in China.







(ISBER RA of China Appointment Awarding Ceremony) (ABC2018)

- On July 1, 2019. Xu Xun participated at the Summer Davos Forum held in Dalian as an invited guest. Representing the World Economic Forum's Global Future Council, he held a heated discussion on the relationship between the development of biotechnology and medical ethics in China. In addition, he also reported on the topic of "Intelligent Solutions: Sequencing of Nature", which discussed the development and application of sequencing technology in biodiversity conservation.
- June 10-15, 2019, the seventh working group meeting of the International Organization for Standardization Biotechnology Committee (ISO/TC276) was held in Tokyo, Japan. Xu Xun, as Vice-Chairman, co-chaired the meeting with Gent (Chairman).
- On June 6, 2019, Xu Xun participated in PAG Asia 2019 on plant and animal genome research in Shenzhen, China. He chaired the plenary session and introduced the plenary speaker Ning Yang who gave a talk on "Genetic and Genomic Studies of Economically Important traits of Chickens and Their Applications to Breeding."
- May 5-9, 2019, Xu Xun participated in the ISBER Shanghai conference. He presented overview of ISBER and its development in China in the opening session, and gave a talk on "Biobanking in China and CNGB" in the "Biobanking in Asia and Oceania" symposium.
- On March 19, 2019, Xu Xun participated in the World Agri-tech Innovation Summit in San Francisco. He was part of the keynote session with the topic "Genomics, Synthetic Biology & the Microbiome: Making Science Fiction a Reality."
- Dec 10-14, 2018, Xu Xun participated in the Potsdam meeting of ISO/ TC276 held in Germany.
- Oct 24-28, 2018, Xu Xun participated in the 13th International Conference on Genomics held at CNGB in Shenzhen, China.
- May 20-24, 2018, Xu Xun participated in the ISBER Annual Meeting & Exhibits in Dallas, Texas. He spoke on the topic "Big Collaborations in Biobanking."





EMEA

Six Regional Ambassadors (RAs) were appointed for the EMEA region in December 2018, representing all areas of the region. The RAs will work closely with the Director-at-Large and ISBER Committees to ensure the regional voice is heard and to help disseminate information about ISBER within their regions.

ISBER members from around the region continue to be involved in ISBER Committees and Working Groups. Two program Committee Co-Chairs, one for the regional Minneapolis meeting (Nov 2019) and one for the annual meeting in Anaheim in 2020 are from the EMEA region, showing the continued contribution from the region.

The second ISBER Biospecimen Research Symposium, 'Focus on Quality and Standards', took place in Berlin in February 2019 in partnership with the German Biobank Node (GBN) of BBMRI-ERIC. Two days of great presentations around preanalytic variables and the microbiome emphasized the quality of biomaterials and requirements for certain types of analyses. On the second day Dr Fay Betsou chaired a lively debate around standards for liquid biopsies. The symposium was attended by 125 delegates from 25 countries.

In March 2019, a three-day event, held under the theme 'Quality Matters: A Global Discussion in Qatar,' was hosted by Qatar Biobank in partnership with ESBB, and supported by ISBER and BBMRI-ERIC. Scientists and health experts from 15 countries discussed a variety of topics and attend wide-ranging sessions and presentations focused on the role of biobanks in healthcare; the importance of population biobanks; the use of big data and artificial intelligence in medical research; the importance of international collaborations in biobanking; and reviewing quality in biobanking in Qatar and beyond.





INDO-PACIFIC RIM

ISBER continues to engage with new societies and biobank networks within the Indo-Pacific Rim (IPR) region, highlighting ISBER activity, meetings, tools, and membership as well as exploring opportunities for collaboration following the momentum generated by the ISBER 2019 Annual Meeting in Shanghai. ISBER is in discussion with a number of groups regarding deeper involvement through increased ISBER presence in local meetings and regional conferences.

ISBER continues to strive to increase IPR representation within its Committees, Working Groups, and Special-Interest Groups. At the beginning of 2019, three Regional Ambassadors (RAs) were appointed for the IPR region; one each from Australia, Japan, and India. These RAs will continue to collaborate with the Director-at-Large to better serve the IPR region through providing localized advice and feedback. In June 2019, ISBER was delighted to welcome Koh Furuta as the new Director-at-Large of the IPR region.



Strategic Plan Update

At the February 2016 ISBER's Board meeting, the Board agreed to undertake strategic planning for 2017 to 2020.

In order to ensure that ISBER's strategic plan was based on the needs of its membership and its stakeholders, an environmental scanning process was initiated. The process included a member's survey, stakeholder interviews, and leadership input and feedback via committee members and chairs.

The membership survey was designed and approved by the Board and Committee Chairs. 276 members completed the survey, which represents 22.8 % of the society's 2016 membership. The results of the survey were reviewed by the Board and Committee Chairs as part of the strategic planning process.

In consultation with the Board and Committee Chairs, a list of various sector stakeholders and questions were developed. Then stakeholder interviews were conducted from June 1 to August 31, 2016. A total of 14 interviews were conducted. Interviews were classified as either "partner" or "corporate partner" interviews. Partners are associations with whom ISBER has existing associate or affiliate agreements. Corporate Partners are industry companies who support the association.

As part of the process, input and feedback from the association's leaders was sought via the Committee Chairs. Committee Chairs were tasked with seeking input and feedback from its members. A set of questions were developed and the chairs reported the members' feedback at the strategic planning session held in conjunction with the association's Bethesda Regional Meeting.

Strategic planning sessions were organized with the Board and Committee Chairs in November 2016 in Bethesda, Maryland, USA. The plan was formally adopted in January 2017.

ACHIEVEMENTS:

The key achievements since this plan was adopted include:

- Releasing the ISBER Best Practices, Fourth Edition and Best Practices Addendum
- We have disseminated the Best Practices Fourth Edition and Addendum widely throughout the world in a number of different languages.
- Split the Marketing and Membership Committee into two committees—Membership and Marketing, secured leadership and membership
- Publications committee evolved into Communications committee, secured leadership and membership.
- Created a Standards Committee
- Revised the corporate sponsorship and meeting sponsorship program to meet the needs of the vendors and provide more flexible sponsorship options
- Re-invigorated the vendors relationship task force under the membership committee
- Participated in important efforts to shape the development of global regulations, policies and standards
- Hosted a meeting with BBMRI-ERIC and ESBB in September 2017
- Held a Biospecimen Research Symposium in February 2018
- Developed a translation plan for the ISBER Best Practices
- Signed a partnership with ASCP BOC to develop a biobanking qualification exam; we expect the first round of exams to be available for 2020.
- Started webcasting key sessions at our annual and regional conferences



- Entered into a number of key agreements with: The Entomological Collections Network (ECN), The Biobanking and Biomolecular Resources Research Infrastructure European Research Infrastructure Consortium (BBMRI-ERIC), The Biobank Branch, China Medicinal Biotech Association (BBCMBA), The China National Gene Bank (CNGB), The Council for Industrial use of Biological and Environmental Repositories (CIBER), Japan, The National BioService (NBS), Russia, Society for Cryobiology (SfC)
- We have started a succession planning process within the governance committee.
- Enhanced geographic diversity within the awards program
- To better support colleagues in LMICs, free membership was offered to LMIC via BCNet
- Reviewed LMIC pricing for membership

- We have been planning meetings three years in advance
- We are working on a promotion campaign for the CTRNET Introduction to Biobanking Course
- Have brought in a consultant to review the ISBER website and will work on implementing recommendations between now and April 2020.

NEXT STEPS:

The current plan is due to close in 2020. In the fall of 2019, the ISBER board of directors will review and approve a plan for the next round of strategic planning. We expect that a member survey and stakeholder interviews will be part of the consultation process. A new plan is expected by the fall of 2020.

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.

VISION

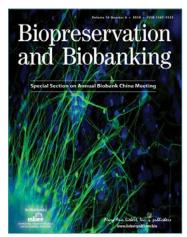
ISBER will be the leading global biobanking forum for promoting harmonized high quality standards, education, ethical principles, and innovation in the science and management of biorepositories.

GOALS

- 1. Disseminate information on repository management issues
- 2. Educate and share information and tools within the society and with stakeholders
- 3. Act as the voice for repositories to influence regulations and policy
- 4. Develop best practice guidelines
- 5. Provide centralized information about existing repositories
- 6. Bring members together to work on emerging issues



BIO Report



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 2019 is 1.4, reflecting citations of BIO papers in 2018, for articles published in 2016 and 2017. The past two years the impact factor had been 1.7 and 1.8, so the journal experienced a decrease this year. Full text downloads of BIO articles have continued to increase significantly every year, in the 10 to 15 percent range. Full text download statistics are an indication of both the interest of readers in the journal's articles, as well as promising news for the long-term prospects for BIO in terms of subscriptions. However, for the impact factor to increase, these downloads need to translate into citations of BIO articles. The journal also continues to receive about 120 submissions of manuscripts each year, which has allowed BIO to continue to be selective in publishing high quality original research articles and reviews in 6 issues each year.

The June 2019 issue of BIO was a special issue about biobank and biospecimen utilization. A special thanks to Bill Grizzle, Marianna Bledsoe and Peter Watson for organizing the content of the special issue. It's important that we recognize that there are a number of factors that affect the utilization of biospecimens. In some cases, a biobank's model for sample usage is inadequate and the biobanks hold too many samples for too long, which is not a good approach in terms of research goals and is not respectful of the patient/donor's expectations when they donate samples.

Over the past few years, BIO has published a number of special sections and issues that covered a variety of topics: Biobanking in emerging countries; economics and sustainability; biobank disaster preparation; biobanking in China; and ethical, legal and social issues (ELSI). The Editorial Board and ISBER colleagues in particular have been very proactive in suggesting ideas for special topics. Often such ideas come from ISBER annual meeting sessions, and the session chairs will send suggestions for a special issue or section. From the Toronto ISBER meeting in 2017 the concept of a special issue on agricultural gene banks and related genetic resources was proposed. This special issue was published in October 2018. Another special topic arose from discussions with colleagues from Changsha China over the past year, which resulted in the keynote presentation at the ISBER annual meeting in Shanghai in May, and in a special section in the April 2019 issue of BIO. This was the case of a 2000-year-old Chinese cadaver discovered in 1972 in the Changsha area. The cadaver was so well-preserved that it has been the topic of intensive research for over 45 years at Central South University in Changsha and the Hunan Museum. The special BIO papers outlined the findings of the research on the body's preservation and future plans to maintain the excellent level of preservation.



Many other articles from the 2018 and 2019 issues of BIO are worth reading if you haven't already. The December 2018 issue had a series of papers from the November 2017 Annual Biobank China conference in Changsha. In addition, see the article The Coral Hospital, published online in March and appearing in the August 2019 issue. The Coral Hospital, submitted by the Taiwan Coral Research Center, National Museum of Marine Biology and Aquarium, proposes a "hospital' to rescue coral that is in failing health due to various factors, including climate change. We hope that BIO continues to attract papers that show the wide variety of applications of biobanking and biopreservation research.

To view and read all BIO articles, freely available to ISBER members, visit https://home.liebertpub.com/publications/biopreservation-and-biobanking/110/overview.

Finally, 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 Rongxing Gan. Note that for the past two years, manuscript submissions from China have been second only to the U.S. We continue to have significant numbers of articles being submitted from Japan and other countries in the region. 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.



ISBER Award Winners

ISBER OUTSTANDING ACHIEVEMENT IN BIOBANKING

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 lifetime body of outstanding work in the field.





Marianna Bledsoe, USA

ISBER FOUNDER'S AWARD

The ISBER Founder's 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. The recipient of this award is selected by the ISBER Nominating Committee.





William Grizzle, USA

ISBER DISTINGUISHED LEADERSHIP AND 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.



Daniel Simeon-Dubach, Switzerland

ISBER TRAVEL AWARD

The ISBER Global Expansion Fund supports efforts to increase ISBER's membership and presence worldwide. 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.



Anna Pidubbna, Ukraine

ISBER SPECIAL SERVICES AWARDS

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.



Monique Albert, Canada



Catherine Seiler, USA



William
Mathieson,
Luxemboura



Xiaoyan Zhang, China



Alison Parry-Jones,



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Agreements and Partnerships

ISBER has partnerships with the following organizations:

- European, Middle-Eastern and African Society for Biopreservation and Biobanking (ESBB)
- Global Genome Biodiversity Network (GGBN)
- College of American Pathologists (CAP)
- Australasian Biospecimen Network Association (ABNA)
- Society for Cryobiology (CRYO)
- Public Responsibility in Medicine and Research (PRIM&R)
- Public Population Project in Genomics and Society (P3G)
- BCNet via International Agency for Research on Cancer (IARC)
- Global Alliance for Genomics & Health
- Forum for International Biobanking Organizations (P3G/FIBO)
- Society for Laboratory Automation and Screening (SLAS)
- Technologie- und Methodenplattform für die vernetzte medizinische Forschung (TMF)
- Cambridge Healthtech Institute (CHI)
- Biobanking and Biomolecular Resources Research Infrastructure European Research Infrastructure Consortium (BBMRI-ERIC)
- Canadian Tissue Repository Network (CTRNET)
- Society for the Preservation of Natural History Collections (SPNHC)
- Biobank Branch, China Medicinal Biotech Association (BBCMBA)
- China National GeneBank (CNGB)
- American Society for Clinical Pathology (ASCP)
- Entomological Collections Network (ECN)
- Council of Industrial use of Biological and Environmental Repositories (CIBER)
- National Bioservice (NBS)



Sponsors

WE WISH TO THANK OUR CORPORATE PARTNERS FOR 2018:

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WE WISH TO THANK THE FOLLOWING EXHIBITORS WHO PARTICIPATED AT THE ISBER 2018 ANNUAL MEETING IN DALLAS

- Abbott Informatics
- Advanced Analytical Technologies, Inc.
- Agilent Technologies
- Autoscribe Informatics Inc.
- Bahnson Environmental Specialties
- **&** BBMRI-ERIC
- Biologix Group Limited
- BioMicroLab
- Biosero/Ziath Ltd.
- BioTillion
- Bluechiip
- Brooks Life Sciences
- BSI Systems
- Chart MVE
- CloudLIMS.com
- College of American Pathologists
- Coriell Institute for Medical Research
- Cryo Bio System
- Cryotherm
- Custom Biogenic Systems
- Data + Research
- Ellab, Inc.
- Freezerworks
- Frontier Science
- GA International
- Genepoint Biological Technology (China) Co., Ltd.
- Genohm Inc.
- Gold Sim Group
- Greiner Bio-One North America, Inc.

- Hamilton Storage
- iSpecimen
- KAYE
- Klatu Networks, Inc.
- Labcon
- LabConnect
- LabVantage Solutions, Inc.
- Liconic Instruments
- LVL Technologies/Phenix Research
- Micronic
- MODUL-BIO
- National Disease Research Interchange
- OpenSpecimen
- Perkin Elmer
- PHC Corporation of North America (PHCNA)
- PRIM&R
- Rees Scientific
- RUCDR Infinite Biologics
- Scinomix
- So-Low Environmental Equipment Co.
- Stirling Ultracold
- SuprTecBox Ltd.
- Thermo Fisher Scientific
- Titian Software US Inc.
- TTP Labtech
- TubeWriter
- TWD Tradewinds, Inc.
- **Unchained Labs**
- Worthington Industries



WE WISH TO THANK OUR CORPORATE PARTNERS FOR 2019:

DIAMOND



从、生物医疗 **Haier Biomedical**

GOLD















BRONZE

























WE WISH TO THANK THE FOLLOWING EXHIBITORS WHO PARTICIPATED AT THE ISBER 2019 ANNUAL MEETING IN SHANGHAI

- Abeyance Cryo Solutions
- Agilent Technologies (China) Co. Ltd. Shanghai Branch
- Asian Network of Research Resource Centers (ANRRC)
- ASKION GmbH
- Autoscribe Informatics
- Biobank Branch, China Medicinal Biotechnology Association
- Beijing iBio-Gene Technology Co, Ltd.
- Biologix Group Ltd.
- Biosigma SRL
- BIS Corporation
- Bluechiip Ltd.
- Brooks Life Sciences
- Bruker (Beijing) Scientific Technology Co, Ltd.
- Chart MVE
- China National Gene Bank
- CryopAL
- Cryotherm GmbH & Co. KG
- Daclan Biotech
- Eppendorf China Ltd.
- Fangye Technology Development Corporation
- Farrar Scientific Corp.
- Fluidigm Corp China
- Genepoint Biological Technology (Shanghai) Co., Ltd.

- Grenier Bio-One GmbH
- Maier Biomedical
- Mamilton Storage
- Hangzhou Houze Biotechnology Co., Ltd.
- Hong Kong Al Technology Ltd. (CryoBioSystems)
- Hope (Shanghai) Biotech Co., Ltd.
- International Society for Biological and Environmental Repositories
- Labvantage Solutions Inc.
- LBD Life Sciences Limited
- Liconic Instruments
- LVL Technologies
- MGI
- Micronic
- OriginCell
- Alphavita Bio-scientific (Dalian) Co.,Ltd. (Panasonic)
- Perkin Elmer
- PHC Corporation (Shanghai)
- Shanghai AvanTech Bioscience Co., Ltd.
- ThermoFisher
- Tsubakimoto Chain
- Unchained Labs
- Worthington Industries
- Thejiang Sorfa Life Science Research Co., Ltd.



WE WISH TO THANK THE FOLLOWING COMPANIES, WHO SPONSORED THE BERLIN SYMPOSIUM IN 2019:











SYMPOSIUM EXHIBITORS:

- Agilent Technologies
- ASKION GmbH
- B Medical Systems
- Bluechiip Limited
- Brooks Life Sciences
- Bruker BioSpin GmbH

- German Biobank Node
- IBBL Proficiency Testing
- LiCONiC Services Deutschland GmbH
- MODUL-BIO
- PHC Europe B.V.
- Ziath Ltd. & Biozym Scientific.

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Financial Statements

Expressed in U.S. Dollars For the year ended December 31, 2018.

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Independent Auditors' Report

To the Board of Directors of International Society for Biological & Environmental Repositories

Opinion

We have audited the financial statements of International Society for Biological & Environmental Repositories (the "Society"), which comprise the Statement of Financial Position as at December 31, 2018, and the Statements of Activities, Changes in Net Assets and Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Society as at December 31, 2018, and its results of operations and its cash flows for the year then ended in accordance with United States generally accepted accounting principles.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Society in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with United States generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Society's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Society or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Society's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.



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Independent Auditors' Report

Auditor's Responsibilities for the Audit of the Financial Statements (continued)

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit
 procedures that are appropriate in the circumstances, but not for the purpose of expressing an
 opinion on the effectiveness of the Society's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Society's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Society to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

BDO Canada LLP

Chartered Professional Accountants

Vancouver, British Columbia April 9th, 2019



International Society for Biological & Environmental Repositories Statement of Financial Position

December 31		2018	2017
Assets			
Cash and cash equivalents Investments (Note 2) Accounts receivable and accrued revenues Prepaid expenses	\$	489,229 376,956 43,414 86,496	\$ 570,099 375,106 47,456 42,228
Total Assets	\$	996,095	\$ 1,034,889
Liabilities and Net Assets			
Accounts payable and accrued liabilities Deferred revenue (Note 3)	\$	30,023 179,126	\$ 67,578 240,762
Total liabilities		209,149	308,340
Unrestricted net assets	_	786,946	726,549
Total Liabilities and Net Assets	\$	996,095	\$ 1,034,889

Approved by:

David Lewandowski

Presiden

Treasure



International Society for Biological & Environmental Repositories Statement of Activities

For the year ended December 31		2018		2017
Revenues				
Membership - corporate	\$	161,004	\$	177,105
Membership - individual	•	75 [,] 516	•	76,739
Publications		13,342		15,033
Education		9,511		9,589
Other operating revenue		7,057		4,179
Total operating revenue		266,430		282,645
Annual meeting		854,657		871,919
Regional meeting		135,888		(190)
Global Biobank Week		155,000		31,970
Global Biobalik Week	_			31,770
Total meeting revenue	_	990,545		903,699
	_	1,256,975		1,186,344
Expenses				
Accounting and legal		16,998		10,924
Bank and credit card		11,386		7,400
Board and council meetings		51,705		46,001
Committees - Communication		9,503		-
Committees - Marketing and membership		4,657		_
Committees - Standards		54,571		_
Consulting fees		4,250		40,000
Currency exchange loss		6,561		11,655
Database and licensing fees		13,571		13,591
Insurance		6,378		5,120
Management fees (Note 5)		98,578 6,060		142,605 12,650
Marketing and promotion Office and miscellaneous		•		
		12,117		9,529
Publication subscription fee		57,175		62,349
Site visit		6,457		11,963
Strategic outreach Staff travel		24,647		14,074
Webinar		4,918 108		186
	_	100		100
Total general and administrative expenses	_	389,640		388,047
Annual meeting		666,400		640,281
Future meetings		4,699		5,745
Regional meeting		135,839		(2,958)
Global Biobank Week		-		32,764
CRYO 2017		-		19,721
Total meeting expenses	_	806,938		695,553
	_	1,196,578		1,083,600
Increase in net assets from operations	\$	60,397	\$	102,744

The accompanying notes are an integral part of these financial statements





International Society for Biological & Environmental Repositories Statement of Changes in Net Assets

For the year ended December 31	2018	2017
Unrestricted net assets:		
Unrestricted net assets, beginning of the year	\$ 726,549	\$ 623,805
Increase in unrestricted net assets from operations	 60,397	102,744
Unrestricted net assets, end of year	\$ 786,946	\$ 726,549

The accompanying notes are an integral part of these financial statements



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International Society for Biological & Environmental Repositories Statement of Cash Flows

For the year ended December 31	2018	2017
Cash flows from operating activities		
Increase in net assets from operations	\$ 60,397 \$	102,744
Adjustments to reconcile change in net assets to net cash provided by operating activities: Non-cash items		
Accrued interest in investments	(1,850)	(3,068)
(Increase) decrease in operating assets	4.042	002
Accounts receivable and accrued revenues Prepaid expenses	4,042 (44,268)	803 78,536
Tropala expenses	(11,200)	, 0,000
Increase (decrease) in operating liabilities		
Accounts payable and accrued liabilities	(37,555)	(52,293)
Deferred revenue	 (61,636)	(88,991)
Net cash provided by operating activities	(80,870)	37,731
Net increase (decrease) in cash and cash equivalents	(80,870)	37,731
Cash and cash equivalents, beginning of year	570,099	532,368
Cash and cash equivalents, end of year	\$ 489,229 \$	570,099

The accompanying notes are an integral part of these financial statements



International Society for Biological & Environmental Repositories Notes to the Financial Statements

December 31, 2018

1. Nature of Operations and Summary of Significant Accounting Policies

(a) Organization

The International Society for Biological and Environmental Repositories (the "Society") was incorporated in 2013, as a non-profit corporation under the general laws of the State of Illinois. The Society has been organized to operate exclusively for charitable, scientific, and educational purposes, as those terms are defined in section 501(c)(3) of the Internal Revenue Code of 1986, including, but not limited to, sharing ideas and innovations in bio-banking and participating in the harmonization of approaches to evolving challenges for biological and environmental repositories. The activities of the Society are funded primarily through educational conferences and membership dues.

(b) Basis of Accounting

The accompanying financial statements of the Society are presented using the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and presented in U.S. dollars.

(c) Cash and Cash Equivalents

The Society considers all highly liquid instruments, which are to be used for current operations and which have an original maturity of three months or less, to be cash and cash equivalents.

(d) Investments

Investments consist of certificates of deposit. These investments have a maturity of greater than three months and therefore are classified as financial assets and are measured at fair value.

(e) Accounts Receivables and Accrued Revenues

Accounts receivables consist primarily of payments in transit from credit card providers, sales tax recoveries, bill-backs, interest, commission and publication royalties receivable. The Society records an allowance for doubtful accounts. The allowance is based upon the Society's policy and management's analysis of accounts. Trade receivable are written off if reasonable collection efforts prove unsuccessful.

(f) Deferred Revenues

All amounts received for conferences and membership dues relating to services to be performed in future periods are deferred until the services are delivered in future periods. Revenues relating to conference activities are recognized when conferences are held. Membership dues revenues are recognized over the term of membership.

(g) Unrestricted Net Assets

Unrestricted net assets represent the accumulated net surplus of unrestricted revenues over expenses. It is available for use by the Society in furtherance of its mission.



International Society for Biological & Environmental Repositories Notes to the Financial Statements

December 31, 2018

1. Nature of Operations and Summary of Significant Accounting Policies (Continued)

(h) Revenue Recognition

Membership fees are invoiced annually and memberships expire on December 31. Membership fees receivable are recorded when collection is reasonably assured and are recognized as revenue during the applicable membership period. Annual conference and other meeting revenues are reported in the fiscal year in which the conference is held. Amounts received in advance from members, sponsors and attendees for meetings occurring in the following fiscal year are recorded as deferred revenues.

Publication revenues include the royalties received from the publisher managing the Society's journal and subscription fees. These are recorded when the amount is readily determinable and collection is reasonably assured.

Education revenues include the registration fees for the Introduction to Biobanking Course and are recorded as earned and when the amount is readily determinable and collection is reasonably assured.

(i) Expenses

Expenses are recognized during the period in which they are incurred. Expenses paid in advance for services or goods not yet received are deferred to the applicable period.

(j) Tax Exemption

The Society has been granted exemption by the Internal Revenue Service (IRS) from federal income taxes under section 501(c)(3) of the Internal Revenue Code (IRC). The IRS has also determined that the Society is not a private foundation. The Society is required to report and pay taxes on unrelated business income to the IRS and other local jurisdictions. There was no liability for unrelated business income taxes as of December 31, 2018.

The Society records a provision related to accounting for uncertainty in income taxes when income tax benefits are recognized for income tax positions taken or expected to be taken in a tax return, only when it is determined that the income tax position will more-likely-than-not be sustained upon examination by taxing authorities. The Society analyzed tax positions taken for filing with the Internal Revenue Service and all state jurisdictions where it operates. The Society believes that income tax filing positions will be sustained upon examination and does not anticipate any adjustments that would result in a material adverse effect on the Society's financial condition, results of operations or cash flows. Accordingly, the Society has not recorded any reserves, or related accruals for interest and penalties for uncertain income tax positions at December 31, 2018.

As of December 31, 2018, the Society was not subject to any examinations by taxing authorities.



International Society for Biological & Environmental Repositories Notes to the Financial Statements

December 31, 2018

1. Nature of Operations and Summary of Significant Accounting Policies (Continued)

(k) Concentration of Credit Risk

Financial instruments, which potentially subject the Society to concentrations of credit risk consist principally of cash and cash equivalents, investments and accounts receivables and accrued revenues.

The Society maintains cash balances in excess of the Federal Deposit Insurance Corporation (FDIC) limit. While the amounts in the bank accounts at times may exceed the amount guaranteed by federal agencies, and therefore bear some risk, the Society has not experienced any loss of funds. Uninsured cash balances aggregate approximately \$356,172 at December 31, 2018.

Credit risk with respect to receivables is generally limited as members pay their dues in advance, so the balance is primarily deposits in transit from large banks for credit card payments, large publishers for royalty payments or bill-backs from large corporations. As of December 31, 2018, the Society had no significant concentration of credit risk.

(l) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(m) Foreign Currencies

U.S. dollar is determined as the functional currency. Monetary assets and liabilities in foreign currencies are translated into U.S. dollars at the rate of exchange ruling at the balance sheet date. Transactions in foreign currencies are translated into U.S. dollars at the rate of exchange ruling at the date of the transaction. Exchange gains and losses are reported in general and administrative expenses on the statement of activities.

2. Investments

The Society's investments include certificates of deposit that bear interest rates ranging from 1.300% to 3.400% and have maturity dates ranging from September 23, 2019 to September 28, 2023.



International Society for Biological & Environmental Repositories Notes to the Financial Statements

December 31, 2018

3. Deferred Revenue

Deferred revenue for the years ended December 31 include the following:

	2018	2017
Membership fees Annual meeting	\$ 146,221 32,905	\$ 77,201 163,561
	\$ 179,126	\$ 240,762

4. Commitments and Contingencies

The Society enters into agreements with hotels for their conferences. Hotel agreements are made several years in advance to block rooms and meeting space. Such agreements contain cancellation clauses that increase as the actual date of the conference approaches.

The Society has committed to a future meeting, where deposits may have been paid, and the contract has potential cancellation fees, which have not been recognized, as follows:

	Location	Cancellation fee (U.S. \$)
2019 Annual	Oriental Riverside Hotel (Shanghai, China) January 5, 2019 to February 3, 2019 February 4, 2019 to April 4, 2019 On or after April 5, 2019	42,179 105,447 147,626
2019 Regional	Renaissance Minneapolis Hotel (Minneapolis, Minnes January 1, 2019 to May 4, 2019 May 5, 2019 to September 2, 2019 September 3, 2019 to October 2, 2019 On or after October 3, 2019	22,800 45,600 68,400 91,200
2020 Annual	Anaheim Marriott Hotel (Anaheim, California) January 1, 2019 to January 31, 2019 February 1, 2019 to June 30, 2019 July 1, 2019 to November 30, 2019 On or after December 1, 2019	71,348 142,695 214,043 285,390
2021 Annual	Omni Atlanta Hotel at CNN Center (Atlanta, Georgi January 1, 2019 to May 9, 2019 May 10, 2019 to May 9, 2020 On or after May 10, 2020	a) 178,603 343,794 482,205



International Society for Biological & Environmental Repositories Notes to the Financial Statements

December 31, 2018

5. Related Party Transactions

The Society has entered into a management contract with Malachite Management Inc. ("MMI") to pay management fees of 37% of all of the Society's revenues, including but not limited to the Society's paid membership dues, meeting and event registration fees, meeting exhibitor fees, product and service fees, career centre fees, hotel and other commissions and rebates, and meeting and other sponsorships. The contract expires December 31, 2019 and must be renewed or terminated in writing on or before June 30, 2019.

Management fees included:

		2018	2017
Association management fee	\$	98,578	\$ 142,605
2018 Annual meeting (Dallas) 2017 Annual meeting (Toronto) Regional meeting Global Biobank Week CRYO 2017		316,223 - 50,279 - -	284,583 - 13,000 5,590
	_	366,502	303,173
	\$	465,080	\$ 445,778

During the year, the Society incurred \$54,673 (2017 - \$31,946) of cost reimbursements which were paid to MMI. As at December 31, 2018, \$10,609 (2017 - \$35,240) is payable to MMI and the amount has been recorded within accounts payable and accrued liabilities.

6. Subsequent Events

The Society evaluated subsequent events through April 9th, 2019 which is the date the financial statements were available to be issued. No other events arose during the period that required additional disclosure in these financial statements.

7. Comparative Information

Certain comparative figures have been reclassified to conform to the current year's presentation.



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International Society for Biological & Environmental Repositories Schedule of Conference Revenues and Expenses (Unaudited)

For the year ended December 31		2018	2017
Annual conference revenues			
Registration	\$	375,770	\$ 377,085
Exhibit booths		274,925	315,528
Sponsorship		94,750	119,475
Symposia		60,000	12,000
Hotel commission		29,292	29,291
Social event		13,300	14,700
5K fun run/walk		6,620	3,840
Total conference revenues	_	854,657	871,919
Annual conference expenses			
Abstract		6,276	5,070
Audiovisual		59,153	58,487
Awards		12,091	5,049
Bank and credit card		23,033	26,670
Conference management fees		316,223	284,583
Delegate materials		3,960	2,650
Final program/abstract book		2,624	3,426
Food and beverage		129,917	150,442
Gala evening		26,832	36,513
Mobile event app		926	10,165
Office and miscellaneous		16,674	4,552
Posters, exhibits and signage		14,922	11,356
Promotion and marketing		12,626	8,007
Speaker costs		24,887	20,510
Staff travel		16,059	11,518
Wi-Fi			5,358
5K fun run/walk		5,558	632
Total conference expenses		671,761	644,988
Less amounts expensed in prior year	_	(5,361)	(4,707
Current conference expenses	\$	666,400	\$ 640,281

The net annual conference results for the 2018 annual conference was \$182,896 (2017 -\$226,931).



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