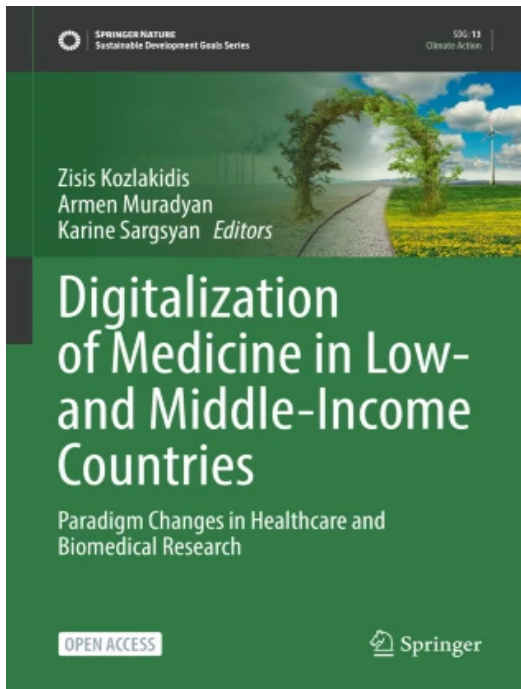


# BCNetter

Issue No. 25, October 2024



Dear BCNet Members,



It is with great pleasure that we are presenting a new book that has just been published in October 2024 entitled "Digitalization of Medicine in Low-and Middle-Income Countries (LMICs)". This book is freely available as open access (available at: <https://link.springer.com/book/10.1007/978-3-031-62332-5>) and published by Springer as part of the Sustainable Development Goals series.

The book started life as an attempt to understand the progress and impact of the different digital initiatives taking place in LMICs in the context of Healthcare and Biomedical research, and quickly emerged as a very special project in which 80+ authors from 19 countries – many colleagues from BCNet- contributed their knowledge and expertise. It has since become a 'best-seller' with many thousands of downloads for each one of its chapters.

The collaboration in scientific writing brings together diverse expertise, enriching the research with multiple perspectives and specialized knowledge. This focused teamwork, as in the book, enhances the quality and accuracy of the work, as it allows for two rounds of peer-review (one internal and another one external) and also ensures that complex ideas are communicated clearly, making the research more accessible to a broader audience. The BCNet members embraced this comprehensive approach and we can only be grateful for their inputs.

In this BCNetter opportunities for collaboration and funding are included. At the same time two surveys are also included. I would urge all colleagues to take part in these surveys (one for the biobanking in Africa, and the other on Artificial Intelligence) so that the voice of LMIC professionals is included in the work. Both surveys take less than 15 minutes to complete.

We would like to welcome 4 new members to BCNet:

1. Instituto Nacional de Enfermedades Neoplásicas (INEN), Lima, Peru
2. Theodor Bilharz Research Institute (TBRI), Giza, Egypt
3. Suez Canal University (SCU), Ismailia, Egypt
4. National Museum of Egyptian Civilization (NMEC), Cairo, Egypt

The increase in our inclusivity and geographical representativeness is one of our unique strengths that will continue generating opportunities for collaborative research.

As always, all BCNet members should feel free to contact us at any point - comments and input are always welcome.

Zisis Kozlakidis and Tracy Wootton  
**BCNet Coordinators**

## News from our members



### **International biobanking and Exposome research by Professor Wagida Anwar,**

Community Medicine, Faculty of Medicine  
Ain Shams University, Egypt:

On 27 and 28 May 2024, I was invited to attend the Human Exposome Assessment Platform (HEAP) conference at the International Agency for Research on Cancer (IARC) in Lyon, France.

My talk was about encouraging International biobanking and Exposome research, which necessitates the cooperation between scientists, ethicists and policy makers and information specialists. This allow the HEAP to be disseminated to a wider audience and consequently, contribute to the sustainability of the findings. I presented the history of the initiation of cooperation with IARC, which started in 1991 by involvement in the training courses in Low Middle-Income countries (LMIC).

These activities gave the opportunity to initiate the cooperation between the young interested scientists who became leaders in different institutions from different countries and also in IARC. They encouraged the cooperation and the establishment of networks of research activities and biobanks in LMIC. In Egypt we initiated a network of biobanks linking several research institutions through which, guidelines and principals of ethics and cooperation were established and some of them became members of BCNet.

Through this network we could identify the challenges and work together to take the necessary actions to face them.

### **Pan-African PGS Education and Research Initiative (PAPERI)**

The Pan-African PGS Education and Research Initiative (PAPERI) is a groundbreaking and leading platform dedicated to advancing genetic literacy and collaborative research across Africa. In light of the growing global interest in genetic research, PAPERI's work focuses on Polygenic Scores (PGS) and their implications for personalized healthcare and population genomics. Through a variety of activities,

including webinars, self-based courses, and journal clubs, we aim to empower African scientists, policymakers, and researchers.

PAPERI also publishes blogs on policy advocacy, public health, and research highlights, offering a voice to shape the genomic research landscape in Africa. Our journal clubs take place every Saturday, fostering active discussions on key research topics. Additionally, we have launched the PAPERI Manuscript Reviewer and Collaborator Database Initiative, connecting researchers and experts to enhance collaboration across the continent.

PAPERI creates a vibrant network of professionals committed to advancing genomic research and ensuring that Africa remains an integral part of the global conversation in this rapidly evolving field. Our mission is to create a robust, informed community capable of shaping the future of genetic research and policy on the continent.

Stay connected with PAPERI by subscribing to our updates and webinars from the PAPERI Webinar Series:

- **WhatsApp:**  
<https://chat.whatsapp.com/KPodY7dohHVIpkshZYPOsM>
- **Facebook:** Follow us  
<https://www.facebook.com/profile.php?id=61561881127677>
- **LinkedIn:** Connect with us  
<https://www.linkedin.com/in/wafaa-m-rashed-bpharm-msc-phd-bcns-02642a125/>
- **YouTube:** Subscribe to our channel and like/share/comment on our videos  
[https://www.youtube.com/@Wafaa\\_Rashed](https://www.youtube.com/@Wafaa_Rashed)

Your engagement and support are crucial for our growth and success.

### **International Accreditation Journey for Biobanks in LMICs: The experience from the Vinmec Tissue Bank by Hanh Vu, ISBER Indo-Pacific Rim (IPR) regional ambassador.**

The Vinmec Tissue Bank, is a division of Vinmec International Hospital Joint Stock Company, is the first and only non-profit multi-tissue bank in Vietnam. Officially established in October 2019, it evolved from an umbilical cord blood bank operating since March 2014, always prioritizing quality and safety.

Vinmec's dedication to international standards is evident in its leadership role in the project of translating the 4th and 5th Editions of the ISBER Best Practices into Vietnamese. After two years of strict adherence to the highest standards of Cellular Therapy Services set by the Association for the Advancement of Blood and Biotherapies (AABB), Vinmec achieved AABB accreditation for the first time in 2022, followed by a second in 2024. Additionally, Vinmec earned the Cellular Starting Material (CSM) Qualification, highlighting its expertise in collecting, processing, storing, and distributing cellular material.

Some of the lessons in the growth of activities and attention to quality from this LMIC biobank, can be shared for other banks to follow, such as internal training and actively exchanging technical matters with international experts instead of hiring external consultants. It saves money and engages staff at all levels to join the process of continuous improvement and speak-up culture. Internally discussing quality standards fosters an environment where quality and safety are prioritized. Getting to know more about international standards bodies reveals that they are not just auditors but resources of experts, knowledge, and best practices. These bodies have a wealth of members worldwide who actively share and learn from each other.

Another way to reduce the cost of proficiency testing or interlaboratory comparison is by building and engaging the local community of biobanks to share the same interests. This significantly reduces the cost of sample preparation and international shipping.

As a multi-tissue bank, Vinmec Tissue Bank follows several international standards in parallel for its entire product portfolio, such as ISBER Best Practices, ISO, CAP, and AABB. It also needs to comply with the JCI requirements for its umbrella hospital. The advantage is that many of these standards share the core philosophy of quality and safety, making it less costly than addressing each individually.

Photo: Dr Vu (far right) with the BCNet coordinators (Drs Maimuna Mendy and Zisis Kozlakidis) BCNet member Dr Jajah Fachiroh (Indonesia) and members of the expert panel on "Expected to deliver: biobanking responses to emerging global threats for and in LMICs" at the ISBER 2017 meeting in Toronto, Canada.



### **Medical Biorepositories of South Africa (MBiRSA) Network**

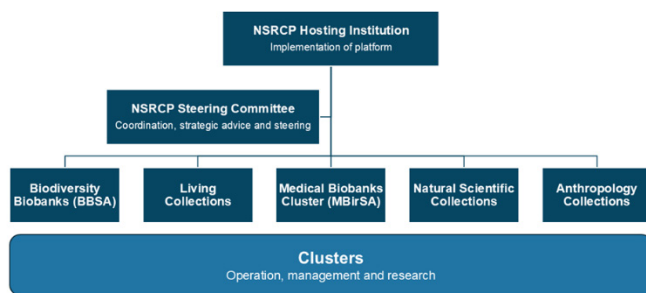


It has been established that scientific collections represent research infrastructure with the potential to significantly address global challenges such as One Health and emerging diseases. However, it has been noted that scientific collections on a global level (as well as in South Africa (SA)) are scattered and poorly organized to provide optimal access for research purposes.

In 2011, the National Research Foundation (NRF) of SA commissioned a study to investigate the state of the national scientific research collections. The report indicated the following challenges:

1. Fragmentation and isolation of collection institutions.
2. Inaccessibility.
3. Lack of proper physical infrastructure for preservation and storage.
4. Poor understanding of best practices and a lack of common standards.
5. Scarcity of workforce development and training.
6. Narrow and individualized approaches to collections-based research.
7. Ideology of personal ownership of the collections and consequently a lack of research collaboration.

The approved National Scientific Research Collections Platform (NSRCP) recommended that to address the dire state of the research collections, a national coordinating platform was required to provide oversight to ensure that scientific research collections are accessible and used for quality and competitive research. The NSRCP consists of five clusters, namely (1) biodiversity biobanks, (2) living collections, (3) medical biobanks (MBC), (4) natural scientific collections and (5) anthropology collections as shown in the figure below:



Each cluster is managed by a champion nominated by the scientific collection's community. Each of the five clusters has been mandated by the Department of Science and Innovation (DSI) to develop a detailed business plan and to establish a steering committee to drive the activities of the cluster. The next section will introduce the MBC cluster and highlight some of its activities to date.

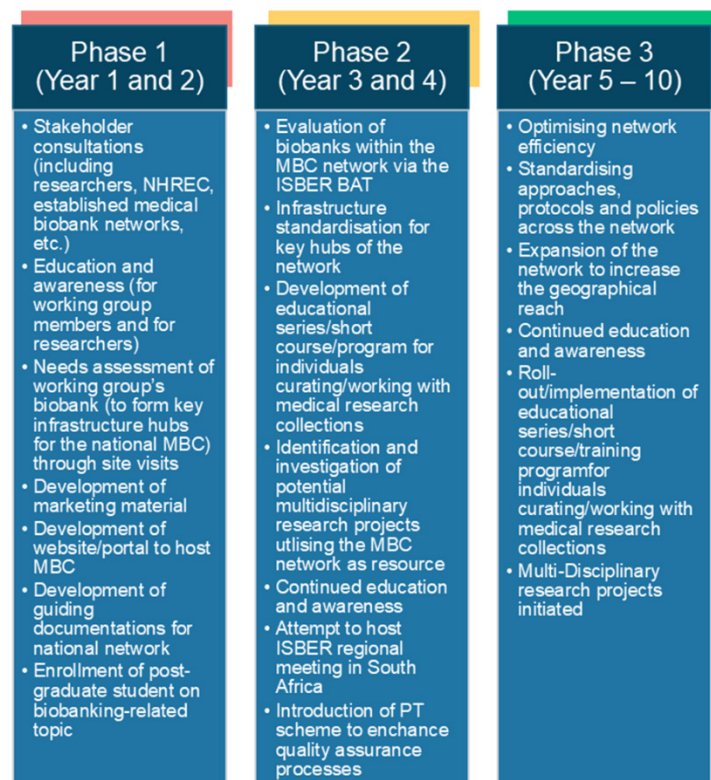
The role of the MBC (subsequently named MBirSA) is to establish a cohesive network of medical biorepositories in SA. This entails implementing standardized protocols for collection, storing and sharing biomedical specimens and associated metadata while adhering to ethical and quality standards. A key focus is increasing awareness of the network's benefits to promote collaborative use of biomedical resources. Professionalism and global best practices would be ensured through training opportunities for biomedical research practitioners. Additionally, the network would play a key role in fostering collaborations between researchers and biorepositories, promoting knowledge exchange and healthcare advancements.

The MBirSA consists of expert steering committee members and international advisors. The objectives for the next three years are:

1. To establish a local network of medical biorepositories in SA through collaborative agreements.

2. To ensure a standardized approach to the collection, storage, processing and sharing of biomedical samples and associated data and ensure compliance to national and international ethical. Legal and quality assurance regulations and standards.
3. To increase awareness of the value and benefits of establishing a local network of medical biorepositories and increase accessibility and collaborative use of biomedical samples.
4. To ensure that medical biobanking services and resources provided are professional and according to global best practices.
5. Developing and facilitating training opportunities for individuals within the field of biomedical research collection.
6. To ensure that a network of proper physical infrastructure is available across SA for the storage of biomedical materials and to ensure that the quality and integrity of the resource provided to researchers is maintained.

The figure below provides an overview of the proposed milestones and deliverables of the MBirSA over the next 10 years.



## Upcoming meetings



### ISBER 2025 Annual Meeting and Exhibits

ISBER is pleased to welcome the global community of biobankers to Montreal, Canada on May 12-16, 2025. This year, ISBER celebrated its 25th anniversary as the leading global forum for biobanking leadership. As we look to 2025 and beyond, we are ready to explore the profound impact biobanking has had across research, academia, industry, and society. Just as the Northern Lights illuminate the sky over Montreal, successful biobanking illuminates our understanding of the human and environmental condition through a spectrum of expertise and collaboration. Join with the international biobanking community as we reveal how successful global biobanking continues to shape the scientific and research landscape.

**Meeting theme:** Northern Lights: Impact of the Global Biobanking Spectrum / Aurores Boréales : Impact du Spectre Mondial des Biobanques

#### Venue:

Hotel Bonaventure Montreal, 900 Rue De la Gauchetière O, Montreal, Quebec H5A 1E4, Canada

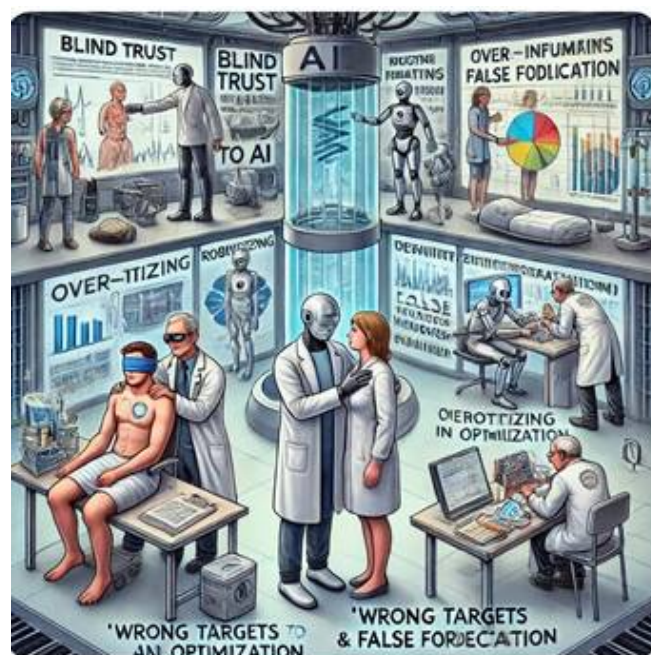
**For further information:** visit the [ISBER 2025 Annual Meeting and Exhibits Website](#)



## Opportunities for funding, training & collaboration



### Looking for Your Support - Medical AI Survey



Please can you spare 4 minutes of your time to help our colleagues from the Medical University of Graz in Austria by filling out their questionnaire on Medical AI.

Your insights are invaluable in shaping a future where AI enhances healthcare responsibly.

Here is the link: [SURVEY – The Seven Deadly Sins of AI in Medicine – human-centered ai](#)

## Opportunities for funding, training & collaboration (cont.)



### **Survey on the current situation of African biobanks and their impact on research**

The proliferation of biobanks worldwide holds great promise for advancing both basic and translational research, ultimately leading to the development of novel treatments and disease prevention strategies. In recent years, the biobanking landscape in Africa has experienced substantial growth and development, with numerous biorepositories established across various countries. The implementation of biobanking guidelines in some regions has notably enhanced regulatory oversight and management practices, signalling a promising future for the biobanking sector in Africa.

Despite these advancements, significant challenges and opportunities remain. Building upon existing knowledge, our goal is to conduct a comprehensive pan-African survey to assess the current state of biobanking in Africa. By identifying progress, challenges, and risks, we aim to provide insights that will inform the development of targeted solutions to support the African biobanking community. Additionally, we seek to identify career opportunities for African researchers in the biobanking sector.

In conclusion, we aspire to gain a comprehensive understanding of the African biobanking landscape, facilitating the development of strategies to address existing challenges and leverage opportunities for advancement. By fostering collaboration and innovation, we aim to contribute to the sustainable growth of biobanking in Africa and enhance its impact on research and healthcare.

Please complete the survey using this link  
<https://www.surveymonkey.com/r/Z7YMQMT>

## Recent publications from our Members



Hartanti W, Wahdi AE, Prasetiawati T, Izhati QA, Fachiroh J. Developing Informed Consent for Academic Hospital-Based Biobank Modeling: An Experience from Indonesia. *Biopreserv Biobank*. 2024.

[https://www.liebertpub.com/doi/10.1089/bio.2024.0001?url\\_ver=Z39.88-2003&rfr\\_id=ori%3Arid%3Acrossref.org&rfr\\_dat=cr\\_pub++0pubmed](https://www.liebertpub.com/doi/10.1089/bio.2024.0001?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub++0pubmed)

Ashkar CE, Nakkash R, Matar A, Makhoul J. Behind the scenes of research ethics committee oversight: a qualitative research study with committee chairs in the Middle East and North Africa region. *BMC Med Ethics*. 2024; 25 (1): 86.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11308332/>

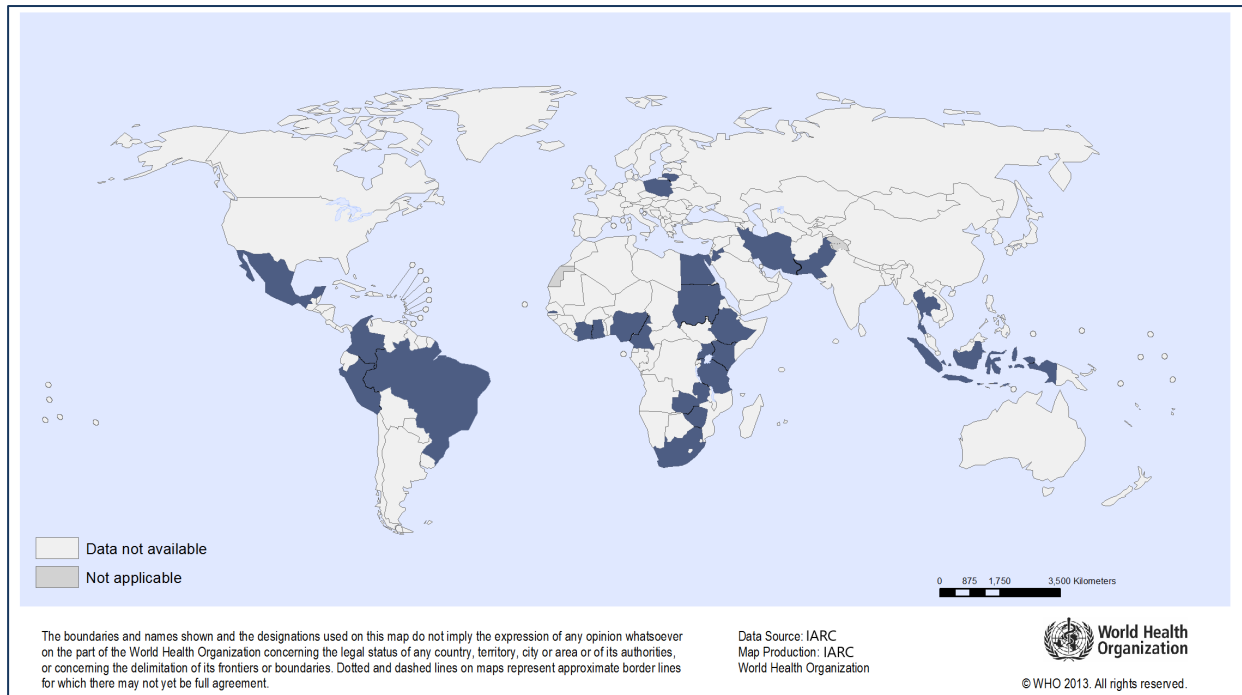
Cheong IH, Zhao Y, Jiang M, Lei S, Wang H, Kozlakidis Z, Wei Q. Technical Guideline for Low-Temperature Preservation of Pathogenic Microorganisms in China and Its Relevance to Developing Countries. *Biopreserv Biobank*. 2024.

[https://www.liebertpub.com/doi/10.1089/bio.2024.0022?url\\_ver=Z39.88-2003&rfr\\_id=ori:rid:crossref.org&rfr\\_dat=cr\\_pub%20%200pubmed](https://www.liebertpub.com/doi/10.1089/bio.2024.0022?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed)

de Freitas Filho LH, Neves CCS, Silva NP, Corsi CAC, Cardoso EM, de Miranda JB, de Campos GC. Challenges of Implementing a Human Multi-Tissue Bank in a Public Hospital in the Interior of São Paulo: Under the Light of the Quality Management System. *Transplant Proc*. 2024; 56 (5): 1041-1047.

<https://www.sciencedirect.com/science/article/abs/pii/S0041134524000113?via%3Dihub>

# BCNet Members



**BRAZIL:** Banco de Células do Rio de Janeiro; Barretos Cancer Hospital; Instituto do Câncer do Estado de São Paulo/Fundação Faculdade de Medicina **CAMEROON:** Faculty of Medicine and Biomedical Sciences, Université de Yaoundé; Université des Montagnes; **COLOMBIA:** Clinica de la Costa Ltda; **CÔTE D'IVOIRE:** Institut Pasteur de Côte d'Ivoire; **EGYPT:** Aswan University; Children's Cancer Hospital Egypt – 57357; Faculty of Medicine, Cairo University; Integrated Biobank of Mansoura, School of Medicine, Mansoura University; Medical Research Institute, Ain Shams University; Medical Research Institute, Alexandria University; National Cancer Institute; National Liver Institute; National Museum of Egyptian Civilization; Shifaa Al Orman Hospital, Luxor; South Egypt Cancer Institute, Assiut University; Suez Canal University; Theodor Bilharz Research Institute; **ETHIOPIA:** Jigjiga University; **GHANA:** Breast Care International, University of Health and Allied Sciences; Noguchi Memorial Institute for Medical Research, University of Ghana; **INDONESIA:** Faculty of Medicine, Universitas Gadjah Mada; **IRAN:** Golestan Cancer Biobank; **JORDAN:** King Hussein Cancer Center Biobank; **KENYA:** Ampath Reference Laboratory; Maseno University; **LITHUANIA:** National Cancer Institute; **MEXICO:** Instituto Nacional de Cancerología; **NIGERIA:** College of Medicine, University of Ibadan; Irrua Specialist Teaching Hospital; Obafemi Awolowo University Teaching Hospitals Complex; **PAKISTAN:** Indus Hospital & Health Network; Liaquat University of Medical Health and Sciences; Shaukat Khanum Memorial Cancer Hospital and Research Centre; **PERU:** Instituto Nacional de Enfermedades Neoplásicas; **POLAND:** Biobank Lab, Department of Molecular Biophysics, University of Lodz; Wrocław Research Centre EIT+ Biobank; **SOUTH AFRICA:** National Health Laboratory Service, NHLS/Stellenbosch University Biobank; **SUDAN:** Institute of Endemic Diseases (IEND), University of Khartoum; Radio-Isotope Centre Khartoum; **THAILAND:** National Cancer Institute; **THE GAMBIA:** Medical Research Council (MRC) The Gambia Unit; MRC International Nutrition Group; **UGANDA:** Makerere University College of Health Sciences; **UNITED REPUBLIC OF TANZANIA:** Kilimanjaro Clinical Research Institute; **ZAMBIA:** Centre for Infectious Disease Research in Zambia; **ZIMBABWE:** African Institute of Biomedical Science & Technology; University of Zimbabwe College of Health Sciences.

## BCNet Partners



### Contacts:

**Dr Zisis Kozlakidis**  
[KozlakidisZ@iacr.who.int](mailto:KozlakidisZ@iacr.who.int)

**Ms Tracy Wootton**  
[WoottonT@iacr.who.int](mailto:WoottonT@iacr.who.int)

+33 4 72 73 80 35

<http://bcnet.iarc.fr/>