



Latin America
Bioimaging

2024

LABI Meeting Report





Overview

The Latin America Bioimaging ([LABI Meeting 2024](#)) took place from **August 18-21, 2024 in Rio de Janeiro, Brazil**, with a vibrant in-person and virtual participation. This year's meeting marked an important milestone as LABI continues to strengthen its role as a regional platform for collaboration and innovation in bioimaging.

Over the course of four days, **+100 participants** from **15 countries** gathered in person, while an additional **82 participants** from **14 countries** registered to join virtually. We engage in dynamic discussions on the challenges and opportunities that lie ahead for the Latin American bioimaging community.

With key topics ranging from **data management** to **sustainable growth in open infrastructure**, LABI reaffirmed its commitment to addressing regional bioimaging needs and positioning Latin America as a global contributor to scientific discovery through imaging technologies.

Thanks to all of you who are part of this collective endeavor!

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About LABI

[Latin America Bioimaging \(LABI\)](#) is a collaborative network focused on enhancing bioimaging capabilities across the Latin American and Caribbean regions. By bringing together imaging scientists, technology developers, researchers, and companies, LABI promotes the integration of the Latin American community into the global bioimaging landscape.

LABI's aims:

- **To build community and capacity** by fostering collaborations among scientists, institutions, and companies.
- **To promote training and career development programs** that address regional needs.
- **To organize annual meetings and satellite events** to promote cross-border exchange of knowledge and resources.
- **To enable open access to research infrastructures** to ensure broader access to state-of-the-art bioimaging technologies.

Organizing Committee

Program Committee



Kildare Miranda
CENABIO, Universidade Federal do Rio de Janeiro, Brazil



Iván Rey
MicroCore, Universidad de los Andes Colombia



Lía Pietrasanta
Instituto Física, Universidad de Buenos Aires, Argentina



Mariana De Niz
Nikon Imaging Center, Northwestern University, USA



Christopher Wood
LNMA, Universidad Nacional Autónoma de México



Andrés Olivera
LABI Project Manager, Institut Pasteur de Montevideo, Uruguay

Local Committee

Marcia Attias - CENABIO, UFRJ / SBMM

Camila Gonçalves - CENABIO, UFRJ

Vânia Vieira - CENABIO, UFRJ

Carla Woyames - CENABIO, UFRJ

Ingrid Augusto - CENABIO, UFRJ

Moara Lemos - CENABIO, UFRJ

Fernando Almeida - CENABIO, UFRJ

Adélia Belém - CENABIO, UFRJ

Jean Pierre Santos - CENABIO, UFRJ

Lía Medeiros - Fiocruz / SBMM

Marcia Bicalho - Logistic Organization

Networking sessions Coordinators

Andrés Rossi - Fundación Instituto Leloir

Marcela Díaz - Institut Pasteur de Montevideo

Victoria Repetto - Universidad de Buenos Aires

Federico Lecumberry - Universidad de la Republica

Gregory Kitten - Universidade Federal Minas Gerais

Hernán Grecco - Universidad de Buenos Aires

Nikki Bialy - Bioimaging North America

Precius Kgomo - African Bioimaging Consortium

Michael Reiche - Africa Microscopy Initiative

Karina Alleva - Centro de Biología Estructural del Mercosur

Governance Workshop

Andrés Kamaid - Institut Pasteur de Montevideo

Paz Miguez - MetaDocencia

Laura Ascenzi - MetaDocencia

Jesica Formoso - MetaDocencia

Main Topics



The LABI Meeting 2024 was designed around three central topics

- 1 Exploring Innovation in Data Management**
Focused on showcasing cutting-edge data management solutions and initiatives enabling coordination at the local, regional and global level.
- 2 Setting the Stage for Sustainable Growth in Research Infrastructures**
Explored the role of open Research Infrastructures and regional coordination to democratize access to imaging technologies and minimize duplicated efforts.
- 3 Exploring the Horizon of LABI**
A deep reflection on LABI's journey so far, with a strategic look at governance to promote long-term sustainability, growth, and regional coordination to position Latin America at the forefront of scientific discoveries





Satellite Events

August 14-16: Facility Management Course

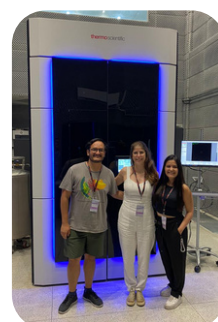
Global BioImaging Facility Management Course was jointly organized by Global BioImaging, LABI, and CENABIO). The course bring together **45 facility managers** from **14 countries** to discuss subjects including setting up and managing an imaging facility, sustainability, quality control, user training, and ISO standards.

August 21: Outreach Activity at Botanical Garden

As part of the commitment of LABI to make science and microscopy accessible to all, LABI working group Outreach & Integration joint with EducaCienca organized an outreach event held at Jardim Botânico do Rio de Janeiro. Approximately **100 junior high school students** from local schools interacted with scientists from all around Latin America.

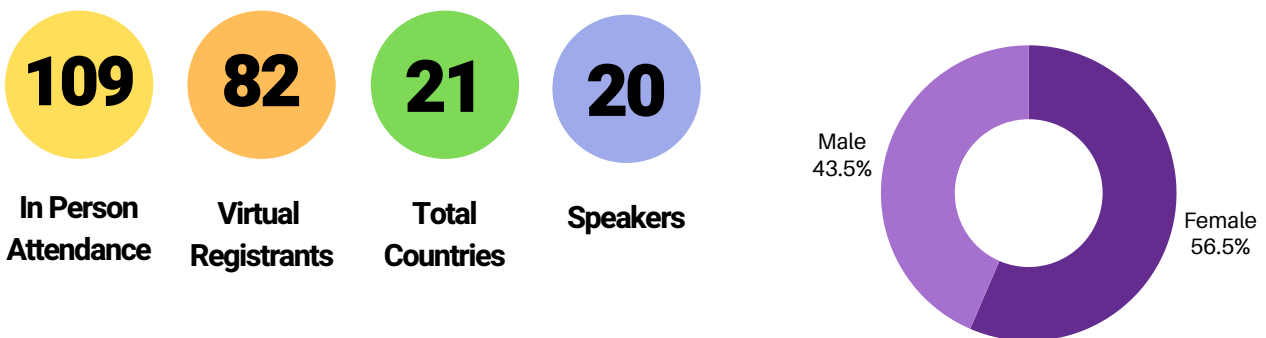
August 26-30: Latin America Cryo-EM Workshop

40 in person participants and **130 virtual participants** from across the region engaged in hands-on learning about cutting-edge cryo-electron microscopy (Cryo-EM) technologies. This workshop was designed to provide training on cryo-electron tomography, covering from sample preparation to advanced data processing.



Meeting Participation

LABI Meeting in Numbers



Plenary Speakers



Craniopagus twins: a separation that seemed impossible.

Gabriel Mufarrej - Pediatric Neurosurgeon, Paulo Niemeyer State Brain Institute. He currently coordinates Pediatric Neurosurgery and Epilepsy Surgery at the Paulo Niemeyer State Brain Institute, and is also the coordinator of the Postgraduate Program in Pediatric Neurosurgery at the PUC-RIO Postgraduate Medical School.

Advancing Biomedical Imaging for Clinical Applications

Fernanda Tovar Moll, CEO, D'Or Institute, Brazil

Her team investigates clinical and translational research on the functional and structural circuits, in developmental, neurological, and neurodegenerative disorders. Using advanced in vivo imaging techniques, they aim to establish the relationship among these biomarkers and microstructural factors.



Open Infrastructure for the Bioimaging community

Maria Augusta Arruda, Director, Laboratorio Nacional de Biociências, CNPEM

She brings her almost 30 years of experience in research environments to support the scientific community to reach its potential through transdisciplinarity, with collaborations at national and international level.



Highlights

Strengthening Community

The **first testimonials from LABI Imaging Science Fellows** were a powerful evidence of the importance of nurturing a community to transcend new horizons.

We recognized that **building community and open access to technology is a continuous and collective process**, but great progress was made

Open Access to Technology

Throughout the sessions, participants **showcased the relevance of imaging technologies for biomedical applications**, highlighting their potential to drive new scientific discoveries.

There was **consensus on the need to adopt open infrastructures concepts** to democratize access to advanced bioimaging technologies, reduce duplication of efforts, and accelerate research across the region.

Governance & sustainability

The meeting provided a **unique opportunity to engage with authorities, funding agencies, and key stakeholders**, consolidating LABI's role as a regional leader in bioimaging.

The LABI community made significant strides working together with MetaDocencia in the **development of governance structures, a key pillar for ensuring long-term sustainability**. This activity was funded by Invest In Open Infrastructure.

Partnerships

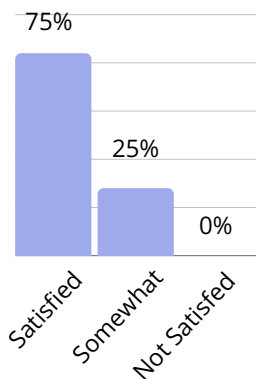
LABI established a **partnership with Centro de Biología Estructural del Mercosur (CEBEM)** to coordinate regional strategies and further strengthen the integrative bioimaging ecosystem in Latin America.

We created spaces for discussion to **align with other regional networks on strategic areas**, seeking concrete activities that enable us to achieve global challenges.

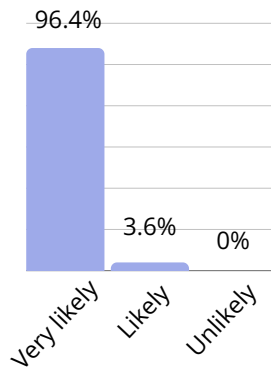
Community Feedback

100 % Met overall expectations

Satisfaction with meeting content



Would you recommend a colleague to attend LABI Meeting?



“ It was my first experience at a LABI meeting, and I would really like to get involved in this growing community

Diana Vazquez, Morelos, México

“ I felt the collaborative spirit in every discussion, scientific exchange, and the vibrant atmosphere that united us in common efforts to develop bioimaging in our region and further.

Hernan Morales, Ecuador

“ This experience was so inspiring, and I'm sure that wouldn't exist a better fuel to me and my colleagues to keep advancing in trainings, courses, fundings application, user's training and formation.

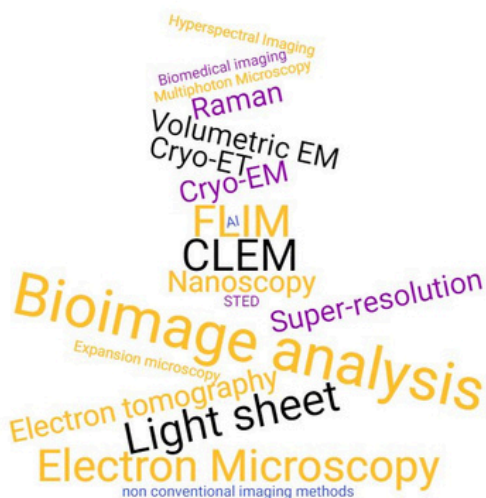
Jander Matos, Amazonia, Brasil

“ LABI is an excellent bioimaging network that connects all the scientific talents in Latin America and it's a model for other scientific communities!

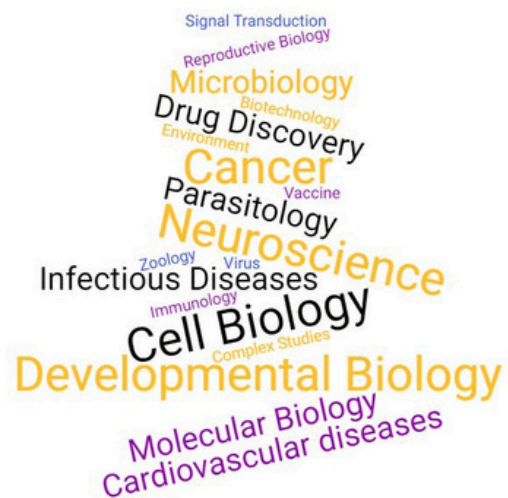
Rocco D'Antuono, GloBIAS

Relevant topics to addressed

TECHNOLOGIES



RESEARCH





Next Steps

Training the Next Generation

A strong commitment to **increase the critical mass of imaging scientists** was established, with a focus on developing specialized training programs that address the unique needs of the region.

It is necessary to continue building the ecosystem to **ensure that the region is able to rapidly adopt upcoming technologies**.

Accelerating Technology Development and Access

The meeting emphasized the need to **accelerate development and access to cutting-edge bioimaging technologies** to keep pace with global advancements.

A key goal established was to move forward to identify regional and global technological needs to **facilitate the adoption of innovative technologies**.

Coordination of Regional Bioimaging Infrastructure

To maximize impact, there is a need for better **coordination and standardization of bioimaging infrastructure** across Latin America.

Integration of Imaging and Scientific Communities

LABI aims to further **integrate imaging scientists and developers with broader scientific communities**, ensuring that imaging technologies are more widely adopted and applied.

Ultimately, LABI's mission is to **enable new scientific discoveries through the power of bioimaging**.

Conclusions

The LABI Meeting 2024 was a resounding success, bringing together key stakeholders to address pressing challenges, celebrate achievements, and plan for the future. The meeting reaffirmed the importance of regional collaboration, inclusivity and the power of opening access to imaging technologies to drive scientific progress. Looking ahead, LABI is committed to building on the momentum from this community driving meeting to ensure that bioimaging technologies and training are accessible to all across Latin America, empowering a new era of scientific discovery.

LABI looks forward to the continued support of its community and partners as we advance toward a more inclusive, sustainable and innovative future in bioimaging. We invite you all to be part of this movement and achieve these objectives together.

LABI Meeting 2025

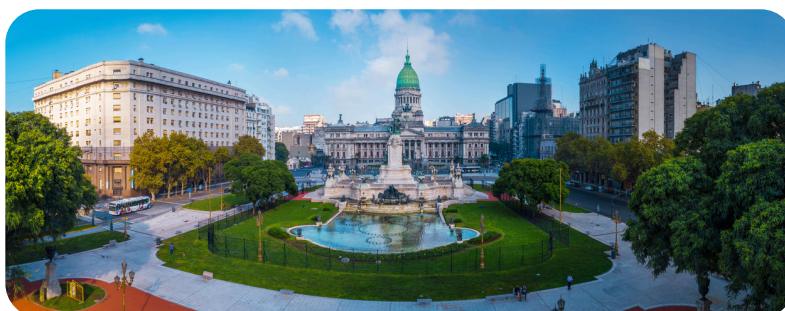
The LABI Meeting 2025 invites us to come together once again, this time **in November 9th to 12th at Buenos Aires, Argentina**. Building on the success of previous editions, **this meeting aims to integrate other scientific communities** fostering interdisciplinary collaboration and expanding the reach of bioimaging technologies.

This year's agenda will **feature thematic discussions on cutting-edge bioimaging technologies** that are of particular interest to our community, providing a platform for dialogue, knowledge exchange, and innovative solutions to scientific challenges.

Additionally, the meeting will include exciting hands-on satellite events that can include:

- A Super-Resolution Fluorescence Microscopy Workshop
- A Volume Electron Microscopy (vEM) Workshop

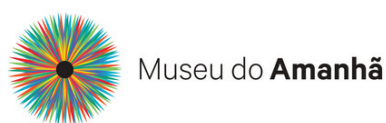
We welcoming you to save the date and join us in shaping the future of bioimaging!



Supporters

We are grateful for the invaluable support of all the supporters and sponsors for making this event possible and for their active participation during the event. Planning for capacity building in the region is not possible if we do not integrate the different perspectives in one place and that is what we are looking for in the development of this event. Thank you for being part of it!

If you haven't been part of the event and want to join us and support our next event contact us at latambioimaging@gmail.com





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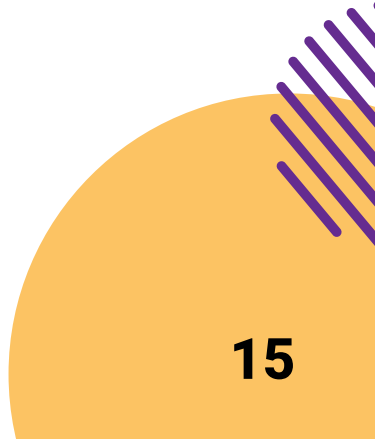
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