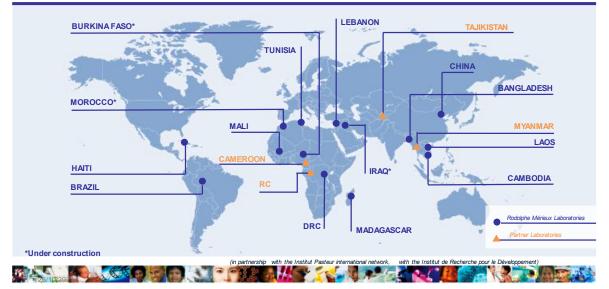


LABORATORY STRENGTHENING BIOSECURITY/BIOSAFETY BY MERIEUX FOUNDATION

The Mérieux Foundation works to increase vulnerable populations' access to diagnostics and improve epidemic preparedness, surveillance and response in low- and middle-income countries. To achieve these objectives, two main types of laboratories must be strengthened: research and referral laboratories, and clinical laboratories. Biosecurity is an integral part of this laboratory strengthening and involves developing infrastructure, equipment, and training.

Infrastructure & Equipment

The Mérieux Foundation creates and equips state-of-the-art infrastructures, called Rodolphe Mérieux Laboratories, with BSL2, BSL2+ and BSL3 facilities complying with the highest international standards. Transferred to local public health authorities or research centers, they improve capacity for disease surveillance and alert in regions of the developing world at high risk of outbreaks. There are 14 Rodolphe Mérieux Laboratories built or under construction. They are the pillars of the 16-country GABRIEL Network of research laboratories created by the Foundation in 2008.



2005-2022: A Network of 18 Sentinel Laboratories

For clinical laboratories, the Foundation has renovated over 70 laboratories in limited-resource settings and focused, in particular, on equipping the laboratories and training their staff to develop microbiology diagnostics. Good Microbiological Practices and Procedures (GMPP) are established and the correct use of Biological Safety Cabinets (BSC) and autoclaves are promoted.



Partnerships & Projects

The Foundation is involved in a number of projects seeking to **build clinical laboratory networks**. Forming such networks **strengthen the performance of health systems** by enabling expertise to be shared and synergies brought into play. In Africa, the Foundation supports and helped to form two laboratory networks: <u>RESAOLAB</u>, developed with the Ministries of Health of seven West African countries (Benin, Burkina Faso, Guinea, Mali, Niger, Senegal and Togo) and RESAMAD, developed with the Ministry of Health of Madagascar. <u>RESAMAD</u> is helping to strengthen biosecurity by establishing bacteriology testing in its member laboratories and developing antimicrobial resistance surveillance.

The <u>G5 Sahel Biosecurity Network</u> (Burkina Faso, Chad, Mali, Mauritania and Niger) is one of the Foundation's projects to improve **response to biological threats** and more efficiently monitor and combat epidemics of highly pathogenic diseases. It is conducted in partnership with the Bundeswehr Institute of Microbiology with funding from the GIZ (German Federal Enterprise for International Cooperation). The Foundation is working to **build collaboration between human and veterinary laboratory services** as part of the <u>SEALAB</u> project between Cambodia, Laos and Myanmar, in partnership with the Australian Department of Foreign Affairs and Trade (DFAT). The Foundation has also contributed to the Global Health Security Agenda (GHSA) in Senegal and other countries, working in partnership with government agencies including U.S. CDC, USAID, the Defense Threat Reduction Agency (DTRA), and the U.K. Foreign Commonwealth Development Office (FCDO).

The Mérieux Foundation actively supports the development of biosecurity and biosafety in Africa and Southeast Asia by working closely with international partners, local stakeholders and national authorities to make a significant contribution to national preparedness efforts.

Specialized Training

Knowledge-sharing activities, including courses, e-learning, and web platforms are a strategic area of focus for the Foundation, and an integral part of its initiatives to strengthen laboratory systems. Continuous training is essential in a laboratory professional's career to keep up with ever-changing scientific developments. The Mérieux Foundation provides its expertise to regularly train laboratory technicians in medical biology, quality standards and processes, biosafety, biosecurity, and maintenance. It also trains trainers in pedagogy so that they can then take charge of staff training.

E-learning linked with biosecurity/biosafety

- Biosecurity and management of biomedical waste:
- Safe transport of biological samples
- Biobanking
- Immersive 360° lab visit

Massive Open Online Course

MOOC on Quality Management



About the Mérieux Foundation

The <u>Mérieux Foundation</u>, an independent family foundation with public interest status, is committed to fighting, in the field, the infectious diseases that affect low-income countries by building capacities, particularly in clinical laboratories. Created in 1967, its actions are focused on four objectives:

- Increasing vulnerable populations' access to diagnostics by strengthening clinical laboratories in national healthcare systems
- Enhancing local applied research capabilities by training researchers, developing collaborative programs and creating Rodolphe Mérieux Laboratories, transferred to local partners
- Encouraging knowledge-sharing and public health initiatives, leveraging Les Pensières Center for Global Health
- Improving conditions for mothers and children, taking a global health approach

The Foundation has projects in over 30 countries, including Brazil and Haiti in the Americas, Benin, Burkina Faso, Guinea, Mali, Niger, Senegal, Togo, Democratic Republic of Congo, Republic of the Congo, Madagascar, Tunisia and Morocco in Africa, Iraq and Lebanon in the Middle East, and Bangladesh, Cambodia, Myanmar and Laos in Southeast Asia.

Founded in 2012 in Washington, DC, the Mérieux Foundation USA, a 501(c)(3), engages North American partners in Mérieux Foundation initiatives and opens opportunities for new collaborations to foster sustainable health systems around the world.

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