Laboratoire Génomique Pathogènes | Institut National Recherche Biomédicale

NEWSLETTER

FEBRUARY 2026 *02/2026*

Message from the Head of the Laboratory

"Dear colleagues and partners,

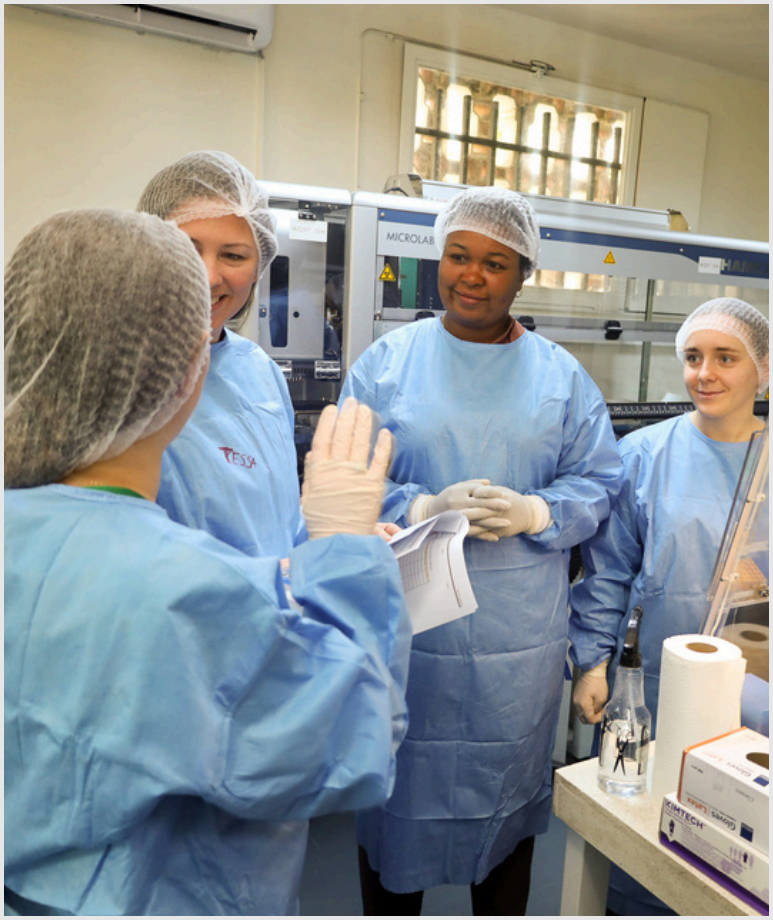
The month of February was marked by strong team mobilization around scientific, technical, and training activities aimed at strengthening our operational capacities and advancing genomic surveillance. The actions undertaken reflect our commitment to integrating innovative tools that enhance our ability to detect, understand, and monitor health threats.

I would like to commend the dedication and professionalism of all teams, whose continued commitment contributes to the quality of our work and the impact of our actions. Together, we continue our efforts to produce reliable data that are essential for public health decision-making, for the benefit of populations."

Amuri Aziza Adrienne

SUMMARY

The INRB Pathogen Genomics Laboratory strengthens its collaboration with the Institute of Tropical Medicine (ITM Antwerp) in the diagnosis of viral hemorrhagic fevers



From February 9 to 12, 2026, a delegation from the Clinical Virology Unit of the Institute of Tropical Medicine (ITM Antwerp) visited Kinshasa as part of efforts to strengthen scientific collaboration with the Institut National de Recherche Biomédicale (INRB).

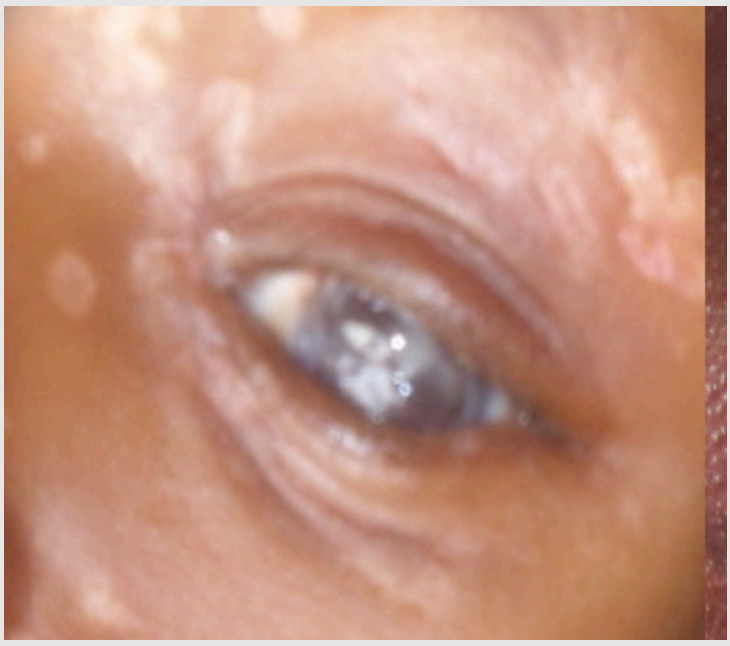
The main objective of this mission was to jointly explore the molecular analysis of additional pathogens in samples from viral hemorrhagic fever (VHF) cases, including both confirmed and negative cases of Ebola Virus Disease (EVD). This approach aims to better document alternative etiologies that may be responsible for severe febrile syndromes, thereby improving differential diagnosis and strengthening VHF surveillance in the Democratic Republic of the Congo.

Working sessions enabled in-depth technical exchanges on complementary analytical strategies, particularly the integration of tools capable of identifying infectious agents not detected by conventional diagnostic algorithms. This initiative forms part of a continuous improvement process to enhance response capacity to emerging and re-emerging diseases.

During the discussions, the ITM team also presented the DECIPHER approach, which proposes the introduction of RPA (Recombinase Polymerase Amplification) technology into diagnostic strategies. This isothermal amplification method, which can be used as an alternative to conventional PCR, offers significant prospects for rapid, sensitive, and field-deployable diagnostics, particularly in resource-limited settings.

This mission marks another step forward in consolidating the INRB–ITM partnership and in the development of innovative diagnostic tools aimed at improving early detection and understanding of diseases with epidemic potential.

Mpox in the Democratic Republic of the Congo: new evidence on ocular complications



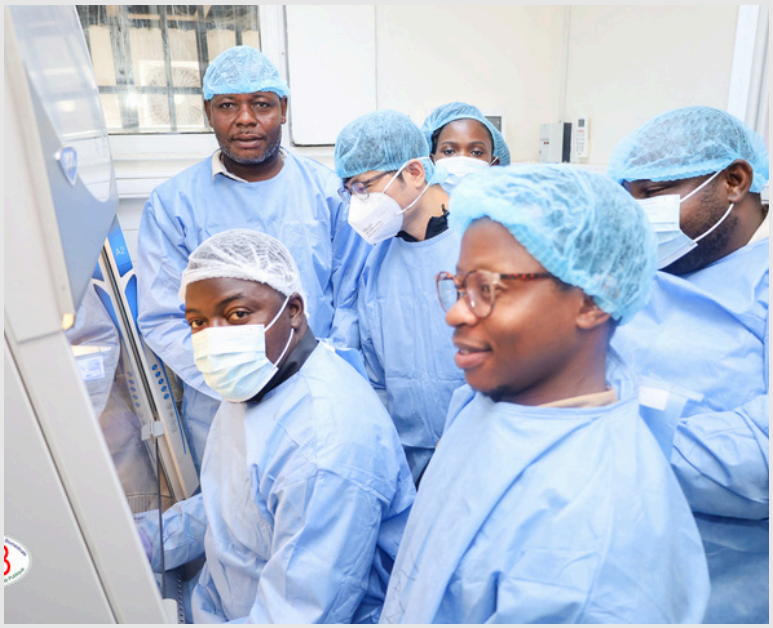
Researchers from the Institut National de Recherche Biomédicale (INRB), in collaboration with national and international partners, conducted a study aimed at better characterizing ocular manifestations observed in Mpox patients in the Democratic Republic of the Congo.

The results show that a significant proportion of patients develop ocular complications, such as conjunctivitis, eyelid lesions, or keratitis, which in some cases may lead to long-term visual complications, particularly among children.

These findings highlight the importance of early diagnosis, strengthened clinical follow-up, and the integration of ophthalmological evaluation into Mpox patient management, in order to prevent sequelae and improve the quality of care in endemic areas.

Read the full article here:
https://journals.asm.org/doi/10.1128/asmcr.00171-25

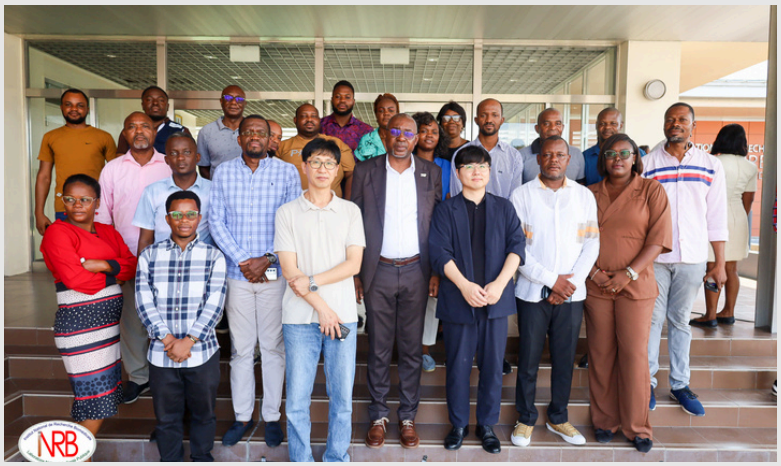
Training of Trainers on RadiOne technology and Mpox diagnostic tests in the DRC



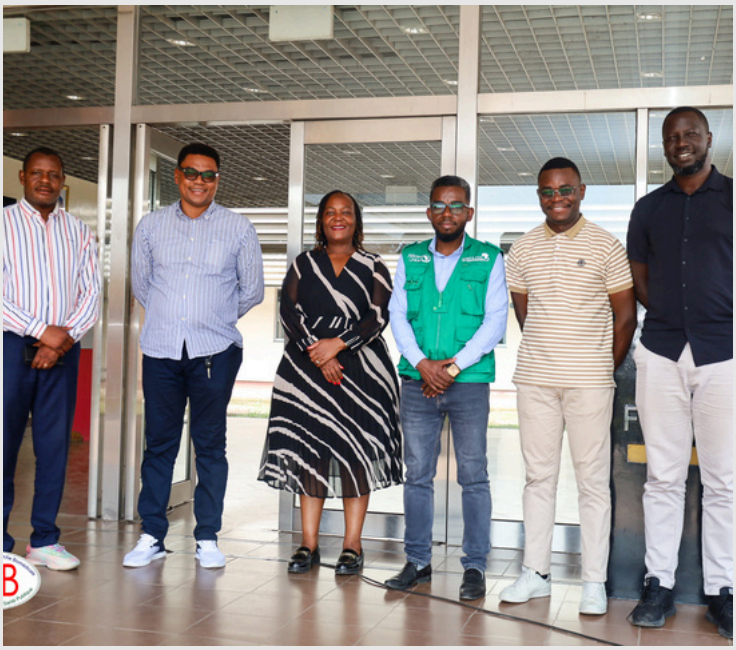
From February 16 to 19, 2026, the Pathogen Genomics Laboratory organized, at its facilities in Kinshasa, a training-of-trainers session dedicated to the use of RADI ONE technology and its Mpox diagnostic tests, contributing to strengthening the national rapid case detection system.

Hosted at the Institut National de Recherche Biomédicale (INRB), this session was conducted in collaboration with KH Medical and the National Institute of Public Health (INSP) and trained technical staff who will replicate these competencies across the country.

Combining theoretical presentations, demonstrations, practical exercises, equipment installation, and maintenance modules, the training strengthened national capacities in decentralized diagnostics, laboratory data management, and quality assurance, thereby supporting a more responsive epidemiological surveillance system and a more effective response to Mpox outbreaks in the Democratic Republic of the Congo.



Joint Africa CDC–ASLM mission to INRB: evaluation of Mpox diagnostic kits



Designated by Africa CDC as a Center of Excellence for diagnostic kit evaluation, the Institut National de Recherche Biomédicale (INRB) hosted a technical supervision mission from February 23 to 27, 2026 in Kinshasa, conducted by Africa CDC in collaboration with the African Society for Laboratory Medicine (ASLM).

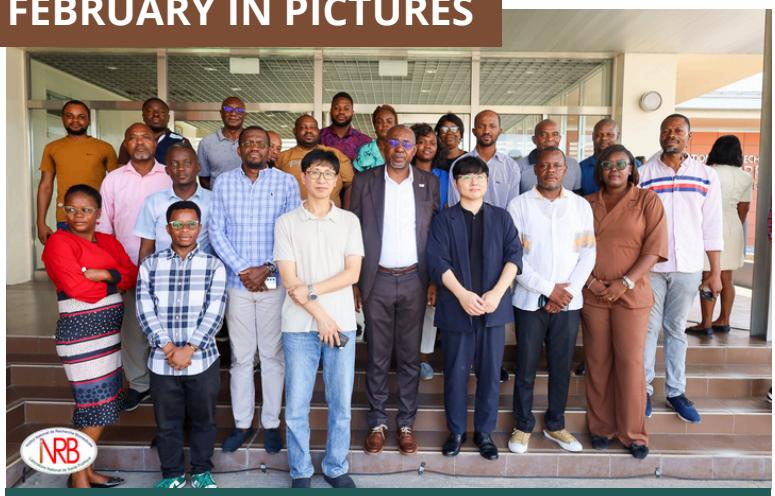
This visit took place within the framework of the DAC (Diagnostic Assessment and Capacity Strengthening) program aimed at preparing the implementation of a study evaluating the performance of Mpox diagnostic kits, in accordance with continental regulatory and operational requirements.

During the week, experts conducted a comprehensive assessment of the site's technical and organizational capacities. This included a review of the institutional mandate, national Mpox diagnostic capacities, and visits to infrastructure such as molecular biology laboratories, biosafety systems, and sample management pathways.

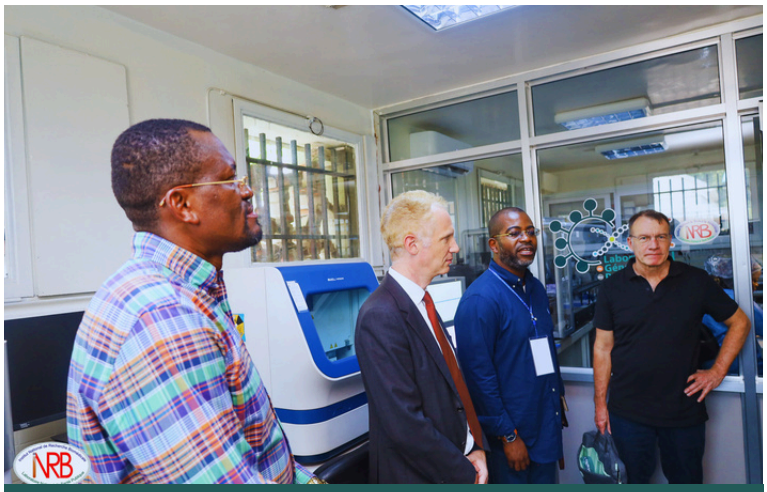
The evaluation focused on the detailed analysis of operational workflows related to Mpox test evaluation by RT-PCR, as well as quality management systems and biosafety compliance.

The mission concluded with a debriefing session during which technical findings were presented to the INRB leadership, accompanied by recommendations and jointly agreed corrective actions.

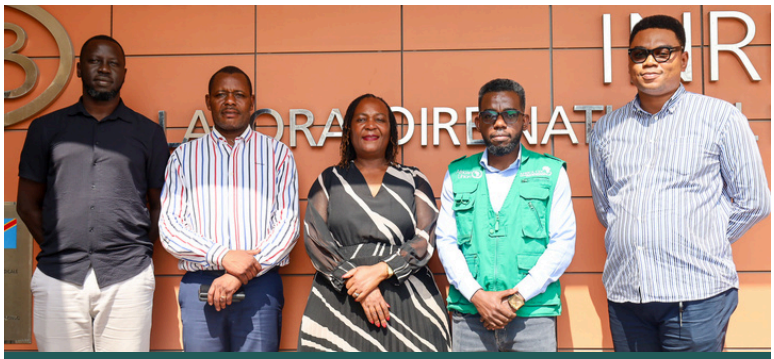
FEBRUARY IN PICTURES



Launch of the RadiOne training-of-trainers program at INRB

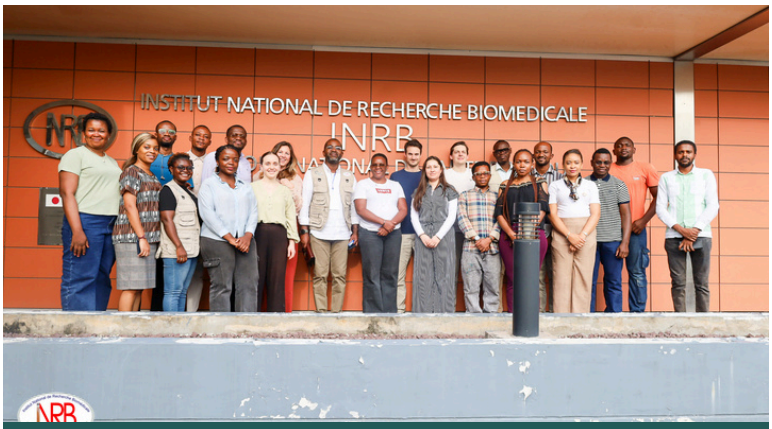


Visit of the Swiss Ambassador to the DRC to the Pathogen Genomics Laboratory

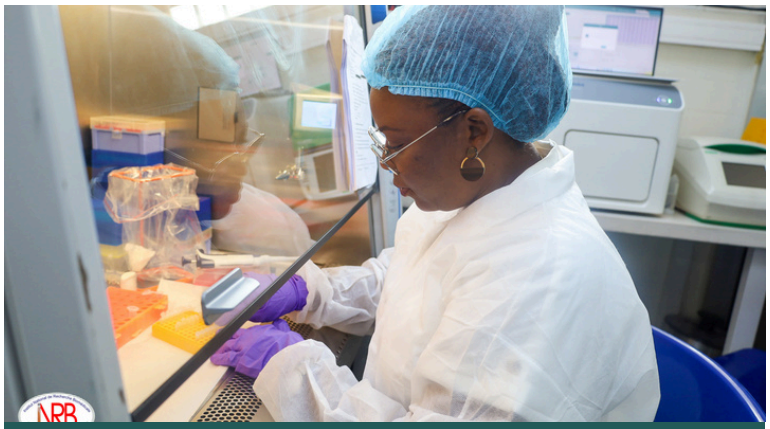


Family photo during the joint ASLM–Africa CDC mission at INRB

Family photo during the Annual Meeting of the Department of Epidemiology and Global Health at INRB.



Family photo with the ITM Antwerp team during their working visit to INRB



Mixing of amplicons for sequencing Mpox-positive samples

Wastewater sampling for environmental Mpox surveillance in Mbandaka as part of the Wastewater project

Preparation of sequencing libraries for Viral Hemorrhagic Fever (VHF) samples using the VirCapSeq (Viral Capture Sequencing) method

OUR PARTNERS

PUBLICATIONS : From January 1 – February 28, 2026

1. Ocular manifestations in a cohort of patients with mpox in the Democratic Republic of the Congo 2007–2011 (ASM Journals Feb 2026) https://journals.asm.org/doi/10.1128/asmcr.00171-25
2. Deciphering the etiology of the 2024 outbreak of undiagnosed febrile illness in Panzi, Democratic Republic of the Congo (Nature Féb 2026) https://www.nature.com/articles/s41591-026-04235-7
3. Liver and bladder morbidity in a Schistosoma mansoni and haematobium co-endemic area in the Democratic Republic of Congo (PLOS Feb 2026) https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0013999
4. Maternal and neonatal outcomes after infection with monkeypox virus clade I during pregnancy in DR Congo: a pooled, prospective cohort study. (The Lancet Jan 2026) https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(25)02309-8/fulltext
5. Determinants of long-term SARS-CoV-2 immune responses in asymptomatic-to-moderate COVID-19 patients in sub-Saharan Africa (Springer Nature Jan 2026) https://link.springer.com/article/10.1186/s12916-025-04607-9
6. Mpox Clade IIb Virus Introduction into Kinshasa, Democratic Republic of the Congo, July 2025 (Viruses Jan 2026) https://www.mdpi.com/1999-4915/18/1/87

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