LabVoice

Issue 02

Strengthening Laboratory Systems in Africa

INSIDE THE NEWSLETTER:

Editor-in-Chief's Note:

Welcome to the second edition of the **LabVoice Newsletter**, and warm compliments of the New Year. We're delighted to bring you an issue rich in storytelling, insight, and celebration—spotlighting the people, partnerships, and progress shaping the laboratory and diagnostics landscape across Africa.

What's inside? As always, plenty of good stuff. This edition reflects on 2025—a year that unfolded with significant shifts for the donor and humanitarian ecosystem. Against this backdrop, ASLM CEO shares a thoughtful reflection on ASLM's 2025 journey, highlighting key milestones achieved alongside our laboratory communities and valued partners. From **Conakry, Guinea,** we showcase important advances in genomic surveillance and the life-saving impact of the Mastercard Foundation–funded **Save Lives and Livelihoods (SLL)** initiative, captured in the editorial reflection titled "Forging a Continental Immune System: Making Africa's Genomic Gains Permanent." This reflection underscores how SLL not only strengthened pandemic preparedness and laboratory capacity across Africa but also left a lasting legacy that continues to inform genomic innovation, health security, and community resilience.

As we mark the close of an era for **Fleming Fund–supported projects**, we also reflect on their enduring impact—spanning **MAAP, Fleming Fund Fellowships, EQu Africa, QWArS, and TADE**—and the sustained benefits they continue to deliver across the continent.

We also dive into a critical truth: a laboratory is only as strong as its data. This issue features insights from the lead of Laboratory Quality Systems and Innovation across Africa, and shines a spotlight on the **AGARI** platform—a true game changer driving Africa's data and genomics future.

And there's more: updates on our corporate and individual memberships, a peek into our podcast conversations, and stories that connect science to people and purpose.

So grab a cup of coffee or tea, settle in, and enjoy the read.

Nelly Rwenji
Editor-in-Chief, LabVoice

Reflections from ASLM CEO

Nqobile Ndlovu

The beginning of 2025 will be remembered as a pivotal moment that redefined global public health support. It marked a turning point - calling for a reset and new ways of thinking to address the emerging shift away from global support for public health programmes. For many organisations, including ASLM, this shift created immense challenges in addressing existing and future public health problems, as the global funding envelope took a deep dive. Amidst this crisis, organisations had to adapt and re-adjust in order to continue to serve their missions. ASLM also adapted - but remained true to our vision of ensuring "A healthier Africa through access to quality laboratory services for all".

In 2025, despite the emerging challenges, ASLM made substantial progress toward its overall mission to strengthen laboratory systems, diagnostics leadership, workforce capacity, and quality assurance across Africa. ASLM remains proud that our trajectory is still trending upwards - with over 1,300 laboratories strengthened via quality assessments, proficiency testing, training and accreditation efforts. Our workforce development programs have seen over 3,500 professionals trained in areas such as AMR, genomics, laboratory quality, biosafety and diagnostics. Throughout 2025, ASLM delivered regional and in-country training and provided targeted technical support to national laboratory systems. The launch of the ASLM Ambassador Program - a strategic outreach and advocacy initiative - seeks to expand ASLM's visibility, engagement, and impact across Africa and globally. The programme forms part of ASLM's broader efforts to strengthen laboratory systems by building networks of influential advocates who promote the organisation's mission and activities. In response to the decline in donor funding, ASLM developed the **"Minimum Package for Sustainable Laboratory Systems,"** - a blueprint for resilient laboratory services that supports African countries to prioritise investments in their laboratory systems. To further develop capacity to address these challenging times, ASLM partnered with Roche Diagnostics Africa to launch the **Leadership Excellence for African Diagnostics (LEAD)** programme, a three-year initiative focused on strengthening leadership competencies among African laboratory professionals. The programme includes leadership assessments, mentorship, peer learning, and regional collaboration workshops to build resilient diagnostic leadership across the continent.

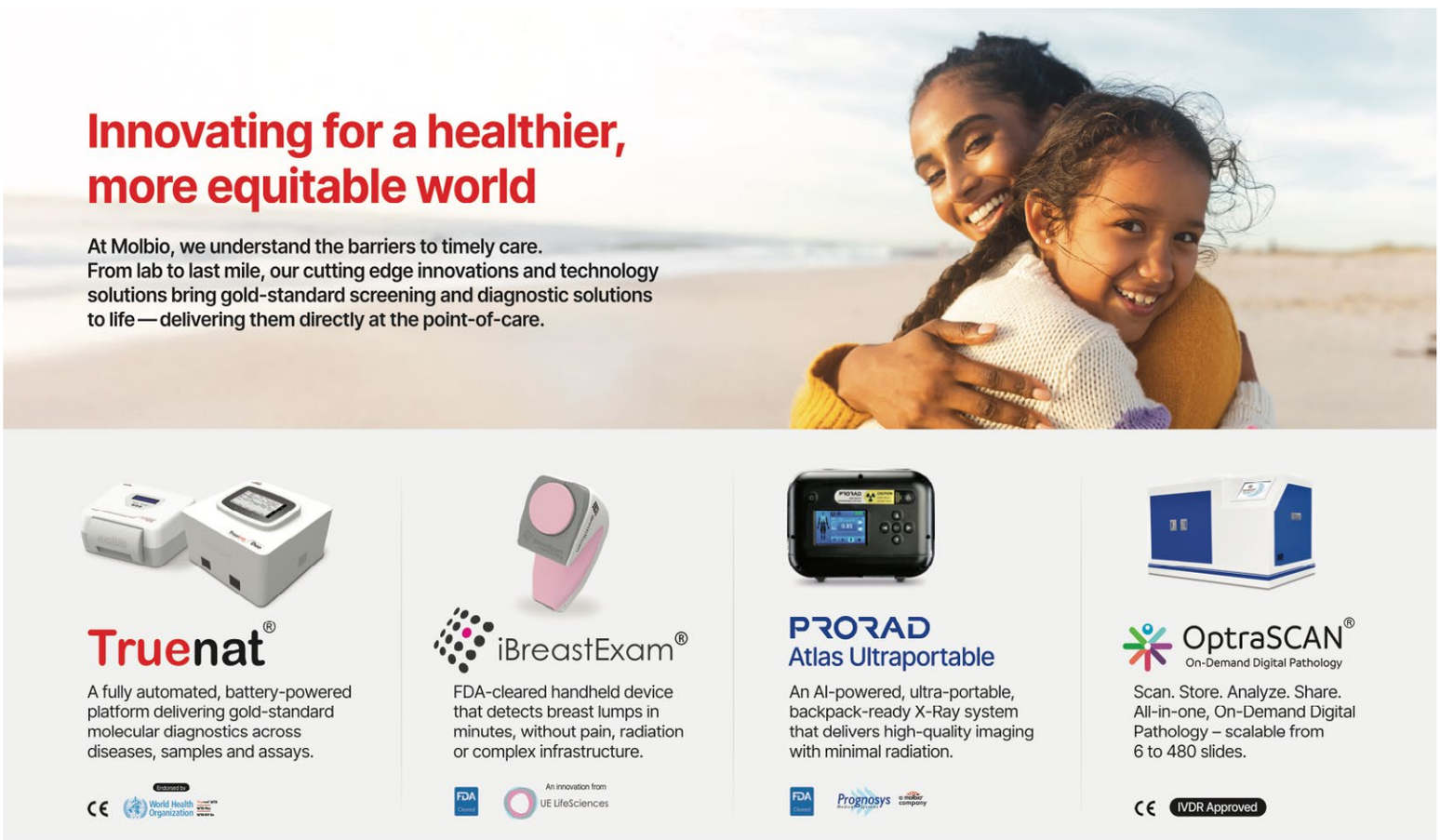
In collaboration with Africa CDC and the Mastercard Foundation, the Pathogen Genomics Initiative Phase II was launched to bolster genomic surveillance and bioinformatics, strengthening Africa's pandemic preparedness and response capacities. Under the Saving Lives and Livelihood (SLL) initiative, this work ensures countries can detect, monitor, respond rapidly to infectious diseases and health emergencies. At the close of 2025, our initiative delivered measurable results: tangible infrastructure was established, including eight regional biobanking hubs and support for local vaccine production with SAHPRA; our workforce development culminated in 171 professionals from 35 nations transformed into genomic sentinels; and our commitment to quality culminated in 577 labs achieving a 92.5% pass rate in external PCR quality assurance. These figures represent the concrete foundation of a new, self-reliant health future for the continent.

ASLM also hosted two major regional meetings addressing emerging issues due to the shifting global funding landscape. The 8th **Laboratory Strengthening Community of Practice (LabCoP)** meeting held 22–24 October 2025 in Nairobi centred on strengthening laboratory systems and networks, with a particular emphasis on sustaining gains made in laboratory capacity, improving data use for action, and promoting peer exchange on innovations and best practices. The ASLM 2025 Diagnostic Convention "Accelerating Diagnostic Innovation and Collaboration to Combat AMR and Advance Health Security in Africa" brought together over 350

delegates including policymakers, industry partners, scientists, and health leaders. The convention discussed challenges in diagnostics, AMR, health security, and national diagnostics strategies—advocating for greater investment and action at country level.

Our engagement with stakeholders and communities took an innovative approach as ASLM launched its first podcast, sharing insights from thought leaders and practitioners. Additionally, ASLM cultivated new strategic partnerships, including participation in the Unitaid funded PATH led consortium on Manufacturing to Accelerate Diagnostic Excellence (MADE) in Africa project, which forms part of Unitaid's Regional Manufacturing for Equitable Access portfolio. ASLM also launched our Corporate Membership program – welcoming 4 Corporate Members (Roche, Informa, Hologic, Molbio) during its inaugural year. The membership program offers a unique opportunity for private sector partners to work alongside ASLM and our vast networks to collectively advance innovations, strengthen laboratory diagnostics, and elevate African laboratory priorities on a global stage.

Despite a challenging start, 2025 ended on a positive note reflecting all the organisation accomplished, even during these tumultuous times. We were also very excited to welcome new ASLM Board members: Dr Judith Shang (Cameroon), Prof Placide Mbala (DRC), Mr Davy Nsama (Zambia), Dr Christina Mwangi (Kenya), Ms Bridget Mohale (South Africa). Looking into 2026, ASLM will continue to be at the forefront of addressing critical diagnostic access issues. One major area of focus is making an investment case for diagnostics. This will ensure prioritizing diagnostics in funding agendas, guiding policymakers, donors, and stakeholders toward evidence-based diagnostics reforms that strengthen health systems, safeguard livelihoods, and reduce costs. To facilitate this, we are thrilled to host the ASLM 2026 Conference in Cape Town, South Africa. This is not an event to miss and we look forward to seeing you there!



A New Era of Genomic Surveillance in Guinea

Nuru Ngailo
ASLM

In Conakry, Guinea, the Molecular Biology Laboratory at the National Institute of Public Health (INSP) is entering a new phase in public health preparedness—one defined by speed, autonomy, and locally generated genomic data. Through support from the Mastercard Foundation's Saving Lives and Livelihoods (SLL) Project, and with technical and logistical backing from ASLM in collaboration with Africa CDC, the laboratory has been transformed into a fully operational genomic sequencing hub. Today, it plays a crucial role in strengthening national and regional genomic surveillance, enabling faster detection, informed response, and greater resilience to public health threats.

Until recently, Guinea's genomic sequencing capacity remained limited and largely dependent on external partners. While INSP had skilled scientists and strong institutional commitment, persistent gaps in critical equipment, consumables, and reliable reagent supply constraints its operations. Consequently, samples were frequently shipped outside the country for analysis with results often taking weeks to return—delays that significantly weakened timely evidence based decision-making during fast-moving outbreaks.

That reality has now changed The INSP laboratory routinely sequences priority pathogens including- influenza, Mpox (monkeypox), and SARS-CoV-2. With the expanded capacity critical public health intelligence —such as identifying circulating strains, monitoring mutations, and detecting emerging variants—is now generated and interpreted within Guinea, reducing reliance on external laboratories and enabling faster, locally informed public health action.

A key milestone in this transformation is the installation of a modern sequencing platform, the MiSeq i100+, provided through ASLM and Africa CDC with support from the Mastercard Foundation. According to Dr. Ramadan Keita, Bio-molecular Laboratory Manager at INSP, the system stabilized laboratory workflows and enabled uninterrupted sequencing, completing the laboratory's setup and empowering the team to operate with greater independence and reliability.

In addition to the equipment support, is coordinated training approach that strengthened both laboratory and analytical expertise. INSP teams received wet-lab and bioinformatics training facilitated by NCT Pasteur (Taka) with support from the WHO Regional Office, with sessions supported by Africa CDC in Ethiopia and Côte d'Ivoire, and hands-on laboratory technique training in the Democratic Republic of the Congo. These collective efforts built the confidence and technical depth required to manage the full sequencing workflow—from sample processing through analysis and international data sharing.

As part of Guinea's sentinel influenza surveillance system, the laboratory processes approximately 50 samples per week, including sequencing of positive COVID-19 samples. This steady throughput strengthens early warning capacity and improves Guinea's ability to respond rapidly to emerging outbreaks.

Beyond national benefits, the strengthened INSP laboratory contributes to regional and global surveillance networks, reinforcing the importance of connected systems and timely data sharing. Looking ahead, INSP plans to expand sequencing to additional pathogens under a One Health approach, further strengthen bioinformatics pipelines, and continue developing the next generation of scientists—ensuring Guinea remains ready to detect emerging public health threats.

The Fleming Fund Legacy in Africa

Dr. Juliana Ndasi,
ASLM

The end of a grant is not the end of a story. For countries strengthening antimicrobial resistance surveillance, the Fleming Fund's (FF) regional portfolio has left behind more than activities and outputs it has helped build systems, skills, and confidence that continue to shape public health action across Africa and parts of Asia. Implemented in multiple phases between 2017 and 2025, the regional portfolio through initiatives such as EQuAFRICA, MAAP, TADE, QWArS, and the Fellowship programme deliberately moved beyond short-term capacity building. Instead, it focused on building durable systems, standards, and public tools that countries can own, adapt, and scale long after external funding has ended.

Across more than 15 African countries and three (3) Asian countries, Fleming Fund regional grants supported national AMR programmes to strengthen the entire surveillance value chain. This ranged from improving specimen quality and laboratory performance, to building workforce competence, strengthening data analysis, understanding costs, and ensuring evidence informs policy decisions. Several flagship outputs are already embedded within national, regional, and continental practice, ensuring continuity well beyond the life of the grants.

One of the portfolio's most visible impacts has been the strengthening of laboratory quality and surveillance systems. Through EQuAFRICA, countries reviewed and implemented National Laboratory Quality Frameworks, strengthened External Quality Assessment (EQA), and launched Afri-EQA as a continentally relevant, African-led service. Together, these efforts improved the reliability and credibility of AMR data, an essential foundation for effective surveillance and action. Structured training and certification programmes,

including TrEQAP(in full?), helped shift quality assurance from a project-based activity to a routine part of laboratory practice, with sustainability built in through business planning, cost analyses, and market-oriented EQA delivery.

On data, the MAAP grant helped turn AMR information into something countries can consistently use. Building on earlier phases, MAAP delivered the Antimicrobial Resistance Surveillance Guidance for the African Region, which now serves as a shared blueprint for AMR, antimicrobial consumption (AMC), and antimicrobial use (AMU) surveillance across the continent. Through the AMR Knowledge Hub and related digital platforms, guidance, tools, datasets, and learning resources were brought together in one accessible space, ensuring continued use beyond the grant. MAAP also strengthened the evidence base through peer-reviewed publications and high-level policy reports, including landmark African Union outputs that continue to shape advocacy, financing, and strategic direction.

One of MAAP's most impactful innovations was AMDataNet, an open-source set of tools designed to make AMR, antimicrobial consumption (AMC), and antimicrobial use (AMU) data easier to analyse and act on. Piloted in countries including Uganda, Tanzania, Kenya, Zambia, Cameroon, and Gabon, AMDataNet reduced manual workloads, improved data quality, and shortened analysis timelines, enabling faster use of surveillance data for national reporting and policy decisions. Built as an open and adaptable platform and hosted on GitHub, AMDataNet remains a sustainable public good that countries and partners can continue to use, customise, and expand.

To support long-term sustainability, TADE focused on a challenge often overlooked in AMR surveillance: understanding what it truly costs. By providing practical costing methodologies, user-friendly tools, and clear protocols, TADE enabled countries to better quantify costs, identify investment gaps, and plan across One Health surveillance systems. This work has helped shift conversations from donor dependence toward evidence-based domestic financing and resource mobilisation.

One of the portfolio's most far-reaching contributions has been its investment in people. Through QWArS, AMR workforce development moved from ad hoc training to a recognised, competency-based qualification. Across 14 African and three

(3) Asian countries, more than 500 microbiologists and epidemiologists were trained through a blended learning model hosted on the ASLM Academy. The digital approach ensured continuity during COVID-19, expanded access to underserved professionals, and embedded training within a continental platform that remains active beyond the grant.

QWArS also prioritised sustainability through its Domestication Guidance Framework, supporting countries to integrate the qualification into national regulatory systems, CPD frameworks, and established programmes such as FELTP (in full). This approach gained continental traction, with the draft African Union Framework for AMR Control (2026–2030) explicitly calling for sustained investment in workforce initiatives like QWArS, signaling growing political and institutional ownership.

The Fellowship programme further demonstrated how targeted individual investments can deliver system-level impact. In Tanzania, fellows progressed from learning to leadership, contributing directly to national AMR governance, surveillance analysis, policy briefs, costing exercises, and continental advocacy. By embedding fellows within existing national structures, the programme ensured that skills, networks, and leadership capacity remain firmly rooted within country systems.

Collectively, the Fleming Fund regional portfolio leaves a coherent and mutually reinforcing legacy: stronger governance frameworks, quality-assured laboratories, harmonised surveillance guidance, skilled professionals, accessible data tools, and costed pathways for sustainability. More than a record of achievements, these legacy positions countries to sustain and advance AMR surveillance beyond project closure—marking a decisive shift toward domestically led, evidence-driven responses and a lasting return on investment.

Stories from the Fleming Fund Programme

Dr. Ranyl Nguena – Cameroon (Fellow)

Through my work with ASLM, I contributed to the development of 10 national strategic documents in Cameroon, including the national AMR action plan, integrated and genomic surveillance guidelines, and training materials for the animal health sector. These experiences opened opportunities for me to serve as an evaluator with FAO and WHO, where I assessed laboratories, surveillance systems, and national action plans across multiple African countries. I also led a continent-wide synthesis of FAO AMR evaluations conducted since 2018, compiling and analysing data from more than 220 laboratories and 27 surveillance systems. Beyond policy documents, the programme enabled me to support AMR mapping in Cameroon, contribute to regional training platforms, and help train new cohorts of professionals in AMR data analysis and epidemiology."

Dr. Christopher Sikombe – Tanzania

Acting Assistant Director for Vector and Parasitic Disease Control, Ministry of Livestock and Fisheries

"As an animal health Fleming Fund Fellow, I was equipped in the handling of surveillance data. We now have a clear surveillance framework with defined roles, SOPs for data collection and diagnosis, and are submitting our data internationally. The Fleming Fund broke down silos—animal, human, and environmental health sectors now collaborate under a One Health approach. With improved digital reporting and analytical capacity, we are shaping evidence-based policy and prioritising antimicrobial stewardship in animal health."

Dr. Godwin Minga – Tanzania

Central Veterinary Laboratory

"The QWARS microbiology track provided a strong foundation in laboratory diagnostics and quality, enabling us to generate reliable AMR data for national treatment guidelines. Through the fellowship, I expanded into antimicrobial use and consumption, contributing data that feeds into One Health decision-making. Improved collaboration with human health partners led to the decision to phase out the use of a critical antibiotic in animals. I remain committed to strengthening veterinary laboratories and advocating for continued investment in the AMR workforce."

Strengthening Laboratory Quality Systems Across Africa

By Phoebe Nzombe,
ASLM

Since its launch in 2009, the WHO AFRO Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLIPTA) programme, has played a critical role in strengthening laboratory quality across Africa. Developed to address limited investment in laboratory systems, inconsistent practices, and unreliable test results, SLIPTA has helped restore confidence in laboratory medicine and improve patient care.

Before 2010, less than 1% of medical laboratories in Africa were accredited to international standards such as ISO 15189. Accreditation was often viewed as complex, costly, and unattainable, particularly for public-sector laboratories. ASLM was selected as the WHO AFRO implementing partner for SLIPTA to provide technical leadership and coordinated support across countries.

Since implementation, progress has been substantial. The number of accredited laboratories in Africa increased by 75%, from 382 in 2013 to 668 in 2020. By 2024, a total of 674 laboratories across 28 countries had achieved SLIPTA certification—demonstrating growing commitment to quality management systems continent-wide.

In 2025, ASLM strengthened laboratory quality systems through targeted SLIPTA and QMS capacity-building activities across Africa. In Southern and Eastern Africa, refresher and auditor trainings were conducted in Botswana, Rwanda, Malawi, and Burundi, equipping over 80 in-country auditors with updated skills on the revised ISO 15189:2022 standard and the SLIPTA Version 3 checklist.
At the regional level, ASLM facilitated a Regional SLIPTA Auditor Training in collaboration with the Botswana Ministry of Health, bringing together participants from eight countries to strengthen cross-border quality improvement capacity.

In West Africa, ASLM partnered with the West African Health Organization (WAHO) under the PROALAB project, funded by the Federal Republic of Germany through KfW. A West African SLIPTA Auditor Training was conducted in Accra, Ghana, in November 2025, training 45 participants through parallel English and French sessions. The initiative created a regional pool of auditors and mentors to support laboratories across ECOWAS member states.

To deepen understanding of the updated ISO 15189:2022 standard, ASLM facilitated both virtual and in-person trainings in Liberia in November 2025. These engagements-built stakeholder awareness, strengthened national alignment on quality goals, and equipped laboratory professionals with practical knowledge to implement accreditation requirements.

In 2026, ASLM's QMS/SLIPTA Department will operationalise the Laboratory Quality Management Systems (LQMS) Coordination Unit, develop and pilot new training packages, launch a regional LQMS training calendar, and conduct refresher trainings for SLIPTA auditors. These efforts will ensure sustained progress toward high-quality, reliable laboratory services across Africa.

Through SLIPTA, ASLM continues to advance a vision of strong, quality-driven laboratory systems—anchoring diagnostics as a cornerstone of resilient health systems and improved health outcomes.

African-Led Solutions for Laboratory Quality

By Patience Dabula,
ASLM

Across Africa, laboratories are central to disease detection, surveillance, and patient care. Yet for years, access to external quality assessment (EQA) has been constrained by high costs, logistical challenges, and reliance on donor-driven programs. Afri-EQA was created to change this reality.

Established under ASLM's leadership, Afri-EQA is a regional, African-led EQA program designed to strengthen laboratory quality across the continent. The initiative prioritises local relevance, affordability, and sustainability, aligning EQA panels with Africa's public health priorities and investing in African EQA providers.

Afri-EQA supports laboratories across multiple technical areas, including HIV diagnostics, SARS-CoV-2, Mpox, and sequencing. In parallel, it strengthens local providers toward ISO 17043 accreditation through audits, mentorship, and technical assistance. More than sample distribution, Afri-EQA functions as a quality improvement system—providing performance feedback, corrective action guidance, and opportunities for continuous learning. As an ASLM legacy initiative, Afri-EQA represents a transformative shift toward African ownership of laboratory quality systems.

ASLM Podcast Series

Data-Driven Laboratory Intelligence: Insights from Groote Schuur Laboratory

Dr. Kgomotso Makhaola, ASLM

Contemporary scientific practice is increasingly defined by the integration of computational analytics with high-throughput laboratory systems. Advances in machine learning, molecular quantification, and automated quality-management platforms are accelerating discovery and strengthening diagnostic accuracy across clinical and public-health laboratories. In Africa, these global trends are intersecting with rapidly maturing laboratory networks, enabling more granular surveillance, improved assay performance monitoring, and evidence-based operational decision-making.

A central feature of this shift is the rise of data-centric laboratory medicine. Laboratories are no longer passive endpoints for specimen processing; they are becoming analytical engines capable of detecting system-level anomalies, validating instrument performance, and generating population-level insights from routine diagnostic data. Viral-load testing, antimicrobial-resistance surveillance, and genomic sequencing are particularly benefiting from this convergence, with computational tools enabling rapid interrogation of large datasets that would be impractical to assess manually.

A recent African Journal of Laboratory Medicine article (https://doi.org/10.4102/ajlm.v14i1.2953) provides a clear demonstration of this evolution through the work of the Medical Virology team at Groote Schuur Hospital Laboratory in Cape Town, South Africa. Following a major NHLS service disruption that

Members of the Medical Virology division, Groote Schuur Hospital Laboratory in Cape Town, South Africa. From Left to right: Associate ProfessorDiana Hardie, Dr Stephen Korsman, Dr Mose Kwon, Dr Khumo Sematle, Associate Professor Marvin Hsiao.

rerouted HIV viral-load specimens from Limpopo to the Western Cape, GSH observed an unexpected increase in low-level viraemia (LLV) among the diverted samples. To differentiate between analytical error, pre-analytical compromise, and true epidemiological variation, the team deployed a Python-based analytical pipeline to evaluate viral-load distributions, instrument QC metrics, turnaround-time deviations, and longitudinal patient-level trends.

The analysis showed no evidence of contamination, reagent drift, or delayed processing effects. Instead, the LLV elevation aligned with province-specific epidemiological patterns: Limpopo specimens demonstrated higher LLV prevalence (~20%) and lower viral suppression (~70%), compared with the Western Cape's ~13% LLV and ~81% suppression. These findings underscore the value of computational interrogation of routine laboratory data, particularly in high-volume virology settings where auto-verification workflows limit real-time human review. The GSH case illustrates how data science can be operationalized to validate laboratory integrity, contextualize unexpected result patterns, and support public-health interpretation during system disruptions.

Across the continent, similar data-driven approaches are emerging infectious- disease genomics, digital ology, and bio surveillance. Laboratories are increasingly integrating statistical process-control tools, anomaly-detection algorithms, and automated reporting pipelines to enhance diagnostic reliability and accelerate response times. As laboratory networks continue to scale, the ability to extract actionable intelligence from routine diagnostic output will become a defining capability for public-health resilience.

From Donor Reliance to Domestic Funding: The Investment Case for Diagnostics in Africa's AMR Fight

By Sylvester Moyo, ASLM

Antimicrobial resistance (AMR) is not a future threat—it is a present-day public health and economic crisis. As pathogens increasingly resist treatment, common infections become harder to manage, mortality rises, and health systems face escalating costs. The most immediate, high-impact intervention available is to strengthen laboratory diagnostics and the surveillance systems they feed.

The burden is already stark. Globally, bacterial AMR was directly responsible for an estimated 1.27 million deaths in 2019 (Murray, Christopher J L et al., 2019). In the African region, AMR has been reported as a leading cause of death, exceeding the combined death toll of HIV/AIDS, tuberculosis, and malaria—yet it remains under-recognized in many settings because surveillance is still patchy and diagnostic coverage limited (African Union AMR Landmark Report, 2024).

When diagnostics are weak, governments are effectively flying blind. Laboratory-generated surveillance data is foundational for guiding infection prevention and control (IPC), detecting outbreaks, informing treatment guidelines and national formularies, and shaping national AMR strategies. In practical terms, surveillance helps decision-makers prioritize interventions and allocate scarce resources where they will reduce morbidity, mortality, and costs. The economic argument is equally compelling. The World Bank has estimated that AMR could drive up global healthcare costs to more than US$1 trillion per year by 2050, with substantial macroeconomic losses also projected. For African health systems already operating under resource constraints, diagnostics are not a discretionary expense—they are a cost-containment tool that enables early detection, targeted treatment, and prevention of expensive complications.

To translate technical data into sustained political and financial commitment, surveillance outputs must be communicated in ways that policymakers can readily interpret and act upon. This is where routine analysis and clear indicators matter. One example is the Drug Resistance Index (DRI), which helps summarize complex resistance patterns into a more accessible measure that can support tracking, benchmarking, and accountability.

The DRI has been advanced through work linked to the Fleming Fund's Mapping Antimicrobial Resistance and Antimicrobial Use Partnership (MAAP), providing a continent-wide baseline of AMR and actionable insights to guide priority interventions.

Ultimately, diagnostics are the health system's eyes and ears. Strong laboratory surveillance helps governments shift from reactive crisis management to proactive prevention. It enables timely detection and response to outbreaks and priority diseases, generates the AMR data needed to guide treatment and prevent transmission, and safeguards public health, economic stability, and system resilience. Delivering this requires sustained domestic financing by African Member States.

Voices from the ASLM Ambassador Community

Across Africa, ASLM Ambassadors are shaping the future of diagnostics through advocacy, innovation, and mentorship. From strengthening laboratory systems and climate resilience to mobilising young professionals and expanding professional networks, these voices reflect the people driving change on the ground

Ronald Odero,
ASLM Ambassador, Kenya

Ronald Odero is a Kenyan laboratory and public health programme specialist with over 13 years of experience in infectious disease diagnostics, biosafety, biosecurity, and laboratory systems strengthening.

He currently serves as a Technical Advisor at AMREF Health Africa, supporting national tuberculosis, HIV, and antimicrobial resistance (AMR) diagnostic programmes in collaboration with the Ministry of Health, CDC, the Global Fund, and the Kenya Medical Research Institute (KEMRI).

As an ASLM Brand Ambassador in Kenya, Ronald advocates for diagnostic equity, quality systems strengthening, and sustainable laboratory innovation. His professional interests include climate-resilient diagnostic systems, biosafety and waste-management frameworks, and regulatory strengthening. He has contributed to national diagnostic policies and biosafety systems and led practical innovations, including the development of a Smart Waste Bin to enhance frontline biosafety.

Through his role, Ronald aims to address key challenges affecting laboratories in Kenya, including unreliable energy supply, climate-related temperature instability, infrastructure gaps, and weak environmental monitoring systems.

He promotes renewable energy solutions, IoT-based monitoring, improved laboratory design, and circular-economy approaches. He encourages ASLM members to contribute through research, innovation, advocacy, and mentorship, emphasizing the collective responsibility to strengthen Africa's diagnostic future.

Karemu Sharon Gakii
ASLM Student Ambassador, Kenya

Karemu Sharon Gakii is a Medical Laboratory Scientist trained at Kenyatta University and serves as the ASLM Student Ambassador for Kenya. Her passion for diagnostics has been shaped by academic training, clinical exposure, and active engagement within professional laboratory communities.

Sharon joined ASLM to be part of a continental movement advancing quality diagnostics, strengthening laboratory systems, and empowering young professionals. Through ASLM, she has gained valuable mentorship, peer networks, and a deeper understanding of the role diagnostics play in resilient health systems.

She is particularly excited to lead LabPro Next Gen, a TikTok platform aimed at promoting diagnostics among young and aspiring laboratory professionals. Through engaging digital content, she hopes to increase visibility for laboratory medicine, spark curiosity, and inspire the next generation of diagnosticians.

Her message to aspiring ASLM Lab Pro students is simple: your voice matters. She encourages young professionals to stay curious, remain committed, and confidently lead and innovate within the field.

Emmanuel Adamolekun,
ASLM Ambassador, Nigeria

Emmanuel Adamolekun is a Medical Laboratory Scientist at the Federal University of Technology Akure (FUTA) Teaching Hospital in Ondo State, Nigeria. He is actively engaged in strengthening laboratory systems and professional networks and works closely with the Association of Medical Laboratory Scientists of Nigeria (AMLSN) and the Young Medical Laboratory Scientists' Forum (YMLSF).

As an ASLM Ambassador, Emmanuel is committed to promoting ASLM's mission among laboratory professionals and students across Nigeria.

His focus is on increasing awareness of ASLM's value, expanding membership, and creating ways for young scientists to access continental opportunities and professional development.

Emmanuel works to address key challenges facing Nigeria's laboratory sector, including infrastructure gaps, limited access to quality diagnostics, workforce shortages, and insufficient continuous professional development. Through advocacy, capacity-building activities, and strengthened collaboration between ASLM and local professional bodies, he supports efforts to improve diagnostic quality and patient care.

He has led impactful initiatives such as a membership outreach campaign at the YMLSF National Summit in Lokoja, engaging over 400 young scientists and students, and co-organised the LabPulse Series webinar in partnership with ASLM and YMLSF, which convened more than 100 participants to discuss the future of laboratory medicine.

Emmanuel encourages new and aspiring ASLM members to engage actively, embrace learning opportunities, and use their voices to champion excellence in laboratory medicine across Africa.

ASLM Membership Opportunities

ASLM Corporate Membership

Roche Diagnostics: Gold

Roche is a global leader in biotechnology and diagnostics with a 70-year legacy in Africa, driven by a vision of equitable access to quality healthcare regardless of geography. In Africa, Roche Diagnostics is working to increase access to quality in vitro diagnostic (IVD) solutions tenfold to address critical diagnostic access gaps, through close collaboration with governments, the private sector, and health partners.

Beyond providing high-quality IVD solutions, Roche Diagnostics contributes to laboratory and health systems strengthening by offering technical assistance, policy and regulatory expertise, and strategic partnerships designed to maximise the impact of diagnostics and support the long-term sustainability of laboratory networks. Roche Diagnostics advances laboratory medicine in Africa through a holistic approach that addresses the full diagnostic continuum—from sample collection and network optimisation to linkage to care. This includes investments in physical and digital infrastructure, workforce capacity building, supply chain resilience, and product innovation. An example of this commitment is the Leadership Excellence for African Diagnostics (LEAD) programme, a joint initiative with ASLM that focuses on strengthening leadership, governance, and management capacity within laboratory systems across Africa. Roche Diagnostics joined ASLM as a corporate member to support its mandate of strengthening Africa's laboratory architecture and advancing health sovereignty. As an industry partner, Roche values the opportunity to collaborate with ASLM and its members to build stronger, more resilient, and integrated laboratory systems across the continent.

Molbio Diagnostics: Platinum

Founded in 2000 in Goa, India, Molbio Diagnostics is a global leader in in vitro diagnostics (IVD) committed to improving global health through innovative, equitable, and sustainable diagnostic solutions. With a footprint in more than 85 countries, Molbio's portfolio supports real-time disease screening and detection across a wide range of infectious and non-communicable diseases.

Molbio's approach emphasises decentralised molecular testing, enabling diagnostics to be delivered closer to patients across different levels of care—from primary health centres to national reference laboratories. By reducing turnaround times and supporting earlier clinical decision-making, Molbio contributes to improved patient outcomes and stronger disease surveillance systems. In Africa, Molbio works in collaboration with ministries of health, research institutions, and non-governmental organisations to expand diagnostic access, strengthen laboratory networks, and support workforce development. This includes training and certifying healthcare professionals in molecular testing at or near the point of care, addressing skills gaps, and empowering local teams to deliver quality diagnostics in underserved and remote settings.

Molbio joined ASLM as a corporate member based on a shared commitment to strengthening laboratory systems and improving access to quality diagnostics across Africa. Through ASLM, Molbio values the opportunity to engage with laboratory professionals, policymakers, and public health stakeholders, contribute to knowledge exchange, and align its efforts with regional laboratory standards and public health priorities.

Informa: Bronze

Informa is a global leader in business intelligence, academic publishing, and events, with a mission to connect professionals, foster innovation, and drive progress across industries. Through our World Health Exhibition (WHX) portfolio, we support knowledge sharing, professional development, and collaboration in healthcare. Our work health systems strengthening focuses on facilitating access to cutting-edge knowledge, fostering partnerships, and enabling capacity-building initiatives that empower healthcare professionals and institutions to deliver better outcomes.

In Africa, Informa contributes to advancing laboratory medicine and health capacity by creating platforms for collaboration, education, and knowledge exchange. We organise events and scientific conferences that bring together experts, policymakers, and practitioners to address critical challenges, share best practices, and explore innovative solutions. By fostering dialogue and partnerships, we aim to support the development of resilient health systems and enhance the quality of laboratory services across the continent.

Our decision to join the African Society for Laboratory Medicine (ASLM) as a corporate member was driven by our shared commitment to strengthening laboratory systems and improving health outcomes in Africa. ASLM's mission aligns closely with our values, and we recognize the importance of being part of a community that is dedicated to advancing laboratory medicine and public health. Through this membership, we see an opportunity to contribute to meaningful initiatives, collaborate with like-minded organizations, and support the collective effort to build sustainable health systems that benefit communities across Africa. We are honored to be part of ASLM and look forward to working together to achieve shared goals.

Building the future of pandemic preparedness:

How AGARI is transforming Africa's health security landscape

The Africa Genome Archive for Response and Insight (AGARI) platform was unveiled on November 21, 2025, in Addis Ababa.

Dr. Kwenda, ASLM
Dr. Tanui, Africa CDC

In an era where data is the new currency of progress, Africa has often been marginalised in terms of global scientific collaboration.

Fragmented systems, limited infrastructure, and siloed data have long hindered our ability to respond swiftly to health threats and use genomic insights for the greater good. However, this narrative is changing.

On November 21, 2025, the Africa Genome Archive for Response and Insight (AGARI) platform was launched at the Africa CDC's Annual Laboratory Symposium in Addis Ababa, Ethiopia.

This launch builds on the transformative progress of the Africa Pathogen Genomics Initiative (Africa PGI), the Africa CDC's flagship programme established to expand and democratise genomic surveillance across the continent.

Since 2020, the Africa PGI has grown the number of African Union Member States with functional pathogen genomics capacity rapidly, from just seven to 46 by 2025, while strengthening networks, infrastructure and workforces across its 54 member states.

As this genomic capacity has expanded, so has the volume of data generated, creating an urgent need for a secure, sovereign and interoperable data-sharing platform.

AGARI is the obvious next step: a continental system designed to ensure that Africa's genomic data is produced, stored, secured, governed and utilised on the continent.

AGARI is more than just a technological innovation; it is a bold declaration of Africa's digital sovereignty.

Developed with the support of the Mastercard Foundation and spearheaded by Africa Pathogen Initiative (Africa PGI), a flagship initiative of the Africa Centres for Disease Control and Prevention (Africa CDC), and in collaboration with the African Society for Laboratory Medicine (ASLM), AGARI is Africa's first secure, centralised, and sovereign ecosystem for pathogen genomics.

AGARI signals Africa's readiness to take the lead in genomic surveillance, data sharing, and collaborative research.

The global health crisis caused by the SARS-CoV-2 virus has exposed the vulnerabilities of health systems worldwide. For Africa in particular, however, it has highlighted an even greater challenge: the lack of integrated data platforms capable of supporting real-time genomic analysis and cross-border collaboration.

AGARI's creation of a secure, interoperable, and continent-wide ecosystem for genomic data promises to bridge the gaps that have historically slowed down our progress.

At its core, AGARI is a commitment to ensuring that African data is stored in Africa and is governed by its member states. It addresses the "silo problem" that has long plagued our health systems.

Historically, valuable genomic data has been isolated in national laboratories or research centers, invisible to neighboring countries facing the same threats.

AGARI breaks down these barriers, establishing a secure platform for data sharing. When a new variant of Mpox emerges in Central Africa, or a drug-resistant strain of Klebsiella pneumoniae surfaces in Southern Africa, this information can now be shared in near real-time, allowing countries to prepare before the pathogen knocks on their door.

However, the platform is more than just a repository; it is a tool for generating actionable intelligence. By integrating genomic sequences with epidemiological data, AGARI enables public health officials to visualise outbreaks as they occur.

It converts genetic codes into maps of transmission, offering a unified framework through which

researchers, public health agencies, and policymakers can access and share vital genomic data securely and compromising sovereignty.

This is not just about technology, but also about trust. AGARI is founded on the principle of ethical data governance, ensuring that African data remains under African control while contributing to global knowledge.

AGARI empowers countries to make evidence-based decisions faster, whether they are tracking outbreaks or monitoring antimicrobial resistance. We are shifting from a reactive to a proactive approach in terms of outbreak monitoring and AMR surveillance. The launch was just the beginning. AGARI's true success will be measured by how widely it is adopted. Member States must trust the system and use it. By standardising how we archive and analyse this data, we are creating an integrated resource that will bolster our continental public health responses against various disease threats. With our sights firmly set on the future, AGARI is a testament to the technical capabilities of Africa. We are not just participants in global genomic conversation anymore; we are leading it.

We have built the infrastructure to house our own biological heritage and the expertise to interpret it. By making data more accessible and encouraging collaboration, AGARI is laying the groundwork for continent-driven innovation. When it comes to fighting future pandemics, speed is the currency of survival. With AGARI, Africa is moving from being a passive recipient of global solutions to becoming an active contributor that is shaping the future of health. This transformation is made possible by the foundation laid through the Africa Pathogen Genomics Initiative (Africa PGI), which has rapidly expanded genomic capacity across the continent, and by the collective efforts of regional and global partners who continue to strengthen surveillance, laboratory systems, and emergency response.

Together, the Africa PGI and the Africa CDC's strategic partnerships form a cohesive ecosystem that empowers African Member States to detect threats earlier, share data securely and respond quickly to protect public health.

First published on www.the-star.co.ke

Forging continental immune system: Africa's genomic gains must become permanent

Preparedness is not a health expense—it is economic infrastructure.

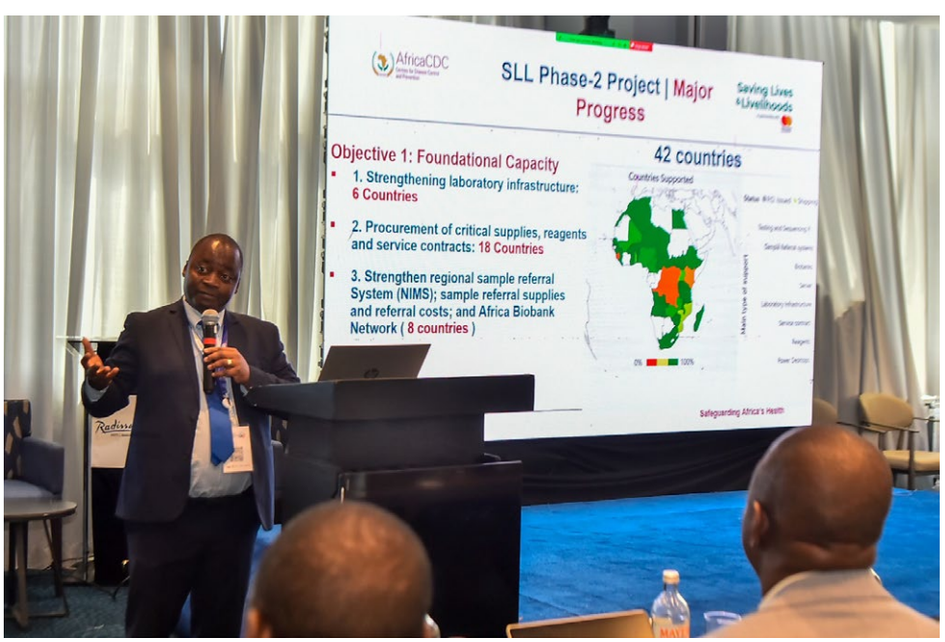
Edwin Shumba,
ASLM

In March 2021, a doctor in a Nairobi hospital faced a wall of silence. Her patients were falling ill with unprecedented speed, but the samples sat waiting, destined for a sequencing lab thousands of miles away in Europe and in the United States.

Africa's defence against the Covid -19 pandemic was hampered by a fragmented truth: we could not fully see the enemy. This was the cost of limited genomic sovereignty.

The Saving Lives and Livelihoods Pathogen Genomics Project was born out of this urgent need. The "why" was clear: without genomic capacity, Africa was blind in a pandemic.

The "how" was a story of partnership—Africa CDC, Africa Society for Laboratory Medicine (ASLM), and global allies came together to turbocharge the Africa Pathogen Genomics Initiative (Africa PGI), wiring a continental nervous system for outbreak response.



Edwin Shumba making his presentation in Nairobi, late 2025, on Saving Lives and Livelihoods/Photo: Rococo PR and Media

Phase 1 began in June 2022, with only seven countries having Next Generation sequencing (NGS) capacity in National public Health Institutes or

Participants at a last meeting on Saving Lives and Livelihoods/Photo: Rococo PR & Media

equivalent. Today, 46 countries are part of this genomic revolution. This is not just growth; it is continental transformation.

This is the truth: A continent that can identify a threat within its own borders cannot have its diagnostics held hostage by supply chains 8,000 miles away.

What did this leap build?
The Hardware of Sovereignty: Biobanking systems in eight regional hubs; sequencing machines for 20 nations; reagents for 45 labs; and bioinformatics engines in 26 countries. Even local vaccine production at The South African Health Products Regulatory Authority (SAHPRA) gained crucial support.

The Human Code: In Senegal and Kenya, 171 professionals from 35 countries became genomic sentinels, mastering the language of pathogens. Hands-on training in genomic sequencing and Bioinformatics was provided at the centers of excellence across the continent. How was this achieved?

The Integrity of Data: External Quality Assurance moved us from guesswork to guarantee. 577 labs achieved a 92.5% pass rate in polymerase chain reaction (PCR) testing—a bedrock of trust.

The Architecture of Coordination:
The African Pathogen Genomics Surveillance Policy Framework and Network Information Management System (NIMS) sample referral system mean we no longer fight in the dark. The Architecture of Data Sharing: The launch of AGARI (Africa Genomic Archive for Response & Insights)—Africa's first genomic data-sharing platform—cements our ability to turn raw data into actionable intelligence. These are not symbolic wins. They are the immunological synapses of a continent. But this new capacity is a seedling, not yet a deep-rooted tree. Training cannot keep pace with need.

Bioinformatics prowess is concentrated in pockets. As more countries sequence, quality wavers—a stark reminder that capability requires constant calibration.

Most critically, we remain perilously dependent on imported reagents, vulnerable to the next global shock. A temporary pause in activities laid bare the risk of progress built on donor timelines, not domestic mandate.

The genomic sequence that shortens an outbreak by two weeks is worth more than gold. It protects markets, schools, and the very fabric of our societies.

The next chapter is about institutionalisation, not implementation: Codify the right to see: Make genomic surveillance a legislated public good, funded by permanent budget lines. Mandate excellence: Annual External Quality Assessment (EQA) participation must be non-negotiable, with public scorecards driving improvement.

Scale the army: Move from ad-hoc workshops to structured fellowships and career pathways. We need hundreds, not dozens.

Secure our tools: Implement pooled procurement, customs waivers, and incentivise regional manufacturing. Govern data with trust: Domesticate the continental policy framework into national law. Health data is a strategic asset.

The Saving Lives and Livelihoods began as a lifeline in crisis. It has grown into a continental immune system. But momentum is not a destination. The choice is stark: lock these gains into law and budgets—or pay a devastating premium in lives and livelihoods when the next threat emerges.

If we choose wisely, future outbreaks will be shorter, smaller, and less destructive.

This is the ultimate return on investment: not just lives saved today, but a future where African livelihoods flourish, secured by our own vigilant hands. This is indeed the power of collaboration. Today, Africa's livelihoods are safer.

First published on www.the-star.co.ke

ASLM 2025 Convention on Diagnostics, Nairobi Kenya


Simplifying AMR surveillance: Why it is important


Evidence to Policy to Practice: Global Action is Needed


ASLM Champion for Laboratory Services

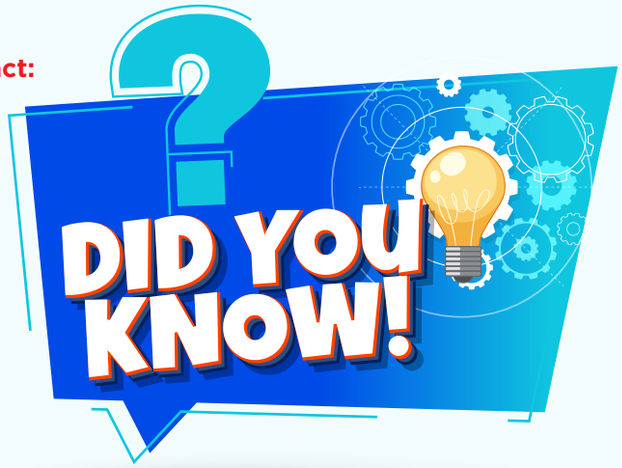

ASLM Beacon of Innovation Award


ASLM Convention partner Award – ICARS

2025 LabCop Annual Meeting

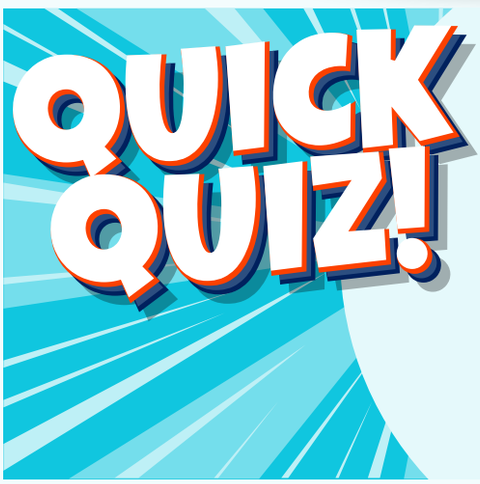
Previous Issue Fun Fact:

"In the previous issue, we shared that the world's first diagnostic test dates back over 3,500 years, when urine colour was used to assess health in ancient Egypt".



This issue's fun fact:

The first use of molecular diagnostics in outbreak response dates back to the late 20th century and today, genomic sequencing can identify and track pathogens within days, sometimes hours, transforming outbreak response across Africa.



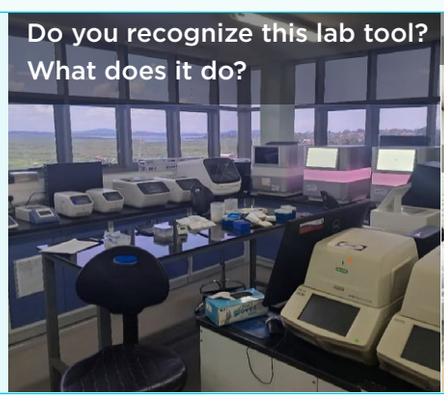
Are You a Diagnostic Detective? ANSWER REVEALED

Last Issue's Question:

Which infectious disease was diagnosed using a 'sniff test' in early medical history?

A. Typhoid	C. Tuberculosis	✅ Correct Answer:
B. Plague	D. Cholera	D. Cholera

Physicians historically associated cholera with a distinctive, sweetish odour—long before laboratory confirmation methods existed. Today, diagnostics have thankfully evolved far beyond the senses, underscoring how far laboratory medicine has come.



Thank you our readers

Thank you for continuing to amplify the voice of diagnostics with us. LabVoice is your platform to celebrate progress, spark dialogue, and strengthen Africa's diagnostic community.

Stay connected:

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