mRNA Technology Transfer Programme's Phase 2.0 discussed with partners on the sidelines of G20 Summit

With the G20 Health Working Group, global health leaders are coming together to set the foundation for a new phase of the mRNA Technology Transfer Programme

JOHANNESBURG, GAUTENG, SOUTH AFRICA, June 20, 2025 /EINPresswire.com/ -- In parallel with the G20 Health Working Group, global health leaders are coming together in Johannesburg to set the foundation for a new phase of the mRNA Technology Transfer Programme – a pioneering initiative transitioning from proof of concept to sustainable, commercially viable manufacturing, while enhancing pandemic preparedness and regional health security.

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>
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Launched in 2021 by the World Health Organization (WHO) and the Medicines Patent Pool (MPP), with the support of the Government of South Africa, France, Belgium, Canada, the European Union, Germany and Norway, the Programme has successfully enabled 15 Partners across Latin America, Africa, Eastern Europe and Asia to receive foundational mRNA technology. Now, it is moving into Phase 2.0 (2026–2030), with the aim of empowering regional manufacturers to scale up commercially sustainable production of mRNA-based vaccines and therapeutics at Good Manufacturing Practices (GMP)-grade.

"The mRNA Technology Transfer Programme is delivering on its promise to build capabilities in low- and middle-income countries," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "The Pandemic Agreement adopted by the World Health Assembly also includes legally-binding commitments to strengthen local production. We must now translate those commitments into capacity on the ground, so that when the next pandemic strikes, we meet it more equitably and more effectively."

“This is a unique opportunity, driven by the pandemic. The foundations are in place — but without sustained political will, the promise of equitable mRNA access could slip through our fingers.” said Charles Gore, Executive Director of the Medicines Patent Pool. “What we need now is the courage to build on our investment to date, to align, and to realise the full value and impact of what we started.”

From technology access to market-ready solutions

The Programme is moving from focus on technology acquisition to defining how each partner will translate it into real-world impact. Each manufacturer is now focused on developing an economic case for long-term, flexible, and commercially viable manufacturing — with the capacity to produce mRNA vaccines in inter-pandemic periods and pivoting rapidly in response to future health emergencies.

Product focus areas include:

mRNA vaccines – for pandemic and priority diseases (e.g., influenza, TB, HIV, malaria, dengue, leishmaniasis);

mRNA therapeutics – such as oncology and monoclonal antibody (mAb) treatments; and

Biologicals beyond mRNA – including near-term commercial products to support facility viability.

“We have successfully progressed with the technology transfer to eight Partners — a testament to the strength and openness of this platform,” said Prof. Petro Terblanche, CEO of Afrigen Biologics. “What comes next is even more exciting: Afrigen is on the cusp of receiving GMP accreditation, positioning us not only as a technology originator but as a sustainable manufacturing and innovation partner for the Global South. We will continue to work with local and global partners on the development of new vaccines prioritizing the burden of disease in LMICs.”

A diversity of models, one global goal

The Programme’s Phase 2.0 recognises that there is no one-size-fits-all model. Manufacturers will develop tailored business strategies based on national health needs and policy, regulatory maturity and regional market dynamics. Some, like Bio-Manguinhos and Sinergium in Latin America, BioFarma in Indonesia, and Biovac in South Africa, are already piloting investment roadmaps with detailed market, regulatory, and COGS (cost of goods sold) modelling. Others will

receive bespoke support to develop their investment cases.

Crucially, sustainability will depend on country and regional-level procurement commitments, pooled purchasing mechanisms, and cross-border alignment — especially in Africa and Asia, where national markets alone may be insufficient to support GMP-level manufacturing scale.

“We need to back science with smart policy,” said Dr Mmboneni Muofhe of South Africa’s Department of Science, Technology and Innovation. “This is about creating a new ecosystem for public health security, grounded in regional ownership, long-term strategy and investments.”

Rising demand meets structural barriers

While market opportunities for mRNA vaccines and therapeutics are growing — from seasonal influenza and HPV to innovative cancer treatments — the Programme acknowledges structural hurdles:

Misinformation and vaccine hesitancy;

Shifting donor funding priorities that reduce funding availability;

High clinical trial costs; and

Need for supportive policies and well-defined procurement pathways.

The mRNA Programme highlights both the growing interest in regional R&D consortia focused on target diseases of regional relevance like leishmaniasis and malaria, and the drive to advance next-generation technologies focusing on dose sparing, reduced cost of goods and thermostability.

Edwin Reichel
Flow Communications
+27 114404841
email us here