

PRESS RELEASE: New agreement paves way for development of first African-owned COVID-19 vaccine

A year after the establishment of the mRNA Vaccine Technology Transfer Hub, Afrigen and Univercells enter a new agreement to develop the first African-own COVID-19 vaccine

CAPE TOWN (SOUTH AFRICA) & BRUSSELS (BELGIUM), JUNE 21, 2022 – One year since the establishment of the mRNA Vaccine Technology Transfer Hub, a collaboration between two of the world’s leading biotech companies - **Afrigen Biologics** and the **Univercells Group** – was announced today. This agreement intends to pave the way for the development of the first-ever African-owned COVID-19 vaccine. The collaboration will focus on the development of a novel mRNA vaccine using intellectual property from the collaboration partners, as well as developing new IP, and is intended to supercharge access to the vaccine. Afrigen and Univercells will be supported in the collaboration by mRNA specialist **eTheRNA**.

The companies will collectively tackle two major challenges that have hampered the rollout of COVID-19 vaccines in Africa and other low- and middle-income countries (LMICs): lack of local cost-effective production, and the need for cold- or super-cold chains.

At present, African countries import 99% of all the vaccines that they use. This lack of local production has contributed to challenges in COVID-19 vaccine rollout where, although more than 60% of the global population has been fully vaccinated, some LMICs are yet to deliver even a single dose to 1% of their population. An African-owned COVID-19 vaccine is considered a critical step to closing this gap.

Furthermore, cold chain storage and distribution, especially the super-cold chains required for existing mRNA vaccines are expensive and present a logistical challenge for many countries. The agreement paves the way for the production of an mRNA vaccine that is thermostable at temperatures used in regular refrigerators, making it easier to store and distribute in rural and remote locations where fewest people are currently vaccinated.

Afrigen Biologics (“Afrigen”) will host the new collaboration at their sites in Cape Town, South Africa. Afrigen hosts the World Health Organization’s Global mRNA Vaccine Technology Transfer Hub and is working to facilitate production of mRNA vaccines at over 15 designated manufacturing sites in LMICs across the world. The agreement, and the eventual vaccine produced, will build on the expertise developed through the Hub.

Speaking at an event to mark the signing of the agreement, Professor **Petro Terblanche**, Afrigen Managing Director, said: “The COVID-19 pandemic has shown that there is a pressing need to build African capabilities in vaccine development and manufacturing. Without the capacity to make their own vaccines, too many countries haven’t been able to access them. This agreement is an important step towards ensuring that everyone, everywhere – in Africa, and across LMICs – has access to life-saving vaccines and medicines.”



In addition to developing a novel vaccine, the collaboration intends to pioneer a new model of manufacturing for mRNA vaccines. Quantoom Biosciences, a Univercells company, is developing an mRNA production technology that encompasses all the steps of RNA production, from sequence contract to large scale production, allowing for rapid growth and scale-up. Dramatically more efficient than existing methods, it was built with distributed and de-centralized manufacturing in mind – ensuring that processes can be easily transferred across LMICs. The system is designed to support the expansion of capacity and enables production at a large scale – allowing for rapid growth and scale-up. By working with eTheRNA, the COVID vaccine produced on the Univercells system will have improved thermostability, which is critically important in LMICs.

Dr Martin Friede, Vaccines and Biologicals (IVB), World Health Organisation, said, “The WHO mRNA Technology Transfer Hub is designed to establish and share know-how on mRNA vaccines with LMICs globally. It will increase the capacity of LMICs to be self-sufficient in terms of outbreak response, and enables the addressing of regional needs through R&D. This unique partnership model enables the sharing of information, technology and human capital, and has potential to shape vaccine production worldwide. The WHO and its partners are committed to ensuring that we build robust system to further the cause of vaccine equity and access.”

José Castillo, Co-Founder of Univercells Group and CEO of Quantoom Biosciences, said: “The existing global model for vaccine manufacturing has failed millions of people during the pandemic. We believe a new model is needed where manufacturers are not locked-in to any individual product but have technology which enables them to manufacture the right vaccine or medicine at the right time. Our system, which was initially developed with funding from the Bill & Melinda Gates Foundation, is built with this flexibility in mind. The foundation has provided funding to Univercells for many years to support the development of biomanufacturing solutions that promote affordability and autonomy. We are delighted to work with our partners to produce a truly free-to-operate mRNA vaccine platform.”

Bernard Sagaert, Chief Operational Officer of eTheRNA, concluded: “This research and development collaboration will be supported by multiple layers of our technologies, from the processes licensed to Quantoom previously for the procedure to run on the equipment, to the formulation of the lipid nanoparticles, including the processes to make the LNP and the technology and the processes needed to produce a thermostable vaccine through lyophilisation. This will allow for storage in normal fridges which are more accessible than -20 or -80°C freezers, especially in LMIC. All of these technologies are needed for the end goal of making a vaccine accessible for low and middle income countries. We are very happy to be part of this initiative and work together to enhance the prospects of making vaccines more accessible globally.”

For more information or to interview any of our senior team, contact Cecile Hisette, info@cecili-z.be, +32.473.36.14.11.





About Afrigen

Afrigen Biologics and Vaccines is a Cape Town based biotechnology company strategically directed, supported, and capitalized by Avacare Healthcare Group and the Industrial Development Corporation (IDC) of South Africa. It was founded in 2014 by Steven G. Reed (PhD) and Erik Iverson (JD, LL.M), both of the Infectious Diseases Research Institute (IDRI) in Seattle. Afrigen drives a business strategy focussing on product development, bulk adjuvant manufacturing, and supply and distribution of key biologicals to address unmet healthcare needs. Through international partnerships and local capacity building, Afrigen has established the first ever adjuvant production and formulation technology centre on the African continent. This centre, in partnership with IDRI, a world leader in adjuvant development, focuses on next generation vaccine adjuvants, which are not only geared at preventing disease, but have therapeutic value. These adjuvants confer added potency and durability to vaccines.

www.afrigen.co.za

About Univercells

Univercells is a global life sciences company with the mission of making biologics accessible to all. Using our combined expertise in scaling, production, and bioprocessing, Univercells finds new and sustainable ways to widen access to life-changing drugs. Our affiliate companies deploy innovations in infrastructure, drug substance manufacturing, equipment manufacturing, equipment design, training, and on-the-ground health services to drive down costs, shrink manufacturing footprints and meet the needs of the entire health value chain. Headquartered in Jumet (Belgium), Univercells is supported by regional and national investors, as well as international investors active in vaccines and healthcare, such as the European Investment Bank and Global Health Investment Fund, among others. Quantoom Biosciences, a Univercells company, is focused on mRNA.

www.univercells.com

About eTheRNA

eTheRNA is an mRNA technology discovery and development company with a full platform of integrated capabilities including: mRNA construct design and optimization; proprietary lipid nanoparticle (LNP) formulations which have demonstrated organ-specific distribution preclinically; process development and manufacturing capabilities for mRNA drug substance (gram GMP scale); and proprietary LNP / final product formulation technologies, including a lyophilized thermostable formulation in advanced development. With a focus on immune modulation and T Cell stimulation, eTheRNA is pursuing internal development programs to validate its core technologies and enable strategic partnerships in a range of geographic



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markets and therapeutic areas. eTheRNA is backed by a global syndicate of leading investors and is headquartered in Belgium with offices in New York and Hong Kong.

Disclosure Statement

The contents of this announcement include statements that are, or may be deemed to be, "forward-looking statements". These forward-looking statements can be identified using forward-looking terminology, including the words "believes", "estimates," "anticipates", "expects", "intends", "may", "will", "plans", "continue", "ongoing", "potential", "predict", "project", "target", "seek" or "should", and include statements the Company makes concerning the intended results of its strategy. By their nature, forward-looking statements involve risks and uncertainties, and readers are cautioned that any such forward-looking statements are not guarantees of future performance. The Company's actual results may differ materially from those predicted by the forward-looking statements. The Company undertakes no obligation to publicly update or revise forward-looking statements, except as may be required by law.



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