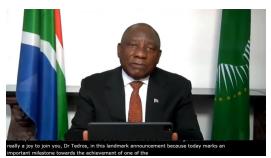
First vaccine technology transfer hub identified in South Africa – Key takeaways from WHO announcement on June 21st, 2021

WHO Media briefing on June 21st, 2021

Through COVAX, WHO announced it is supporting South African consortium to establish first COVID mRNA hub



Dr Tedros Adhanom Ghebreyesus OMS Director General



Cyril Ramaphosa South African president



Emmanuel Macron French president

Key takeaways

South African consortium comprises:



- Afrigen
- Biovac
- A network of universities







Follows WHO's call for EOI on April 16th, 2021

• 28 offers received to either provide technology or to host a hub or both



Tech being identified with 2-pronged approach

- "Late-stage" tech: fast & secured option (9-12 months) but with potential constraints
- "Early-stage" tech: lengthier & more uncertain, but offering broad scope / high program suitability





- Confirm technology donor
- Implement (governance, funding, etc.)
- Identify subsequent hubs, launch of EOI calls for other techs and recipients



Critical next steps following SA mRNA hub announcement



Implement South African proposal

- Set up dedicated cross-working group team within WS3 / South African consortium
- Continue discussions on hub design (governance, regulatory, funding, etc.)
- Prepare (virtual) site visit Mid-July



Select technology for mRNA hub

- Questionnaires shared & received - under review with independent committee
- Select technology donor with 2pronged strategy: pro-active reach out to late stage tech holders while progressing with earlier stage tech holders





Identify other potential hub(s)

- Finalize detailed due diligence to assess opportunity of additional mRNA hub(s)
- Assess opportunity & initiate
 EOI for other technologies



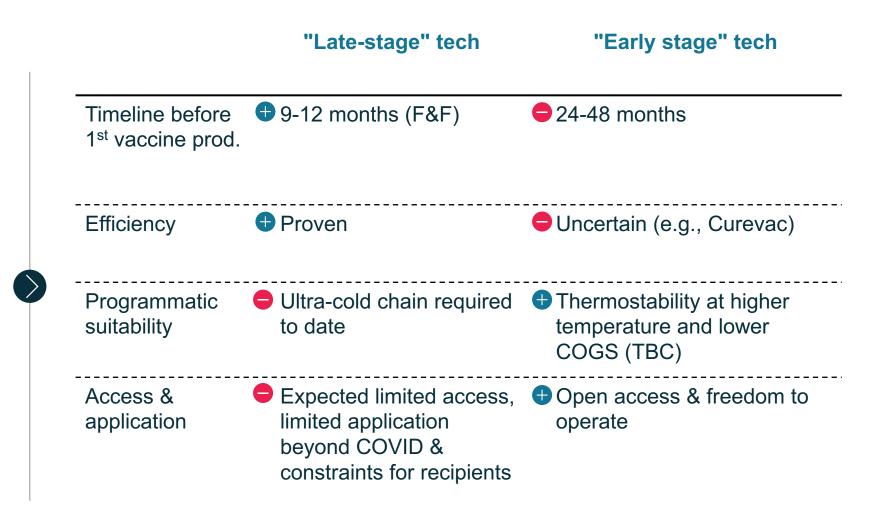


mRNA tech | For South Africa hub, WS3 is leading a 2-pronged strategy to select tech partner

Discussions being led with potential tech partners with a 2-pronged strategy:

- Option 1 "Late-stage" tech: fast & secured option but with potential geographical constraints / lower programmatic suitability
- Option 2 "Early-stage" tech: lengthier & more uncertain option, but offering broad scope / high programmatic suitability

Both options present pros & cons and could be concomitantly implemented within South Africa



Zoom | Short- and medium-term SA hub activities

(Under discussion with hub consortium and Advisory Group)

Hub is comprised of two main entities supported by academic partners



Product developer and subsequently, training center for manufacturers from other countries

Initial tech(s) reception

Product development and process selection

Possible acceleration path explored with late-stage tech

Clinical studies

SOP design and validation

Establish training program

WIP

Open training center to trainees for mRNA Tech Transfer (also as needed light GMP and QMS trainings)



Manufacturer and 'pilot' recipient to test and improve training & TT

mRNA facility preparedness

Initiate tech transfer from Afrigen + SOP implementation

Test and improve training program

Finalize product development, seek approval (Clinical data package shared with all tech recipients to accelerate product approval in geographies)

select and prioritize

tech recipients

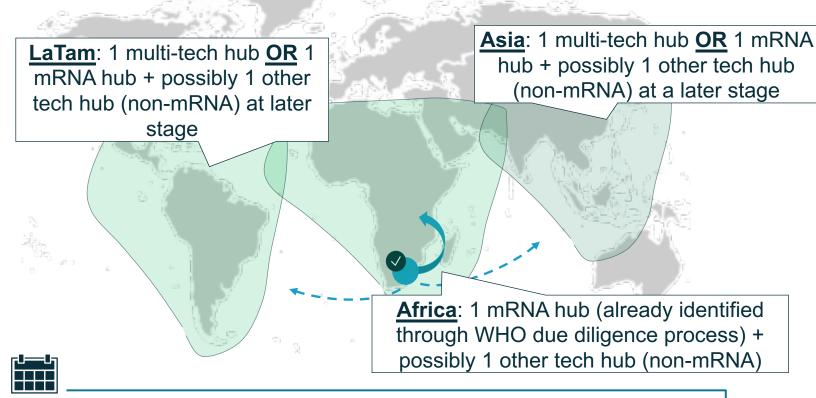
Produce Vx





SA hub is the first step of an equitable, consistent & sustainable hubs / recipients network

Proposed network <u>could</u> include additional hubs (3 to 6 in total), ensuring global coverage and training for recipients with different degrees of support



- Q3 2021: Tech selection for mRNA hub
- Q3/Q4 2021: Other mRNA hubs / beginning of recipients selection
- Q3/Q4 2021: Other tech hub assessment & selection

Deep-dive: WS3 has been structured around five Working Groups

Workstream 3



WG1: Tech Innovation, Selection & IP

Evaluate & select target technologies for transfer, analyze IP barriers for implementation, launch EOIs & field manufacturer responses to inform approach



WG2: Prod. Dev, Manufacturing & Plants

Inform & facilitate selection of hub/recipient sites, detailed site & infrastructure design, assess workforce needs & plan tech transfer & workforce training program



WG3: Regulatory & Clinical Dev.

Inform & facilitate
selection of
hub/recipient sites,
detailed site &
infrastructure design,
assess workforce
needs & plan tech
transfer & workforce
training program



WG4: Business Model & Financing

Estimate costs to implement, determine inter-pandemic sustainable business models, develop market shaping & policy strategy to enable sustainability, support mobilization of finance



WG5: Hub & Recipient Governance

Design hub governance model, including coordination of operations during and between pandemics, coordination of access to licenses, coordination of access to capacity, etc.



Objectives

Technical Advisory Panel

Group of working group participants with expertise across topics areas (from industry, academia, etc.) who will review workstream proposals and provide input and recommendations to shape final solution