Regulatory challenges for COVID-19 Vaccine Development

Dr. Melanie Saville
5th November 2020
Access to COVID-19 tools (ACT) accelerator

CEPI is pursuing a range of approaches to help overcome these challenges and increase global access to any future COVID-19 vaccine.

We are founding partners of the ACT (Access to Covid-19 Tools) accelerator, a global coalition to accelerate the development, production of and equitable access to new Covid-19 diagnostics, therapeutics and vaccines.

ACCESS TO COVID-19 TOOLS (ACT) ACCELERATOR
A Global Collaboration to Accelerate the Development, Production and Equitable Access to New COVID-19 diagnostics, therapeutics and vaccines

VACCINES (COVAX)

CEPI
Development & Manufacturing
Led by CEPI, with industry

Gavi
Procurement and delivery at scale
Led by Gavi

Key players

World Health Organization
Policy and allocation
Led by WHO

SOURCE: (ACT) ACCELERATOR Commitment and Call to Action 24th April 2020
COVAX goals

• To develop the largest and most diverse actively managed portfolio of vaccine candidates so that the best vaccines are made available and the world has access to the best science

• To deliver 2 billion doses by end of 2021

• To guarantee fair and equitable access to COVID-19 vaccines for every country in the world
An ongoing COVID-19 landscape assessment is maintained to keep abreast of vaccine candidates – by development phase and platform type

- **Exploratory**: project has not started with in-vivo testing
- **Preclinical**: project started to test in-vivo / manufacture CTM but not yet started with testing on human
- **Start of clinical phases** is defined as first subject dosed

**Date**: 21 October 2020
The COVAX R&D&M portfolio consists of 8 candidates in clinical development

<table>
<thead>
<tr>
<th>Viral vectors</th>
<th>RNA</th>
<th>DNA</th>
<th>Protein-based</th>
<th>Inactivated</th>
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<tr>
<td>Shenzhen GIMI - aAPC</td>
<td>Walvax Biotech mRNA</td>
<td>Imperial saRNA</td>
<td>VLP Medicago</td>
<td>Shenzhen Kangtai</td>
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<td>Merck TMV-083</td>
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<td>Genexine GX-19</td>
<td>Sichuan RBD</td>
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<td>Vaxart VXA-CoV2-1</td>
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<td>Inovio INO-4800</td>
<td>Covaxx Covax-19</td>
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<td>IDT MVA</td>
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<td>Vaxine MVC-CO</td>
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<td>Gamaleya (rAd5, rAd26)</td>
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<td>FBRI SRC EpiVacCorona</td>
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<td>Janssen Ad26.COV2-S</td>
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<td>SpyBio / SII VLP-Spycatcher</td>
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<td>Under regulatory rolling review</td>
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<td>Anhui Zhifei Recombinant</td>
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<td>Novavax NVX-CoV2373</td>
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<td>Under study pause</td>
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1 U.HK programme distinct from CEPI-funded programme
2 Cansino has been approved for military use in China
3 Gamaleya (rAd5, rAd26) and FBRI SRC (EpiVacCorona) has been conditionally registered in Russia
4 Emergency use approval in China and UAE
5 Under regulatory rolling review
6 Under study pause

Date: 21 October 2020
94 self-financing economies joined the COVAX Facility and the 92 AMC. Total of 184 economies.
COVID-19 vaccine development guidance

FDA/CBER

• June: Development and Licensure
  • Primary efficacy endpoint point estimate at least 50% and with the lower bound 30%
• October: Emergency Use Authorization
  • Data from phase 3 should a median follow up duration of at least 2 months after completion of the full vaccination regimen
• October: VRBPAC
  • Guidance for continuation of blinded phase 3 trials if EUA issued
  • What studies following licensure

EMA

• Conditional Marketing authorization the most likely scenario
  • Positive benefit/risk, with post authorization commitments needed
• Compassionate use program – support EU nationals – lower bar and would need a solid benefit/risk per country.
WHO EUL or Pre-Qualification?

**EUL**
- Risk benefit assessment of essential set of quality, safety and efficacy data for use during PHEs
- Rolling review of data
- Assessment performed by WHO independent experts in collaboration with National Regulatory Authorities (WLA)
- Reliance on WLA - abbreviated process under oversight of mature regulators (evaluation and oversight of programmatic aspects by WHO)
- Pre-submission meetings encouraged
- Post-deployment monitoring
- Time limited recommendation
- Development should continue for MA/PQ

**Pre-qualification**
- Review of extensive quality, safety and efficacy and PSPQ for international supply
- Assessment performed by WHO independent experts
- Reliance on WHO Listed Authority (WLA) - abbreviated process under oversight of mature regulators (evaluation and oversight of programmatic aspects by WHO)
- Pre-submission meetings encouraged
- Post-PQ monitoring
- Reassessment/requalification
Challenges 1/2

• Long term safety and efficacy data
  • Interim analyses
  • Placebo cross over
  • Need for booster

• Expanded access versus Emergency Use versus licensure?

• PASS/PAES
Challenges (2/2)

• Regulatory acceptance for the use of:
  • QR codes
  • Barcodes
  • Simplified label

• Authority batch release testing:
  • Widespread acceptance of batch release certificates/information generated by a limited number of NCLs
  • “Global” agreement on tests to be performed per vaccine type needed.

• GMO regulations
• Post-approval changes
• Stability data
Call for Regulatory pragmatism

• Change/Allow:
  • WHO to rapidly grant prequalification or EUL status based on the approval of a MRA,
  • Establish a standardized vial label without further review and approval by a country/region
  • QR codes for expiry date and package leaflet in multiple languages

• Waive:
  • GMO requirements for COVID-19 vaccines
  • Country-specific regulations that require product developers to submit country-specific dossiers
  • Specific batch release testing requirements for MRA emergency/fully authorized or WHO PQ listed/EUL products.
A Regulatory Advisory Group (RAG) supports SWAT teams

- Monthly meetings
- Questions/issues from SWAT teams
- Publish Q&As on WHO website
- Additional Communication via COVAX newsletter
COVAX Regulatory Advisory Group Members

World map by www.freeworldmaps.net
COVAX Regulatory Advisory Group – external communication

https://epi.tghn.org/covax-overview/

COVAX Overview

COVAX is the only solution that will deliver fair, equitable access to vaccines for every country that participates.

It aims to provide an "end-to-end" solution to the challenges of vaccine development, manufacture and supply in this pandemic – bringing together the skills, expertise and resources of the public, private and philanthropic sectors at a global scale.

Together we aim to produce 2 billion doses of vaccine and distribute them globally and fairly in 2021. To support the vaccine R&D that is critical to achieving this goal, COVAX estimates that it needs $2.5bn to progress three vaccines to licensure, which will be made available to the world through COVAX.

https://www.who.int/publications/m/item/frequently-asked-questions-on-regulation-of-covid-19-vaccines

Newsletter from SWAT teams and RAG

https://tghn.us2.list-manage.com/subscribe?u=2146a0400e260163a7dfb5b83&id=cc13a5df53
CEPI