

# Major outcomes of discussions from the WHO working group on COVID-19 animal models

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**R&D Blueprint**

Powering research  
to prevent epidemics

To develop and standardize **animal models** to evaluate the potential for vaccine effectiveness and to understand the potential for enhanced disease after vaccination

**+200** experts from **+20** countries and **+60** entities were convened since Feb 2020

Live deliberations on **results**

Researchers collaborating on **protocols** and processes

Live state of the art **reviews** to guide developers and researchers

Info on **global capacity** to conduct animal studies



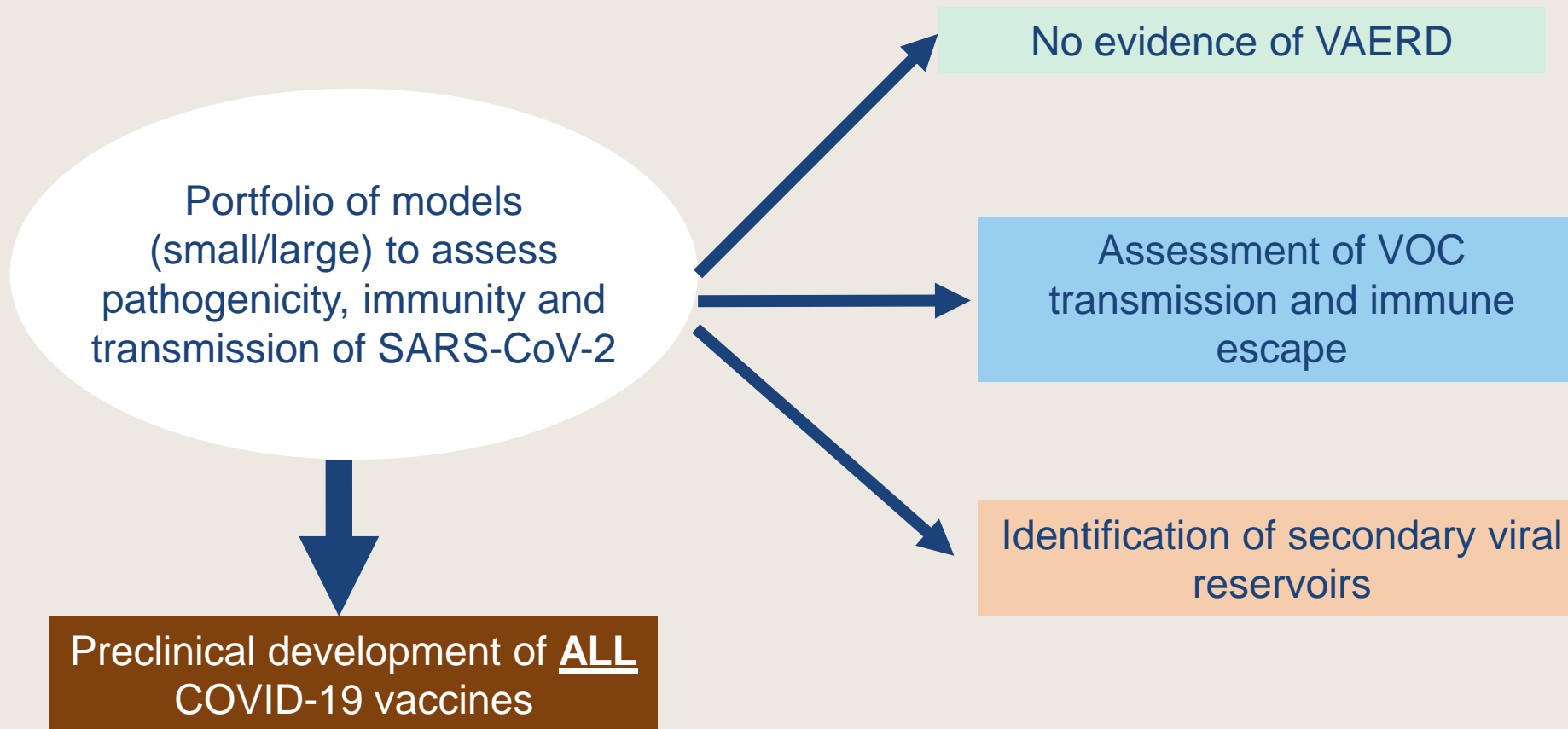
Facilitate access to global resources for **accelerated** evaluation

Enhanced **access** to animal laboratories for **ALL** developers

# Achievements

(Munoz-Fontela et al., Nature 2020; Munoz-Fontela et al., PloS Pathog 2021)

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- 1) Unprecedented data sharing
- 2) Value of pre-prints?
- 3) Avoiding of unnecessary repetition
- 4) Standardization
- 5) 'Proud to be WHO'

# Looking at 'Pathogen X'

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- 1) Experience can save time and lives (SARS-1, MERS)
- 2) Rapid sharing of data, ideas and models will reduce the time to develop vaccines and therapeutics
- 3) A good understanding of basic pathogenesis and immunology will speed vaccine testing (e. g. T cell epitopes in SARS-CoV-2 spike).  
Translational approach alone is not enough!



- 1) Animal model repositories
- 2) Standardization (e. g. hamsters)
- 3) Lack of immune reagents
- 4) Animal testing protocols and euthanasia endpoints
- 5) Sharing, sharing, sharing...

# Thank you

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