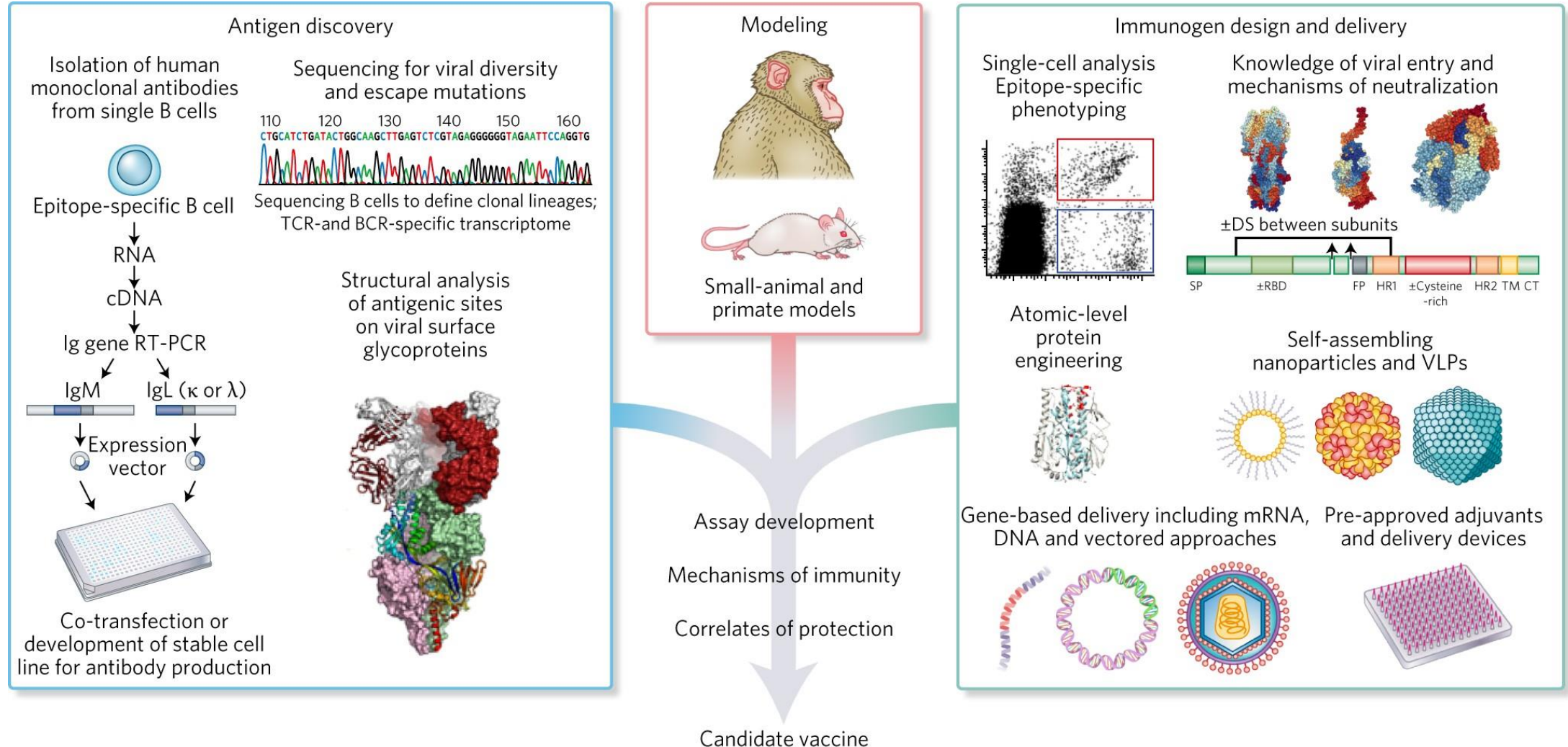


Taking the Pandemic Threat Off the Table

Rajeev Venkayya, MD
President, Takeda Vaccines
Member, CEPI Board

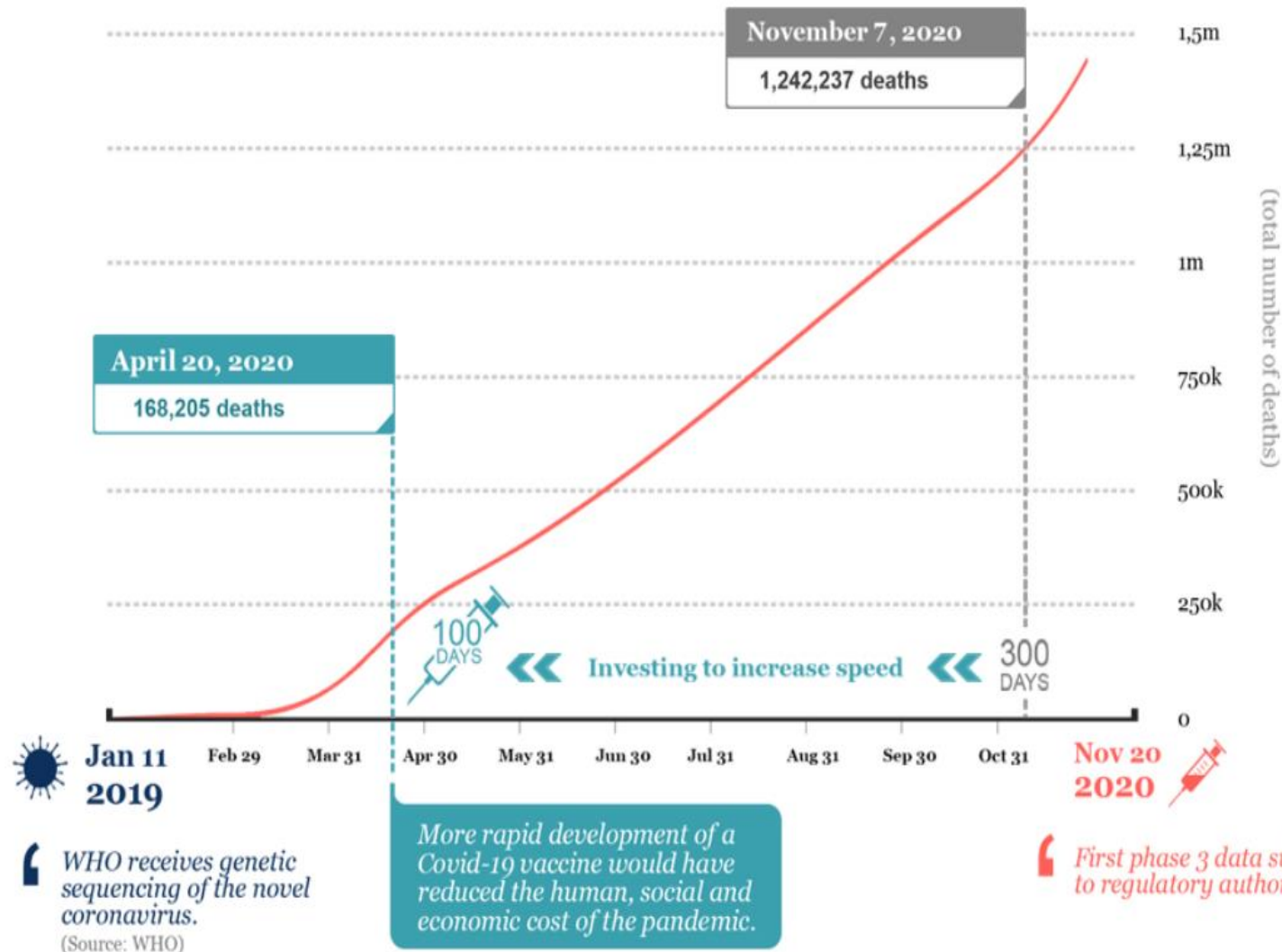
Prototype pathogen strategy



Preparing the Platforms

- **Preclinical**
 - Animal models
 - Tox studies
- **Clinical**
 - Safety & immunogenicity
 - Clinical trial protocols for outbreak response
- **Chemistry, Manufacturing and Controls (CMC)**
 - Process validation
 - Scale-up
 - Assays
- **Manufacturing**

Speed is of the essence in outbreak response



With COVID-19 it took about **300 days** from virus characterisation to submission of phase 3 data.

CEPI's aspiration is reduce this time to **100 days** for future outbreaks.

Thank You

Prototype pathogen strategy

REVIEW ARTICLE

<https://doi.org/10.1038/s41590-017-0007-9>

nature
immunology

Emerging viral diseases from a vaccinology perspective: preparing for the next pandemic

Barney S. Graham * and Nancy J. Sullivan*

Emerging infectious diseases will continue to threaten public health and are sustained by global commerce, travel and disruption of ecological systems. Most pandemic threats are caused by viruses from either zoonotic sources or vector-borne sources. Developing better ways to anticipate and manage the ongoing microbial challenge will be critical for achieving the United Nations Sustainable Development Goals and, conversely, each such goal will affect the ability to control infectious diseases. Here we discuss how technology can be applied effectively to better prepare for and respond to new viral diseases with a focus on new paradigms for vaccine development.