# EU-Japan Webinar Series on COVID-19 Research and Innovation

### **Professor Peter Piot**

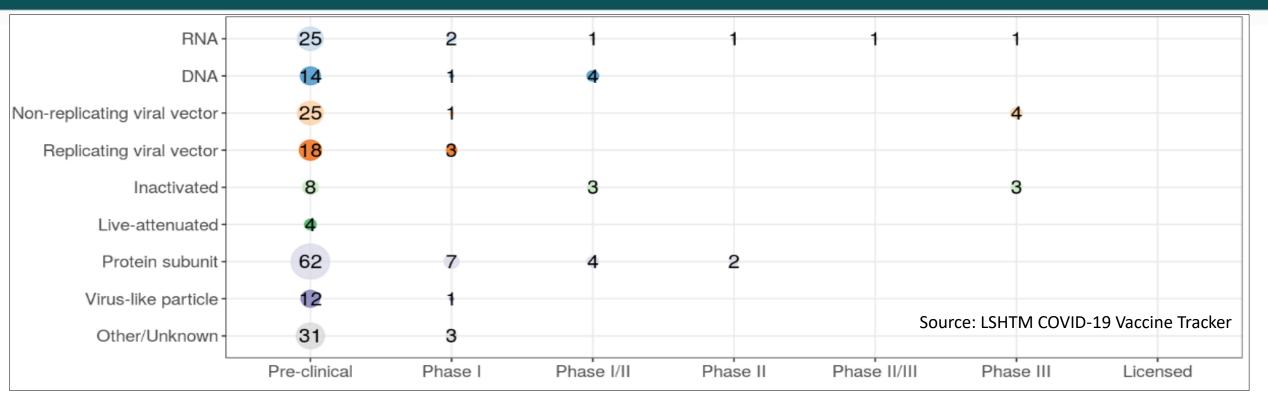
London School of Hygiene & Tropical Medicine

17 September 2020



### 240+ COVID-19 vaccine candidates in the pipeline





#### **Massive investments**

- Big investments from companies developing vaccines (e.g. AstraZeneca, GSK, J&J, Merck, Pfizer, and Sanofi)
- The European Commission, Japan, and partners raised **€15.9 billion** as part of the **Coronavirus Global Response**
- US Operation Warp Speed programme has announced more than US\$10 billion to advance vaccine R&D
- **Coalition for Epidemic Preparedness Innovations** portfolio includes 8 clinical candidates and is being advanced under **COVAX**Sources: CEPI (4 Sept 2020); EC 2020 (15/09/2020)

# Vaccine Pipeline: Phases I-III







Phase III	<ul> <li>Moderna/NIAID</li> <li>CanSino Biological Inc/Beijing Institute of Biotechnology</li> <li>Gamaleya Research Institute</li> <li>Janssen Pharmaceutical Companies/Beth Israel Deaconess Medical Center</li> </ul>	<ul> <li>University of Oxford/AstraZeneca</li> <li>Beijing Institute of Biological Products/Sinopharm</li> <li>Sinovac/Instituto Butantan</li> <li>Wuhan Institute of Biological Products/Sinopharm</li> </ul>
Phase II/III	BioNTech/Fosun Pharma/Pfizer	
Phase II	<ul> <li>CureVac</li> <li>Anhui Zhifei Longcom Biopharmaceutical/Chinese Academy of Sciences</li> </ul>	• Novavax
Phase I/II	<ul> <li>Arcturus/Duke-NUS</li> <li>Genexine Consortium</li> <li>Inovio Pharmaceuticals/International Vaccine Institute</li> <li>Osaka University/AnGes/Takara Bio</li> <li>Zydus Cadila Healthcare Limited (DNA)</li> <li>Bharat Biotech/ICMR/National Institute of Virology</li> </ul>	<ul> <li>Institute of Medical Biology/Chinese Academy of Medical Sciences</li> <li>Research Institute for Biological Safety Problems (inactivated)</li> <li>FBRI SRC VB VECTOR/Rospotrebnadzor, Koltsovo/(peptide)</li> <li>Instituto Finlay de Vacunas</li> <li>Kentucky Bioprocessing Inc</li> <li>Sanofi Pasteur/GSK</li> </ul>
Phase I	<ul> <li>Imperial College London</li> <li>PLA Academy of Military Sciences/Walvax Biotech</li> <li>Symvivo</li> <li>ReiThera/Leukocare/Univercells</li> <li>Beijing Wantai Biological Pharmacy/Xiamen University</li> <li>Institut Pasteur/Themis/University of Pittsburg/Merck</li> <li>Merck</li> <li>Adimmune Corporation</li> <li>Clover Biopharmaceuticals Inc/GSK/Dynavax</li> </ul>	<ul> <li>Covaxx/University of Nebraska Medical Center</li> <li>Medigen Vaccine Biologics Corporation/NAID/Dynavax</li> <li>University of Queensland/CSL/Seqirus</li> <li>Vaxine Pty/Medytox</li> <li>West China Hospital/Sichuan University</li> <li>Medicago Inc/GSK/Dynavax</li> <li>Aivita Biomedical Inc</li> <li>Shenzhen Geno-Immune Medical Institute/(modified APC)</li> <li>Shenzhen Geno-Immune Medical Institute/(modified DC)</li> </ul>

### COVID-19 vaccine initiatives in Europe and Africa





**COVAX: Ensuring global** equitable access to **COVID-19 vaccines** 







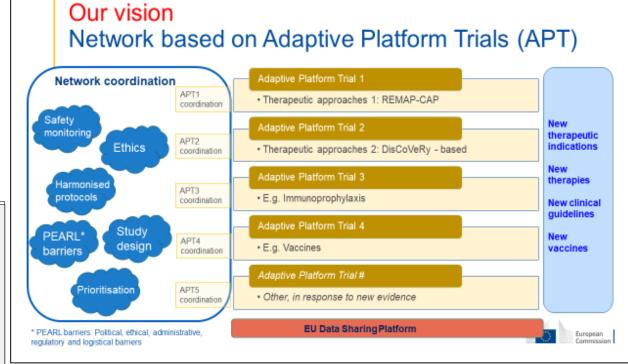




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African Union Commission launches Consortium for COVID-19 Vaccine Clinical Trial





# Will Vaccines end the pandemic?



#### Challenges ahead for a safe and effective COVID-19 vaccine:

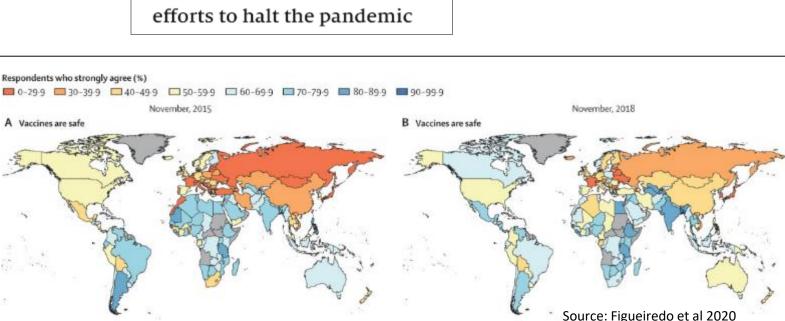
- Will it work? For how long?
- Will it be safe?
- Will there be enough?
- Who gets it first?
- Will people accept it?

#### Responding to covid-19 Tedros Adhanom on why vaccine nationalism harms

Sep 8th 2020

#### There are no silver bullets!





The Economist



#### Drug-Company CEOs Sign Pledge on Covid-19 Vaccine

Statement from nine firms aims to address concerns over a rush to mass vaccination

## Societies living with COVID-19



- Future waves
- Series of outbreaks No time to lose!
- Safe spaces for vulnerable communities
- Long-term care for survivors
- Social sciences and epidemiology
- Research and innovation
- Wider health impacts of COVID-19 response
- Mental health and wellbeing
- Healthy longevity and social care
- Acute and long-term social and economic costs
- Rethinking how we work
- Urban planning
- Access to internet
- Are we ready for the next pandemic?

No country is safe, unless every country is safe