



**World Health
Organization**

WHO R&D Blueprint novel Coronavirus

**WHO Working Group –
Vaccine R&D for COVID-19 Vaccines**

WHO reference number

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R&D Blueprint

Powering research
to prevent epidemics



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Terms of Reference

World experts on COVID-19 met at the World Health Organization's Geneva headquarters from 11 to 12 February 2020 to assess the current level of knowledge about the new virus, agree on critical research questions that need to be answered urgently and ways to work together to accelerate and fund priority research that can contribute to curtail this outbreak and prepare for future outbreaks.

The objectives of this group are to discuss:

- Approaches to demonstrate the effectiveness of COVID-19 vaccines
 - o Importance of Efficacy/Safety Trials
 - o Role of human challenge studies in accelerating vaccine development
 - o Potential alternatives to efficacy trials
 - o Importance of post-licensure studies and role of complementary observational data
 - o How can WHO facilitate this discussion?
- General Considerations for Resource utilization in vaccine development
 - o Are there scarcities (now or impending) of resources needed for vaccine development?
e.g., access to preclinical testing models, access to clinical trial sites for phase I/II or phase II/III, others?
 - o Does the WHO have a role to play in allocation of these resources?
 - If so, how should WHO develop criteria to prioritize access to such resources?
- General Considerations for Vaccine Deployment
 - o General considerations for rapid large-scale manufacturing of vaccines and vaccine-related products.
 - o General considerations to ensure sufficient and equitable access of vaccine globally.
 - o How can WHO facilitate goal of equitable access to adequate supply of vaccine?

Composition

Experts

A large group of vaccine developers, regulators, scientists, and public health experts who attended the 11-12 February Global Research and Innovation Forum.

Jean-Pierre Amorij, UNICEF, Denmark

Poonepalli Anuradha, Health Sciences Authority, Singapore

Ripley Ballou, IAVI, USA

Ralph Baric, UNC Gillings School of Public Global Public Health, USA



Barney Graham, National Institute of Allergy and Infectious Diseases (NIAID) - VRC, USA
Charlotta Bergquist, NRA, Sweden
Eric Boateng, Food and Drug Authority, Ghana
Thomas Breuer, GSK,
Kate Broderick, Inovio, USA
Natalie Dean, University of Florida, USA
Ruben Donis, Biomedical Advanced Research and Development Authority (BARDA), USA
Akli Ruxandra Draghia, Johnson & Johnson, Belgium
Anna Du, Bill & Melinda Gates Foundation, USA
Alan Embry, NIH, USA
Volker Gerdts, Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac), Germany
Prakash Ghimire, Nepal Health Research Council, Nepal
Carlo Giaquinto, Department of Women and Child Health, University of Padova, Italy,
Greg Glenn, Novavax, Inc, USA
Nivedita Gupta, ICMR, India
M. Elizabeth Halloran, Center for Inference and Dynamics of Infectious Diseases, Fred Hutchinson Cancer Research Center, and University of Washington, USA
Rita Helfand, CDC, USA
Zubairu Iliyasu, Aminu Kano Teaching Hospital, Nigeria
Hasan Jafri, AstraZeneca, USA
Youngmee Jee, Seoul National University, College of Medicine, Republic of Korea
David Kaslow, PATH, USA
Jae-Ouk Kim, International Vaccine Institute, Republic of Korea
Philip R. Krause, Food and Drug Administration, U.S. Department of Health and Human Services, USA
Robin Levis, Food and Drug Administration, U.S. Department of Health and Human Services, USA
Lim wattanayingyong, National Vaccine Institute, Thailand
Jisheng Lin, Sinovac Biotech Co. Ltd. China
Jyoti Malik Logani, Department of Biotechnology, Government of India, India
Denis Logunov, Gamaleya Institute, Russian Federation
Ira Longini, University of Florida, USA
Shabir Madhi, University of the Witwatersrand, Johannesburg, South Africa
Raburn Mallory, AstraZeneca, USA
Giada Mattiuzzo, National Institute for Biological Standards and Control (NIBSC), UK
Weining Meng, Sinovac Biotech Co. Ltd., China
Kayvon Modjarrad, Walter Reed Army Institute of Research, USA
Lidia Oostvogels, CureVac, Germany
Sonia Pagliusi, DCVMN International, Switzerland
Stanley Plotkin, University of Pennsylvania, USA
Helen Rees, Wits Reproductive Health and HIV Institute, South Africa
Connie Schmaljohn, National Institute of Allergy and Infectious Diseases (NIAID) - IRF, USA



Hanneke Schuitemaker, Janssen Pharmaceuticals Companies of Johnson & Johnson, USA

Mariia Sergeeva, Yik Ying Teo, Russia

Peter Smith, London School of Hygiene and Tropical Medicine, UK

James Southern, Adviser to South African Health Products Regulatory Authority South Africa

Julia Tree, Public Health England, UK

LinFa Wang, Duke-National University of Singapore, Singapore

Xuefeng Yu, CanSino Biologics, China

WHO Secretariat

Ana Maria Henao-Restrepo, Pierre Gsell, Ximena Riveros

Declaration of interest for WHO Experts

Not applicable here