

# WHO R&D Blueprint novel Coronavirus

COVID-19 Viruses, Reagents and Immune Assays
WHO Working Group

WHO reference number

© World Health Organization 2020. All rights reserved.



# WG established on February 2020



# **Table of Contents**

TABLE OF CONTENTS	
BACKGROUND	
TERMS OF REFERENCE	
COMPOSITION	
EXPERTS	



# **Background**

In response to the current COVID-19 pandemic, the WHO Blueprint team has established an Expert Group focused on COVID-19 viruses, reagents and immune assays. The goal of the group is to advance the development of COVID-19 medical countermeasures (vaccines and immunotherapeutics). This is being achieved by providing a platform to discuss availability of viruses and key reagents, to share data on immune assays and the potential for cross reactivity of SARS-CoV-2 with other coronaviruses.

## **Terms of Reference**

- Discuss the theoretical potential for cross-reactivity between SARS-CoV-2, SARS-CoV-1 and MERS-CoV based on available sequence/modelling data.
- Present data which evaluate cross-reactivity and outline planned experimental approaches that will inform on vaccine and monoclonal antibody selection and thus advance development timelines
- Obtain an overview on the status of development/availability of SARS-CoV-2 viral isolates and other critical reagents followed by weekly updates.
- Present data on the development of immune assays with an emphasis on ELISA and neutralization, both live virus and pseudovirus.
- Coordinate efforts with other WHO groups focused on COVID-19 control and development of medical countermeasures.

# **Composition**

## **Experts**

#### Chairs:

Dr. William Dowling, CEPI

The chair has the following responsibilities

- To chair the weekly meetings
- To liaise with the WHO R&D Blueprint
- To review meeting reports and reports from any interim recommendations
- To represent the group at technical meetings as requested

#### **Members:**

Ralph Baric, University of North Carolina, USA Cheryl Bennett, GSAID, Germany

## WG established on February 2020



Christian Berchot, Global Viral Network, USA

Brooke Bozick, National Institute of Allergy and Infectious Diseases (NIAID-DMID), USA Karen Bok, National Institute of Allergy and Infectious Diseases (NIAID-VRC), USA

Darin Carroll, Centers for Disease Control and Prevention (CDC), USA

Miles Carroll, Public Health England (PHE), UK

Monalisa Charrerji, Bill and Melinda Gates Foundation (BMGF), USA

Kizzmekia Corbett, National Institute of Allergy and Infectious Diseases (NIAID-VRC), USA

Carolyn Clark, Coalition for Epidemic Preparedness Innovations (CEPI), Norway

Ian Crozier, National Institute of Allergy and Infectious Diseases (NIAID), USA

Inger Damon, Centers for Disease Control and Prevention (CDC), USA

Peter Daszak, EcoHealth Alliance

Marciela DeGrace, National Institute of Allergy and Infectious Diseases (NIAID-DMID), USA

Emmie DeWit, National Institute of Allergy and Infectious Diseases (NIAID-RML), USA Rafael Delaado Vazquez, Salud Madrid, Spain

Dimiter Dimitrov, Univ. of Pittsburgh, USA

Christian Drosten, Charité - Universitätsmedizin Berlin, Germany

Karl Erlandson, Biomedical Advanced Research and Development Authority (BARDA), USA

Darryl Falzarano, Vaccine and Infectious Disease Organization - International Vaccine Centre (VIDO – Intervac), Canada

Clint Florence, National Institute of Allergy and Infectious Diseases (NIAID-DMID), USA Simon Funnell, Public Health England (PHE), UK

Luc Gagnon (Nexilis)

Susan Gerber, Centers for Disease Control and Prevention (CDC), USA

Volker Gerdts, Vaccine and Infectious Disease Organization - International Vaccine Centre (VIDO – Intervac), Canada

Raul Gomez-Roman, Coalition for Epidemic Preparedness Innovations (CEPI), Norway Barney Graham, National Institute of Allergy and Infectious Diseases (NIAID-VRC), USA Erica Guthrie, Centers for Disease Control and Prevention (CDC), USA

Bart Haggmans, Erasmus, the Netherlands

Lisa Hensley, National Institute of Allergy and Infectious Diseases (NIAID-IRF), USA Mike Holbrook, National Institute of Allergy and Infectious Diseases (NIAID-IRF), USA Paul Hodgson, Vaccine and Infectious Disease Organization - International Vaccine Centre (VIDO – Intervac), Canada

Rachel Ireland, Defence Science and Technology (dstl), UK

Lakshmi Jayashanakar, Biomedical Advanced Research and Development Authority (BARDA), USA

Dan Jernigan, Centers for Disease Control and Prevention (CDC), USA

Reed Johnson, National Institute of Allergy and Infectious Diseases (NIAID-IRF), USA

Jacqueline Kirchner, Bill and Melinda Gates Foundation (BMGF), USA

Marion Koopmans, Erasmus, the Netherlands

Florian Krammer, Mt. Sinai, USA

Gerald Kovacs, Biomedical Advanced Research and Development Authority (BARDA), USA

## WG established on February 2020



Greg Kulnis (Nexilis)

Teresa Lambe, University of Oxford, UK

Janet Lathey, National Institute of Allergy and Infectious Diseases (NIAID-DMID), USA Joo-Yeon Lee, Korea CDC, Republic of Korea

Steve Lever, Defence Science and Technology (dstl), UK

Hee-Young Lim, Korea CDC, Republic of Korea

Jim Little, Biomedical Advanced Research and Development Authority (BARDA), USA Karen Makar, Bill and Melinda Gates Foundation (BMGF), USA

Giada Mattiuzzo, National Institute for Biological Standards and Control (NIBSC), UK John Mellors, University of Pittsburgh, USA

Kayvon Modjarrad, Walter Reed Army Institute of Research (WRAIR), USA

Kaitlyn Morabito, National Institute of Allergy and Infectious Diseases (NIAID-VRC), USA César Muñoz-Fontela, Bernhard Nocht Institute for Tropical Medicine (BNITM), Germany Vincent Munster, National Institute of Allergy and Infectious Diseases (NIAID-RML), USA Scott Napper, Vaccine and Infectious Disease Organization - International Vaccine Centre (VIDO – Intervac), Canada

Michelle Nelson, Defence Science and Technology (dstl), UK

Nisreen Okba, Erasmus, The Netherlands

Jae Ouk Kim, IAVI, USA

Mark Page, National Institute for Biological Standards and Control (NIBSC), UK Gustavo Palacios, United States Army Medical Institute of Infectious Diseases (USAMRIID), USA

Mark Pallansch, Centers for Disease Control and Prevention (CDC), USA

Jo Prior, Defence Science and Technology (dstl), UK

Nicola Rose, National Institute for Biological Standards and Control (NIBSC), UK

Connie Schmaljohn, National Institute of Allergy and Infectious Diseases (NIAID-IRF), USA Barbara Schnierle, PEI, Germany

Amy Shurtleff, Coalition for Epidemic Preparedness Innovations (CEPI), Norway Ashley Smith, Biomedical Advanced Research and Development Authority (BARDA), USA

Manki Song, IAVI, USA

Erik Stemmy, National Institute of Allergy and Infectious Diseases (NIAID-DMID), USA Natalie Thornburg, Centers for Disease Control and Prevention (CDC), USA Tracy Thue, Vaccine and Infectious Disease Organization - International Vaccine

Centre (VIDO - Intervac), Canada

Julia Tree, Public Health England (PHE), UK

Sylvie Van Der Werf, Institut Pasteur, France

Seshadri Vasan, The Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia

David Vaughn, Bill and Melinda Gates Foundation (BMGF), USA

Linfa Wang, Duke-NUS, Singapore

Patrick Wilson, University of Chicago, USA

Larry Wolfraim, National Institute of Allergy and Infectious Diseases (NIAID), USA

Tianlei Ying, Fudan University, China

Shi Zengli, Wuhan Institute of Virology, China

# WG established on February 2020



## **WHO Secretariat**

Ana Maria Henao-Restrepo, Pierre Gsell, Ximena Riveros, Alejandro Costa, Vaseeharan Sathiyamoorthy, Mark Perkins, Soumya Swaminathan.