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GVN's virus experts to identify promising advanced strategies to battle COVID-19

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Rapid Diagnostic Testing, Repurposing Drug Therapies and Vaccines Targeting Innate Immunity, Are Integral Factors in Mitigating COVID-19

GLOBAL VIRUS NETWORK

The Global Virus Network (GVN), a coalition of the world's leading medical and basic virology research centers working to prevent illness and death from viral disease, convened a press conference with attendees from across the globe to discuss key takeaways from the GVN virtual 2020 Special Annual Meeting held September 23-24, 2020.

A video of the full press conference, can be found here.

Key findings during the meeting regarding SARS-CoV-2 and COVID-19 research include:

- "Super-spreaders" and "super-spreading" events are major drivers of the pandemic, indicating that only a handful of those infected seem be exponentially contagious. Further, short-range aerosol-driven transmission contributes to the dissemination of the virus, particularly in the context of the super spreading events.
- Key pandemic response strategies – the need to take better advantage of the major technology progress in diagnostics, a key driver for the control of infectious diseases; salivary sampling will very much increase our testing capacity, including in school settings; novel rapid and cheap molecular rapid diagnostic tests combined with digital-based transmission of the results, tracing and isolation should be widely emphasized, an understanding of communicability and transmission and, most importantly, the creation of a unified and multidisciplinary response with mechanisms for information sharing among international virologists and independent authorities.
- An evaluation of vaccine development – timing, an analysis of the candidates, side-effects and managing the world's expectation for a satisfactory and timely vaccine. Until a classical, effective vaccine is available, vaccines that stimulate the body's innate immune system, such as the oral polio vaccine and BCG, are integral in protecting against infection.
- A very strong statement against SARS-CoV-2 being the result of human manipulation.

- An update on the available and future therapies, emphasizing the need to combine novel antiviral and immunomodulatory molecules as well as the need to contemplate in the future antivirals with broad spectrum against several viruses.

The GVN is well-positioned to establish with all partners a **Viral Pandemic Readiness Alliance** to facilitate collaborations with universities, industry, governments and communities to merge efforts and find solutions together."

"Simple, safe, oral, inexpensive, live vaccines such as the oral polio vaccine (OPV) will have a broad benefit against COVID-19. This can also likely be used in future pandemics, particularly of respiratory viruses, by inducing innate immunity, which is immediate and not as limiting as a specific vaccine," said **Dr. Robert Gallo**, co-founder of GVN.

Dr. Gallo, discoverer of human retroviruses, co-discovering HIV as the cause of AIDS and developing the HIV blood test continued, "Nothing is needed more than a rapid diagnostic test. Molecular tests that can be done cheaply and at home, within two hours or less time – nothing could be more valuable "We need to be able to trace; we need to be able to follow people; we need to be able to educate. This is absolutely basic, and without it we can do nothing. There is singularly nothing else more important in my mind than having rapid and reliable diagnostics."

Dr. Bréchot was joined at the press event by presenters from the annual meeting including:

- **Dr. Linfa Wang**, Duke-NUS Medical School, Singapore
- **Dr. Konstantin Chumakov**, FDA Office of Vaccines Research and Review, USA
- **Dr. Ab Osterhaus**, TiHo Hannover, Germany
- **Dr. Johan Neyts**, Rega Institute, Belgium
- **Dr. Raymond Schinazi**, Emory University, USA

Next, David Scheer, an advisor and entrepreneur in life sciences with a lifelong career in global public health non-profits, moderated a discussion titled, "From HIV to SARS-CoV-2 and Beyond." Panelists were **Dr. Gallo, Dr. Bréchot** and **Dr. Eric Rubin,** *New England Journal of Medicine* Editor. The frank COVID-19 discussion included historical perspectives, the emergence of variant strains of SARS-CoV-2, vaccine development and innate immunity, the use of existing and new drug therapies, pandemic preparedness as it relates to industry, government and academia, and that SARS-CoV-2 is naturally occurring and not manmade.