

## **Written Statement of Dr. Robert R. Redfield**

### **Before the House Select Subcommittee on the Coronavirus Crisis**

**March 8, 2023**

Chairman Wenstrup, Ranking Member Ruiz, and members of the Committee, my name is Dr. Robert Redfield. I am pleased to testify today in support of this subcommittee's important work – to investigate the origin of the COVID-19 virus that resulted in the deaths of over one million Americans.

As I know this Committee is aware, from 2018-2021 I served as the 18<sup>th</sup> Director of the Centers for Disease Control and Prevention during the Trump administration. As CDC Director, I oversaw the agency's response to the COVID-19 pandemic from the earliest days of its spread and served as a member of the White House's Coronavirus Task Force.

But perhaps more relevant to the purpose of this hearing, my 45 years in medicine has been focused on the study of viruses. I am a virologist by training and practice. Prior to my time at the CDC, I spent more than 20 years as a U.S. Army physician and medical researcher at the Walter Reed Army Institute of Research where I served as the Chief of the Department of Retroviral Research and worked in virology, immunology, and clinical research at the forefront of the AIDS epidemic and other viral threats. In 1996, I co-founded the Institute of Human Virology at the University of Maryland School of Medicine in partnership with the State of Maryland, the City of Baltimore, and the University System of Maryland where I served as the Director of Clinical Care and Research and also served as a tenured professor of medicine, microbiology and immunology; chief of infectious disease; and vice chair of medicine at the University of Maryland School of Medicine. After my time at CDC, I served as the senior public health advisor to Governor Hogan and the State of Maryland.

As COVID-19 began to spread across the world, there were two competing hypotheses about the virus's origin that needed to be vigorously explored. The first hypothesis is the possibility that COVID-19 infections in humans were the result of a "spillover event" from nature. This is a situation in which a virus naturally mutates and becomes transmissible from one species to another – in this case, from bats to humans via an intermittent species. This is what happened in previous outbreaks of SARS and MERS, earlier coronaviruses that emerged from bats and spread through an intermediate animal. The second hypothesis is the possibility that the virus evolved in a lab involved in gain-of-function research. This is a type of research in

which scientists seek to increase the transmissibility and or pathogenicity of an organism in order to better understanding the organism and inform preparedness efforts and the development of countermeasures such as therapeutics and vaccines. Under this theory, COVID-19 infected the general population after it was accidentally leaked from a lab in China.

From the earliest days of the pandemic, my view was that both theories about the origin of COVID-19 needed to be aggressively and thoroughly examined. Based on my initial analysis of the data, I came to believe—and still believe today—that it indicates COVID-19 infections more likely were the result of an accidental lab leak than the result of a natural spillover event. This conclusion is based primarily on the biology of the virus itself, including its rapid high infectivity for human to human transmission which would then predict rapid evolution of new variants, as well as a number of other important factors to include the unusual actions in and around Wuhan in the fall of 2019, all of which I am happy to discuss today.

Even given the information that has surfaced in the three years since the COVID-19 pandemic began, some have contended that there is no point in investigating the origins of this virus. I strongly disagree. There is a global need to know what we are dealing with in the COVID-19 virus because it affects how we approach the problem to try and prevent the next pandemic.

Understanding the origins of COVID-19 is critical for the future of scientific research, particularly as it affects the ongoing ethical debate around the conduct of gain-of-function research. Gain-of-function has long been controversial within the scientific community, and, in my opinion, the COVID-19 pandemic presents a case study on the potential dangers of such research. While many believe that gain-of-function research is critical to get ahead of viruses by developing vaccines, in this case, I believe it had the exact opposite result, unleashing a new virus on the world without any means of stopping it and resulting in the deaths of millions of people. Because of this, it is my opinion that we should call for a moratorium on all gain-of-function research until we can have a broader debate and come to a consensus as a community about the value of gain-of-function research. This debate should not be limited to the scientific community. If the decision is to continue gain-of-function research then it must be determined how and where to conduct this research in a safe, responsible and effective way.

Thank you again for inviting me to be here today as we explore these important topics. I look forward to answering your questions.