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Scientists warn U.S. lawmakers about the continued threat of coronavirus variants.

A healthcare worker preparing a dose of the Johnson & Johnson coronavirus vaccine at Grand Central Terminal in Manhattan on Wednesday. Carlo Allegri/Reuters

By Carl Zimmer

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Coronavirus variants will pose a continuing threat to the United States, with the potential to spread quickly and blunt the effectiveness of vaccines, scientists told a House panel on Wednesday.

“We must ensure that the tools we use to detect, treat, and forecast the virus are keeping up with emerging variants,” said Rep. Bill Foster, Democrat of Illinois and the chairman of the House subcommittee that heard the scientists’ testimony.

Last month, the White House announced almost $2 billion in funding for tracking coronavirus variants. The plan calls for large-scale sequencing of virus genomes, as well as research to understand how mutations alter the biology of viruses.

The funding is needed urgently, said Salim S. Abdool Karim, a professor of clinical epidemiology at the Mailman School of Public Health at Columbia University. “Over the coming months, we can reasonably expect new variants to emerge that are able to escape vaccine-induced immunity, because the virus is being put under pressure from wide-scale vaccination,” he said.

The world is not doing enough to track such variants, said Nathan Grubaugh, an epidemiologist at the Yale School of Public Health. "These global and national genomic surveillance gaps severely limit our ability to detect new and emerging SARS-CoV-2 variants, and should be considered as a threat to U.S. public health," he said.

In addition to sequencing more genomes, scientists said that they needed ways to share their data quickly. That data should include more than just mutations carried by viruses, according to Caitlin Rivers, a senior scholar at the Johns Hopkins Center for Health Security. Dr. Rivers said that scientists also needed a way to learn about the health of people after they get infected with variants.

"We must be able to observe how the variant behaves in individuals and populations," Dr. Rivers said.

For example, when New York researchers connected information about B.1.526, a variant common in the city, with medical records, they found that it does not make people unusually sick with Covid-19.

By monitoring variants, Dr. Rivers said, researchers could offer early warnings about threats to the protection afforded by vaccines. Vaccine developers could then respond by creating formulations tailored to the variants.

"We must not again be unprepared," Dr. Rivers warned.

Carl Zimmer writes the "Matter" column. He is the author of fourteen books, including "Life's Edge: The Search For What It Means To Be Alive." @carlzimmer · Facebook