

Scientists in Pittsburgh work to prevent next pandemic

By Chris Hoffman

March 13, 2023 / 8:24 PM / CBS PITTSBURGH (KDKA) — Inside labs in Pittsburgh, researchers are cracking the code to save lives now and in the future.

While the COVID-19 virus wreaked havoc, scientists here and across the country were looking for a vaccine.

Three years later, Dr. Paul Duprex, director of the Pitt Center for Vaccine Research Director, admits the science community was not ready for coronavirus to be the source of such destruction.

"I think that is reasonable to say, it surprised many people," he said.

Duprex said it wasn't that we ended up in a pandemic that was surprising. Rather, what caused the pandemic was surprising. He said many researchers were expecting the flu to be the next pandemic.

"Even before the pandemic came along, people had their eyes set on a universal flu vaccine," he said.

And they still do. So scientists at the Center for Vaccine Research are continuing their work on that universal flu vaccine. The idea is for it to be the same flu shot year after year instead of creating a new vaccine each season.

"That would be something that would be super to achieve," Duprex said.

And that's not all. Researchers are also working on a way to give a vaccine to an expectant woman and have the vaccine passed on directly to her baby.

"That will be very useful in protecting the young and the fragile individuals in the early years of their lives," Duprex said.

Still, Dr. Duprex concedes it's a challenge to create new vaccines. While it took less than a year to come up with a COVID vaccine, some things, like the common cold, still don't have a vaccine because of the way it and other viruses change.

"It's like an ice cream shop gone crazy in terms of the flavors of the common cold virus," Duprex said.

As for COVID, while it becomes more of a memory with each passing year, Duprex and his team are now focused on what might cause the next pandemic. They refer to it as "Disease X."

They're currently working with viruses from many different groups. The hope is that if one of them does turn into a pandemic, they already have some understanding of what could be used as a vaccine against it.

"Knowledge is never in a vacuum," Duprex said. "You can translate. You can move that knowledge into different fields, and other people can benefit from what you have done."

Working ahead also gives them the advantage of time and being ahead of the game.

"What did we learn from the COVID pandemic? Time is everything," Duprex said,

And with funding coming from many different groups all over the world, this center aims to keep the best and brightest right here in our region.

"Be here in Pittsburgh. Be creative in Pittsburgh. Be useful in Pittsburgh," Duprex said.