

## **This Isn't Science Fiction**

### ***COVID-19 mutations aren't cause for concern***

Shelli Dankoff – Media Relations Supervisor

As the COVID-19 pandemic has spread around the globe, researchers have been hot on its heels, seeing what makes it tick. Among the things they are on the lookout for are any mutations in the genetic make-up of the virus. One mutation that recently received a lot of attention was one virologists are calling the D614G mutation, the gene encoding the spike protein, which helps virus particles penetrate cells.

Early reports that caused alarm about what the mutation meant have been modified, with many scientists saying there remains no solid proof that D614G has a significant effect on the spread of the virus.

"When people hear about mutations, you think about horror movies and sci-fi movies, but mutations are a normal part of viruses and their life cycle. So as of now, yes, we do have mutations but none are raised to the level of concern," said Stephen Hippler, MD, Chief Clinical Officer, OSF HealthCare

Explained Mike Cruz, MD, Chief Operating Officer, OSF HealthCare and an emergency medicine physician by training, "Immunologists and virologists are pretty sophisticated - they actually know what parts are more stationary and what parts are more likely to change back-and-forth. So if you can lock in a virus to mark the big pieces and the big areas then subtle changes aren't going to make as much a different."

Both Dr. Cruz and Dr. Hippler point out that coronaviruses are nothing new – nor are mutations and, for now, we shouldn't be overly concerned. It is common for viruses to mutate, we experience this with seasonal flu every year. They expect if the COVID-19 virus is still around in the coming years, it could look far different than it does now. That's why work on developing a vaccine is so important, by zeroing in on the main components of the COVID-19 virus.

According to Dr. Cruz, "coronaviruses we've had for years, this is just a novel one that we haven't seen, our bodies haven't seen, so it's going to make it challenging to know. I would expect some changes but the changes that we've seen so far are pretty subtle. The important thing is about the vaccine, to tag the bigger markers that don't change as quickly."

"Influenza - we need a shot every year because it's a very unstable virus that can have large mutations year after year, so we need a new vaccine. This recent one that was in the literature was of just one of the proteins in those spike proteins. And a mutation like that alone, if it's relatively stable, probably won't impact vaccines, but it's still too early to tell," Dr. Hippler added.

For now researchers still have more questions than answers about potential mutations. The one thing that everyone can help control is the spread of the disease by wearing a mask, following proper handwashing procedures, and keeping a healthy distance from others when possible.