Twitter Thread by ❄■ Mac n’ Chise ❄■



❄■ Mac n’ Chise ❄■
@sailorrooscout

The importance of T-cell immunity!
A recent study has found that after one dose of Pfizer’s vaccine, patients had a strong T-cell response, and a boosted antibody response after their second dose. This is good news for many reasons so let’s read up.

This study found that people’s antibodies were moderately effective against the original strain after their first dose of Pfizer’s vaccine, less effective against the B.1.1.7 variant, and were unable to neutralize the B.1.351 variant. Read what I said, that’s only after ONE dose.

However, they had strong T-cell responses against ALL known variants after the first dose. So why is this important? To recap, T-cells stimulate B-cells to make antibodies. Antibodies are just your first line of defense which is what is initiated when you get a vaccine.

It’s our T-cells that are responsible for long-term immunity. When antibodies diminish after your initial inoculation, your T-cells-will tell your B-cells it’s time to produce more antibodies. As long as your T-cells still recognize this virus and inform your B-cells they need

to produce antibodies, the vaccine is still doing its job. Your antibodies will get built up over and over again. Just FYI your TCRs and your BCRs target different parts of the Coronavirus’ spike protein. Antibodies can prevent infection, your T cell-responses ensure that those

antibodies keep doing their job and they kick in after you're infected OR vaccinated. In other words, while robust T-cells responses cannot protect you from a mild or moderate infection sometimes they can however proliferate rapidly and prevent the build up of viral load.

While T-cell responses do not necessarily protect you against infection, that first dose is going to ensure and solidify the ability of your immune system to make sure it can produce an adequate response the next time it comes into contact with the virus. So what does it mean?

For researchers and for all us really, it means after that second dose, our T-cells are at the helm ready to go and that’s what generates such a strong antibody response, hence sealing the importance of that booster. Antibody responses are easier to measure compared to T-cells.

So, why is this important? It’s important because this demonstrates those who have recovered from previous SARS-CoV-2 infections and those who have received at least one dose of these vaccine possess T-cells capable of responding to variants B.1.1.7 AND B.1.351!

What else does this prove? It proves T-cells are recognizing different regions of the Coronavirus’ spike protein to the antibodies and thus implying they will be more resilient to future variants. This is what we like to hear.

In short, after getting vaccinated, your body is producing T-cells capable of responding to these variants. While it cannot ensure that you won’t get you won’t have a mild illness, they can however ensure your immune system is equipped to respond to them.

Know what else this means? This information applies to Moderna’s vaccine and even AstraZeneca’s. These T-cells are ready and willing to respond to these variants. Don’t sell these guys so short, they’re a vital part of your immune system- it’s not all about your B-cells.

Also yes, this is relevance to the original strain, variant B.1.1.7 AND variant B.1.351. ■■ Strong immune responses all around. Let’s go!