

Dear Everyone,

I hope you are all doing well. I'm writing you as a virologist and immunologist who isn't an alarmist. With the knowledge that we currently have, I really want to stress that nearly total quarantining is needed in San Diego at this time. The important points are:

- 1) There are almost assuredly a large number of asymptomatic SARS-CoV-2 spreaders. These people don't feel sick and do not have symptoms like fever, but they can spread the virus. Because we don't have enough testing to look at allegedly healthy people, we don't know how many of these people are out there in San Diego

at this moment. But we do have data from other places and models.

2) The models say that this week is the inflection point on the exponential expansion curve for CoVID-19. This means that your probability of being exposed to SARS-CoV-2 has been relatively low up to this point. That is going to change within the next couple of days. There are going to be a lot of people carrying and shedding the virus sometime this week.

3) The immunological response to the virus is worrisome. First, it is an immune response that is leading to the severest symptoms of the disease (i.e., Acute Respiratory Failure Syndrome; ARFS).

Second, it is not clear how to treat this immune response. This means that doctors are effectively using trauma treatment techniques because they don't have any other tools. This is bad because the only treatments are effectively oxygen and ventilators. And there aren't very many ventilators and fewer people to run them (<1,000 in San Diego). Third, there are reasons to believe that the immune response may not be exceptionally protective with the milder forms of the disease. This means building herd immunity may not be important. Fourth, there is something weird about the older patients. It is almost like they have previously been exposed to a SARS-like virus that is pre-disposing them to a hyper-

immune response that isn't protective but makes ARFS worse. Fifth, despite the preferential mortality rates in older people, about 1% of all age groups are dying from CoVID-19. This makes it a very dangerous virus for whoever you are.

Taking everything together, this is a terrible week to be around other people. Stay home and eat those cans of food that have been sitting there for years. If you must absolutely go out, use Personal Protective Equipment (PPE; gloves, hand sanitizers w/ >70% isopropanol, masks).

Sincerely,
Forest

If you are not in Southern California, then the timing maybe different for you. Check out the models for your area at <https://www.covidactnow.org/about>.