

To understand COVID-19, researchers review aging, immune response to viral infections

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Information about the new COVID-19 infection is constantly evolving based on what clinicians see firsthand. One constant, so far, is that the older population tends to fare worse than younger folks with this disease.

A team led by Daniel Goldstein, M.D., already studies aging and the [influenza](#) viral infection, and took this spring away from their lab to figure out if any of their other research, and other research they regularly read, could be helpful in the fight against COVID-19.

"Influenza is of course a different pathogen, but it may give some catalyst for research with the current SARS-CoV2 infection," says Goldstein, of the Michigan Medicine Frankel Cardiovascular Center. Goldstein, with Judy Chen, a doctoral student, and William Kelley, a postdoctoral research fellow, published a new review in the *Journal of Immunology*.

"We believe some of the phenomena that we're seeing with the current pandemic are similar to what we've seen in our research with aging," Goldstein says. "There seems to be a higher mortality because of dysregulated inflammation more than impaired viral control."

Additionally, increasing activation of neutrophils is reported in the current COVID-19 pandemic, which the authors have reported in their flu models. And how aging affects the [immune system](#) prior to [infection](#) is the same, and also potentially applicable in understanding the population afflicted by COVID-19, the authors say.

"However, there are certainly some unique things about this virus we're still learning," Goldstein says.

More information: Judy Chen et al, Role of Aging and the Immune Response to Respiratory Viral Infections: Potential Implications for COVID-19, *The Journal of Immunology* (2020). [DOI: 10.4049/jimmunol.2000380](#)

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