

Lay Summary
Valeria Cantos, MD – Principal Investigator

Full Title: CoVPN 5001, A prospective study of acute immune responses to SARS-CoV-2 infection

Short Title: CoVPN 5001

a. A statement of the problem of interest

The novel Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a coronavirus that causes a highly contagious disease in humans. The initial outbreak of SARS-CoV-2, first reported in Wuhan, China, quickly became a pandemic and currently presents an unprecedented global public health challenge. There is a critical need for an improved understanding of the immune response following natural infection in order to develop a vaccine to prevent transmission and to identify and develop strategies to distinguish vaccine-elicited responses from those induced by natural infection.

Data suggest that specific populations are at higher risk for developing poor clinical outcomes during infection but even within defined populations there are a variety of disease responses. The variety of immune outcomes following natural infection is not well understood, and there are currently no preventive vaccines or effective therapies.

b. General statement of how the problem will be studied

This study is a multi-center, prospective cohort study that will try to detail the clinical course of outpatient COVID-19 disease, including detailed evaluations of the viral kinetics and immunological characteristics of early infection. This information will be analyzed by measuring response rates and virus levels among participants using blood, urine and nasal swab samples.

c. How the research will advance scientific knowledge and/or human health

There is currently no preventive vaccine or effective therapy for COVID-19, and there is a high medical need to control the global pandemic. The hope is that data generated from this study will help in the development of immunologic tests and vaccines.

d. What the standard of care, if any, is:

N/A