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A Candidate Systematic Approach to Investigate ROBUST, SUPERIORLY BROAD, IMMUNE RESPONSE, 8 Months Following Severe COVID Infection, ICU Hospitalization, Viral Clearance, Rehabilitation, and Recovery with No Vaccine Booster Dose or Reinfection

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There is little doubt due to abundant evidence that the multiple vaccines from Pfizer, Johnson and Johnson, AstraZeneca and Moderna against COVID and its emerging variants are safe and effective [1-4]. Every person who has never been infected with COVID and has not yet been fully immunized, should enthusiastically get fully immunized. There is very little evidence to conclusively suggest how vaccines protect even after, 161 million US residents have been fully immunized. The only way to determine what protects is to exhaustively study what has enabled 33+ million US residents and 186+ million worldwide to survive a whole range of mild to severe symptoms of COVID and acquire robust ADAPTIVE IMMUNITY in the process of completely clearing the infection. While vaccines simulate the acquisition of immunity, they do not provide deeper insights into what really protects. That is why I am advocating more studies of the components of the immune system that have successfully cleared the infection with broad adaptive natural immune response and greatly diminished the chances of reinfection for long periods. The answer to the question how long such a natural immunity will be protective against reinfection or infection caused by emerging variants before a vaccine booster dose may be required is key for public health. In order, to begin to dissect the natural antibody response to COVID just as it has been done for decades for Hepatitis B virus infection, LabCorp has recently introduced a test to detect antibodies to the most abundant protein of COVID, the nucleocapsid protein and to quantify antibody levels against COVID [5]. As an example, is a Final Lab. Report from LabCorp, of a person exposed to COVID around Nov. 03, 2020, confirmed positive on Nov. 12, 2020, has been COVID free since Dec. 12, 2020 and never been vaccinated against COVID (Table 1). The purpose of LabCorp was to be able to differentiate antibodies from a past infection among those who have not received the vaccine, from a vaccination and to quantify the duration of such an antibody response by a long term follow up. From a public health standpoint, establishing a standard of long-term care following COVID infection by regular monitoring of antibody levels and the breadth of the response would be ideal. Besides periodically evaluating immune status and detecting any COVID reinfection, survivors of COVID need to stringently be followed by a team of medical experts and certified therapists in Endocrinology, Urology, Internists, Infectious Diseases experts, Kidney care specialists, Pulmonology, Cardiology, Primary care, Psychiatry, Neurology, Podiatry, Rehabilitation Medicine. One in 3, COVID recovered persons could have brain dysfunction and long-term symptoms ranging from fatigue to Alzheimer's Disease-like dementia or Tinnitus.

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Ordered Items: **SARS-CoV-2 Semi-Quant Total Ab; SARS-CoV-2 Ab, Nucleocapsid; Venipuncture**

Date Collected: **07/15/2021** Date Received: **07/15/2021** Date Reported: **07/16/2021** Fasting: **No**

SARS-CoV-2 Semi-Quant Total Ab

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
SARS-CoV-2 Semi-Quant Total Ab A,01	789.1	>250.00* 02/03/2021	U/mL	<0.8

Antibodies against the SARS-CoV-2 spike protein receptor binding domain (RBD) were detected. It is yet undetermined what level of antibody to SARS-CoV-2 spike protein correlates to immunity against developing symptomatic SARS-CoV-2 disease. Studies are underway to measure the quantitative levels of specific SARS-CoV-2 antibodies following vaccination. Such studies will provide valuable insights into the correlation between protection from vaccination and antibody levels.

Interpretation:
Negative <0.8
Sample does NOT contain detectable antibodies against the SARS-Cov-2 spike protein receptor binding domain (RBD).
Positive >0.7
Sample contains detectable antibodies against the SARS-Cov-2 spike protein receptor binding domain (RBD).

SARS-CoV-2 Spike Ab Interp A,01	Positive	

* Previous Reference Interval: (SARS-CoV-2 Semi-Quant Total Ab: <0.80 U/mL)

SARS-CoV-2 Ab, Nucleocapsid

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
SARS-CoV-2 Ab, Nucleocapsid A,01	Positive			Negative

Results suggest recent or prior infection with SARS-CoV-2. Correlation with epidemiologic risk factors and other clinical and laboratory findings is recommended. Serologic results should not be used as the sole basis to diagnose or exclude recent SARS-CoV-2 infection. False positive results infrequently occur due to prior infection with other human Coronaviruses.
This assay will not detect antibodies induced by the currently available SARS-CoV-2 vaccines. The current vaccines elicit antibodies specific to the viral spike protein. Labcorp offers two test codes that detect viral spike-specific antibodies:
164090 SARS-CoV-2 Semi-Quantitative Total Antibody, Spike and
164055 SARS-CoV-2 Antibody, IgG, Spike (Qualitative).
Positive results with this SARS-CoV-2 Antibodies, Nucleocapsid

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Table 1: Final Labcorp Report Covering Name and Address of the Patient

Disclosure

The author does NOT have any conflict of interest. Not affiliated to any political party in the USA or China.

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https://www.medrxiv.org/content/10.1101/2021.08.24.2126241 5v1#disqus_thread

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Disclaimer

Delaying vaccination by individuals who were naturally infected with SARS-CoV-2 in order to follow antibody levels does not reflect the opinion of Dr. Bernard Moss or to my knowledge that of the National Institute of Allergy and Infectious Diseases (NIAID, NIH).

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