

COVID-19 Digest Issue 55

May 14, 2021

CLINICAL PEARL

According to a recent publication in <u>The Journal of Virology</u>, patients who were infected with early forms of SARS-CoV-2 may have reduced protection against some emerging variants. Researchers assessed the ability of blood from 21 early patients with COVID-19 in Boston to neutralize new variants of concern (UK: B.1.1.7, South Africa: B.1.351) using a pseudovirus. They found modestly decreased levels of neutralization of B.1.1.7 but a larger, 4.8-fold reduction in neutralization of B.1.351 using these patient samples. Correlates of cross-neutralization included receptor-binding domain (RBD) and N-terminal domain (NTD) binding antibodies, homologous neutralizing antibody (Nab) titers, and membrane-directed T cell responses. How these in vitro results will translate to real scenarios, and what, if any, correlation there is to the antibody/cross-protective response created by the vaccines, remains to be seen. It is also important to note that antibody response is only one of many components of immunity following infection or vaccination.

PUBLIC HEALTH UPDATE

• American Academy of Pediatrics Calls for Children and Teens Age 12 and Up to Get the COVID-19 Vaccine

RESOURCES

- CDC COVID Data Tracker
 - o Variant Proportions
 - o Nationwide Commercial Laboratory Seroprevalence Survey
- CDC/IDSA
 - o COVID-19 Clinician Call The Global COVID-19 Situation: Focus on India
- IDSA
 - <u>Vaccine Education Roundtable Series: The Role of Pharmacies in Equitable Vaccine Distribution A</u> <u>Conversation with Richard Watkins of CVS/Aetna</u>
 - o COVID-19: Rehab and Recovery
- Center for Infectious Disease Research and Policy
 - o Osterholm Update: COVID-19 Episode 54: Vaccines and Taking Care of Friends

ACADEMIC/RESEARCH PAPERS

- New England Journal of Medicine
 - o Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant
 - o Effectiveness of the BNT162b2 Covid-19 Vaccine against the B.1.1.7 and B.1.351 Variants
 - o Interplay between Emerging SARS-CoV-2 Variants and Pandemic Control
- BMJ
 - <u>Arterial events, venous thromboembolism, thrombocytopenia, and bleeding after vaccination with</u> Oxford-AstraZeneca ChAdOx1-S in Denmark and Norway: population based cohort study
 - o <u>Thromboembolism and the Oxford-AstraZeneca vaccine</u>
- Annals of Emergency Medicine
 - <u>Early Outcomes of Bivalirudin Therapy for Thrombotic Thrombocytopenia and Cerebral Venous Sinus</u>
 <u>Thrombosis after Ad26.COV2.S Vaccination: A Case Report</u>



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- JAMA
 - <u>Association Between Vaccination With BNT162b2 and Incidence of</u> <u>Symptomatic and Asymptomatic SARS-CoV-2 Infections Among Health Care Workers</u>
 - <u>Global Incidence of Neurological Manifestations Among Patients Hospitalized With COVID-19—A</u> <u>Report for the GCS-NeuroCOVID Consortium and the ENERGY Consortium</u>
 - <u>US Pediatric Emergency Department Visits for Mental Health Conditions During the COVID-19</u> <u>Pandemic</u>
- Pediatrics
 - o <u>COVID-19 Vaccines in Children and Adolescents</u>
- bioRxiv
 - o Infection and vaccine-induced neutralizing antibody responses to the SARS-CoV-2 B.1.617.1 variant
 - o Mouse Adapted SARS-CoV-2 protects animals from lethal SARS-CoV challenge
- Nature
 - o <u>Neutralizing antibody vaccine for pandemic and pre-emergent coronaviruses</u>
 - o <u>The epidemiological impact of the NHS COVID-19 App</u>
- Journal of Virology
 - o <u>SARS-CoV-2 spike protein stabilized in the closed state induces potent neutralizing responses.</u>
- Lancet
 - <u>Post-acute effects of SARS-CoV-2 infection in individuals not requiring hospital admission: a Danish</u> population-based cohort study
 - o Post-acute conditions of patients with COVID-19 not requiring hospital admission
 - <u>Non-steroidal anti-inflammatory drug use and outcomes of COVID-19 in the ISARIC Clinical</u> <u>Characterisation Protocol UK cohort: a matched, prospective cohort study</u>
- Obstetrics and Gynecology
 - o <u>Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Vaccination in Pregnancy</u>
- Annals of Internal Medicine
 - o <u>In-Hospital Mortality in a Cohort of Hospitalized Pregnant and Nonpregnant Patients With COVID-19</u>
 - Factors Associated With Risk for Care Escalation Among Patients With COVID-19 Receiving Home-Based Hospital Care
- PNAS
 - o Just 2% of SARS-CoV-2-positive individuals carry 90% of the virus circulating in communities
- Journal of Infection
 - o Impact of COVID-19 vaccination program on seroprevalence in blood donors in England, 2021
- Emerging Infectious Diseases
 - o <u>Cross-Sectional Serosurvey of Companion Animals Housed with SARS-CoV-2–Infected Owners, Italy</u>
- Chronic Respiratory Disease
 - Early experiences of rehabilitation for individuals post-COVID to improve fatigue, breathlessness exercise capacity and cognition – A cohort study
- Arthritis and Rheumatolgy
 - <u>Risk of COVID-19 in Rheumatoid Arthritis: A National Veterans Affairs Matched Cohort Study in At-</u> <u>Risk Individuals</u>
- Experimental Physiology
 - <u>Carotid stiffness, intima media thickness, and aortic augmentation index among adults with SARS-CoV-2</u>





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- Frontiers in Psychology
 - <u>Communication Across Maternal Social Networks During England's First</u> <u>National Lockdown and Its Association With Postnatal Depressive Symptoms</u>
- CMAJ
 - o <u>Managing drug shortages during a pandemic: tocilizumab and COVID-19</u>
- Cell
 - o Nanotraps for the containment and clearance of SARS-CoV-2
- The Independent Panel for Pandemic Preparedness and Response
 - o How an outbreak became a pandemic The defining moments of the COVID-19 pandemic
 - o <u>COVID-19: Make it the Last Pandemic</u>
- Kaiser Family Foundation
 - o KFF COVID-19 Vaccine Monitor April 2021

MMWR

- <u>Diagnostic Performance of an Antigen Test with RT-PCR for the Detection of SARS-CoV-2 in a Hospital Setting</u> <u>— Los Angeles County, California, June–August 2020</u>
- <u>Community-Based Testing for SARS-CoV-2 Chicago, Illinois, May–November 2020</u>
- <u>Rapid Emergence and Epidemiologic Characteristics of the SARS-CoV-2 B.1.526 Variant New York City, New</u> York, January 1–April 5, 2021
- Identification of and Surveillance for the SARS-CoV-2 Variants B.1.427 and B.1.429 Colorado, January-March 2021
- <u>Modeling of Future COVID-19 Cases, Hospitalizations, and Deaths, by Vaccination Rates and</u> <u>Nonpharmaceutical Intervention Scenarios — United States, April–September 2021</u>
- <u>Demographic and Social Factors Associated with COVID-19 Vaccination Initiation Among Adults Aged ≥65</u> <u>Years — United States, December 14, 2020–April 10, 2021</u>

HOT OFF THE (LAY) PRESS

- The White House Statements and Releases
 - President Biden to Announce Additional Efforts to Get America Vaccinated, Including Free Rides to Vaccination Sites from Lyft and Uber, Vaccination Clinics at Community Colleges, and Additional Resources for States' Community Outreach Efforts
- WHO News Releases
 - WHO Director-General commends United States decision to support temporary waiver on intellectual property rights for COVID-19 vaccines
- Medecins Sans Frontieres (MSF) News
 - o MSF applauds US Leadership on waiving IP for COVID-19 vaccines
- New York Times
 - o <u>The F.D.A. authorizes the Pfizer-BioNTech vaccine for children 12 to 15.</u>
 - o <u>C.D.C. Advisers Endorse Pfizer Vaccine for Children Ages 12 to 15</u>
 - o Poll Shows Parents Are Reluctant to Get Their Children Vaccinated for Covid-19
 - o <u>To Vaccinate Younger Teens, States and Cities Look to Schools, Camps, Even Beaches</u>
 - <u>Randi Weingarten, president of America's second-largest teachers' union, plans to call for a full</u>
 <u>reopening of schools for the next academic year.</u>
 - o Pfizer and BioNTech apply for full U.S. approval for their Covid vaccine





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- The World Health Organization approved China's Sinopharm Covid-19 vaccine for emergency use, easing the way for poorer nations to obtain shots.
- <u>Europe, South Africa and Canada are holding back millions of J.&J. vaccine doses, as a Baltimore</u> plant's troubles continue to ripple across the world.
- <u>The Pfizer-BioNTech vaccine is incredibly effective against severe disease caused by two variants,</u> <u>studies say</u>
- o <u>A Moderna vaccine booster will be effective against some variants, a trial indicates</u>
- o <u>They Haven't Gotten a Covid Vaccine Yet. But They Aren't 'Hesitant' Either</u>
- o The world may need to learn to live with the virus
- o Coronavirus Briefing: Back-to-work vaccines
- o Many U.S. States with Bad Recent Outbreaks Show Case and Hospitalization Drops
- Fully vaccinated Americans no longer need to wear masks or maintain social distance indoors or outdoors, with some exceptions, the C.D.C. said.
- o <u>A Misleading C.D.C. Number</u>
- o <u>Diet Companies See Gains as Americans Try to Drop Pandemic Pounds</u>
- NPR
 - o Uber And Lyft Will Give Free Rides To COVID-19 Vaccination Spots, White House Says
 - o <u>To Bridge The Digital Divide, Biden Administration Launches Vaccine Hotline</u>
 - o <u>Celebrities Push For Vaccine Equity At 'Vax Live' Benefit Concert</u>
 - o Ohio Wants To Make 5 People Millionaires If They're Vaccinated
 - o The Offer Of Free Beer May Help Lagging Vaccination Rate
 - o <u>New Study Estimates More Than 900,000 People Have Died Of COVID-19 In U.S.</u>
 - o <u>4th Wave Of COVID-19 Hospitalizations Hits Washington State</u>
 - o California Man Arrested In Suspected Fake COVID-19 Vaccine Card Operation
- Politico
 - o <u>States won't get Johnson & Johnson vaccines next week</u>
- The Washington Post
 - o Maker of latest experimental vaccine will not seek authorization until July at the earliest
- AP News

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- o Poll: Most in US who remain unvaccinated need convincing
- STAT News
 - o <u>CDC's slow, cautious messaging on Covid-19 seems out of step with the moment, public health</u> <u>experts say</u>
- The Wall Street Journal
 - o National Eviction Moratorium Thrown Out by Federal Judge
- Reuters
 - o Indian doctors warn against cow dung as COVID cure
- Nature News
 - o Mice with severe COVID symptoms could speed vaccine effort
- Moderna Press Releases
 - o Moderna Announces Positive Initial Booster Data Against SARS-CoV-2 Variants of Concern
- The Guardian
 - o <u>States turning down Covid-19 vaccine doses as US demand declines</u>



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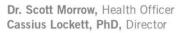
- The Sacramento Bee
 - <u>Pediatricians can skip California's glitchy MyTurn system for COVID</u> vaccine, state says
- Mercury News
 - o Data show California vaccination rates growing slowly in many lower-income areas
- SFist
 - o Oakland Coliseum Mass-Vaccination Site to Close May 23; Moscone Center to Close May 28
- San Francisco Chronicle
 - o California children ages 12 to 15 can get COVID-19 vaccine starting Thursday
 - o Here's where Bay Area teens will be able to get the COVID vaccine
 - o Young Californians lag in vaccinations. Here's why changing that is critical
 - o CVS now offering walk-in COVID vaccinations in Bay Area
 - o <u>California reveals data on outcomes for breakthrough cases after COVID vaccinations</u>
 - o Bay Area reopens some more: San Mateo County moves to yellow tier
 - o Bay Area is close to herd immunity. But we may never get there

EPIDEMIOLOGY UPDATES

- CDC COVID Data Tracker
- US Leads the World in Confirmed COVID-19 Cases per Johns Hopkins University Center for Systems Science and Engineering Dashboard Website
- Johns Hopkins COVID-19 in the USA daily summary of key data on COVID-19 in the U.S.
- California COVID-19 by the numbers are available on the <u>CDPH Website</u> and the <u>NYT Map and</u> <u>Table</u> (includes data by county)
 - o California COVID-19 Statewide Update as of May 14, 2021
- San Mateo County COVID-19 Dashboard
- Santa Clara County COVID-19 Dashboard

ADDITIONAL COVID-19 RESOURCES

- San Mateo County COVID-19 Guidance and Resources for Clinicians and Facilities COVID-19 Digests
- Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties
- California COVID-19 Data and Tools
- <u>CDPH COVID-19 Assessment and Modeling Tool</u>
- <u>California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards</u>
- <u>CDC Interactive Serology Dashboard for Commercial Laboratory Surveys</u>
- <u>Children and COVID-19: State-Level Data Report</u>
- HHS Coronavirus Data Hub
- <u>COVID-19 Nursing Home Data</u>



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