

COVID-19 Digest Issue 33

December 10, 2020

CLINICAL PEARL

• Chemical Compounds in Certain Foods Can Inhibit an Important SARS-CoV-2 Enzyme: According to a report published in Frontiers in Plant Sciences naturally occurring compounds found in green tea, muscadine grapes, and dark chocolate can bind to and block the function of the "main protease" (Mpro) in SARS-CoV-2. Computer simulations showed the chemical compounds from green tea, two varieties of muscadine grapes, cacao powder and dark chocolate were able to bind to different portions of Mpro and to inactivate it.

PUBLIC HEALTH UPDATES

- San Mateo County Health Officer, Dr. Scott Morrow, issued a statement on December 7th
- The <u>CA Notify</u> mobile application, which will allow people who test positive to anonymously inform those with whom they have been in close proximity that they may have been exposed, is scheduled to launch statewide on December 10th
- FDA authorized the <u>first diagnostic test for at home collection of patient samples to detect both COVID-19</u> and influenza A and B (flu)
- Society for Maternal-Fetal Medicine (SMFM) Statement: <u>SARS-CoV-2 Vaccination in Pregnancy</u>

GUIDANCE/GUIDELINES

- CDC: Domestic Travel During the COVID-19 Pandemic guidance
- FDA recommends patients wear face masks with no metal during MRIs
- NIH: <u>The COVID-19 Treatment Guidelines Panel's Statement on the Emergency Use Authorization of the</u> <u>Casirivimab Plus Imdevimab Combination for the Treatment of COVID-19</u>
- American Academy of Pediatrics: <u>COVID-19 Interim Guidance: Return to Sports</u>

RESOURCES

- Immunization Action Coalition (IAC) Webinar with CDC Speakers: <u>COVID-19 Vaccination Implementation and</u>
 <u>the "Vaccine with Confidence" Strategy</u>
- IDSA Media Briefing and Podcast:
 - o <u>COVID-19 Vaccine Progress Report</u>
 - o <u>COVID-19: Mental Health on the Front Lines</u>
- CDC/IDSA <u>COVID-19 Clinician Calls Series</u>
- CDC/IDSA COVID-19 Real-Time Learning Network:
 - o <u>Vaccine Development</u>
 - o <u>Vaccine Distribution</u>
- UCSF Department of Medicine Grand Rounds Webinar: <u>COVID-19 How Should We Handle the Schools, and</u> <u>the Challenges of Vaccine Distribution</u>
- American Thoracic Society (ATS) <u>COVID-19 Critical Care Training Forum</u>



Dr. Scott Morrow, Health Officer Cassius Lockett, PhD, Director

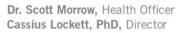
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ACADEMIC/RESEARCH PAPERS

- Cell Systems
 - <u>Predicted Cellular Immunity Population Coverage Gaps for SARS-CoV-2 Subunit Vaccines and their</u> <u>Augmentation by Compact Peptide Sets</u>
- Science
 - o IgA dominates the early neutralizing antibody response to SARS-CoV-2
 - o Enhanced SARS-CoV-2 neutralization by dimeric IgA
- New England Journal of Medicine
 - o Durability of Responses after SARS-CoV-2 mRNA-1273 Vaccination
 - o <u>Shedding of Viable SARS-CoV-2 after Immunosuppressive Therapy for Cancer</u>
 - o <u>Repurposed Antiviral Drugs for Covid-19 Interim WHO Solidarity Trial Results</u>
- Nature
 - o <u>Correlates of protection against SARS-CoV-2 in rhesus macaques</u>
- JAMA
 - o <u>COVID-19 and mRNA Vaccines—First Large Test for a New Approach</u>
 - o <u>A Proposed Framework and Timeline of the Spectrum of Disease Due to SARS-CoV-2 Infection</u>
 - Assessment of Racial/Ethnic Disparities in Hospitalization and Mortality in Patients With COVID-19 in New York City
 - Overdose-Related Cardiac Arrests Observed by Emergency Medical Services During the US COVID-19 Epidemic
 - <u>Changes in Health Services Use Among Commercially Insured US Populations During the COVID-19</u> <u>Pandemic</u>
 - o Risk of Severe COVID-19 Among Workers and Their Household Members
 - o <u>Stillbirths During the COVID-19 Pandemic in England, April-June 2020</u>
 - <u>Changes in Preterm Birth Phenotypes and Stillbirth at 2 Philadelphia Hospitals During the SARS-CoV-2</u> Pandemic, March-June 2020
- Pediatrics
 - o Symptoms and Transmission of SARS-CoV-2 Among Children—Utah and Wisconsin, March–May 2020
- Clinical Infectious Diseases
 - Serologic testing of U.S. blood donations to identify SARS-CoV-2-reactive antibodies: December 2019-January 2020
- BMJ Journal
 - Accuracy of UK Rapid Test Consortium (UK-RTC) "AbC-19 Rapid Test" for detection of previous SARS-CoV-2 infection in key workers: test accuracy study
- The Lancet
 - o <u>Metformin and risk of mortality in patients hospitalised with COVID-19: a retrospective cohort analysis</u>
 - o Impact of delays on effectiveness of contact tracing strategies for COVID-19: a modelling study
- International Journal of Periodontics and Restorative Dentistry
- o Incidence of COVID-19 Virus Transmission in Three Dental Offices: A 6-Month Retrospective Study
- American Heart Association Journal
 - <u>Acute Cardiovascular Manifestations in 286 Children with Multisystem Inflammatory Syndrome</u> <u>Associated with COVID-19 Infection in Europe</u>
- World Journal of Men's Health
 - o <u>Histopathology and Ultrastructural Findings of Fatal COVID-19 Infections on Testis</u>



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- Emerging Infectious Diseases
 - o <u>COVID-19 and Infant Hospitalizations for Seasonal Respiratory Virus</u> <u>Infections, New Zealand, 2020</u>
 - o <u>Severe Acute Respiratory Syndrome Coronavirus 2 Outbreak Related to a Nightclub, Germany, 2020</u>
 - Institute for Health Metrics and Evaluation
 - o <u>COVID-19 Results Briefing: the United States of America</u>

MMWR

- <u>The Advisory Committee on Immunization Practices' Interim Recommendation for Allocating Initial Supplies</u> of COVID-19 Vaccine — United States, 2020
- <u>Summary of Guidance for Public Health Strategies to Address High Levels of Community Transmission of</u> <u>SARS-CoV-2 and Related Deaths, December 2020</u>
- <u>Disproportionate Incidence of COVID-19 Infection, Hospitalizations, and Deaths Among Persons Identifying as</u> <u>Hispanic or Latino — Denver, Colorado March–October 2020</u>
- Implementing Mitigation Strategies in Early Care and Education Settings for Prevention of SARS-CoV-2 Transmission — Eight States, September–October 2020

HOT OFF THE (LAY) PRESS

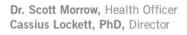
- The New York Times
 - o Long-Term-Care Residents and Health Workers Should Get Vaccine First, C.D.C. Panel Says
 - <u>Pfizer's coronavirus vaccine offers strong protection after the first dose, the F.D.A. said in its first</u> <u>analysis of the clinical trial data.</u>
 - o Moderna Plans to Begin Testing Its Coronavirus Vaccine in Children
 - o Trump Officials Push Ambitious Vaccine Timeline as California Locks Down
 - Trump administration officials passed when Pfizer offered in the summer to sell the U.S. more vaccine doses, people familiar with the matter said.
 - o The U.K. approves a vaccine, becoming the first nation in the West to do so
 - o U.K. Coronavirus Vaccine: Side Effects, Safety, and Who Gets It First
 - <u>A 90 year old British woman became the first person in the world to receive a clinically authorized,</u> <u>fully tested corona vaccine</u>
 - <u>Canada approved Pfizer's vaccine after an independent review, its drug regulator said. Residents could</u> <u>begin receiving shots as early as next week.</u>
 - <u>A Chinese coronavirus vaccine is 86 percent effective in an early analysis of clinical trial data, according</u> to the United Arab Emirates.
 - o <u>'Natural Immunity' From Covid Is Not Safer Than a Vaccine</u>
 - o Here's Why Vaccinated People Still Need to Wear a Mask
 - Winter will be "the most difficult time in the public health history of this nation" unless more people follow precautions, the C.D.C. director said.
 - The number of Covid-19 patients in U.S. hospitals exceeded 100,000 for the first time, nearly double the peak from the first wave in the spring.
 - o ICU Beds Nearing Capacity Across the Country, New Data Shows
 - o <u>As Virus Spreads, C.D.C. Draws Up an Urgent Battle Plan</u>
 - o U.S. virus deaths surpass the spring peak as the country reports more than 14 million cases
 - o <u>Covid Survivors With Long-Term Symptoms Need Urgent Attention, Experts Say</u>
 - o Bergamo's Pandemic Survivors Carry Scars Unseen and Incalculable





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- o <u>'Nobody Sees Us': Testing-Lab Workers Strain Under Demand</u>
- o <u>The Newest Hotel Amenity? Virus-Scrubbed Air</u>
- o How the U.C. Campuses Have Managed Covid-19
- o Black and Latino students in California are suffering most from the pandemic, a lawsuit says
- o Racial Gaps in Pandemic Stem from Social Inequities, Studies Find
- o <u>California Will Impose Its Strongest Virus Measures Since the Spring</u>
- o San Francisco Bay Area Issues Strict Stay-at-Home Order
- o <u>With cases on the rise, California faces a severe shortage of hospital staff and beds</u>
- NPR/KQED
 - o <u>California Residents Under Strict Stay-At-Home Orders Through Christmas</u>
 - o <u>Severe Outbreaks in Santa Clara County's Long-Term Care, Homeless Shelters</u>
 - o Preliminary Testing Shows Coronavirus Surge in San Francisco Mission District
 - o <u>'There Will Be Rollbacks': More San Francisco COVID-19 Restrictions Coming This Week, Breed Says</u>
 - o <u>Quarantined Health Workers Compound Staffing Shortages At California Hospitals</u>
 - o <u>'Cruise To Nowhere' Returns To Singapore Early After Positive Coronavirus Test</u>
 - o Psychologist Says Tailored Messaging Is Key For Effective Public Health Policy
 - o Biden Names Massachusetts Doctor To Lead CDC
 - o CDC Adviser On COVID-19 Vaccine Priority Groups And Why Some Aren't Eager To Be First
 - o Vaccine Cards And Second-Dose Reminders Are Part Of Warp Speed's Immunization Plan
 - o How Rich Countries Are 'Hoarding' The World's Vaccines, In Charts
 - o <u>1st Doses Of COVID-19 Vaccine To Be Administered This Week In The U.K.</u>
 - o <u>U.K. Regulators Tell People With Severe Allergies Not To Get Vaccine</u>
- BBC News
 - o Covid-19: Pfizer/BioNTech vaccine judged safe for use in UK
- The New Yorker
 - o <u>Atul Gawande on Coronavirus Vaccines and Prospects for Ending the Pandemic</u>
 - o How Will We Tell the Story of the Coronavirus?
- CISION News
 - o <u>COVID Collaborative Announces Partnership with Ad Council on \$50 Million Vaccine Education</u> <u>Campaign</u>
- Washington Post
 - o <u>Countdown to America's first coronavirus vaccine: What to watch this critical week</u>
 - o <u>What seven ICU nurses want you to know about the battle against covid-19</u>
 - o <u>A doctor derided mask-wearing. His medical license has been suspended.</u>
 - Japan and South Korea see surge of suicides among young women, raising new questions about pandemic stress
 - o <u>Nursing home staffers attended a 300-person superspreader wedding. Now six residents have died.</u>
- The Atlantic
 - o <u>Count Down to a Coronavirus Vaccine</u>
 - o <u>The U.S. Has Passed the Hospital Breaking Point</u>
 - o <u>The Deadly Cost of America's Pandemic Politics</u>
- Medscape
 - o Biden's Pick to Head CDC Welcomed by Public Health Experts
 - o <u>COVID Passes Heart Disease as Top US Killer</u>
 - o <u>COVID-19 May Hurt Male Fertility</u>



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- USA Today
 - What vaccination rates in rural America tell us about the advent of COVID-19 vaccines
 - Police had an hour to stop a mom and her COVID-positive son from boarding a flight. They found them
- CNN
 - <u>United Airlines bans couple arrested for allegedly traveling to Hawaii knowing they tested positive for</u> <u>Covid-19</u>
- AP News
 - o <u>Holiday air travel surges despite dire health warnings</u>
 - o Data shows Americans couldn't resist Thanksgiving travel
- Reuters
 - o Lilly and UnitedHealth launch trial of COVID-19 antibody
 - o Hong Kong curbs karaoke, closes games centres after reporting 76 new COVID cases
 - o Analysis: Could COVID knock out flu in Europe this winter?
- Center for Infectious Disease Research and Practice News
 - o WHO warns of COVID-19 surges in south, central Europe
 - o <u>COVID-related nursing shortages hit hospitals nationwide</u>
- National Geographic
 - o <u>Already had the coronavirus? You could get it again.</u>
- Nature News
 - o <u>Can dogs smell COVID? Here's what the science says</u>
- Bloomberg
 - o <u>Vaccines' Side Effects Risk Sidelining Health Workers While Cases Surge</u>
 - o Imbed Biosciences Chases Nasal Spray to Combat Covid-19 Spread
- The Hill
 - o Biotech company seeking FDA approval to test nasal spray as short-term coronavirus protection
- NBC News
 - o <u>How Covid test supply shortages could cause a 'public health crisis' of undiagnosed STIs</u>
- New England Journal of Medicine Perspective
 - o <u>The Missing Piece SARS-CoV-2 Testing and School Reopening</u>
- NEWA Press Releases
 - New Research on Academic Impacts from COVID-19 Closures Highlights Gains in Reading and Setbacks in Math
- LAist
 - o LAUSD Shuts Down Campuses That Had Partially Reopened
- The Mercury News
 - o <u>Nearly 200 workers test positive for COVID-19 at Foster Farms poultry plant in Fresno</u>
- The Los Angeles Times
 - o Hospitals face tough choices as ICUs fill up with COVID-19 patients
 - o Some ICUs at California hospitals are completely full: "It is the worst we have seen"
 - o Hospital ICUs full in Silicon Valley, Central Valley as California braces for more
- Sacramento Bee
 - <u>COVID-19 breaking point: Northern California hospitals, ICUs filling up with virus</u> patients





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- San Francisco Chronicle
 - <u>Bay Area hospitals brace for rising wave of coronavirus cases as public</u> officials raise alarms
 - o <u>Coronavirus hospitalizations have hit records in these Bay Area counties under lockdown</u>
 - o <u>Coronavirus vaccines arriving soon in California. Here's who will get them first</u>
 - o <u>California launches app to alert people whose contacts test positive for coronavirus</u>
- SF Gate
 - o <u>'Poorly understood metrics': San Mateo health officer says county won't join stay-at-home order</u>

EPIDEMIOLOGY UPDATES

- 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 December 10, 2020
- 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
- <u>California COVID-19 Data and Tools</u>
- <u>CDPH COVID-19 Assessment and Modeling Tool</u>
- California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards
- COVID-19 Nursing Home Data
- HHS Coronavirus Data Hub
- <u>CDC Interactive Serology Dashboard for Commercial Laboratory Surveys</u>

