



COVID-19 Digest Issue 32

December 2, 2020

CLINICAL PEARL

- **The search for a snake bite antidote could lead to a new treatment for COVID-19:** Snakebites kill nearly 140,000 individuals a year, mostly in impoverished rural areas of Asia and Africa, which lack the proper medical infrastructure and knowledge to administer antidotes. A major problem is the approximately two hours it takes on average for a snakebite victim to get to a hospital and begin treatment. Venom is a mixture of enzymes that immediately begins to destroy cells, making prompt treatment essential to prevent tissue loss and save lives. Since the early 1900s, the antidote has been made by injecting horses or other animals with diluted poison extracted from snakes. The immune system of animals generates antibodies for several months; then blood plasma is extracted from them, from which the antibodies are taken. **Ophirex, Inc. is a public-benefit corporation committed to raising awareness about snakebites and developing the world's first small molecule therapeutics for snakebites that can be administered orally.**

The search for this small molecule inhibitor started by selecting which venom enzyme should be blocked. Several variants of secreted phospholipases A₂ (sPLA₂s) are common in snake venoms. **Varespladib (LY315920)**, a [clinically-tested synthetic molecule](#) was found to block inflammatory cascades at [nanomolar and picomolar concentrations](#) against 28 medically important snake venoms from six continents. **Varespladib was jointly developed by Eli Lilly and Shionogi, a Japanese pharmaceutical company, as a possible treatment for sepsis and acute coronary syndrome but was never commercialized.** Because inflammation of the lungs caused by COVID-19 also produces sPLA₂, **Ophirex's Phospholipase A2 Inhibitor will be tested in oral and injectable formulations for treatment of SARS-CoV-2 [under the direction of the U.S. Army Medical Material Development Activity \(USAMMDA\)](#).**

GUIDANCE/GUIDELINES

- Infectious Diseases Society of America (IDSA):
 - [Masks and Face Coverings for the Public](#)
 - [Vaccine Development](#)
 - [Monoclonal Antibodies](#)
- FDA: [New Policy on Dry Heat for Reuse of Certain Respirators](#)

RESOURCES

- CDC COVID Data Tracker
 - [Case Trends](#), [Laboratory](#), [Unique Populations](#) (Healthcare Personnel), [Community Impact](#)
- CDC COVID-19 Forecasts (updated November 30)
 - [Cases](#)
 - [Deaths](#)
- CDC Library: [COVID-19 Science Update](#)
- New England Journal of Medicine
 - [COVID-19 Primer – Virtual Patient Simulation](#)
 - [COVID-19 Rx – Treatment Simulations](#)





COVID-19 Digest Issue 32

ACADEMIC/RESEARCH PAPERS

- *Cell*
 - [Evaluating the effects of SARS-CoV-2 Spike mutation D614G on transmissibility and pathogenicity](#)
- *Science*
 - [SARS-CoV-2 D614G variant exhibits efficient replication ex vivo and transmission in vivo](#)
- *Nature*
 - [Spike mutation D614G alters SARS-CoV-2 fitness](#)
 - [No evidence for increased transmissibility from recurrent mutations in SARS-CoV-2](#)
 - [Age-specific mortality and immunity patterns of SARS-CoV-2](#)
 - [Olfactory transmucosal SARS-CoV-2 invasion as a port of central nervous system entry in individuals with COVID-19](#)
 - [Long-distance airborne dispersal of SARS-CoV-2 in COVID-19 wards](#)
- *Journal of Infectious Diseases*
 - [Long-term survival of SARS-CoV-2 on salmon as a source for international transmission](#)
- *Emerging Infectious Diseases*
 - [Childcare Exposure to Severe Acute Respiratory Syndrome Coronavirus 2 for 4-Year-Old Presymptomatic Child, South Korea](#)
 - [SARS-CoV-2 Transmission between Mink \(*Neovison vison*\) and Humans, Denmark](#)
- *JAMA*
 - [Estimated SARS-CoV-2 Seroprevalence in the US as of September 2020](#)
 - [Antibodies, Immunity, and COVID-19](#)
 - [Clinical, Laboratory, and Interferon-Alpha Response Characteristics of Patients With Chilblain-like Lesions During the COVID-19 Pandemic](#)
 - [Race/Ethnicity Among Children With COVID-19–Associated Multisystem Inflammatory Syndrome](#)
- *International Journal of Infectious Diseases*
 - [Healthcare worker infections and deaths due to COVID-19: A survey from 37 nations and a call for WHO to post national data on their website](#)
- *Journal of Clinical Investigation*
 - [BCG vaccination history associates with decreased SARS-CoV-2 seroprevalence across a diverse cohort of healthcare workers](#)
 - [Recent endemic coronavirus infection is associated with less severe COVID-19](#)
- *Clinical Infectious Diseases*
 - [Estimated incidence of COVID-19 illness and hospitalization — United States, February–September, 2020](#)
- *New England Journal of Medicine*
 - [A Randomized Trial of Convalescent Plasma in Covid-19 Severe Pneumonia](#)
 - [Effect of Hydroxychloroquine in Hospitalized Patients with Covid-19](#)
 - [Hydroxychloroquine with or without Azithromycin in Mild-to-Moderate Covid-19](#)
 - [A Cluster-Randomized Trial of Hydroxychloroquine for Prevention of Covid-19](#)
- *Radiology*
 - [DeepCOVID-XR: An Artificial Intelligence Algorithm to Detect COVID-19 on Chest Radiographs Trained and Tested on a Large US Clinical Dataset](#)





COVID-19 Digest Issue 32

- *Annals of Medicine*
 - [Admission hyperglycaemia as a predictor of mortality in patients hospitalized with COVID-19 regardless of diabetes status: data from the Spanish SEMI-COVID-19 Registry](#)
- *Journal of Diabetes Investigation*
 - [Glycemic control before admission is an important determinant of prognosis in patients with coronavirus disease 2019](#)
- *Transplant Infectious Disease*
 - [Organ recovery from deceased donors with prior COVID-19: A case series](#)
- *Critical Care Medicine*
 - [Improving Survival of Critical Care Patients With Coronavirus Disease 2019 in England - A National Cohort Study, March to June 2020](#)
- *PLOS*
 - [Lack of efficacy of standard doses of ivermectin in severe COVID-19 patients](#)
 - [Monitor for COVID-19 vaccine resistance evolution during clinical trials](#)
 - [Public perceptions of the effectiveness of recommended non-pharmaceutical intervention behaviors to mitigate the spread of SARS-CoV-2](#)
- *medRxiv*
 - [Inward and outward effectiveness of cloth masks, a surgical mask, and a face shield](#)
- *The Lancet*
 - [Use of adenovirus type-5 vectored vaccines: a cautionary tale](#)
- *Healthcare (MDPI Journals)*
 - [A Drive-through Simulation Tool for Mass Vaccination during COVID-19 Pandemic](#)
- *Journal of the American College of Surgeon*
 - [Increased Firearm Injury During the COVID-19 Pandemic: A Hidden Urban Burden](#)
- *RAND Corporation*
 - [Will This School Year Be Another Casualty of the Pandemic?](#)

MMWR

- [Decline in SARS-CoV-2 Antibodies After Mild Infection Among Frontline Health Care Personnel in a Multistate Hospital Network — 12 States, April–August 2020](#)
- [Increase in Hospital-Acquired Carbapenem-Resistant *Acinetobacter baumannii* Infection and Colonization in an Acute Care Hospital During a Surge in COVID-19 Admissions — New Jersey, February–July 2020](#)
- [Implementation of Hospital Practices Supportive of Breastfeeding in the Context of COVID-19 — United States, July 15–August 20, 2020](#)

HOT OFF THE (LAY) PRESS

- *The New York Times*
 - [A U.S. Record: Two Million New Virus Cases in Two Weeks](#)
 - [Coronavirus in the U.S.: Latest Map and Case Count](#)
 - [Governor Newsom warns California's I.C.U. beds could be full before Christmas](#)
 - [California's Governor Warns of 'Drastic Action' as Hospitals Near Crisis](#)
 - [Los Angeles County, where the virus is surging, urges residents to stay home](#)





COVID-19 Digest Issue 32

- [Splitting 5 to 4, Supreme Court Backs Religious Challenge to Cuomo's Virus Shutdown Order](#)
- [Evidence Builds That an Early Mutation Made the Pandemic Harder to Stop](#)
- [Officials scale back contact tracing efforts in the U.S., saying they cannot keep up](#)
- [Should Isolation Periods Be Shorter for People With Covid-19?](#)
- [U.S. public school enrollment drops as parents, frustrated by lockdown, pull their children out](#)
- [An outbreak strikes a major P.P.E. supplier, and other news from around the world](#)
- [The Virus Won't Stop Evolving When the Vaccine Arrives](#)
- [Moderna will apply for emergency F.D.A. vaccine approval and says first injections could begin by Dec. 21](#)
- [After Admitting Mistake, AstraZeneca Faces Difficult Questions About Its Vaccine](#)
- [Ad Council's Challenge: Persuade Skeptics to Believe in Covid Vaccines](#)
- [Long-term care residents and at-risk health care workers should get the first coronavirus vaccines, a panel of experts advising the C.D.C. said.](#)
- **NPR/KQED**
 - [Moderna's COVID-19 Vaccine Candidate Gets More Good News](#)
 - [If There Aren't Enough Vaccines for All Health Care Workers in California, Which Doctors, Nurses or Aides Will Get it First?](#)
 - [Some Health Care Workers Are Wary Of Getting COVID-19 Vaccines](#)
 - [Initial Batch Of COVID-19 Vaccines Will Go To States Based On Population, Not Risk](#)
 - [Black People Are More Hesitant About A Vaccine. A Leading Nurse Wants To Change That](#)
 - [A COVID-19 Vaccine For Children May Still Be Many Months Away](#)
 - [As COVID-19 Vaccine Nears, Employers Consider Making It Mandatory](#)
 - [Unemployment Claims Jump For Second Week As Pandemic Rages](#)
 - [Epidemiologist Says Restricting Small Gatherings Isn't Enough To Stop The Surge](#)
 - [As Hospitals Fill With COVID-19 Patients, Medical Reinforcements Are Hard To Find](#)
 - [Near Crisis, Some Hospitals Face Tough Decisions In Caring For Floods Of Patients](#)
 - [California Hospitalizations From COVID-19 Surging; ICUs May Be Overwhelmed In Weeks](#)
 - [Embattled Public Health Workers Leaving At 'Steady And Alarming' Rate](#)
 - [CDC Likely To Recommend Shortening Coronavirus Quarantine Period](#)
 - [Coronavirus Was In U.S. Weeks Earlier Than Previously Known, Study Says](#)
 - [Pandemic Takes Toll On Children's Mental Health](#)
 - [New Report Offers Clearest Picture Yet Of Pandemic Impact On Student Learning](#)
- **The Wall Street Journal**
 - [Teachers Should Get the Covid Vaccine First](#)
 - [After Covid, 'Normal' Could Be Profoundly Different](#)
- **The Hill**
 - [University model predicts US could nearly double COVID-19 cases by Jan. 20](#)
 - [Scott Atlas resigns as coronavirus adviser to Trump](#)
- **Roll Call**
 - [Drug touted by Trump may not alleviate pandemic's toll on the poor](#)
- **CNN Health**
 - [Top health officials agree Americans who traveled for Thanksgiving should get tested. But this is where they differ](#)





COVID-19 Digest Issue 32

- *The Washington Post*
 - [Pandemic raises difficult issues about limits of tests for covid-19, other diseases](#)
 - [A growing number of Americans are going hungry](#)
 - [More than 500 soccer teams will gather in Arizona over Thanksgiving weekend as virus cases soar](#)
 - [Delta announces quarantine-free flights to Rome, raising hopes for more travel corridors](#)
- *STAT News*
 - [Data show hospitalized Covid-19 patients are surviving at higher rates, but surge in cases could roll back gains](#)
 - [‘They’ve been following the science’: How the Covid-19 pandemic has been curtailed in Cherokee Nation](#)
- *The New Yorker*
 - [The Race to Make Vials for Coronavirus Vaccines](#)
- *Forbes*
 - [Researchers Warn Some Covid-19 Vaccines Could Increase Risk Of HIV Infection](#)
- *Science*
 - [Could certain COVID-19 vaccines leave people more vulnerable to the AIDS virus?](#)
- *Reuters*
 - [U.S. officials plan to release 6.4 million COVID-19 vaccine doses in first distribution](#)
 - [U.S. infectious disease group backs Gilead's remdesivir for COVID-19 treatment](#)
 - [U.S. to begin distributing Regeneron's COVID-19 antibody therapy Tuesday](#)
- *The Atlantic*
 - [Hospitals Know What’s Coming](#)
 - [‘No One Is Listening to Us’](#)
- *JAMA Medical News and Perspectives*
 - [First It Was Masks; Now Some Refuse Testing for SARS-CoV-2](#)
 - [Reflections of a COVID-19 Long Hauler](#)
- *Medscape*
 - [How the US Has Mishandled the Pandemic](#)
 - [Are More Women Physicians Leaving Medicine as Pandemic Surges?](#)
- *NEJM Catalyst*
 - [Learning Systems in Times of Crisis: the Covid-19 Critical Intelligence Unit in New South Wales, Australia](#)
- *Science Speaks: Global ID News*
 - [COVID-19: WHO-China team “Terms of Reference” reveal new data on seafood market](#)
- *The Los Angeles Times*
 - [Coronavirus hospitalizations worsen in California, raising new alarms](#)
- *ABC7 News*
 - [Data shows shift in socioeconomic, racial dynamics of COVID-19 infections in SF and Marin County](#)
- *San Francisco Chronicle*
 - [Coronavirus live updates: Alarming hospital trends may spur new California stay-home orders, Newsom warns](#)
 - [Bay Area braces for lockdown as California case counts, hospitalizations soar](#)
 - [California may need new stay-at-home order to slow coronavirus, Newsom says](#)
 - [Newsom: Up to 2.4 million California health care workers could get coronavirus vaccine as soon as December](#)





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COVID-19 Digest Issue 32

- [COVID deaths on the rise across California. Can Bay Area avoid a major uptick?](#)
- [Surge strains coronavirus testing sites in Bay Area](#)
- [Indoor dining banned at all Bay Area restaurants, just as weather gets colder](#)
- [Fauci: US may see 'surge upon surge' of virus in weeks ahead](#)

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 [CDPH Website](#) and the [NYT Map and Table](#) (includes data by county)
 - **California [COVID-19 Statewide Update](#) as of December 2, 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](#)
- [California COVID-19 Data and Tools](#)
- [CDPH COVID-19 Assessment and Modeling Tool](#)
- [California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards](#)
- [COVID-19 Nursing Home Data](#)
- [HHS Coronavirus Data Hub](#)
- [CDC Interactive Serology Dashboard for Commercial Laboratory Surveys](#)

