

### COVID-19 Press Briefing

October 6, 2021







### Daily Change in COVID-19 Cases, US

January 22, 2020 – October 04, 2021

TOTAL Cases Reported Since 1/22/20

43,773,573

NEW Cases Reported to CDC on 10/4/21

71,127

Change in 7-Day Case Average

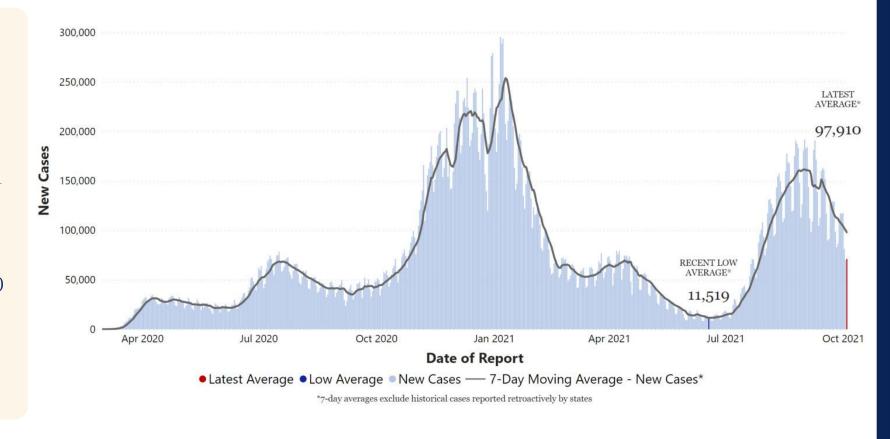
-12.5%

Current 7-Day Case Average (9/28/21 - 10/4/21)

97,910

Prior 7-Day Case Average (9/21/21 - 9/27/21)

111,852







### New Admissions of Patients with Confirmed COVID-19, US

August 1, 2020 – October 03, 2021

Patients Currently Hospitalized with COVID on 10/3/21

60,065

New Admissions on 10/3/21

6,160

Peak in New Admissions (1/5/21)

17,958

Change in 7-Day Average of New Admissions

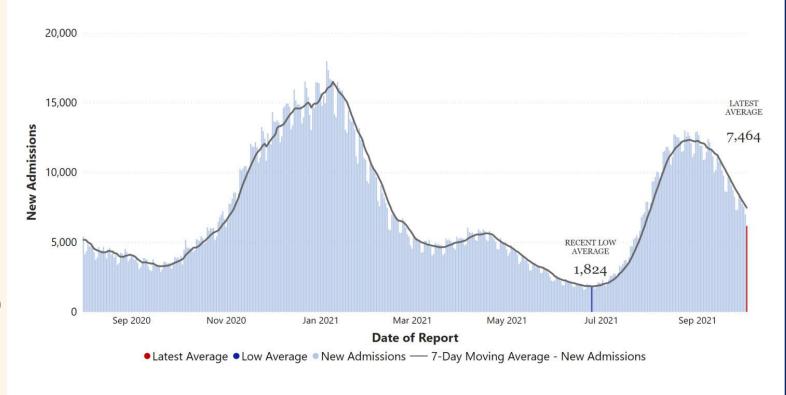
-14.6%

Current 7-Day Average of New Admissions (9/27/21 - 10/3/21)

7,464

Prior 7-Day Average of New Admissions (9/20/21 - 9/26/21)

8,739







### Daily Change in COVID-19 Deaths, US

January 22, 2020 – October 04, 2021

TOTAL Deaths Reported Since 1/22/2020

702,360

NEW Deaths Reported to CDC on 10/4/21 1,032

Change in 7-Day Death Average

-3.2%

Current 7-Day Death Average (9/28/21 - 10/4/21)

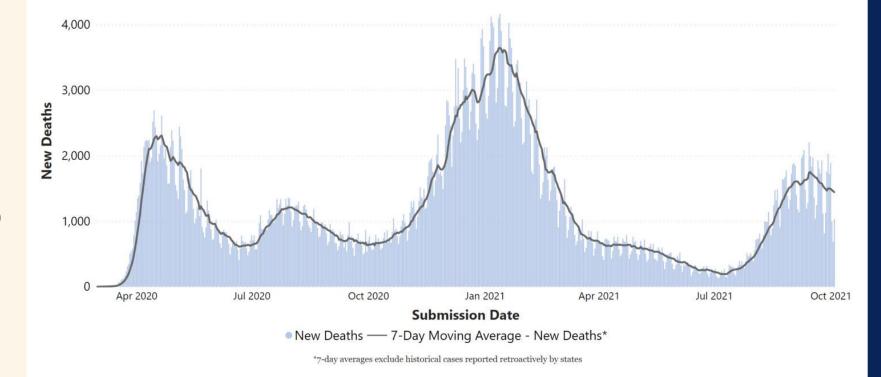
1,444

Prior 7-Day Death Average (9/21/21 - 9/27/21)

1,492

Forecasted Total Deaths by 10/23/21

724,000 to 753,000







### Selected COVID-19 Therapeutics

#### **Targeting the virus**

- Remdesivir FDA approved
- Other antivirals clinical trials
- Anti-SARS-CoV-2 monoclonal antibodies EUA
  - Regeneron (casirivimab + imdevimab)
  - Eli Lilly (bamlanivimab + etesevimab)
  - GSK & Vir (sotrovimab)



#### **Moderating host responses**

- Dexamethasone recommended for hospitalized patients on oxygen
- Tocilizumab (EUA) or Baricitinib (EUA)—recommended for certain patients on dexamethasone
- Other immunomodulators clinical trials





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Commentary

## COVID-19: The Therapeutic Landscape

Catharine I. Paules & Anthony S.Fauci

Targeted design of direct-acting, orally available antiviral drugs remains a very high priority in the COVID-19 therapeutics research response. The spectacular successes of this approach in the development of combinations of antiretroviral drugs for HIV and the development of curative therapies for hepatitis C serve as a model.





FOR IMMEDIATE RELEASE June 17, 2021

### Biden Administration to Invest \$3.2 Billion from American Rescue Plan as Part of COVID-19 Antiviral Development Strategy

Whole-of-Government Effort Will Develop Next Generation of COVID-19 Treatments, Better Prepare U.S. to Respond to Future Virus Threats





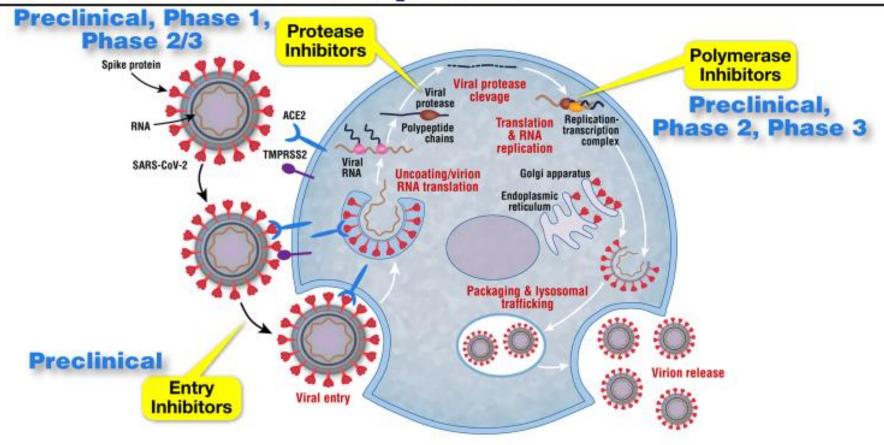


The Antiviral Program for Pandemics (APP) aims to catalyze the development of new medicines to combat COVID-19 and prepare for other pandemic threats





## SARS-CoV-2 Replication Cycle: Targets for Antiviral Therapeutics







## APP Will Utilize a Two-Pronged Approach for New Medicines Against Viruses of Pandemic Potential



### **Development**

Accelerate clinical testing of promising antiviral medicines



### **Discovery**

Expand basic science knowledge and discover new antiviral medicines

## Examples of Direct-Acting Antiviral Agents for SARS-CoV-2 Already in Development

- Protease inhibitors several in development, e.g.
  - PF-07321332 (Pfizer) in clinical trials
- Polymerase inhibitors several approved or in development, e.g.
  - Remdesivir (Gilead) FDA-approved
  - Molnupiravir (MK-4482 -- Ridgeback/Merck) in clinical trial for post-exposure prophyaxis, EUA filing is imminent for treatment
  - AT-527 (Atea/Roche) in clinical trials



## Molnupiravir: Clinical Data Announced Oct. 1, 2021 by Merck and Ridgeback

- Placebo-controlled trial of ~1500 people; DSMB stopped study early at first analysis of 775 people
- End point: prevention of hospitalization or death
- 7% hospitalization in treatment arm and 14% hospitalization or death in placebo arm → 50% decrease
- Placebo 8 deaths; treatment – 0 deaths









# Biden Administration Announces U.S. Government Procurement of Merck's Investigational Antiviral Medicine for COVID-19 Treatment

\$1.2 billion purchase agreement for 1.7 million 5-day treatment courses of molnupiravir from Merck, pending emergency use authorization (EUA) or approval from the U.S. Food and Drug Administration (FDA).





### Molnupiravir Development: A Cross-Sector Collaboration

- Basic research and product development funded by NIAID and Defense Threat Reduction Agency (DTRA) at Emory University, Georgia State, University of Alabama at Birmingham, University of North Carolina, Vanderbilt University
- Drug developed by Drug Innovation Ventures at Emory (DRIVE), a not-for-profit biotechnology company
- DRIVE licensed drug to Ridgeback Biotherapeutics, who partnered with Merck





### **Another Tool in the Anti-COVID Toolbox**

Molnupiravir: A promising oral drug that people could take at home soon after COVID-19 diagnosis to reduce the risk of severe outcomes

Vaccines: remain our best tools against COVID-19 – they can prevent you from getting COVID-19 in the first place







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