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|-----------------------------------------------|------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------|
| AABB                                          | AMERICAN SOCIETY OF ECHOCARDIOGRAPHY     | GO2 FOUNDATION FOR LUNG CANCER                               | PULMONARY HYPERTENSION ASSOCIATION                       |
| ADULT CONGENITAL HEART ASSOCIATION            | AMERICAN SOCIETY OF HEMATOLOGY           | HEALTHYWOMEN                                                 | RESTLESS LEGS SYNDROME FOUNDATION                        |
| ALLIANCE FOR AGING RESEARCH                   | AMERICAN SOCIETY OF NEPHROLOGY           | HEART FAILURE SOCIETY OF AMERICA                             | SLEEP RESEARCH SOCIETY                                   |
| ALPHA-1 FOUNDATION                            | AMERICAN THORACIC SOCIETY                | HEART RHYTHM SOCIETY                                         | SOCIETY FOR CARDIOVASCULAR ANGIOGRAPHY AND INTERVENTIONS |
| AMERICA'S BLOOD CENTERS                       | AMERICAN VASCULAR ASSOCIATION FOUNDATION | HEART VALVE VOICE US                                         | SOCIETY FOR CARDIOVASCULAR MAGNETIC RESONANCE            |
| AMERICAN ASSOCIATION FOR RESPIRATORY CARE     | ASSOCIATION OF BLACK CARDIOLOGISTS       | HEMOPHILIA FEDERATION OF AMERICA                             | SOCIETY FOR MATERNAL-FETAL MEDICINE                      |
| AMERICAN ASSOCIATION FOR THORACIC SURGERY     | CHILD NEUROLOGY SOCIETY                  | HYPERTROPHIC CARDIOMYOPATHY ASSOCIATION                      | FOUNDATION FOR SARCOIDOSIS RESEARCH                      |
| AMERICAN ACADEMY OF SLEEP MEDICINE            | CHILDREN'S CARDIOMYOPATHY FOUNDATION     | JUVENILE DIABETES RESEARCH FOUNDATION                        | SOCIETY FOR VASCULAR SURGERY                             |
| AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS | CONGRESS OF NEUROLOGICAL SURGEONS        | LAM FOUNDATION                                               | SOCIETY FOR WOMEN'S HEALTH RESEARCH                      |
| AMERICAN COLLEGE OF CARDIOLOGY                | CONQUERING CHD                           | MARFAN FOUNDATION                                            | SOCIETY OF CARDIOVASCULAR COMPUTED TOMOGRAPHY            |
| AMERICAN DIABETES ASSOCIATION                 | COOLEY'S ANEMIA FOUNDATION               | MENDEDED HEARTS, INC.                                        | SOCIETY OF INTERVENTIONAL RADIOLOGY                      |
| AMERICAN HEART ASSOCIATION                    | COPD FOUNDATION                          | MENDEDED LITTLE HEARTS                                       | U.S. COPD COALITION                                      |
| AMERICAN LUNG ASSOCIATION                     | CYSTIC FIBROSIS FOUNDATION               | NATIONAL HEMOPHILIA FOUNDATION                               | WOMEN'S HEART ALLIANCE                                   |
| AMERICAN RED CROSS                            | DORNEY-KOPPEL FOUNDATION                 | PROJECT SLEEP                                                | WOMENHEART                                               |
|                                               |                                          | PEDIATRIC & CONGENITAL INTERVENTIONAL CARDIOVASCULAR SOCIETY |                                                          |

February 8, 2021

Chair  
 Subcommittee on Labor-HHS-ED  
 U.S. Senate  
 Washington, DC 20510

Rosa DeLauro  
 Chair  
 Subcommittee on Labor-HHS-ED  
 U.S. House of Representatives  
 Washington, DC 20515

Ranking Member  
 Subcommittee on Labor-HHS-ED  
 U.S. Senate  
 Washington, DC 20510

Tom Cole  
 Ranking Member  
 Subcommittee on Labor-HHS-ED  
 U.S. House of Representatives  
 Washington, DC 20515

Dear Honorable Chairs and Ranking Members:

The COVID-19 pandemic persists as a global public health crisis that requires the continued mobilization of scientific research resources to enable us to improve our understanding of the SARS-CoV2 virus, develop new interventions to mitigate life-threatening cardiovascular, respiratory, circadian, and hematological complications of the disease, including long-term complications, and develop new diagnostics and therapeutics, including for high-risk populations. The 57 member organizations of the NHLBI Constituency Group respectfully request that Congress include \$400 million for the NIH's National Heart, Lung, and Blood Institute (NHLBI) in the next COVID-19 emergency supplemental legislation.

As the COVID-19 pandemic has evolved, individuals with cardiovascular and respiratory diseases remain at greater risk of life-threatening complications and a substantially higher risk of death from COVID-19. Acute Respiratory Distress Syndrome (ARDS) and sepsis are the primary causes of death in people with COVID-19. Hospitalized coronavirus patients with

preexisting cardiovascular disease experience ten times higher death rates.<sup>1</sup> Just as alarming, blood clots caused by the coronavirus may lead to major strokes, even in young people. Other recent studies indicate that critically ill COVID-19 patients with COPD had a 63% risk of severe disease and a 60% higher death rate.<sup>2</sup> Additionally, COVID-19 associated coagulopathy has been recognized in a subset of critically ill patients with fibrinogen and D-dimer elevations detected as the most common feature. While the implications of this coagulopathy are still being realized, further study into the biology of the disease and treatment options including anticoagulation therapy is needed.<sup>3</sup>

African Americans and other racial and ethnic minorities continue to become infected and die from COVID at alarmingly high rates. As COVID-19 vaccines are being rolled out across the U.S., we are unfortunately seeing high levels of mistrust and disinformation about vaccines among some minority communities. The NHLBI has partnered with the National Institute on Minority Health and Health Disparities (NIMHD) on the Community Engagement Alliance (CEAL) program, which is educating minority communities across eleven states about effective disease prevention practices and working to improve confidence and uptake of COVID vaccines and treatments. Additional funding for NHLBI would support the expansion of this program to more states and epidemiological studies to address the disproportionate impact the coronavirus is having on these populations. NHLBI continues to address COVID-related complications in other vulnerable populations. The institute is collaborating with the National Institute on Child Health and Development (NICHD) to respond to pediatric multi-system inflammatory syndrome (PMIS). The NHLBI also funds research on sex- and gender-based differences in relation to COVID-19, of particular importance considering the evidence pointing to gender disparities in morbidity and long-term symptom prevalence.

The NHLBI's multi-pronged research strategy on COVID focuses on (1) studies of COVID-19 patients over time ("longitudinal studies") to better understand the course of the disease, as well as (2) testing therapies intended to modify the response of the individual to SARS-CoV-2 infection ("host-directed therapeutics"), with the aim of protecting and shielding host tissues from virus-induced injury and downstream effects on heart, lung, blood, and vascular tissues. Examples of these studies include the following:

- The Clinical Trial of COVID-19 Convalescent Plasma of Outpatients (C3PO) is evaluating the use of convalescent blood plasma to treat non-hospitalized patients with mild COVID-19.
- The Colchicine Coronavirus SARS-CoV-2 (COLCORONA) trial studied the gout drug colchicine to determine whether it can limit inflammation in the heart and lungs in patients with COVID-19.

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<sup>1</sup> How does cardiovascular disease increase the risk of severe illness and death from COVID-19? Dara K. Lee Lewis, MD Harvard Medical School, April 2, 2020 <https://www.health.harvard.edu/blog/how-does-cardiovascular-disease-increase-the-risk-of-severe-illness-and-death-from-covid-19-2020040219401>

<sup>2</sup> Jaber S. Alqahtani, Tope Oyelade, Abdulelah M. Aldhahir, et. al. Prevalence, Severity and Mortality associated with COPD and Smoking in patients with COVID-19: A Rapid Systematic Review and Meta-Analysis. *PLOS ONE*, 2020; 15 (5): e0233147 DOI: [10.1371/journal.pone.0233147](https://doi.org/10.1371/journal.pone.0233147)

<sup>3</sup> Tang N, Li D, Wang X, Sun Z. Abnormal coagulation parameters are associated with poor prognosis in patients with novel coronavirus pneumonia. *J Thromb Haemost* 2020; 18: 844–47.

- The COVID-19 Observational Study (CORAL) is studying the pathobiology and outcomes among over 3,000 adults hospitalized with COVID-19 for up to six months after hospital discharge.
- The Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV)-4 trials include three trials evaluating whether anticoagulants or antiplatelet drugs can reduce life-threatening blood clots in patients with various stages of COVID-19.

Supplemental funding of \$400 million would allow the NHLBI to sustain and expand its investment in vital clinical, basic, longitudinal, and translational research across heart, lung, blood and sleep to address critical needs related to the evolving COVID-19 pandemic, including chronic long-term conditions such as myocarditis and pulmonary fibrosis. These studies will contribute invaluable knowledge regarding the protection of our most vulnerable populations and ensure our preparedness for future pandemics. The requested funding, in addition to a strong regular Fiscal Year 2022 appropriation, will help the NHLBI address pressing COVID-19 research needs while maintaining progress on other national cardiovascular, respiratory, sleep and blood-related research priorities.

Please contact Nuala S. Moore with the American Thoracic Society at [Nmoore@thoracic.org](mailto:Nmoore@thoracic.org) or John Laughner with the American Heart Association at [John.Laughner@heart.org](mailto:John.Laughner@heart.org) if you have questions or need more information. Thank you for your consideration.

Sincerely,



John Laughner  
Co-chair  
NHLBI Constituency Group



Nuala S. Moore  
Co-chair  
NHLBI Constituency Group