

THE BIOPHARMACEUTICAL INDUSTRY'S UNIQUE ROLE IN RESPONDING TO COVID-19

As the outbreak of COVID-19 – a disease caused by a novel strain of coronavirus – evolves in the United States and around the globe, the biopharmaceutical industry is working around the clock to find solutions.

America's biopharmaceutical companies are [working tirelessly](#) to develop ways to diagnose, prevent and treat those with coronavirus. These companies are also donating medical supplies, personal protective equipment, existing treatments and medicines, and are providing monetary support to front line response teams.

HERE IS A CLOSER LOOK AT FOUR OF THE KEY WAYS THE BIOPHARMACEUTICAL INDUSTRY IS COMBATting COVID-19:

1. DEVELOPING POTENTIAL NEW TREATMENTS AND VACCINES

As part of its commitment to finding solutions for patients with COVID-19 and preventing others from becoming infected, PhRMA members have been donating investigational compounds that may have potential to treat coronavirus for emergency use and in clinical trials, including compounds formerly tested on other viral pathogens such as Ebola and HIV.

Companies are also deploying their own clinical trials as quickly as possible to test promising investigational antiviral agents. Other members are researching novel and existing vaccine candidates to identify promising potential medicines that have the ability to protect people from coronavirus infection. Importantly, biopharmaceutical industry research and development programs are pursuing a wide diversity of approaches to the development of treatments and vaccines and are also seeking to reduce the most severe symptoms associated with COVID-19.

The multiple avenues to preventive measures include a variety of vaccine approaches including mRNA and DNA vaccines, vaccines using synthetic materials and therapeutic antibodies that could be used not only to treat COVID-19 but also as a temporary preventive treatment in the absence of a vaccine.

Treatments under investigation include antiviral approaches such as protease inhibitors and nucleotide analogs to slow or reduce viral infections and treatments to reduce the severity of pulmonary manifestations of COVID-19 such as IL-6 inhibitors to reduce the risk of "cytokine storm" and antibacterials and vaccines to reduce the risk of secondary pneumococcal pneumonia. It is not just the number of shots on goal, but also the wide variety of approaches being taken, that optimizes the chances of finding successful ways to treat and prevent this disease.

Companies are also leveraging existing technologies to provide the ability to rapidly upscale production once a potential vaccine candidate is identified. Many companies are already investing heavily to increase production capacity. Similar efforts are underway for small molecule and antibody treatments.

2. ENGAGING WITH PUBLIC PARTNERS TO SHARE KNOWLEDGE

Responding effectively to a public health emergency requires close collaboration between public and private organizations around the world to share insights that could accelerate treatment and prevention strategies. Leading PhRMA member companies are [collaborating](#) with relevant U.S. and global public health authorities, including the National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO), as well as public health authorities in China and Europe, to understand how pandemic preparedness platforms can be tailored to address the current emergency, and how to accelerate the development of potential treatments.

Members are also sharing the learnings from clinical trials in real time with governments and other companies to advance the development of additional therapies

3. ADVANCING PAST LEARNINGS

Up until the outbreak began, COVID-19 did not exist. The rapid pace at which researchers have been able to understand this strain and get medicines into human clinical trials is a testament to the lessons learned from past public health emergencies. Furthermore, the biopharmaceutical industry has the unparalleled advantage of decades of scientific research cultivated from experiences with similar viruses, such as MERS, SARS and influenza. These previous public health emergencies have helped put the infrastructure and partnerships in place to enable a more rapid response to emerging threats.

4. MANUFACTURING PRODUCTION

Innovative biopharmaceutical companies have the capacity to manufacture and broadly disseminate vaccines and treatments to patients worldwide. America's biopharmaceutical companies are already ramping up production capacity in anticipation of the discovery of an effective treatment or vaccine. They are also protecting the integrity of the pharmaceutical supply chain and keeping plants open to maintain a steady supply of medicines for patients. All the while, our member companies are staying in constant communication with the U.S. Food and Drug Administration and other regulatory agencies around the world.

The biopharmaceutical industry is committed to developing solutions to address this global public health emergency just as it has during past crises. PhRMA member companies not only bring decades of expertise in infectious diseases, including other strains of coronavirus, they also bring the infrastructure and technologies to allow them to quickly advance potential vaccine and treatment candidates to clinical trials and have the manufacturing capabilities and expertise to allow for quick scale up.

Read more about the industry's contributions to the COVID-19 pandemic and our principles [here](#).

