



Meeting the COVID-19 challenge head on

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The COVID-19 pandemic has dramatically changed all of our lives — from how we work, to how we teach our children, to how we grocery shop. As we yearn to return to normal, we're also called on to do what we can to protect ourselves, our loved ones and our communities.

Los Alamos National Laboratory is no different. We have responsibilities to the nation and to the communities where we live, and we take them very seriously. As one of the largest employers in Northern New Mexico, we're doing what we can to answer the call to use our vast scientific and technical resources to help fight this disease, and protect our employees and the communities we call home.

To slow the spread of the virus, we took early and aggressive measures to get as much of our workforce as possible offsite, working from home. More than 85 percent of the Laboratory's workforce is teleworking.

The remaining employees are onsite because they are needed to assure the safety and security of our facilities or to perform essential national security work. For those onsite, measures are in place to keep them as safe as possible following CDC guidelines.

These measures are also helping to contain the spread of the virus in the communities where they live. About 75 percent of our employees live in Los Alamos, Rio Arriba and Santa Fe counties — where transmission rates have been lower than elsewhere in the state.

We are also bringing to bear our expertise, technology and materials to help the state combat COVID-19. By harnessing our capabilities in computer modeling, laboratory testing, manufacturing and medical countermeasures, we're playing a crucial role in our country's pandemic response.

For example, the laboratory's HIV team, which designed an experimental HIV vaccine now in human trials, is deploying its expertise in genetic databases and bioinformatics against COVID-19. Specifically, we are developing a T-cell response vaccine approach, tracking the origin of the pathogen and building a robust bioinformatics pipeline to track the virus's evolution, all of which are necessary for developing an effective vaccine.

Los Alamos has also partnered with Sandia and other national laboratories to develop an integrated COVID-19 pandemic monitoring, modeling and analysis capability. The goal is to support decision-makers at the federal and state level, including New Mexico. This should help our government leaders make informed decisions about preparedness for our health care system. It will also provide us with a deeper understanding of the disease. More information can be found at [cdc.gov/coronavirus/2019-ncov/covid-data/forecasting-us.html](https://www.cdc.gov/coronavirus/2019-ncov/covid-data/forecasting-us.html).

In addition to providing disease forecasts, we are also working hard on testing and manufacturing lifesaving ventilators. In fact, we are leading a Department of Energy-wide laboratory group on testing and participating in assessments of Lab capabilities for near- and long-term testing requirements, both for public health and for the Lab's workforce. And we are evaluating the potential of advanced manufacturing, specifically 3D printing, to produce scarce medical equipment that is so badly needed.

Equally as important as all this scientific research and technological support is supporting the communities in which we live. Los Alamos employees and Triad National Security, the Laboratory's management and operations contractor, recently contributed more than \$60,000 to The Food Depot to help serve hungry families during this difficult time.

And because the crisis continues to take a toll on the economy, we have redoubled efforts to work with community partners to develop our region's workforce. Last month, we — together with Santa Fe Community College — announced a new machinist training program to provide residents with the skills they need to get such jobs at the Laboratory. This program, together with Northern New Mexico College's radiation control technicians program and a new mechanical engineering program at UNM-LA, is part of our long-term commitment to create well-paying and secure jobs for New Mexicans — something that has always been a top priority for Northern New Mexico and will take on even greater importance in the coming months.

The Laboratory is committed to helping our state and nation during this global crisis. Since World War II, we have demonstrated our ability to quickly and adeptly apply our scientific and technological capabilities to respond to national emergencies. This time is no exception. We are determined to meet this challenge head-on, while doing our part to keep our workforce and our communities safe.

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