

United States Department of Energy

The Secretary of Energy Achievement Award

Presented to the

National Virtual Biotechnology Laboratory Team

In recognition of the accomplishments of the National Virtual Biotechnology Laboratory (NVBL) Team, which harnessed and mobilized the formidable scientific facility and research capabilities of the U.S. Department of Energy (DOE) National Laboratories to meet the challenges posed by the COVID-19 pandemic. Under the leadership of the NVBL Executive Leadership Team—comprised of both senior DOE and laboratory officials—DOE's 17 National Laboratories achieved an unprecedented level of coordination, operating as a unified entity, with a single "front door" for facility access and research. This ensured projects were efficiently selected, optimally prioritized, and systematically reviewed for quality, and the full capabilities of the National Laboratory complex were brought to bear on the crisis. As a result of the establishment of the NVBL, Congress provided nearly \$100 million in support under the Coronavirus Aid, Relief, and Economic Security Act to the Department's Office of Science and the National Nuclear Security Administration. Harnessing the National Laboratories' world-leading supercomputers, x-ray light and neutron sources, nanoscience research centers, and advanced genomics and biology facilities, NVBL enabled major advances in characterizing COVID-19 to aid in drug and vaccine development, screening of candidate drugs, expanding epidemiological understanding of disease spread, facilitating the manufacture of vitally needed personal protective and other equipment, and rating and improving testing methods, among many other advancements.

For their contributions to the Department of Energy and the Nation, the National Virtual Biotechnology Laboratory Team is awarded the Secretary of Energy's Achievement Award.

Members:

Rebecca J. Abergel Paul D. Adams Adam P. Arkin Ilke Arslan Budhendra L. Bhaduri Charles T. Black Jim Brase Adam Bratis Steve Brice Michelle V. Buchanan Supriya Chinthavali Michael Dunne Michael Fazio J. Patrick Fitch Lorie Fox Randall Gentry

Martha (Marti) S. Head Barbara J. Helland John P. Hill Linda L. Horton Srinivas Iyer Ralph James Andrzej Joachimiak Stephen D. Kevan Jack Kotovsky Harriet Kung Paul Langan Thomas Lograsso Lonnie J. Love Charles M. Macal Douglas Mans Paul C. McIntyre

Benjamin H. McMahon Jonathan Menard Karren L. More Nigel J. Mouncey Jeffrey Neaton Jeffrey S. Nelson Sarah K. Nelson Robert C. O'Brien Ashley P. Predith David G. Prendergast Dave Rakestraw Mark (Danny) Rintoul Adam J. Rondinone Katie J. Runkles Joseph S. Schoeniger Blake A. Simmons

Anup K. Singh
Chris M. Spadaccini
Rick L. Stevens
Paul N. Stewart
Stephen K. Streiffer
Kerstin Kleese van Dam
Soichi Wakatsuki
Marianne C. Walck
Geoffrey S. Waldo
Katrina Waters
Sharlene Weatherwax
Bobbie-Joe J. Webb-Robertson
Drew Weisenberger

Dan Brouillette Secretary January 2021



Office of Science Washington, DC 20585

Office of the Director

February 3, 2021

Dear Dr. Zhuozhao Li,

When the National Virtual Biotechnology Laboratory (NVBL) launched in February last year, the nation and the globe were just beginning to grapple with the reality of responding to a pandemic. An unknown virus, a new disease, and alarming reports from public health officials generated fear and catalyzed action within the research community.

With nearly a year of effort by NVBL, we now better understand the SARS-CoV-2 (COVID-19) virus, how to test for it, and what might stop it; we have tools to model and forecast the way it spreads across the country; and we are starting to address national supply chain and manufacturing challenges. But we also know now what it means for members of our Department of Energy (DOE) community to come together, organize, and do the incredibly hard work of rapid research response in the middle of a crisis.

On behalf of the DOE, I thank you sincerely for your efforts for NVBL. For those of us who were aware of the formidable capabilities and resources of the national laboratory system, the burning question in late February and early March was how these capabilities might best be harnessed, urgently, to address the multiple challenges of the COVID-19 pandemic. You and our superb staff with responsibilities across our organizations and researchers with expertise in a huge array of subjects acted rapidly in all 17 DOE National Laboratories. While living through the effects of the pandemic yourself, you coalesced into a highly efficient, integral virtual entity to mobilize capabilities across the laboratory system to tackle the challenges of the pandemic.

I am incredibly proud of the actions and leadership of everyone across the DOE National Laboratory complex and headquarters for making this effort come together. It is not often that we are given an opportunity to serve our nation in such vitally important ways, and the manner in which you and the members of our community have risen to this occasion is a testimony not only to their unmatched competence and expertise, but also to their spirit of national service.

Sincerely,

J. Stephen Binkley Acting Director Office of Science

& S Binkley

CERTIFICATE OF RECOGNITION

Zhuozhao Li

acknowledging your scientific contribution to the U.S. Department of Energy National Virtual Biotechnology Laboratory Project

MOLECULAR DESIGN AND ANALYSIS TO INFORM THERAPEUTICS RELATED TO COVID-19

part of the DOE COVID-19 Pandemic Response in 2020



















