NIST Alignment with Administration Priorities

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U.S. Department of Commerce

Key Themes Outlined to Date

COVID-19

Climate

Racial Equity

Economy

U.S. Manufacturing

Health Care

Immigration

Restoring America's Global Standing

NIST's programs and mission align with Administration priorities

https://www.whitehouse.gov/priorities/

COVID-19 Response

MEP National Network™

Manufacturing USA®

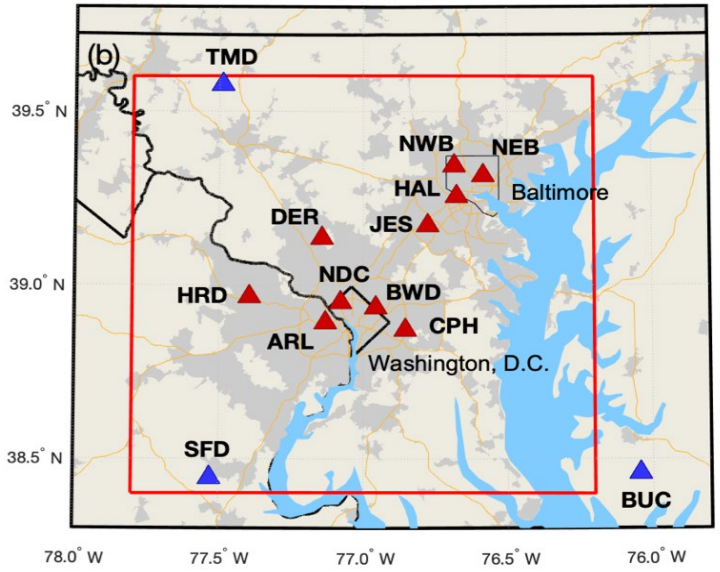
https://www.nist.gov/coronavirus

Climate

NIST measurement capabilities and programs are helping address climate change in areas of infrastructure resilience, environment, and energy

- Measurement
- Reference materials & data
- Testbeds
- Partnerships

Credit: Delaware Department of Transportation



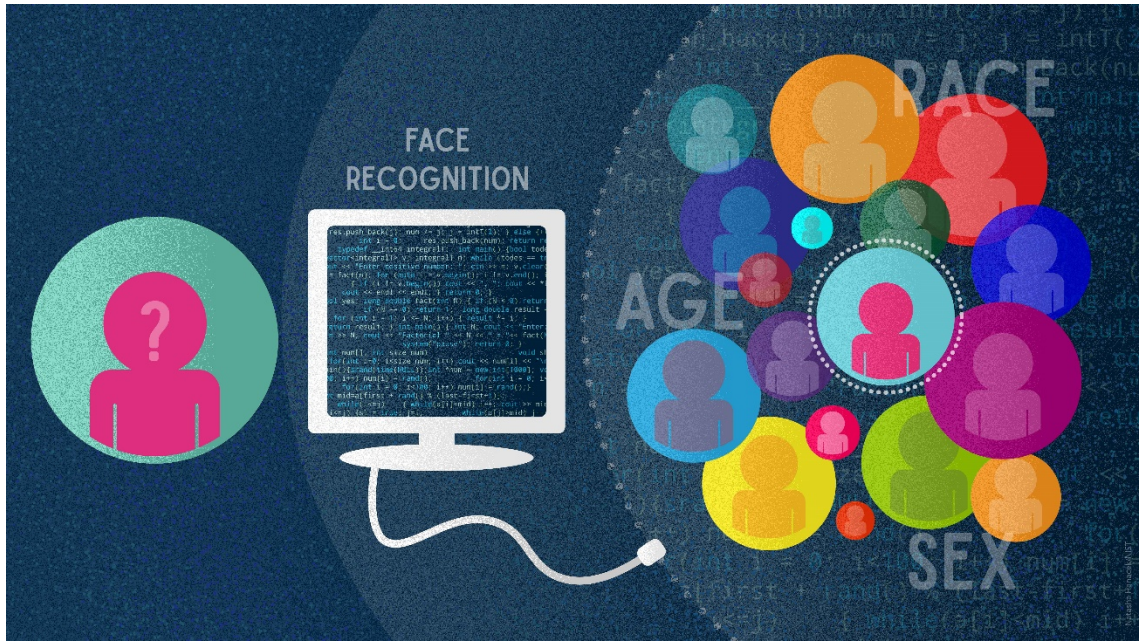
Credit: Beamie Young/NIST

Racial Equity: Laboratory Programs

Forensic Science Program – Strengthening forensic practice

- R&D, measurements and standards tools for forensic science disciplines
- Working with stakeholders to disseminate tools to forensic science practitioners and jurists
- Key partnerships through OSAC, CSAFE

Credit: Courtesy of Auburn University College of Veterinary Medicine



Credit: N. Hanacek/NIST

Technology – Measurements and Standards

NIST's Face Recognition Vendor Test –

- Measuring performance of algorithms
- Accuracy of software to identify people of varied sex, age and racial background

Artificial Intelligence – understanding bias

Racial Equity: NIST Workplace

Some recent highlights:

- New NIST-wide position: Director of Diversity and Inclusion (in progress)
- Ongoing COACh study of inequity in promotion – final recommendations due March 2021
- Peer-to-Peer Bystander Intervention Training sessions (monthly)
- Conclusion of two staff detail assignments studying inclusivity
- NIST hosted our 3rd conference for Undergraduate Underrepresented Minorities in Physics (CU2MIP) Jan. 2021
- Active employee groups, including newly re-invigorated NIST Association for Black Staff
- Increased communication from senior leadership
- NIST library guidance for authors to avoid biased language
- NIST Standards Inclusivity Effort Team draft guidance

NIST

COLLOQUIUM

BLACK HISTORY MONTH 2021

The Black Family: Representation, Identity, and Diversity

February 18, 2021
11am – 1pm ET

Dr. Raychelle Burks
Associate Professor Chemistry American University

BIOGRAPHY

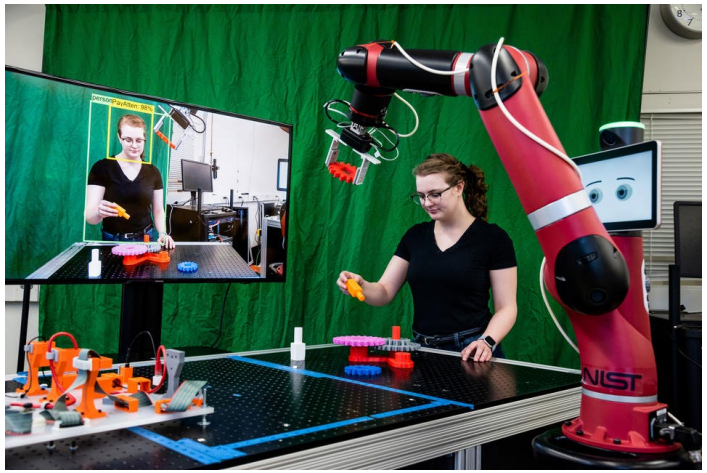
After working in a crime lab, Dr. Burks returned to academia, teaching, and forensic science research. Her research team is focused on the development of colorimetric and luminescent sensor arrays for the detection of analytes of mainly forensic and national security interests with accompanying image and chemometric analysis. Beyond the bench, Dr. Burks is a popular science communicator appearing regularly on TV, radio, podcasts, and print outlets. Most recently, she was a series regular in the Smithsonian Channel show "The Curious Life and Death Of..." and writes a science-meets-true crime column called "Trace Analysis" for Chemistry World. In 2020, she was awarded the American Chemical Society's Grady - Stack Award for Interpreting Chemistry for the Public. Central to Dr. Burks' research, teaching, and service is the central tenet that equitable, diverse, and inclusive spaces and practices both respect people and produce scientific outcomes of greater integrity. She is a member of several local, national, and international committees, task forces, and projects focused on social justice and STEM.

Doing Better: Making progress in sensing and social justice

Abstract

Dr. Burks' work developing of sensors or sensor arrays for forensic use and her social justice work could be judged as unrelated endeavors. Yet, these endeavors share a common core. Doing better. In this talk, Dr. Burks will discuss her work to improve select forensic techniques along her work to make STEM more equitable.

Economic Recovery: Manufacturing & Innovation



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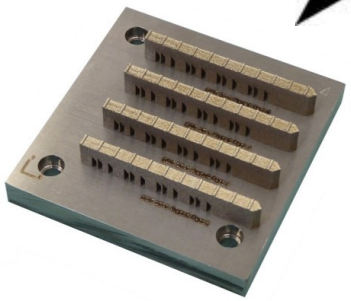
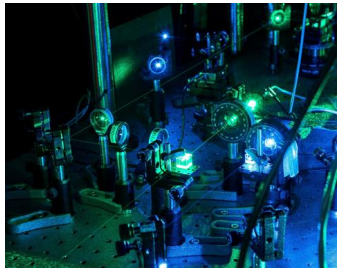
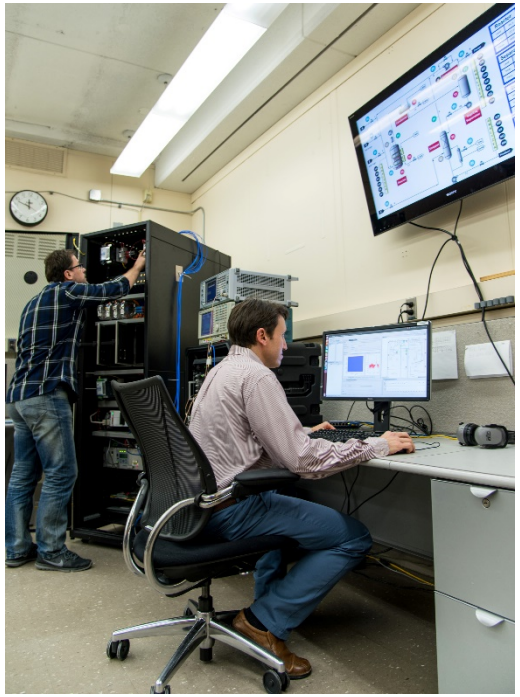
BALDRIGE Performance Excellence Program





C. Suplee/NIST

Manufacturing USA®

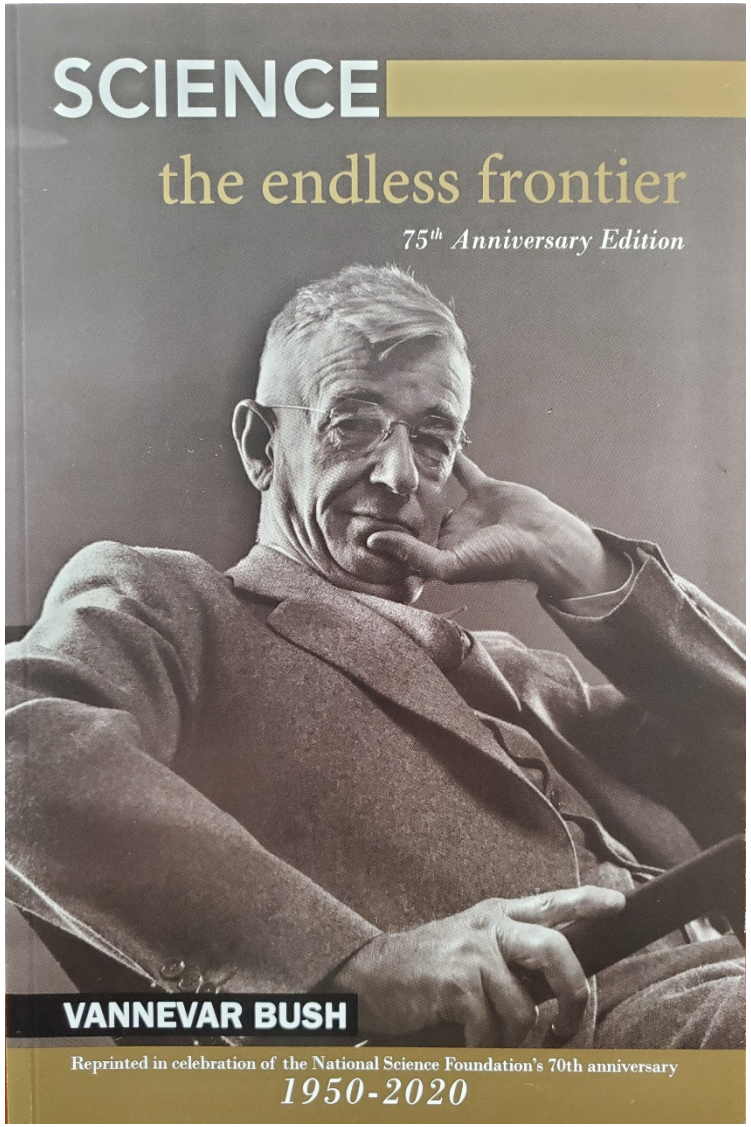


F. Webber/NIST

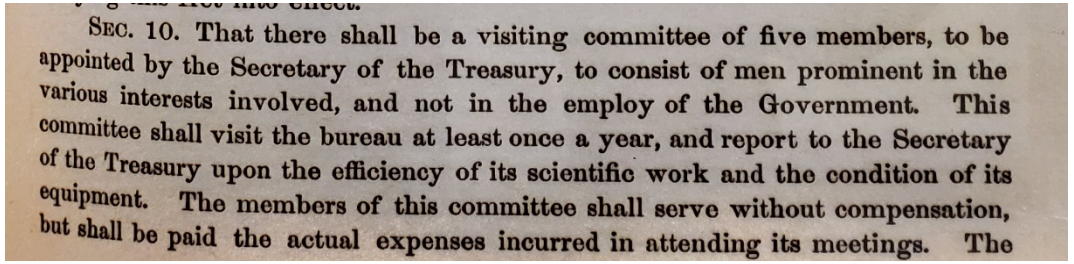
NIST role includes:

- Supporting national manufacturing networks, workforce development
- Driving discovery in emerging technologies using AI, robotics, additive manufacturing, and more
- Securing the supply chain through new research, measurements, standards and other tools
- Continued effort to support quantum information science, synthetic biology, and other linchpins of future innovation

VCAT – A Historic Perspective



- VCAT chartered March 3, 1901 with the establishment of NBS / NIST in law



SEC. 10. That there shall be a visiting committee of five members, to be appointed by the Secretary of the Treasury, to consist of men prominent in the various interests involved, and not in the employ of the Government. This committee shall visit the bureau at least once a year, and report to the Secretary of the Treasury upon the efficiency of its scientific work and the condition of its equipment. The members of this committee shall serve without compensation, but shall be paid the actual expenses incurred in attending its meetings. The

- Vannevar Bush served on the NBS VCAT from 1942 – 1946, during which period he also led writing *"Science – The Endless Frontier"*
- Bush emphasized basic research, its impacts and the importance of translation into innovation, leading to establishment of NSF and advancing U.S. science & technology policy and leadership

A tasking from President Biden to his incoming science advisor

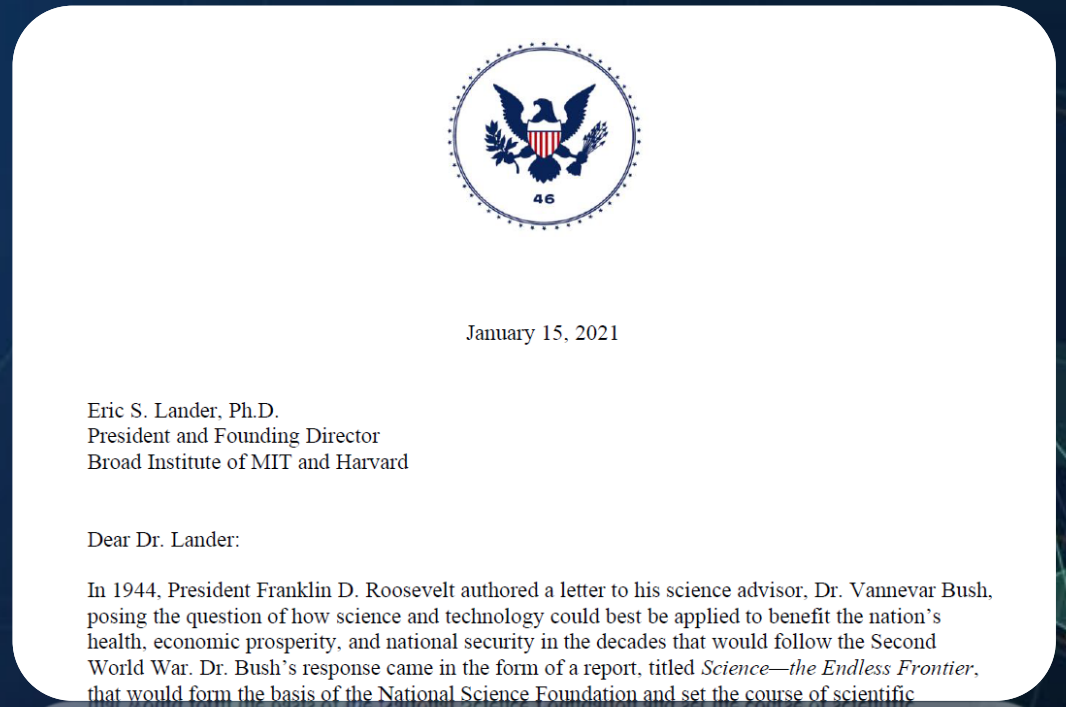
1. What can we learn from the pandemic about what is possible—or what ought to be possible— to address the widest range of needs related to our public health?

2. How can breakthroughs in S&T create powerful new solutions to address climate change?

3. How can the United States ensure that it is the world leader in the technologies and industries of the future?

4. How can we guarantee that the fruits of S&T are fully shared across America and among all Americans?

5. How can we ensure the long-term health of S&T in our nation?



January 15, 2021

Eric S. Lander, Ph.D.
President and Founding Director
Broad Institute of MIT and Harvard

Dear Dr. Lander:

In 1944, President Franklin D. Roosevelt authored a letter to his science advisor, Dr. Vannevar Bush, posing the question of how science and technology could best be applied to benefit the nation's health, economic prosperity, and national security in the decades that would follow the Second World War. Dr. Bush's response came in the form of a report, titled *Science—the Endless Frontier*, that would form the basis of the National Science Foundation and set the course of scientific

https://buildbackbetter.gov/wp-content/uploads/2021/01/OSTP-Appointment.pdf accessed 1/16/21