The White House Office of Science & Technology Policy **Health & Life Sciences**

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March 2022





President Biden's Letter to OSTP







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, possift prequestion of how science and technology could best be applied to benefit breather's bealth, economic prosperity, and national security in the decades that would follow the Second World Warr, Dr. Bush's response came in the form of a report, tiet should be second from the basis of the National Science Foundation and set the course of scientific discovery in the decade of the National Science Foundation and set the course of scientific discovery in America for the next '75' wears.

Those years have brought about some of the most consequential scientific advancements in human history with America leading the way. But three quatrers of a century late, the contours of our lives have changed. Technologies and industries have risen and fallen, and the emergence of the digital arren has redefined the ways we innovate, communicate, and experience the world. And the nature of discovery itself has changed by leaps and bounds—reaching electial heights, and microscopic complexities, that were immigraphale not so long agoing celestial heights, and microscopic

For this reason. I believe it is essential that we refresh and reinvigorate our national science and technology strategy to set us on a storag course for heart 75 years, so that our children and grandchildren may inhabit a healthier, safer, more just, peaceful, and prosperous world. This effort will require us to bring together our brightest minds across academia, medicine, industry and government—breaking down the barriers that too often limit our vision and our progress, and prioritizing the needs, interests, fears, and aspirations of the American people.

President Roosevelt asked Dr. Bush to consider four specific questions. Today, I am tasking you and pour colleagues with five. We hope is that you, working broadly and transparently with the diverse scientific leadership of American societies and engaging the broader American public, will make recommendations to our administration of the general strategies, specific actions, and new structures that the federal government should adopt to ensure that our nation continue to harmess the through the continue to the continue t

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Alondra Nelson, PhD OSTP Director

"...essential that we refresh and reinvigorate our national science and technology strategy to set us on a strong course for the next 75 years, so that our children and grandchildren may inhabit a healthier, safer, more just, peaceful, and prosperous world."

Five (5) focus areas

- Pandemic
 - Climate
- Economy
 - Equity
- Workforce

OSTP Health & Life Sciences Division



Biopreparedness: - Pandemic Readiness

- Antimicrobial Resistance

Health Systems and Health Equity:

- Telemedicine/Community Health
- EHRs Public Health System

Accelerating Innovation to Patients:

- ARPA-H
- Clinical Trials
- Cancer

Biomanufacturing:

- Incentivize and support data, infrastructure for life sciences industries of the future

Agriculture:

- Nutrition

Life Sciences Research Community:

- Doctoral Education

Other topics:

- Biosafety/biosecurity
- Maternal mortality; mental health; opioid crisis; social determinants of health; AI/ML & healthcare biases
- Rare diseases; pediatric therapies; regulatory streamlining
- Competitive innovation and biotech in agriculture; climate change intersection
- GDPR and data access issues; workforce; sexual harassment; discrimination
- Gene/germline editing; gene drives; chimeras/neural chimeras; privacy challenging technologies/data; social media and public health



Carrie Wolinetz, PhD Deputy Director

Equity Health, S&T

Pandemic Preparedness Plan



American Pandemic Preparedness: Transforming Our Capabilities

September 2021



I. Transform our Medical Defenses

- 1. Vaccines
- 2. Therapeutics
- 3. Diagnostics



II. Ensure Situational Awareness

- 4. Early-Warning Systems
- 5. Real-time Monitoring



III. Strengthen Public Health Systems

- 6. U.S. Public Health
- 7. Global Health



IV. Build Core Capabilities

- 8. Personal Protective Equipment
- 9. Stockpiles and Supply Chains
- 10. Prevent Catastrophic Biological Events
- 11. Regulatory Improvement



V. Manage the Mission

12. Mission Control

Life Science Innovation Focus



- Cancer President Biden has challenged the medical & research community to "End Cancer as we know it"; recently revitalized Cancer Moonshot
- Biomanufacturing President Biden has pledged to grow the bioeconomy and bio-based manufacturing
- **S&T Prioritization** Biden-Harris Administration proposed one of the largest S&T budget increases in history, with a focus on improving human health

Life science focus and investment will make the US and world **safer & healthier**, and ensure US **competitive global leadership** in S&T innovation



Stakeholder Engagement Health & Life Science Priorities

Thank You!



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