

# BIOLOGICAL SCIENCES:

## AN INVESTMENT IN AMERICA'S FUTURE

Government investment in scientific research and development fuels innovation, creates jobs, and grows the economy.



### BIOLOGICAL RESEARCH IS ESSENTIAL

Biological research funded by the National Science Foundation (NSF) and other federal agencies promotes national security and public well-being by solving pressing challenges, such as improving food security, combating new diseases, and wisely managing natural resources. This federal support helps the U.S. attract and educate the next generation of scientists. Students learn research skills that prepare them for the jobs of today and tomorrow.

NSF's Biological Sciences Directorate provides about **65%** of federal grant support for non-medical, fundamental biological research conducted at our universities and nonprofit research centers.

### MEETING SOCIETY'S NEEDS

Research increases our understanding of the living world and provides solutions to societal problems.

- Improving **human health** and combating **emerging diseases**.
- Increasing **food security** by developing crops that grow in changing environments.
- Developing **new tools** and mobilizing **big data** to spur the development of new research fields.
- Predicting, mitigating, and preparing for the impacts of **environmental changes**.
- Sustaining **biodiversity and healthy ecosystems** that underpin the livelihoods of communities.
- Fueling the **economy** by improving the sustainability of domestic energy sources.



## RESEARCH IS AN INVESTMENT IN OUR FUTURE

Funding for NSF's Biological Sciences Directorate (BIO) has not kept pace with the demand for research grants. Despite the large number of highly competitive and potentially transformative grant proposals submitted to BIO, **78% of applications were rejected in 2023.**

Research programs that support fundamental biological research have very low funding rates. Roughly **one in four** research proposals are funded by the National Institutes of Health and USDA's Agriculture and Food Research Initiative.



**1,900**

Number of NSF-funded institutions across the country in fiscal year 2023



**70,000**  
Students supported by NSF Graduate Research Fellowships since 1952



**24%**

Percentage of the U.S. workforce employed in jobs requiring STEM knowledge and expertise in 2021



**40%**

Percentage of fundamental research funding provided by the federal government

**New investments are required to ensure that our nation is positioned to be a global leader in science and innovation. Please ensure robust federal investments in the biological sciences.**