flaw in the current system of governance will significantly increase the innovative potential of the American research enterprise.

Lastly, changes must be made to how science is taught in order to encourage innovative, cross-sectoral thinking, which will have a long-lasting positive impact on the bioeconomy. The traditional "pipeline" model of workforce development, in which a person follows a linear, predictable, path (K–12, undergraduate and graduate education) into an industry or academic position is no longer accurate for individuals who contribute to the American research enterprise. A modern model would capture the opportunity, variability and responsiveness of a contemporary STEM career. It would embrace the diversity and experiences of workers. It would contain a multitude of on-ramps for talent. Ultimately, such a model would lead to more innovation and collaboration.

2. In what ways does the current governance system succeed? What governance elements or strategies work well and should be preserved or built upon?

Firstly, as mentioned above, the federal government, and in particular the National Institutes of Health and the National Science Foundation, created successfully funding mechanisms for understanding the SARS-CoV-2 virus and the impact the virus had on people throughout the pandemic. The resulting findings improved our understanding of the virus and disease and aided in the development of

No response.

6. Which governance pathways, emerging developments, or topics should be the focus of the study report to enable it to have the greatest impact?

Science literacy and misinformation must be addressed, especially when it comes to creating new solutions to health and science–related issues. New technologies can help mitigate some of the most pressing challenges of the twenty-first century, but, if trust is not built between scientists, the federal government and the American public, then new technologies will not help. Improving science literacy, defined by the National Academies as "knowledge and understanding of scientific concepts and processes required for personal decision, participation in civic and cultural affairs and economic productivity" must be incorporated in science training and in K–12 education.

In addition, building science literacy in the digital world is a key and promising practice that will fight science disinformation. Building science literacy means teaching individuals how to access, understand and critically assess scientific information that they come across. And teaching scientists how to communicate and improve science literacy among the American public will build trust.

7. We welcome any other comments relevant to the study's task that you think the committee should consider, including relevant governance models, tools, practices, and resources of which the committee should be aware.

The committee must take into account the importance of investing in discovery research — also known as curiosity-driven research or basic research. Without reliable, sustainable funding for basic scientific research, the pillars of innovation are weak. Basic scientific research expands the knowledge base needed for breakthrough scientific progress, and without it there would be no science to apply for innovative treatments or therapies.