

Informing policy with science

We recently witnessed the peaceful—if controversial—transition of the United States presidency. As with any major change in federal government, the scientific community has concerns about new directions and priorities that may affect the way science is conducted, funded, and used in the United States and elsewhere. Of particular note with this new administration are concerns that President Trump may not fully value science-based evidence, and that information and policy decisions will be made without due consideration of scientific evidence.

To be clear, science is not a political construct or a belief system. It provides testable, fundamental knowledge of the world and how things work. Science alone cannot provide policy solutions to the many challenges that society faces, but scientifically informed perspectives must be taken into account for decisions to be made by the best available evidence. To serve the public interest, information should be rigorously evaluated and held to the highest possible standard—a process that the practice and products of science help to accomplish. For policies to be successful, we must first understand the current state of knowledge so that policy-makers can design policy interventions that will be effective.

Similarly, economic prosperity and innovation in the United States depend on a healthy research and development enterprise that enables scientific thought to flourish. As former Governor Rick Perry stated in his Senate nomination hearing for Department of Energy Secretary on 19 January, “Our scientists and labs are the envy of the world.” Science is the catalyst for advances in health, information technology, agriculture, and energy, driving the national economy; it deserves to be valued as such. The United States must maintain a vigorous research enterprise to provide new discov-

eries and opportunities for future advances.

The Department of Energy has a substantial scientific research component to its mission. However, every cabinet agency has scientific components, and the agencies and the nation will benefit if new leaders recognize, preserve, and strengthen these components as they take charge. President Trump should include credible scientists in the administration—at all levels and in all federal agencies—not individuals who reject proven science on issues of critical public importance such as vaccines or climate change. Science cannot thrive when policy-makers—regardless of political party affiliation—use disagreements as an opportunity to attack scientific conclusions that counter a political agenda.

Joining with many other voices in the scientific community, the American Association for the Advancement of Science (AAAS, the publisher of *Science*) continues to strongly urge President Trump to name a science adviser who is a respected member of the scientific community. A science adviser will provide assistance to the president on diverse and important issues across the federal

government, including infrastructure, manufacturing, and public health.

Scientists, as always, need to stand firm on the value and importance of science for society. AAAS will hold its annual meeting on 16 to 20 February in Boston to discuss opportunities for science to inform policy in areas such as agriculture, energy, biomedical research, and more. Indeed, it is crucially important for all scientists, across all fields, to continue to be able to come together to discuss and publish their research findings in a timely manner and communicate their ideas and conclusions to the public as part of a scientific enterprise that strives to serve all humanity. We encourage you to join us as a force for science.

—Barbara Schaal



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Science

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Science **355** (6324), 435.

DOI: 10.1126/science.aam8694

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