

EDITORIAL

Stand strong for science – support our American colleagues

We live in very challenging times, environmentally and politically. Climate change is the number one environmental threat that is affecting our lives in Canada annually, with heat waves, wildfires, hurricanes, floods and tornadoes. This general environmental uncertainty also affects us globally. Tragically, due south of us, the world is being turned upside down with the irrational actions undertaken by a highly unpredictable autocrat, US President Donald Trump, who once again occupies the White House. Not only do he and his appointees not believe in anthropogenic climate change, but they are intentionally attempting to ignore, reduce and destroy American science on many fronts.

Since January 2025, scientific and medical programs and employment in the US federal government and in the universities have been drastically curtailed, with serious implications for that country and others around the globe. The cutbacks have been enormous and unnecessary (i.e., they are ignorant ideological decisions) and are likely to push American science and society back many years. As a concerned scientist, I have followed the development of this situation closely, especially through coverage in the AAAS journal *Science*. From January to August 2025, over 100 articles have described the situation¹. Highlights of the changes and impacts are summarized here, with a commentary on how the NSIS and its membership should respond in this crisis. Given previous decadal US leadership and contributions in science, we are all affected and must respond. As Caplan (2025) and others (e.g. Thorp 2025) have said, “don’t wait out four hard years, speak truth to power now, and come together and not be silenced”. Above all, speak up for science!

The suspensions and cuts to the US federal government employees and programmes to date have decimated the weather forecasting service and climate research programs of NOAA, health research in many federal departments charged with disease control, vaccine development and distribution, advanced medicine, and overseas aid for food and medicine. The department of education is now shut down.

¹ A bibliography of these articles is available upon request.

The enormously influential and effective US Aid program has been closed completely, putting millions of lives at risk in many developing countries. Environmental regulations governing water, land and chemical risks are being changed or abolished, with massive layoffs of world-leading EPA staff and huge reductions to budgets. Staff and programs at the highly respected US National Academies have been reduced and funding for research conducted at key universities such as Harvard has been interrupted or cancelled. Independent research at many universities is threatened and fewer overseas students are being allowed to enroll and study at US universities. Sanctions have been so severe that many US scientists are leaving the country. Even space science in NASA has been reduced or disrupted, with universal condemnation. Tragically, the impact on staff and programs in both the federal government and the universities is profound, especially on young researchers who are just starting their careers. US science will take many years to recover, as data, expertise, promising recruits, and institutional knowledge are lost.

The US administration has also upset the long stability of the international order, by reducing US involvement or withdrawing all together from the World Health Organization, World Meteorological Organization, World Trade Organization, Paris Agreement, Intergovernmental Panel on Climate Change (IPCC), and UN Sustainable Development Goals Program (SDG). As with the elimination of USAid, this has threatened the security and health of millions of people. Sadly, the US may rapidly lose its place in both global science and influence.

Lately though, in the face of this tsunami of attacks on government and university science, members of the US Congress and Senate have woken up. Bipartisan committees have refused to approve some of the suggested cutbacks. In addition, many cutbacks have been challenged in court and well-attended public protests have taken place nationwide, objecting to the anti-democratic and destructive behaviour of the White House.

However, the crisis is ongoing. Science and freedom of speech are under attack by this rogue Administration and will likely continue for the next three and one-half years. Hence, the NSIS should stand shoulder to shoulder with our American friends, colleagues, and science-based organizations to offer moral and research support, including a place for their data to be stored safely if required, and

an alternate place to work as availability permits. Hence, the NSIS must speak out, as should other science-based organizations and universities in Canada and beyond. These sentiments are echoed by the scientific community around the world (M.H. Depledge, pers. comm.). We need strong science (natural sciences and health sciences) in all of our countries, to under-pin rational, level-headed and defensible leadership and policies across the full spectrum of science, health services, and international affairs. We must counter Trump behaviour and policies.

There are approximately nine million scientists world-wide. Through contact with many of the large scientific groups such as the American Association for the Advancement of Science (AAAS), and the Union of Concerned Scientists (UCS), and especially individual colleagues, we must let American scientists and other researchers know that we stand with them during this crisis. As citizens, we should write to politicians at home and in the US, letting them know our views. We must draw attention to the many negative effects of the White House's misguided and morally bankrupt policies on people and the environment. The NSIS has a clear and major role here. We should be heard loud and clear, expressing the consequences of such cutbacks to science both in the US and Canada posed by the self-serving policies and actions of the current US administration (Quirion 2025).

Please write your letters now, to politicians, science organizations, and your friends and colleagues on both sides of the border. Especially write to the AAAS at The American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC. 20005. USA. Attention: Editor-in-Chief, Dr. Holden Thorp. Be sure to copy both Ottawa and the White House.

To be silent at this pivotal time is not an option (Caplan 2025, Goldman and Chenoweth 2025, Nowogrodzki *et al.* 2025, Phillips 2025, Thorp 2025). The NSIS must always stand strong for science conducted on behalf of our global community.

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*Peter G. Wells, Dalhousie University, and Editor, PNSIS
Oceans2@ns.sympatico.ca*