

# Correspondence

## Learn from Canada's dark age of science

Canada has had its own dark ages of anti-science politics under the government of Stephen Harper (2006–15). We at Evidence for Democracy, who led the fight against that ideology, offer these lessons to US scientists in how to protect scientific integrity under US President Donald Trump (see *Nature* **541**, 435; 2017).

For more than a decade, scientists in Canada were muzzled, funding and research capacity were reduced and policy decisions were made in flagrant opposition of evidence. Scientists spoke out — and science has taken a prominent position since our last election.

We advise our US colleagues to document everything — every funding cut, every time a scientist is blocked from speaking to the media, every political interference in research. Meticulously logging such changes in Canada revealed that it was not a case of just a few cutbacks or isolated instances of gagging. An undeniable war on science was happening.

We recommend that scientists, especially in government, keep their data safe, record changes to communication policies and scientific integrity, and enlist support from international collaborators. These can intercede, catalogue your data and make your research publicly accessible.

Communication is key. It should be used to counter the real-life impact of withholding evidence from the public. To combat misinformation, the facts aren't enough; these won't necessarily change minds. Instead, tell stories that convey evidence and critical thinking: stories of how science has made all of our lives better.

What else? Rally behind US organizations such as the Union of Concerned Scientists; raise your media profile and engage politicians. Evidence has no ulterior political motives — that is the strength of our movement.

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## Science censorship is a global issue

President Donald Trump issued an order on 23 January to effectively gag US government scientists at the Environmental Protection Agency and the Department of Agriculture from communicating with the media and the public (see *Nature* **542**, 10–11; 2017). Regrettably, suppression of public scientific information is already the norm, or is being attempted, in many countries (see, for example, [go.nature.com/2kr5dnd](http://go.nature.com/2kr5dnd)). We fear that such gagging orders could encourage senior bureaucrats to use funding as a tool with which to rein in academic freedoms.

In Australia, public servants must abide by codes of conduct for communication that restrict them from contributing scientific evidence to public debates. Allegations emerged in 2011 that an Australian state government had threatened to stop funding university scientists who spoke out against cattle grazing in national parks, despite peer-reviewed evidence that this could damage a fragile alpine ecosystem and was unlikely to reduce fire risk as claimed (see also *Nature* **471**, 422; 2011).

The response of scientists to this type of coercion has been to share scientific information widely and openly using such legal means as social media to defend facts and transparency (see *Nature* **541**, 435; 2017). Academics and scientific associations are among the last still free to speak, so must continue to do so to protect open discussion of government policies.

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## Restore evolution to Turkey's curriculum

The Turkish government has announced its draft primary and secondary school curricula, which now contain no mention of evolution. Turkey's Ecology and Evolutionary Biology Society (see [go.nature.com/2kgajpu](http://go.nature.com/2kgajpu)) urges stakeholders, the Turkish public and the international scientific community to support reinstatement of evolution in the curriculum (comment at [go.nature.com/2jusa43](http://go.nature.com/2jusa43) or [programdegerlendirme@meb.gov.tr](mailto:programdegerlendirme@meb.gov.tr)).

In the society's view, Turkey's proclaimed strategy to attain excellence in the life and medical sciences must be backed by a strong educational programme in evolutionary biology. A mechanistic understanding of evolutionary theory is crucial for addressing contemporary challenges such as biodiversity loss. Evolutionary principles have propelled advances in many fields, including agriculture, medicine, pharmacy and nanotechnology.

The society, of which I am president, is willing to assist the Turkish Ministry of National Education to restore and expand evolutionary biology in the curriculum to conform with international standards of biological education.

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## Keynote speakers must try harder

We can all recall invited speakers who give inspiring and well-prepared presentations, taking their listeners on a journey that is informative, thought-provoking and often entertaining. However, too many keynote speakers deliver nothing arresting — witness the swathes of audiences whose electronic devices evidently exert a greater pull.

Technical irritations don't help. For example, an A4 page of text written in 11-point font doesn't project well in a large auditorium; the resolution of images for projection needs to be much higher than it does for a publication; and pale colours fail to stand out against a white background. Neither do I want to be told that most of the information on a slide isn't relevant for today's talk, so I should concentrate instead on the compacted 10% in the top corner.

Speakers, it is likely that my registration fees have contributed to your travel, so I expect you to demonstrate that you have given a lot of thought to your talk and prepared each slide carefully rather than simply recycling it. I have come to listen to you, the expert, so I expect to enjoy a well-organized, possibly brilliant, presentation, in which creative visuals amplify your words and enhance my understanding.  
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## Promote prestigious paediatric centres

I wish to clarify that the bulk of the groundbreaking work you describe on preventing brain damage in newborns (see *Nature* **540**, 17–18; 2016) was in fact carried out at Seattle Children's Hospital, where Sandra Juul is chief of neonatology. Given that US paediatric institutions are woefully underfunded (see, for example, [go.nature.com/2kpnccgn](http://go.nature.com/2kpnccgn)), we believe that public awareness of their key clinical and research contributions is crucial.  
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### CONTRIBUTIONS

For submission details, see <http://go.nature.com/cmchno>.