# Correspondence

# **Preprints: safeguard** rigour together

Tom Sheldon's concern that preprints might lead to poor research being overblown in the media is more likely to apply to the press releases circulated to journalists under embargo than to the preprints themselves (Nature 559, 445; 2018). Wherever they hear about a story, journalists are under the same obligation as scientists to critically review the work they intend to communicate to readers.

When journalists try to secure independent expert opinions, they should indicate whether and how preprint manuscripts have been screened — in keeping with disclaimers on some preprint servers. And scientists can impede the spread of low-quality information by publicly commenting on preprints and peer-reviewed papers, giving readers an insight into the scientific community's reaction to a work.

The increasing popularity of preprints is an opportunity for researchers, institutions, funders and journalists to coordinate discussion of how research is covered in the media. James Fraser University of California, San Francisco, USA. Jessica Polka\* ASAPbio, San Francisco, California, USA. J.P. declares competing interests (see go.nature.com/2wnffew). jessica.polka@asapbio.org

# Preprints: good for science and public

We disagree with Tom Sheldon's contention that the preprint ecosystem can present a challenge to accurate and timely journalism (Nature 559, 445; 2018). Restricting when or how preprints are released risks suppressing science communication without any clear advantage to the public.

When scientists and journalists follow fundamental principles for reporting

research results - such as ensuring that publications are rigorously sourced and fact-checked — preprints pose no greater risk to the public's understanding of science than do peer-reviewed articles (S. Sarabipour et al. PeerJ Preprints 6, e27098v1; 2018).

Responsible journalists already report on preprints with the help of real-time commentary from scientists on Twitter and elsewhere (see go.nature.com/2kctmfn). Peer-reviewed papers are published under an embargo, so this important resource is not available.

Preprints lead to scientific collaborations, reagent requests and adoption of new techniques. And as scientists benefit increasingly from preprints and other pre-publication research outputs, so too will the public. Sarvenaz Sarabipour\* Johns Hopkins University, Baltimore, Maryland, USA. \*On behalf of 9 co-signatories; competing interests declared (see go.nature.com/2p9gqwm for details).

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### **Preprints: help not** hinder journalism

In suggesting that preprints could distort the public's understanding of science, Tom Sheldon perpetuates the fallacy that peer review is a guarantee of validity (Nature 559, 445; 2018). There are countless examples to the contrary (see, for instance, A. Margalida and M. A. Colomer PeerJ 4, e1670; 2016).

A responsible journalist consults multiple independent sources to verify research findings. This critical evaluation is not contingent on the research having been peer reviewed. Preprints provide early and unrestricted dissemination of research outputs, so journalists can often peruse expert feedback when considering a story. And most preprint servers either label

preprints as 'not peer reviewed' or have editorial 'sanity checks' in place to prevent the posting of junk science.

Plenty of peer-reviewed research papers contain errors. Preprints provide a chance to spot these and have them removed before publication. In our view, preprints and peer review are complementary. Jonathan Tennant\* Open Science MOOC, Leicester, UK. Laurent Gatto de Duve Institute, Catholic University of Louvain, Brussels, Belgium. Corina Logan Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany. \*J.T. declares competing interests (see go.nature.com/204klgk). jon.tennant.2@gmail.com

# **Border carbon fees** could rebound

We agree with Michael Mehling and colleagues that applying carbon charges - rather than trade tariffs - to imports could help to address countries' non-compliance with climate policy (Nature 559, 321-324; 2018). However, their advice to match these charges (known as border carbon adjustments) to the cost of domestic carbon is economically questionable.

Although such charges would level the playing field for domestic and external manufacturers, the same is not true for consumers, domestic or external. The fees would make carbon-intensive goods cheaper for consumers in unregulated countries, and so boost consumption. And they would reduce US exports of ferrous metal products to the European Union, say, while increasing the supply and lowering the price of steel products in the United States.

This consumption-rebound effect could mean there is a smaller drop in carbon emissions than would be expected from imposing border carbon-adjustment charges. Charges motivated purely by

climate considerations would therefore need to be below the domestic cost. If set at the domestic level, they could be a form of protectionism: the country levying the border carbon charges would benefit from its trade power (above and beyond climate management) at the expense of the nation targeted.

Such economic complexities indicate that border carbon adjustments are an imperfect substitute for negotiating international agreements on carbon emissions. Edward Balistreri Iowa State

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# Never mind the gold watch

You note that some universities grant emeritus status only to those professors who have a distinguished research record, whereas others automatically bestow the honour on all retiring full professors (Nature 559, 429-431; 2018). As an emeritus professor, I would like to point out that emeritus - an unusual word in that it is derived from two classical roots, rather than one — holds as well for both: 'e' is from the Greek for out, and 'meritus' from the Latin for 'deserving, meritorious', or, more loosely, you deserve to be. David Rickard Cardiff University, UK. rickard@cardiff.ac.uk

#### **CONTRIBUTIONS**

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