

# Correspondence

## Tag research geared towards SDGs

Given their importance to the survival of the planet and our societies, we should be tracking how the United Nations' 17 Sustainable Development Goals (SDGs) for 2030 are influencing research activity worldwide. For example, scientific journals could develop a shared international coding system for tagging research publications according to their alignment with the SDGs and the 169 targets within them.

This would have several advantages. Scientists would have to ask themselves how their intended research could add value to the world's commitment to reach the SDGs, which would encourage the development of interdisciplinary research synergies to combine multiple SDGs. Stakeholders could identify the most-investigated SDGs and those that need more research, thereby helping funding agencies to evaluate research priorities.

We invite research institutions, funding agencies and journals to consider this proposal as part of their contribution to a more equitable and sustainable world.

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*E.G. declares non-financial competing interests; see go.nature.com/2ytc6cd for details.*

## Exemplary gender balance trips up

Denmark is among the world's leading scientific countries in terms of output, citations and funding (*Nature* **569**, 470–471; 2019). Despite this, and the country's renowned high level of equality, its gender balance in science lags embarrassingly behind that in many other European Union countries.

Almost half of the associate

professors in Sweden and Finland, for example, are female, compared with only 30% in Denmark — although each country spends around 3% of its gross domestic product (GDP) on research. Only 20% of full professors in Denmark are women, compared with more than 30% in Latvia, Lithuania and the United Kingdom (see [go.nature.com/2yz3eri](http://go.nature.com/2yz3eri)), where research accounts for just 0.5, 0.9 and 1.7% of GDP, respectively (see [go.nature.com/2suftd2](http://go.nature.com/2suftd2)).

Danish women still secure fewer large grants (see [go.nature.com/2nngf2i](http://go.nature.com/2nngf2i)) and account for a smaller proportion of national-academy members than their male colleagues.

New initiatives to close this gender gap in the country's hallmarks of scientific excellence include the 'Promote me' campaign (<http://promoteme.co>) and the Danish Society for Women in Science ([www.danwise.org](http://www.danwise.org)).

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*\*On behalf of 4 correspondents; see go.nature.com/3343ggb.*

## Tree plantations: get them right

Native forests regenerated to increase carbon sequestration can often sustain higher biodiversity (see S. Lewis *et al.* *Nature* **568**, 25–28; 2019), but planting non-native species should not be categorically excluded. Even the use of exotic clones and monocultures is sometimes justified.

Non-native trees can be more resistant to introduced pathogens (see, for example, P. Woodcock *et al.* *Forestry* **91**, 1–16; 2017). They grow uniformly and yield timber, paper and other products. In harsh urban environments in northern Europe, they can also be more resilient and provide

better ecosystem services than can native trees (H. Sjöman *et al.* *Urban Forestry Urban Greening* **18**, 237–241; 2016). And shrubs and grasses could be better than tree plantations in arid regions.

Given the scale of the environmental challenge, researchers, policymakers, non-governmental organizations and the private sector must work together around the world to produce evidence-based recommendations for future tree-planting projects.

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## We miss you Suzanne, says her lab

Suzanne Eaton, who died tragically last month (*Nature* **571**, 305–306; 2019), was our leader, our role model, our mentor and — most importantly — our friend.

Academic research can be arduous and unrewarding. During those dire times, Suzanne met us promptly. She insisted on going through all the raw data with us. By embracing each result as a potential clue to the truth, she taught us how to analyse and think about it in depth. And she could amplify any tentative excitement of our own with an exclamation such as "What? Wow! That's fascinating", accompanied by an exuberant banging on the desk.

It was important to Suzanne that the special experience of working as a team was never compromised. She always asked our opinion before offering someone a position.

Suzanne taught us to think synergistically. She showed us links between seemingly unrelated topics. The sources of several discoveries made in the lab could be attributed to such leaps in her thinking. Perhaps this approach is what we need to answer the overarching questions in science. Her illustrious life and career are

a testament to that vision (see Obituary *Nature Cell Biol.*, in the press). We shall all do our very best to honour her memory.

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*\*On behalf of Eaton lab members; see Supplementary Information at go.nature.com/2yczryo.*

## Happy birthday, ultracold neutron!

This year marks the 50th anniversary of the first production of ultracold neutrons, which could hold the secret to such mysteries as the expansion of the Universe and what dark matter is made of.

These particles were actually discovered twice in the same year — in the former Soviet Union and in the West (see V. I. Luschikov *et al.* *J. Exp. Theor. Phys. Lett.* **9**, 23–26; 1969 and A. Steyerl *Phys. Lett. B* **29**, 33–35; 1969).

To celebrate, we created a version of the traditional 'Happy birthday to you' song using a musical intonation system based on the properties of an ultracold neutron — its inertial and gravitational mass, Planck's constant and the local acceleration (song available at [go.nature.com/2k8b7oy](http://go.nature.com/2k8b7oy)).

Our 'song' derives from acoustic resonant transitions (see G. Cronenberg *et al.* *Nature Phys.* **14**, 1022; 2018) between different gravitational energy eigenstates. Each pair of energy levels has a unique coupling frequency: for example, the  $|5\rangle \rightarrow |8\rangle$  transition corresponds to a frequency of 445.77 Hz, which is close to the concert pitch at 444 Hz used by many orchestras. This spectrum offers vast new musical possibilities, but our selection relies on just a modest few.

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