

Correspondence

Scientists – be political in good times, not just bad

Your call for scientists to “get political” (*Nature* **592**, 660; 2021) echoes many similar injunctions during times of crisis. These have had limited effect. As Jon Beckwith and Franklin Huang argued years ago, “waiting for such crises will not do” (*Nature Biotechnol.* **23**, 1479–1480; 2005). For emergency interventions to be prompt and effective, scientists must be politically engaged all the time.

Even routine science is political. There is little going on in our intersected world that has nothing to do with science; in science, there is little going on that does not have social or political aspects. Researchers should not confine their forays into politics to times when discovery itself stands to win or lose. They must use their authority to help society (J. Gregory *Sci. Mus. Group J.* <https://doi.org/gf87>; 2016). A close-but-no-closer relationship might seem to offer freedom, but it removes scientists from arenas in which they could be influential.

The multiplicity of world views in politics can be unsettling, especially when these are nasty or ignorant. The solution is simple: get involved. This might mean adjusting your institutional machinery, communication skills and students’ education. The more that creative and well-informed people contribute, the better prepared the world will be to manage the next crisis.

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Indigenous lands: make Brazil stop mining to secure US aid

Just before the global leaders’ climate summit in April, Brazil’s President Jair Bolsonaro promised the United States that he would reduce deforestation in the Amazon, hoping to secure a billion-dollar aid package. In my view, any such cash-for-conservation deal should be contingent on Bolsonaro withdrawing his February bid to legalize mining on Indigenous lands.

Bolsonaro has met with pro-mining Indigenous leaders in a crusade for economic development, despite evidence that mining in Brazil does not bring lasting improvements to socio-economic indicators (see go.nature.com/2s6zknt; in Portuguese). Granting current requests for mining concessions would affect 30% of Brazil’s Indigenous lands.

Heavily armed illegal gold miners are invading federally protected Indigenous lands with impunity, knowing that the president has their back. In a shoot-out last month with Yanomami Indigenous people in the state of Roraima, miners fired at community members and Federal Police agents.

Given Brazil’s current economic devastation, the administration of US President Joe Biden is in a strong position to seek major concessions to secure the aid deal. High on that list should be stopping illegal incursions and reversing plans to legalize mining on Indigenous lands.

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Diagnostic genomic laboratories should share their data

Getting diagnostic genomic laboratories – along with patients, clinicians and researchers – to share their data ethically could help to fix “the broken promise” that undermines human genome research (see *Nature* **590**, 198–201; 2021). The promise was to make genomic data publicly accessible.

Laboratories that sequence DNA for diagnostic purposes hold information on patients’ clinical and phenotypic features alongside causal genomic findings (see A. J. Gates *et al.* *Nature* **590**, 212–215; 2021). The benefits of sharing these data interpretations could extend far beyond the diagnostic context – subject to patients’ informed consent. They could create a giant resource for curated reference sequences and variants proved to be linked to disease.

The community has public repositories for data sharing, yet participation is low. Many laboratories prefer to maintain their own databases. This practice needs to change.

Now that sequencing of human genomes is routine, the number of variants of unknown significance has grown exponentially. Mostly considered neutral and non-actionable, these rare variants might still play a part in disease. Openly sharing genomic data and phenotypic details could provide insight into such unknowns.

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Chilean polymath Humberto Maturana remembered

As young Chilean neuroscientists, we have been profoundly influenced by the work of the Chilean polymath Humberto Maturana Romesín, who died last month aged 92.

As well as helping to lay the foundations of modern neuroscience (see J. Y. Lettvin *et al. Proc. IRE* **47**, 1940–1951; 1959), Maturana did pioneering and widely influential work on core issues in the biological, clinical and social sciences, philosophy and the humanities. His contributions to cybernetics – the science of communications and automatic control systems in machines and living organisms – still permeate scientific, public and political discourse.

In the late 1960s, Maturana promoted biological materialism in cognitive science and epistemological pluralism in the biomedical sciences, both forerunners to today’s thinking. In 1972, he – along with Francisco Varela and Ricardo Uribe – developed the transdisciplinary concept of autopoiesis, the self-generating and self-distinguishing biochemistry of living systems. This spawned important neuroscientific theories (see, for example, E. Di Paolo *Topoi* **28**, 9 (2009); M. Allen and K. J. Friston *Synthese* **195**, 2459–2482; 2018).

His later works centred on compassion and empathy and set the stage for social justice in Chile’s current social and political context.

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