The online news arm of the journal Science is a solid source of information. However, recently it made a very strange editorial decision that could potentially harm its reputation.

Yesterday, Science reprinted an article [2] that was provided by E&E News, a website that bills itself as "a news organization focusing on energy and the environment." That's true enough, but it also seems to take a particular viewpoint on energy and the environment, specifically that green energy is the way to go and the environment is full of scary chemicals. The reprinted article quoted only Democrats, and E&E seems to have a strange obsession with Sean Hannity [3], Scott Pruitt [4], Scott Pruitt [5], Scott Pruitt [6], and the Koch Brothers [7].

Given the dubious framing of its news reporting, one would think that Science would be careful to associate its brand with E&E News, especially on a controversial topic like "chemicals." Environmental sites are always eager to report on some chemical detected at trace levels, but actual science news outlets should be more skeptical. The article begins:

President Donald Trump's administration has released a politically charged toxicology report about nonstick chemicals showing they can endanger human health at significantly lower levels than the Environmental Protection Agency (EPA) has previously called safe. [Emphasis added]

Right off the bat, the article is misleading. First, the only reason the report is "politically charged" is because environmentalists say it is. Second, we simply do not know if nonstick chemicals (referred to as per- and polyfluoroalkyl substances, PFAS) are bad for our health. Third, even if they are, the...
concentration of these chemicals has dropped dramatically in our bodies over the past several years. All three of these points are worth a closer look.

The Trump Administration made efforts to block the release of the report because an unnamed source said it was a "public relations nightmare." Of course, this anonymous source is correct. Whenever any news about "chemicals" is released to the public, we know for certain that it will be sensationalized and misreported. And that's exactly what happened, not just in Science, but also in outlets like Politico.

The same organization that released the report, known as ATSDR (which is part of the CDC), explains on its website that studies that have examined the effect of these chemicals on the human body are contradictory. The only thing we know for sure is that animals given high doses have health problems. Of course, that's true of nearly any chemical.

In June 2017, ATSDR released a report that said average PFAS concentrations in the blood ranged from 1.3 to 6.3 parts per billion (ppb), depending on the specific type of PFAS. Once again, the report noted that studies on human health are "inconsistent and inconclusive." Additionally, ATDSR shows that, since 1999, PFAS concentrations have fallen dramatically in our blood because manufacturers voluntarily stopped making them when health concerns were raised. On top of that, in 2016, under the Obama administration, the EPA recommended that PFAS levels in drinking water remain below 70 parts per trillion.

That is the background to this most recent PFAS report by ATSDR, which suggests a stricter standard than that proposed by the EPA in 2016. Thus, instead of focusing on politics and scaremongering over PFAS, the lead paragraph should have read:

A government toxicology organization released a new study about PFAS that suggests lowering the concentration to which humans are exposed, from 70 parts per trillion to perhaps 12 ppt, due to an abundance of caution. The effect of these chemicals on the human body is unknown, and voluntary efforts by manufacturers have already resulted in substantially lower levels of these chemicals in the human body.

That's a scientifically and historically accurate paragraph, but it's nowhere nearly as exciting as a "politically charged" report about a chemical that is endangering people. Science should know better than to reprint articles from environmental sites.

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