

How once-distinguished The Lancet has become hothouse for anti-science advocacy

Misinformation is rampant on social media. The science community has spent most of the last two years trying to slow the proliferation of spurious claims about COVID-19 vaccines and other pandemic-related topics, part of a larger effort to correct widespread misunderstanding about the safety of pesticides, genetic engineering and vaccines more generally. But these efforts have fallen short in one critical respect. They have not included academics and ostensibly reputable publications that promote nonsense about all these important public health innovations.

Who exactly are we talking about? A cadre of well-known scientists, several wealthy advocacy groups, and, most surprisingly, The Lancet, a major medical journal that has amplified the activism of its ideological allies over the years.

This collaboration has already done serious damage to the public's acceptance of established science. If not confronted, it will push scientific research and communication deeper into activist territory and stifle technological progress in food and medicine that could prevent a lot of suffering around the world. Before we examine how that project is progressing, we need to briefly look back at the events that brought it this far.

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Origin story: Wakefield's fraudulent vaccine-autism study

In 1998, British physician Andrew Wakefield and several co-authors published a now-retracted study in The Lancet suggesting that the measles, mumps, and rubella (MMR) vaccine may be linked to autism, giving the anti-vaccine movement a significant PR boost by promoting a dangerous myth the science community has spent years refuting. The campaign against the MMR shot [was driven](#) in large part by Robert F Kennedy, Jr., perhaps the world's best-known anti-vaccine activist.



Credit: CBS KPIX

After investigative journalist Brian Deer [exposed](#) Wakefield's unethical behavior in February 2004, 10 of the 1998 paper's 12 authors published a "retraction" in the Lancet two weeks later, though it included the caveat "that this statement does not necessarily reflect the views of the other co-authors." Lancet editor Richard Horton also [published a statement](#) the same day repudiating several of the allegations of scientific misconduct leveled at Wakefield. It wasn't until 2010 that the journal [actually retracted](#) the study. This 12-year lag was more than enough time for Wakefield's work to do serious damage. As Deer wrote in the British Medical Journal [in 2011](#):

The [Lancet], meanwhile, took 12 years to retract the paper, by which time its mischief had been exported. As parents' confidence slowly returned in Britain, the scare took off around the world, unleashing fear, guilt, and infectious diseases—and fueling suspicion of vaccines in general. In addition to measles outbreaks, other infections are resurgent, with ... California last summer seeing 10 babies dead from whooping cough, in the worst outbreak since 1958.

No journal can be blamed for publishing one flawed study. “The process of editorial and peer-review is not perfect,” neuroscientist Dr. Steven Novella [wrote](#) following the full retraction, “and given the number of papers that are published there is no way to keep dubious, even fraudulent, research from slipping past the goalies.” But, Novella added, peer-review should continue after a study’s publication, and the Lancet could have pulled Wakefield’s study down much sooner.

Indeed, Britain’s General Medical Council published [an inquiry](#) in 2007 that refuted key aspects of Horton’s 2004 statement. Deer also noted in a 2011 BMJ report that the Lancet [scrambled](#) “to discredit my claims during the 48 hours after I disclosed the information.” Deer had briefed the journal’s editors the same week he published his original investigation into Wakefield’s shoddy work. But the Lancet leadership wasn’t [very receptive](#):

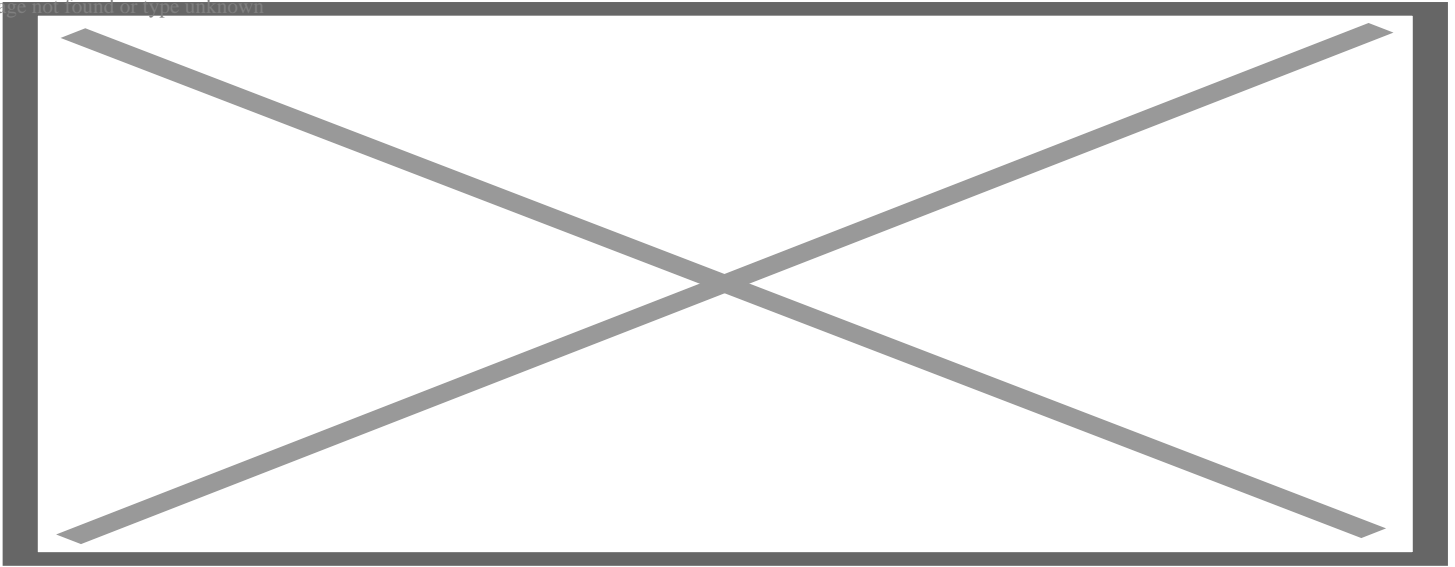
I had assumed that when I finished Horton would say that an investigation was needed to untangle these complex matters. There were at least three strands: possible research fraud, unethical treatment of vulnerable children, and Wakefield’s conflict of interest through the lawyer. But within 48 hours, and working with the paper’s three senior authors, the journal was to publish a 5,000 word avalanche of denials, in statements, unretracted to this day.

These events suggest that The Lancet was far too invested in defending a bad study it should have never published. But the problem is much bigger than Wakefield’s atrocious paper.

“Health risks of genetically modified food”

In 1999, just a year after publishing Wakefield’s study, The Lancet published an editorial [titled](#) “Health Risks of Genetically Modified Food.” Among other complaints, the article alleged that genetically engineered potatoes caused intestinal changes in rats, a claim based on the results of another [Lancet paper](#) authored by Dr. Arpad Pusztai, and that Monsanto produced a “sterile” grain that forced growers to buy new seed each year.

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Monsanto [never commercialized](#) “sterile” GE seeds; they exist only in the minds of misinformed anti-GMO activists. The allegation that transgenic potatoes were potentially harmful to rodents was blasted by experts. They [noted that](#) Pusztai’s study didn’t include an appropriate control group, making it impossible to determine if the “foreign” DNA in the GE potato was harmful. Additionally, plant biologist Dr. Nina Fedoroff explained, the experiments were [plagued by](#)

small sample sizes, the use of inappropriate statistical procedures, and the fact that a diet of raw – or even cooked – potatoes is a bad diet for rats (people too) ...

These criticisms didn’t seem to matter, though. Horton [stood by](#) The Lancet’s decision to publish the paper, arguing that suppressing the debate around GE crops would exacerbate the public’s existing food-safety concerns. A reasonable point, perhaps, though we shouldn’t ignore the fact that publishing the study bolstered the activist campaign against crop biotechnology. Indeed, Pusztai’s paper became one of the [most-cited pieces](#) of evidence that GE crops are potentially harmful to human health.

As recently as 2017, longtime anti-GMO guru Jefferey Smith [defended the study](#), accusing critics at [the Royal Society](#) of performing a “hatchet job” on Pusztai. But this was an incomplete assessment of the situation. In an email to ACSH, Dr. Liza Dunn, medical affairs lead for Bayer Crop Science, highlighted another crucial problem with how Pusztai presented his findings to the public:

Pusztai made claims on national television that weren’t supported by his research—he said that rats fed uncooked GM potatoes were immunosuppressed and had stunted growth. His research paper claimed that the rats fed uncooked GM potatoes had proliferative effects on the epithelial cells of the stomach and jejunum and said nothing about immunosuppression or stunted growth. Making claims in a press conference that aren’t true and then wondering why the [

Royal Society] *is upset is a bit naïve.*

Glyphosate, the deadly organophosphate?

The Lancet's contributions to anti-GMO advocacy didn't stop with spurious claims about potatoes. In March 2015, The Lancet Oncology published [a summary](#) of the International Agency For Research on Cancer's (IARC) monograph 112. This was the controversial report that classified the weedkiller glyphosate as "probably carcinogenic to humans." Its deficiencies have been [thoroughly documented](#), but there was a serious and oft-overlooked mistake in the Lancet's summary as well. "In March 2015," the document began, "17 experts from 11 countries met at the International Agency for Research on Cancer ... to assess the carcinogenicity of the organophosphate pesticides tetrachlorvinphos, parathion, malathion, diazinon, and glyphosate."

The problem? Glyphosate is *neither an insecticide nor an organophosphate*. "[I]t must be noted that glyphosate lacks the neurotoxic *modus operandi* of organophosphate neurotoxins, which is via acetylcholinesterase inhibition and overstimulation of cholinergic receptors," retired clinical professor of Neurosurgery Miguel Faria [wrote in](#) 2015. In other words, glyphosate bears no resemblance whatsoever, either chemically or functionally, to organophosphate pesticides.

Understandable mistakes and oversights are common in the peer-reviewed literature, as noted above, but if journals do not correct these errors, they can badly mislead the public. This includes physicians who may unintentionally mistreat glyphosate poisonings or amplify inaccurate information on social media.



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Glyphosate has relatively low toxicity in mammals. Perhaps it was other ingredients that caused the problem?

9-1 Reply



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Sorry, it highly toxic in humans, to the point that a couple of drops ingested can be fatal? It's an organophosphate

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9-1 Reply



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Actually, it's an organophosphonate NOT an organophosphate—an important difference when treating patients exposed to either type of chemical.

9-1 Reply



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Dr Michael, I love following you on TikTok (big fan) and love that you push back on medical misinfo. But misinfo comes in many shapes and sizes.

9-1 Reply

A troubling trend

Like the previous two cases we've examined, The Lancet has not corrected its summary of the IARC monograph, six years after it was first published. But all this is merely the backdrop for the journal's more recent advocacy. As we'll see in part two, the Lancet [has argued](#) "that medicine has a great deal to learn from [Karl] Marx," endorsed the use of blatantly unscientific language—[calling women](#) "bodies with vaginas"—to assuage the concerns of social justice activists and, most significantly, [called for a](#) "Great Food Transformation."

The journal has championed its [EATLancet program](#) as the means to achieve this transformation, which heavily overlaps with the EU's Farm-to-Fork campaign in calling for severe restrictions on [animal agriculture](#), pesticide use, and mandatory support for agroecology, the latest buzzword used to describe organic farming.

This advocacy appears to be part of an even larger effort to construct a new [sociopolitical framework to](#) "avoid the catastrophic consequences of the exploitation of earth's resources due to capitalism." We'll examine the consequences of these lobbying efforts in detail next time. What's abundantly clear already, however, is that The Lancet long ago left the realm of science.

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