LETTERS

Edited by Jennifer Sills

Editorial retraction

Bruce Beutler has informed Science that experiments performed in his laboratory have failed to reproduce clearly the foundational observations of the 2014 article “MAVS, cGAS, and endogenous retroviruses in T-independent B cell responses” (1). In contrast to data presented (Figs. 1 and 3), he now finds that deficiency of MAVS and/or cGAS does not cause a robust decrease in type II T-independent B cell responses. At most, a decreased antibody response is observed in Stinggt/gt mice. Although some of the data shown in the paper may be correct, the core observations and conclusions are not. Beutler and a majority of coauthors have therefore requested retraction of the paper.

The editors nonetheless note that authors Ming Zeng and Xiaolei Shi stand by the findings of the paper. These authors do not agree to this retraction due to disagreement with the design of the reproduction experiments.

The editors have worked with the authors to determine the appropriate outcome and have decided retraction is appropriate in light of the lack of robustness of the main finding.

Jeremy Berg
Editor-in-Chief

REFERENCE
10.1126/science.aar2406

France’s risky vaccine mandates

In the past decade, insufficient vaccination coverage and vaccine hesitancy have become pressing problems in many countries. In France, vaccine-related controversies in the media have multiplied, and the proportion of the population doubting the safety of vaccines has risen to approximately 40% (1). Recently, several countries and U.S. states have opted for an aggressive strategy in their fight against vaccine hesitancy: legal mandates for childhood vaccines (2). France plans to follow suit by making eight new vaccines mandatory in addition to the three currently required (3). This approach risks amplifying the problem rather than solving it.

Proponents justify France’s policy by citing a citizens’ consultation held in 2016 that recommended making all childhood vaccines temporarily mandatory (4). Detractors argue that the 2016 consultation was widely criticized for the way it was framed and organized and that it is unclear whether mandates are warranted on epidemiological grounds (5). Furthermore, making a vaccine mandatory opens administrative courts to purported victims and critics. Such cases increase the chances that more diseases will be attributed to vaccines and that more vaccines will be criticized in the news (6, 7). Because negative media coverage fuels French vaccine hesitancy (8), these mandates could increase rather than alleviate frustration with vaccines.

Mandates do not solve the underlying issues. Doctors lack the time and resources to address vaccine hesitancy. Worse yet, a substantial proportion of doctors are vaccine-hesitant themselves (9). With mandates in place, there is a risk that pro-vaccine doctors will rely too heavily on the requirements rather than persuading their hesitant patients that vaccines are valuable. The mandates could also make vaccine-hesitant doctors even more reluctant.

Studies show that tougher stances on the part of doctors and public health experts tend to polarize attitudes in the public (10). There is a considerable risk that making more vaccines mandatory will convert vaccine hesitancy into a more extreme anti-vaccination stance. To mitigate this risk, members of the parliament who are about to decide on the precise contents of this bill should allow philosophical exemptions and make these mandates only a part of a comprehensive vaccination policy.

Jeremy K. Ward, James Colgrove, Pierre Verger

REFERENCES
4. Conférence de presse d’Agnès Buzyn sur la vaccination en France (Direct du 5.07) (2017); www.youtube.com/watch?v=RHIC42mnfG0 [in French].
Missed opportunities in Yachay

To understand why Yachay Tech University has been unsuccessful as a world-class public research institution (1), we must first analyze why and how it was created. From the beginning, it was isolated from the rest of the Ecuadorian universities and plagued by politics, while its legitimate academic purpose was neglected. An exhaustive analysis by Arturo Villavicencio in 2014 (2) predicted the incongruences of creating a technological hub that was isolated from the real technological needs in Ecuador and guided by foreign scientists with little to no understanding of the political and scientific reality of the country. Villavicencio criticized the proposed research scheme, in which basic science was expected to swiftly translate into applied science in order to develop a knowledge-based economy. This bench-to-market idea was one of the major political points in ex-president Rafael Correa’s “citizen revolution” and was proposed to reinvigorate Ecuador’s economy (3). An editorial note in Diario HOY, one of the main Ecuadorian newspapers, warned in 2014 that using promises of economic development based on advancements in science and technology was merely a political tool that disregarded the realities of the Ecuadorian society (4).

Yachay EP, the public company that was created to develop the “city of knowledge” in Urcuqui, where Yachay University is located, has been plagued with accusations of corruption, overpaid administrators who live overseas, unfinished or malfunctioning buildings, and announcements of international investments that never existed (5, 6). The Ecuadorian attempt at creating a state-of-the-art research institution has not only failed its citizens but also tainted legitimate efforts by Ecuadorian scientists who have fought for years to do research in the country.

As a young Ecuadorian-American pharmaceutical scientist, I know the immense potential that biological and ecological resources have in numerous research fields. Yachay’s lost opportunity disheartens me, as it will take years to rebuild trust within the scientific community in Ecuador and abroad. The potential to become a world-class research institution continues to be overshadowed by political perils, despite Yachay’s current administration’s best-intentioned efforts (“Yachay’s promise,” C. Castillo-Chavez et al., Letters, 1 September, p. 881). An effort of this magnitude cannot be built in isolation and needs strategic advice from scientists who have experience navigating Ecuador’s political arena.

Karina R. Vega-Villa
Department of Biology, Wenatchee Valley College, Wenatchee, WA 98801, USA.
Email: kvega-villa@wvc.edu

REFERENCES
2. A. Villavicencio, Innovacion, Matriz Productiva y Universidad: Por Que Yachay Es una Estrategia Equivocada. (Corporacion Editorial Nacional, Quito, 2014), vol. 8 [in Spanish].
Editorial retraction
Jeremy Berg

Science 358 (6362), 458.
DOI: 10.1126/science.aar2406