

# Retraction

*Science* is fully retracting the Report “Detection of an infectious retrovirus, XMRV, in blood cells of patients with chronic fatigue syndrome” (1). Multiple laboratories, including those of the original authors (2), have failed to reliably detect xenotropic murine leukemia virus–related virus (XMRV) or other murine leukemia virus (MLV)–related viruses in chronic fatigue syndrome (CFS) patients. In addition, there is evidence of poor quality control in a number of specific experiments in the Report. Fig. 1, table S1, and fig. S2 have been retracted by the authors (3). In response to concerns expressed about Fig. 2C [summarized in (4)], the authors acknowledged to *Science* that they omitted important information from the legend of this figure panel. Specifically, they failed to indicate that the CFS patient–derived peripheral blood mononuclear cells (PBMCs) shown in Fig. 2C had been treated with azacytidine as well as phytohemagglutinin and interleukin-2. This was in contrast to the CFS samples shown in Figs. 2A and 2B, which had not been treated with azacytidine.

Given all of these issues, *Science* has lost confidence in the Report and the validity of its conclusions. We note that the majority of the authors have agreed in principle to retract the Report but they have been unable to agree on the wording of their statement. It is *Science*’s opinion that a retraction signed by all the authors is unlikely to be forthcoming. We are therefore editorially retracting the Report. We regret the time and resources that the scientific community has devoted to unsuccessful attempts to replicate these results.

**Bruce Alberts**

Editor-in-Chief

## References

1. V. C. Lombardi *et al.*, *Science* **326**, 585 (2009); [10.1126/science.1179052](https://doi.org/10.1126/science.1179052).
2. G. Simmons *et al.*, *Science* **334**, 814 (2011); [10.1126/science.1213841](https://doi.org/10.1126/science.1213841).
3. R. H. Silverman *et al.*, *Science* **334**, 176 (2011); [10.1126/science.1212182](https://doi.org/10.1126/science.1212182).
4. J. Cohen, *ScienceInsider* (4 October 2011); [http://scim.ag/\\_Mikovits](http://scim.ag/_Mikovits).