

SIVmac when SIVmac production is suboptimal. SIVmac became more sensitive to the late restriction when lower concentrations of SIVmac proviral plasmid were co-transfected with a rhesus TRIM5 α -expressing plasmid in 293T cells (Fig. 1e). Intriguingly, western blot analysis showed that wild-type SIVmac production altered the TRIM5 α expression pattern (Fig. 1f). Under conditions where SIVmac titers were not strongly affected by rhesus TRIM5 α , SIVmac production appeared to reduce the abundance of rhesus TRIM5 α in producer cells (Fig. 1f). Although further experiments are needed, these observations suggest that SIVmac can resist this restriction by saturating or counteracting the TRIM5 α late restriction machinery. This may not be surprising, given that many viruses are known to counteract another antiviral factor, TRIM19 (refs. 7,8).

In conclusion, our data, comprising the results of numerous experiments conducted under optimized conditions, strongly support the biological significance of the rhesus TRIM5 α -mediated late restriction.

Further investigation of the mechanisms may provide important new leads in the fight against HIV-1.

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Ryuta Sakuma, Seiga Ohmine, Amber A Mael, Josh A Noser & Yasuhiro Ikeda

Department of Molecular Medicine, College of Medicine, Mayo Clinic, 200 1st Street SW, Rochester, Minnesota 55905, USA.

e-mail: ikeda.yasuhiro@mayo.edu

The validity of alternative medicine

To the editor:

In Bruno J. Strasser's review¹ of my book *Mavericks of Medicine*, it appears that Strasser is doing the very thing that he is accusing me of doing—not presenting a scientifically objective viewpoint.

Strasser criticizes me for not including references that support the medical claims made by the controversial researchers that I interviewed, although references are rarely given in interview collections that are primarily intended for a lay audience, and part of the intention of my book was to use scientifically informed speculation about the future as a way to help provoke creative thought.

Strasser also criticizes some of my interviewees as having “blind faith in wonder pills” and for being associated with web sites that sell these products and claim their health benefits. For example, Internet sites that host articles by biochemist Barry Sears about the benefits of omega-3 fatty acid supplementation and by neurochemist Joseph Knoll about a drug that he developed called deprenyl also sell omega-3 fatty acid supplements and deprenyl. Although these products are not the primary focus of my book, some of them are discussed, and they are generally being promoted by my interviewees not because of “blind faith” in the products, but because they are well-studied nutritional supplements, or

drugs that have undergone clinical trials.

Sears' claim, for example, that omega-3 fatty acid supplements can have significant anti-inflammatory effects is supported by research², and studies have also confirmed Knoll's assertion that the selective MAO-B inhibitor that he developed—deprenyl—can significantly improve cognitive performance in some individuals.³

If space allowed, I could verify virtually all of the assertions made by the interviewees in my collection. However, as my book points out, scientific evidence may be ignored by mainstream medicine if it doesn't easily fit into conventional paradigms. As a result, there is a commonly held belief that all of our mistakes about fringe science are historical, and that we're too sophisticated now to make those same mistakes today. In my book I explore the possibility that we may be repeating some of the same errors today that we've made throughout history.

David Jay Brown

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Strasser replies:

Brown has it exactly right: history can teach us important lessons. Unfortunately, he misreads the muse's clear instructions—for example, to remember that pill peddlers have historically been unconcerned with conflicts of interest, that they have made overreaching claims on the basis of limited studies while ignoring contradictory evidence, and that they have rarely hesitated to boast they have evidence about the efficacy of their remedies¹.

I do not see how this historical picture significantly differs from the health ‘information’ websites mentioned by Brown that sell drugs ‘just one click away’, from his claims of improved “cognitive performance in some individuals” without mentioning that the “individuals” in that study are rats², from his omissions of the studies that have come to the opposite conclusion in humans³ or from his claim that he could “verify virtually all of the assertions” made by “mavericks” (including assertions about a

mysterious “RNAutri switch”), but does not deliver when given a book-length opportunity to do so.

We may forgive Brown for withholding references from his lay audience, but not for failing to provide his audience with evidence. Without a description of the studies he mentions, it is impossible for Brown's readers to evaluate his book critically and make up their minds about whether they want to believe independent nonprofit organizations evaluating clinical evidence, such as the Cochrane Collaboration, or financially interested mavericks. Unlike the author cited by Brown, the Cochrane Collaboration, after reviewing 17 clinical trials of selegiline (l-deprenyl), concluded that there was “no evidence of benefit of selegiline for Alzheimer's disease”^{4,5}.

Brown is right again when he says that scientific claims that do not “easily fit into conventional paradigms” run the risk of being ignored. Of much greater consequence, however, is the risk that a drug whose effec-