

# Something is fishy: Junk science and public policy

By ACSH Staff — April 11, 2014



When national debates, contesting social and public

standards, come to a boil, research studies are frequently a neutral and trusted voice in settling a final verdict. However, the tools available to researchers can allow them to manipulate any and all parameters to dictate overall outcomes. The result of inaccurate and careless scientific studies is junk science, which is usually indistinguishable from legitimate scientific publications for the layman as well as for most journalists, warns Popular Mechanics science editor Sarah Fecht. These faux research studies gain traction with celebrity backing and spotlights in mainstream media. The net impact however is a detriment to our society as Fecht describes: These studies cause real harm for instance, by denouncing lifesaving vaccines and vilifying foods that could ease famine in developing countries.

Junk science reaches mainstream attention with an initial peer review stamp of approval. The peer review process is not as rigorous and thorough as one would hope. Once a study is submitted to a journal, two anonymous reviewers are assigned to evaluate the findings as novel, important, and supported by the data. In sum their review skims studies on the surface: What they're reviewing are mostly advertisements of research rather than the research itself," says Stanford epidemiologist John Ioannidis.

In addition to the loosely defined peer view filter, junk science studies are also aided in publication by new web publishing platforms that allow any paper to be published arbitrarily. Fecht says the only requirements for publication in these online journal venues are a website and an email address. Moreover, open access journals make a profit from authors instead of subscribers, granting phony data space in their publications. Therefore, junk science is not simply accepted but encouraged to enter mainstream media, where it is used to skew and direct national dialogue regarding our behaviors and lifestyles. Read more about junk science dictating the state of our public health [here](#). [1]

ACSH's Dr. Gil Ross had this perspective: This essay really hits the nail on the head, at least

when it comes to what passes for peer-reviewed science these days. While the urge to publish supercedes ethics and responsibility among so-called scientific journals and academic institutions, even worse are those pay-to-publish open-access sites posing as journals. The contamination and dilution of sound science based on agenda- and profit-driven publication has gutted the previously-reliable term peer-reviewed to an extreme, and the solution is not apparent. Each scientist, student, and even journalist must avoid being swayed by press release-science and do their own, independent analysis: peer-review for the masses.

---

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

---

**Source URL:** <https://www.acsh.org/news/2014/04/11/something-fishy-junk-science-public-policy>

**Links**

[1] <http://www.popularmechanics.com/science/health/what-can-we-do-about-junk-science-16674140>