

Scientific misconduct or criminal offence?

When is fraud not treated like fraud? When it falls under the euphemistic umbrella of scientific misconduct. That is the opinion, at least, of some members of the scientific community, who believe it is long past time that researchers who commit fraud in the lab face criminal charges in court.

“If you were a banker and defrauded your customers, you would go to prison,” said Zulfiqar Bhutta, co-director of research for the Centre for Global Child Health at The Hospital for Sick Children in Toronto. “If someone defrauds tax payers with research money and falsifies data or falsifies entire research results, it is no different than any other form of similar economic crime.”

Dr. Richard Smith, former editor of the *British Medical Journal*, made a similar argument in a [recent blog post](#). He noted that some Volkswagen employees may be criminally charged for their involvement in the recent scandal over manipulating emission-test results. And yet, for some reason, a scientist who “invents data, defrauds funders and publishes fabricated data that may lead to patient harm is highly unlikely to face criminal charges.”

Not everyone agrees that criminalization is the answer. Treating research misconduct as a crime could have a chilling effect on science, one argument goes, and differentiating between deliberate fraud and general incompetence can be tough. Others say that scientific institutions are better suited to investigate allegations of research fraud than police. Bhutta, however, doesn't see it that way.

“Universities, research institutions and academic institutions generally don't have the stomach to go through this process,” he said. “Very few want the kind of publicity that comes with research misconduct, which could affect funding.”

In a [2014 *BMJ* article](#), Bhutta, who has a strong interest in research ethics, argued that scientific fraud can have



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Should researchers who commit fraud in the lab face criminal charges in court?

huge consequences on public health and clinical practice, citing the damage to global vaccination coverage caused by the “fraudulent and discredited” research of Dr. Andrew Wakefield that linked vaccines to autism. There is little risk to committing research fraud, beyond damage to reputation, and the research community is doing an inadequate job of policing itself, according to Bhutta, who wrote that “additional deterrence through punitive measures such as criminal proceedings should be added to the repertoire of measures available.”

Then again, perhaps devoting a lot of effort to imprisoning researchers wouldn't be the most effective or efficient way to improve science. “When you look at criminal offences, you can bring charges but you may not be able to meet the high standard of proof in a criminal case,” said Susan Zimmerman, executive director of the Secretariat on Responsible Conduct of Research. “The amount of time and energy and resources that would go into attempting to prove a criminal conviction — and if you fail to meet that very high burden of proof, that person will get off.”

The Secretariat is a government agency responsible for implementing the *Tri-Agency Framework on Responsible Conduct of Research* on behalf of Canada's major federal government granting agencies (the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council of Canada). A researcher who breaches the framework may receive letters of education or admonishment. More serious cases could merit sanctions, including withdrawal of funding or even the ability to apply for funding.

Each year, according to Zimmerman, there are about 90 breaches of the framework, but very few, perhaps three or four, would be considered serious. Even fewer would constitute a criminal offence. And if one did, the Secretariat is already obligated to notify the authorities. Instead of trying to ferret out the rare egregious bad apple, the Secretariat, as stewards of public money, focuses on reducing unacceptable results. The agency considers that approach to be a more productive use of limited resources than trying to

determine if a researcher made an honest mistake or acted in bad faith.

“We are interested in ensuring the public record is correct and reliable and accurate, and we are interested in fixing your conduct if you are not doing that,” said Zimmerman. “We are concerned if you lie on your application for funding. We are concerned if you mismanage your funds. We are concerned if,

through incompetence or laziness or ignorance, you can’t lay hands on accurate raw data.”

As for how investigations into scientific misconduct could be improved at the university level, that can be summed up on one word: consistency. “Each university has its own policy for how it investigates research fraud and misconduct, and it’s a real dog’s breakfast,” said

David Robinson, executive director of the Canadian Association of University Teachers. “There should be some central office, like the Office of Research Integrity in the United States, that applies consistent rules across the country, and applies some transparency and accountability.” — Roger Collier, *CMAJ*

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