

Volunteer watchdogs pushed a small country up the rankings

By **Ivan Oransky**, *Retraction Watch*

Drumroll, please: The countries that top our rankings of most retractions by nation are ... Iran and Romania.

Why? They're not among the world's leaders in the absolute number of retractions—that dubious honor goes to the United States and China.

But ranking countries that way can be misleading. The United States and China fund many researchers who together publish many papers, which in turn can increase the number of papers that must be retracted.

Instead, *Science* and Retraction Watch created two measures that allow consistent comparisons across countries. The first is retractions per dollar of national research funding from 2003 to 2016, which is a proxy for the size of a nation's scientific establishment. The second is retractions per paper published.

By the funding measure, Romania takes the top spot. (The United States falls to 34th, and China to 14th.) But the story doesn't end there: Romania's leading rate of retractions per research dollar probably reflects the outsize effect of some dogged watchdogs—a small band of researchers who have been politely but firmly contacting journals to point out suspected plagiarism by Romanian authors. That activism has led to dozens of retracted papers.

The effort was launched in 2013 by Stefan Hobai of the University of Medicine and Pharmacy in Târgu Mureș, Romania, who dubbed it, with no intentional irony, the Project dedicated to arrest of the name decline of the Romanian achievement (PANDORA) in biomedical publishing. Hobai tells *Science* and Retraction Watch that he acted because the editors of *Acta*

Medica Marisiensis—published by the same university Hobai works for—ignored 17 messages in which he reported articles suspected of plagiarism.

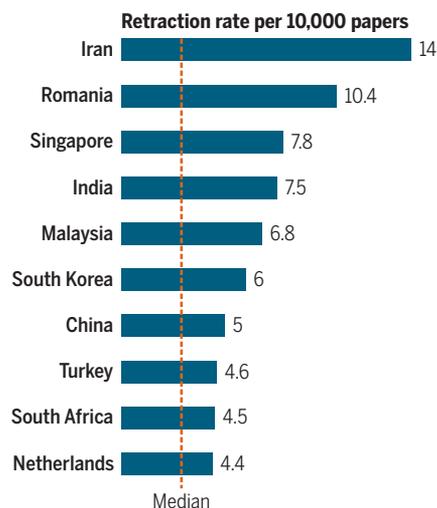
Since then, PANDORA's few members, who other than Hobai have remained anonymous, have posted allegations on two blogs, including side-by-side comparisons of similar text. The editor of *Acta Medica Marisiensis* has questioned Hobai's motives and called his allegations "vicious." Editors at three other publications have acted on PANDORA's allegations, but not always in ideal fashion: They often simply removed plagiarized papers from their websites with no notification or reason, leaving no trace that the paper ever existed. That practice runs contrary to guidelines issued by the Committee on Publication Ethics, an international group that advises journal editors.

PANDORA is just one example of bands of researchers taking

it upon themselves to clean up the literature. Some are subject specific, and many, such as PubPeer, are international. Others—such as VroniPlag, which began as a way to crowdsource suspected plagiarism in theses in Germany, and PANDORA—are country specific.

By the second measure—retractions per paper published—Iran tops the leaderboard and Romania drops to second (among countries that published at least 100,000 papers from 2003 to 2016; see graphic, left). Iran's position may reflect several high-profile scandals involving fake peer review. But this analysis may overstate Iran's retraction rate. That's because the incidence was calculated using a tally of published papers developed by the U.S. National Science Foundation. That count includes only papers published in English. If it also included papers published in Farsi—Iran's national language—the rate could change.

Countries with the highest retraction rates



More information here: www.scim.ag/RWmethodology

up entire experiments led to dozens of retracted papers, most of which included junior collaborators.

So how do such disasters affect their careers? The short answer is: It depends.

Some collaborators face a frustrating struggle to clear their names. Thomas Hall, a professor of accounting at the University of Texas in Arlington, has repeatedly implored the publisher of a 2002 paper he co-wrote to reconsider its 2015 decision to retract it. Hall says the paper was withdrawn simply because another author, James Hunton, was found guilty of sweeping misconduct. Hall argues the results reported in their paper are valid and have been supported by later research. (The publisher, the American Accounting Association, didn't respond to requests for comment.)

In other cases, co-authors escape relatively unscathed. Biersack, for instance, has not been a co-author on any of Sarkar's retracted papers. Still, when Biersack learned about the misconduct, he was worried: Sarkar had contributed data and wording to some of his publications. So "I checked my papers with him again," he says. "I could not find mistakes."

Biersack remains a postdoc in Bayreuth, working on a temporary contract. He says he has seen no signs that his collaboration with Sarkar has held him back; no referees have mentioned it in their reviews of his work, for example.

His experience is consistent with findings reported by Joshua Krieger and colleagues at Harvard Business School in Boston in 2017. They showed that more prominent authors of papers retracted for fraud or misconduct often face greater penalties—in the form of fewer citations to their previous work—than do less prominent authors. But a different, 2013 study found that when it's not obvious who on a research team was to blame for a retraction, the less prominent co-authors experience larger declines in citations, reported Ginger Zhe Jin of the University of Maryland in College Park and colleagues.

To avoid possible career damage, Krieger suggests scientists build a portfolio of papers that includes ones written with different co-authors, which can help make a researcher "less sensitive to the discrediting of any one paper or researcher." But even if a co-author is hit with retractions, Biersack says, "it does not mean the end of your career."

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