

POLICY

China introduces sweeping reforms against misconduct

Policies include creation of journal blacklist and assigning policing to government agency.

BY DAVID CYRANOSKI

China is getting tough on scientific misconduct. The country's most powerful bodies, the Chinese Communist Party and the State Council, introduced a raft of reforms on 30 May aimed at improving integrity across the research spectrum, from funding and job applications to peer-review and publications.

Under the new policy, the Ministry of Science and Technology (MOST) will be responsible for managing investigations and ruling on cases of scientific misconduct, a role previously performed by individual institutions. And for the first time, misconduct cases will be logged in a national database that is currently being designed by MOST.

Inclusion in the list could disqualify researchers from future funding or research positions, and might affect their ability to get jobs outside academia. The Chinese Academy of Social Sciences will oversee the same process for social scientists.

The policy also states that MOST will establish a blacklist of 'poor quality' scientific journals, including domestic and international titles. Scientists who publish in these journals will receive a warning, and those papers will not be considered in assessments for promotions, jobs or grants. A couple of such blacklists already exist, but rarely are they run formally by a government agency.

"Making it clear that articles published in 'bad' journals won't count towards assessment of performance sends a strong signal," says Paul Taylor, who heads a scientific-integrity programme at RMIT University in Melbourne. The plan to crack down on poor-quality and predatory journals is a good idea in practice, he says, but the ministry could find it difficult to identify problematic journals because some are more obvious than others — a challenge that curators of other blacklists have experienced. "It will be interesting to see the criteria that are developed to make these assessments," he says.

A start date for the reforms is yet to be announced, but is expected soon. Researchers in China and abroad say the policy will have considerable impact. "These new rules will make a major difference over time," says Xue Lan, a science- and innovation-policy researcher at Tsinghua University in Beijing.

Scientific misconduct is a significant



The Chinese Academy of Sciences will work with the science ministry to set standards.

problem in China, which has seen a steady stream of plagiarism cases, uses of fraudulent data, falsified CVs and fake peer reviews.

HELD TO ACCOUNT

Xue says the reforms are more practical than previous policies, which were based on general principles, such as improving researcher ethics, and were therefore hard to implement. "They lay out an accountability system in a detailed way that has never been seen before," he says.

As part of the reforms, the science ministry will work with agencies such as the Chinese Academy of Sciences to create standards for determining misconduct, protocols for monitoring and investigating allegations, and rules for deciding on the severity of penalties according to the type of misconduct. The policy states that funding and jobs can be revoked. Although universities currently have these powers, some scientists say they are rarely applied. "The life-long accountability system will make everyone afraid to commit academic misconduct," says Yu Hailiang, a mechanical engineer at Central South University in Changsha, who blogs about science-integrity issues. The rules will help to establish a good academic atmosphere, he says.

Science-policy researcher Tang Li from Fudan University in Shanghai also supports the reforms, although she worries that, if penalties are too harsh, it might prompt a backlash from researchers. She also warns

that the ministry will need to protect whistleblowers and researchers who are wrongly accused — something that is happening more now that researchers can publicize accusations against each other online. Taylor would like to see some assurance that the investigative process that led to people being named on a misconduct database was fair and rigorous.

The new rules also state that institutions could have their funding revoked if they protect researchers who have conducted serious misconduct. Nicholas Steneck, a researcher in scientific integrity at the University of Michigan in Ann Arbor, says the plan to punish institutions and journals is unique, and the journal policy could be a model for other countries to follow.

The policy also includes a plan to overhaul how researchers are evaluated for jobs and research grants. The current system places significant weight on the number of papers a scientist has published. But some researchers have noted that this encourages corner-cutting and fraud. The new rules call instead for universities instead to consider quality as well as quantity, and to focus on overall innovation and impact as well as publication record.

Efforts to change the culture of science in China will be key to reducing misconduct, says Yu. "As time goes on, these rules will go deep into the hearts of every researcher, allowing people to consciously resist academic bad habits." ■