

News in brief

GLOBAL PROJECTS SPARK SURGE IN THOUSAND-AUTHOR PAPERS

The number of papers with over 1,000 authors has more than doubled in the past 5 years, a study of millions of articles indexed by the Web of Science (WoS) database has found.

Between 2009 and 2013, 573 manuscripts were published with 1,000 co-authors or more, according to a 4 December report by the Institute for Scientific Information (ISI), part of Clarivate Analytics in Philadelphia, Pennsylvania, which runs the WoS. But that figure has risen to 1,315 papers over the past 5 years.

The surge in this practice, dubbed hyperauthorship, reflects the increasingly global nature of research in several fields, the institute says.

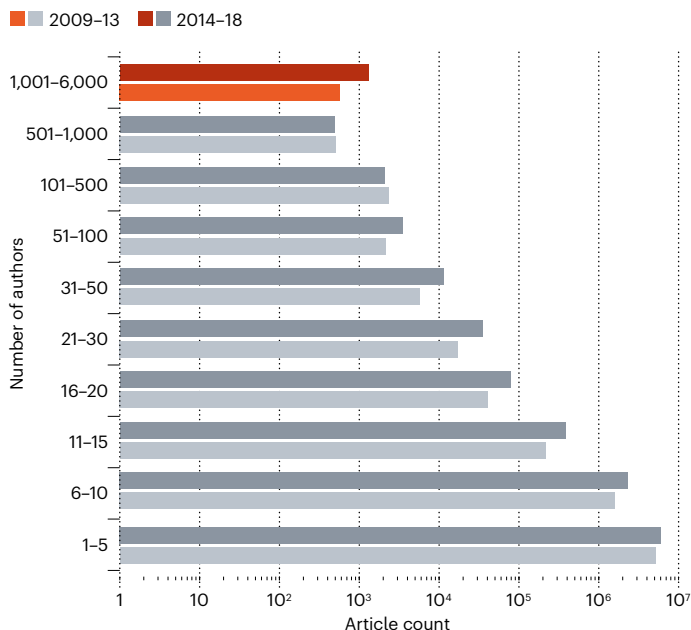
In particle and nuclear physics, papers with hundreds or thousands of authors have been common for some time, mostly because of massive collaborative research projects at CERN, Europe's particle

physics laboratory near Geneva, Switzerland. But data from the past five years show an increasing number of thousand-author studies in other fields, including global epidemiology and climate change, says Martin Szomszor, head of research analytics at the ISI. A 2017 analysis of body-mass index published in *The Lancet*, for example, involved more than 1,000 authors from more than 100 countries (NCD Risk Factor Collaboration (NCD-RisC) *Lancet* 390, 2627–2642; 2017).

Szomszor thinks the trend will continue over the next five years, as more fields start to involve collaborations between large numbers of researchers in different parts of the world. He predicts that topics associated with the United Nations Sustainable Development Goals — such as poverty and sustainability — are likely to produce more mass-authored papers in future.

HYPERAUTHORSHIP

In recent years there has been a significant increase in the number of papers with more than 1,000 authors.



ROGUE STEM-CELL SALESMAN DIES

The disgraced stem-cell entrepreneur Davide Vannoni, who in the past decade treated hundreds of people in Italy with an unproven treatment that health authorities considered dangerous, died on 10 December after an illness. He was 53.

His death brings to an end a years-long saga in which a group of academic stem-cell researchers in Italy fought to halt his activities, which they said endangered people.

Vannoni was not a trained scientist or physician but in 2007 he claimed to have invented a stem-cell therapy that could cure neurological conditions, such as Parkinson's disease and muscular dystrophy. The procedure, he said, converted stem cells taken from a person's bone marrow into neuronal stem cells, which were then infused back into that person. He sold the therapy through his organization, the Stamina Foundation.

In 2012, the Italian Medicines Agency prohibited the treatment. But Vannoni had passionate supporters who often mounted legal challenges to allow them to try the 'Stamina method'.

Prosecutors in Italy fought to ban the procedure, and in 2015 courts in Turin convicted Vannoni on fraud charges. He was later jailed, but was released last year because of his ill health.



New Zealand volcano eruption 'worst of all possible scenarios'



At 2:11 p.m. in New Zealand on 9 December, an explosive eruption forced superheated steam, boulders, caustic ash and other debris out of the White Island volcano, creating a 3.7-kilometre-high column of ash. So far, 16 people have been confirmed dead, and many others remain in hospital with severe burns.

Geologists who had been monitoring the marine volcano in the months preceding the eruption had seen an increase in volcanic activity, but nothing that could have immediately predicted the disaster.

The event was the worst of all possible scenarios, says Raymond Cas, a volcanologist at Monash University in Melbourne, Australia. Rocks 1 metre or more across would have been ejected as ballistic blasts, he explains. “Finer debris would have created an ash cloud that reduced visibility to zero, making it impossible for people to know where to run to.”

White Island sits off the east coast of the country’s North Island. It is one of the country’s most active volcanoes. The explosion was either a hydrothermal or a ‘phreatic’ eruption, both of which are caused by the build-up of pressure of superheated steam and gas.

SCIENTISTS WALK FREE IN US-IRAN PRISONER SWAP

The US authorities have dropped charges against two researchers accused of attempting to export chemicals to Iran in violation of trade sanctions. The decision follows a prisoner swap in which the United States freed a researcher who was charged alongside them – and imprisoned. Iran released a jailed US researcher in exchange.

The scientist freed by the United States is Masoud Soleimani (pictured, below right), an Iranian biologist arrested last October as he was about to take up a research position at Mayo Clinic in Rochester, Minnesota. The same day, Iran’s government released historian Xiyue Wang, a US citizen jailed in Iran in August 2016 on spying charges.

US authorities have also dropped charges against two of Soleimani’s former students, Mahboobe Ghaedi and Maryam Jazayeri, both of whom are in the United States.

Iranian authorities had imprisoned Wang, who is a PhD candidate in Persian history at Princeton University in New Jersey, in 2016. He had been working in Iran’s national archives in Tehran.

Brian Hook, the US special representative on Iran, said that the exchange is “a good first step, and I hope this leads to bigger and better things”.



CHINESE LABS INVESTIGATE PATHOGEN OUTBREAK

Two Chinese institutions are investigating how more than 100 students and staff became infected with the bacterium *Brucella*, strains of which are typically found in farm animals but can cause severe illness in people.

The Lanzhou Veterinary Research Institute in central China confirmed on 7 December that 96 staff and students have tested positive for the infection. It said most of the infected people are not experiencing signs of brucellosis, the illness caused by the bacterium, which can include fever and flu-like symptoms. The institute says it has begun an investigation.

On 10 December, the health commission for Heilongjiang province confirmed that 13 students at the Harbin Veterinary Research Institute also had the infection. The 13 were among 49 students who had previously worked as interns at the Lanzhou institute.

Different strains of *Brucella* occur in many mammals, including goats, sheep, cattle and pigs. Human infections most commonly result from the ingestion of undercooked meat or raw milk – but the bacteria can also enter the body through the lungs or skin wounds. *Brucella* is not typically transmitted between people. If left untreated, the infection can travel to the heart or brain and, in rare cases, be fatal.