

► Kenyan terms, and that allegations of the theft of intellectual-property rights are unfair and unsubstantiated. Last week, the court asked both parties to provide more evidence; the next hearing is scheduled for 20 September.

SUPPORT NETWORK

Other African researchers at KEMRI have rallied to the programme's defence. The programme has sponsored more than 30 Africans for master's degrees in the past five years, and a further 35 research assistants have won external master's fellowships totalling around £2 million (US\$3.1 million), mainly from the Wellcome Trust. An £8-million strategic award from the Wellcome Trust is boosting PhD training on the programme, which currently has almost 50 PhD students. The investment puts it ahead of any other equivalent programme in the country, says Abdisalan Noor, who leads the programme's spatial-epidemiology group. "This has saved many Kenyan students from the vagaries of chasing postgraduate funding through the limited international and national scholarship opportunities."

In its submission to the court, KEMRI lists a number of African scientists who were promoted and developed by the programme. These include Charles Mbogo, deputy director of the Centre of Geographical Medicine Research

"There are tensions everywhere in science — but where the former colonial master is involved, it takes on a different dimension."

Coast in Kilifi, which houses the KEMRI–Wellcome Trust programme; and Gilbert Kokwaro, who went on to head the programme's pharmacology group and is now director of the Consortium for National Health Research, a non-profit organization that coordinates health research and training in Kenya. In 2008, the KEMRI–Wellcome programme hired Kenyan malaria researcher Samson Kinyanjui as head of training to improve support for African scientists.

However, outsiders have questioned whether the programme is doing enough to promote Africans. In 2010, senior international scientists independently reviewed the programme's

application for core funding for 2011–16 from the Wellcome Trust, and unanimously deemed it "excellent". But they also queried why the programme seemed to be so "separate" from the rest of KEMRI, and why so few senior African scientists were involved.

Some joint programmes have found it challenging to boost the number of African scientists. Not only are African researchers relatively scarce, it is often difficult for those who have trained in Africa to compete on standard metrics — publication and citation rates — with colleagues trained and well-connected in developed countries.

But a culture of openness and trust may help to avoid conflict in partnerships between African and developed countries, says Tanner, who helped to develop guidelines published in May by the Commission for Research Partnerships with Developing Countries in Berne, Switzerland. One approach, he says, is to let all partners participate in setting the research agenda.

"It's about respect and transparency," says Tanner. "If you have that, you can build up a good partnership." ■

Q&A Uri Simonsohn

The data detective

Psychology was already under scrutiny following a series of high-profile controversies. Now it faces fresh questions over research practices that can sometimes produce eye-catching — but irreproducible — results. Last week, Erasmus University Rotterdam in the Netherlands said that social psychologist Dirk Smeesters had resigned after an investigation found that he had massaged data to produce positive outcomes in his research, such as the effect of colour on consumer behaviour^{1,2}. Smeesters says the practices he used are common in the field. None of his co-authors is implicated. The university was tipped off by social psychologist Uri Simonsohn at the University of Pennsylvania in Philadelphia, who spoke exclusively to Nature about his investigation.

How did your investigation begin, and how did you analyse the papers?

Somebody sent me a paper by Smeesters. I was working on another project on false positives and had become pretty good at picking up on the tricks that people pull to get a positive result³. With the Smeesters paper, I couldn't find any red flags, but there were really far-fetched predictions.

The basic idea is to see if the data are too close to the theoretical prediction, or if multiple estimates are too similar to each other. I looked at several papers by Smeesters and asked him for the raw data, which he sent. I did some additional analyses on those and the results looked less likely. I'll be submitting a paper on the method this week.

I shared my analyses with Smeesters, showing him that the data didn't look real, and I offered

several times to explain my methods. He said he was going to re-run the study and retract the paper. That was all I heard until December, when Erasmus University Rotterdam contacted me and asked me to tell them why I was suspicious. They had started their own investigation.

Can we expect more cases like this?

I tried my approach with Diederik Stapel's data after he had been called out for fraud (see *Nature* 479, 15; 2011), and they looked fake from the very beginning. Besides him and Smeesters, there's another person. I found three suspicious papers, engaged him for several months, and eventually contacted the university. They had already started an investigation, which



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has ended. It's not official yet.

There's a fourth case in which I am convinced that there's fabrication. I've approached co-authors, but none of them wanted to help. If I didn't have anything else to do, I'd do something about it, but it just became too difficult because I was handling these other cases and my own research. It's very draining.

Is this indicative of deeper problems in the field?

I don't know how systemic the crime is. What's systemic is the lack of defences. Social psychology — and science in general — doesn't have sufficient mechanisms for preventing fraud. I doubt that fabrication is any worse in psychology than in other fields. But I'm worried by how easy it was for me to come across these people.

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Do you worry about other psychologists' reactions to your investigations?

I did worry a lot. Everybody likes the fact that whistle-blowers exist, but nobody likes them. People worry about somebody engaging in a witch-hunt, but I have a technique that is accurate, I used it when confronted with evidence, and I subjected it to replication by checking other papers from the same author. That's no more a witch-hunt than a neighbour calling the police when someone breaks into another person's home. I did not take justice into my own hands, I contacted the authorities and they took care of the rest. I suspect some people will be against what I've done, but there is really no personal benefit to someone of doing what I am doing.

So what is your motivation?

Simply that it is wrong to look the other way. If there's a tool to detect fake data, I'd like people to know about it so we can take findings that aren't true out of our journals. And if it becomes clear that fabrication is not an unusual event, it will be easier for journals to require authors to publish all their raw data. It's extremely hard for fabrication to go undetected if people can look at your data.

A university's reputation suffers a lot when people fake data, but they don't have tools for preventing that — journals do. Journals should be embarrassed when they publish fake data, but there's no stigma. They're portrayed as the victims, but they're more like the facilitators, like a government that looks the other way. I'd like journals to take ownership of the problem and start working towards stopping it.

Previous challenges to data in psychology were made by internal whistle-blowers, but you are not connected to Smeesters. Does that herald an important change?

It's a very important difference. The tool should be broadly applicable to other disciplines. I think it'll be worthwhile to find other ways of finding fake data. We know people are really bad at emulating random data, so there should be all sorts of tests that could be developed.

Is it possible that such methods could falsely ensnare innocent researchers?

That's my biggest fear; it's why I look at different papers from the same person. I wouldn't contact anybody unless they had three suspicious papers. And before any concerns become public, a proper investigation should always take place. ■

INTERVIEW BY ED YONG

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More than 700 people protested at the trial of political scientist Büşra Ersanlı in Istanbul this week.

HUMAN RIGHTS

Turkey cracks down on academic freedom

External groups hope scrutiny will restrain government.

BY ALISON ABBOTT

Turkey is upping the pressure on scientists and students who question its policies, and international human-rights advocates are taking notice.

In the past few years, the government has clamped down on the independence of the Scientific and Technological Research Council of Turkey and the Turkish Academy of Sciences (see *Nature* **477**, 131; 2011). It has also harassed and jailed individual academics and students. Now, an international network is launching a campaign to support Turkish scientists whose academic rights it considers to have been violated. The network has issued a report and this week carried out its first concerted street action, when more than 100 of its supporters joined a large protest at the opening of the trial of Büşra Ersanlı, a political scientist at Marmara University in Istanbul.

Ersanlı was arrested last October, under

Turkey's 2006 anti-terrorist laws. A member of the legal Peace and Democracy Party, which promotes the rights of Turkey's Kurdish minority, she denies charges of supporting an outlawed separatist terrorist organization, the Kurdish Workers' Party.

Authorities have tried to prevent other scientists from speaking out against industrial interests, says Nesrin Uçarlar, a political scientist who has worked with Ersanlı at Marmara University. One targeted researcher is Onur Hamzaoglu, an epidemiologist at Kocaeli University in İzmit, who revealed that the region's industrial basin has high pollution levels and increased cancer rates. Hamzaoglu is now being investigated for unethical behaviour leading to public alarm, and faces a jail sentence.

Ersanlı will be tried alongside 204 others charged with illegally promoting Kurdish rights. Her arrest prompted colleagues in France to launch the International Workgroup on Academic Liberty and Freedom of Research in Turkey (GIT) on 21 November. The group is also drawing attention to the more than ▶

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