

risks were not regularly consulted. Gilinsky sees a tension between the United States' goal of safely commercializing nuclear-power technology and its efforts to control the proliferation of nuclear materials. "They are at cross purposes," he says. "When there's a conflict, generally speaking, the policy to spread nuclear technology overrides the non-proliferation policy."

GE spokesman Michael Tetuan says that the planned safeguards for the facility, such as measures to protect classified information, exceed the government's requirements. He also points to a report by an external panel, commissioned by GE but not made public,

which concluded that laser enrichment poses no greater proliferation risk than the other enrichment methods.

Donald Kerr, a former director of Los Alamos National Laboratory in New Mexico, who was a member of that panel, disagrees with the assessment that a laser facility would be smaller and more difficult to detect. The critics, he says, are relying on "marketing projects" from the 1980s that may have oversold the small footprint of the technology. "We had access to the actual information about the full-scale plant," says Kerr. The proposed plant would occupy 0.5 square kilometres. Kerr also dismisses concerns about industrial

espionage. "There's never been an American A. Q. Khan," he says, referring to the Pakistani nuclear scientist who stole industrial centrifuge secrets from the URENCO plant in the Netherlands, notoriously creating a nuclear black market.

Henry Sokolski, executive director of the Nonproliferation Policy Education Center in Washington DC, says that proliferation risks are harder to avoid than industrial espionage; the plant itself could simply spur other countries to follow suit and pursue their own research. "The most sensitive technology leak has already occurred," says Sokolski. "And it's that this stuff can work." ■ [SEE COMMENT P.30](#)

## EMPLOYMENT

# African researchers sue flagship programme for discrimination

*Conflict at Kenya Medical Research Institute exposes widespread tensions.*

BY LINDA NORDLING IN CAPE TOWN

The Kenya Medical Research Institute (KEMRI)–Wellcome Trust Research Programme is often seen as a model North–South partnership. African-run and mainly European-funded, it has trained dozens of African PhDs and done important research on malaria and other tropical diseases.

Yet in a court case that reawakens sour memories from colonial history, it now finds itself accused of exploiting African employees and holding back their careers compared with colleagues from developed countries. KEMRI denies the charges.

The case, which pits six African researchers, known as the KEMRI six, against the institute, highlights perceptions of unequal treatment that are common in joint programmes. Many prominent research institutions in Africa have evolved from field stations that once belonged to Europe, and although most are now owned locally, they remain dependent on funding and administrative support from their erstwhile masters.

"It is fair to say that this is an issue," says Marcel Tanner, director of the Swiss Tropical and Public Health Institute in Basel, which partners with health-research centres in Tanzania, Ivory Coast and Chad. Partnerships between rich and poor nations inevitably generate tensions, and those are exacerbated when the split between the haves and the have-nots runs along racial or former-colonial lines, says Kelly Chibale, a Zambia-born



Funding from Britain's Wellcome Trust is a cornerstone of the Kenya Medical Research Institute's programme in Kilifi.

biochemist who trained in Britain and the United States, and who now leads a drug-discovery centre at the University of Cape Town in South Africa. "There are tensions everywhere in science — but where the former colonial master is involved, it takes on a different dimension."

## ALLEGATIONS OF BIAS

The KEMRI six — Samson Gwer, Michael Mwaniki, Nahashon Thuo, John Wagai, Moses Ndiritu and Albert Komba — were all medical officers or clinical research officers working towards PhDs, or about to start doing so, as part of the KEMRI–Wellcome Trust Research Programme in Kilifi, Kenya. The programme has a mixture of African and European staff, is run by the University of

Oxford, UK, and gets most of its funding from the Wellcome Trust, a British medical charity that has funded research in Africa for many decades. Neither body is a defendant in the case. "We are aware that allegations have been made concerning the KEMRI–Wellcome Trust research programme in Kenya," the trust said in a statement. "However, an investigation carried out by KEMRI found no evidence to support the serious allegations made by the researchers."

In their submission to Kenya's high court on 5 December 2011, the KEMRI six describe their treatment at the programme as "modern day slavery", alleging that they were passed over for promotion, training opportunities and grants while their white colleagues flourished. They also say that their work was stolen and given to researchers in the developed world, and that they were paid less than foreign colleagues with equivalent qualifications on the programme.

The six say that they raised their complaints with programme managers in 2010. Later that year they were suspended. They are suing KEMRI for compensation and demanding a court order for them to be reinstated unconditionally.

In submissions to the court, KEMRI says that the complaints from the six were dealt with in accordance with institutional employment policies. It also says that its staff are well paid in ▶

➔ [NATURE.COM](#)  
To read *Nature's*  
Special on science in  
Africa, see:  
[go.nature.com/ylnyfw](http://go.nature.com/ylnyfw)

► 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<sup>1,2</sup>. 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 result<sup>3</sup>. 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



LUKE CHURCH PHOTOGRAPHY

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.