THIS WEEK

EDITORIALS

SLOPPY SCIENCE The perils and pitfalls of work with big data sets **p.406**

WORLD VIEW Jargon helps language to make sense of the world **p.407**

PESTS Cane-toad toxin could help Australia to battle back **p.409**

Secret disservice

Staff-surveillance efforts by government agencies must not contravene the rights of whistle-blowers, as the US Food and Drug Administration is accused of doing.

With supreme irony, a clandestine effort by the US Food and Drug Administration (FDA) to spy on its own staff was exposed when some 80,000 pages of documents gathered during the operation were accidentally published on the Internet.

Using monitoring software, the agency collected the communications of five staff scientists whom it suspected of going public with concerns over the safety of imaging devices designed to identify breast or colon cancers that had been approved or were in line for approval by the agency (see page 418). Four of the scientists lost their jobs.

Beginning in the spring of 2010, the spying operation tracked all communications to and from the scientists' government-issued computers, capturing communications with their lawyers, each other, at least one member of Congress, congressional staff members and the media. The exercise allowed the agency to compile a list of 21 'actors' — including four further agency scientists — who an unidentified FDA official wrote were engaged in a "collaborative plan" to "defame" the agency.

According to a lawsuit against the government filed by the scientists, the operation captured private e-mails sent on personal time, on private networks and on private equipment, and private e-mails sent to or received from other private e-mail accounts. According to US Senator Charles Grassley (Republican, Iowa), who is investigating the affair, the entire operation was authorized by the head lawyer at the FDA.

The FDA notes, rightly, that the federal Food, Drug, and Cosmetic Act makes it illegal for the agency's employees to release confidential commercial information without legal authorization. It adds that it "had evidence suggesting" that "a small number of FDA employees … might be responsible for the unauthorized disclosure of proprietary information". The operation, it says, "was only intended to identify the source of the unauthorized disclosures, if possible and to identify any further unauthorized disclosures".

Only in court will the FDA get to tell its side of the story fully. But in a world in which surveillance software can capture communications by keyword, the extent of the FDA's operation is breathtakingly broad and intrusive. According to the lawsuit, it captured privileged communications between the scientists and their lawyers, an official complaint the scientists sent to the government's Office of Special Counsel — which investigates complaints made by whistle-blowers — and their correspondence with the Department of Justice and the inspector-general for the Department of Health and Human Services (DHHS), the FDA's parent agency. The inspector-general is tasked with maintaining the integrity of DHHS programmes by rooting out waste, fraud and abuse.

Disturbingly, the FDA ignored consistent findings from the inspector-general. Asked by the FDA to investigate the scientists it suspected in mid-May 2010, the inspector-general quickly determined that the FDA lacked evidence of any criminal conduct and declined to take action.

The inspector-general noted, according to the lawsuit, that the disclosures the agency alleged against the scientists were a protected whistle-blower activity. At that point, the FDA was monitoring only one of the scientists' computers. Instead of ceasing the surveillance, within weeks it installed spyware on the other four scientists' computers, and asked the inspector-general to re-investigate. The inspector-general again demurred, noting, according to the lawsuit, that the Department of Justice had also declined to prosecute. The Office of Special Counsel has been so alarmed by the FDA's behaviour that it issued a government-wide warning last month, reminding agencies that any surveillance they conduct must not trample on the rights of whistle-blowers.

"The FDA's operation is breathtakingly broad and intrusive."

The whole sorry saga is made worse by the fact that it centres on the public's health, and the efforts of civil servants to protect it. In the most charitable construction, the agency's leadership made a glaring but legal error in judgement. But the available evidence seems rather to point to egregious, chilling and very possibly illegal conduct by the FDA.

There is one thing that can be done, and quickly, to mitigate the unquestionable discomfort this case will cause any whistle-blower who wants to report bad behaviour by government colleagues. In May, the US Senate unanimously passed a bill to significantly enhance legal protections for federal workers, including scientists, who blow the whistle — protections that have been seriously eroded by years of bad court decisions. The House, which must now pass the bill for it to become law, should move quickly to do so, especially because this is one of the few issues on which law-makers on both sides have been able to agree. ■

Protect and serve

A 'health check' of protected ecological areas reveals an alarming decline in biodiversity.

Protecting designated areas of ecological value is one of the most popular conservation tools for safeguarding biodiversity. As deforestation advances, the theory goes, these protected areas offer sanctuary for threatened species and natural ecosystem processes. By 2020, the 193 nations that have signed up to the Convention on Biological Diversity — the United States is not among them — hope to protect at least 17% of the planet's biodiversity-rich areas in this way. But is drawing artificial lines around ecologically valuable land an effective method for protecting biodiversity?

As a conservation mechanism, protected areas have a chequered history, and have faced particular criticism because some exclude poor local populations who want to gather food, wood and other resources from the forests on which they depend. Management of the thousands