

# Iranian ministers in plagiarism row

*Nature* investigation reveals duplications in papers by government's science and transport chiefs.

## EXCLUSIVE

Two Iranian government ministers have co-authored peer-reviewed papers that duplicate substantial amounts of text from previously published articles, according to an investigation by *Nature*.

Three journals have already confirmed that they will retract papers co-authored by Iran's science and education minister Kamran Daneshjou, a professor in the school of mechanical engineering at the Iran University of Science & Technology (IUST) in Tehran. Before being appointed science minister in early September, Daneshjou was also head of the interior ministry office overseeing the disputed presidential elections in June that kept Mahmoud Ahmadinejad in power. A further publication by Iran's transport minister and his deputy has also been called into question.

In an online story last week (see *Nature* doi:10.1038/news.2009.945; 2009), *Nature* revealed that substantial sections of text in a 2009 paper in the journal *Engineering with*



Kamran Daneshjou faces plagiarism questions.

*Computers*<sup>1</sup> by Daneshjou and IUST colleague Majid Shahravi were identical to a 2002 paper<sup>2</sup> by South Korean scientists in the *Journal of Physics D*. New York-based Springer, which publishes *Engineering with Computers*, has told *Nature* that it will retract the paper. The work also duplicates smaller amounts of material from papers given by other researchers at conferences<sup>3-6</sup>, as well as a 2006 article<sup>7</sup> in the *International Journal of Impact Engineering*.

Similar duplications also appear in other papers by the same co-authors in Springer's *Journal of Mechanical Science and Technology (JMST)*<sup>8</sup>, the Taiwanese *Journal of Mechanics*<sup>9</sup> and the Iranian journal *Mechanical & Aerospace Engineering Journal*<sup>10</sup> — the text of which is almost identical to that in their paper in *Engineering with Computers*<sup>1</sup>.

Mark de Jongh, publishing editor of the *JMST*, says that the journal intends to retract the second Springer article<sup>8</sup>. "I conclude that the paper in question contains about 50% identical content as the formerly published

A. TAHERKENAREH/EPA/CORBIS

# Experts draw up ocean-drilling wish list

## BREMEN

Earth scientists have laid the groundwork for the future of ocean drilling. More than 500 scientists — almost twice as many as organizers had initially expected — gathered last week in Bremen, Germany, to discuss priorities and research goals for the second phase of the Integrated Ocean Drilling Program (IODP), which is expected to begin in late 2013.

Since ocean drilling began in the 1960s, sediment and rock cores retrieved from the seabed have provided information about everything from plate tectonics to Earth's climate history. Much more remains to be discovered, scientists said at the meeting.

"We're not done," says Alan Mix, a marine geologist at Oregon State University in Corvallis. "Actually, we ain't seen nothing yet."

Researchers have generated a

detailed wish list for new ocean-drilling projects, which will be boiled down into a science plan for the 2013–23 period by a group yet to be appointed. The finalized science plan will then be forwarded to funding agencies in Japan, Europe and North America, which currently support the IODP to the tune of around US\$200 million per year.

Mix says that targets might include the role of greenhouse gases in transitions between cold and warm climates, and the magnitude, speed and locations of resulting sea-level changes. A more ambitious project would be to relaunch the effort to drill through Earth's crust and into its mantle. A 1960s attempt to drill through the sea floor into this boundary, known as the Mohorovičić

discontinuity, or 'Moho', failed.

The Japanese IODP vessel, the *Chikyu*, is already outfitted with technology to drill down some 7,000 metres into the crust, and there are plans to refit the vessel over the next three years with drilling and core-recovery technology to allow it to drill even deeper.

**"We need to explain why what we are doing matters."**

"Japan will lead the Moho project," says Asahiko Taira, the Yokohama-based executive director of the Japan Agency for Marine–Earth Science and Technology, which oversees Japan's ocean-drilling operations. "It's a classic geological quest, and definitely one of our prime targets."

"The journey down is equally important to the things we may find at the bottom," adds Benoît Ildefonse, a geologist at France's

National Centre for Scientific Research (CNRS) based in Montpellier, France. "Recovering rocks from near Moho will, for the first time, allow us to test our ideas and models about how the crust forms."

The deepest sea-floor holes drilled so far include a 2,111-metre-deep hole drilled during the 1970s and 1980s off Nicaragua, and a 1,500-metre-deep hole drilled in 2005 in the Cocos plate in the eastern Pacific Ocean. The latter, performed by the US vessel *JOIDES Resolution*, was the first continuous retrieval of core from Earth's upper crust. Following a \$130-million refurbishment, the 30-year-old ship is now capable of drilling 2,000 metres into the sea floor in waters as deep as 7,000 metres.

IODP leaders say they are increasingly aware of the need to explain the societal relevance of



### MOUNTAINS SPEED EVOLUTION

Tectonics seem to fuel the appearance of new species.  
[www.nature.com/news](http://www.nature.com/news)

article" in the *Journal of Physics D*<sup>2</sup>, he says.

The *Journal of Mechanics* intends to take similar action. "We have just finished the investigation of this serious case and the result showed that the paper by K. Daneshjou and M. Shahravi indeed plagiarized other works," says Yi-Chung Shu, executive editor of the journal and a researcher in mechanical engineering at the National Taiwan University in Taipei. "This paper will be definitely retracted."

Senior Iranian scientists have called for an inquiry into the affair, and an Iranian parliamentary commission is considering an investigation.

"This is a bitter blow to Iranian academic society, it's a scandal," says Ali Gorji, an Iranian neuroscientist based at the University of Münster in Germany.

### Transport dispute

*Nature's* investigation has also revealed that a paper<sup>11</sup> co-authored by Hamid Behbahani, Iran's minister of roads and transportation, also contains large amounts of text from earlier articles by other researchers. The paper was co-authored by Hassan Ziari, Behbahani's deputy minister, and president of the national rail company, the Islamic Republic of Iran

Railways. Both authors hold positions at the IUST, while the third author, Mohammed Khabiri, was a PhD student at the time. Behbahani was also the supervisor of Ahmadinejad's PhD in transportation engineering and planning.

Much of the text and the results of their 2006 article<sup>11</sup>, in the journal *Transport*, is identical to sections from three earlier publications<sup>12-14</sup>.

"Two of my papers were copied-and-pasted by the plagiarizing paper," says Bin Jiang, a researcher at the University of Gävle in Sweden. "This is outrageous."

"The plagiarism is obvious," concurs Jiang's co-author,

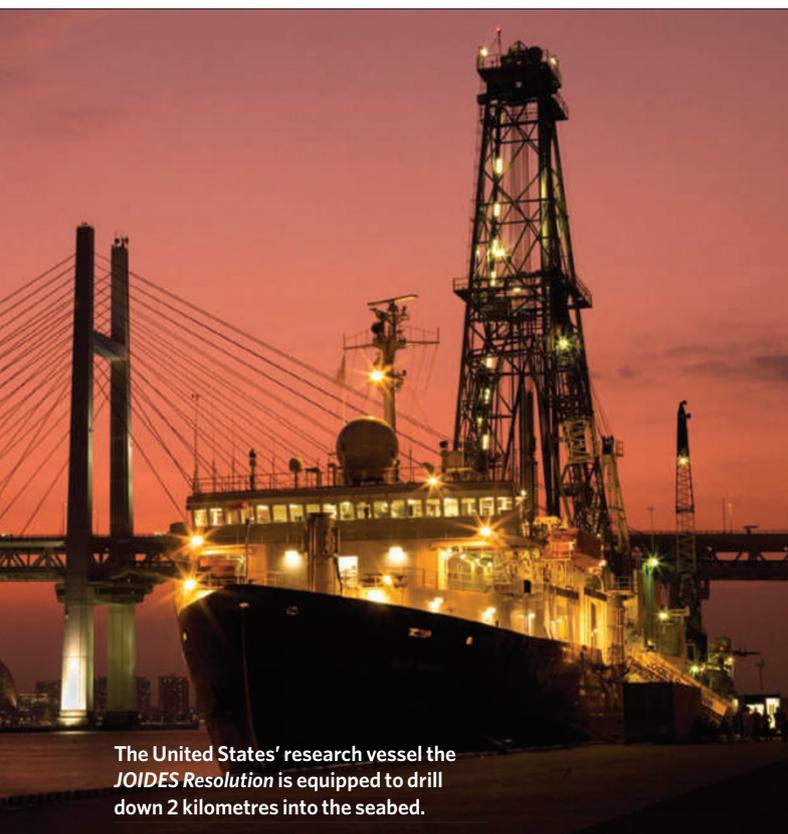
Christophe Claramunt, a scientist at the Naval Academy Research Institute in Brest, France. "We look forward to appropriate action from the editor of *Transport*."

*Nature* has attempted, without success, to contact each of the Iranian authors of all the disputed papers. However, two Iranian news websites have published a response attributed to Majid Shahravi (see <http://www.tabnak.ir/fa/pages/?cid=65586> and <http://alef.ir/1388/content/view/54040>). That statement refutes any plagiarism and defends the originality of the paper in *Engineering with Computers*<sup>1</sup>,

based on the fact that it had passed peer review and had cited the 2002 Korean paper<sup>2</sup>. ■

### Declan Butler

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The United States' research vessel the *JOIDES Resolution* is equipped to drill down 2 kilometres into the seabed.

their work. "We need to explain very well why what we are doing matters," says Catherine Mével, director of the European Consortium for Ocean Research Drilling, which coordinates the activities of 16 European IODP members and Canada. "We haven't always been able to make this clear enough in the past."

Meanwhile, China — an associate IODP member alongside South Korea, Taiwan, India, Australia and New Zealand — has announced plans to build a deep-sea drilling vessel of its own.

"The small Chinese deep-sea research community is rapidly growing in numbers, and our formerly reluctant government is increasingly convinced about the significance of ocean drilling," says Wang Pinxian, a marine geologist at Tongji University in Shanghai and vice-chair of the Chinese IODP science committee.

As an associate member with limited ship time and managerial rights, China pays the reduced

IODP membership of US\$1 million. The Chinese government and the Chinese Academy of Sciences are currently discussing whether China should apply for full membership beyond 2013, for which it would need to pay around \$6 million per year, says Wang.

IODP rules and overall programme architecture are unlikely to undergo any substantial changes after 2013, says Rodey Batiza, section head of marine geosciences at the US National Science Foundation in Arlington, Virginia. New members will be welcome to join, but membership will not be linked to specific national drilling preferences, he says.

"We'd like to seamlessly continue drilling after 2013 with a programme designed to deliver the best science at the lowest cost," he says. "We do already have some very exciting questions that we can ask, and perhaps answer, in the next ten years." ■

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