

THIS WEEK

EDITORIALS

TIME Next generation of atomic clocks arrive on schedule **p.454**

WORLD VIEW The search for the value of Big G must continue **p.455**

DISEASE Malaria parasite gives mosquitoes a sweet tooth **p.457**



Don't rush to rehabilitate Hwang

Nature's profile of a former fraudster's attempts to regain respectability should not be taken as an endorsement of the researcher's claims.

An article published on *Nature*'s website last week has created quite a buzz in South Korea. It details efforts by former Seoul National University cloning specialist Woo Suk Hwang to rehabilitate his scientific career after he was found in 2006 to have been involved in fraud. Some in South Korea are taking the article as a sign that Hwang is now producing great science and is once again lauded by the scientific community. Stock prices of companies with connections to Hwang's work have apparently jumped. It is as if many of the people talking and writing about the article have not read it. They and others can do so now if they wish: it appears as a News Feature on page 468.

As readers will see, the article is not a show of support for Hwang's research. Nor is it an attack. It is the story of a rare event: a scientist attempting with some success to dig himself out from the depths of ignominy. It is a journalistic exercise, not a scientific endorsement. And it was commissioned to mark the ten-year anniversary of the first paper — now retracted — in which Hwang claimed to have created cloned human embryonic stem-cell lines.

The article highlights notes of caution for those who would rush to rehabilitate this disgraced researcher. Most worryingly, Hwang is pushing — with some success — to get recognition that his cells are indeed the world's first cloned human stem-cell line. That is not supported either by independent scientific evidence produced since he published his now-retracted paper, or by evidence from his own laboratory, which fabricated data after tests showed that the cell line was not cloned. Hwang has taken the unscientific path of getting patent offices and court rooms, rather than his expert peers, to judge his scientific claims.

Hwang's position panders to the views of many of his diehard supporters, who treat the matter as if a great scientist's great discovery had been somehow unfairly taken away; as if Hwang lost his reputation on a technicality. Indeed, the whistle-blower who endured persecution to set the record straight about Hwang's research has been portrayed online as a traitor who embarrassed the country, hampered a distinguished scientist and set back the progress of South Korea's biotechnology.

Nothing could be further from the truth. The evidence suggests that Hwang was not a great scientist. His claims to have done cloning work on cows in the late 1990s were backed up with photographs and promoted through political connections rather than scientific publications. What was the contribution to scientific knowledge of his human-cloning work? In May 2013, cell biologist Shoukhrat Mitalipov published results showing that he had finally achieved the human-cloning breakthrough that Hwang had claimed in 2004. Mitalipov told *Nature*: "I don't have much to say about Hwang; his studies in human somatic-cell nuclear transfer were not informative and did not affect me at all." Eggs were given in vain to Hwang's lab by around 120 donors. The potential of Hwang's claimed work was over-hyped even before the work was exposed as fraudulent, especially considering that superior technologies — such as stem cells made from

reprogrammed adult cells — were already in the offing.

The whistle-blower did not cause South Korea to lose anything. There was nothing to lose. What he did was cut short attempts to trumpet overblown and dishonest research. He helped to nip misguided efforts in the bud so that South Korean science could move on.

And it has. Undeterred by the Hwang scandal, the government has invested generously in stem cells and other scientific fields. The country's current work might not be that earthshaking, but great breakthroughs often come when one is neither expecting nor promising much.

"The whistle-blower helped to nip misguided efforts in the bud so that South Korean science could move on."

If Hwang wants to rebuild his scientific reputation, which he seems intent on doing, and which his scientific colleagues seem willing to accept — some grudgingly — a good start would be jettisoning his patent claims and other legal efforts to be recognized as having created the first cloned human stem-cell line. People are asking, can we trust him? Part of the answer lies in how he resolves this issue. If he wants to start again, he should look there. ■

A return to order

Members of the US Congress have taken a much-needed step to restore credibility.

There is big excitement on the US political scene this week with the news that Congress has finally passed a budget to fund the government for the remainder of fiscal year 2014 (see page 461). The good news for US scientists is that support for their work remains strong: most research-funding agencies (with the notable exception of the National Institutes of Health) have seen a partial restoration of funding after the across-the-board cuts mandated last year under the sequester.

But the better news for everyone is the existence of the settlement itself: it marks the first return in years to anything resembling a normal budget process. Given the poisonous partisanship that has dominated US politics in recent years, the simple act of funding the government — achieving what any other country would consider routine — has required gruelling negotiations and rare political courage. Better still, the success of those efforts offers at least some hope that they will be repeated in future years — that the stranglehold of the uncompromising, anti-government, largely Republican minority known as the Tea Party has at last been broken.

Credit for the budget's success goes in the first instance to