

Cloning fraud no surprise

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If scientists lose our trust, they lose their authority to pursue scientific progress, JILLIAN ABBOTT says

THAT the Seoul National University's investigating panel found stem cell guru Dr Hwang Woo-suk's claims that he cloned human embryonic stem cells to be fake hardly comes as a surprise to anyone following the revelations of fraud regarding his work with cloning human embryos and creating patient-specific stem cell lines.

Already reeling after earlier admissions that most of Hwang's research was faked, the stem cell research community needs to ask itself why it was so blind to glaring holes in his study, such as the missing DNA test for his so-called cloned Afghan hound, Snuppy.

While the cloning of Snuppy turned out to be the only genuine claim made by Hwang, the question still stands. And why, when news broke in November that Hwang had used unethical methods to obtain human eggs, these same scientists rushed to defend his science, while tut-tutting his methodology.

Because of the highly specialised and technical nature of scientific endeavour, trust is the single most important ingredient that binds scientists to the rest of society. If that trust breaks down, the authority of their knowledge and their mandate to pursue scientific progress also breaks down.

Dr Hwang became a national hero in Korea after announcing the creation of 11 stem cell lines after he had already claimed to be the first person to successfully create cloned human embryos. In November, Hwang's American collaborator, the University of Pittsburgh's Dr Gerald Schatten, distanced himself from Hwang's work, citing "ethical violations". It transpired that junior members of Hwang's staff had donated eggs — a practice frowned upon because of the possibility that such staff can be coerced into donating.

The rest of the eggs he used had been bought from donors — also considered an unethical practice, in part because harvesting eggs entails the risk of potentially life-threatening ovarian hyperstimulation.

Even at the peak of Hwang's celebrity, stem cell research remained controversial. Its most vehement opponents are those on the religious right, the same people who want to replace the teaching of evolution with creationism — relabelled as Intelligent Design.

This opposition has fed America's

passion for prohibition — whatever the consequences — and led the Bush Administration to ban federal government funding for stem cell research using stem cell lines derived from human foetuses.

This ban had two immediate consequences. Legitimate American science lost the lead in the world's rush to develop stem cell lines for therapeutic uses, and research companies and individual researchers have been driven underground, offshore, and into relationships with dubious institutions such as Hwang's World Stem Cell Hub.

What is most disturbing about these events is how willing the stem cell heavyweights — from Professor Ian Wilmut (creator of Dolly the cloned sheep), to Monash Univer-

sity's Alan Trounson — were to play down Hwang's original ethical breach, thus implying his action was isolated and not indicative of any wider breach, or that his attitude was not fundamentally incompatible with respectable science.

But Hwang's method of obtaining human eggs was more than a breach of ethics, it was *the* breach of ethics. Google "shortage of human eggs" and you get 119,000 hits. While I didn't check them all, the first few pages told me what I needed to know. The word "shortage" is modified several times by words like "acute", "national" and "chronic".

These entries are a litany of what is really holding scientists back, whether in the field of stem cell research or human fertility

treatments: women. Women everywhere, it seems, are refusing to offer their potential future children for medical experimentation.

That's the Catch-22. Researchers in the fields of infertility and stem cells want human eggs despite the umbilical blood alternative. Few women want to give them up. Poor women may sell them, and those in the industry may donate them to keep their jobs. But average women aren't stepping forward. The worldwide shortage of human eggs is testimony to women's ambivalence and unwillingness to be farmed for the needed raw material for such experimentation.

What happened in Korea demonstrates precisely why America's prohibition on research

funding is so destructive — it drives researchers into cultures where practices viewed as unethical in the West are considered business as usual. Hwang's method of obtaining eggs isn't even illegal in Korea.

Stem cell research may well eventually prove to offer hope for cures to devastating diseases like Alzheimer's, but reckless haste will not lead to genuine progress, only to more disasters. The scientists involved in this scandal have much work to do to regain our trust and though it, renew their mandate to continue this important work.

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