

International

5 000 embryos to be disposed of on religious grounds

Late last month a fertility clinic in Dubai was due to begin disposing of about 5 000 human embryos on religious grounds, an Emirati newspaper reported.

A 2008 federal law banned the storage of fertilised human eggs owing to religion-based concerns over 'mixing in the lineage' between families, the English-language *Khaleej Times* said.

It did not elaborate, but Islam calls for children to know the identity of their biological parents and to take their biological father's name. Eggs can be fertilised outside the womb during *in vitro* fertilisation (IVF), which produces excess fertilised eggs that can be frozen for future use.

An estimated 5 000 fertilised eggs are stored at the state-owned Dubai Gynaecology and Fertility Centre, the only centre in the Gulf state allowed to perform IVF, the *Khaleej Times* said.

Another 5 000 fertilised eggs are believed to be stored at Al-Tawam Hospital in Al-Ain, around 150 km south-east of the Emirati capital of Abu Dhabi, the paper said.

It did not say what the fate of the eggs at Al-Ain would be, but the hospital would presumably also have to dispose of the eggs in its possession in line with federal law.

Stroke victims regain speech through singing

USA scientists have restored speech to stroke victims by getting them to sing words instead of speaking them.

Gottfried Schlaug, an associate professor of neurology at Beth Israel Deaconess Medical Center and Harvard Medical School, showed a video of a patient with a stroke lesion on the left side of the brain who had been asked to recite the words of a birthday song.

The patient could not comply, and merely repeated the letters 'N' and 'O'.

But when Schlaug asked him to sing the song while someone held the patient's left hand and tapped it rhythmically, the words 'happy birthday to you' came out clear as day.

'This patient has meaningless utterances when we ask him to say the words but as soon as we asked him to sing, he was able to speak the words,' Schlaug told reporters at the annual meeting of the American Association for the Advancement of Science (AAAS).

Another patient was taught to say 'I am thirsty' by singing, while another who suffered a large lesion on the left side of the brain and had tried various, ultimately unsuccessful, therapies for several years to try to regain the power of speech was taught to say his address.

Images of the brains of patients with stroke lesions on the left side of the brain – which is typically used more for speech – show 'functional and structural change' on the right side of the brain after they have undergone this form of therapy through song, called music intonation therapy (MIT).

Although medical literature has documented the phenomenon of people who are unable to speak being able to utter words when singing, Schlaug was the first to run a randomised clinical trial of MIT, with a view to gaining acceptance of the therapy in the medical field.

Scientist warns of fraud of stem cell 'banks'

Clinics that offer to 'bank' stem cells from the umbilical cords of newborns for use later in life when illness strikes, are fraudsters, a top USA scientist asserts.

Clinics in many countries allow parents to deposit stem cells from their neonate's umbilical cord with a view to using the cells to cure major illnesses that could occur later in life.

In Thailand, for example, parents pay in the region of \$3 600 (R28 000) to make a deposit in a stem cell bank, thinking they are taking out a type of health insurance for their child.

But Irving Weissman, director of the Institute of Stem Cell Biology and Regenerative Medicine at Stanford University in California, said the well-meaning parents were being fleeced by the stem cell bankers.

'Umbilical cords contain blood-forming stem cells at a level that would maintain the blood-forming capacity of a very young child,' Weissman told reporters at the annual meeting of the American

Association for the Advancement of Science.

'They could also have derived mesenchymal cells – fiberglass-like cells that have a very limited capacity to make scar, bone, fat – but they don't make brain, they don't make blood, they don't make heart, they don't make skeletal muscle, despite what various people claim,' he said.

Weissman said these 'unproven stem cell therapeutic clinicians' tend to set up shop in countries with poor medical regulations, but websites for umbilical cord stem cell banks exist in European Union member states and in the USA.

Africa

USA restrictions hurting Somalia, claims UN

USA restrictions designed to stop terrorists in Somalia from diverting aid are hurting humanitarian operations in the lawless Horn of Africa country, UN officials said last month.

UN agencies have not seen any evidence from the USA government that food aid is being diverted to Islamists fighting the UN-backed Somali government, said the top UN humanitarian official for Somalia, Mark Bowden.

'What we are seeing is a politicisation of humanitarian issues,' Bowden told journalists in Nairobi. 'The options for a lot of Somalis look pretty bleak.'

The USA reduced its funding to Somalia last year after its Office of Foreign Assets Control expressed fear that the extended supply line and insurgent-heavy areas where aid agencies were operating meant aid could be diverted to a group with links to al-Qaeda.

South Africa

Gauteng to implement new HIV/AIDS treatment protocol

The Gauteng Health and Social Development Department says it is ready to implement a new HIV/AIDS treatment protocol in April. The new protocol requires that antiretroviral treatment should be provided to all patients co-infected with TB and HIV if their CD4 count is 350 or less. Treatment should also be provided to pregnant women with

a CD4 count of 350 or less or those with AIDS-defining symptoms, regardless of the CD4 count.

The 2009 National Communication Survey on HIV/AIDS shows that there has been an increase in the number of people who have tested for HIV in the past 12 months. However, there has been a decrease in condom use.

The survey examined the effectiveness of the 11 South African HIV/AIDS communication programmes and the key drivers of the HIV epidemic in South Africa. Director for Health and Development Africa, Saul Johnson, says the findings reveal an increase from 25% to 60% of men going for HIV testing.

Earlier in the year, scientists said they had solved a crucial puzzle about the AIDS virus after 20 years of research. British and USA researchers say they have grown a crystal that enabled them to see the structure of an enzyme called integrase, which is found in retroviruses such as HIV and is a target for some of the newest HIV medicines.

They say it took more than 40 000 trials for them to come up with one crystal of sufficiently high quality to allow them to see the three-dimensional structure. The researchers say their findings could lead to better treatments for HIV. Almost 60 million people have been infected with HIV and 25 million people have died of HIV-related causes since the beginning of the AIDS epidemic worldwide.

Minister gets tough on hospital care

Health Minister Aaron Motsoaledi is planning to introduce strict new measures to monitor state hospitals. He was speaking during the parliamentary debate on the President's State of the Nation address last month.

Motsoaledi said work has already begun on legislation that will pave the way for the creation of an office of standard compliance within his department.

Motsoaledi acknowledged the lack of quality health care many South Africans face at state hospitals. He said the unit will create a set of standards to which hospital CEOs and managers will be held accountable.

In February government started testing the assessment tools that will be used to audit compliance with standards.

'All hospitals and district managers will receive information on what is expected of them in order to meet the standards.

Failure to meet these standards will not be without consequences,' Motsoaledi said.

The Minister said he would not wait for legislation before demanding quality health care.

Unpaid contractors quit hospital development

Two building contractors working at Cecilia Makiwane Hospital in Mdantsane walked off site in the middle of last month because Bhisho still owed them R16 million. Consequently, about 200 contract workers lost their jobs and all building at the revamped R800 million hospital stopped. The construction, set to last 4 years from 2008, was meant to totally replace the existing hospital in NU9.

A modern hospital, complete with a nursing college, an administration block, a workers' village, a doctors' block and internal roads, was meant to be the result.

The department of Health has blamed the delays in payments on administrative processes between the project's implementing agent, Coega, and themselves, but said the money would be paid 'soon'.

'Payments of R9m and R7m will soon be made to Mpumalanga and Transtruck Construction companies respectively,' spokesperson Sizwe Kupelo promised.

Kupelo said the payment delays were not linked to the current financial problems faced by the department – its budget is R1.8 billion overspent – since the hospital revitalisation was paid from a conditional grant and not from the main budget.

Eighty Mpumalanga construction workers left the site after managers explained the situation to them, and told them to wait for a call to come back should the money come through.

'We have suspended the contract because of late payments,' according to a Mpumalanga manager. He said they had not been paid in the 4 months they had been on site, but would return as soon as payments were made.

In December Transtruck abandoned an almost complete site, on which stands the new services block with a laundry, kitchen, mortuary and storage rooms.

Over 100 workers were turned back when they returned to work from their festive season holiday.

A Transtruck manager said the site was closed until further notice, following the payment delays.

Coega officials were unavailable for comment.

CSIR brings once-a-week treatment of TB one step closer

Researchers at the Council for Scientific and Industrial Research (CSIR) are one step closer to providing tuberculosis (TB) sufferers with a once-a-week medicinal regimen rather than their current daily doses.

A preclinical efficacy study demonstrated that TB drugs given once a week over a 4-week period were just as effective as daily doses of the drug over the same period when the CSIR team's drug delivery technology is used.

'The biggest problem with the current therapeutic regimen for TB is that the drugs should be taken once a day for a period of six to nine months in order to be effective. Also, according to the World Health Organization (WHO) Direct Observed Treatment shortcourse (DOTs) programme, the drugs need to be taken in the presence of a health care practitioner,' says Dr Boitumelo Semete, senior researcher in the drug delivery programme at the CSIR.

'Due to logistics, cost and other considerations, this is problematic for South African patients, especially in rural areas. As these drugs furthermore have a number of nasty side-effects, many patients never complete their treatment course. This slims down their chances of recovery quite significantly,' says Semete.

She explains that to improve patient compliance with TB treatment, the CSIR team is developing a way that will ensure that the antibiotic drugs are released and taken up in the affected cells over a longer period of time, using nanoparticles. This means that patients will only have to take the drugs once a week instead of daily and the associated side-effects will be less. It is also hoped that, due to more effective delivery and improved bioavailability of the drug, the total treatment period will be significantly reduced.

'The preclinical efficacy study just completed is strong confirmation of the potential of the drug delivery technology. While there is still a long road ahead before we can take our technology to human clinical trials and eventually make the treatment available to patients, we have just reached a significant milestone along the way,' she says.

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