

# News bites

## South Africa

### Basson denies Dr Death role was unethical

Cardiologist Wouter Basson admits he took part in the apartheid Government's secret chemical and biological warfare programme, Project Coast, but denies this was unethical or that he acted unprofessionally.

Basson – dubbed Dr Death by the press – has pleaded not guilty to 6 charges brought against him by the Health Professions Council of South Africa (HPCSA). He could be struck off the roll if found guilty. Key to his defence is his claim that the work was defensive, rather than offensive.

The first two charges relate to Basson's role as Project Coast project officer between 1961 and 1993, his role in setting up covert chemical warfare facility Delta G, which made and tested 'substances' on police and soldiers, and producing the drugs Mandrax and Ecstasy, incapacitating-agent BZ, and teargases CS and CR on 'a major scale'.

The third and fourth charges relate to Basson's watching incapacitating substances being tested on police officers, and his involvement in making and weaponising the drugs Mandrax, Ecstasy and BZ, and weaponising thousands of 120 mm mortars with teargas.

The fifth charge relates to his providing 'disorientation substances' on 2 - 4 occasions to tranquillise victims in cross-border kidnappings.

The last charge relates to cyanide being provided for soldiers in specialised units so they could commit suicide if caught behind enemy lines.

In a 22-page plea explanation, Basson confirmed his involvement but denied unprofessional conduct. He said Project Coast was defensive, set up after chemical agents were used in Angola against Unita rebels and South African forces, as South Africa did not know how to defend against these. He said that lethal agents were made to test defensive equipment and to understand their dangers and possible use. Basson said he was a junior officer following orders.

### NCOP approves ground-breaking Sexual Offences Bill

The ground-breaking Sexual Offences Amendment Bill was approved by the National Council of Provinces (NCOP) on the eve of the 16 Days of Activism for No

Violence Against Women and Children Campaign. The Bill will now need to be signed by President Thabo Mbeki before it becomes law and is published in the *Government Gazette*.

Presenting the Bill for debate, Deputy Justice Minister Johnny de Lange said its approval would celebrate the House's willingness and commitment to address the plight of women, children and other vulnerable groups who are so often the victims of sexual atrocities.

The Bill aims to bring a series of changes to the country's current sexual offences laws. Some of the dramatic changes contained in the Bill are that according to the definition of the law, the definition of rape will include a man being raped by another man, for a woman to be raped by another woman and for a man to be raped by a woman.

Mr De Lange said the enactment of this Bill will, among others, enhance Government's resolve to address the abuse of women and children by criminalising the various manifestations of sexual violence and abuse.

### Gauteng to open disaster, emergency centre

A R50-million disaster management and emergency medical services centre is to be opened in Midrand as part of the province's logistical preparations for the 2010 FIFA World Cup.

The state-of-the-art Gauteng Disaster Management and the Emergency Management Medical Services (EMMS) centre, which will allow the province to deal with emergencies and disasters at a central point, was opened by Gauteng Premier Mhazima Shilowa in mid-November. The day-to-day operations of the provincial disaster and emergency services will be co-ordinated from the centre. The EMMS centre is a result of the commitment made by Premier Shilowa during his State of the Province address at the beginning of 2007.

## International

### Global AIDS numbers falling

The number of AIDS cases fell from almost 40 million in 2006 to about 33.2 million in 2007, global health officials report. It sounds like dramatic progress in slowing the spread of the virus, but the decline is mostly just on paper.

Previous estimates were largely inflated. The new numbers have been calculated in a different way and, when scrutinised, they reveal that the AIDS pandemic is losing momentum. 'For the first time, we are seeing a decline in global AIDS deaths,' said Dr Kevin de Cock, director of the World Health Organization's AIDS department.

Much of the global drop in AIDS cases is due to revised numbers from India – which earlier this year slashed its numbers in half, from about 6 million cases to about 3 million – and to new data from several countries in sub-Saharan Africa.

### Hypnotherapy helps for IBS

Gut-directed hypnotherapy is 'highly effective' for children with long-standing abdominal pain or irritable bowel syndrome (IBS), researchers have found.

'We advocate that hypnotherapy become the treatment of choice in children with persisting complaints of either functional abdominal pain or IBS in whom first-line therapies such as education and dietary advice have failed,' Dr Arine M Vlioger of St Antonius Hospital, Nieuwegein, the Netherlands, and colleagues conclude in a report in the journal *Gastroenterology*.

People with IBS suffer chronic discomfort with cramping, diarrhoea or constipation.

The causes of IBS are unclear and there has been debate whether it is mostly due to psychological factors or biological triggers, or perhaps a combination of these.

### Skin transformed into stem cells

Human skin cells have been reprogrammed by two groups of scientists to mimic embryonic stem cells with the potential to become any tissue in the body. The breakthrough promises a plentiful new source of cells for use in research into new treatments for many diseases. Crucially, it could mean that such research is no longer dependent on using cells from human embryos, which has proved highly controversial. Until now only cells taken from embryos were thought to have an unlimited capacity to become any of the 220 types of cell in the human body – a so-called pluripotent state.

### Church condemns lesbian IVF use

The leader of the Roman Catholic Church in England and Wales has condemned plans to make it easier for lesbian couples to use IVF to become parents.

In a *Times* letter, Cardinal Cormac Murphy-O'Connor said the plans were 'profoundly wrong' and undermined 'the place of the father in a child's life'. But campaign group Stonewall said the move was a 'logical and timely step'. The measures are contained in the Human Fertilisation and Embryology Bill, being debated in the Lords later.

The Bill would remove the current requirement on IVF clinics to be sure that a father is involved in the upbringing of any child created after he donates sperm.

### Tonsillectomy not always cost-effective for kids' throat woes

In children with mild to moderate symptoms of throat infection, surgery to remove the tonsils is more expensive, but not necessarily more beneficial, compared with simply watching and waiting to see if symptoms resolve, a Dutch study finds.

Between 2000 and 2003, researchers at the University Medical Center Utrecht compared 151 children, aged 2 - 8, who were assigned to have adenotonsillectomy within 6 weeks and 149 children assigned to watchful waiting, which involved close monitoring and interventions as necessary. Follow-ups were conducted at 3, 6, 12, 18 and 24 months.

Annual costs averaged about \$500 per child per year in the watchful waiting group, compared with about \$730 (46% more) in the surgery group. Children who had surgery had fewer fevers, throat infections and respiratory tract infections than those in the watchful waiting group. 'Overall, the balance between costs and effects in this population seemed unfavourable for adenotonsillectomy, with incremental cost-effectiveness ratios in excess of \$423 per disease episode averted,' the study authors wrote.

### Popping bubbles to treat cancer

Scientists at the University of Oxford are trying to harness the energy released when bubbles burst as a way of killing off cancer cells. They have built a device to beam waves of ultrasound into the body, generating bubbles at the site of a tumour.

When these bubbles pop, they release energy as heat-killing rogue cells.

The UK team plans to apply its new technique in clinical trials; it will be used in treating patients with kidney and liver tumours.

These clinical trials of high-intensity focused ultrasound (Hifu) are being conducted at the Churchill Hospital in Oxford. Hifu is non-invasive: studies have shown that it is at least as effective as surgery, without the risks of opening up the patient. It also limits the damage to healthy tissue which occurs in radiotherapy. But by harnessing the energy released by the bubbles that form when tissue is exposed to intense ultrasound waves, the researchers say they can provide faster and better targeted Hifu treatment.

I like to call it the 'energy shovel', because it allows us to grab this energy and use it where it is needed, says Constantin Coussios, of the University of Oxford. So far, the trials have mainly involved terminal patients with isolated tumours in the liver and kidneys - organs which can be most difficult to reach with surgery.

### Coronary artery disease killing more women under 45

For decades, heart disease death rates have been falling. But, a new study shows a troubling turn - more women under 45 are dying of heart disease due to clogged arteries, and the death rate for men that age has levelled off. Heart experts aren't sure what went wrong, but they think increasing rates of obesity and other risk factors are to blame.

The rates will have to be monitored to see whether this is the beginning of a real trend. But if the data hold, the new study may be an early glimpse of the impact of escalating obesity and diabetes on deaths in the USA, said Wayne Rosamond, a University of North Carolina epidemiology professor and expert on heart disease statistics. 'This could be a harbinger of things to come,' Rosamond said. To be sure, the overall trend is still positive: From 1980 through 2002 the death rate from blocked coronary arteries was cut in half for men and women over 35. Improvements in treatment and preventive measures, including cholesterol-lowering medications, get the credit.

But what's going on with younger adults is startling, said Dr Anthony De Maria, editor of the *Journal of the American College of Cardiology*, which published the study. 'We have a pretty rosy view of how things are going in the war against cardiovascular disease,' De Maria said. 'I view this paper as a wake-up call that says there is a very

important segment of our population that needs some attention.'

Heart disease is the leading cause of death in the USA, killing almost 700 000 Americans each year.

### Migraine brains 'are different'

Scientists have discovered differences in the sensory areas of the brains of people who develop migraines. They found a part of the cortex is thicker than in people who are free from the debilitating headaches. What is not clear is whether the difference causes or is the result of migraine attacks.

The neurology study, by the Massachusetts General Hospital in Boston, suggests the changes may make patients hypersensitive to pain in general. The researchers, from the hospital's Martinos Center for Biomedical Imaging, compared 24 people who get migraines with 12 who do not suffer the condition. They found the somatosensory cortex area of the brain was up to 21% thicker in the migraine sufferers.

### Gene transfer v. hereditary blindness

Three decades have passed since gene therapy pioneer Dr William W Hauswirth and his colleagues at the University of Florida (UF) began work on a virus that could safely deliver corrective genes into living animals. It's been 6 years since a multi-university team used gene therapy to give sight to puppies born with a defect that causes blindness. Now the gene transfer technique is being tested for safety in people in a phase 1 clinical research study conducted by the University of Pennsylvania and the UF with support from the National Eye Institute (NEI) of the National Institutes of Health.

A young adult with a form of hereditary blindness, Leber congenital amaurosis type 2 (LCA2), received an injection of trillions of replacement genes into the retina of one eye, making the volunteer one of the first people in the world to undergo the procedure. In all, 6 adults and then 3 children between the ages of 8 and 17 will undergo the gene-transfer procedure at UF over the next year or more before safety data are fully evaluated.

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