

**BIOTECH AT THE "BEDSIDE"**

A non-invasive, point-of-care proteomic assay may find a role in diagnosing bladder cancer as a useful adjunct to cystoscopy, according to US researchers.<sup>1</sup> In a series of 1331 patients at increased risk for bladder cancer, they compared the performance of a nuclear matrix protein (NMP22) urinary assay with that of voided urine cytology, against a reference standard of cystoscopy with biopsy. The NMP22 assay was positive in 44 of 79 patients with cancer, whereas cytology test results were positive in only 12 of 76 patients. Further, the proteomic assay detected four cancers that were not visualised during initial endoscopy.

This research paper is one of many enlightening articles in a *JAMA* theme issue on the medical applications of biotechnology,<sup>2</sup> including molecular imaging and robotic surgery. There is also a discussion of intellectual property issues related to biotechnology research.

1. *JAMA* 2005; 293: 810-816

2. *JAMA* 2005; 293: 771-867

**THEATRE BLACK-BOX**

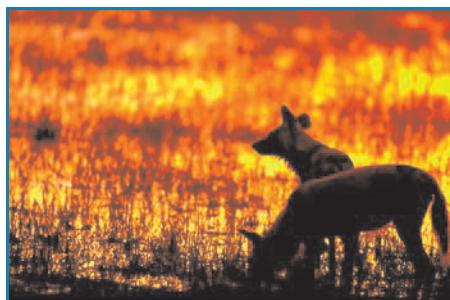
With the advent of a Remote Analysis of Team Environments (RATE) tool, the days when the only long-standing records of an operation are the surgeon's notes, the scrub nurse's count sheet and the patient's scar(s) may soon be over. Surgeons may like to keep an eye out for this "black-box" recorder, which can provide a permanent, synchronised, digital record of any operation. In a series of 10 laparoscopic cholecystectomies, the RATE tool was used to collect data from four cameras in the theatre (including laparoscopic images) and eight audio leads — time-stamping events of interest for later review. The record was also used to score the technical proficiency of the operating surgeons.

*J Am Coll Surg* 2005; 200: 29-37

**MAD DOGS AND AFRICANS**

Death by rabies may be an unforeseen consequence of the HIV/AIDS pandemic in South Africa, according to a report in the *South African Medical Journal*. In AIDS-ravaged villages in KwaZulu-Natal province, on the east coast of South Africa, there appears to have been an "explosion" in the number of ownerless, feral dogs roaming the countryside. In 2004, feral dogs were implicated in the deaths of seven people in the province — five from rabies and two by mauling. A pilot research project is investigating the proposed link between AIDS and rabies; meanwhile, stray dogs are being culled and domestic dogs are being vaccinated.

*S Afr Med J* 2005; 95: 78-79

**DEADLY AIR**

For every working day in the UK, two adults will die as a result of passive smoking in the workplace. And, in every week, one of these deaths will be in a hospitality industry employee — someone who has worked in a pub, bar, nightclub, hotel or restaurant. So estimates Jamrozik, an Australian Professor of evidence-based health care, using data held in national UK databases.

The figures for death from passive smoking at home are even more dramatic — 2700 deaths each year (approaching eight per day) for people aged 20 to 64 years, and 8000 deaths each year among people aged 65 years or older.

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**OLD BUT NOT OUT OF IT**

Healthy older women with breast cancer should be offered participation in new trials of chemotherapy because they are likely to derive a similar benefit to younger patients, according to authors writing for the international Cancer and Leukemia Group B. They reviewed data from four randomised trials that compared more aggressive with less aggressive chemotherapy regimens in 6487 women with lymph node-positive breast cancer. Although only 8% of trial participants were aged 65 years or older, these women were just as likely to experience disease-free survival as younger women. Overall survival was worse for older patients, but this was because of death from causes other than breast cancer.

Irrespective of age, disease-free survival in all women was longer with regimens containing more chemotherapy.

*JAMA* 2005; 293: 1073-1081

**LEUKAEMIA VACCINE**

Vaccine immunotherapy may supplement the beneficial effect of imatinib (Gleevec) in chronic myeloid leukaemia (CML), say Italian researchers. They recruited 16 patients with CML and stable residual disease after treatment with imatinib or interferon alfa. After six subcutaneous vaccinations with a peptide vaccine (CMLVAX100) given at fortnightly intervals, seven of the patients achieved a complete cytogenetic remission. Further, there was a beneficial effect on cytogenetic response in all but one of the remaining patients.

On the day before, and on the day of each vaccination, the researchers had also administered granulocyte-macrophage colony-stimulating factor (GM-CSF) as an immune adjuvant.

*Lancet* 2005; 365: 657-662

Dr Ann Gregory, MJA