



Alejandro Acosta/Reuters

A model with Down syndrome presents a 3D graphic fashion collection for disabled people in Guadalajara, Mexico. About 30 models took part in the first edition of Mexico's Inclusive Fashion Project, to present a couture collection by Mexican designers, for people with physical disabilities.

From the CSIRO

Ocular biomarkers for neurodegenerative and systemic disease

The eye is a readily accessible window to the brain and the retina has been proven to reveal presymptomatic evidence of brain disorders and systemic diseases, including Alzheimer disease, stroke and diabetes. Here we describe three approaches we are taking to examine the utility of retinal imaging for age-onset diseases.

Alzheimer disease develops slowly, with “plaques” of amyloid- β building up in the brain 15–20 years before memory symptoms and clinical diagnosis. With United States biotech company NeuroVision Imaging, we have been investigating whether similar plaques deposit in the retina. Researchers in the Australian Imaging, Biomarkers and Lifestyle Flagship Study of Ageing (aibl.csiro.au) are running a trial that involves

highlighting amyloid plaques in the retina using oral dosing of curcumin, a natural ingredient which gives the spice turmeric its fluorescent yellow colour. The study builds on previous work that found changes to vision and to the retinal blood vessels in Alzheimer disease.¹ We believe that retinal imaging may hold a key to early screening for disease and to monitoring interventions aimed at preclinical disease before irreversible brain damage occurs.

Vascular risk factors appear years before stroke and may also influence the likelihood of recurrent stroke. Another CSIRO study is embedding retinal vascular photography in a hospital stroke ward setting. The aims are to investigate the feasibility and utility of ward-based retinal



Shaun M Frost
Research Scientist, CSIRO
Preventative Health
Flagship

Yogesan Kanagasigam
Research Director,
Australian e-Health
Research Centre

S Lance Macaulay
Theme Leader, CSIRO
Preventative Health
Flagship

doi: 10.5694/mja14.00924

photography as a tool to screen for retinal signs of disease, which may improve diagnosis of the aetiology of acute ischaemic and haemorrhagic stroke. The study may also facilitate appropriate preventive treatments, and improve the prediction of risk of recurrent stroke and other major vascular events.

CSIRO is also a partner in the Remote-I telemedicine project, which supports remote reporting, through a web-based, fully automated disease grading and clinical decision support system for eye diseases, such as diabetic retinopathy and age-related macular degeneration. It is now widely used in Australia and in China.

¹ Frost S, Kanagasigam Y, Sohrabi H, et al. Retinal vascular biomarkers for early detection and monitoring of Alzheimer's disease. *Transl Psychiatry* 2013; 3: e233. □

News

Medical community in mourning

Apart from the six delegates to the International AIDS Conference, three other members of the Australian medical community were killed in the downing of MH17 last month. Dr Jill Guard, a retired general practitioner, and her husband, Dr Roger Guard, the director of pathology at Toowoomba Hospital in south-east Queensland, were returning home from a holiday following a medical conference in Europe. Mother of two Ms Liliane Derden worked for the National Health and Medical Research Council in Canberra. The six AIDS 2014 delegates lost were Pim de Kuyjer, from STOP AIDS NOW!, Joep Lange, co-director of the HIV Netherlands Australia Thailand Research Collaboration (HIV-NAT), Jacqueline van Tongeren, of the Amsterdam Institute for Global Health and Development and partner of Joep Lange, Lucie van Mens, director of AIDS Action Europe, Maria Adriana de Schutter, from AIDS Action Europe, and Glenn Thomas, from the World Health Organization.



Bubble wrap to the rescue

Ingenious scientists in resource-poor regions have come up with a clever solution to the problem of storing and testing biological samples where there is no electricity to

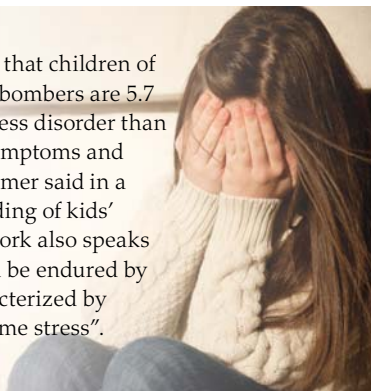
run costly autoclaves for containers — bubble wrap. The interior of the bubbles is sterile. A team of scientists, writing in *Analytical Chemistry*, tested the theory by injecting liquids into the air-filled bubbles and then sealing the holes with nail hardener. They successfully ran tests for investigating anaemia and diabetes on the liquids and grew *Escherichia coli*, showing that the method could be used to test for water contamination. Bubble wrap is cheap, available everywhere, doesn't break into sharp pieces, can be disposed of easily, and is flexible.

Three more plague cases found in Colorado

An infected dog has passed on pneumonic plague to its owner and three other people in the US state of Colorado, *Medscape* reports. The dog's owner remains in hospital but the others have fully recovered following antibiotic therapy, and are no longer infectious, according to authorities. Pneumonic plague is the only form of the disease that can be transmitted from human to human, usually through droplets from coughing. The dog likely contracted the disease from prairie dogs or rabbits with bacteria-carrying fleas. It is the first time since 2004 that Colorado has reported a confirmed human case. The dog died.

Boston marathon manhunt fallout

A new study published in *Depression and Anxiety* shows that children of people involved in the manhunt for the Boston Marathon bombers are 5.7 times more likely to show symptoms of post-traumatic stress disorder than other children. They also experienced more "emotional symptoms and hyperactivity or inattention". Lead author Dr Jonathan Comer said in a media release: "Beyond informing our specific understanding of kids' mental health after the Boston Marathon bombing, this work also speaks more broadly to the very heavy mental health toll that can be endured by having a parent employed in a high-risk occupation characterized by day-to-day confrontations with physical danger and extreme stress".



Cate Swannell doi: 10.5694/mja14.n0804



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Suggested topic:

What can be done to assist patients in rural and remote Australia to access optimal care for cancer?

Has there been an increase in the diagnosis of ADHD?

I have not seen an increase in diagnosis of ADHD in my practice, despite a constant demand for assessment. ADHD is a syndrome rather than a disease and its diagnosis is subjective, with no definite biological marker to assist the clinician. There is increased community awareness and professional bodies worldwide have acknowledged this as an important and high-prevalence psychiatric condition. Adult consumers are often curious about their cognitive dysfunction and are proactive in seeking assessment, often after self-screening through internet research. Associated psychiatric comorbidity may also sometimes give the impression that there is indeed a higher prevalence, perhaps possibly suggesting potential misdiagnosis?

Dr Raymond Wu
Perth, WA



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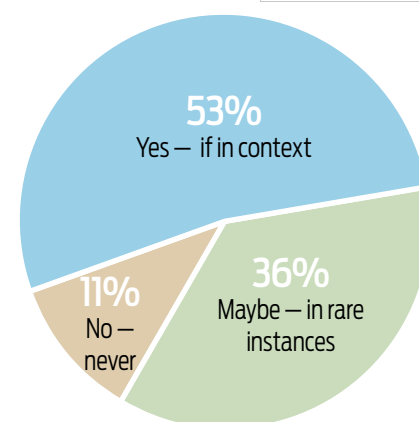


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MJA InSight Poll

Should doctors share their personal experiences with patients?

Total respondents: 102



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