

### Indian technology comes to Australia

Numerous high technology products have been developed in India in recent years and many of the resulting companies have been transplanted to the US. At least one has now been moved again, this time to Australia.

HD Medical Group Limited has raised \$3.35 million in development funding here, primarily from Steve Killelea's Smarter Capital (AVCJ July 06), and anticipates raising a similar amount for commercialisation in the near future. The company now has a target of June 2007 for an IPO.

HD Medical has its global corporate headquarters based in Melbourne, but still retains wholly owned subsidiaries in India (where research and development takes place) and the US. The main reasons for relocating to Australia were financial, as well as the fact that Australia proves to be an excellent test market for medical devices and pharmaceutical products before being launched in other Western markets. Australia offers aspects of both a developed market as well as a developing market. The uptake of new technologies in Australia is much higher than other developed countries. As well, the administrative costs of maintaining a business in the US are significantly higher in the US than in Australia.

Australia also offered other advantages.

For a start, says the founder and managing director of HD Medical, Jay Jethwa, many ground breaking medical and biomedical technologies have emanated from Australia. Some noteworthy companies that had their early start in Australia include Resmed and Cochlear. They have gone on to become highly successful globally. Businesses such as HD Medical have the opportunity to follow the same path. The company's technology certainly appears to have potential to achieve that.

HD Medical is developing non--invasive cardiac diag-

nostic devices to help in the early detection of cardiovascular defects. The technology is based on patented algorithms and filters that extract pure heart sounds, and eliminate all ambient noise, allowing physicians and primary care health workers to hear and see the heart sounds graphically, and screen patients at the point--of--care for cardiovascular problems.

The devices can also record and store those sounds, represent them graphically on a screen or transmit the information electronically.

The technology has the potential to develop a range of devices of varying levels of sophistication but first the company is focusing on producing a relatively simple device which should be able to be manufactured for little more than the cost of a good quality stethoscope.

The potential market for this device is global and enormous. The device will be much easier to use than a stethoscope in noisy environments such as casualty wards and will be able to greatly improve diagnostic capabilities in places where more sophisticated equipment is not available such as some developing countries.

Similar in size and shape to a small PDA, the device should help doctors pick up many heart problems which at present are usually only diagnosed after referral for expensive and time consuming echocardiogram or ECG examination.

The device should also prove to be a significant teaching aid. Mr Jethwa, a one time medical researcher, says the art of auscultation (listening to the heart sounds) is difficult to teach with the result that only about 20 per cent of medical practitioners are competent at it.

The non invasive nature of the technology should also simplify the process of commercialisation. Regulatory approval will not be required for India and some other Asian countries so it is planned to offer it in these markets by early next year. US Food and Drug Administration and Australian Therapeutic Goods Authority approval is how-

ever being sought for the more advanced versions of the device for the more advanced markets and it is anticipated this will be gained in three to six months.

Manufacturing is planned in India for reasons of economy but the work is expected to be carried out by contractors already manufacturing medical and electronic equipment for very large Western companies.

A clinical trial for heart failure is being undertaken by Monash University at Melbourne's Alfred Hospital (Centre for Clinical Research Excellence) under the direction of Professor Henry Krum, a world renowned heart failure expert.

Meanwhile more advanced applications are being explored with the assistance of prominent Australian based medical experts in cardiology who are advisors to the company.

The HD Medical technology was developed in Chennai by electronics and communications engineer Arvind Thiagarajan. Mr Thiagarajan, who is in his mid--twenties, has already commercialised digital data compression technology on which the company Matrixview was listed on the ASX two years ago.

### Citadel no longer a PDF

Citadel Pooled Development Ltd's application to have its PDF licence revoked has now been granted. The move is part of Citadel's move away from venture capital and into the gaming sector as Odyssey Gaming (AVCJ Jul 06). Meanwhile, Citadel has agreed to a placement to raise \$250,000 for working capital and to fulfil its obligations to investee Clear Objectives Pty Ltd.

### Alchemia sale adds to cash for R&D

Listed pooled development fund Cytopia Ltd has completed the sale of its holding in the listed Alchemia Ltd, selling 14.4 million shares for \$15 million to domestic institutions. Cytopia said it now has cash of \$22 million which will support its ongoing research and development pipeline of drug candidates.