

## Innovators speak out about our future as the clever country.

Story: Andrew Dawson

# Long shot

**S**irtex Medical is a small Australian company with big ambitions. From its headquarters in the Sydney suburb of Lane Cove, Sirtex aims to become the world leader in liver cancer treatment products.

Its customers, mostly in the United States, pay thousands of dollars for doses of its ground-breaking liver cancer treatment that uses radioactive small particle technology.

Chief executive Dr Bruce Gray hopes his company can emulate the success of Australia's big three bio-technology firms—Cochlear, CSL and ResMed—which have all relied on Australian technology to become significant global players.

But while Dr Gray is optimistic about his own company's prospects, he is more circumspect about Australia's future as the clever country.

He says despite Australia's excellent medical research credentials, most brilliant ideas never progress beyond laboratories to become medical products potentially worth millions of dollars.

"Australia has a wonderful history of medical innovation," Dr Gray says. "We have had three Nobel Prize winners in medicine, along with lots of other accolades.

"Our uninhibited culture makes us good at research because we are not cloistered by ideas. We are free-thinking, which is part of

the Australian psyche, and that develops good research people because they are very lateral thinkers.

"But we are not very good at commercialising these ideas. We are good at digging holes in the ground and shipping it off overseas."

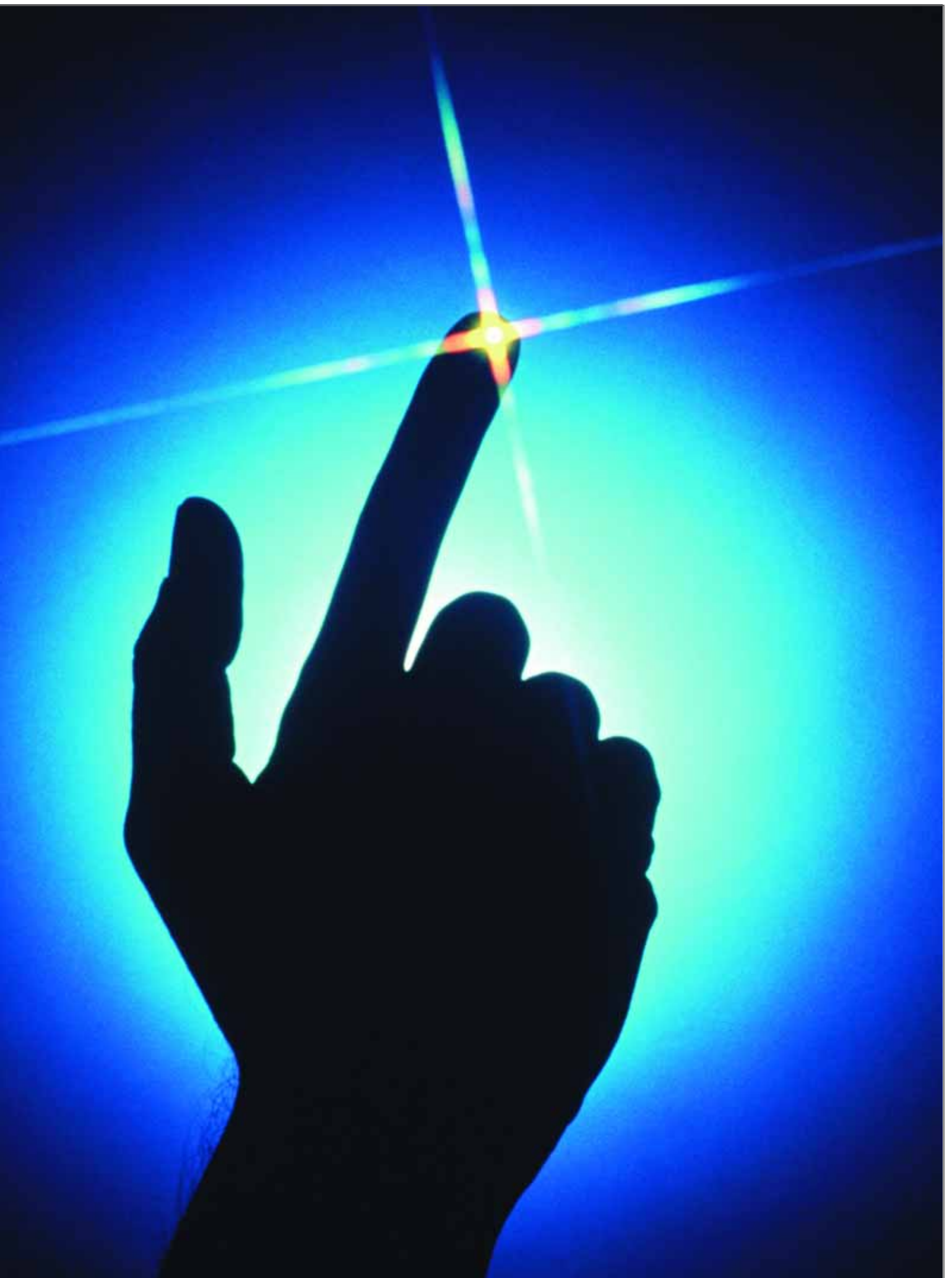
Dr Gray recently met with members of the House of Representatives Science and Innovation Committee when they visited Sirtex Medical's headquarters as part of their investigation into how Australia can improve the pathways from innovation to commercial success. He told the MPs Australia needs to develop a more robust business culture.

"Commercialisation and entrepreneurship is seen to be something that is almost a pejorative—not something that people would respect," Dr Gray says.

"Australians respect ideas, respect knowledge, but commercialisation is seen by many people, and by those who develop the ideas, as somehow tainted. The opposite is true for Americans, who are very commercially orientated—even their science people are commercially orientated."

Over recent weeks some of the nation's most inventive minds have been spelling out to the Science and Innovation Committee just how hard it is to take a good home-grown idea all the way to commercial success in Australia, let alone onto overseas markets.

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Sirtex Medical's liver cancer treatment (left) as shown by chief executive Dr Bruce Gray (right).

Too much red tape, a scarcity of private and public investment, and a prohibitive tax system are seen as some of the major hurdles that small to medium enterprises face.

The executive director of Evolution Broadcast, Mark Stoneham, told the committee a lack of cold hard cash makes life difficult for most high-tech companies trying to develop products in Australia.

Most brilliant ideas never progress beyond laboratories.

Evolution Broadcast has developed a portable high-tech digital broadcast unit ideally suited for television coverage of sport and other events requiring multiple cameras. The Nexus Production system, depending on scale, costs between \$500,000 to \$4 million.

"There is no doubt about it that in this market it is money," Mr Stoneham says.

"We are in a market where there are many, many good ideas being generated. Australians are very good at seeing a problem and then identifying how to solve it.

"Where it is a technology solution required I see time and time again the ability to get moving on the idea, delivering on the idea with a product, and then facing the most difficult part of taking it through to the marketplace."

The relatively thin capital market for early stage investment is a particular problem.

Most private investment, says Mr Stoneham, goes towards late-stage companies—companies which already have a product and a market—or into management buy-outs. Investors consider these ventures much safer propositions.

"[Evolution Broadcast] has had about \$8 million in private investment

and an additional \$3 million in direct support from the government in terms of cash in grants and loans, plus tax rebates," he says. "It's a good balance and hasn't been easy to secure."

He hopes this inquiry investigates the structural and taxation impediments to early stage investment, which he believes need to change.

"There are significant operational tax implications that force potential investors to shy away from new ventures," he says.

"In Australia you have to be very lucky to land private equity investment and you have to have a pretty good idea and well thought out market.

"Generally that won't be possible if you have a domestically focused business product. Typically you need to be looking to world markets."

Evolution Broadcast has used venture capital as a financial lifeline.

"We have both good and bad experiences dealing with venture capital," Mr Stoneham says.

"It's very difficult to secure, but it's a huge boost when we get it. We certainly wouldn't be where we are today without that early stage funding and that's been backed-up by a government program."

The thin market for Australian entrepreneurs limits the funding choices available to companies, Mr Stoneham says. "It's a matter of grabbing and holding whatever money you can get, but you are pretty much captured by the terms that the investors demand.

"Typically those terms are geared towards the investor and not the entrepreneur. It would be helpful if there were more early stage funding alternatives available."

Venture capitalist Marc Woodward of Neo Technology Ventures believes there are not enough entrepreneurs in Australia with the nous to make money

out of their good ideas, unlike America.

"There is a relative lack of entrepreneurial talent in Australia," Mr Woodward says.

"The market here is much less sophisticated relative to the United States or Europe, where they have been doing venture capital-type activities for much longer. Traditionally there is a lot less capital that is being applied to these early stage companies.

"In the United States there are probably more venture capitalists in one office park on Sandhill Road in Silicon Valley than there are in all of Australia.

"The lack of entrepreneurial talent and lack of available capital for early stage companies combine to create a large impediment."

The difficulties accessing investment funds in Australia were also highlighted for the Science and Innovation Committee when they visited Argus Solutions, a state-of-the-art security company in North Sydney.

Argus' core business is developing and selling security systems such as iris scanners, which can quickly and accurately identify people. The system is already in use at Silverwater Prison in NSW, pharmacies throughout Victoria and NSW, and the Department of Defence in Canberra.

Argus Solutions president, Bruce Lyman, started the business in his front lounge room. He says it took scores of rejections before the company received venture capital.

"We eventually secured some venture capital from a group here in Sydney after about five years of seeking it," Mr Lyman says.

"They were about the 96th group of venture capitalists that we had met with. We had been fortunate in the first instance to take some angel investment from an individual who was prepared to back the team.



Left: Science and Innovation Committee hearing, with (left to right) Chair Petro Georgiou, committee member Dennis Jensen and Deputy Chair Harry Quick. Right: Evolution Broadcast executive director Mark Stoneham with the Nexus Production system.

“The bigger challenge was trying to convince a venture capital group that they should get behind this technology and the team.”

Mr Lyman believes investors need to understand the commercialisation of a company is not necessarily about a particular product or technology—it’s about the whole package you are trying to deliver to the market.

“How do you do that? How do you get a technology from nothing to being accepted widely?”

Bruce Gray of Sirtex says it will always be a tough road, but there are bright prospects for companies with a strong focus on market demands.

“A lot of people complain that they can’t get funding,” he says, “but I’d say at least 95 per cent of those don’t actually deserve funding. I have come from that environment, and I know what they are looking for—they are looking for something that isn’t commercial reality.

“Every good idea, every good bit of science isn’t a commercial opportunity, not by a long shot.”

Dr Gray believes government red tape can strangle the commercialisation process in Australia.

“The Australian government is very helpful in a lot of ways and do good things, but they can implement some measures that would make it better,” he says.

“The Australian bureaucracy is stultifying—it really is—overly bureaucratic, not transparent and not accountable. I’m not meaning to be critical but it’s a statement of fact.”

Dr Gray praises the bureaucracy in the United States for its consistency and transparency: “They are accountable for what they do and any decisions that follow on from that dialogue, you can see what’s happening

so you can monitor it, intervene when you need to, and hopefully come up with the right outcome. That’s very difficult to achieve in Australia.”

The committee should examine how the US government supports new business ventures, suggests Argus’ Bruce Lyman. He says one of the key things that happens in the US, but not in Australia, is that there is a requirement on the part of the federal government to allocate a portion of its spend to small and medium enterprises.

Such direct support, through government purchasing, often proves to be the most significant thing that happens to a small or medium enterprise, says Mr Lyman, particularly when a small company is getting off the ground and seeking to enter the export market.

“In the United States there are probably more venture capitalists in one office park in Silicon Valley than there are in all of Australia.”

“I think there is a reluctance to support very high-tech small companies in Australia because of a preference to go to a large multi-national, even though it’s technological solutions may not be as elegant or as sharp,” he says.

Evolution Broadcast’s Mark Stoneham agrees government can do more to ensure new ventures getting off the ground remain viable.

“There is no doubt that there is a good range of government assistance programs in place now ... but I think government needs to take a whole-of-life business approach,” he says.

“We find ourselves dealing with different people and different criteria

along each step of the process. What would be enormously helpful is for the government agencies to establish much closer relationships with the company.

“Come out and see what we do to understand our business. In a sense, to case manage us through the life of the business. Traditionally, bank managers have left their offices to visit the farmer’s property to gain a better understanding of any problems—it should be similar for us.”

The ability of well-funded universities to turn their research to significant commercial advantage is also raised as an issue by Sirtex’s Bruce Gray.

“They produce some very good science that at the end of the day trickles down for some benefit to society,” he says.

“But a lot of what [universities] might do is not about money—it’s about better health, better outcomes, not necessarily about dollar outcomes.”

Bruce Lyman says while Australia is perceived as a very innovative country on the world stage, he’s unsure if it will take full advantage of its ingenuity.

He predicts Argus Solutions may join the growing ranks of Australian companies forced to go off-shore because of growing demand overseas.

“There is a demand for our R&D capability in countries off-shore in a way that there is not a demand at home in Australia,” he says. “I suspect the bald commercial reality of it all will probably see that happen.” ■

*For more information on the inquiry into pathways from innovation to commercialisation by the House of Representatives Science and Innovation Committee, including submissions and transcripts of public hearings, visit [www.aph.gov.au/house/committee/scin](http://www.aph.gov.au/house/committee/scin) or email [scin.reps@aph.gov.au](mailto:scin.reps@aph.gov.au) or phone (02) 6277 4150.*