

# Defiance on cloning

Victoria is poised to follow the advice of a US advocate and embrace stem cell research, reports science writer **Leigh Dayton**

**B**OB Klein is a man on a mission; several missions. One of them brought the influential California lawyer and property developer to Melbourne last week. He was the guest of the Australian Stem Cell Centre, where scientists were keen to pick his brains. So was Victorian Premier Steve Bracks.

Why? Because Klein is California's \$3 billion man. Not only did he draft Proposition 71, the California stem cell research and cures initiative, but he was its chief backer, persuading a solid majority of Californians — including Republican Governor Arnold Schwarzenegger — to vote yes in the November 2004 ballot.

The result was the establishment of the California Institute for Regenerative Medicine, a state agency with the job of doling out that \$US3 billion (\$3.95 billion) for stem cell research. The institute's goal, like Klein's, is to transform medicine.

"The institute will give researchers and the public a better understanding of how stem cells work," Klein tells *Inquirer*. "It's clear that embryonic stem cells offer the greatest potential for curing devastating conditions such as diabetes and, short of curing them, understanding the dynamics of diseases and devising better treatments."

Buckets of money for the controversial field of ES cell science and support from one of the most powerful conservative politicians in the US: it is quite an accomplishment. Especially as it came when the state of California had to sell special bonds to stay afloat, and in a religiously divided society where President George W. Bush prohibited the use of federal funds for ES cell research.

Moreover, the centre and the science it supports survived a series of lawsuits brought by opponents of Proposition 71 that delayed the flow of cash to the CIRM. That is, until Klein found \$US45 million in bridge funding and Schwarzenegger authorised a \$US150 million loan. This month, the CIRM offered its first research grants, generating hot competition for the first round of 45.

"The ideological Right has an extreme fringe that says if they don't agree with a medical or scientific funding initiative, they'll destroy it by tying it up in the courts," Klein says. "We've proven they won't stop



**Quest for cures:** Influential California stem cell advocate Bob Klein has a fan in Victorian Premier Steve Bracks

California." And he hopes they won't stop Australia.

"It's essential for the Australian Government to allow science to use techniques such as therapeutic cloning," he says. "It's critical to every family and every patient that Australia's leadership in ES cell research be supported."

Clearly, Klein's words are music to the ears of Australian scientists and patient advocacy groups pushing to change the nation's embryo research and anti-cloning legislation. They argue that therapeutic cloning — also known as somatic cell nuclear transfer — should be legalised, as recommended in the Lockhart review, tabled in parliament last December.

That legislatively mandated review, chaired by former judge John Lockhart, was a wide-ranging assessment of Australia's anti-cloning and embryo research legislation. It also canvassed community attitudes to stem cell research, considered the advances and potential of stem cell science and received more than 1000

submissions. The result was 54 recommendations, one of which calls for therapeutic cloning, a procedure that combines genetic material from one donor with the egg of another that has had its DNA removed. The goal is to collect ES cells.

Early next month, the Senate will begin debating a private member's bill that would do just that. But, as in California, advocates face a tough challenge from conservative Christians and politicians who see SCNT as one step too far.

For them the technique is unethical because early-stage embryos, so-called blastocysts, are destroyed in the process. And as *The Australian* reported earlier this month, some are allegedly engaging in strong-arm tactics, emotional bullying and personal attacks reminiscent of the US ultra-Right. Little wonder, then, that ASCC chief executive Stephen Livesey was delighted when Klein agreed to spend a few days in Melbourne.

"Mr Klein generously offered to visit Australia to help us in the current

legislative climate," Livesey says. "He provided the Australian stem cell science community with advice on how to engage the public, patients and politicians on the complex topic of stem cell research."

It's all about fighting overseas fire with overseas fire. Last month, for instance, the lobby group Doctors Against Cloning brought US scientist James Sherley to Australia. A staunch opponent of ES cell research, Sherley did the rounds in Canberra, spoke widely and wrote a piece for *The Australian* slamming ES cell science.

Sherley and Klein have been combatants for years. While he won't criticise Sherley personally, Klein has no patience for the arguments the biological engineer raises. As the son of a woman dying of Alzheimer's disease and the father of a 16-year-old boy with juvenile diabetes, Klein is angry with Sherley's assertion that people like him are dupes of self-serving scientists who overhype the potential of ES cell science and downplay that of adult stem cells,

collected from the nose, blood and some other tissues.

"They're factually wrong," Klein snaps. He proceeds to detail the people he consulted during a year of "due diligence" before writing Proposition 71. The list includes about 70 patient advocacy groups — representing different conditions, from Alzheimer's and Parkinson's diseases to diabetes and spinal cord injury — doctors, lawyers, patients, adult and ES cell researchers, independent scientists and several Nobel laureates.

The consensus, says Klein, was that the best way forward is to study all types of stem cells, from ES cells, which can develop into virtually any type of tissue, to adult stem cells, which can renew themselves and develop into some specialised tissue cells. "Seventy advocacy organisations, their patients and independent scientists are not all wrong."

Klein adds that the American Medical Association, the California Medical Association and a group of 80 Nobel laureates each independently reviewed the potential stem cell science and reached similar conclusions. "What's more, these independent reviews fully agreed with the Lockhart committee's key positions."

As does Bracks. Last Monday the Victorian Premier made it clear that if federal parliament fails to endorse SCNT, the state will follow Schwarzenegger's example and go it alone. Bracks's tough talking came as a forum of more than 30 Victorian scientists, chaired by the state's chief scientist Gustav Nossal, met Klein and considered how best to advance Australian stem cell science.

It was all behind closed doors. Still, Bracks and Victoria's Innovation Minister John Brumby — both strong supporters of stem cell science and the biotech industry — undoubtedly shared notes with Klein.

"If you look at California at the moment, they are pumping money into stem cell research; if you look at Japan, if you look at the UK, if you look at parts of Europe, if you look at other states of America, if Australia doesn't move in this direction, Australia will be left behind and we will lose our best scientists," Brumby told *The Australian* on Monday.

Sound familiar? Odds are Brumby and Bracks are men on a mission. And Klein? Mission accomplished.