



NRMA / SpinalCure Australia Inaugural Fellowship

**Mr David Issa
Chief Executive Officer, NRMA Insurance
Mr Bob Turner
Chief Executive Officer, SpinalCure Australia
Dr David Brown
Recipient, NRMA/SpinalCure Australia Inaugural Fellowship**

**Presentation
29 May 2006
Re:connections Forum
Sydney Convention and Exhibition Centre, Darling Harbour, Sydney**

DAVID ISSA: Firstly I'd like to acknowledge the traditional owners of the land, the Gunagal People, and thank Aunty Sylvia Scott for a generous welcome to country. I would also like to acknowledge the attendance of the Honourable MP, Frank Sartor, Minister for Science and Medical Research, and Minister for Planning. It is a pleasure and a privilege to be here today.

NRMA Insurance is proud to be sponsoring this event to help raise awareness of spinal cord injuries and to support the work of Australian and international researchers, healthcare and rehabilitation professionals who are endeavouring to develop new techniques to help manage these injuries.

Spinal cord injuries are of particular interest for our business. As I'm sure you'll know, motor vehicle crashes are the most frequent causes of spinal cord injury. As New South Wales' largest compulsory third party insurer, NRMA Insurance is, at any one time, helping 8,500 people rebuild their lives after sustaining life changing injuries in motor vehicle accidents. NRMA Insurance works closely with key community partners to help us to not only prevent crashes, but to seek healthy outcomes for injured people. NRMA Insurance has established partnerships with organisations like NRMA Care Flight, the Volunteer Rescue Association, New South Wales Wheelchair Association, Paraquad New South Wales and SpinalCure Australia. We take our role in the community very seriously, and by being involved in forums such as this and by working with a community to increase road safety awareness, we hope to reduce the incidents and impact of injuries from crashes. I encourage anyone who is interested, to visit our stand in the foyer to find out more about our work in this area. As part of our commitment to seeking healthy outcomes for injured people, NRMA Insurance has joined with SpinalCure Australia and developed a senior research fellowship to promote Australian research into spinal cord repair.

I would like to invite Bob Turner, CEO of SpinalCure, to the stage to help me present the inaugural NRMA Insurance SpinalCure Australia Senior Research Fellowship. Please help me in welcoming Mr Turner to the stage.

The inaugural NRMA Insurance/SpinalCure Fellowship is intended to promote research into spinal cord injury, especially in repair and regeneration. Five applications were received for the fellowship, which were peer reviewed by leading scientists and all involved in spinal cord injury research and treatment. A unanimous decision selected a doctor whose study in the area of spinal cord injury is capable of being translated into human clinical tests. The recipient is a highly regarded immunologist who trained in Australia but has spent the past two years undertaking post doctoral research on the structure and function of the central nervous system at the prestigious Salk Institute in the US. The recipient will use the fellowship to undertake a research project to assess whether the transport of genetically modified - this is going to test me - otologeous bone marrow cells will provide a therapeutic strategy for spinal cord injury. His application was ranked outstanding by the judges, as the research provides a new approach to spinal cord injury and could be used to discover new therapies. NRMA Insurance is also pleased that the fellowship has enabled a world-class scientist to return home to Australia to continue research into spinal cord repair. So without further ado, I'd like to announce that the NRMA Insurance/SpinalCure Senior Research Fellowship has been awarded to Dr David Brown. If you could please join me on stage, Dr Brown.

Dr Brown, would you like to say a few words?

DR DAVID BROWN: Hi. Well, I've got to tell you, it's really good to be back in Australia and I'm really looking forward to starting some research here. I'd really like to thank NRMA Insurance and Spinalcure Australia, and it's a real honour to be awarded this fellowship. I really hope that I can make some contribution to understanding spinal injury and also its resolution.

The spinal cord injury marks the beginning of a difficult journey for the sufferer, with, really, major changes, looking at their relationship to their environment. Really, cells in the spinal cord undergo similar changes. They're responding to their injury environment almost immediately. While initially involving just cells of the spinal cord, soon, with calls for help, cells from the blood migrate there. Together, they react to their environment and they want to resolve the injury, but in the process they often cause more neuronal damage. Also they lead to scarring, which blocks the way to potential nerve regeneration.

So in my view, looking at the literature for a few years as I've been delving into the central nervous system, it's sort of becoming clear that it's going to be a multidisciplinary approach which is going to lead to major advances in the treatment of spinal injury. I'm going to focus, with my research, at the beginning of this and hopefully to be able to manipulate the inflammation that occurs.

Now "inflammation" is a pretty big word and, being an immunologist, I've dealt with it for a long time and I'm really not sure that I really completely understand it. I'm not anybody does and I think we've got a lot of research to be done in this area. But to put it down to basics, there is good and there is bad inflammation. I mean, if you knock out all the inflammation, it's not necessarily a good thing because it's needed for things to heal, it's needed for things to be done. I think some of the research has shown that. These future therapies are really going to be, or the future anti-inflammatory therapies or inflammatory modification therapies, are really going to be going hand in hand with regenerative therapies and other methods of bridging the connection and restoring effective communication between the brain and the discal muscles. So what I'm aiming to do is to try and define what happens in the inflammatory state at the spinal cord, especially focusing on this further neuronal damage.

I'll also test a method of delivering genetically modified cells via the blood, the same way that these inflammatory cells get there. I'm sure that Dr Ted Teng will tell you that stem cells have a unique ability to sense inflammation and to do something about it. I'm hoping, initially, that this might take place. I'm also going to deliver genetically modified cells which will have a different response to inflammation, and hopefully this will reduce the neurone degeneration, the loss of neurones, vulnerable neurones that haven't been damaged yet in the spinal cord injury, and that it will lead to less scarring and to leave the gate open for further treatment.

So, again, thank you very much, and I look forward to working with you in the future.