

OUR HEROES

Hearing of supporters getting out to raise funds for our work always gives a happy boost to morale in the office. People find many ways to help the cause.

Getting their running shoes on were Stephanie Chandra and Raymond Luxa. Raymond pounded the pavement with the 85,000 strong crowd at Sydney's 'City to Surf', while Stephanie (pictured) ran the 'Bridge2Brisbane' under the Queensland sun.



Organised events are not the only way to fundraise.

In the planning of their wedding Xuan and Kham found time to think of SCI research. In lieu of the traditional bomboniere they have made a generous donation to SpinalCure. We all wish them a long and happy life together.

On New Year's Eve 2011 Kristy Banks, a jockey riding in the Toowoomba races, fell from her horse tragically breaking her back. Of all her accomplishments since, the most marvellous has been becoming pregnant with their first baby.



On hearing the happy news, her husband, Dale Groves, vowed not to shave until the baby was born. He set up his own "Great Shave" event on SpinalCure's Everyday Hero page and now, with the birth of their son, Dale is once again clean shaven and more than \$4000 has been raised for research. Congratulations Dale and Kristy (pictured above) and thank you.

See the events in your area at Everyday Hero (bit.ly/spinalcure-hero).

GALLAGHER GOLF DAY

International insurance broker **Gallagher Australia** held their inaugural Golf Day at Sydney's verdant Killara course on a blistering 37°C October afternoon. Thanks to the efforts of long time SpinalCure supporter Andrew Quartermaine, and with the generous backing of Gallagher CEO Andrew Goddard, SpinalCure was chosen as the beneficiary for the day.



SpinalCure's Duncan Wallace (L) with Andrew Quartermaine

After playing on through the afternoon heat, the stoic golfers retired to the cool of the 19th hole for a well earned drink and a sumptuous dinner. Prizes were awarded and an auction of generously donated prizes held. SpinalCure's Duncan Wallace gave a short after dinner talk thanking everyone and telling them of the important work their generosity is helping to support.

Later, on a visit to Gallagher's North Sydney offices Duncan was presented with a cheque for the proceeds of the day—a tremendous \$24,150 for SpinalCure's research funding.

Our sincere thanks go all at Gallagher for their support and for organising such a memorable and successful day.

IT'S BROKE SO THEY'RE FIXING IT!

In 2012 a SpinalCure Research Fellowship was awarded to Dr Marc Ruitenberg from the University of Queensland (UQ) and this has turned out to be money very well spent. Over the last two years Dr. Ruitenberg and his team have provided new insights into the complex inflammatory response to spinal cord injury. A key and unexpected finding was that the spleen is a major source of macrophages that invade the spinal cord lesion site early after injury and the team's results show that these mostly have a detrimental affect at this stage. The findings were published in the journal Experimental Neurology earlier this year and the work has received enthusiastic international praise.

Ongoing experiments are now focused on therapeutic approaches that can manipulate the inflammatory response to spinal cord injury and promote recovery.

In collaboration with UQ's Centre for Advanced Imaging, the team is also pushing ahead with new imaging methods with the aim of being able to better diagnose the extent of spinal cord injury and predict possible recovery.

We are proud to be able to help finance this valuable work, and so we were doubly pleased when we heard these talented scientists were going to help finance us! Dr Ruitenberg and his research team tackled the 'Bridge to Brisbane' fun run in September raising funds for SpinalCure through Everyday Hero. Our thanks go to them for their great work and enthusiasm.



Marc Ruitenberg (fourth from left) and team pictured sporting their SpinalCure T-shirts with "It's broke, so we're fixing it" slogan on the back.

RESEARCH ROUNDUP

The "cure" that we long for is actually two distinct goals.

The first relates to acute (new) injuries. If an accident victim can be treated within the first several hours of the injury it should be possible to greatly reduce the amount of permanent damage.

The second and more challenging problem is to repair the spinal cords of those who have been living with an injury for some time (chronic injuries). To achieve this neurons must be re-grown across the injury site and scar tissue and other physical damage in the region overcome.

Understanding and controlling inflammation is vital in preventing permanent damage in acute injuries. SpinalCure is funding several projects with this aim: Dr Marc Ruitenberg, Dr Bryce Vissel and the Lisa Palmer Consortium are all working on aspects of this issue. Recent published work on inflammation includes a paper by Canadian scientists which shows that the Chinese herbal formula, JSK (ji-sui-kang), known for its anti-inflammatory effects, improves outcomes in a well established rat model of SCI. (bit.ly/SCA0009)

SpinalCure is also interested in the therapeutic benefits of intensive

exercise particularly as an adjunct to other interventions. Another recent paper published in the The Journal of Neuroscience has shown that treadmill training after SCI can have positive effects on recovery from an acute injury but only if accompanied by measures to control inflammation. (bit.ly/SCA0008).

With the goal of repairing chronic injuries researchers are following several different promising paths. And in these too exercise will likely play an important role.

Chinese scientists have recently demonstrated that the transplantation of olfactory ensheathing cells (found in the nose) and Schwann cells combined with treadmill training promotes functional recovery in rats with contused spinal cords (bit.ly/SCA0010).

For the die-hard couch-potatoes, and to benefit hard to exercise paralysed muscles, help may be on the way! Researchers at the Schripps Institute in California have developed a drug which offers some of the benefits of exercise: "The animals actually get muscles like an athlete who has been training," said Professor Thomas Burris (bit.ly/SCA0013).

Electrical stimulation of the spinal cord below the level of injury continues to be one of the most

promising areas of research for longer term SCI (a good summary can be found at <http://bit.ly/SCA0011>). Interestingly, for incomplete injuries where some nerves remain intact, stimulation from the top down also may have have benefits. Swiss researchers have achieved improved function by using deep brain stimulation (bit.ly/SCA0012).

While waiting for a solution to chronic SCI to arrive, the injured have a lot to cope with. Many people don't realise how much more there is to living with a spinal cord injury than not being able to move. Sometimes more troubling than the lack of movement are the loss of feeling, the loss of control of bladder and bowels, impaired digestion, insomnia and pain. Perversely, many people suffer from burning neuropathic pain in areas of the body where there is otherwise little or no sensation. But at least here there is a little good news. University of Miami researchers are testing the use deep brain stimulation techniques commonly used in Alzheimer's sufferers in the hope of reducing neuropathic pain. Other research from California, shows that pain levels can be lowered by an omega-3 rich diet (bit.ly/SCA0007)—so add some fish and walnuts to your shopping list this summer!

MACARTHUR LIONS MAKE IT 15!

This was the 15th year that the unstinting Macarthur Lions Club has organised and hosted its Charity Golf Day in aid of SCI research. Once again held at the Lakeside Country Club at Catherine Field, south of Sydney, the event is faithfully supported by many local businesses and Lions supporters. The morning's play involved a 4-person Ambrose competition with the teams sustained by a BBQ breakfast and on-course refreshments. Robert and Kelly McCann, the original inspiration behind the day, joined us

for a buffet lunch and after the play where prizes were awarded and raffles added to the much appreciated funds raised.

