stepahead™ Australia
finding a cure for spinal cord injury

NEWS
SUMMER 2011

EXECUTIVE DIRECTOR'S REPORT – GEORGE OWEN

As you would all be aware, our annual Scientific Conference on 'Treating the Chronic Injured Spinal Cord' was held in Melbourne earlier this month. We had an outstanding meeting this year. Speakers came from all over the world, including North America, Argentina, Italy, Thailand, Japan, New Zealand and Australia. As in other years the focus of the meeting was on treating the chronic injured spinal cord, and in line with our meeting last year, the theme was directed towards engineering repair of the injured spinal cord. The purpose behind this focus reflects our understanding of spinal cord injury and where the biomedical research community sits in regards to its knowledge of what occurs following damage to the cord. Remarkable advances have been made in the last decade towards our understanding of the structural, biomedical and genetic changes that occur after injury to the mature brain and spinal cord. This now puts us in the envious position to intervene to improve outcomes and develop meaningful treatments and even eventually cures. We now feel that we are able to approach this complex problem in the same manner in which an engineer approaches an engineering problem. The tools and knowledge have accumulated to the point where we now have the means to design and apply approaches that will allow us to re-engineer the damage spinal cord.

The meeting started with an overview of StepAhead Australia's history and its mission by Chairman of the Board, Tony Benbow and Executive Director/Co-founder, George Owen. This was followed by a very thoughtful presentation by New Zealand barrister, Andrew Commons who himself is spinal injured. He presented a sound argument for the patient's right to enter into early-stage clinical trials.

Andrew was followed by our keynote speaker Dr. Doug Fields from the National Institute of Health in the United States who spoke about the role of astrocytes in spinal cord injury. A frequent participant in our annual meeting, Dr. Stephen Davies, presented some of his latest results on the use of a molecule called Decorin that is able to promote robust functional recovery following spinal cord injury. Speakers from Italy and Japan then presented the latest data on repairing injured spinal cord by using neural stem cells. The first day was closed with a lecture from Dr. Giger who studies molecules that inhibit regeneration following spinal cord damage.

The second day of the meeting, with a focus on the use of astrocytes in repairing spinal cord damage saw Drs. Jeannette Davies and Chris Prochel present their collaborative results and demonstrated that the chronic injured spinal cord can be repaired by transplanting a particular type of astrocyte that leads to impressive functional recovery. They were followed by Dr. Gustavo Moviglia who demonstrated his novel method to deliver cells into the spinal cord by injecting them via the bloodstream, a method that may eliminate the need for invasive surgery. Dr. Colin Combs from the USA revealed his latest results on the role that another type of brain cell, called the microglia, play after traumatic injury. After a short break for lunch, Melbourne scientist and veterinarian neurologist and neurosurgeon, Dr. Sam Long, assessed the role that a canine model of spinal cord disease could have in accelerating our move towards treating the chronic injury in people. Another Melbourne researcher, Dr. Kathy Traianedes, presented her latest data on the application of a biological matrix for supporting spinal cord injury repair. The matrix was originally developed by her research partner and husband Dr. Stephen Livesey and has been used in over 1 million patients in skin and tissue grafts. The modification of this matrix for spinal cord injury represents a near term and practical application that could quickly move into the clinic. Our final speaker of the meeting was Dr. Maiyadhaj Samsen from Thailand who presented the opportunities to further pursue our preclinical and clinical programs in Bangkok.

Following closure of the meeting by StepAhead's Research Director, Dr. Brent Reynolds, the speakers made their way to the idyllic farmhouse of StepAhead founders George and Barbara Owen. A day and a half of intense and productive discussions took place regarding increasing the effectiveness of our research program. The highlight of the meeting at the farm was the building of new collaborations and friendships that will stimulate and jump-start new avenues of research directed towards repairing the chronic injury spinal cord.

I would like to take this opportunity to wish all of our supporters a very merry Christmas and a safe and prosperous New Year. We look forward to your continued support in 2012.

Mr George Owen
Executive Director, SAA