

Lions Australia Spinal Cord Fellowship

“Making a Brighter Future for Victims of Spinal Cord Injury”

The challenge

- Up to 400 new cases of spinal cord injury (SCI) in Australia per year, 180,000 worldwide.
- Leading causes of SCI are traffic accidents (47%) and falls in persons over 65 years old (27%).
- Despite advances in rehabilitative medicine, the quality of life for SCI patients is still poor.
- No clinically approved interventions that can promote significant recovery of spinal function.
- Annual cost of SCI for Australia is \$2 billion in healthcare costs and lost productivity.

Development of a new technology

- With LASCf support, the Spinal Cord Regeneration Program at the Florey Institute has developed a new SCI repair technology.
- Pre-clinical studies show infusion of a protein called Decorin can promote recovery after SCI.
- Decorin infusion can suppress scarring & inflammation to support nerve fibre regeneration.
- Decorin also stimulates the formation of new spinal circuits, “neuroplasticity”.
- Importantly, Decorin infusion can promote recovery of function in early stage and chronic SCI.

Science focused on delivering a therapy

- Ongoing scientific studies are revealing how Decorin promotes SCI recovery – a new biology.
- Knowing how Decorin works greatly increases the chance of delivering an effective therapy.
- Decorin infusion method is clinically relevant. Provides opportunity for multiple treatments.
- Ability to suppress scarring and promote neuroplasticity indicates potential treatment of other neurological disorders such as traumatic brain injury, cerebral palsy and stroke.

Moving from the lab to the clinic

- Working with biotech partners the SCR Program has developed pharmaceutical-grade Decorin.
- Clinical development teams have started planning human clinical trials.
- With sufficient funding support, the stage is now set to deliver a new therapy in the near future.