



Proudly supporting the Spinal Injury Project

Olfactory Cell Transplantation to Repair Spinal Cord Injury

Pathway to a clinical trial in 2020

Perry Cross
Spinal Research
Foundation

To Cure Paralysis For All



MENZIES
HEALTH INSTITUTE
QUEENSLAND



Griffith UNIVERSITY
Griffith Institute for Drug Discovery
Queensland, Australia



Griffith
UNIVERSITY
Queensland, Australia

Twenty-five years ago my life changed in an instant.

One moment I was a 19-year-old playing a game of rugby union alongside my mates. The next I was injured in a tackle and facing a new life as a C2 ventilated quadriplegic.

The devastation of being told I would never walk again cannot be understated but in the period that followed, I soon came to realise I was not alone.

I learned that every day in Australia someone suffers a spinal cord injury. As I write this, there are about 15,000 recorded cases across the country. Quadriplegia – paralysis of all four limbs – occurs in 50 per cent of new cases.

Every one of those spinal cord injuries represents untold heartache for an Australian and their loved ones and that's why I am committed to providing them with one of life's greatest gifts - hope.

The search for a cure for paralysis is the driving force in my life and at the heart of the work we do at the Perry Cross Spinal Research Foundation (PCSRF). While we tirelessly promote prevention and awareness messages to the community, our major focus is on facilitating, collaborating and initiating the connections and research required to find a cure and change countless lives for the better.

The search for a cure is clearly greater than one foundation or institute. It is an international challenge that sees scientists and organisations all over the world working on a puzzle that they are slowly but surely getting closer to solving.

One of those research organisations is the Griffith Institute for Drug Discovery, which is planning to start a human clinical trial in 2020 that could result in the first widely available treatment for spinal cord injury. The following pages outline the remarkable science behind what is known as the Spinal Injury Project (SIP), which centres on a technique pioneered by 2017 Australian of the Year Emeritus Professor Alan Mackay-Sim.

While the staff and research teams of the SIP team are ready to start making history, I'm focused on helping provide them with the funding to do so. The PCSRF's lobbying of the Queensland Government recently resulted in a \$5 million grant to fund the first three years of pre-clinical research. In May 2018 we also committed a further \$450,000 to support the project.

However, with the human clinical trial expected to cost more than \$20 million, the PCSRF is continuing to search for and work with sponsors and organisations that want to play a vital role in making my dream of a cure for paralysis a reality.

I invite you to join the PCSRF on this mission, to be part of our ground-breaking, global project and play a role in history in the making. Your support, no matter what the scale - is life-changing, not only to those currently living with spinal cord injuries - but for our future generations.



**Perry Cross, PCSRF
Founder & President
C2 ventilated Quadriplegic**

*'It's time... let's make
the impossible,
possible together'*

The path to ending paralysis

Every day in Australia, through spinal cord injury, one life is changed forever. There are currently approximately 15,000 recorded cases of spinal cord injury in Australia. Each year there are over 300 new incidents reported. The impacts of spinal cord injury are usually life-long and devastating.

Research into finding a cure for paralysis has been undertaken across the world for decades. There have been many dead ends, many partial discoveries and a lot of hope. But now, the pathway to ending paralysis is illuminated.

The potential answer? Taking a special type of cell from a patient's olfactory (sense of smell) system, and transplanting it into the spinal cord injury site.

A world-first Phase I clinical trial led by scientists at the Griffith Institute for Drug Discovery (GRIDD), Griffith University, in 2002 demonstrated that the therapy is safe for use in humans. That trial led to a recent human trial by British/Polish researchers demonstrating that restoration of function after severing of the human spinal cord is indeed possible. In this study, a mix of olfactory cells together with a nerve bridge were transplanted into the injured spinal cord.

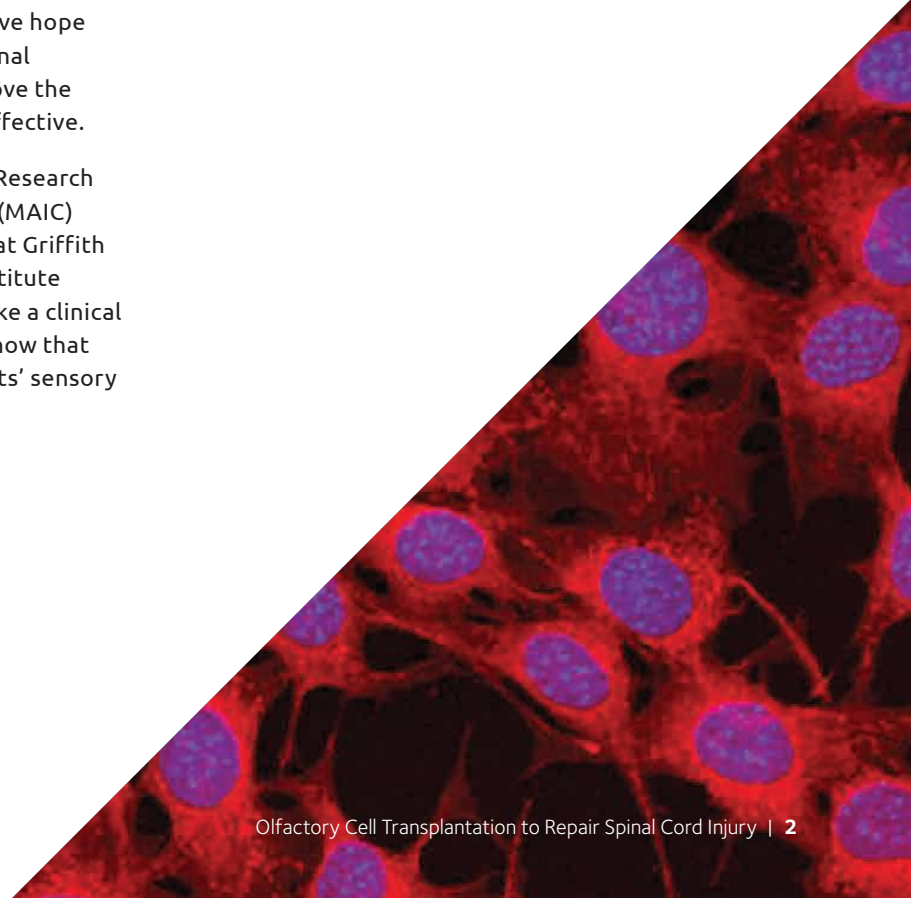
Within 6-12 months after transplantation, the patient, who had been paralysed for several years prior to the treatment, regained some motor function of his legs, bladder control, and, most importantly, sensation.

These exciting proof-of-principle results give hope that patients may regain function after spinal cord injury. What is now needed is to improve the transplantation therapy to make it more effective.

In partnership with the Perry Cross Spinal Research Foundation, The Queensland Government (MAIC) and the Clem Jones Foundation, the team at Griffith University's GRIDD and Menzies Health Institute Queensland (MHIQ) is planning to undertake a clinical trial in 2020 to progress this journey and show that this therapy can further regenerate patients' sensory and motor function.

The method used has the potential to result in the first widely available treatment for spinal cord injury and will establish Griffith University as world-leaders in spinal cord injury treatment.

You are invited to join this ground-breaking team on what could be the turning point in the journey to cure paralysis.



The impact of spinal cord injury

Spinal cord injury is currently a life-long burden on both the person impacted and society at large.

In Australia around one person sustains a spinal cord injury every day, and many of these individuals are under the age of 24. There are currently 15,000 Australians living with spinal cord injury. Aside from the personal trauma, the cost to our society to care for spinal injured people is \$2 billion a year. Without an effective cure for spinal cord injury, the emotional and financial costs to individuals, their families and to our community are life-long.

Spinal cord injury can happen to anyone at any time. It is not just about being in a wheelchair, there is also a lack of control, independence and freedom. The type of disability which occurs after the spinal cord is injured depends on the severity of injury and the location of the injured segment of the spinal cord. A damaged or severed spinal cord means the region of the body below the level of injury becomes paralysed. In cases of complete paralysis, all functions below the level of injury will be lost.

Olfactory ensheathing cells growing out from a three dimensional spheroid of cells.

After a spinal cord injury, the nerve fibres, which send motor signals from the brain to the torso and the limbs are impaired and this causes paralysis of the muscles. Destruction of sensory nerve fibres leads to loss of sensations such as touch, pain and the ability to distinguish between hot and cold. Less well-known is that spinal cord injury can also severely limit bladder and bowel control, sexual performance, blood pressure and sometimes the ability to breathe unaided.

CAUSES



GLOBALLY AT LEAST

250,000

TRAUMATIC SPINAL
CORD INJURIES
OCCUR EVERY YEAR

The main causes are accidents in daily life

50%
Road acci-

24%
Falls

17%
Other causes

6%
Sports

3%
Extreme sports



53%

PARAPLEGIA

Paralysis of the torso muscles and the



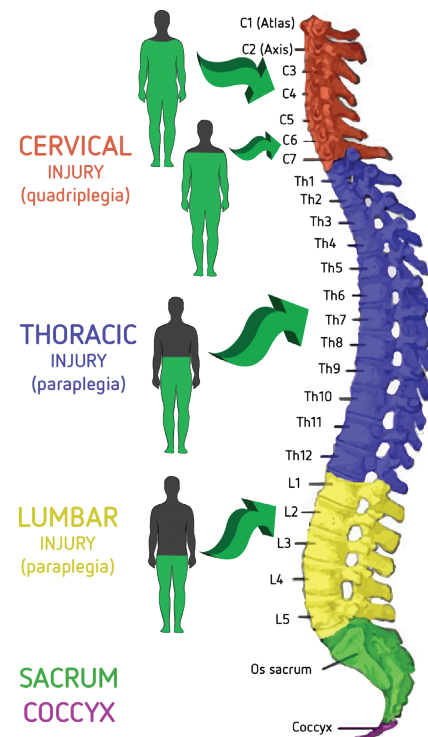
47%

QUADRIPLEGIA

Paralysis of the torso muscles, the lower limbs and the arm muscles.

A therapy in sight

The development of olfactory cell transplantation as a therapy to repair spinal cord injury dates back to the 1990s and has been progressively developed by teams around the world. Griffith University's GRIDD has taken a lead role to date, with the world's first Phase I clinical safety trial using olfactory cells to repair the spinal cord conducted in 2002. Studies have since been undertaken on rats and dogs. The first human efficacy study in 2014 showed that the therapy was effective for partially repairing the human spinal cord. Now it's time to make this therapy more effective, available and affordable.



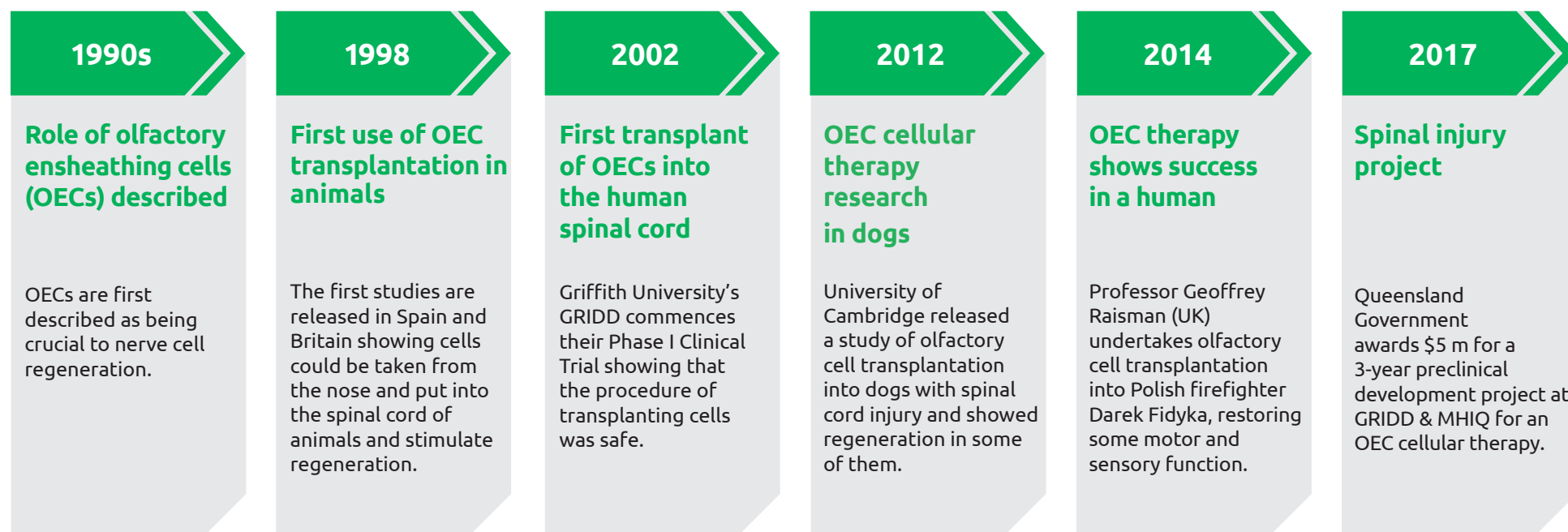
What's so special about olfactory ensheathing cells?

The olfactory system—or sense of smell—is unique in mammals in that its nerve cells are able to constantly regenerate. It's the only part of our nervous system that regenerates every single day as part of its normal function. And it's lucky that it does: every time we breathe in, the nerve cells in our nose are exposed to the bacteria and toxins and get killed off. If these didn't regenerate, humans would lose their sense of smell in around a month.

Olfactory ensheathing cells (OECs) are crucial to this process of regeneration. They prevent scarring and protect and guide the growing nerve cells.



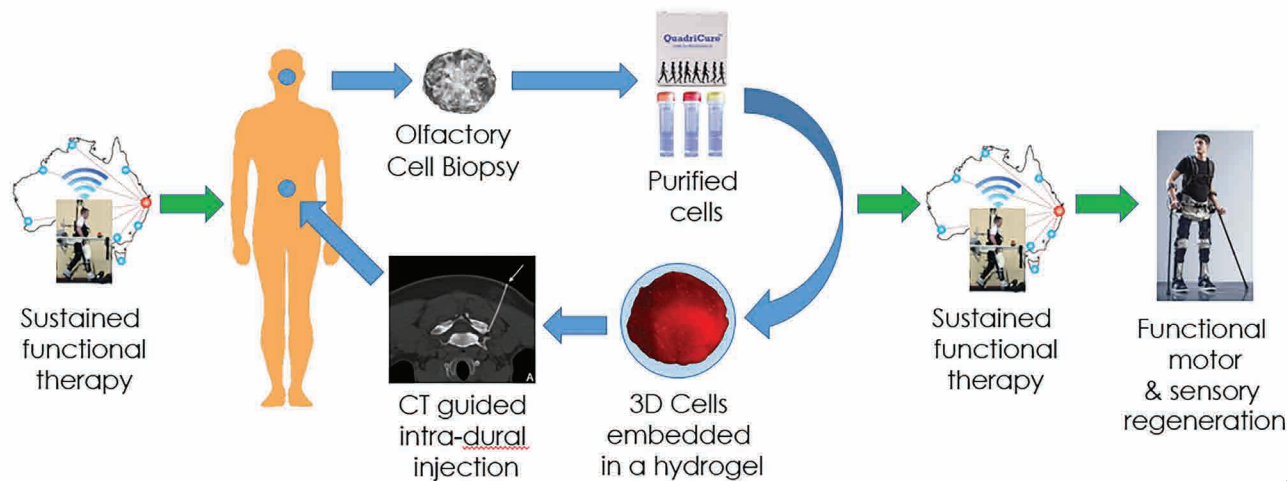
Olfactory cell transplantation to repair spinal cord injury: development to date



The human trial in 2014 demonstrated partial regeneration, despite several limitations in the therapy. By improving the purification and preparation of cells prior to transplantation, dramatically improved outcomes could be achieved. Proving this hypothesis is the aim of the Phase I/IIa clinical trial.

The spinal injury project

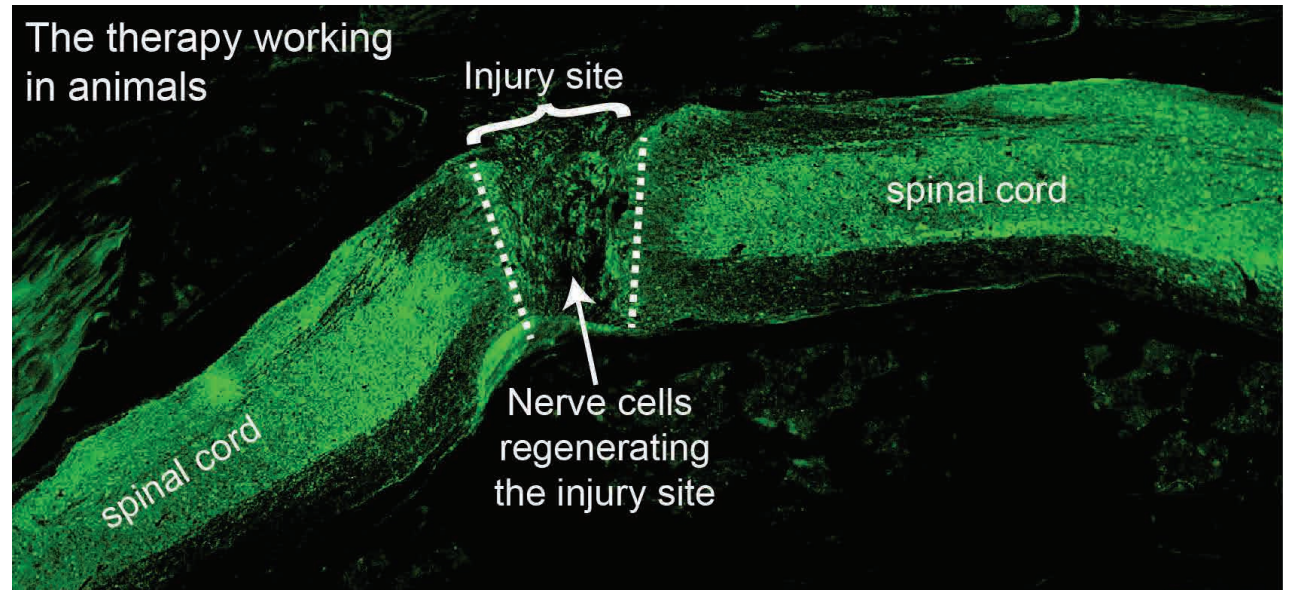
Led by Associate Professor James St John, a team at Griffith University's GRIDD and MHIQ, is conducting a preclinical development project to make the therapy repeatable, transferrable and affordable to all patients with spinal cord injury, world-wide. The Spinal Injury Project (SIP) involves six key steps, and aims to be ready for a clinical phase I/IIa study in 2020:



Spinal injury project progress

The spinal injury project has already developed cell purification, 3D culture and gel formulation and successfully tested the approach in mice, which have regained feeling and movement in their hind legs after spinal injury.

Nerve cells growing within the injury site of the spinal cord



Sustained functional therapy

The government recommends that every person in the community should do at least 30 minutes of exercise a day. When it comes to someone recovering from spinal cord injury, with their nervous system making new motor and sensory connections, then they will have to have several hours per day of activity and exercise.

This is because while the cell transplantation is the critical component of the therapy, its success relies on the patients undertaking long-term intensive activity-based rehabilitation to allow the nervous system to make new connections and to re-learn the necessary fine-control needed for proper motor and sensory function. Without the long-term activity-based rehabilitation, the cell transplantation alone will not be successful.

With support of the Perry Cross Spinal Research Foundation, Griffith University has developed a framework for this sustained functional therapy and an App that supports patients to do their activity-based rehabilitation every day for many (12–18) months.

Activity-based rehabilitation combines a range of physical motor and sensory gym-based activities provided by specialist exercise physiologists and physiotherapists trained in spinal cord rehabilitation.

We need to test the feasibility of delivering the rehabilitation program prior to the commencement of the cell transplantation clinical trial. A feasibility study is important to identify barriers and improvements that can be made in preparation for the Phase I/IIa clinical trial.



Phase I/IIa clinical trial

Since Griffith University's Phase I clinical trial in 2002, the work has continued and expanded with a new generation of scientists. With a scientific team led by Associate Professor James St John and Associate Professor Jenny Ekberg—and involving more than 40 scientists and clinicians across a range of fields and universities including international collaborators—the time has arrived to take the next giant leap in the development of this therapy. What is now needed is to make the therapy more effective and generate higher consistency in results.

The aim is to conduct a Phase I/IIa clinical trial of 25 patients with chronic spinal cord injury.

First, patients will conduct a sustained functional activity-based therapy to prime their spinal nerves, brain and muscles for the cell transplantation.

Then a 3D nerve bridge made of olfactory cells will be implanted into patients with chronic spinal cord injury, without the need for invasive surgery.

The 3D nerve bridge maximises the efficacy of the olfactory cells, reduce the existing scar tissue, and promotes the regeneration of the nerve cells.

This methodology ensures that patients receive optimal restoration of motor and sensory function and that outcomes are as consistent as possible.

Intensive and sustained functional therapy will be performed starting immediately after surgery for at least 12 months to maximise the regeneration of motor and sensory neural connections. Functional recovery is expected to be detected in patients within several months after the transplantation.

The clinical trial is anticipated to start in south-east Queensland in late 2020. The complete Phase I/IIa clinical trial is expected to cost \$20 m over six years.

Nerve Cells with Olfactory
Ensheathing Cells

Next steps

The Spinal Injury Project is now well underway to progress the pre-clinical research into a Phase I/IIa human clinical trial.

However, to be fully prepared to start a clinical trial in 2020, Griffith University requires funding in addition to that provided by the Queensland State Government through the Motor Accident Insurance Commission.

1. Sustained functional therapy

As a key component of the therapy, the sustained functional therapy needs to meet the needs and abilities of patients. To ensure that, we need to conduct an extensive feasibility study for delivery of a sustained functional therapy rehabilitation program. We have to ensure that participants can maintain the intensive level throughout the program. For this, we need to identify barriers to be addressed by conducting the sustained functional therapy with people who have different types of spinal cord injury. In this way, when the cell transplantation clinical trial commences, we can be confident that the rehabilitation program can be tailored to suit individual needs.

2. Clinical trial planning and management

A Contract Research Organisation is a professional body that drives the scoping and approvals needed for a clinical trial and manages the independent assessment and reporting of outcomes of a clinical trial. We want to engage a CRO to ensure that the 2020 trial is scoped, planned and executed as professionally as possible. This will further the chance of success for the trial.

3. Funding applications for clinical trial

Obtaining funding for clinical trials, e.g. from the Medical Research Futures Fund, is a competitive process. The best possible case has to be put forward. For this, we require an expert with experience in high level government submissions to write the respective business case.

4. Socio-economic case

To develop the business case for our clinical trial, an updated socio-economic analysis of spinal cord injury in Australia is required. The last analysis was reported in 2009 (by Access Economics) with an overall cost of \$2 billion per annum to the Australian community. We anticipate that the cost to the community is now considerably higher.

These four programmes will enable the key Phase I/IIa clinical trial to commence.

Funding to proceed with the Phase I/IIa clinical trial is needed. All aspects of the trial need funding, including the production of the cells and nerve bridge, the transplantation procedure and medical care, on-going sustained functional therapy and the assessment and reporting of outcomes.

The full cost will be determined by the CRO and is initially estimated to be \$20 million. The therapy will likely be improved upon over time, particularly as we obtain early results from the clinical trial. Funding for on-going research beyond mid-2020 is needed to retain the key staff and research teams of the SIP team.



Funding sought

Griffith University is seeking funding for the above mentioned activities, that will allow us to be ready for the clinical Phase I/IIa trial in 2020:

Sustained functional therapy feasibility study	\$1.6 million (Griffith University and Making Strides)	Green
Contract Research Organisation to scope and manage the feasibility study	\$60k (Neuroscience Trials Australia)	Green
Contract Research Organisation to scope works for clinical trial	\$75k (Neuroscience Trials Australia)	Green
Socio-economic analysis of impact of spinal cord injury (needed for Medical Research Future Fund [MRFF] applications)	\$100k (Deloitte Access Economics)	Yellow
Expert to write business case for clinical trial funding applications, e.g. MRFF	\$100k (estimated)	Yellow
On-going research to create further improvements in the therapy	\$6.3 million (Griffith University)	Yellow
Phase I clinical trial (anticipated 2020)	\$20 million (estimated)	Red

Green means that the activity must start as soon as possible, yellow in early 2020, and red in late 2020.

In 2017, PCSRF played an integral role in securing a \$5M grant from the Queensland Government to fund three years of pre-clinical research. The funding was provided by the Motor Accident Insurance Commission (MAIC), the regulatory authority responsible for regulating Queensland's compulsory Third Party Insurance scheme. PCSRF is dedicated to seeing this project get to clinical trial, by raising awareness and funds for this exciting

Why is this the research to support in the fight to find a cure for paralysis?

1.

Griffith University has a history of driving olfactory cell transplantation therapy with the Phase I clinical trial in 2002 being the first of its type in the world.

2.

The team at GRIDD/MHIQ are experts in the olfactory system and have the expertise to drive the therapy further.

For example, in 2015, the team announced a new technique that will significantly help advance this therapy: the ability to grow cells in 3D to mimic the human body using floating liquid marbles which dramatically increases their growth, function and ability to survive the transplantation.

They have also discovered several natural products that stimulate olfactory ensheathing cells to aid regeneration. In addition, they can now freeze the isolated olfactory cells, which makes it easier to plan the time for surgery.

3.

The 2014 British/Polish trial has now proven the therapy can work in humans. Whilst this trial only achieved partial regeneration in the patient's motor function, the team at GRIDD/MHIQ have identified several limitations that are currently preventing olfactory ensheathing cells from fulfilling their therapeutic potential.

By improving the purification and preparation of cells prior to transplantation, it is believed dramatically improved outcomes could be achieved.

Phase I/IIa Clinical Trial

key outcomes expected

Whilst it is not possible to provide guaranteed outcomes in any clinical trial, the outcomes this trial are aiming to achieve include:

- Showing that the therapy works—achieving an improvement in motor and sensory function in patients (without any detrimental effects)
- Understanding whether the therapy works across different types of injuries (quadriplegic, paraplegic, minor/partial injuries, full injuries etc)
- Development of a 3D olfactory cell nerve bridge that improves regeneration
- Identifying the optimal surgical procedures for transplantation
- Identifying the optimal rehabilitation treatment

Part of the olfactory region
in the brain

The Brains Trust

Griffith Institute for Drug Discovery

GRIDD currently has 170 biologists and chemists, who develop therapies for human diseases and injuries. The Institute is home to Nature Bank and Compounds Australia, which house over 40,000 natural compound fractions and 200,000 purified compounds respectively. These compounds are purified by the chemists and then used by the biologists to screen for efficacy for medical applications. The Institute has state-of-the-art high throughput screening platforms, robotics and automated analysis workstations to maximise identification of relevant compounds, and it has an advanced microscopy suite with live cell imaging and confocal analysis capabilities. It has full animal surgery and housing facilities and animal cell culture facilities, and has a dedicated human cell culture facility that is particularly relevant to enable development of Good Manufacturing Practice cell production protocols.



Menzies Health Institute Queensland

MHIQ undertakes research across the lifecycle to identify key factors that influence health. From this its researchers develop and test strategies to improve health and wellbeing for individuals, families and communities. MHIQ has a deep expertise in patient-centric research and rehabilitation and from this we develop and test strategies to improve health and wellbeing for individuals, families and communities. Four overarching programs—Disability and Rehabilitation, EPIC Health Systems, Healthcare Practice and Survivorship, and Infectious Diseases and Immunology—encapsulate our research strengths and align with local and national health priorities. Underpinning the work of these programs is a focus on innovation, data science, research translation and meaningful clinical and community partnerships.



The Brains Trust

The team

The chief investigators for this trial are a number of highly experienced scientists, including:

1. Associate Professor James St John, GRIDD and MHIQ, Clem Jones Centre for Neurobiology and Stem Cell Research (Team Leader)

James St John is Head of the Clem Jones Centre for Neurobiology and Stem Cell Research at Griffith University. He is a leading expert in the use of olfactory cells for nerve repair and has 20 years' research experience in this field and over 70 publications. His research focus is to improve the purification of olfactory glia, identify natural products that promote neural regeneration, and to grow cells in three-dimensions to produce nerve bridges.

2. Associate Professor Jenny Ekberg, MHIQ

Jenny Ekberg is an Associate Professor in neurophysiology and has published 30 papers since 2010 on the development, regeneration, and therapeutic potential of the olfactory cells. Her particular expertise is in electrophysiology, and in identifying how glial cells interact with and regulate the recruitment of immune cells to improve their therapeutic potential.

3. Associate Professor Rohan Davis, GRIDD

Rohan Davis is a natural product chemist with 15 years' research experience. His research focuses on identifying biologically active molecules from Australian native plants that stimulate neural regeneration.

4. Dr Andrew Rayfield, MHIQ and GRIDD

Andrew Rayfield is the Research Manager for the Spinal Injury Project. He is a molecular neuroscientist with seven years' experience in industry and academia.

5. Dr Marie-Laure Vial, MHIQ

Marie-Laure Vial is leader of the three-dimensional nerve bridge and drug discovery team. She has a strong entrepreneurial approach to research and has co-developed the 3D cell culturing process for the therapy.

6. Dr Mariyam Murtaza, GRIDD & MHIQ

Mariyam Murtaza is leader of the cell purification team. She has international experience in neuroscience and uses a stringent approach to cell purification and preparation in order to obtain the highest quality cells.

7. Dr Todd Shelper, MHIQ

Todd Shelper is leader of the transplantation team. He has extensive experience in a range of imaging techniques and high resolution microscopy that is needed to determine how the transplanted cells integrate into the spinal cord.

8. Dr Michael Todorovic and Dr Matt Barton, MHIQ

Michael Todorovic and Matt Barton are senior lecturers who specialise in science communication and education. They drive the community engagement to ensure that the project remains relevant to the end-user and consumer.

9. Dr Dinesh Palipana, Gold Coast University Hospital

Dinesh Palipana is a Resident Medical Officer (Gold Coast University Hospital), Lecturer (Griffith University), and Adjunct Research Fellow (MHIQ). As a medical doctor who lives with spinal cord injury he provides critical medical insight into the patient experience. His research focuses on the rehabilitation aspect of functional restoration in spinal cord injury.

10. Dr Brent McMonagle, ENT surgeon, Visiting Medical Officer, Gold Coast University Hospital

Brent McMonagle is an Ears, Nose, Throat surgeon and researcher in the use of olfactory cells for nerve repair. With his specialist skills in human surgery, he provides biopsies of human olfactory epithelium from volunteer donors that are used to purify the olfactory cells for transplantation.

11. Dr Ben Chen, Medical Director, Rehabilitation Service, Gold Coast University Hospital and Health Service

Ben Chen is a rehabilitation physician with broad experience in the management of neurological, including spinal, injuries. He will be involved in the design and implementation of exercise and therapy programs.



Project partners

Perry Cross Spinal Research Foundation

The Perry Cross Spinal Research Foundation was established in 2010, 16 years after a devastating rugby union accident on the grounds of Ballymore in Queensland rendered Perry a C2 quadriplegic, unable to move from the neck down and unable to breathe without a mechanical ventilator attached to his electric wheelchair.

PCSRF recognise that finding a cure for paralysis is an international challenge that can only be solved when this global community comes together, and therefore works to unite world-wide research centres, advocates, specialists, not for profit organisations, service providers and leading medical specialists on our common cause to collaborate to find a cure.

The Motor Accident Insurance Commission

The Motor Accident Insurance Commission (MAIC) is the regulatory authority responsible for the ongoing management of the Compulsory Third Party (CTP) scheme in Queensland. MAIC is promoting research, education and the infrastructure to reduce the number of motor vehicle crashes and facilitate rehabilitation of injured people. The Queensland Government has provided \$5 million for the Spinal Injury Project, which is administered through MAIC.

Clem Jones Foundation

The Clem Jones Foundation is the philanthropic arm of the Clem Jones Group. The trustees are dedicated to benefiting the community through ongoing commitments to the wishes and philosophies of the late Dr Clem Jones AO. The Clem Jones Centre for Neurobiology and Stem Cell Research was established in 2016 at Griffith University to further the discovery of a cure for paralysis and brain injury.

*You can be part of the path
to ending paralysis.*





A/Prof James St John is the only specialist research scientist of the olfactory cell system in Australia and his work is celebrated globally. His passion and keen focus on a result that has game changing capacity for repair to the spinal cord is unquestionable. What is so exciting is that with his team's expertise and dedication, we are closer than ever to making a cure possible.

Perry Cross, Founder, Perry Cross Spinal Research Foundation

Professor Emeritus Alan Mackay-Sim led a world first Phase I clinical trial at the Griffith Institute for Drug Discovery that demonstrated that the therapy is safe for use in humans.



Invest in a future cure

You can help create a future where spinal cord injury can be cured through contributing to this critical research.

You can help create a future where spinal cord injury can be cured through contributing to this critical research.

Opportunities to be part of world class ground breaking research that has the potential to cure paralysis doesn't happen every day. This unique project has the potential to open the door to enabling people who are confined to wheelchairs and unable to move, to use their arms and legs once again.

It has the potential to lead to long term recovery and ultimately independence for people who are paralysed by spinal cord injury.

When actor Christopher Reeve was injured the world watched and dreamt this time would come. He inspired hope. We invite you to join us in moving towards this reality.

Your consideration of a gift to a future cure for paralysis is deeply appreciated.

A total of \$30 million* is required to enable, plan and deliver a phase I/IIa clinical trial for our spinal injury cellular therapy.

Please support the Perry Cross Spinal Research Foundation and Griffith University to raise much needed funding to provide certainty and ensure key researchers are retained to work on the research.

We look forward to the opportunity to talk to you more about this important research, in particular to explain:

- Funding priorities.
- How you can tailor your support or charitable donation^{*} to meet your aims and personal circumstances and maximise your taxation benefits
- How we plan to maximise the impact of your contribution.

We would be delighted to show you around the research facilities, introduce you to the head researchers, answer any questions you may have and discuss how we can suitably honour your foresight.

* PCSRF has Deductible Gift Recipient status

About the Foundation

The Perry Cross Spinal Research Foundation aims to facilitate, collaborate and initiate the connections and research required to find a cure for paralysis. The organisation is driven by a commitment to its vision and mission and guided by its values.

Our vision

Cure for paralysis for all

Our mission

To facilitate and provide world class research and support into finding a cure and living with paralysis

Our values

- Collaboration – We value collaboration with others to help achieve the vision
- Ambition – We embrace ambition to help drive outcomes and value for our stakeholders
- Awareness – We value increasing awareness about all aspects of paralysis and our work for a cure

The Perry Cross Spinal Research Foundation was established in 2010, 16 years after a devastating rugby union accident on the grounds of Ballymore in Queensland rendered Perry a C2 quadriplegic, unable to move from the neck down and unable to breathe without a mechanical ventilator attached to his electric wheelchair.

In spite of his injury, over the following two decades Perry has lived an extraordinary life, most notably in establishing the Perry Cross Spinal Research Foundation (PCSRF). PCSRF has one clear vision: to find a cure for paralysis.

The discovery of a cure is something that Perry Cross firmly believes will happen. It's just a matter of when.



About the Foundation

Astute leadership

Perry Cross is the visionary and Founder and Executive President of the Perry Cross Spinal Research Foundation. In his position as Executive President, Perry delivers leadership for the organisation and to audiences around the world with a goal of uniting the sector to find a cure for paralysis, fast. It is a complex puzzle to solve and Perry does not work alone.

The Perry Cross Spinal Research Foundation is independently and voluntarily chaired by Mr Tom Ray of the Ray Group and fellow directors from a broad range of professional sectors who proactively seek to fulfil the organisation's mission and vision.

The Board of Directors

Mr Perry Cross (President)
Mr Tom Ray (Chairman)
Dr Brent McMonagle (Scientific Director)
Mr Daniel Marino
Mr Adam Twemlow
Mr Marcus Dore
Mr Brett Walker
Mr George Moskos
Mr Ryan Holsheimer
Mr Adam Bennett-Smith

Dr Brent McMonagle heads up the Foundation's Scientific Advisory Board and reviews currently funded research projects and new applications and provides advice to the Board of Directors.

Scientific Advisory Board

Dr Brent McMonagle
Dr Ellison Stephenson
Dr Dinesh Palipana
Dr Chris Vertullo
Mr Martin Codyre
Professor Wise Young

Executive team

Mr Perry Cross, Executive President
Mrs Melissa Brown, Foundation Manager
Mrs Tara Marais, Event Manager





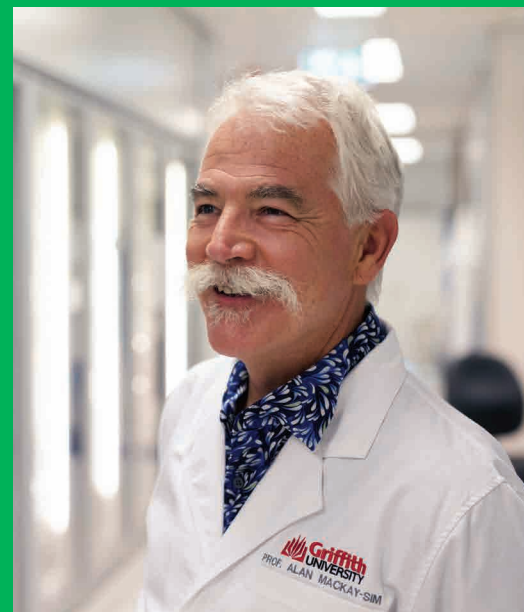
Our journey

Perry Cross Spinal Research Foundation is working alongside Griffith University to develop a cure for paralysis for all. It is about making the impossible, possible. Now, you can be an integral part of this evidence-based journey that has the end game in sight. You have the opportunity to join us in the promise of a future where paralysis can be cured. It is now a question of when, not if. Be part of a solution to a problem with a devastating impact on thousands of lives in Australia and globally. Together, we can make good on our promise to the world.



**The Honourable Quentin Bryce
AD CVO, Former Governor
General of the Commonwealth
of Australia Patron, Perry
Cross Spinal Research
Foundation**

*'Each one of us can make
a difference and together
we will find a cure'*



**Professor Emeritus
Alan Mackay-Sim**

*'This is the team to make
it happen. They have the
knowledge and skills, it's
just a matter of funds'*



**Alex McKinnon, Newcastle
Knights C7 Quadriplegic**

*'Guys like me want this
to happen. We can't
wait. Your support has
the capacity to change
my life and thousands
of others like me'*



**Perry Cross, PCSRF
Founder & President
C2 ventilated Quadriplegic**

*'It's time... let's make
the impossible,
possible together'*



Perry Cross
Spinal Research
Foundation

To Cure Paralysis For All

Thank you for your visionary thinking.

Perry Cross Spinal Research Foundation values all contributions. You can be part of this journey towards a cure for paralysis in many valuable ways. Talk to us about how to get involved.

Contact

Melissa Brown
Foundation Manager
M: 0457 277 579
E: melissa@pcsr.org.au

MENZIES
HEALTH INSTITUTE
QUEENSLAND



Griffith UNIVERSITY
Griffith Institute for Drug Discovery
Queensland, Australia



Griffith
UNIVERSITY
Queensland, Australia

pcsr.org.au

© 2018 PCSRF and Griffith University

PCSRF uses paper from responsible sources

