

2015 Stem Cell Summit

Summit Summary

Dates: 7th – 9th November 2015

Location: Cairns, Australia

Attendees

Prof Iona Novak	Cerebral Palsy Alliance	Chair
Prof Nadia Badawi	Cerebral Palsy Alliance	Neonatologist
Prof Alan Trounson		Stem Cell Biologist
Prof Euan Wallace	Monash University	Obstetrician
A/Prof Michael Fahey	Monash University	Geneticist & Neurologist
Prof Donna Ferriero	UCSF	Child Neurologist
A/Prof Ali Fatemi	Johns Hopkins	Geneticist & Neurologist
Prof Evan Snyder	Sanford Burnham Prebys Medical Discovery Institute	Neonatologist & Stem Cell Biologist
A/Prof Karen Walker	Cerebral Palsy Alliance	Neonatal Nurse
Prof Graham Jenkin	Monash University	Stem Cell Biologist
A/Prof Suzie Miller	Monash University	Stem Cell Biologist

Background

In a Delphi survey of people with cerebral palsy and parent's research priorities, conducted by Cerebral Palsy Alliance, it was discovered that families 2nd highest research priority after prevention of cerebral palsy was answering the question: Can stem cells have a therapeutic effect for cerebral palsy? (McIntyre, Novak & Cusick, 2010).

In Cairns in November 2015, IMPACT for CP and CPA hosted a stem cell summit which brought together some of the world experts in neural stem cell research.

The primary purpose of the summit was to bring leading researchers in the field of Stem Cell Research together to identify knowledge gaps and devise research to facilitate breakthroughs in cerebral palsy stem cell research to help answer these families questions. We also sought the promotion of collaborative research and the development of core sets of outcome measures for use in clinical trials.

Aims

The aims were to:

- Review the state of the evidence regarding the use of stem cells in cerebral palsy research and make recommendations for translation into clinical practice
 - To plan future neural stem cell trials in cerebral palsy
 - Explore options for future studies using other cell lines
 - Devise research protocols for the next wave of neural stem cell studies
 - Define a research agenda for the next wave of stem cell trials with a recommended core set of measures and common data elements
- Outcomes: From this summit three studies were agreed by the group, the protocols are currently being finalised and funding being sourced.
- To determine safe upper dose of neural stem cells in the HIE sheep model.
 - Phase 1 Safety Study of Neural Stem Cell Intervention for Infants with Hypoxic Ischaemic Encephalopathy (HIE)
 - Randomized, multi-center, double-blind, placebo-controlled, two-arm parallel group trial of neural stem cells and rehabilitation for improving the motor and cognitive skills of children with cerebral palsy following white matter brain injury