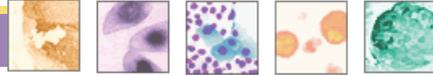




Newsletter

NSW Stem Cell Network

March 2009



In this issue:

- iPSC Presentations
- The Global Politics of hESC Science
- Regenerative Medicine Workshop
- hESC Research Get the Green Light in the US
- Mesoblast Osteoarthritis Stem Cell Trial

Induced Pluripotent Stem Cell Presentations

By popular demand the theme of the 12th Stem Cell Workshop hosted by the NSW Stem Cell Network is Induced Pluripotent Stem Cells (iPSCs). Although the field is young, there are a number of Australian researchers who have turned their attention to iPSCs, most of which will be gathered in Sydney to talk about their different approaches, as well as results, on 4 August. The event program will be posted on the Events page of the NSW Stem Cell Network website.

Meanwhile, in a flying visit through the Asia-Pacific region in March/April, Dr Clive Glover of StemCell

Technologies has so far given a version of his Biomaterials Asia Conference presentation at the Prince of Wales Hospital. The message of the talk was the pressing need for standardisation in generation and characterisation of human pluripotent stem cells. Dr Glover gave an overview of the issues and outlined his own and others' efforts towards their solution, including feeder-free culture and methods for embryonic body generation.

Dr Glover, who previously worked with Dr Connie Eaves at the Uni-

versity of British Columbia will be lecturing at a training course on pluripotent stem cell culture at



Dr Clive Glover

the Australian Stem Cell Centre in March before heading off to Singapore for Biomaterials Asia.

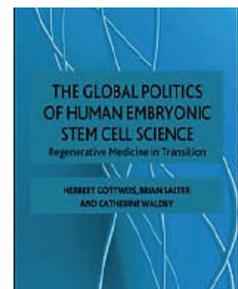
The Global Politics of hESC Science

Regenerative medicine has excited governments and industry with the possibility of economic and social ascendance for nations at the forefront of this research. However, the need to incorporate bioethical arguments into national regulatory policy results in very different national research spaces. The jostling and juggling of priorities in the struggle for national advantage in a global economy is traced by Sydney University's A/Prof

Catherine Waldby, one of three researchers including Herbert Gottweis and Brian Salter who conducted wide ranging interviews and examined extensive source material for their book *The Global Politics of Human Embryonic Stem Cell Science: Regenerative Medicine in Transition*.

"Today's governments are under intense competitive pressure to fund and develop attractive national environments for embryonic stem cell science", accord-

ing to the authors. Their study explores the new bioethical spaces that have developed in order to steer global arguments for and against stem cell research towards active compromise.



Contact

Nola Camden | Manager
Bernie Tuch | Director
NSW Stem Cell Network

P: 02 9382 4856
F: 02 9382 4826
stemcellinfo@stemcellnetwork.org.au

Events for the Diary:

Event Date: 15 April 09
Regenerative Medicine: the Interface of Biology and Engineering
SYDNEY
www.stemcellnetwork.org.au

Event Date: 21-22 May 09
Mater Medical Research Institute Stem Cell Symposium: Stem Cells and Regenerative Medicine
BRISBANE
www.stemcellnetwork.org.au

Event Date: 8-11 July 09
7th Annual ISSCR meeting
BARCELONA
www.isscr.org

Event Date: 4 August 09
13 Stem Cell Workshop: Induced Pluripotent Stem Cells
SYDNEY
www.stemcellnetwork.org.au

Event Date: 1 October 09
1st Regenerative Medicine Symposium at USYD
SYDNEY
www.stemcellnetwork.org.au

Event Date: 7 December 09
3rd Stem Cell Symposium at UNSW
SYDNEY
www.stemcellnetwork.org.au

Regenerative Medicine Workshops

Columbia University's Prof Jeremy Mao will be in Sydney for *Regenerative Medicine: the Interface of Biology and Engineering*, a half day workshop at Sydney University on April 15.

Prof Mao's Laboratory at the Columbia University Medical Centre focuses on devising innovative biomaterials for tissue engineering applications as well as understanding bone and cartilage development and

the functions of nano-scale cell structures. Dr Mao's recent work in mice has shown that co-transplanted hematopoietic and mesenchymal stem / progenitor cells promotes vascularisation in bone and other tissues, allowing tissues to regenerate more rapidly than when either stem cell type is used alone.

Other speakers in this workshop will spotlight the ways in which cutting edge bio-

materials are being used to create structures that enhance cell development and health, as well as providing deeper understanding of cell functions.

The 1st Regenerative Medicine Symposium at Sydney University is being planned for October. This event will showcase the range of stem cell research being undertaken at the University and its affiliated institutions.

hESC Research Gets the Green Light in the US

A collective sigh of relief from the human embryonic stem cell (hESC) research community can almost be felt as the long-awaited announcement by US President Obama revealed that federal funding will be permitted for hESC research into stem cell lines created after August 2001. This reversal of an eight year policy roadblock erected by the Bush administration sends a message that should revitalise hESC research in the US and worldwide.

This news follows swiftly on the heels of the announce-

ment late last January by US biotech company Geron Corporation that they had received clearance from the US Food and Drug Administration (FDA) for a clinical trial of human embryonic stem cell based therapy for patients with acute spinal cord injury. The company is expected to start a Phase 1 safety trial of its product GRNOPC1 by the middle of the year.

"It is pleasing to see that the first clinical trial with cells derived from human embryonic stem cells is about to start," Prof Bernie Tuch, Director of the NSW Stem

Cell Network said, "The trial was foreshadowed by Geron some years ago, and there have been lengthy delays in its commencement. We trust that the information obtained from this trial will lay the foundation for further clinical trials with cells derived from such pluripotent cells. In time, we expect the usefulness of cells derived from this source to be compared with that from multipotent cells for various medical conditions to determine an optimal therapy."

Mesoblast's Osteoarthritis Stem Cell Trial

Melbourne based stem cell company, Mesoblast is conducting the world's first human trial of an adult stem cell treatment for the prevention of knee osteoarthritis after an acute traumatic knee injury. The Phase 2 clinical trial of Mesoblast's allogenic (or "off-the-shelf") stem cell

product RepliCart aims to establish whether it can slow or prevent the development of knee osteoarthritis after reconstruction of a ruptured ligament.

"Anterior Cruciate Ligament (ACL) injury is very common in our young active sporting population," said the trial's

lead investigator, Dr Andrew Shimmin, "and unfortunately the injury is associated with the early development of arthritis despite modern reconstructive procedures." A stem cell treatment, injected into the knee joint may change this by preventing cartilage loss and knee osteoarthritis.