

Issue 6, Mar 2005

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Tissue Engineering Expert is coming to town...

Having recently moved from the world class Massachusetts Institute of Technology in the USA to Israel, Dr Shulamit Levenberg will be visiting Australia in early April this year to share her expertise in tissue engineering with resident stem cell scientists and tissue engineers.

Dr Levenberg's team developed a new approach to creating three dimensional samples of human tissue which could one day be used in therapeutic application and replacement organs. By seeding human embryonic stem cells onto a biodegradable polymer scaffold and adding specific growth factors and chemical cues, in the lab, her researchers were able

to coax the stem cells to form tissues, characteristic of cartilage, liver, nerves and blood vessel.

What's promising is that the engineered tissues also thrived when transplanted into living animals. Levenberg's study published in *the Proceedings of the National Academy of Science* showed for the first time that engineered blood vessels grew to become part of the host's blood vessels.

The therapeutic application is clear. One day, blood vessels derived from stem cells could be used to replace vessels in the body damaged due to a heart attack or other related disease.

Dr Shulamit Levenberg is the keynote speaker at the 6th Stem Cell Workshop, 12.30–6.00pm Wed 6 April at the Australia Technology Park in Sydney and will be in Melbourne later that week. The Australian Stem Cell Centre and NSW Ministry for Science & Medical Research have sponsored her visit to Australia.

[REGISTER NOW for the 6th STEM CELL WORKSHOP](#)

Dr Shulamit Levenberg



Picking out the best in adult stem cells....

Deep inside your nose are adult stem cells that have the potential to grow into almost any cell type when picked and plated on a cell culture dish with specific chemicals and growth factors. That's what a research team based at Griffith University in Queensland in collaboration with others have shown in a recent publication of [Developmental Dynamics](#). According to one of the principal researchers, Dr Wayne Murrell, the adult stem cells isolated from the olfactory mucosa were coaxed into new nerve cells, glial cells, liver cells, heart cells and muscle cells. Each of these cell types could have therapeutic

application down the track.

It's as simple as picking your nose. Murrell points out that the olfactory mucosa stem cells are very accessible neural stem cells compared to other neural stem cells located in your brain. He explains that these stem cells also have no risk of being rejected by the patient because they are the patient's own cells. This means there is no need for immune suppressing drugs or therapeutic cloning.

Dr Wayne Murrell will be presenting in Sydney this week. He will be talking about the potential of using

this adult stem cell therapeutic approach to treat Motor Neurone Disease.

MND Research - Hope for the Future is on 2.30- 5.30 pm Wed 30th March. For further details contact: janetn@mndnsw.asn.au or go to http://mndnsw.asn.au/htmdocs/press_room.htm



Dr Wayne Murrell

Events for the Diary:

6 April 2005 Tissue Engineering and the Business of Stem Cell 6th Stem Cell Workshop.

www.nswstemcell.edu.au

30 March 2005 MND Research - Hope for the Future:

janetn@mndnsw.asn.au

or go to

<http://mndnsw.asn.au/>

[htmdocs/](http://mndnsw.asn.au/htmdocs/)

[press_room.htm](http://mndnsw.asn.au/press_room.htm)

6 May 2005 *Recent advances in stem cell science and therapies* Sci-

ence at the Shine Dome

[http://](http://www.science.org.au/sats2005/)

[www.science.org.au/](http://www.science.org.au/sats2005/)

[sats2005/](http://www.science.org.au/sats2005/symposium.htm)

[symposium.htm](http://www.science.org.au/sats2005/symposium.htm)

10 May 2005 Emerging Issues in Stem Cell Therapy, National Convention Centre, Canberra.

[Download flyer](#). Contact:

[ellen.christou@nhmrc.](mailto:ellen.christou@nhmrc.gov.au)

[gov.au](mailto:ellen.christou@nhmrc.gov.au) or phone (02)

6289 9409

18 & 19 August 2005

Stem Cells – Mean Business, Stem Cell Hypothetical Debate:

Sydney and Melbourne, held during National Science Week.

CAMRA clicks on again - to the stem cell debate ...

In light of the forthcoming review of stem cell legislation, the patient advocacy group, CAMRA (Coalition for the Advancement of Medical Research in Australia) is gathering forces to lobby government on the vital need to maintain research into both embryonic and adult stem cells. "The Coalition is inviting new members to join in their efforts" said CAMRA spokesperson Joanna Knott, who has a spinal cord injury caused by a serious skiing accident.

Set up in 2002 in response to the national stem cell review, CAMRA members include JDRC, SpinalCure Australia, & the Motor Neuron Disease Association.

In order to alleviate suffering and potentially cure diseases, the Coalition believes that research should now include "Patient Specific Stem Cell" research (nuclear transferred cells) as in the UK.

"We can't afford to fall behind other countries with pioneering research or we will be disadvantaged in our

ability to help Australians," said Knott

Contact CAMRA Tel: 02 9660 1040 or CAMRA@spinalcure.org.au

Go to: <http://www.camra.org.au>

Joanna Knott

**Research Opportunities - Senior Position Available**

The Diabetes Transplant Unit (DTU) is seeking a **Scientific Officer** with experience in tissue culture and genetic manipulation of cells to introduce pancreatic genes into immortalized human liver cells. The outcome of the 12 month appointment is designed to test the suitability of the cells to be transdifferentiated for possible use as a

therapy for diabetes. A higher degree is important.

The DTU, located at the Prince of Wales Hospital, is a cutting edge research group creating cell therapies for diabetes, especially with both embryonic and non-embryonic stem cells. There are 20 personnel including senior scien-

tists, post-docs, higher degree students, Honours students, technical and administrative support.

For further information, please contact the Laboratory Manager, Ms Sarah Walke on 9382 4840 or s.walke@unsw.edu.au or Director of the Unit Professor Bernie Tuch on 9382 4840 or

NSW Stem Cell Network launches new logo and website

After three years of successful Networking and organizing educational Workshops, Seminars and Courses, the NSW Stem Cell Network has now established its official logo and website. The logo is a

stem cell in the centre of a high tech flower. The flower petals represent the range of professional groups that are linked together through a common interest in stem cells. Thanks to the members of the Network that

contributed input to the design of the logo.

The new website will be launched at the 6th Stem Cell Workshop, April 6 2005.