



## Media Release

---

25 June 2010

### Fertility through stem cells – on the horizon

One of Australia's leading reproductive scientists has urged the community and policy makers to ponder the implications of assisted reproduction, and the pace of scientific developments, which could lead to novel methods to achieve pregnancy in the near future.

Professor Jock Findlay AO predicted that, within 10 to 15 years, a couple could have a child without needing a donor to contribute sperm or an egg because these could be developed from stem cells.

Professor Findlay made the comments in his speech titled, *Reproductive Horizons*, when he delivered the annual Louis Waller Lecture\* in Melbourne on Thursday 24 June as a guest of the Victorian Assisted Reproductive Treatment Authority. He spoke in his role as a Senior Principal Research Fellow at Prince Henry's Institute of Medical Research; he is also Director of Research at the Royal Women's Hospital.

"If a man was infertile, he could provide stem-like cells to be coaxed into sperm, relinquishing the need for donor treatment. In the case of a lesbian couple, one woman could provide the egg and her female partner could provide stem-like cells, which could be 'coaxed' into a sperm," Professor Findlay said.

He said current research has shown that mouse embryonic stem cells can be developed into sperm and eggs. The sperm are fertile and produce offspring. The eggs, so far, have not been fertilized successfully, but Professor Findlay said he had no doubt that this barrier will be overcome.

"It is now theoretically possible to produce sperm and eggs from embryonic stem cells, and to use those gametes to produce a pregnancy. It could be a form of cloning which is currently banned in Australia. However, this method requires the production of a blastocyst, by assisted reproductive technology, and its destruction, in order to harvest the embryonic stem cells, which has obvious ethical implications. But recent research now offers a way for men and women to produce embryonic-like stem cells, without having to produce and destroy a blastocyst."

Professor Findlay said a non-reproductive cell of the body, like a skin cell, can be manipulated to revert to a more 'primitive' form that can then be induced to become brain, muscle or liver cells, for example. He said neither sperm nor eggs have been produced in this way, but scientists are working to find a way.

"While this method of achieving pregnancy is still a long way away, requiring a lot of research and clinical trials, it is on the horizon and requires public debate," he said.

...2



the women's  
the royal women's hospital

“It is very important that we as a community are aware of these possibilities and the implications for fertility, for society and for the laws that govern our way of life,” he said in the lecture titled, Reproductive Horizons.

\*The annual Louis Waller Lecture was established by the Victorian Assisted Reproductive Treatment Authority (formerly the Infertility Treatment Authority) to acknowledge the significant contribution Emeritus Professor Louis Waller made to the development of regulatory regimes in Assisted Reproductive Technology.

**For more information or interview requests, contact Robyn Anns, Media Manager, the Royal Women's Hospital, on 03 8345 2953, 0419 128 400.**