

MEDIA RELEASE

Embargo: Tuesday, July 19, 2005; 11am

Acting Director:
Professor Adrian Walker

Centre Directors:
Professor Paul Hertzog
Professor Stephen Holdsworth
Dr Michael Holland
Professor Martin Pera
Professor Gail Risbridger
Associate Professor Peter Rogers

AUSTRALIAN DISCOVERY OF ADULT STEM CELLS IN THE UTERUS COULD RESTORE YOUR PELVIC FLOOR & MORE

Monash Institute of Medical Research (MIMR) senior scientist Dr Caroline Gargett's discovery of adult stem cells in the uterus that can be grown into bone, muscle, fat and cartilage, has been hailed as a major medical and scientific development by international reproduction experts.

Taking out a major award at the recent European Society for Human Reproduction and Embryology (ESHRE) conference in Copenhagen, one of the most prestigious meetings in this field, Dr Gargett explained how two types of adult stem cells have been extracted from endometrial tissue in the uterus.

"While adult stems cells have been found in other parts of the body, no-one has ever identified them in the uterus before," said Dr Gargett, a senior scientist in the Centre for Women's Health Research at MIMR. "Not only will this assist with understanding how several diseases of the uterus develop, but could also further general studies into adult stem cells."

"The discovery of mesenchymal stem cells is particularly significant as it is from this type of stem cell that bone, muscle, fat and cartilage are formed," she said. "We can now grow these tissues in the lab and are investigating avenues to apply the technology."

The initial focus of this team at MIMR is on using these stem cells to aid the repair of pelvic floor prolapse.

"If we could offer women a bioengineered ligament that is made from their own stem cells, the long term quality of life for the thousands of women who suffered from this problem could be greatly enhanced," she said.

Monash Medical Centre Urogynaecologist Dr Anne Rosamilia agrees that such a development could be significant.

"About one in ten women require treatment for uterine prolapse, usually in their 50s and older, although it can happen to younger women. The pelvic floor is weakened during pregnancy and childbirth and as a woman ages the strength of these muscles can deteriorate further," Dr Rosamilia explained.

"At present we use surgery to repair prolapsed uterus, which is a form of hernia," she said. However, in almost 30% of women the prolapse can reoccur. In order to reduce this chance of a recurrence a reinforcement material, often a synthetic mesh is applied. . While this technique can be successful, complications also frequently arise due to erosion or rejection of the foreign matter. A firm natural tissue would certainly be advantageous."

The development of this new treatment for pelvic floor problems is in its early stages, however the significance of this Australian discovery is being widely acknowledged around the world.

For further information contact,
Tracy Hocking, Public Relations, Monash Institute of Medical Research
Phone 0421 061166