

# CENTRE FOR STEM CELL RESEARCH

## Quarterly Networking Forum

Thursday 11<sup>th</sup> June 2009 at 4pm  
Florey Lecture Theatre, Medical School, The University of Adelaide

## “Advances in generating patient specific pluripotent stem cells”



**Dr Paul J Verma PhD**  
Program Leader- Stem Cells  
Monash Institute of Medical Research



Paul obtained his PhD at The University of Adelaide and subsequently joined BresaGen Ltd, Adelaide in 1995, working on transgenesis and nuclear transfer aimed at developing pigs with organs suitable for xeno-transplantation. He later joined the Luminis-BresaGen Cell Therapy Program, where he established a research program on cell reprogramming.

In 2001 he moved to the Monash Institute of Medical Research in 2001, where he currently heads the stem cell program. His research aims to produce autologous (patient-specific) stem cells, using cell reprogramming techniques such as somatic cell nuclear transfer and iPS cell technology that are clinically relevant and transplantable. He has edited a book on transgenesis, cloning and stem cells, and is principal inventor on eight granted and provisional patents in the field of cell reprogramming and stem cells. He serves on the NHMRCs, Cellular Therapies Advisory Committee (CTAC), on the editorial board of Animal Reproduction Science and is a visiting Professor at the National Centre for Biological Sciences, Bangalore, India.

*“Pluripotent embryonic stem cells (ESCs) offer a promising resource to generate a wide range of tissue types for the treatment of a variety of diseases. Immune rejection remains an anticipated obstacle for the use of ESCs for therapy. My talk will briefly outline the concepts of cell therapy, highlighting the anticipated issues of immuno-rejection of transplanted cells. One method for circumventing this is to reprogram the nucleus of a patient’s own somatic cell, thus returning it to a state of pluripotency. In vitro approaches to produce patient specific cells by reprogramming of somatic cells with and without the use of somatic cell nuclear transfer (SCNT) will be discussed”*