

Report to from Canada
April 2009

The Assisted Human Reproduction Act

The *Assisted Human Reproduction Act* received Royal Assent on March 29th 2004. The *Act* prohibits activities including cloning (both therapeutic and reproductive), germ line genetic alteration of human embryos, and creation of chimeras with human embryos. In addition, certain activities (including manipulation of human embryos) require a licence issued by the Assisted Human Reproduction Agency. Health Canada will continue the development of regulations over the course of the next few years.

On June 19, 2008, the Quebec Court of Appeal rendered its opinion that provisions of the *Act* are unconstitutional because they are outside federal powers. The Government of Canada has brought an appeal before the Supreme Court of Canada to address questions regarding the constitutionality of the *Act*. In the meantime, the *Act* remains in effect. Health Canada will not pre-publish additional regulations until the question before the Court has been resolved.

Given the overlapping mandates of the Agency and SCOC in the area of research to derive stem cells from human embryos, CIHR will work with Health Canada and the Agency to determine the future role of SCOC in this area.

Major Achievements in Canadian Research

Dr. Andras Nagy, Senior Investigator at Toronto's Samuel Lunenfeld Research Institute of Mount Sinai Hospital, discovered a new method to create pluripotent stem cells without disrupting healthy genes. The method uses a novel wrapping procedure to deliver specific genes to reprogram cells into stem cells.

Dr. Mick Bhatia, scientific director at Hamilton's McMaster Stem Cell and Cancer Research Institute, and his team have demonstrated - for the first time - the difference between normal stem cells and cancer stem cells in humans.

A study, led by Prof. Timothy Caulfield of the Health Law Institute at the University of Alberta, examined the claims and published evidence of 19 online clinics, and found that the websites generally portrayed their therapies as routine, safe and effective, but could not substantiate their claims through published evidence. The authors conclude that advertising by online stem cell clinics is overoptimistic and that patients should be wary of claims made by these clinics.

A team from the Institute for Research in Immunology and Cancer at Université de Montréal has succeeded in producing a large quantity of laboratory stem cells from a small number of blood stem cells obtained from bone marrow.