

**A comparative analysis of the medico-legal and ethical issues
associated with embryonic stem cell research in Australia and
Malaysia**

By

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ABSTRACT

This thesis evaluates the regulatory framework governing human embryonic stem cell (HESC) research in Malaysia and recommends the adoption of a more effective regulatory model, which is designed to regulate and promote ethical HESC research. The research, which involves the use of donated excess in vitro fertilisation (IVF) embryos and embryos created through the cloning technology, somatic cell nuclear transfer, aims at a better understanding of diseases and could lead to improved medical treatments including cell based therapies, genetically matched to the patient.

This research is controversial as extractions of embryonic stem cells involve the destruction of human embryos, which raises ethical issues. For HESC research to proceed, it is important that an effective regulatory framework that promotes ethical conduct, allays public concerns and ensures transparency and accountability is established. This research argues that the existing regulatory framework in Malaysia needs revision taking into account that scientists generally prefer less regulation to enjoy the scientific freedom to conduct research.

The thesis investigates challenges that exist in the regulation of new technologies with focus on unique challenges for Malaysian regulators. It considers the difficulties in regulating an emerging technology in a multi-religious society with different religions adopting differing perspectives on the research. As a comparison, the thesis evaluates Australia's regulatory framework which has been operating since the early regulation of assisted reproductive technique (ART) in the 1980s when world's first ART legislation was enacted in the Australian state of Victoria in 1984. The thesis evaluates the applicability of the Australian model in the context of a different social environment and concludes with the recommendation of the adoption of an effective regulatory framework. The proposed model is designed to regulate and facilitate ethical HESC research in Malaysia that addresses the regulatory challenges and has features of transparency and accountability.

PREFACE

This thesis is on an evolving and dynamic area with a number of scientific developments as well as legal developments occurring around the world. It takes into consideration the latest scientific and legal developments up to 31 December 2011.

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