ASHBi
DISTINGUISHED SEMINAR

Modelling early human development using stem cells:
Exploring regulatory considerations and anticipating societal response

日本語同時通訳 SIMULTANEOUS INTERPRETATION

Lecturer: **Megan Munsie PhD**

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Date & Time: 2022. 12.5 MON 9:30 – 11:00

Venue: Zoom Online
Register via the right QR code

Eligibility: Academic Researchers and Students

Recent reports of the use of pluripotent stem cells to create 3D models of early embryonic development have sparked concern amongst some in the community, and reignited discussions around how this area of research should be regulated. Many jurisdictions across the globe already have clear regulations in place that define how human embryos should be used in research, including how and from where they can be obtained, and considerations around experimental design such as the length of time an embryo should be maintained in culture. Whether existing human embryo research laws are, or should be, relevant to experiments designed to model early human development *in vitro* has become increasingly topical as scientific capability advances.

In this presentation I will share a 2021 interpretation of Australian law that effectively equates embryo models made from reprogrammed human somatic cells as equivalent to a sperm-egg embryo[1], and contrast this ruling with regulations in other jurisdictions and the recently revised recommendations on this topic by the International Society for Stem Cell Research[2].

This is an area of stem cell research that is likely to provide invaluable insights into the earliest stages of human development, the so-called 'black-box' stage of embryogenesis that has been difficult to study until now. While such knowledge may be transformative, for some in the community this remains an area of research that if allowed, should demand the highest level of scrutiny. There is a clear need for a reflexive, anticipatory and deliberative approach to ethical and regulatory considerations raised[1] and I welcome the opportunity to explore how to implement such an approach during this lecture.

1. Ankeny R et al. *American Journal of Bioethics* doi.org/10.1080/15265161.2021.1974976
2. Clark A et al. (2021) *Stem Cell Reports* doi.org/10.1016/j.stemcr.2021.05.008

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