

Preface to the symposium on 'Non-Human Primate ART to ES Cells'

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The principal objectives of this symposium were: (1) to illustrate similarities among primates – humans and monkeys – with respect to their stem cell biology and technology; (2) to educate investigators studying rodent or human stem cells about the advantages of using non-human primate embryonic stem (ES) and 'adult' stem cells as models, both for basic science research and for transplantation studies; and (3) to foster communication, exchange of information and awareness among embryologists and stem cell investigators about the problems and potential solutions in developing ES cell technology. To strengthen these interactions, the symposium was held immediately prior (7 January 2006) to the 32nd Annual Meeting of the International Embryo Transfer Society, which took place in Orlando, Florida.

We believe that the technology of assisted reproductive technologies is well established in non-human primates, which was made clear in a previous symposium held in Portland, Oregon in 2004 (Bavister 2004). This range of technical abilities can be used effectively to model development of ES cell technology, in particular for providing normal ES cells and for producing new primate cell lines without ethical concerns over destroying embryos. In addition, in several important respects, non-human primates are more suitable for developing ES cell technology than humans (Bavister

et al. 2005). This symposium brought together a range of topics that collectively illustrate and emphasise the important role of non-human primates in understanding ES cell biology and in technology development. It was hoped that this would encourage investigators to use non-human primate ES cells for building a bridge from experimental studies with non-human primates to new approaches and applications in treating human diseases. For comparison, several of the speakers also brought the audience up to date on advances with human ES cells.

The organisers of this symposium are grateful to Dr Dustie Johnson, Organon Pharmaceuticals USA, for generously providing us with a grant to help meet the costs of holding the event. We also thank all of the speakers for their contributions, and for those who transformed their talks into the manuscripts contained in this special issue.

References

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