

Using human embryos in research

Scientific advances mean it may be possible to experiment on human embryos beyond the legal limit of 14 days. George Winter explores the debate around whether this limit should be extended.

In May 2016, a team of UK researchers described how they ‘show human embryos develop in medium supplemented with KnockOut Serum Replacement up to day 13. The experiment was stopped at this point because the internationally recognised ethical limit for human embryo culture is up to day 14 or to the first signs of the primitive streak’ (Shahbazi et al, 2016: 701). This was a major advance on 9 days, achieved by Carver et al (2003), and prompted debate as to whether the present 14-day limit should be extended.

When the Department of Health and Social Security (1984: 700–1) published the Warnock Report, it anticipated the feasibility of future advances, but emphasised that ‘such developments are well into the future, certainly beyond the time horizon within which this Inquiry feels it can predict.’ Well, the future is here, so it is reasonable in the current circumstances to question the Inquiry’s ‘recommendation... that the growing of a human embryo in vitro beyond fourteen days should be a criminal offence.’

This recommendation was enshrined in the Human Fertilisation and Embryology Act 1990. Hyun et al (2016), who are calling for the 14-day rule to be revisited, not only point out that there are at least 12 countries with the 14-day limit encoded in law, but also highlight the possibility that some may claim that the 14-day limit is an ethical tenet derived from biological facts, which ‘misconstrues the restriction’ (Hyun et al, 2016: 170). Rather, they contend, the intention in assigning the 14-day rule was not to define when a human

embryo acquired its moral status, but to create a ‘public-policy tool designed to carve out a space for scientific inquiry and simultaneously show respect for the diverse views on human embryo research.’

Today, in light of the paper by Shahbazi et al (2016) which he co-authored, we find Professor Simon Fishel at one end of the spectrum of diverse views on the 14-day rule. Fishel, also head of the CARE Fertility Group, told McKie (2016) that the benefits of an extension would be enormous: ‘Certain tumours, developmental abnormalities, miscarriage: there is a whole raft of issues in medical science that we could start to understand if we could carry out research on embryos that are up to 28 days old.’ For those at the other end of the spectrum, an important factor is that the 14th day marks the point at which the neural plate is formed and the individuality of the embryo established. But at which point is moral status conferred on the embryo? The traditional Roman Catholic view is that the embryo’s moral status is acquired at conception, while others might consider the capacity for suffering (around 20 weeks) or consciousness (around 30 weeks) as important factors to be weighed up. St John (2008) makes the point that although it is tempting to take the view that before the formation of the neural plate it is acceptable to experiment on and destroy an embryo without moral cost, this is not the case, given the arguments against the morally significant potential resting in the embryo. Nevertheless, ‘this is not in itself to say that such research should not proceed, but... it is not as guilt-free as the arguments discussed would suggest... some harm may still be identifiable and should be acknowledged’ (St John, 2008: 23).

And what of dignity? De Melo-Martín (2011: 40) contemplates this in relation to

human embryo experimentation, and finds it wanting. She focuses on two documents: the Council of Europe’s Convention for the Protection of Human Rights and Dignity of the Human Being, and its associated Additional Protocol, finding that ‘neither [document] gives a definition of human dignity.’ If human dignity cannot be defined then it is unclear whether a human embryo possesses it; and if it does, under which circumstances could it be violated?

It seems to me that, on balance, there are compelling arguments to consider extending the present 14-day limit. One important question is the extent to which we as a society are prepared to accept that such a step, as St John (2008) suggests, may not be entirely guilt-free. **BJM**

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