

Summary

This spring, Korean researchers announced that they had succeeded in obtaining stem cells from embryos produced by cloning. This involved introducing the nucleus of human skin cells into egg cells from which the nucleus had been removed. It is hoped that in the long term this method can be used to culture patient-specific cell material for autologous transplantation that might prove effective in the treatment of a wide range of complaints. At present, the research is still in its initial stages. However, this research and its possible applications are controversial. Firstly because human embryos are produced that will only be used as a source of stem cells. And secondly because (a large number of) human egg cells are required for the cloning procedure. The question is whether these can be obtained by morally acceptable means. While the discussion is still under way, research of this kind is forbidden in many countries, including the Netherlands.

Against this background, interest has recently arisen in the possibility of obtaining the same result (patient-specific pluripotent stem cells) without the necessity of producing human embryos or asking women to donate (mature) egg cells for this purpose. The ethically most attractive approach is the 'direct reprogramming' of body cells without the intermediate step of embryo production and without the need to use egg cells. This approach, however, seems to be the one that lies furthest in the future. Moreover, it may prove to be necessary to produce human embryos in the development of this approach too.

Many of the other 'embryo-saving' proposals presented in the literature are based on the assumption that non-viable embryos are not strictly speaking embryos at all, so that the harvesting of their contents does not raise any moral issues. It may be asked whether this is not an unduly facile approach to the problem. What is in fact the status of the non-viable embryo? It seems undesirable to incorporate an answer to this into the formal definition of an embryo. This is however precisely what is done in the current Dutch Embryos Act.

One of proposed ways of getting round the egg-cell problem is to culture the egg cells required from embryonic stem cells. This approach, however, still raises ethical issues when one considers that genetic material cultured from stem cells could also be used for reproductive purposes. This (still speculative) scenario might make it possible to provide better support for couples with fertility problems, but would in its turn represent a major challenge to our traditional ideas about the natural limits of reproduction and parenthood.

However, the primary policy context for this report is the impending evaluation of the Dutch Embryos Act and the discussion of the desirability of rescinding the (temporary) ban on the creation of embryos for other purposes than pregnancy. Far from making this discussion unnecessary, the quest for 'embryo-saving' sources of tissue-matched stem cells only underlines the fact that this discussion can no longer be postponed. The evaluation of the Act must also include consideration of what precisely is to be understood by the term 'embryo'.