

## Ethical issues in stem cell research and treatment

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The incredible promise of stem cell research to at minimum advance scientific understanding and perhaps ultimately to treat persons with devastating diseases gives moral force to efforts to conduct this research. However, stem cell research has been riddled with ethical questions, in part because the predominant methods being used to derive or attempt to derive human embryonic stem cells require destruction of the embryo. Nevertheless, the ethical debates surrounding human embryonic stem cell research have not been solely related to those associated with the embryo. For instance, the creation of chimeras in some stem cell research has elicited concerns. Oocyte harvesting, which is essential to the creation of human embryonic stem cells raises concerns related to safety of the donor. Other important ethical issues relate to informed consent of both donors of gametes and embryos as well as recipients of stem cells and stem cell products. Further, there has been some concern related to the commercialization of the process, justice, and the responsible conduct of research. In addressing the ethical issues associated with human embryonic stem cell research, it is important to note that they are being deliberated in a setting where scientific excitement is high, there are extraordinarily powerful arguments for access to investigational treatments, and the financial, moral and political stakes are great. In an attempt to minimize the ethical issues associated with human embryonic stem cell research so important research can proceed, professional groups have issued guidelines for the ethical conduct of this research and its oversight. Systematic data regarding these efforts should be collected in order to enhance the likelihood that they meet their ethical goals.

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