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The Case for Adult Stem Cell Research



by Wolfgang Lillge, M.D.

The question of stem cells is currently the dominant subject in the debate over biotechnology and human genetics: Should we use embryonic stem cells or adult stem cells for future medical therapies? Embryonic stem cells are taken from a developing embryo at the blastocyst stage, destroying the embryo, a developing human life. Adult stem cells, on the other hand, are found in all tissues of the growing human being and, according to latest reports, also have the potential to transform themselves into practically all other cell types, or revert to being stem cells with greater reproductive capacity. Embryonic stem cells have not yet been used for even one therapy, while adult stem cells have already been successfully used in numerous patients, including for cardiac infarction (death of some of the heart tissue).

Stem cells are of wide interest for medicine, because they have the potential, under suitable conditions, to develop into almost all of the different types of cells. They should therefore be able to repair damaged or defective tissues (for example, destroyed insulin-producing cells in the pancreas). Many of the so-called degenerative diseases, for which there are as yet no effective therapies, could then be alleviated or healed.

It is remarkable that in the debate-often carried on with little competence-the potential of embryonic stem cells is exaggerated in a one-sided way, while important moral questions and issues of research strategy are passed over in silence. Generally, advocates of research with embryonic stem cells use as their main argument that such research will enable us to cure all of the diseases that are incurable today-cancer, AIDS, Alzheimers, multiple sclerosis, and so forth. Faced with such a prospect, it is supposed to be "acceptable" to "overlook" a few moral problems.

On closer inspection, however, the much extolled vision of the future turns out to be a case of completely empty promises: Given the elementary state of research today, it is by no means yet foreseeable, whether even one of the hoped-for treatments can be realized. Basically, such promised cures are a deliberate deception, for behind the mirage of a coming medical wonderland, promoted by interested parties, completely other research objectives will be pursued that are to be kept out of public discussion as much as possible.

Perfect candor should rule in stem cell research. This requires that the scientist himself clearly establish the moral

limits of his activity and declare what the consequences of research with embryonic stem cells really are. In the process, no one can escape the fact that, should one wish to use embryonic stem cells for "therapeutic purposes," the very techniques will be developed that will also be used for the cloning of human beings, the making of human-animal hybrids, the manipulation of germ lines, and the like-thus for everything other than therapeutic purposes. Any coverup or hypocrisy in this matter will very quickly reflect upon the research as a whole.

From *The Case for Adult Stem Cell Research*

Courtesy of Wolfgang Lillge, M.D.