RECONSTRUCTIONIST RABBINICAL ASSOCIATION

RESOLUTION ON EDUCATIONAL AND POLITICAL SUPPORT FOR STEM CELL RESEARCH

ADOPTED AT RRA CONVENTION MARCH 15, 2005

Stem cell research is today's most promising avenue for medical research that may find treatment or cures for a wide range of conditions. These include Parkinson's and Alzheimer's diseases, ALS (Lou Gehrig's disease), MS (multiple sclerosis), spinal cord injury, and some forms of cancer and heart disease (both coronary disease and heart muscle failure). Stem cells are cells that have not yet differentiated completely into a specific type of cell. The research includes both the use of adult stem cells and donated human embryonic stem cells and ova for therapeutic cloning using somatic cell nuclear transfer therapy (SCNT).

SCNT involves the use of emptied donor ova to receive a complete set of chromosomes from one person that can develop into early embryonic forms (a blastocyst). The resulting cell line may be maintained in tissue culture, but it is uncertain whether the cells from this procedure could ever successfully develop into a human being, even if implanted in the uterus. This resolution does not endorse reproductive cloning or the creation of new embryos for the purpose of this research. Unfortunately, US Federal funding for such research has been severely hampered by an executive order from President Bush. This limits the research to the few cell lines already kept in culture on the date of the Executive Order. This means that potentially life-saving research has been seriously hampered and that future stem cell research will be conducted largely by commercial research programs, with use of the results restricted by patent.

Other movements within Judaism - Conservative, Reform, and Orthodox - have made statements or passed resolutions of public support for funding of stem cell research, easing of the existing restrictions on such research, and the development of regulations that will maintain ethical and open oversight. All agree that the Jewish value placed on the saving of a single life, the mitzvah of *pikuah nefesh*, is an important consideration. It takes precedence over concern for an embryo, which lacks the status of a living person, and is available because of an abortion or because it is about to be discarded by a fertility clinic.

Therefore, be it resolved that the Reconstructionist Rabbinical Association approves the following measures:

a. The RRA endorses both adult and embryonic stem cell research as long as new embryos are not created specifically for the purpose of research.
b. In recognition of its many potentially life-saving applications, the RRA urges substantial federal funding for both kinds of research; not limited to the original cell lines approved by NIH.

c. We call upon RRA rabbis to educate Reconstructionist congregations about the issue, and to support the donation for medical research of embryos that are about to be discarded by fertility clinics and of aborted fetuses.
d. We will publicize our stance on this issue by release of this resolution to general and Jewish news media, our congregations, and to local clergy associations.

Appendix I: Scientific Background

Stem cells are unspecialized cells that have not yet differentiated into mature types of cells. They can renew themselves for long periods through cell division either in the body or in laboratory tissue culture. They also can be stimulated to mature into specific types of cells, such as muscle cells, insulin-producing cells, or cells from the nervous system. Stem cells are found in embryos during their first few days of development, in fetal tissue, and much less frequently in adult tissues. Scientists work with both embryonic and adult types of stem cells, but embryonic stem cells retain the ability to develop into almost any tissue, while adult stem cells have partially differentiated and can develop into only a few types of cells. For example, stem cells found in the bone marrow can produce several kinds of blood cells, but not cells from other organs like the liver or nervous tissue. Embryonic stem cells are referred to as "pluripotent", meaning that the possibilities for their differentiation into different kinds of cells is unlimited, compared to adult stem cells, referred to as "multipotent". Embryonic stem cell research, therefore, is much more promising in terms of the use of these cells to substitute for many kinds of disease or damaged tissues in the human body. There exists a remarkable source of a wide array of embryonic cell lines: About 400,000 embryos are currently cryo-stored in the nation's fertility centers, and most of these embryos are destined to be discarded.

All mature human cells express tissue types on their surface – these proteins function like blood types. Although the wide variety of possible embryonic cell lines might make it possible to closely match tissue types of patients needing transplant of these cells for treatment and repair of injury or disease, it would still be both cumbersome and costly to try to find perfect tissue type matches for each potential patient. However, it is possible to empty out a donated human egg, and insert the patient's own two pairs of chromosomes, from the nucleus of one of the cells of the body (soma), which carry all his/her tissue types. The new cell is a "clone", and the early embryo that can develop is called a "clonate." But these are not human embryos, in terms of known potential for human life after implantation in a uterus. The clonate can develop into a tissue-compatible cell line for the patient, which then can even be treated genetically without risk that the genetic changes could be inherited. The procedure by which a "clonate" is developed is called "Somatic Cell Nuclear Transfer", or SCNT.

Unfortunately, this research has been limited and delayed by executive order from President Bush. There are even bills pending in Congress that propose a moratorium on such research, whether or not federally funded. Despite these inhibitions, early research in animal models has been promising. Just one example: rats that developed paralyzed hindquarters after infection with a virus, were at least partially cured and able to walk after treatment with embryonic stem cells grown under special laboratory conditions.

The information used here came in part from two Web sites: "Stem Cell Information-National Institute of Health" and "Stem Cell Education: Stem Cell Action".