AMERICAN NURSES ASSOCIATION

Position Statement
on

Stem Cell Research

Effective Date: January 10, 2007
Status: New Position Statement
Originated by: ANA Committee on Legislation
Adopted by: ANA Board of Directors

ANA Position: The American Nurses Association (ANA) supports the ethical use of stem cells for research and therapeutic purposes that impact health. Stem cell research is the foundation for cell-based therapies in which stem cells are induced to differentiate into the specific cell type required to repair damaged or destroyed cells or tissues. Stem cells have the ability to divide for indefinite periods in culture and they can give rise to specialized cells. Both embryonic and adult cells are used in this research. Embryonic cells have the potential to become a wide variety of specialized cell types. These undifferentiated cells are derived from a 5-day preimplantation embryo. Adult cells are undifferentiated cells found in a differentiated tissue. They can renew and differentiate (with certain limitations) to give rise to all the specialized cell types of the tissue from which they originated (National Institutes of Health (NIH), 2006).

ANA Supports:

- Federal funding of stem cell research.

  Funding for research without conditions that may unnecessarily impede its progress and achievements.

- Research conducted within strict scientific and ethical guidelines.

  Effective oversight of research in all settings.

  Collaborative research efforts among academic, public and private research sectors.

  Compliance with the NIH Guidelines on Research Using Human Pluripotent Stem Cells, published in August of 2000 (NIH, 2000). Equal and unconstrained access to stem cell research findings as has been

exemplary in the Human Genome Project.

- The ethical use of somatic cell nuclear transfer (SCNT or “therapeutic cloning”) and rejection of the use of stem cell technology, or any technology, for the purposes of reproductive cloning.

- Public policy on stem cell research that considers the ethical and health issues.

    Participation in the ethical, legal, and social debate surrounding this research by all communities including public and private, professional and citizen.

History: In response to an action of the 1999 ANA House of Delegates, a position statement on human cloning was developed and accepted by the Board of Directors (BOD) in June, 2000 (ANA, 1999; ANA, 2000). Currently under revision by the ANA Center for Ethics and Human Rights Advisory Board, the revised position statement on cloning proposes to support the ethical use of somatic cell nuclear transfer (SCNT or “therapeutic cloning”) and to reject the use of stem cell technology, or any technology, for the purposes of reproductive cloning.

An ANA House of Delegates action report in 2003 addressed Nursing Issues Related to Therapeutic and Reproductive Applications in Genetics Science (ANA, 2003). This report recommended that ANA acknowledge the emerging scientific, ethical and technological, political issues surrounding therapeutic and reproductive applications of genetics science. It also recommended promotion of nursing's presence in the international and national debate related to the scientific, ethical, legal and social implications of advances in genetics science, including human cloning and stem cell research.

Supportive Material: In 1998, Thomson et al., scientists at the University of Wisconsin, published a report that described the establishment of a human embryonic cell line created from the successful removal of cells from unused embryos at a fertility clinic. This and other cell lines developed in the same way can be used for important healthcare research. Similar research can be done with adult stem cells but adult cells have not produced the full range of cell types that embryonic cells produce. Stem cells have the ability to divide and to transform into specialized cells. These cells are called pluripotent, or totipotent; research has already shown that pluripotent human stem cells have the possibility of producing new therapies.

Funding for stem cell research comes from many public and private sources. One group advocating for increased federal support is the Coalition for the Advancement of Medical Research (CAMR). It is comprised of universities, scientific societies, patients' organizations, and other entities that are committed to making federal

funding available for stem cell research. The members include but are not limited to the American Medical Association, the American Diabetes Association, the Association of American Medical Colleges, the Parkinson's Disease Foundation and the Sloan-Kettering Institute for Cancer Research. Member organizations have posted 42 position statements on the web supporting stem cell research available at http://www.camradvocacy.org/statements.aspx.

While ANA recognizes there are opposing views on stem cell research, including within ANA, we believe the benefits to be realized for the many individuals who suffer from diseases and disabilities outweigh this dissent. Stem cell research is helping us understand fundamental cellular specialization and the application of that understanding. According to Kahn (2000) human embryos that remain frozen and unused after in-vitro fertilization are one of the most promising sources of embryonic stem cells. If these embryos are donated and used for stem cell research they may contribute to alleviating suffering and enhancing quality of life instead of remaining frozen or being discarded. The ethical, legal, and social issues relevant to pluripotent stem cell research are addressed in NIH guidelines published on August 25, 2000 (NIH, 2000).

In 2001, the President of the United States announced that federal funds could only be used to support research using human embryonic stem cells lines that were derived before that date (White House, 2001). The NIH Human Embryonic Stem Cell Registry currently lists about 21 embryonic stem cell lines. New and vigorous cell lines must be obtained to have appropriate samples, representing the diversity of our population, available for research. Legislation to allow federal funding for additional stem cell lines passed the U.S. House of Representatives on May 24, 2005 (H.R.810) and the U.S. Senate on July 18, 2006 (S.471) (Library of Congress, 2005).

This legislation proposed that federal funding for research be limited to stem cells that meet the following requirements:

1) the stem cells were derived from human embryos donated from in vitro fertilization clinics for the purpose of fertility treatment and were in excess of the needs of the individuals seeking such treatment;

2) the embryos would never be implanted in a woman and would otherwise be discarded; and

3) such individuals donate the embryos with written informed consent and receive no financial or other inducements.

The bill was vetoed and the veto override attempt failed. ANA supports this legislation and continues to advocate for an expanded federal stem cell policy.

Recommendations:

That the American Nurses Association:

1. Support the education of nurses through their academic curricula and continuing education in matters related to stem cell research and therapies as they are developed for use in clinical practice.

2. Continue to be involved in national and international dialogue on political, scientific, ethical, legal, social and economic perspectives of stem cell research.

3. Encourage nurses as individuals and as a professional community to maintain awareness of the practice outcomes translated from stem cell research and respond appropriately.

Summary: Stem cell research will have a significant impact on health and the quality of life. Research and therapeutic processes use adult, fetal and embryonic stem cells to explore the possibilities of growing new organs and tissues to replace those that are damaged or diseased. Collectively, these sources promise to achieve research goals and to develop new therapies. ANA recognizes the potential for stem cell research to provide relief through prevention, diagnosis and/or treatment for patients with a wide variety of complex diseases. ANA also recognizes that stem cell research raises significant ethical considerations. ANA supports the ethical use of stem cells for research and therapeutic purposes that impact health.

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