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There is evidence that in spite of the Intermediate Range Nuclear Force (INF) Treaty, the U.S.S.R. is attempting to catch up to the U.S. in these developments.

Aside from the tremendous destructive power of these systems the danger lies in the possibility that one side may attempt to pre-empt the other side's first-strike capability and consciously start a nuclear war. The race toward first-strike capability is thus destabilizing, bringing us into an era where nuclear war could start by human decision rather than by accident. But most importantly for us American Christians, the building of a first-strike capability raises profound moral questions.

What do our faith and religious beliefs instruct us concerning these profound questions?

When the Pharisee asked Jesus, "Teacher, which is the greatest commandment in the law?" Jesus said to him, "You shall love the Lord your God with all your heart and with all your soul and with all your mind. This is the greatest and first commandment, and a second is like it: You shall love your neighbor as yourself. On these commandments depend all the law and prophets." (Matthew 22:36-40)

If we love God, can we be a part of the destruction of God's creation? If we love our neighbors, can we participate in their murder?

To cooperate in the building of a first-strike capability is one of the greatest forms of alienation from our Lord, our fellow creatures and from ourselves. Our Lord calls us to help our neighbors, not destroy them. The money and resources that go into building a first-strike capability will make us the goats of the Lord, "for I was hungry and you gave me no food, I was thirsty and you gave me no drink. I was a stranger and you did not welcome me, naked and you did not clothe me, sick and in prison and you did not visit me."

Can we say we needed the resources of money and time to build more false gods and idols instead of feeding the hungry?

We need to speak out clearly and effectively to stop the unprecedented evil of this latest development in the arms race before it destroys not only the earth, but also our faith.

Text of Resolution

BE IT RESOLVED, the 17th General Synod of the United Church of Christ calls upon the governments of the United States of America, the Union of Soviet Socialist Republics and all other countries who have or are developing first-strike capabilities to negotiate and sign treaties banning the production and deployment of disarming first-strike weapons systems.

BE IT FURTHER RESOLVED, the 17th General Synod calls on all countries to stop the production and deployment of these systems and to withdraw and destroy disarming first-strike systems that have already been deployed. These treaties must contain safeguards such as on-site verification and inspection provisions.

BE IT FURTHER RESOLVED, the 17th General Synod calls on the President of the United Church of Christ to send this resolution to the President of the United States of America, the General Secretary of the U.S.S.R. and the leaders of other nations who are developing first-strike systems. It should also be sent to our churches with encouragement to them to dis-

cuss this issue and to communicate with congress people about this issue.

Financial Implications: Subject to the availability of funds.

#### 12. PRIORITIES VOTING RESULTS

Secretary Brun announced that the new priorities would be: 1) Evangelism and Membership Growth; 2) The Integrity of Creation, Justice and Peace, and 3) Christian Education. The voting results on United Church of Christ priorities are as follows:

Evangelism and Membership Growth 612 Education 369 Elderly 85 The Integrity of Creation, Justice and Peace 602 Local Church 148 Spiritual Renewal 196

#### 13. SPEAK OUT

The Moderator led the Speak Out with the assistance of the coordinator, the Rev. Richard Sparrow. She noted the time of the next Speak Out. The Speak Out was a time for one minute statements of concern on items not on the agenda of the General Synod. It included the following topics:

Four delegates praised the United Church of Christ, especially the United Church Board for Homeland Ministries, for work and resources regarding AIDS. Two delegates read from a memorial listing of those suffering or who died victims to AIDS;

A petition was made on behalf of public witness to the right to privacy;

The Pastors for Peace Caravan to Nicaragua was announced and interested parties invited to participate;

The American Disabilities Act was lifted up as the most important Civil Rights legislation on behalf of people with disabilities. Delegates were encouraged to support its passage by writing to their legislators, and

A call was made to the Synod to respond to the new underground of parents of abused children and to actions remedying this injustice.

# 14. PRONOUNCEMENT "CHURCH AND GENETIC ENGINEERING"

Assistant Moderator Alida Millham recognized Ms. Diane Darling, Chairperson of Committee Five to present the recommended actions of Committee Five. Ms. Darling directed the delegates to the green document in the Advance Materials and noted the phrase "without undermining the economic viability of the family farm" was added to the printed text in section IV., paragraph 6. She then moved the adoption of the Statement of Christian Conviction in the Pronouncement "Church and Genetic Engineering."

Ms. Darling spoke to the motion expressing the recommendation of the committee for its vote. When the question was called, the Assistant Moderator reminded the delegates that a two-thirds majority vote was required for approval and it was

89-GS-46 VOTED: The 17th General Synod adopts the Pronouncement "Church and Genetic Engineering."

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# PRONOUNCEMENT CHURCH AND GENETIC ENGINEERING

#### I. Summary

This Pronouncement, which recognizes that genetic engineering expands our understanding of creation and increases our ability to alter the natural world, affirms a cautious, thoughtful, and just use of genetic engineering. The Pronouncement recognizes that the church has a growing pastoral responsibility in genetic screening and counseling.

#### II. Background

For thousands of years, humans have practiced simple forms of bio-technology. The domestic animals, crops, and plants in existence today have been developed through selective breeding for desired characteristics.

The foundation for modern genetics was established by the work of the Austrian monk, Gregor Mendel (1822-1884). Working with plants, he formulated genetic laws that predict how a hereditary trait may skip a generation and reappear in the following generation. Mendel's explanation of dominant and recessive characteristics is important for understanding hereditary traits, including such ailments as diabetes, sickle cell anemia, and Tay-Sachs disease.

In 1953, Francis Crick and James Watson discovered the structure of DNA (deoxyribonucleic acid), the molecule of the "genetic code." In 1965, the term "genetic engineering" was coined for what has now come to be a wide range of techniques by which genetic material can be removed, altered, or added to organisms.

Genetic engineering opens new ways to intervene effectively in the genetic development of living things. For example, bacteria can be altered to make products such as insulin or interferon, and the agricultural value of farm animals or plants can be enhanced. New developments related to genetic engineering are reported with increasing frequency.

Some have feared that genetic engineering confers too much power upon human beings, that we lack the wisdom to interfere with creation, or that we are "playing God." Some have argued that altering organisms is dangerous and the risks outweigh the benefits. Others recall the past misuse of human power in sinful ways and remind us that insidious prejudice still infiltrates some contemporary controversies over genetics, despite the fact that the science of genetics often corrects the basis for past misunderstandings. These fears point to deep societal and religious concerns about human limits and our proper role in nature.

Theologians, ethicists, and church bodies, such as the World Council of Churches and the National Council of Churches, have addressed societal and religious concerns about genetic engineering. General Synod 14 of the United Church of Christ adopted a resolution calling for a consultation on genetic engineering. This Consultation, held in Berkeley, California, October 12-13, 1984, explored the potential impact of genetic engineering on human and plant life and the moral dilemmas which were emerging from this new technology. In addition, the United Church of Christ Council for Health and Human Service Ministries held a Public Policy Conference in Boston, Massachusetts, March 2, 1985, to explore the implications of genetic engineering for health care. General Synod 16, in its resolution "The Church and Genetic Engineering," recom-

mended the convening of a task force to submit a Proposed Pronouncement and a Proposal for Action to General Synod 17

### III. Biblical, Theological and Ethical Rationale

Drawing upon our biblical and theological heritage, we believe in God, the creator of all things (Gen. 1-2). We believe in Christ, the Logos through whom God creates (John 1:1-14). We believe in the Spirit, the presence of God in our midst. God continues to create, both sustaining the creation and struggling with it for redemption (Rom. 8:18-23). We stand in awe before the unfolding splendors of creation.

In Jesus the Christ, the Logos incarnate, we see the creative and redemptive purposes of God made known in human form. With special compassion for the poor, Jesus preached, taught, fed the hungry, and healed the sick. As followers of Jesus, we believe it is our calling to carry on this work.

For some of us, our calling explicitly involves scientific and technical research, including genetic engineering. Through this research, our calling to follow Jesus is lived out in new ways, full of risk as well as promise. God creates through the processes of nature. As we discover these processes and learn how to use them, we find new ways to exercise covenantal responsibility with God in the ongoing creative and redemptive work.

Genetic engineering gives us new ways to relieve suffering and increase food production. Certainly we must be concerned about and guard against injustice, misuse, and undue risks, but we believe the greater immorality would be for the church to stifle or ignore genetic engineering's promise for human benefit.

Genetic engineering expands human understanding of all life. We are struck by the organization and simplicity of the genetic code, the unimaginable diversity of species, and the range of variability within a species such as our own. We are humbled in knowing that we share the same genetic code with all other living things, including animals, plants, and even bacteria.

As kin to all God's creatures, we are filled with wonder and we marvel at the process of creation. We accept this new power with courage, humility, and a great sense of responsibility for other living things, and we are eager to learn more about the Creator through the wonders of creation.

## IV. Statement of Christian Conviction

A. As people of faith and science, we delight in new knowledge of nature. It opens us to a new awareness of the wonders of creation and the glory of the Creator. In faith we affirm that God created all things and continues to create. Through science we learn that nature is elegant in its simplicity and profound in its complexity. We experience reverence and awe when we consider that a simple genetic code is common to all life and yet gives rise to an amazing diversity of species and diversity within species. Both faith and science lead us to respect and marvel at the world we inhabit.

With our new knowledge come new responsibilities. As Jesus fed the hungry and healed the sick, we are called to follow his example and to use our new abilities in genetic engineering to bring healing and sustenance to people everywhere.

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We measure the value of our work by more than the standard of its benefit to human beings. God is Creator of all and confers value upon all creatures. God sustains creatures through the intricate interdependence of all creation. Therefore, we respect each creature as valuable to God beyond its apparent usefulness to us. We acknowledge that we are but a small, dependent part within a far richer whole.

B. Genetic engineering opens new ways for people of compassion to help those in need. With caution and yet with great hopefulness, we welcome its development, pledging to support a climate of thoughtful reflection, public awareness, appropriate regulation and justice in distribution.

We support the ongoing development and enforcement of guidelines for genetic engineering by the National Institutes of Health and the Food and Drug Administration, insofar as the guidelines are consistent with the policies of this Pronouncement. We also believe that all new uses should be subject to review that is open to informed public participation. The research community bears special responsibility to monitor itself and to make the public aware of issues of public concern.

- Within this regulatory and participatory context, we approve attempts to treat human genetic diseases by genetically altering cells in the human body, if the alteration is not passed to offspring (somatic cell gene therapy).
- 2. We are far more cautious at present about procedures that would make genetic changes which humans would transmit to their offspring (germline therapy). We are concerned that these changes may have unforeseen consequences, but we acknowledge that future developments may resolve these concerns. We urge extensive public discussion and, as appropriate, the development of federal guidelines during the period when germline therapy becomes feasible.
- We believe there is potential benefit in mapping and sequencing the human genetic material (genome), but its priority must be evaluated in relation to other scientific and human needs.
- 4. We support genetic screening of pregnancies at risk, although we believe that the religious communities bear a great responsibility to supplement genetic counseling with religious understandings of genetic health and moral choices.
- While general population screening may be used to protect individuals from danger, we reject screening as a basis for determining civil, economic, or reproductive rights.
- 6. We support the application of genetic engineering to agriculture, forestry, mining, and pollution control, provided there is adequate regulation and public participation in evaluating new uses. Given our essential dependence on the ecosystem, we are concerned that there be great regard for its delicacy as well as respect for all living things. In the area of agriculture, the goal of genetic engineering should be to improve the quality of products, without increasing the dependency of developing nations upon large corporations, without undermining the economic viability of the family farm, and without narrowing the diversity of the world's agricultural resources. We look to the scientific as well as the religious communities to support these concerns.
- We condemn any use of genetic engineering aimed at developing weapons such as those used in biological

- and chemical warfare.
- 8. We believe that the claims of justice are as important as market considerations in determining the priorities of commercial research. Priorities should be given to research that benefits populations with health or agricultural problems unique to their regions. The church should commend biotechnical corporations that set aside a portion of their research budget for such priorities, even though the projected financial return might not justify the initial investment.

Glossary of Common Terms Used In Discussing Genetic Engineering

Chromosome - thread-like microscopic structures in cell nuclei, which consist of DNA. Humans have 46 chromosomes in each cell of their bodies.

DNA - deoxyribonucleic acid, the genetic material found in all living organisms; the molecular basis of heredity. The structure of DNA, a double helix, was discovered by J. D. Watson and F. Crick.

Gene - the hereditary unit made of DNA, which occupies a specific site on a chromosome. Genes carry in a coded sequence of DNA the information for producing proteins.

Gene Mapping - assignment of a gene to a particular chromosome and determination of the distances between the relative positions of genes on the same chromosome.

Genetics - scientific study of the inheritance patterns of genes.

Gene Splicing - a group of recombinant DNA techniques for isolating genes and combining them in new patterns.

Gene Therapy - addition of a normal gene (a piece of DNA) into a cell to correct a disease.

Genetic Counseling - analysis of the risk of producing offspring with particular hereditary defects, and presentation to family members of the available options to avoid or ameliorate possible risks.

Genetic Screening - the process of identifying the presence of defective genes in a population, or of diagnosing a genetic disorder in a new born.

Genome - all of the genetic material (genes) in the chromosomes of a particular organism.

Germ cell - a sex cell or gamete (egg or sperm), which fuses with sex cells of the opposite sex to form the single fertilized egg that ultimately yields a new organism. Germ cells provide the continuity of hereditary information that is transmitted from one generation to the next.

Germ Line Therapy - addition of a normal gene to a germ cell (egg or sperm or fertilized egg) with the resulting genetic change passed on to future generations.

Recombinant DNA - the hybrid DNA produced by joining segments of DNA from different sources.

Somatic Cell - any cell of the body other than the sex cells (egg and sperm). The genetic information in somatic cells is not transmitted from generation to generation.