and it is frequently rewarded only by the satisfaction that they have made their communities safer.

Mr. Speaker, allow me to recognize here these men and women individually for their service and valor. The firefighters are Teri Guy of Camden; Todd Gsell of Chestertown, Maryland; Kevin Hauer and Mike Valenti of Dover; Kevin and Todd Schaffer of Downington, Pennsylvania; Mike Brown of Hartley; Andrew Mathe of Hockessin; Erich Burkentine of Lewes; Sam Sloan of Millsboro; Guy Cooper of Millville; Matt Dotterer of Milton; Glenn Gladders, Chris Gorzynski, Mike Puglisi and Steve Reeves of Newark; Josh McGrath and Mike Sethman of Smyrna, Franny Cole of Townsend and Nikki Waller of Wilmington.

It is often said that nothing is bigger than the heart of a volunteer. I think that is especially true for these dedicated men and women of Delaware who serve not only our state, but protect the nation as whole. For all their courage, their strength, their selflessness, and their dedication, I salute each and every one of them.

HUMAN CLONING PROHIBITION ACT OF 2001

SPEECH OF

HON. SHEILA JACKSON-LEE

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

Tuesday, July 31, 2001

Ms. JACKSON-LEE of Texas. Mr. Speaker, I rise in opposition to H.R. 2505, The Human Cloning Prohibition Act of 2001. I am absolutely opposed to any cloning that results in the creation of a human life and/or a pregnancy. That is why I support the Greenwood-Deutsch-Schiff-DeGette Amendment, legislation that prohibits such cloning but allows the opportunity for medical research.

As I have already stated, I believe that the science of cloning deserves serious consideration. As has been evidenced by the prior hearings and debate on this issue, the knowledge of the scientific community in this field is still in its infancy, particularly in the field of stem cell research. It is crucial that Congress carefully consider all options regarding this issue before it proceeds, particularly before we undertake to criminalize aspects of this practice. We must carefully balance society's need for lifesaving scientific research against the numerous moral, ethical, social and scientific issues that this issue raises. Yet what we face here today is legislation that threatens to stop this valuable research, in the face of evidence that we should permit this research to continue.

Those of us who believe in the Greenwood-Deutsch-Schiff-DeGette substitute are not proposing and are not proponents of human cloning. What we are proponents of is the Bush Administration's NIH report June 2001 entitled ''Stem Cells: Scientific Progress and Future Research Directions.'' This report, as I will discuss further, acknowledges the importance of therapeutic cloning.

None of us want to ensure that human beings come out of the laboratory. In fact, I am very delighted to note that language in the legislation that I am supporting, the Greenwood-Deutsch-Schiff-DeGette legislation, specifically says that it is unlawful to use or attempt to use human somatic cell nuclear transfer technology or the product of such technology to initiate a pregnancy to create a human being. But what we can do is save lives.

For the many people come into my office who are suffering from Parkinson's disease, Alzheimer's, neurological paralysis, diabetes, stroke, Lou Gehrig's disease, and cancer, or infertility the Weldon bill questions whether that science can continue. I believe it is important to support the substitute, and I would ask my colleagues to do so.

What we can and must accept as a useful and necessary practice is the use of the cloning technique to conduct embryonic stem cell research. This work shows promise in the effort to treat and even cure many devastating diseases and injuries, such as sickle cell anemia, spinal cord damage and Parkinson's disease through valuable stem cell research. This research also brings great hope to those who now languish for years or die waiting for a donor organ or tissue. Yet just as we are seeing the value of such research, H.R. 2505 would seek not only to stop this research, but also to criminalize it. We must pause for a moment to consider what conduct should be criminalized.

Those who support the Human Cloning Prohibition Act contend that it will have no negative impact on the field of stem cell research. However, the findings of the report that the National Institutes of Health released in June 2001 are to the contrary. This report states that only clonally derived embryonic stem cells truly hold the promise of generating replacement cells and tissues to treat and cure many devastating diseases. It is ironic at the same time that while the Weldon bill has been making its way through the House, the Administration's NIH is declaring that that the very research that the bill seeks to prohibit is of significant value to all of us.

An embryonic stem cell is derived from a group of cells called the inner cell mass, which is part of the early embryo called the blastocyst. Once removed from the blastocyst, the cells of the inner cell mass can be cultured into embryonic stem cells; this is known as somatic cell nuclear transfer. It is important to note that these cells are not themselves embryos. Evidence indicates that these cells do not behave in the laboratory as they would in the developing embryo.

The understanding of how pluripotent stem cells work has advanced dramatically just since 1998, when a scientist at the University of Wisconsin isolated stem cells from human embryos. Although some progress has been made in adult stem cell research, at this point there is no isolated population of adult stem cells that is capable of forming all the kinds of cells of the body. Adult stem cells are rare, difficult to identify, isolate and purify and do not replicate indefinitely in culture.

Conversely, pluripotent stem cells have the ability to develop into all the cells of the body. The only known sources of human pluripotent stem cells are those isolated and cultured from early human embryos and from certain fetal tissue. There is no evidence that adult stem cells are pluripotent.

Further, human pluripotent stem cells from embryos are by their nature clonally derived—that is, generated by the division of a single cell and genetically identical to that cell. Clonality is important for researchers for several reasons. To fully understand and harness the ability of stem cells to generate replacement cells and tissues, the each identity of those cells' genetic capabilities and functional qualities must be known. Very few studies show that adult stem cells have these properties. Hence, now that we are on the cusp of even greater discoveries, we should not take an action that will cut off these valuable scientific developments that are giving new hope to millions of Americans. For example, it may be possible to treat many diseases, such as diabetes and Parkinson's, by transplanting human embryonic cells. To avoid immunological rejection of these cells ''it has been suggested that . . . [a successful transplant] could be accomplished by using somatic cell nuclear transfer technology (so called therapeutic cloning), . . .'' according to the NIH.

Hence, although I applaud the intent of H.R. 2505, I have serious concerns about it. H.R. 2505 would impose criminal penalties not only on those who attempt to clone for reproductive purposes, but also on those who engage in research cloning, such as stem cell and infertility research, to expand the boundaries of useful scientific knowledge. These penalties would extend to those who ship or receive product of human cloning. And these penalties are severe—imprisonment of up to ten years and a civil penalty of up to one million dollars, not to exceed more than two times the gross pecuniary gain of the violator. Many questions remain unanswered about stem cell research, and we must permit the inquiry to continue so that these answers can be found. In addition to research into treatments and cures for life threatening diseases, I am also particularly concerned about the possible effect on the treatment and prevention of infertility and research into new contraceptive technologies. We must not criminalize these inquiries.

H.R. 2505 would make permanent the moratorium on human cloning that the National Bioethics Advisory Commission recommended to President Clinton in 1997 in order to allow for more time to study the issue. Those who support the bill state that we must do so because we do not fully understand the ramifications of cloning and that allowing even cloning for embryonic stem cell research creates a slippery slope into reproductive cloning. I maintain that we must study what we do not know, not prohibit it. The very fact that there was disagreement among the witnesses who spoke before us in Judiciary Committee indicates that there is substantial need for further inquiry. We would not know progress if we were to criminalize every step that yielded some possible negative results along with the positive.

There are many legal uncertainties inherent in prohibiting cloning. First, we face the argument that reproductive cloning may be constitutionally protected by the right to privacy. We must also carefully consider whether we take a large step towards overturning Roe v. Wade when we legislatively protect embryos. We do not recognize embryos as full-fledged human beings with separate legal rights, and we should not seek to do so.

Instead, I again urge my colleagues to support the Greenwood-Deutsch-Schiff-DeGette substitute, a reasonable alternative to H.R. 2505. This legislation includes a ten year moratorium on cloning intended to create a human life, instead of permanently banning it. As I

previously noted, it specifically prohibits human cloning or its products for the purposes of initiating or intending to initiate a pregnancy. It imposes the same penalties on this human cloning as does H.R. 2505. Thus, it addresses the concern of some that permitting scientific/research cloning would lead to permitting the creation of cloned humans.

More importantly, the Greenwood-Deutsch-Schiff-DeGette substitute will still permit valuable scientific research to continue, including embryonic stem cell research, which I have already discussed. This substitute would explicitly permit life giving fertility treatments to continue. As I have stated, for the millions of Americans struggling with infertility, protection of access to fertility treatments is crucial. Infertility is a crucial area of medicine in which we are developing cutting edge techniques that help those who cannot conceive on their own. It would be irresponsible to cut short these procedures by legislation that mistakenly treats them as the equivalent of reproductive cloning. For example, there is a fertility technique known as ooplasmic transfer that could be considered to be illegal cloning under HR 2505's broad definition of ''human cloning.'' This technique involves the transfer of material that may contain mitochondrial DNA from a donor egg to another fertilized egg. This technique has successfully helped more than thirty infertile couples conceive healthy children. It may also come as no surprise that in vitro fertilization research has been a leading field for other valuable stem cell research.

The Centers for Disease Control and Prevention advise that ten percent of couples in this country, or 6.1 million couples, experience infertility at any given time. It affects men and women with almost equal frequency. In 1998, the last year for which data is available, there were 80,000 recorded in vitro fertilization attempts, out of which 28,500 babies were born. This technique is a method by which a man's sperm and the woman's egg are combined in a laboratory dish, where fertilization occurs. The resulting embryo is then transferred to the uterus to develop naturally. Thousands of other children were conceived and born as a result of what are now considered lower technology procedures, such as intrauterine insemination. Recent improvements in scientific advancement make pregnancy possible in more than half of the couples pursuing treatments.

The language in my amendment made it explicitly clear that embryonic stem cell research and medical treatments will not be banned or restricted, even if both human and research cloning are. The organizations that respectively represent the infertile and their doctors, the American Infertility Association and the American Society for Reproductive Medicine, support this amendment. For the millions of Americans struggling with infertility, this provision is very important. Infertility is a crucial area of medicine in which we are developing cutting edge techniques that help those who cannot conceive on their own. It is would be irresponsible to cut short these procedures by legislation that mistakenly addresses these treatments as the equivalent of reproductive cloning.

The proponents of H.R. 2505 argue that their bill will not prohibit these procedures. However, access to infertility treatments is so critical and fundamental to millions that we should make sure that it is explicitly protected here. We must not stifle the research and treatment by placing doctors and scientists in fear that they will violate criminal law. To do so would deny infertile couples access to these important treatments.

Whatever action we take, we must be careful that out of fear of remote consequences we do not chill valuable scientific research, such as that for the treatment and prevention of infertility or research into new contraceptive technologies. The essential advances we have made in this century and prior ones have been based on the principles of inquiry and experiment. We must tread lightly lest we risk trampling this spirit. Consider the example of Galileo, who was exiled for advocating the theory that the Earth rotated around the Sun. It is not an easy balance to simultaneously promote careful scientific advancement while also protecting ourselves from what is dangerous, but we must strive to do so. Lives depend on it.

Mr. Speaker, we must think carefully before we vote on this legislation, which will have far reaching implications on scientific and medical advancement and set the tone for congressional oversight of the scientific community.

SECURING AMERICA'S FUTURE ENERGY ACT OF 2001

SPEECH OF

HON. W.J. (BILLY) TAUZIN

OF LOUISIANA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, August 1, 2001

The House in Committee of the Whole House on the State of the Union had under consideration the bill (H.R. 4) to enhance energy conservation, research and development and to provide for security and diversity in the energy supply for the American people, and for other purposes:

Mr. TAUZIN. Mr. Chairman, I continue to be concerned about the energy situation in the Pacific Northwest. Earlier this year, language was offered in House Energy and Water Appropriations bill to increase the borrowing authority at the Bonneville Power Administration by $2 billion for transmission upgrading. I understand the language has been put into the Energy and Water bill on the Senate side.

Part of the transmission problem in the Northwest has been created by the temporary closure of aluminum facilities, especially those in Western Montana and Eastern Washington.

I am concerned about Bonneville's actions to reduce and possibly eliminate future electricity sales to the aluminum smelters in the Northwest, which collectively make up about 40% of total U.S. primary aluminum production. These actions will not only have significant and adverse impacts on the transmission system in the Northwest, but will also create economic dislocations in the communities in which these facilities have operated. This is not just a Northwest issue, however, since it could adversely affect the global supply and demand for aluminum.

I have raised these issues with the Department of Energy and will continue to work on them as a priority. As the Committee continues to deal with energy legislation, we may hold hearings on this subject and may consider legislative remedies to the situation in the Northwest. I intend to preserve and exercise the Energy and Commerce Committee's jurisdiction over BPA's transmission and power sales issues.

NATIONAL CENTER FOR SUPERCOMPUTING APPLICATIONS

HON. TIMOTHY V. JOHNSON

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 5, 2001

Mr. JOHNSON of Illinois. Mr. Speaker, I rise today in recognition of the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign, and its new role in building the largest, most comprehensive computational infrastructure ever deployed for open scientific research. The Distributed Terascale Facility, or DTF, will provide the computing power that will enable the scientific discoveries of the 21st century, including computers capable of processing trillions of calculations per second and hundreds of terabytes of data storage capacity. The DTF computing systems will begin operation in 2002 and the network connecting these computational and data resources will be 16 times faster than today's fastest high speed research network.

On Wednesday, September 5, in my State of Illinois, a new facility is being dedicated, which will house the main computing engines of the DTF. The state-of-the-art facility will be connected to resources and research centers across the country through an ultra-highspeed network.

There is no question that scientific research is crucial to our nation's future success. Scientific discoveries and technological innovations not only drive our economy, but they provide a better quality of life for our citizens. In the recent past, we have seen phenomenal scientific advances that promise to help us understand the workings of the brain, discover new drugs to fight cancer, accurately predict severe storms, and build safer, more durable airplanes, buildings and bridges. The high-performance computers and resources connected by an ultrafast network to form the DTA ''teragrid'' will enable the discoveries of the next century. Using the teragrid, scientists and researchers across the continent will be able to share resources, call upon remote databases, develop new applications and visualize the results of complex computer simulations.

I applaud all those involved in this partnership to make the DTF a reality: the National science Foundation for providing $53 million for the project; Qwest Communications, IBM, and Intel, for their technological contributions; and the research centers that will build and deploy the DTF-The National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign; the San Diego Supercomputing Center at the University of California, San Diego; Argonne National Laboratory in Argonne, Illinois, and the California Institute of Technology in Pasadena.

In closing, I extend my best wishes and congratulations to the dedicated people in these organizations who are clearly committed to employing cutting-edge technologies to build the 21st century's computing and information infrastructure. This infrastructure will help keep our businesses competitive, assist the best scientists and researchers across our