

we have not even scored it. We don't know how much it will cost. Yet we are here. We want to get it on the floor. We have not had the farm bill before the committee, not even had a chance to look at it, but we were asked to mark it up. That is not the best way to deal with the important issues there. We can deal with them.

I am hopeful we will slow down just a moment, decide what it is that is most important for the country that we do in the very little time we have, and not just absolutely think we ought to be spending every dime we can possibly find. That is not necessarily the thing to do at this point.

Hopefully, we will be able to do that. I hope we can do at least those two things, the appropriations bills and the stimulus package. These other things ought to have a little more thought. We are going to be back next year, early. We can put a time certain on those and do them at that point.

Madam President, I suggest the absence of a quorum.

The PRESIDING OFFICER. Will the Senator withhold his suggestion of the absence of a quorum?

Mr. THOMAS. I withhold the request.

RECESS

Mr. THOMAS. If it would be more appropriate, I ask unanimous consent that the Senate be in recess until 2:15.

The PRESIDING OFFICER. That would be appropriate.

The Chair thanks the Senator.

There being no objection, the Senate, at 12:25 p.m., recessed until 2:15 p.m. and reassembled when called to order by the Presiding Officer (Mr. NELSON of Florida).

The PRESIDING OFFICER. The Senator from Tennessee is recognized.

Mr. FRIST. Mr. President, I ask unanimous consent that I be given 15 minutes in morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

PROHIBITION OF HUMAN CLONING

Mr. FRIST. Mr. President, I rise to continue a discussion that began in morning business earlier today. That is on the issue of human cloning. I had not expected to be talking about this issue during the closing days of this session of Congress. But I feel compelled to do so in light of Sunday's announcement. That is indeed very troubling for everybody as they seek to understand what this is all about after Sunday's announcement that a U.S. company is pursuing the purposeful creation of cloned human embryos.

I believe all human cloning for scientific reasons, for ethical reasons, and for reasons surrounding the health and safety of women should be banned.

This whole subject of human cloning was the subject of a lot of discussion earlier this year. This summer, the House of Representatives passed a bill prohibiting the human cloning by a

large and overwhelming margin. But in light of the events of September 11, much of the discussion was put aside. A lot of that changed on Sunday. And now I believe it is incumbent upon the Senate to address this critical issue before adjourning for the year.

I urge the majority leader to call up the House bill and to allow the Senate to work its will on that bill. We don't have the luxury of time that I think many of us thought we had. If we look over the last several years—really beginning in 1997, when Scottish researchers first captured the attention of the world after they used the process called somatic cell nuclear transfer to successfully clone that adult sheep by the name of Dolly—since that period of time a lot has happened in this particular body. The portrayal of human cloning has intrigued our imagination over the last 4 to 5 years. But we all must recognize that this is serious business. The idea that cloning human beings may be technologically possible challenges our fundamental beliefs—whether they be spiritual, or whether they be moral. Those people who pay attention to science ask if it is really possible. I believe the answer is yes. But what it really causes us to do is to go back and challenge our fundamental beliefs on what the appropriate limits are or should be of human control over nature.

I tell you, as a scientist and as someone who has thought a lot about end-of-life issues or beginning-of-life issues and disease and health, it provokes, in me, a lot of concern in terms of the issues of how much to intervene, at what point, what is someone's motive, and can that motive be shifted in such a direction that the great promises of science can be used to the abuse of what most people would regard as their moral sensibilities.

After the Dolly announcement, we held a series of hearings in the Health, Education, Labor, and Pensions Committee. The first hearing focused on science. We had scientists testify. We looked at all types of cloning: Animal cloning, human cellular cloning, and the cloning of a human embryo, the cloning of human individuals.

At the second hearing we had ethicists and theological representatives come in. We listened to distinguished individuals testifying from the Christian faith, the Jewish traditions, the Islamic traditions, all relating to human cloning. We also listened to philosophers well schooled in biomedical ethics.

The story went on. The National Bioethics Advisory Committee (NBAC), at the request of President Clinton, looked at, studied, and made a report on the moral and ethical issues as well as the scientific standpoints. NBAC then reported to the President that reproductive cloning was unsafe and should be prohibited by Federal law.

About a year after that, Senator BOND and I, based on our hearings, and based on that National Bioethics Advi-

sory Committee report, introduced the Human Cloning Prohibition Act along with a number of our other colleagues. That bill would have prohibited the use of somatic cell nuclear transfer technology to produce a human embryo.

At the time—and the time today is very different; again, that was in 1998—the science of issues such as stem cell research, particularly embryonic stem cells, was all hypothetical. It was all theoretical. This whole field of embryonic stem cell research existed, but only as a hope of what might be. No research using embryonic stem cells had actually been conducted at the time.

The overall science of these issues, of cloning and stem cell research, was relatively undeveloped and even less understood. The bill got caught up in a lot of concerns that it could prevent this whole field of embryonic stem cell research from progressing, and the bill really fell by the wayside.

Indeed, almost 2 years would pass between the announcement of Dolly, the sheep, in 1997 and the groundbreaking reports on the successful isolation of what are called human pluripotent stem cells. It was 2 years after Dolly.

Now, more than 2 additional years past, the field of embryonic stem cell research has really made great strides, although it is still in its infancy, as we are seeing today. Today there are more than 60 established embryonic stem cell lines worldwide. The research, I believe, does show great promise for stem cell research as we look to the future.

We have also learned a lot about adult stem cells. Only recently people understood there are two—indeed, there are three—but two main types of stem cells: One is adult, and one is embryonic. A lot of our traditionally held beliefs about the adult stem cells, the fact that they can only go in one direction, have been modified as we have studied them scientifically. Now we know they are not restricted to one fate or one direction.

This past year, the NIH spent \$250 million on stem cell research. That number, I am quite certain, is going to grow in the future because of the promise of stem cell research for therapies for a range of diseases. That money will be spent for both adult stem cell and embryonic stem cell research.

I will say that overall stem cell research is in its very early stages and there is a lot to learn. I have just outlined what we have learned in the last 2 years, and in the 2 years prior to that from the time that Dolly was first cloned.

But what we can say now, with confidence, I believe, is that a ban on human cloning—again, we are talking about stem cells and human cloning—a ban on human cloning will not be a barrier in any way to the aggressive pursuit of embryonic or adult stem cell research. I would argue that it is just to the contrary of what some people say, that if you ban human cloning in some way it might slow down stem cell research.

Why do I say that? It comes back to a debate we had on this floor 6 or 8 months ago when we were talking about stem cells. It is my belief that embryonic stem cell research, which I believe has great promise, and adult stem cell research can best be conducted in an environment, a framework, where you have ethical considerations, moral considerations, and a legal framework defined. That way, the American people can trust what is being done, what we are investing in, in relation to what the scientists are doing.

I would argue that that legal framework around stem cell research—to allow it to progress—demands, as one of its criteria, that we ban the cloning of human beings, that we ban human cloning. That is what is before us today as we define what America is thinking today. Where do the scientists fit in with all this? You will hear different scientists saying different things. But I think it is also clear that, scientifically, embryonic stem cell research can and will be able to proceed aggressively without the use of therapeutic cloning.

I think it is generally believed that most scientists consider the field of human cloning too immature and unknown if the goal is to safely attempt to clone a human being. Most scientists will agree it is too early. We do not know enough today.

What about therapeutic cloning? You hear these words. You have reproductive cloning and therapeutic cloning. And with more time we will probably get more into that. But conceptually there are two different types of cloning.

Some people say we should ban reproductive cloning but we should allow the therapeutic cloning to proceed. I would argue with the intent. We have heard people say they want to clone human beings. They said they are going to go out and do it. Now the technology, as we saw 3 days ago, is likely to get there. So they are likely to do it.

So when you are creating a human embryo, and you say you are going to use it just therapeutically, it is just too easy to take that embryo and implant it in the womb, and then it is reproductive cloning. And there will be more opportunity to talk about the differences there.

I will say therapeutic cloning is not necessary for rapid scientific advancement. The 60-plus stem cell lines out there are sufficient for Federal researchers to aggressively move in the direction of productive research. Moreover, the idea of therapeutic cloning, intended to combat the danger of autoimmune rejection, something I as a transplant surgeon am very aware of, carries with it challenges of its own and does not necessarily solve the problem of autoimmune rejection.

Let me just shift very quickly to risk. There are real risks to human cloning. Even those people who are not

repulsed by creating superhuman beings and having people created in their own image and control—this whole field of human cloning is almost godlike—even those people, when you push them, recognize the frightening risks of human cloning.

Four years ago, it took about 270 attempts to get Dolly, the sheep. Whether it is 200 or 500 or 100, you translate that down to human beings, and that means 270 still births, 270 miscarriages, 270 deformed births—all because we do not know enough. It is simply not safe.

I think we should move quickly to prohibit human cloning no matter what the stated purpose. We do not act alone. Other nations are also struggling in responding to this issue as well. France and Germany have developed legislation to prohibit human cloning, and they have called upon the United Nations to take up this matter on the international level.

I believe the creation of human embryos purely for research purposes alone is the exploitation of human life. I say it, yes, as a pro-life Senator, but I think the idea of creating human embryos for the reason of just research is an exploitation that even the National Bioethics Advisory Commission and newspaper editorial pages, including the Washington Post have opposed. Why? Because you ultimately have to destroy those embryos.

There is also another issue about which I hope we will have the opportunity to talk. It is actually in an article from November 25 in the St. Louis Post-Dispatch. The heading of the article says: "Buying and Selling of Women's Eggs Raise Fears of Bidding Wars." The first sentence states:

Egg donors needed. Healthy women ages 18-32 willing to help infertile couples.

In another paragraph it says:

In California, the increasing demand has resulted in a flourishing egg-donation industry that can reward donors with payments equivalent to a semester's tuition at an Ivy League school. Greater demand also has increased prices on the East Coast by several thousand dollars.

I mention that because clearly if there are individuals or companies out there with what inevitably will be a financial incentive to obtaining these eggs, the burden is very likely to fall upon women of low income.

The eggs will have to be obtained through a medical procedure. The medical procedure has its own risks as well. There are no safeguards today for women who would be used as sources of the needed eggs. I believe that a failure to prohibit human cloning not only poses a real risk to the health and safety of the women but will have the effect of turning their bodies into commodities.

In closing, because of statements by many people around the world who have said they are going to clone human beings and the recent announcement on Sunday which shows that human cloning is much closer on the horizon unless we act, I encourage

my colleagues in this body and the majority leader, to bring up the House bill and allow us to modify that bill, if necessary.

The bill has already been passed by the House of Representatives. It is very similar to the bill Senator BOND and I introduced along with others 3 years ago. The House has improved it. They expand the definitions and exclusions from the original bill. The only act prohibited in that bill is human cloning.

Our challenge is to move quickly and carefully. We need to move quickly to achieve the goal of prohibiting human cloning without—it is important to understand—harming the important biomedical research which will be allowed to continue. That goal is within our grasp.

The majority leader has said we will bring up this bill next spring. Because of recent incidents, I encourage him to do it as soon as we can this year. The risks of delay simply are too great. Our responsibility is clear.

I ask unanimous consent that a copy of the St. Louis Post-Dispatch article I cited be included in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the St. Louis-Dispatch, Nov. 25, 2001]
BUYING AND SELLING OF WOMEN'S EGGS RAISE
FEARS OF BIDDING WARS
(By Michelle Meyer)

"Egg donors needed. Healthy women ages 18-32 willing to help infertile couples."

Adrienne Smith spotted the ad submitted by the infertility and Reproductive Medicine Center at Washington University in the Riverfront Times earlier this year. Having read articles about egg donation, she knew that clinics paid several thousand dollars for young women's eggs.

Smith, 24, works as an administrative assistant and is planning on taking classes to become a certified massage therapist. That money could help pay her tuition, so she applied to become a donor.

The experience went well for Smith. Doctors successfully extracted her eggs and donated them to an infertile couple. Smith will never meet the couple, nor the offspring who might result. But she was paid \$2,500 and she also has the satisfaction of knowing that she is helping people who long to become parents.

Even so, the buying and selling of women's eggs raise troubling issues. With an estimated 6 million U.S. women suffering from infertility, the demand for transplanted eggs is great. Medical ethicists and reproductive specialists fear a bidding war may be in the offing. And that, in turn, could lure women into the program who are ill-suited or unprepared for the rigors of donating their eggs.

In California, the increasing demand has resulted in a flourishing egg-donation industry that can reward donors with payments equivalent to a semester's tuition at any Ivy League school. Greater demand also has increased prices on the East Coast by several thousand dollars.

No one can say for sure how many young women are donating eggs in the St. Louis area. What is clear is that sizeable fees paid to donors on the coasts aren't as prevalent in the Midwest.

But some are already concerned. "The higher the amount of money, the more danger there is that a woman might take risks

that she might not ordinarily take for the sake of the money," says Rebecca Dresser, professor of law and ethics in medicine at Washington University and a member of American Society of Reproductive Medicine. "The huge financial incentive increases the incentive to conceal health issues both to her own health and that of her offspring."

The business of matching egg donors and infertile couples is largely unregulated with well-established medical institutions—like Washington University—and independent brokers involved. Some solicit and match donors discreetly. Others aren't shy about touting their prices to donors and bragging to infertile couples that their donors are some of the best looking and most intelligent people around.

Attracted by the promise of big money, potential donors may be unaware of the demands of egg extraction.

RETRIEVING THE EGGS

For egg donor Smith, that meant injecting herself daily with ovarian stimulation shots, visiting the doctor's office a half dozen times and enduring an uncomfortable bloating of her abdomen that prevented her from wearing her regular clothing. At the end of the process, a doctor administered a mild anesthesia and poked Smith's ovaries with a long needle, extracting the eggs that had ripened inside of her.

Awaiting the final procedure, Smith read an article about infertility and began to cry. "I realized there is no amount of money that can compensate you for what you are doing," Smith said. "I sat there reading about these people who were so excited by the chance to actually have a child. Helping people is very important to me. I hope and pray that a pregnancy came out of it."

The egg retrieval took less than 45 minutes, and within an hour, Smith was awake and ready to go home. Like most women, Smith experienced mild abdominal discomfort and soreness for several days. Immediately following the retrieval, her eggs were fertilized with the recipient husband's sperm and implanted into the wife's womb.

"Egg donors needed. \$3,500. Must be 21-34."

Surrogate Parenting Center of Texas placed this simple, straightforward ad on the back page of a recent Riverfront Times. It is representative of many ads targeting readers in that age range. Many appear in college newspapers, including those at the University of Missouri at St. Louis, Washington University and St. Louis University.

"We had a lot of ads (requesting donors) run last year," says Nick Bowman, editor of the UMSL's newspaper, *The Current*. "But since my regime as editor this year, we haven't seen as many."

Many ads appeal to a donor's sense of compassion. Dr. Ronald Wilbois of the Infertility and IVF Center of St. Louis says, "There is no mention of monetary compensation in our ads, although some people in town have done that. I think you get into this big problem of clinics competing with each other if you do that. Plus, we don't want money to be the big draw. We have found that women who do it for the money are not real reliable as a group."

The IVF Center performs six to eight donor egg retrieval procedures a month, and unlike several clinics in the area, doesn't have a waiting list for eggs, according to Wilbois. But he admits that it can be difficult to find "good" donors.

Many women do not pass the stringent physical and medical screening required. Donors are required to submit complete medical and family histories, as well as pass various screens for infectious diseases and medical or genetic disorders. About 10 percent find that their eggs are not viable.

THE INTERNET CONNECTION

The Internet has become a resource for couples seeking egg donors. Web sites provide a quick database that has replaced time-consuming paper files. Some sites include photos of young women, as well as personal information such as IQ level, high school grade point average and physical measurements.

Dawn T. Hunt is an egg broker in California who helps to pair infertile couples with donors. Her company, Fertility Alternatives Inc., posts pictures of young women interested in donating, including some from St. Louis. The Web site, www.geocities.com/fertilityalternatives/oocyte.html, classifies some of the women as "exceptional donors," those with above-average intelligence, academic achievements or physical attractiveness.

One "exceptional" donor, a young woman referred to as Rachel M., is a graduate of Washington University residing in the St. Louis area. Rachel is 23 with short blonde hair and a doll-like round face who scored 1430 on her SAT and earned a 3.66 GPA in graduate school. Individuals wanting to make a baby with Rachel's eggs can expect to pay \$8,000, although that fee is negotiable. Hunt will get part of that money.

"I found a lot of my people wanted attractive donors with proven intelligence . . . so I gave it to them," Hunt said. "My clientele feels guilty about (placing so much importance on physical attractiveness) but if it were me, I would probably want an attractive donor."

The ethical debate over the sale of human eggs heightened after "Ron's Angels" appeared on the Internet in 1999. Ron Harris, a California fashion photographer, posted pictures of models on his site in an effort to create an auction for the eggs of beautiful women. Reportedly, bids for model's eggs soared as high as \$42,000.

Last year, members of the American Society for Reproductive Medicine suggested that compensation up to \$5,000 is appropriate for the donation of eggs but that anything above \$10,000 is inappropriate.

But those are merely guidelines. Currently, every state except Louisiana allows for the sale of human eggs. And no states have enacted legislation aimed at capping fees or regulating egg donation.

Educators worry that students may be ill-prepared to weigh the costs and benefits of selling their eggs.

"I think college students would be vulnerable to this kind of solicitation because of the extreme financial incentive," said Judith Gibbons, a professor of psychology at St. Louis University who specializes in issues of early adulthood. "When I ask college students about their major concerns, financial worries are always on top of the list. But I would never want to take their autonomy away from them because they are adults and can make their own decisions."

Dresser, the Washington University professor, fears that young people may regret their decisions later in life. "When they are that young they may not fully appreciate that there may be some risks to their future fertility," she said. "Of course, it is only speculation at this point because we don't know if there is a danger to future fertility. Egg donation has only been going on for a few years, so we haven't been able to follow these women over time."

Smith said that while trying to decide whether to become a donor, she wrestled with the idea of possibly having a child in the world and not knowing him or her. Although the thought bothered her, she decided to go ahead anyway.

Dr. Sherman Silber of the Infertility Center of St. Louis refuses to solicit donors with

ads. "I felt that was abusive to women. I don't like the idea of targeting a young 19- or 20-year-old girl who needs money."

But if all goes well, the process can be fulfilling for everyone involved.

Tonya Weisheyer, 23, of Winfield, has donated her eggs twice and is now acting as a surrogate mother. For her first donation, Weisheyer donated to a couple in Boston and flew there for her egg retrieval, although she did not meet the prospective parents. Two weeks after her donation, Weisheyer got a call from the couple's lawyer informing her that the wife was pregnant.

After the donation, the couple sent Weisheyer a large bouquet of flowers and gift certificates to Toys 'R Us for Weisheyer's three children, "I was in tears," Weisheyer said. "Just hearing they were pregnant was enough for me. Just to know that I had helped them to accomplish their dream. I was on cloud nine all day."

Mr. FRIST. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. FRIST. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FRIST. Mr. President, I ask unanimous consent that I be given 15 minutes in morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

BIOTERRORISM

Mr. FRIST. Mr. President, I rise to speak regarding a topic that has emerged dramatically over the past 7 weeks, a topic that everybody in the United States of America has thought about, a topic that many of us in the Senate have been thinking about over the last 3 years. That topic is the use of viruses, bacteria, and other germs as bioterrorist weapons.

Going back 3 years when the Senate Public Health Subcommittee began to look at the issue of bioterrorism, we had a series of hearings to study in depth the ability of our Nation's public health infrastructure. Those three words—"public health infrastructure"—are words about which we hear a lot. People ask me: What is the public health infrastructure? I will address that question in a few minutes.

The public health infrastructure is the basis of our preparedness and response to such bioterrorist attacks—who we call if something happens, what they do, who does the test, how they communicate with each other, and how quickly they respond. When we began addressing the issue of bioterrorism, we wanted to look at the local, State, and national level. We wanted to examine how those systems respond to public health threats.

We had a series of hearings beginning 3 years ago focused specifically on our preparedness to respond to a bioterrorist attack—the use of viruses, bacteria, and germs with the intent to create terror or to kill. The testimony of