

action what human rights mean. We need to accept North Korean refugees into the United States as provided by the North Korean Human Rights Act.

That it appears to have taken more than a year and half for the possibility of officially accepting North Korea refugees has been troubling to Members of Congress on both sides of the aisle. In a bipartisan letter to Secretary Rice, Congressman FRANK WOLF and others called on the administration to do more. And last year, both Congressman WOLF and I wrote to Secretary General Kofi Annan to pressure China into allowing UNHCR, the U.N. agency for refugees, into Yanji Province near the North Korean border and other affected areas to assess the situation with respect to the North Korean refugees.

I was disappointed to learn that the first report required under the North Korean Human Rights Act was issued with the statement that no progress had been made on accepting refugees. As the act makes clear, admission would be conditioned upon a thorough vetting process by DHS and other appropriate agencies. But without any

action by us, it is difficult for us to demand that the Chinese should also change its policies, and it presents a problem for us in asking other countries to do the right thing if we have not been able to do the same. If the U.S. cannot admit what may be less than 10 refugees in total if the press reports are correct, then the whole premise of the act itself is unsustainable.

I am hopeful that this may be changing and I hope it is changing. The hopes and prayers of thousands in the faith community and among Korean American communities are vested in this possibility of the first admission of North Korean refugees into the United States.

If and when these people come, it will offer hope to millions and put American on the right side of history. Such an act is consistent with the bold steps that Ronald Reagan took and Pope John Paul urged during the years of the cold war, and in the process made the world a better place.

If ever there were huddled masses yearning to be free, it's the North Ko-

reans, whether hiding out in the forests of China or working as trafficked victims in brothels or as orphans prowling marketplaces for crumbs.

If these refugees are granted refuge in the United States, it would constitute one of the great acts of compassion by this nation.

And I hope we take this opportunity to lift our lamps and show a way out of the darkness for the North Korean refugees.

## STEM CELLS

Mr. BROWNBAC. Mr. President, another topic I will discuss is embryonic stem cell and adult stem cell research. I will show two books because we have a lot going on regarding stem cells and in stem cell research.

I ask unanimous consent to have printed in the RECORD a chart on Federal funding of stem cell research.

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

### U.S. FEDERAL TAXPAYER FUNDING TOTAL NIH STEM CELL RESEARCH FY 2002–FY 2006

(Dollars in millions)\*\*

	FY 2002 Actual			FY 2003 Actual			FY 2004 Actual			FY 2005 Actual		
	Non embryonic	Embryonic	Total	Non embryonic	Embryonic	Total	Non embryonic	Embryonic	Total	Non embryonic	Embryonic	Total
Human, subtotal .....	170.9	10.1	181.0	190.7	20.3	211.0	203.2	24.3	227.5	199.4	39.6	239.0
Nonhuman, subtotal .....	134.1	71.5	205.5	192.1	113.5*	305.6	235.7	89.3*	325.0	273.2	97.0	370.2
NIH, total .....	305.0	81.6	386.6	382.9	133.8*	516.6	439.0	113.6*	552.5	472.5	136.7	609.2

\*Decrease from FY03 to FY04 is the result of a change in methodology used to collect nonhuman embryonic funding figures. This methodology change also contributed to an increase in nonhuman non-embryonic.

\*\*Numbers may not add due to rounding.

Mr. BROWNBAC. Mr. President, noting for the record the actual spending in 2005 on embryonic stem cell research, the U.S. Federal Government spent nearly \$40 million on human embryonic stem cell research. We spent \$97 million on nonhuman embryonic stem cell research, for a total of \$136 million the Federal Government spent on embryonic stem cell research.

That is a fair investment. We also spent \$472 million in nonembryonic. What did we get for \$136 million in embryonic stem cell research? Here is the folder that contains the human clinical trials of embryonic stem cell research in humans, treating and healing humans. This is the list of research results we have from a nearly \$40 million Federal investment last year of human clinical trials with embryonic stem cell research. This is research where a young, embryonic human life is destroyed and stem cells harvested and taken out and applied.

I note that this folder is empty. This is the list of research results we have from embryonic stem cell research on humans.

We also invested in adult and cord blood stem cell research. The cord between the mother and child is rich in stem cells that can be used in a lot of treatment areas, along with adult stem cells. You have stem cells in your body and I have them in my mine. They are akin to a repair kit.

I ask unanimous consent to have printed in the RECORD the listing of 69 different human illnesses being treated by adult and cord blood stem cells.

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

#### 69 CURRENT HUMAN CLINICAL APPLICATIONS USING ADULT STEM CELLS

##### ANEMIAS & OTHER BLOOD CONDITIONS

Sickle cell anemia, sideroblastic anemia, aplastic anemia, red cell aplasia (failure of red blood cell development), amegakaryocytic thrombocytopoiesis, thalassemia (genetic [inherited] disorders all of which involve underproduction of hemoglobin), primary amyloidosis (a disorder of plasma cells), diamond blackfan anemia, Fanconi's anemia, chronic Epstein-Barr infection (similar to mono)

##### AUTO-IMMUNE DISEASES

Systemic lupus (auto-immune condition that can affect skin, heart, lungs, kidneys, joints, and nervous system), Sjogren's syndrome (autoimmune disease w/symptoms similar to arthritis), myasthenia (an autoimmune neuromuscular disorder), autoimmune cytopenia, scleromyxedema (skin condition), scleroderma (skin disorder), Crohn's disease (chronic inflammatory disease of the intestines), Behcet's disease, rheumatoid arthritis, juvenile arthritis, multiple sclerosis, polychondritis (chronic disorder of the cartilage), systemic vasculitis (inflammation of the blood vessels), alopecia universalis, Buerger's disease (limb vessel constriction, inflammation)

##### CANCERS

Brain tumors—medulloblastoma and glioma, retinoblastoma (cancer), ovarian

cancer, skin cancer: Merkel cell carcinoma, testicular cancer, lymphoma, non-Hodgkin's lymphoma, Hodgkin's lymphoma, acute lymphoblastic leukemia, acute myelogenous leukemia, chronic myelogenous leukemia, juvenile myelomonocytic leukemia, cancer of the lymph nodes: angioimmunoblastic lymphadenopathy

Multiple myeloma (cancer affecting white blood cells of the immune system), myelodysplasia (bone marrow disorder), breast cancer, neuroblastoma (childhood cancer of the nervous system), renal cell carcinoma (cancer of the kidney), soft tissue sarcoma (malignant tumor that begins in the muscle, fat, fibrous tissue, blood vessels), various solid tumors, Waldenstrom's macroglobulinemia (type of lymphoma), hemophagocytic lymphohistiocytosis, POEMS syndrome (osteosclerotic myeloma), myelofibrosis

##### CARDIOVASCULAR

Acute heart damage, chronic coronary artery disease

##### IMMUNODEFICIENCIES

Severe combined immunodeficiency syndrome, X-linked lymphoproliferative syndrome, X-linked hyper immunoglobulin M syndrome

##### LIVER DISEASE

Chronic liver failure

##### NEURAL DEGENERATIVE DISEASES & INJURIES

Parkinson's disease, spinal cord injury, stroke damage

##### OCULAR

Corneal regeneration

##### WOUNDS & INJURIES

Limb gangrene, surface wound healing, jawbone replacement, skull bone repair

## OTHER METABOLIC DISORDERS

Sandhoff disease (hereditary genetic disorder), Hurler's syndrome (hereditary genetic disorder), osteogenesis imperfecta (bone/cartilage disorder), Krabbe leukodystrophy (hereditary genetic disorder), osteopetrosis (genetic bone disorder), cerebral X-linked adrenoleukodystrophy

## ADULT &amp; NON-EMBRYONIC

## STEM CELL RESEARCH

## ADVANCES &amp; UPDATES FOR APRIL 2006

Highlight of the Month—Stem Cell Hope for Liver Patients: British doctors reported treatment of 5 patients with liver failure with the patients' own adult stem cells. Four of the 5 patients showed improvement, and 2 patients regained near normal liver function. The authors noted: "Liver transplantation is the only current therapeutic modality for liver failure but it is available to only a small proportion of patients due to the shortage of organ donors. Adult stem cell therapy could solve the problem of degenerative disorders, including liver disease, in which organ transplantation is inappropriate or there is a shortage of organ donors."—*Stem Cells Express*, Mar. 30, 2006

## ADVANCES IN HUMAN TREATMENTS USING ADULT STEM CELLS

Buerger's Disease: Scientists in Korea using adult stem cell treatments showed significant improvement in the limbs of patients with Buerger's disease, where blood vessels are blocked and inflamed, eventually leading to tissue destruction and gangrene in the limb. Out of 27 patients there was a 79% positive response rate and improvement in the limbs, including the healing of previously non-healing ulcers.—*Stem Cells Express*, Jan. 26, 2006

Bladder Disease: Doctors at Wake Forest constructed new bladders for 7 patients with bladder disease, using the patients' own progenitor cells grown on an artificial framework in the laboratory. When implanted back into the patients, the tissue-engineered bladders appeared to function normally and improved the patients' conditions. "This suggests that tissue engineering may one day be a solution to the shortage of donor organs in this country for those needing transplants," said Dr. Anthony Atala, the lead researcher.—*The Lancet*, Apr. 4, 2006; reported by the AP, Apr. 4, 2006

Lupus: Adult Stem Cell Transplant Offers Promise for Severe Lupus—Dr. Richard Burt of Northwestern Memorial Hospital is pioneering new research that uses a patient's own adult stem cells to treat extremely severe cases of lupus and other autoimmune diseases such as multiple sclerosis and rheumatoid arthritis. In a recent study of 50 patients with lupus, the treatment with the patients' adult stem cells resulted in stabilization of the disease or even improvement of previous organ damage, and greatly increased survival of patients. "We bring the patient in, and we give them chemo to destroy their immune system," Dr. Burt said. "And then right after the chemotherapy, we infuse the stems cells to make a brand-new immune system."—*ABC News*, Apr. 11, 2006; *Journal of the American Medical Assn.*, Feb. 1, 2006

Cancer: Bush policy may help cure cancer—"Unlike embryonic stem cells . . . cancer stem cells are mutated forms of adult stem cells. . . . Interest in the [adult stem cell] field is growing rapidly, thanks in part, paradoxically, to President George W. Bush's restrictions on embryonic-stem-cell research. Some of the federal funds that might otherwise have gone to embryonic stem cells could be finding their way into cancer [adult]-stem-cell studies."—*Time: Stem Cells that Kill*, Apr. 17, 2006

Heart: Adult stem cells may inhibit remodeling and make the heart pump better and more efficiently. Researchers in Pittsburgh have shown that adding a patient's adult stem cells along with bypass surgery can give significant improvement for those with chronic heart failure. Ten patients treated with their own bone marrow adult stem cells improved well beyond patients who had only standard bypass surgery. In addition, scientists in Arkansas and Boston administered the protein G-CSF to advanced heart failure patients, to activate the patients' bone marrow adult stem cells, and found significant heart improvement 9 months after the treatment.—*Journal of Thoracic and Cardiovascular Surgery*, Dec. 2005; *American Journal of Cardiology*, Mar., 2006

Stroke: Mobilizing adult stem cells helps stroke patients—Researchers in Taiwan have shown that mobilizing a stroke patient's bone marrow adult stem cells can improve recovery. Seven stroke patients were given injections of a protein—G-CSF—that encourages bone marrow stem cells to leave the marrow and enter the bloodstream. From there, they home in on damaged brain tissue and stimulate repair. The 7 patients showed significantly greater improvement after stroke than patients receiving standard care.—*Canadian Medical Association Journal* Mar. 3, 2006

Mr. BROWNBACK. What did we get for our research investment in adult and cord blood in human clinical trials? This is the folder—it is getting heavy—of what we have discovered in human clinical trials with adult and cord blood stem cell research; real people being treated for real diseases such as bladder disease, lupus, cancer, heart, strokes, immunodeficiency areas, liver disease, neuro degenerative diseases, ocular, wounds and injuries, autoimmune diseases, anemias and other blood conditions, metabolic disorders, 69 human diseases being treated with adult and cord blood stem cells.

For my money on this, I would rather treat people—get real human treatments—than in this area of embryonic stem cell research where we are getting no cures. We are seeing a lot of cancer cells growing out of the embryonic stem cell areas and treatments.

Let's go for what is real. And let's do what is real. I further note, as I close, there is no prohibition in this country on embryonic stem cell research. None. No prohibitions. Yet why do the private companies not go into funding more embryonic stem cell research? It is because they are getting no results with embryonic stem cells. Nothing is happening results wise. Let's invest our money in adult stem cell research where we can actually treat people. That is important.

I yield the floor.

## GASOLINE

Mr. BURNS. Mr. President, there has been a lot of concern around the country about the escalating fuel prices. Americans get concerned whenever we see spikes in energy costs. No one is more concerned than we are in agriculture. We have a unique situation in agriculture. We sell wholesale, buy retail, and pay the freight both ways.

Every one of those stages involves energy, drives energy and drives prices.

It seems to me we are concerned about the traffic around Washington, DC, trying to get into work. I could take care of the gas prices and the traffic all in one fell swoop. All we have to do is pass a law that you cannot cross the 14th Street bridge with a car that is not paid for. That would help a lot. There would be a lot of folks finding other means.

This has been a wakeup call to all in this country. We are dealing with a worldwide commodity that is driven by emerging economies as well as our own demand for transportation fuels. The demand has outstripped our ability to move crude, natural gas or coal to the processing plants and refineries.

I tell my colleagues that in Montana we are producing more oil than in the history of our State. Yet we cannot get it on a pipeline because we have not built a pipeline for quite a while. We have also not built a new refinery in this country for over 30 years. There are a variety of reasons, the majority of which is the ability to permit and to site a plant. So we find ourselves not being able to produce enough product for the market. Anybody who took economics 101 will tell you, when demand outstrips production, then you are going to have the price go up.

Now, I would imagine this will drive us in another direction. It will drive us in the direction of alternative fuels and, of course, renewable energy. No other administration in our Government's history has spent more money on research as far as alternatives and renewables. We are on the cusp of cellulosic ethanol, which helps my State. Also in this business of alternative fuels is biodiesel, which will be one of the great renewables. Coal to liquids or coal to diesel will also be one of our great fuels. This technology is as old as World War II. Since then it has been refined and affords another source for developing resources where we have great deposits of coal. In Montana we are the "Saudi Arabia" of coal and we have the process and technology to easily get this done.

Now, if we can do that, and we can also increase farm income, and solve the problem of being dependent on foreign oil, who can oppose that?

Does that give us relief in the near term? No, it does not. There is nothing the Government or anybody else can do in the near term to prevent these kinds of spikes in a time of high demand.

So we will say that necessity is the mother of invention. We will be forced to drive less, to drive slower. We will not jump in our car and go down and buy a loaf of bread. The trip has to be necessary. And you will probably have a little sticker in the middle of your steering wheel saying: Is this trip necessary? The necessity will also drive us to alternatives and other ways of powering our car.

The demand for oil seems little affected by high prices. If it doesn't