August 28, 2017

The Honorable Thad Cochran
Chairman
Senate Committee on Appropriations
United States Senate
113 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Roy Blunt
Chairman
Senate Subcommittee on the Departments of Labor, Health and Human Services, and Education
United States Senate
260 Russell Senate Office Building
Washington, D.C. 20510

The Honorable Patrick Leahy
Ranking Member
Senate Committee on Appropriations
United States Senate
113 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Patty Murray
Ranking Member
Senate Subcommittee on the Departments of Labor, Health and Human Services, and Education
United States Senate
260 Russell Senate Office Building
Washington, D.C. 20510

Dear Chairmen Cochran and Blunt and Ranking Members Leahy and Murray:

On behalf of the millions of patients throughout the nation and around the world, as well as the scientific and medical communities dedicated to advancing human health, the undersigned organizations and institutions write to express our collective and strong opposition to prohibitions or restrictions that would further impede the use of federal funding for fetal tissue or embryonic stem cell research. If enacted, this legislation would severely obstruct research that is necessary for the development of new treatments for a wide range of serious and incurable diseases.

Public policy that facilitates ethically responsible research and development is in the best interest of patients worldwide. Decades of thoughtful deliberation on fetal tissue and embryonic stem cell research has provided an ethical and policy framework for valuable medical research to progress, which has enabled the discovery of new treatments that would not otherwise have been possible. We believe the ethical considerations fall heavily in favor of permitting continued federal funding of fetal tissue research, conducted in accordance with current federal rules. To do otherwise would be disruptive and devastating to patients and biomedical science in the long term.

Fetal tissue research advances scientific knowledge, improves human health, and saves lives

Fetal tissue research has been critical for scientific and medical advances that have saved the lives of millions of people; including the development of vaccines against polio, rubella, measles, chickenpox, adenovirus, rabies; and treatments for debilitating diseases such as rheumatoid arthritis, cystic fibrosis, and hemophilia.

Fetal tissue remains a critical resource that enables research into how human tissues develop and are impacted by disease. Using fetal tissue allows researchers to more fully understand congenital defects such as those of the heart or nervous system and to understand how viruses like the Zika virus impact fetal development. Indeed, the use of donated fetal tissue has been critical for understanding how Zika virus crosses the placenta and impacts human brain development. The insights gained through studies of Zika virus in human fetal tissue are already guiding the development of medications to prevent transmission of the virus. These examples illustrate how legislation that limits human fetal tissue research would hinder the development of critical new treatments and thus potentially cost lives.

It has been incorrectly stated that other cells can be used to replace fetal tissue in biomedical research. In fact, fetal tissue represents a specific, formative period and the cells in fetal tissue have unique and valuable properties that often cannot be replaced by other cell types. Cells from fetal tissue are more flexible and less specialized than cells from adult tissue and can be expanded in culture. This is part of the reason why cells from fetal tissue were used in the generation of many of the vaccines that are used today. The study of human fetal tissue also helps researchers understand how birth defects arise and how they can be prevented. It provides an unparalleled window into the complexity of human tissue development, including why serious congenital defects sometimes arise.

Tissue from spontaneous abortions is not a reliable substitute for tissue from "induced" abortions.[1] Spontaneous abortions, commonly called miscarriages, often result from genetic defects, developmental abnormalities, or other conditions that undermine the usefulness of the tissue for research and generally do not occur in settings where the fetal tissue can be adequately preserved for research.

Restricting NIH embryonic stem cell research will have a devastating impact on medical research

Embryonic stem cells, and the specialized cells they give rise to, have been used to test new drugs and to develop potential therapies to repair damaged tissues in patients. It is already the case that federal funding cannot be used to derive embryonic stem cell lines. Further restrictions on these efforts could shut down critical academic and industry research necessary for the development of new treatments for a wide range of serious and incurable diseases. Such arbitrary limitations could leave Americans waiting longer for life-saving cures and treatments.

Human embryonic stem cells have the potential to make any cell type in the body in unlimited quantities. In contrast, stem cells from adult tissues are limited in the types and quantities of cells they can make. The discovery that human adult cells can be reprogrammed to an embryonic-like pluripotent state (human induced pluripotent stem or iPS cells) does not remove the imperative to pursue embryonic stem cell research. Human embryonic stem cells remain the benchmark for assessing pluripotency and the ability of cells to develop into all cell types in the body.

Embryonic stem cell research, together with breakthroughs in iPS and adult stem cell technologies, will yield the insights that make medical advances possible. We need to ensure that researchers are equipped to pursue all forms of stem cell research and to discover the root causes of disease and develop the breakthrough medicines of the future.

The impact of the original derivation and subsequent worldwide distribution of human embryonic stem cells unlocked an entire new field of regenerative medicine. The resulting progress in research and advances in technology were unimaginable just a quarter century ago.

Research on embryonic stem cells has already yielded scientific breakthroughs that have contributed to our understanding of human development as well as disease processes. Human embryonic stem cell research is producing innovative approaches to treat diseases that represent major public health problems, and cells derived from human embryonic stem cells are now being tested in clinical trials as treatments for diabetes, spinal cord injury, heart failure, macular degeneration and Stargardt's macular dystrophy. Neurons derived from human embryonic stem cells will enter clinical trials in 2018 to test a new treatment for Parkinson's disease. Blocking federal funding for human embryonic stem cell research and its applications would impede this research and slow the development of new therapies for these and many other diseases.

There are well-established, rigorous oversight and regulatory frameworks for fetal tissue and embryonic stem cell research

[1] The language in the House Labor, Health and Human Services bill, Section 528, would prohibit "funds being used to conduct or support research using human fetal tissue if such tissue is obtained pursuant to an induced abortion."

Rigorous legal and ethical oversight of fetal tissue and embryonic stem cell research has been in place for decades. Both areas of research have garnered bipartisan support in the U.S. Congress and have been funded by the National Institutes of Health (NIH). Numerous federal panels and reviews, conducted under both Republican and Democratic congressional majorities and presidential administrations, have evaluated human fetal tissue and embryonic stem cell research and have concluded that they are critical for important and often lifesaving biomedical research. This research has long been viewed as good public policy to improve human health and has proceeded with public support.

Human fetal tissue and embryonic stem cell research are critical to addressing important questions in biomedical research, and for the development of new therapies and cures. Legal and ethical frameworks in place ensure appropriate oversight, and that human embryonic and fetal tissue is obtained legally and with donor consent. We urge you to oppose restrictions to this research and to support the families who are relying on biomedical research to develop new treatments for diseases that affect millions of lives around the world.

Sincerely,

Addiction Medicine Foundation
Academic Pediatric Association
Alliance for Aging Research
American Academy of Pediatrics
American Association for the Advancement of Science
American Association of Colleges of Pharmacy
American Congress of Obstetricians and Gynecologists
American Pediatric Society
American Society for Cell Biology
American Society for Investigative Pathology
American Society for Reproductive Medicine
American Society of Gene & Cell Therapy
American Society of Hematology
Americans for Cures
Association of Academic Health Sciences Libraries
Association of American Medical Colleges
Association of American Universities
Association of Independent Research Institutes
Association of Medical School Pediatric Department Chairs
Association of Medical and Graduate Departments of Biochemistry
Association of Public and Land-grant Universities
Boston University
Christopher and Dana Reeve Foundation
Coalition for Cell Biology
Coalition for the Life Sciences
Columbia University Medical Center
Council on Governmental Relations
Harvard University
Indiana University
International Society for Stem Cell Research
Johns Hopkins University
Medical Library Association
National Multiple Sclerosis Society
New York Stem Cell Foundation
New York University
Pediatric Policy Council

Prevent Cancer Foundation
Regenerative Medicine Foundation
Research!America
Rutgers Biomedical and Health Sciences
Society for Pediatric Research
Stanford University
Stony Brook University
SUNY Upstate Medical University
Texans for Cures
The American Thoracic Society
The Michael J. Fox Foundation for Parkinson's Research
The Nebraska Coalition for Lifesaving Cures
The Ohio State University
The State University of New York System
Tuberous Sclerosis Alliance
University at Buffalo- The State University of New York
University of California System
University of California, Davis
University of California, Riverside
University of California, San Francisco
University of Michigan
University of Minnesota
University of Pennsylvania
University of Pittsburgh
University of Washington
University of Wisconsin – Madison
Yale University