



HB0734 – Human Fetal Tissue - Prohibition

Presented to Hon. Shane Pendergrass and Members of the Health & Government Operations Committee
March 13, 2020 1:00 p.m.

POSITION: OPPOSE

NARAL Pro-Choice Maryland **urges the Health and Government Operations Committee to give an unfavorable report on HB0734 – Human Fetal Tissue - Prohibition**, sponsored by Delegate Robin Grammar.

Our organization is an advocate for reproductive health, rights, and justice. We strive to ensure every individual has the freedom to decide if, when, and how to plan for their future and their families. In doing so, we acknowledge that every pregnancy is unique and honor pregnancy decision-making in all its complexity. As a result, we recognize that abortion access is both an essential part of the ability to make reproductive decisions and a constitutional right as affirmed in federal caselaw since the *Roe v. Wade* ruling in 1973.

Fetal tissue research has been a common target [in the war against legal abortion](#).¹ However, without fetal tissue research, many advances in medicine and health, including our understanding of congenital diseases and chronic conditions, would be nowhere near the current standard. In order to ensure all individuals have agency and bodily autonomy to donate tissue to scientific research, it is vital that the state oppose bills like HB0734 which aims to stigmatize patients and burden their medical providers.

The National Institutes of Health (NIH) has supported research using human fetal tissue since the 1950s, and continues to do so in accordance with their mission to advance medical science for the benefit of citizens (Fig 1). Bipartisan support for human fetal tissue research came through the [NIH Revitalization Act of 1993](#) which concluded that “in light of the fact that abortion is legal and that the research in question is intended to achieve significant medical goals...the use of tissue [for research] is acceptable public policy.”² At the state level, fetal tissue donation has been regulated by the [Uniform Anatomical Gift Act](#), which explicitly treats fetal tissue the same way as other human tissue, allowing it to be donated by individuals for research, therapy, or education.³

Despite individual views on the morality of abortion, we all receive vaccines and treatment which would not be possible without human fetal tissue research. Legislation like HB0734 has the potential to threaten the health of millions of people globally by limiting essential medical advances. Indeed, one of NARAL Pro-Choice Maryland’s staff members lives with type 1 diabetes, a chronic, auto-immune condition; [her most promising hope for a cure comes from current research with embryonic stem cells](#).⁴

¹ Boonstra, D. Heather. Fetal Tissue Research: A Weapon and a Casualty in the War Against Abortion. Guttmacher Institute. 2016

² Advisory Committee to the Director, National Institutes of Health, *Human Fetal Tissue Transplantation Research*, Bethesda, MD: National Institutes of Health, 1988.

³ Uniform Law Commission, Anatomical Gift Act (2006), no date

⁴ Arana et al. Type 1 Diabetes Treatments Based on Stem Cells. *Current Diabetes Review*. 14 (1), 14-23. 2018

Unlike adult human tissue, fetal human tissue can be altered and adapted to new environments, an essential trait for scientific experiments and medical advancements. Scientists would not be able to study human development disorders, including [Down Syndrome, autism, and schizophrenia](#), without manipulating the environment in which fetal tissue is cultured.⁵ One of the biggest contributions fetal tissue has lent to the scientific world is the generation of cell culture lines. These lines are used to test toxicity and efficacy of vaccines and drugs. Many monumental vaccines that have been developed due to cell culture systems, including [vaccines for polio, measles, mumps, rubella, chickenpox, whooping cough, tetanus, Hepatitis A, and rabies](#).⁶

More recently, fetal tissue has been used in transplantation research because it 1) has a fast growth rate and 2) doesn't elicit a strong immune response which leads to a common immune issue in transplants known as "[graft versus host disease](#)".⁷ Transplantation is important for addressing degenerative health issues in which there is a loss of normal and healthy cells such as ALS, Alzheimer's disease, Parkinson's, spinal cord injury, and multiple sclerosis. Many of these diseases solely develop in humans and so the use of animal models would be irrelevant.

Lastly, advancements in finding a cure to HIV are largely due to research involving fetal tissue. While animal models can be good starting points to address viral infections, not a single animal model experiences the same pathogenesis that HIV has on the human immune system. Scientists developed a mouse model known as SCID-hu mice from fetal tissue which have successfully developed human lymphoid cells. These cells are the common targets for HIV infections, specifically [CD4+ T cells](#).⁸ Being able to study HIV pathogenesis, efficacy of anti-viral drugs, and potential vaccines has been essential to turning HIV from a death sentence to a manageable virus. This mouse model is also used to study various cancers.

Fetal tissue has been essential to addressing disorders ranging from neonatal disorders to degenerative diseases. If HB0734 is passed, it will harm individuals of all backgrounds and health statuses by limiting access to scientific research. Without access to fetal tissue, we will hinder the scientific field from pushing the limit on addressing human health. For these reasons, **NARAL Pro-Choice Maryland urges an unfavourable committee report on HB0734**. Thank you for your time and consideration.

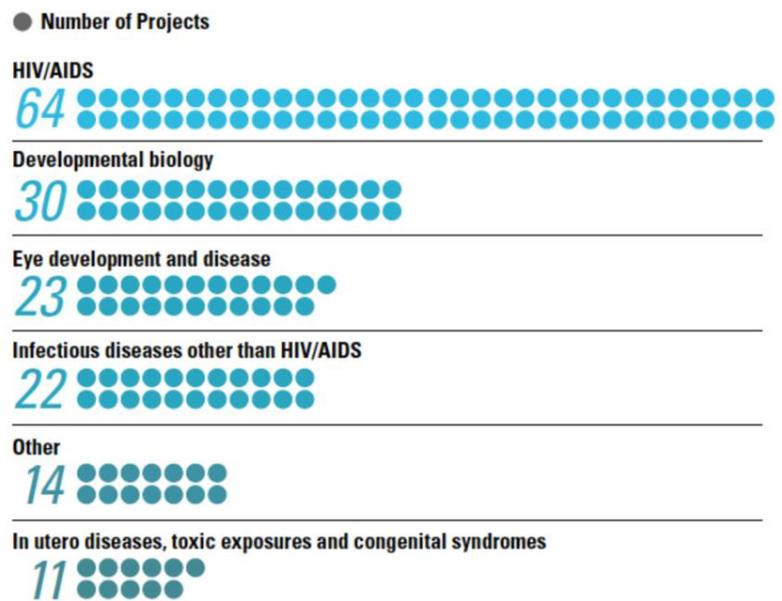


Figure 1: NIH Funding for Fetal Tissue Based Research.

⁵ Letter from Jim Esquea to Sens. Joni Ernst and Roy Blunt, Aug. 14, 2015, http://www.plannedparenthood.org/files/3514/4709/3497/HHS_Letter_2015_08_14_-_FT_Research.pdf.

⁶ American Society for Cell Biology, FAQs on fetal tissue research, 2015, <http://www.ascb.org/wp-content/uploads/2015/10/fetal-tissue.pdf>.

⁷ Ishii T and Eto K, Fetal stem cell transplantation: past, present, and future, *World Journal of Stem Cells*, 2014, 6(4):404-420.

⁸ McCune, Joseph, Weissman, Irving. The Ban on US Government Funding Research Using Human Fetal Tissues: How Does This Fit with the NIH Mission to Advance Medical Science for the Benefit of Citizenry? *Stem Cell Reports*. 2019