



# Ohio Legislative Service Commission

## Bill Analysis

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### **Am. Sub. S.B. 243** 128th General Assembly (As Passed by the Senate)

**Sens.** Buehrer, Carey, Coughlin, Faber, Gibbs, Grendell, Jones, Schaffer, Cates, Harris, Hughes, Niehaus, Patton, Schuring, Wagoner, Widener, Seitz

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## **BILL SUMMARY**

- Prohibits the creation of a human-animal hybrid and engaging in associated activities.
- Imposes, for violating any of the prohibitions, a criminal penalty consisting of imprisonment of up to one year and, if monetary gain resulted from the violation, a fine of at least \$250,000.
- Exempts certain research activities and scientific procedures from the prohibitions.

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## **CONTENT AND OPERATION**

### **Prohibitions regarding human-animal hybrids**

(R.C. 3701.95(A) and (B))

The bill prohibits a person from knowingly doing any of the following:

- (1) Creating or attempting to create a human-animal hybrid;
- (2) Transferring or attempting to transfer a human embryo into a nonhuman womb;
- (3) Transferring or attempting to transfer a nonhuman embryo into a human womb;
- (4) Transporting or receiving for any purpose a human-animal hybrid.

The bill defines a "human-animal hybrid" as any of the following: (1) a human embryo into which a nonhuman cell or a component of a nonhuman cell is introduced so that it is uncertain whether the human embryo is a member of the species *Homo sapiens*, (2) a hybrid human-animal embryo produced by fertilizing a human egg with a nonhuman sperm, (3) a hybrid human-animal embryo produced by fertilizing a nonhuman egg with a human sperm, (4) an embryo produced by introducing a nonhuman nucleus into a human egg, (5) an embryo produced by introducing a human nucleus into a nonhuman egg, (6) an embryo containing at least haploid<sup>1</sup> sets of chromosomes from both a human and nonhuman life form, (7) a nonhuman life form engineered with the intention of generating functional human gametes<sup>2</sup> within the body of a nonhuman life form, or (8) a nonhuman life form engineered such that it contains a human brain or a brain derived wholly from human neural tissues. "Human embryo" is defined as an organism of the species *Homo sapiens* during the earliest stages of development from one cell up to eight weeks.

### **Exemption for research and xenotransplantation**

(R.C. 3701.95(C))

The bill specifies that its prohibitions regarding human-animal hybrids do not prohibit any of the following:

(1) Research involving the use of transgenic<sup>3</sup> animal models containing human genes;

(2) Xenotransplantation<sup>4</sup> of human organs, tissues, or cells into recipient animals, including animals at any stage of development prior to birth, so long as the xenotransplantation does not violate one or more of the bill's prohibitions;

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<sup>1</sup> "Haploid" means having a single set of chromosomes, representing the normal complement of the species. In humans, the haploid number is "23." (Dorland's Medical Dictionary (online version), available at: <<http://www.mercksource.com>>.)

<sup>2</sup> A "gamete" is one of two haploid reproductive cells, male and female, whose union is necessary in sexual reproduction to initiate the development of a new individual (*Id.*).

<sup>3</sup> "Transgenic" means relating to a segment of recombinant DNA that has been transferred from one genome to another (*Id.*).

<sup>4</sup> "Xenotransplantation" means any procedure that involves the transplantation, implantation, or infusion into a human recipient of either (1) live cells, tissues, or organs from a nonhuman animal source, or (2) human body fluids, cells, tissues, or organs that have had *ex vivo* contact with live nonhuman animal cells, tissues, or organs (U.S. Food and Drug Administration, *Vaccines, Blood & Biologics: Xenotransplantation*, available at <<http://www.fda.gov/BiologicsBloodVaccines/xenotransplantation/default.htm>>).

(3) An individual from receiving organs, tissues, or cells delivered from outside of Ohio.

## Penalties

(R.C. 3701.99(D))

A person who violates the bill's prohibitions regarding human-animal hybrids is subject to a criminal penalty that generally consists of a term of imprisonment not to exceed one year. If the offender derives pecuniary gain as a result of the violation, the offender is also subject to a fine of not less than \$250,000 and not more than \$500,000.

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## HISTORY

ACTION	DATE
Introduced	03-18-10
Reported, S. Health, Human Services & Aging	05-27-10
Passed Senate (24-8)	06-02-10

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