This bill requires specified entities that conduct research using nonhuman animals to make a payment to the Maryland Department of Health (MDH) each year based on the number of animals used in their research. The Secretary of Health must distribute the revenues to the Human-Relevant Research Fund (HRRF), a special fund created by the bill in the Maryland Technology Development Corporation (TEDCO) to promote State-funded research intended to develop human-relevant alternatives to using nonhuman animals in testing and research through grants and loans. TEDCO must establish the program, as specified. HRRF may only be used for TEDCO’s administrative costs and to provide grants and loans. The bill takes effect July 1, 2023.

Fiscal Summary

State Effect: Special fund revenues for HRRF increase by as much as $915,000 annually beginning in FY 2024, as discussed below. Special fund expenditures increase correspondingly as funds are used by TEDCO for authorized purposes. Higher education expenditures increase by $120,000 annually beginning in FY 2024 due to required payments for certain public institutions of higher education. MDH can handle the bill’s requirements with existing budgeted resources. General fund revenues are not materially affected by the bill’s penalty provisions.

<table>
<thead>
<tr>
<th>(in dollars)</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
<th>FY 2028</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF Revenue</td>
<td>$915,000</td>
<td>$915,000</td>
<td>$915,000</td>
<td>$915,000</td>
<td>$915,000</td>
</tr>
<tr>
<td>SF Expenditure</td>
<td>$915,000</td>
<td>$915,000</td>
<td>$915,000</td>
<td>$915,000</td>
<td>$915,000</td>
</tr>
<tr>
<td>Higher Ed Exp.</td>
<td>$120,000</td>
<td>$120,000</td>
<td>$120,000</td>
<td>$120,000</td>
<td>$120,000</td>
</tr>
<tr>
<td>Net Effect</td>
<td>$(120,000)</td>
<td>$(120,000)</td>
<td>$(120,000)</td>
<td>$(120,000)</td>
<td>$(120,000)</td>
</tr>
</tbody>
</table>

Note: () = decrease; GF = general funds; FF = federal funds; SF = special funds; * = indeterminate increase; ( ) = indeterminate decrease
Local Effect: Local expenditures for the Community College of Baltimore County increase by $5,000 annually beginning in FY 2024 to make the required payment to MDH. Revenues are not affected. This bill may impose a mandate on a unit of local government.

Small Business Effect: Meaningful.

Analysis

Bill Summary:

Required Annual Payment

By January 15 each year, beginning in 2024, each research facility that is located in the State and is required to submit an Animal and Plant Health Inspection Service (APHIS) Form 7023 must make a payment to MDH based on the total number of animals used in its research. The annual amount ranges from $5,000 to $75,000, depending on the number of animals reported in Column F of the most recently submitted form. The Secretary of Health must distribute the funds collected to HRRF. A research facility that fails to pay as required may be subject to a civil penalty of up to $1,000 per day.

Human-Relevant Research Fund and Related Program

HRRF is established as a special, nonlapsing, fund in TEDCO. The fund may only be used to award grants and loans, as specified, and pay TEDCO’s administrative expenses. Interest earnings of the fund accrue to the fund.

TEDCO must establish a grant and loan program, as specified, which includes contracting with an independent scientific review board to review research proposals and make recommendations to TEDCO. The review board must:

- review, evaluate, rank, and rate research proposals under the bill, as specified; and
- based on the rankings and ratings awarded to the research proposals, make recommendations to TEDCO for the award and disbursement of grants and loans.

Disbursement of a grant or loan is contingent on the recipient entering into a memorandum of understanding with TEDCO that establishes the scope of the State’s financial interests and reflects the intellectual property policies of TEDCO.
By January 1 each year, TEDCO and the review board must report to the Governor and the General Assembly on the progress of the research conducted with money from grants or loans awarded under the bill.

TEDCO, in consultation with the review board, must adopt regulations to establish procedures for awarding and disbursing grants and loans under the bill.

**Current Law:**

**Animal Testing**

State law does not require an individual to be licensed or pay a fee to conduct animal testing.

Under the federal Animal Welfare Act (AWA), the U.S. Department of Agriculture’s (USDA) APHIS regulates commercial animal dealers, exhibitors (circuses, zoos, etc.), research facilities, and commercial businesses that transport animals. Research facilities that use or intend to use live animals in research, tests, or experiments must be registered with USDA and are inspected by APHIS at least once per year. A facility must also appoint an Institutional Animal Care and Use Committee (IACUC) consisting of at least three members, including a veterinarian and one person who is not in any way affiliated with the facility. IACUC is responsible for, among other things, reviewing the facility’s program for humane care and use of animals and inspecting the research facility’s animal facilities. Research facilities must submit an annual report to APHIS providing information that includes the types and numbers of animals used for research purposes during a particular year (Form 7023, as referenced by the bill).

For purposes of AWA, “animal” means any live or dead dog, cat, monkey (nonhuman primate mammal), guinea pig, hamster, rabbit, or such other warm-blooded animal, as the Secretary of Agriculture may determine is being used, or is intended for use, for research, testing, experimentation, or exhibition purposes, or as a pet. The term excludes, among other animals, birds, rats of the genus *Rattus*, and mice of the genus *Mus*, bred for use in research.

**Maryland Technology Development Corporation**

TEDCO is an independent entity established by the Maryland General Assembly in 1998 to facilitate the creation of technology companies and encourage collaboration between these emerging businesses and federal and State research laboratories. TEDCO also aims to promote new research activity and investments that lead to business development in Maryland. For further information on TEDCO, including a general overview and recent
program additions, see the Appendix – Maryland Technology Development Corporation.

State Fiscal Effect:

Revenue Collection and Distribution

The bill establishes an annual required payment of between $5,000 and $75,000 for research facilities, depending on the number of animals used to conduct medical or product testing or research beginning January 15, 2024. Based on the most recent Form 7023 data (2021 information), the Department of Legislative Services estimates annual revenue of as much as $915,000 from 35 registrants. This estimate assumes that all registrants maintain their registration and that the 15 federal registrants voluntarily make the payment. Further, overall revenues are highly sensitive to the number of entities required to pay higher annual amounts in any given year.

Registrant payments are assumed to be received as special fund revenues by HRFF each year, although they are collected by MDH. Based on the small number of affected entities and that the payment is made one time per year, MDH administrative costs are minimal and absorbable within existing budgeted resources.

Special fund revenues and expenditures for HRRF increase by as much $915,000 annually beginning in fiscal 2024 as funds are received and used to pay for TEDCO administrative expenses and provide grants and/or loans to eligible recipients. TEDCO estimates total annual administrative costs of about $180,000, which includes costs for staff and related expenses and $28,000 to contract with a review board; this may leave as much as $735,000 for financial assistance each year. TEDCO advises that administrative costs may reflect a half-time staff or a partial cost allocation of a full-time staff, depending on other staffing needs at the time of implementation. In either case, total revenues and expenditures for HRRF are unchanged, but there may be a slight change in funds available for financial assistance.

TEDCO employees are not State employees. Grants and/or loans may be of any size as determined by TEDCO. Special fund revenues and expenditures may further increase beginning in fiscal 2025 to the extent TEDCO provides loans, the loans are repaid, and the funds reissued to additional recipients.

Public Institutions of Higher Education

Of the 35 registrants required to make annual payments under the bill based on the 2021 APHIS Form data, 4 are public senior institutions of higher education. Based on the
number of animals listed on the form, those institutions must pay a combined $120,000 each year beginning in fiscal 2024, as follows:

- Towson University, $5,000;
- Frostburg State University, $5,000;
- University of Maryland, College Park Campus, $55,000; and
- University of Maryland, Baltimore Campus, $55,000.

Accordingly, higher education expenditures increase by $120,000 annually beginning in fiscal 2024.

**Small Business Effect:** Small businesses that conduct medical or product testing or research in Maryland using nonhuman animals must make the applicable annual payment under the bill. Small businesses may also benefit from financial assistance received from TEDCO under the bill.

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**Additional Information**

**Prior Introductions:** Similar legislation has not been introduced within the last three years.

**Designated Cross File:** HB 626 (Delegate Cullison, *et al.*) - Health and Government Operations and Ways and Means.

**Information Source(s):** Maryland Technology Development Corporation; Maryland Department of Health; U.S. Department of Agriculture; Department of Legislative Services

**Fiscal Note History:**
- First Reader - February 26, 2023
- Third Reader - March 24, 2023
- Revised - Amendment(s) - March 24, 2023
- Enrolled - April 20, 2023

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Appendix – Maryland Technology Development Corporation

The Maryland Technology Development Corporation (TEDCO) is an independent entity established by the Maryland General Assembly in 1998 to enhance the transfer of technology from universities and federal laboratories to the private sector and foster the growth of companies in critical or high-growth sectors. TEDCO investments must meet statutory eligibility criteria that generally require a business to have and subsequently maintain a presence in the State. TEDCO programs typically assist companies based on a company’s stage of development: from early stage and technology transfer to growth stage.

TEDCO’s purview and funding has expanded in recent years as legacy programs were transferred from the Department of Commerce and new programs were established directly within TEDCO. The Maryland Venture Fund and a biotechnology grant program were transferred to TEDCO in fiscal 2016. The following programs have been established by legislation since 2021:

- **Pre-Seed Builder Fund:** The Pre-Seed Builder Fund supports the development of start-up companies run by entrepreneurs from socially or economically disadvantaged backgrounds that hinder access to traditional forms of capital and executive networks at the pre-seed stage. The Governor must include appropriations in the budget bill in the following amounts: $5.0 million in fiscal 2023; $6.2 million in fiscal 2024; and $7.5 million annually beginning in fiscal 2025.

- **Inclusion Fund:** The Inclusion Fund provides capital investment in technology-based businesses that (1) would qualify for investment under the Builder Fund, as provided in TEDCO regulations; (2) are at least 30% owned by individuals who demonstrate economic disadvantage; and (3) are controlled and managed for at least one year after the time of investment by an individual or individuals who demonstrate economic disadvantage.

- **Maryland Makerspace Initiative Program:** The program encourages the establishment and expansion of makerspaces throughout the State. The Governor must include an appropriation in the annual budget bill of at least $1.0 million in fiscal 2024 through 2028 for the fund. The program terminates September 30, 2028.
• **Maryland Equity Investment Fund:** The Maryland Equity Investment Fund allows unappropriated general fund surplus to be invested in a “qualified business” – with a goal to increase private equity and venture capital in the State – and the interest earnings and investment returns realized to the benefit of participants of the several pension systems managed by the State Retirement and Pension System. For fiscal 2024, the Governor must include an appropriation in the budget bill to the fund equal to 10% of the unappropriated general fund surplus in excess of $10.0 million from the second prior fiscal year, up to a maximum of $10.0 million, with a corresponding decrease in the typical required appropriation.

• **Small Business Innovation Research and Technology Transfer Incentive (SBIR/STTR) Program:** The SBIR/STTR Program allows eligible small businesses to apply for State awards or investments of 25% of SBIR/STTR federal grants, limited to $25,000 for Phase I funding or $75,000 for Phase II funding. TEDCO may make up to 20 Phase I distributions and 10 Phase II distributions per fiscal year for a total of $1.25 million.

For a more thorough discussion of TEDCO’s structure and programs, including how its programs support companies in different stages of development, see “Chapter 13, Economic Development and Business Regulation” of *Volume II – Government Services in Maryland* of the 2022 Legislative Handbook Series.