

T50T01
Maryland Technology Development Corporation

Operating Budget Data

(\$ in Thousands)

	<u>FY 11</u> <u>Actual</u>	<u>FY 12</u> <u>Working</u>	<u>FY 13</u> <u>Allowance</u>	<u>FY 12-13</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
General Fund	\$13,858	\$15,673	\$13,573	-\$2,100	-13.4%
Adjusted General Fund	\$13,858	\$15,673	\$13,573	-\$2,100	-13.4%
Adjusted Grand Total	\$13,858	\$15,673	\$13,573	-\$2,100	-13.4%

- The fiscal 2013 allowance is \$13.6 million in general funds, which includes \$3.2 million for the corporation's technology development, transfer, and commercialization programs. This represents a \$100,000 decrease from the prior year working appropriation.
- The fiscal 2013 allowance for the Stem Cell Research program is \$10.4 million – a \$2 million decrease from the fiscal 2012 working appropriation.
- The Maryland Technology Development Corporation (TEDCO) does not report personnel data through the State budget system because the corporation's employees are not State employees; however, the corporation reports that it has 12.5 State-funded positions and 0.5 federally funded position.

Note: Numbers may not sum to total due to rounding.

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Analysis in Brief

Major Trends

Spike in Follow-on Funding in Fiscal 2011: A measure of success of the funding provided under the Maryland Technology Transfer and Commercialization Fund is the extent to which recipients can secure follow-on funding. In fiscal 2011, the fund’s recipients obtained a significant amount of downstream funding, despite a relatively small amount of general fund support.

Issues

The Stem Cell Research Fund: In fiscal 2011, the Stem Cell Research Fund supported 36 research grants that were approved from 180 applications. The Stem Cell Commission is in receipt of 179 applications for grant funding in fiscal 2012. The commission will also begin receiving applications for a new grant program for pre-clinical and clinical research grants. **The Department of Legislative Services (DLS) recommends that TEDCO brief the budget committees on the activity under the Stem Cell Research Fund.**

New Opportunities for Commercialization Funds: TEDCO has a stated goal of increasing technology transfer and commercialization. It seeks to encourage collaboration between research institutions and early-stage companies. Its current programs have shown some success in furthering these goals. However, there are two new initiatives that may add further commercialization capabilities to the corporation: the Maryland Innovation Initiative and the TEDCO Venture Capital Fund. **DLS recommends that the corporation discuss the prospects and parameters of the two new initiatives. The corporation’s comments should describe where on the continuum of State business incentives that the new programs fall. Further, the corporation should comment on any progress to capitalize its own venture capital fund.**

Recommended Actions

1. Add language restricting funds pending the completion of the corporation’s annual report.

Updates

Major Grants: Committee narrative, included in the 2008 *Joint Chairmen's Report*, requested a complete listing of award recipients for all deals closed or projects approved in fiscal 2008. The corporation is continuing to provide this information for subsequent years.

No New Outside Funding for Fiscal 2012: The corporation aims to secure federal and other grant funds to support its technology transfer and development efforts. No new funds were made available to the corporation in fiscal 2012. However, cumulative funding since fiscal 2001 represents over a 15 to 1 leverage of TEDCO funds.

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T50T01
Maryland Technology Development Corporation

Operating Budget Analysis

Program Description

The Maryland Technology Development Corporation (TEDCO) was launched in 1998 to help commercialize the results of scientific research and development conducted by higher education institutions, federal laboratories, and private sector organizations. TEDCO also aims to promote new research activity and investments that lead to business development in Maryland.

To achieve its goals, TEDCO provides non-equity investments to early-stage technology businesses, and it funds development and patenting of new technologies at research universities. TEDCO also develops linkages with federal research facilities in the State and helps companies pursue research funds from federal and other sources.

In 2001, TEDCO was authorized to create, manage, and provide funds for the statewide Maryland Technology Incubator Program. Technology business incubators offer start-up companies physical office space, research space, and an array of business services in hopes of generating new research and jobs.

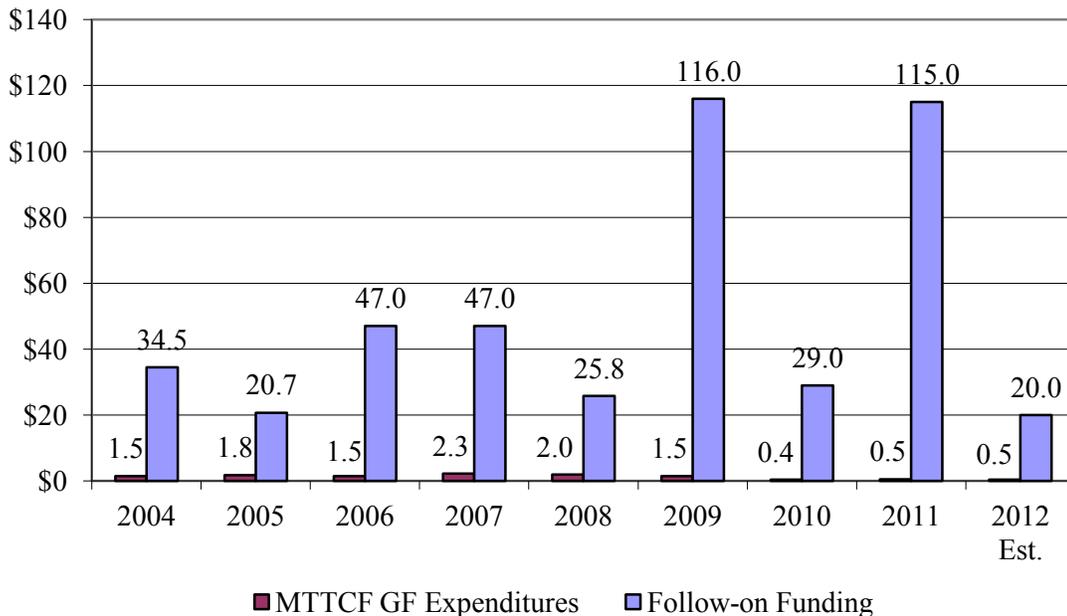
TEDCO supports stem cell research and development at Maryland's research universities and private sector research corporations in accordance with the Maryland Stem Cell Research Act of 2006. The Maryland Stem Cell Commission established an independent scientific peer review committee to review, evaluate, rank, and rate research based on procedures and guidelines that give consideration to scientific, medical, and ethical implications.

Performance Analysis: Managing for Results

Spike in Follow-on Funding in Fiscal 2011

The Maryland Technology Transfer and Commercialization Fund (MTTCF) provides seed investments to early stage technology companies that are economically viable but do not yet have the scope for a venture capital investment. The companies must partner with universities in Maryland or federal laboratories to receive funds or must be a tenant in a technology incubator. A measure of success for the MTTCF is the ability of funded start-ups to obtain follow-on funding for commercialization. The primary sources of follow-on funds include federal grants, venture capital and other equity investments, and Department of Business and Economic Development (DBED) funds. TEDCO tracks leveraged funds for up to seven years for each MTTCF recipient. **Exhibit 1** shows follow-on funding for the MTTCF recipients relative to the amount of general fund investment in the program.

Exhibit 1
Follow-on Funding for Recipients of TEDCO Investments
Fiscal 2004-2012
(\$ in Millions)



GF: general fund
 MTTCF: Maryland Technology Transfer and Commercialization Fund
 TEDCO: Maryland Technology Development Corporation

Source: Maryland Technology Development Corporation, Governor’s Budget Books, Fiscal 2007–2012

This measure is of particular importance to the corporation because success in raising downstream funding is a key criterion in evaluating second award proposals. It should be noted that the MTTCF program is supplemented by nonbudgeted funds from the corporation’s reserve funds and that follow-on funding reflects the impact of the entire investment by the corporation. However, as shown in Exhibit 1, general funds have declined from a high mark of \$2.3 million in fiscal 2007 to \$490,000 in fiscal 2012. It does not appear that this decline has significantly dampened follow-on funding for the corporation’s grantees. In fact, three of the program’s grantees succeeded in obtaining significant downstream investments in fiscal 2011, ranging from \$10.0 million to \$38.5 million. In total, the program’s recipients secured about \$115.0 million in follow-on investments in fiscal 2011, closely matching a high mark for the program.

Proposed Budget

The fiscal 2013 allowance is budgeted as a State general fund grant of \$13.6 million. Of this amount, \$10.4 million is dedicated to the Stem Cell Research Fund, a decrease of \$2.0 million from the fiscal 2012 working appropriation. This matches the actual appropriation from fiscal 2011 after a budget amendment transferred \$2.0 million from the fund to the Maryland Biotechnology Tax Credit Reserve Fund under the Department of Business and Economic Development.

The remaining \$3.2 million in general funds is for Technology Development, Transfer, and Commercialization programs, which represents a decrease of \$100,000. The corporation plans to disburse this reduction across its operating funds. **Exhibit 2** summarizes the major changes and shows the corporation’s general fund budget by program.

The corporation does not submit personnel data through the State budget process, but the agency reports that it has 12.5 State-funded positions, 2.0 of which are dedicated to the Stem Cell Research Program.

Exhibit 2
TEDCO General Fund Budget
Fiscal 2010-2013
(\$ in Thousands)

	<u>2010</u>	<u>2011</u>	<u>Working Approp. 2012</u>	<u>Allowance 2013</u>	<u>\$ Change 2012-13</u>	<u>% Change 2012-13</u>
Operations						
Program Development and Outreach	\$210	\$198	\$170	\$0	-\$170	-100.0%
Technology Transfer Programs and Services	1,398	1,303	1,250	952	-298	-23.9%
Business Incubation	527	657	655	412	-243	-37.1%
Executive Management and Overhead	308	310	307	919	612	199.1%
Operations Subtotal	\$2,443	\$2,468	\$2,383	\$2,283	-\$100	-4.2%
Investments						
Maryland Technology Transfer and Commercialization Fund	\$400	\$490	\$490	\$490	\$0	0.0%
University Technology Development Fund	0	0	0	0	0	0.0%
University Intellectual Property Support Fund	0	0	0	0	0	0.0%
Maryland Industrial Partnership Program	550	500	400	400	0	0.0%
Investments Subtotal	\$950	\$990	\$890	\$890	\$0	0.0%
Total	\$3,393	\$3,458	\$3,273	\$3,173	-\$100	-3.1%
Stem Cell Research Fund	12,350	10,400	12,400	10,400	-2,000	-16.1%
Grand Total	\$15,743	\$13,858	\$15,673	\$13,573	-\$2,100	-13.4%

Source: Maryland Technology Development Corporation

Based on recommendations resulting from the corporation's annual audit, the allocation of operational general funds has changed in fiscal 2013. The marketing activities shown under Program Development and Outreach have been allocated to the operating programs based on the amount of hours, number of transactions, etc. The work of the corporation has not fundamentally changed, and the total grant has not changed (excepting the \$100,000 general fund reduction).

General Funds Support One of Three Main Programs

TEDCO has three primary investment programs that are or have been supported by general funds. (The corporation no longer funds the University Intellectual Property Support Fund). Investment programs remain flat in the fiscal 2013 allowance, not including the Stem Cell Research Fund or the Maryland Industrial Partnership program discussed later in this analysis.

Maryland Technology Transfer and Commercialization Fund: The MTTCF awards seed funding to early-stage companies that partner with universities or federal laboratories in Maryland or companies that are tenants in technology incubators. The allowance includes \$490,000 for this program. MTTCF awardee companies must have a commercialization strategy to qualify, and awards are up to \$75,000 in non-equity investments per company. The companies serve as a "farm team" for DBED's Challenge Program, which targets businesses at a later stage of development. The MTTCF awardees also often go on to participate in the Maryland Industrial Partnership Program at Maryland's public higher education institutions. The corporation advises that it will subsidize the general fund component of this program with a portion of its nonbudgeted funds.

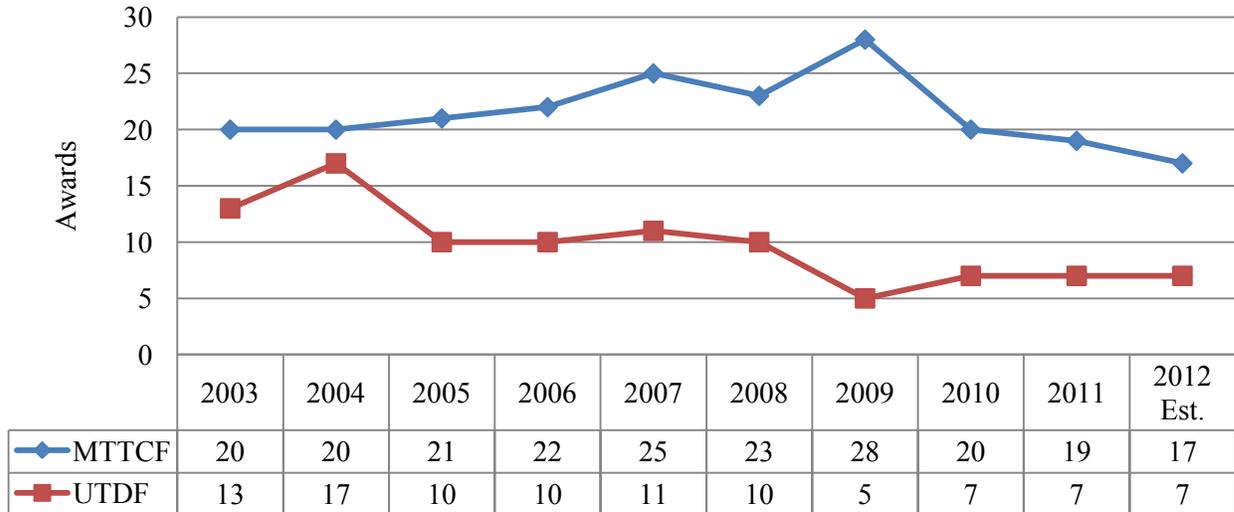
University Technology Development Fund: The University Technology Development Fund (UTDF) provides pre-seed funding for technologies at the earliest stages of the development process. For the fourth year, the allowance provides no general funds for this program. Funds for the program were reduced in fiscal 2009 from the original appropriation of \$400,000 to \$200,000 as a result of cost containment. Again, the corporation advises that it will subsidize this program with a portion of its nonbudgeted funds.

Program awards go to university technology licensing offices, with initial awards up to \$50,000 each. The offices use the funds to support early stage proof of concept testing, prototype development, feasibility demonstrations, and similar activities.

Exhibit 3 shows the number of program awards under the MTTCF and the UTDF. The corporation concentrates more of its funding in MTTCF recipients. A decline in the UTDF awards is evident as general funds were eliminated from the corporation's budget.

Working Capital Loan Fund: The working capital revolving loan fund does not receive funds in the allowance because initial funding sufficiently capitalized the program to provide loans to incubator companies. TEDCO received a \$325,000 start-up grant from the federal Economic Development Administration for the fund, and TEDCO provided a \$325,000 match. The State provided another \$500,000 in fiscal 2007 to ensure that all areas of the State may be served. The fund provides working capital loans of \$15,000 to \$50,000 to companies. Currently, there are eight loans outstanding from the fund; one has been repaid since last year.

**Exhibit 3
MTTCF and UTDF Awards
Fiscal 2003-2012**



MTTCR: Maryland Technology Transfer and Commercialization Fund
 UTDF: University Technology Development Fund

Source: Maryland Technology Development Corporation

Maryland Industrial Partnership Program

The fiscal 2013 allowance includes \$400,000 in general funds for the Maryland Industrial Partnership Program, matching the fiscal 2012 appropriation. This program is designed to accelerate commercialization by matching funds for university-based research projects that help companies develop new products. Prior to fiscal 2010, these funds were budgeted in the Maryland Higher Education Commission and passed through to the University of Maryland. Given TEDCO’s expertise with technology commercialization, it was deemed a better fit to be overseen by the corporation. However, in fiscal 2010, the funds remained a pass-through grant to University System of Maryland (USM) institutions, and TEDCO was able to exert little control over how the funds were spent.

In fiscal 2011, the legislature added language to the fiscal 2011 budget bill, that expressed the intent of the General Assembly that the Maryland Industrial Partnership Program be expanded to include all State four-year public institutions, not just University of Maryland institutions. Since the enactment of this language, the corporation has been much more involved in the dissemination of these grants. Two members of the TEDCO staff are included in both the review and approval process.

It should be noted that the funding level for the program has been reduced in recent years. The program’s funding was \$1 million in fiscal 2009.

Issues

1. The Stem Cell Research Fund

The Stem Cell Research Fund was established by Chapter 19 of 2006 to support stem cell research and development at Maryland research institutions or private companies. In July 2006, the members of the Stem Cell Research Commission were announced. This group reviews the proposed research process for applicant projects and makes recommendations to the TEDCO board about research grant awards. The research commission includes 15 members, as directed by statute, who include the Attorney General or designee, patient advocates, individuals with experience in biotechnology, scientists who work for USM and the Johns Hopkins University and do not engage in stem cell research, bioethicists, and individuals with expertise in biomedical ethics as it relates to religion. Several commission members work at institutions that are applying for funding, and so the commission has adopted conflict of interest guidelines to help members avoid inappropriately influencing commission decisions.

The fiscal 2013 allowance includes \$10.4 million in general funds to support grants under the Stem Cell Research Fund. The commission is authorized to award three types of grants:

- **Investigator-initiated Research Grants** are designed for investigators with preliminary data and well-established research in the stem cell field. The maximum annual grant amount is \$200,000 a year, for up to three years.
- **Exploratory Research Grants** are designed for investigators who are new to the stem cell field and for exploratory projects without preliminary data. The maximum annual grant amount is \$100,000 a year, for up to two years.
- **Post-doctoral Research Grants** are for exceptional pre-doctoral students and post-doctoral fellows who wish to conduct post-doctoral research on human stem cells in the State of Maryland with maximum support of \$55,000 a year, for up to two years.

Exhibit 4 shows the history of the general funds and grant awards under the program. Most of the available funds are granted for exploratory research. Since their introduction in fiscal 2008, post-doctoral research grants are growing in popularity. Because the maximum awards are smaller, it allows the corporation to provide more grants with the same or reduced amount of funding.

Exhibit 4
Stem Cell Research Fund
History of Funded Awards
Fiscal 2007-2011

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Investigator Initiated	7	11	6	5	9
Exploratory	17	32	31	20	13
Post-doctoral	0	15	21	16	14
Total Grants	24	58	58	41	36
Annual General Funds	\$15 million	\$23 million	\$18 million	12.4 million	10.4 million
Applications	86	122	147	141	180
Percent Funded	28%	48%	39%	29%	20%

Source: Maryland Technology Development Corporation

Funding for the program was \$10.4 million in fiscal 2011. The fund received 180 applications for funding and approved 36 – 9 investigator-initiated research grants, 13 exploratory research grants, and 14 post-doctoral grants. Additionally, two of the approved projects will collaborate with scientists funded by the California Institute of Regenerative Medicine.

In fiscal 2012, TEDCO received 179 applications in response to its request for applications. Applications will be reviewed by an independent scientific review panel by March 2012. In January 2012, the commission announced that it will begin a new grant program for pre-clinical and clinical research grants. Specifically, the program will support for-profit companies in advancing medical therapies using human stem cells. Applicants for pre-clinical research may request up to \$500,000 in direct costs and applicants for clinical research grants are eligible to receive up to \$750,000 in direct costs; both for up to three years. Projects must have achievable milestones.

The Department of Legislative Services (DLS) recommends that TEDCO brief the budget committees on the activity under the Stem Cell Research Fund.

2. New Opportunities for Commercialization Funds

TEDCO has a stated goal of increasing technology transfer and commercialization. It seeks to encourage collaboration between research institutions and early-stage companies. Its current programs have shown some success in furthering these goals. However, there are two new initiatives that may add further commercialization capabilities to the corporation.

Maryland Innovation Initiative

The Administration has introduced Senate Bill 239/House Bill 442 which establishes the Maryland Innovation Initiative within TEDCO. The program is designed to combine the technology transfer expertise of TEDCO and the research expertise of universities to speed commercialization opportunities. It was born, in part, of USM's 10-year technology transfer plan that has a goal of creating 325 companies and doubling the system's \$1.4 billion in research grants.

The initiative consists of a member of the State government, two members of the private sector with experience commercializing technology in the State, and one representative each from five specified nonprofit research universities located in the State. To qualify for participation in the initiative, each university must provide at least \$250,000 annually to the initiative to carry out the initiative's established purpose, which is generally to promote the commercialization of research conducted by universities in the State through strategic partnerships.

TEDCO will administer the initiative, which may be funded by (1) appropriations as provided in the State budget; (2) contributions by qualifying universities; (3) grants or funds from federal laboratories located in the State; and (4) any other money accepted for the benefit of the initiative. Funds may only be used to award grants to promote the commercialization of pertinent research and pay the necessary administrative costs of the initiative.

The initiative may (1) provide grant funding to a qualifying university, qualifying university-based entrepreneur, or other start-up entity, to promote the commercialization of technology developed in whole or in part by a qualifying university; (2) pursue grant funding for the initiative or its qualifying universities; (3) develop and implement guidelines for technology transfer; and (4) identify projects at qualifying universities that may be viable for commercialization.

Grant funding may be awarded (1) to support pre-commercial research on intellectual property; (2) to defray costs of evaluating the feasibility of a technology becoming commercialized through a start-up company; (3) to defray the direct costs of developing early stage technology through a start-up company; (4) to assess intellectual property issues, including licensing and patents; or (5) for any other costs that the initiative's participating members determine are appropriate, given the initiative's purpose.

No funds have been provided in the corporation's allowance for this purpose

TEDCO Venture Capital Fund

In February 2011, the corporation announced plans to launch a new venture capital fund to back early stage Maryland companies. The corporation has a goal to attract \$50 million to \$100 million in funds from institutional investors and private individuals for the fund. The fund will make equity investments in early stage companies such as information technology firms and medical device makers. It is expected that the fund would have a bias toward Maryland companies, but the corporation reports that it would invest out-of-state for compelling investment opportunities.

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This new endeavor may, in part, be a response to reduced general funds for existing TEDCO programs. The corporation already seeks outside funding, as can be seen under the Updates section of this analysis. The vast majority of this outside funding is federal or university related. To date, it has only partnered with one private entity, which provided only a small amount of funding for technology investments of interest only to that private entity. This new plan would be of a much greater scale and scope. Since the announcement, the corporation has informally been talking to investors and foundations; however, no further announcements have been made regarding the formulation of the new venture fund.

DLS recommends that the corporation discuss the prospects and parameters of the two new initiatives including how the Maryland Innovation Initiative would compliment rather than duplicate existing university technology transfer efforts. The corporation's comments should describe where on the continuum of State business incentives that the new programs fall. Further, the corporation should comment on any progress to capitalize its own venture capital fund.

Recommended Actions

1. Add the following language to the general fund appropriation:

, provided that \$500,000 of this appropriation for the Maryland Technology Development Corporation made for the purpose of technology development, transfer , and commercialization programs may not be expended until the corporation submits all outstanding annual reports as required in the Economic Development Article §10-415 by October 1, 2012. The budget committees shall have 45 days to review and comment upon the receipt of the reports. Funds restricted pending the receipt of the reports may not be transferred by budget amendment or otherwise to any other purpose and shall revert to the General Fund if the reports are not submitted.

Explanation: The statute requires that Maryland Technology Development Corporation (TEDCO) submit an annual report each October 1 to the Governor, the Maryland Economic Development Commission, and the General Assembly. The report should include a complete operating and financial statement covering the corporation’s operations and a summary of the corporation’s activities during the preceding fiscal year. The corporation’s last report was submitted in October 2009.

Information Request	Author	Due Date
All outstanding annual reports	TEDCO	October 1, 2012

Updates

1. Major Grants

Committee narrative included in the 2008 *Joint Chairmen’s Report* requested a complete listing of award recipients for all deals closed or projects approved in fiscal 2008. The corporation is continuing to provide this information for subsequent years. **Exhibit 5** shows such awards for all TEDCO’s programs, including those funded by general, nonbudgeted, and federal funds. Some programs, such as the Stem Cell Research Program, award funds by multiple years; therefore, funding levels do not necessarily match appropriation amounts.

Exhibit 5
Maryland Technology Development Corporation
Award Recipients
Fiscal 2011

	<u>Award Amount</u>
Incubator Assistance	
Chesapeake Innovation Center	\$7,000
Emerging Technology Center – Canton	15,000
Emerging Technology Center – Eastern	12,000
UMB Bioinnovation Center	3,250
TowsonGlobal	7,000
BWTECH at UMBC	9,000
BWTECH at UMBC Advantage/Renewal	7,000
BWTECH at UMBC Renewal Energy	7,000
Frederick Innovative Tech Center	12,000
Garret Information Enterprise Center	7,000
Neotech – Howard County EDA	12,000
Silver Spring Innovation Center	12,000
Shady Grove Innovation Center	18,000
Rockville Innovation Center	15,000
Germantown Innovation Center	12,000
Technology Assistance Center	9,000
Technology Advancement Center	9,000
Technical Innovation Center	9,000
Eastern Shore Entrepreneurship Center	15,000
	\$197,250
Rural Business Initiative 2	
Judith Fulton	\$7,500
Phoebus Lighting/CANI Optical	7,500
	\$15,000

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	<u>Award Amount</u>
Maryland Technology Transfer and Commercialization Fund	
Nour Immune, Inc	\$75,000
Cognapse	75,000
Differential Dynamics	75,000
Video Semantics	75,000
Treeminer	75,000
GM Biosciences	75,000
OmniSpeech	75,000
EncephRX	75,000
VisiSonics	75,000
Combined Technology Services	75,000
Applied Plasma Science	75,000
Accustrata – Addendum	25,000
Euveda Biosciences	75,000
SemaConnect	75,000
Accustrata – Phase II	75,000
Bandhappy, LLC	75,000
Creatv Microtech, Inc.	75,000
Branchpoint Technologies	75,000
Fuzbien Technology Institute	75,000
Opticul Diagnostics	75,000
	\$1,450,000
Joint Technology Transfer Initiative Awards	
Smart Imaging Systems	\$75,000
CTO TRX Systems, Inc.	75,000
	\$150,000
Fort Detrick Technology Transfer Initiative II	
Foxspire, LLC	\$50,000
	\$50,000
University Technology Development Fund	
JHU – Tandri	\$50,000
JHU – Allen	50,000
UMB – Wolf	50,000
JHU – Berger	50,000
Towson-PI Brooks CAPTCHA project	50,000
SU – Holland	49,610
JHU – Boctor	50,000
Mason APL	49,206
	\$398,816

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	<u>Award Amount</u>
Tech Start	
UMCP – Ramani, Duraiswami, Strum, Varma	\$15,000
UMMC – VideoBoard Seagull Cowger UMB A RossRidgewood	15,000
Lifelong Tech	8,000
	38,000
Total	\$2,299,066
Stem Cell Research Fund	
<i>Investigator-initiated</i>	
JHU Xu Cao	\$690,000
JHU Linzhao Cheng	690,000
JHU Mihoko Kai	690,000
JHU Vassilis Koliatsos	690,000
JHU Dara Kraitchman	689,836
Hugo Moser Research/Kennedy Kreiger	690,000
UMB Feyruz Rassool	662,998
JHU Piotr Walczak	689,999
JHU Elias Zambidis	690,000
	\$6,182,833
<i>Exploratory</i>	
JHU Mary Armanios	\$230,000
Hugo Moser Visar Belegu	230,000
JHU Amy Belton	230,000
JHU Robert Brodsky	230,000
UMCP Kan Cao	230,000
JHU Raghothama Chaerkady	230,000
UMB Xiaochun Chen	230,000
JHU Stephen Desiderio	200,000
UMB Shao Du	230,000
JHU Koko Ishizuka	230,000
JHU Saul Sharkis	230,000
UMB Payl Yarowsky	230,000
JHU Zhaohui Ye	230,000
	\$2,960,000
<i>Post-Doctoral Fellowship</i>	
JHU Dian Arifin	\$110,000
JHU William Brandt	110,000
JHU Namshik Kim	110,000
JHU Julien Maruotti	110,000

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		<u>Award Amount</u>
JHU	Tammy Morrish	110,000
UMB	Amanda Phillips	110,000
Hugo Moser	Prakash Rath	110,000
JHU	Sandeep Shah	110,000
UMB	Shobana Shanmugasundaram	110,000
JHU	Yang Song	110,000
JHU	Juan Song	110,000
JHU	Yijing su	110,000
JHU	C. Joanne Wang	110,000
JHU – Homewood	Shuming Zhang	110,000
		\$1,540,000
Stem Cell Total		\$10,682,833

APL: applied physics laboratory

EDA: U.S. Department of Commerce – Economic Development Administration

JHU: Johns Hopkins University

UMB: University of Maryland, Baltimore

UMBC: University of Maryland, Baltimore County

UMCP: University of Maryland, College Park

UMMC: University of Maryland Medical Center

Source: Maryland Technology Development Corporation

2. No New Outside Funding for Fiscal 2012

The corporation aims to secure federal and other funds to support its technology transfer and development efforts. **Exhibit 6** shows that, from August 2000 to January 2012, TEDCO has secured \$15.9 million from outside funding sources. No new funding was secured in fiscal 2011. This compares to \$220,000 secured in the previous year. However, the cumulative funding still represents over a 15 to 1 leverage of TEDCO matching funds for all of the outside grant funding.

**Exhibit 6
TEDCO Funding Sources**

<u>Program</u>	<u>Amount</u>	<u>Source</u>	<u>TEDCO Match</u>	<u>Fiscal Year Funded</u>	<u>Term of Grant</u>
Rural Business Innovation 2	\$220,000	SBA	\$0	2010	2 years
Technology Showcases for Sustainable Development ♦	98,257	SBA	0	2010	2 years
Joint Technology Transition Initiative ♦	1,500,000	U.S. Army	0	2009	2 years
NAVAIR Technology Insertion Initiative ♦	800,000	U.S. Navy	0	2009	2 years
Fort Detrick Technology Transfer Enhancement ♦	460,084	DTRA	0	2008	1 year
Maryland Minority R&D Initiative ♦	592,337	SBA	0	2007	2 years
TEDCO/MRASC Initiative ♦	1,000,000	U.S. Army	0	2007	2 years
Fort Detrick Technology Transfer Initiative II ♦	1,500,000	U.S. Army	0	2007	2 years
Fort Detrick Technology Transfer Initiative I ♦	799,697	U.S. Army	0	2005	2 years
Working Capital Loan Fund ♦	325,000	EDA	325,000	2005	2 years
NAVAir Technology Commercialization Initiative ♦	1,311,866	U.S. Navy	0	2005	18 months
Aberdeen Technology Transfer Initiative II	1,100,000	U.S. Army	0	2005	18 months
ACTiVATE (with UMBC)	600,000	NSF	60,000	2005	2 years
Mountain Maryland SBIR Initiative ♦	78,950	SBA	42,720	2005	1 year
Rural Business Incubation Initiative ♦	494,739	SBA	0	2005	18 months
Council of State Governments ♦	99,997	CSG	0	2005	1 year
Aberdeen Technology Transfer Initiative I	965,000	U.S. Army	0	2004	1 year
Maryland Technology Partnership for Innovation	600,000	NSF	60,000	2004	2 years
Council of State Governments ♦	50,000	CSG	0	2004	1 year
eReadiness Study of Western Maryland	50,000	EDA/ARC	25,000	2003	1 year
eReadiness Study of the Eastern Shore	25,000	USDA	15,000	2003	1 year
				2002 and	
Maryland Minority SBIR Initiative ♦	225,000	SBA	150,000	2003	2 years
NAVAir Technology Commercialization Initiative	1,000,000	U.S. Navy	0	2002	2 years
New Markets Growth Fund (Dingman Center – UMCP) ♦♦	500,000	SBA/FHLBA/atl	0	2002	3 years
Best Practices in Business Incubation ♦	200,000	EDA	160,000	2002	2 years
American Society of Mechanical Engineers - Fellow ♦	40,000	ASME	0	2002	2 years
Maryland Technology Partnership for Innovation	600,000	NSF	60,000	2001	2 years
Mid-Atlantic Regional Technology Transfer Center ♦	439,000	NASA	0	2001	4 years
eReadiness Maryland ♦	210,000	private/EDA	100,000	2001	2 years
Total Approved August 2000 thru January 2011	\$15,884,927		\$997,720		
	\$15,884,927		\$997,720		

♦Funds flow through the Maryland Technology Development Corporation (TEDCO)

♦♦ \$166,000 flows through TEDCO

ARC: Appalachian Regional Commission

ASME: American Society of Mechanical Engineers

CSG: Council of State Governments

T50T01 – Maryland Technology Development Corporation

EDA: U.S. Department of Commerce – Economic Development Administration
DTRA: Defense Treat Reduction Agency
FHLBAtl: Federal Housing Bank of Atlanta
MRASC: Maryland Research and Applied Sciences Consortium
NASA: National Aeronautics and Space Administration
NSF: National Science Foundation
R&D: research and development
SBA: Small Business Association
SBIR: Small Business Innovative Research
TEDCO: Maryland Technology Development Corporation
UMBC: University of Maryland Baltimore County
UMCP: University of Maryland, College Park
USDA: U.S. Department of Agriculture

Source: Maryland Technology Development Corporation

Current and Prior Year Budgets

Current and Prior Year Budgets Maryland Technology Development Corporation (\$ in Thousands)

	<u>General Fund</u>	<u>Special Fund</u>	<u>Federal Fund</u>	<u>Reimb. Fund</u>	<u>Total</u>
Fiscal 2011					
Legislative Appropriation	\$15,858	\$0	\$0	\$0	\$15,858
Deficiency Appropriation	0	0	0	0	0
Budget Amendments	-2,000	0	0	0	-2,000
Reversions and Cancellations	0	0	0	0	0
Actual Expenditures	\$13,858	\$0	\$0	\$0	\$13,858
Fiscal 2012					
Legislative Appropriation	\$15,673	\$0	\$0	\$0	\$15,673
Budget Amendments	0	0	0	0	0
Working Appropriation	\$15,673	\$0	\$0	\$0	\$15,673

Note: Numbers may not sum to total due to rounding.

Fiscal 2011

In the fiscal 2011 budget bill, language was added that restricted \$2 million in stem cell research funds to be used to provide tax credits under the Maryland Biotechnology Investment Tax Credit Reserve Fund. In July 2010, a budget amendment was approved to transfer these funds as described in the language.

Object/Fund Difference Report
TEDCO – Maryland Technology Development Corp

<u>Object/Fund</u>	<u>FY 11 Actual</u>	<u>FY 12 Working Appropriation</u>	<u>FY 13 Allowance</u>	<u>FY 12 - FY 13 Amount Change</u>	<u>Percent Change</u>
Objects					
12 Grants, Subsidies, and Contributions	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%
Total Objects	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%
Funds					
01 General Fund	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%
Total Funds	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%

Note: The fiscal 2012 appropriation does not include deficiencies.

Fiscal Summary
TEDCO – Maryland Technology Development Corp

<u>Program/Unit</u>	<u>FY 11 Actual</u>	<u>FY 12 Wrk Approp</u>	<u>FY 13 Allowance</u>	<u>Change</u>	<u>FY 12 - FY 13 % Change</u>
01 Tech. Development, Transfer, and Commercialization	\$ 3,458,192	\$ 3,273,192	\$ 3,173,192	-\$ 100,000	-3.1%
03 Maryland Stem Cell Research Fund	10,400,000	12,400,000	10,400,000	-2,000,000	-16.1%
Total Expenditures	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%
General Fund	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%
Total Appropriations	\$ 13,858,192	\$ 15,673,192	\$ 13,573,192	-\$ 2,100,000	-13.4%

Note: The fiscal 2012 appropriation does not include deficiencies.