



TESTIMONY OF JOHN M. WASILISIN

President & Chief Operating Officer, Maryland Technology Development Corporation

Senate Budget & Taxation Subcommittee
Education, Business & Administration
Friday, February 26, 2016

House Appropriations Subcommittee
Education & Economic Development
Monday, February 29, 2016

Introductions

Mr. Chairman, members of the Committee, thank you for the opportunity to appear before you to discuss TEDCO's FY2017 budget request. I am joined by:

- Mr. Newt Fowler, Chair of the TEDCO Board of Directors
- Mr. Andy Jones, Managing Director of the Maryland Venture Fund
- Ms. Jennifer Hammaker, Director of the Maryland Innovation Initiative
- Taylor Myers, CEO, MF Fire (2/26)
- Gerard Eldering, CEO, Biomecite Diagnostics, LLC (2/29)
- Gregory Coleman, President & COO, Nexercise (2/29)

Following this panel will be Dr. Dan Gincel, Executive Director of the Maryland Stem Cell Research Fund.

I would like to thank Jody Sprinkle for her cooperation in working together over the last year.

While many of you are very familiar with TEDCO, for the benefit of others not so familiar, TEDCO was created by the legislature in 1998 to assist in the transfer of research and technology from Maryland universities and federal laboratories into the commercial marketplace. With that backdrop, I'd like to offer the following highlights of the many accomplishments that TEDCO has accomplished over the past year. Data is of December 31, 2015.

Technology Commercialization Fund (TCF)

The TCF provides up to \$100,000 to entrepreneurs that are developing technology-related start-up companies. Sources of the technology may come from collaborations with a university in Maryland or any federal laboratory, participation in our Rural Business Innovation Initiative or as a tenant company in Maryland's technology incubators. Funds are used to defray direct costs of developing early-stage technology.

- 284 companies in portfolio
- TEDCO funding (completed projects) = \$17.5M
- Follow-on funding received by companies = \$864M
- **Leverage of TEDCO funding = \$49.3 : \$1**

- **Entrepreneur Magazine: TEDCO was ranked the #1 seed/early-stage investor in the nation for 5 consecutive years**
- 86% of invested companies are still in business

Cybersecurity Investment Fund (CIF)

The CIF program was passed during the 2014 General Assembly session. The bill designated TEDCO to be the administrator of the CIF.

The CIF program provides up to \$100,000 to support projects that advance a cyber technology toward commercialization. CIF helps companies to reach a critical milestone in their product development that will move their technology further along the commercialization pathway, increase the company's valuation, and lead to follow-on investment for further growth and sustainability.

Maryland Innovation Initiative (MII)

The MII program was passed during the 2012 General Assembly session. The bill designated TEDCO to be the administrator of the MII.

The purpose of the MII is to promote and accelerate the rate of commercializing research conducted in the five Maryland research universities (Johns Hopkins, Morgan State, University of Maryland-College Park, University of Maryland-Baltimore and University of Maryland-Baltimore County). This includes encouraging qualifying universities to partner on commercialization proposals, strategies, and funding sources, including with federal laboratories located in Maryland, and facilitate technology transfer from university labs to start-up companies. The goal is to create start-up companies that are based upon technologies developed in these universities.

- Applications received-388
- Awards made-147
- New companies created-34 (17 from JHU technologies, 10 from UMCP technologies, 7 from UMB technologies)
- Award distribution by school-JHU (75), UMCP (30), Morgan (5), UMB (36), UMBC (18)

Joint Technology Transfer Initiative (JTTI)

A federal technology transfer initiative for TEDCO is with the Department of Homeland Security (DHS) and the U.S. Army Medical Research and Materiel Command (USAMRMC). Technology development projects will be considered within the scope of the JTTI if a company can show how the proposed technology will meet the needs of DHS and/or USAMRMC (spin-in) and/or the commercialization of DHS or USAMRMC technologies (spin-out).

JTTI awards of up to \$75,000 will be made to for-profit small businesses in support of technology development projects that fall within the scope of the JTTI. Assistance in identifying whether or not a technology meets DHS or USAMRMC needs and in forming technology transfer collaborations will be available from TEDCO.

The JTTI program ended in September 2015.

Relationships with Federal Labs and Institutions

- Aberdeen Proving Ground, Science & Technology Board
(Covers approximately 12 R&D tenant organizations, including the Army Research Lab)
- Johns Hopkins University Applied Physics Lab
- NASA Goddard Space Flight Center; provides access to *all* NASA labs
- National Institute of Standards and Technology
- National Institutes of Health
(Specific Partnership Intermediary Agreement with National Cancer Institute)
- National Security Agency
- Naval Air Warfare Center Patuxent River
- Naval Medical Research Center
- National Cancer Institute
- Naval Surface Warfare Center Carderock Division
- Naval Surface Warfare Center Indian Head Division
- Naval Surface Warfare Center Crane Division
- United States Army Medical Research and Materiel Command
(Includes six medical research labs and institutes)
 - 1) U.S. Army Aeromedical Research Laboratory (USAARL)
 - 2) U.S. Army Institute of Surgical Research (USAISR)
 - 3) U.S. Army Medical Research Institute of Chemical Defense (USAMRICD)
 - 4) U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)
 - 5) U.S. Army Research Institute of Environmental Medicine (USARIEM)
 - 6) Walter Reed Army Institute of Research (WRAIR))
- United States Department of Agriculture, Agricultural Research Service
(Includes over 100 national research locations and the Forestry Service)
- TechLink
(Department of Defense and NASA technology transfer partner)

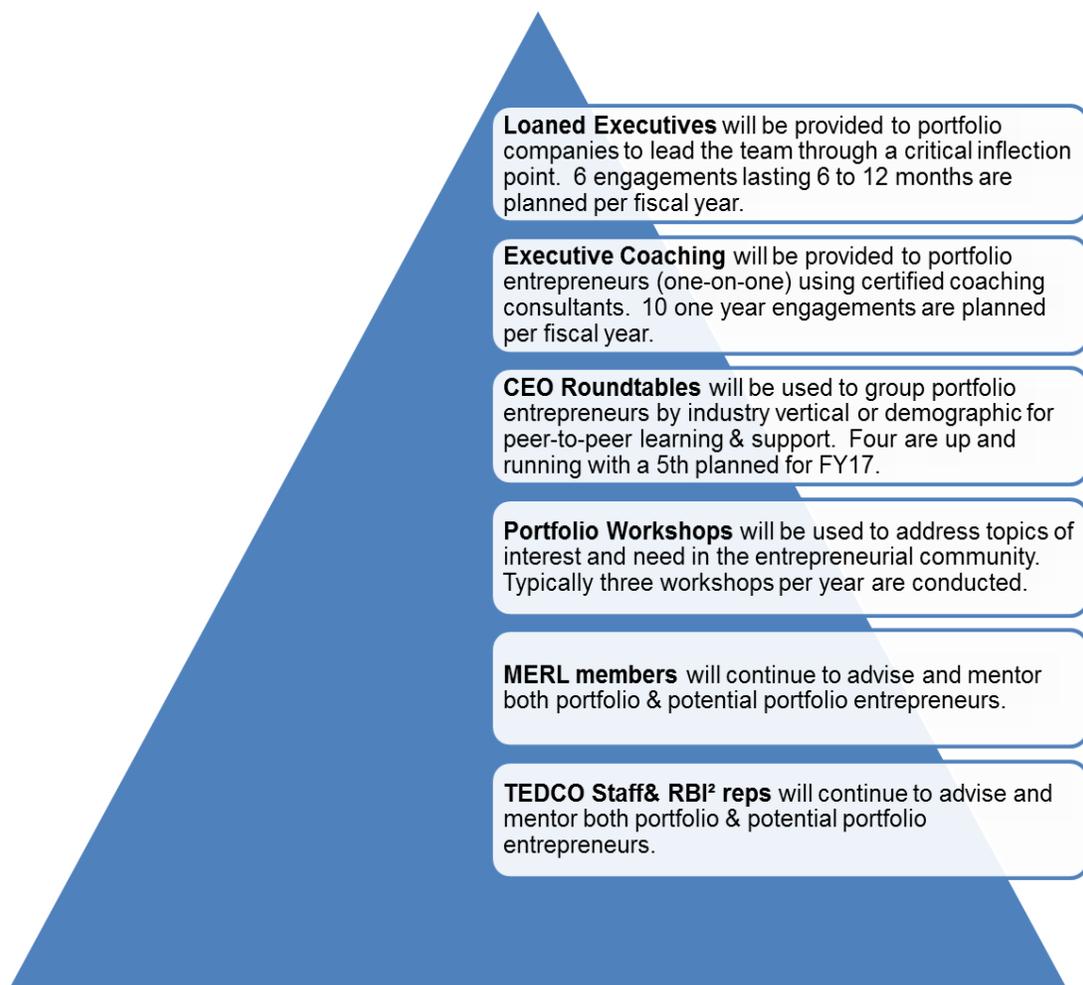
Technology Business Incubators

Since introducing the “Maryland Technology Incubator Program” in 2001 as part of TEDCO’s statutory requirements, successful programs have been created and investments have been made in the State’s technology business incubators. Programs have included the Incubator Development Fund (capital incubator projects requiring a minimum 1:1 match), Feasibility Study Grants (to study potential new or expanded facilities; grants require a minimum 1:1 match), Business Assistance Grants (to provide incubator managers with discretionary funding to provide needed and direct assistance to tenant companies), and other grants and programs supporting the annual Incubator Company of the Year Awards and activities of the Maryland Business Incubation Association. The annual Incubator Company of the Year Awards has honored and recognized the superb efforts of the incubator managers and their staff, as well as the finalists and winners of these coveted awards. For twelve years running, hundreds of incubator companies have been deemed, by a committee of distinguished economic development and venture capital professionals, as the best in their respective categories.

The first technology incubator on the Eastern Shore will open on February 29, 2016 in Cambridge. TEDCO, along with the Department of Commerce and Dorchester County, provided funding for this milestone.

Entrepreneurial Development

Entrepreneurs are always looking for new capital, and TEDCO has a number of financial assistance programs that can assist start-up companies. But often what an entrepreneur needs most at any given time is not more money, but mentoring and counsel on how to use that investment. To that end, TEDCO developed in 2015 a variety of assistance programs for various stages of entrepreneurial development. This suite of programs, called **Executive Exchange**, has six components that provide mentoring and educational support for entrepreneurs as they develop their start-up companies (see graphic below).



To date, Executive Exchange engagements:

- Loaned Executives – 10
- Executive Coaches – 2
- CEO Roundtables - 5 (49 participants)

Maryland Stem Cell Research Fund

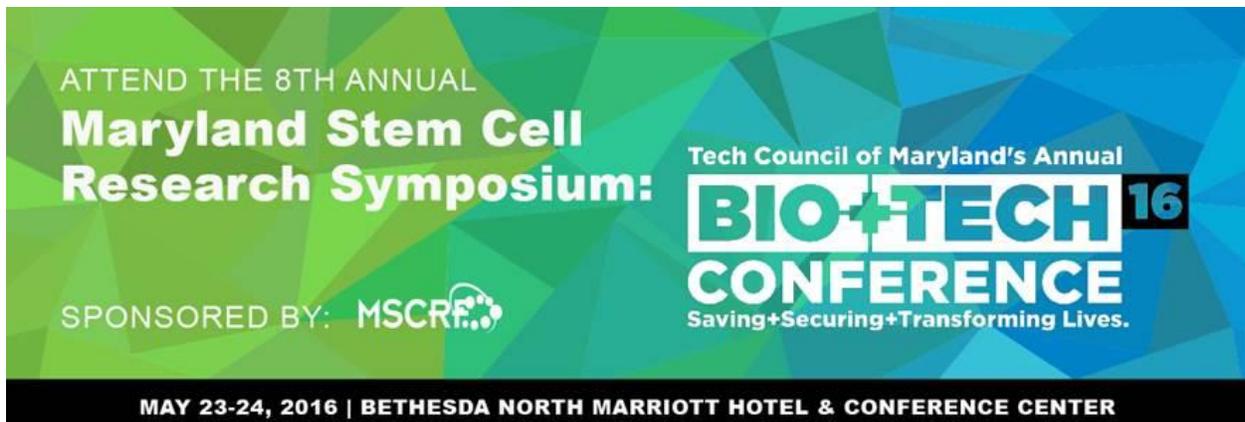
The Maryland Stem Cell Research Fund (MSCRF) was established by the Governor and the Maryland General Assembly during the 2006 legislative session. The purpose of the Fund is to promote State-funded stem cell research and cures through grants and loans to public and private entities in the State.

All MSCRF applications are evaluated by a scientific peer review committee. The Stem Cell Research Commission reviews the peer review rankings and then makes funding recommendations to the TEDCO Board for final approval. The annual grant review provides feedback to applicants so they can improve and resubmit previously unfunded proposals.

The MSCRF serves as a catalyst for new collaborations, building the scientific knowledge base and spurring the discovery of improved diagnostics, effective preventions, and long-awaited cures.

The low award rate is in direct correlation to funds available for the MSCRF Programs. During FY2017 the Commission, together with TEDCO staff, will develop a plan to address those issues, accelerate the treatments and commercialization of stem cell technologies and continue to increase industry collaboration.

Please join us to learn more about our great success stories at the Annual Symposium on May 23-24, 2016.



Rural Business Innovation (RBI) Program

An important mission for TEDCO is to assist in the development of entrepreneurs throughout the State of Maryland. The RBI program is designed to enhance technology commercialization activities and provide technical and business assistance to small and early-stage technology companies in rural Maryland. Assistance to companies is provided by local business mentors contracted by TEDCO. Each region has a local mentor, whose responsibility is to evaluate potential clients, provide resources, consulting services and technical management assistance. Providing technical and general business assistance is a cornerstone of this program that helps small businesses gain access to investment capital, general business resources, federal laboratory and university research opportunities.

Entrepreneur Expo

In an attempt to promote and celebrate entrepreneurship in Maryland, TEDCO held the 5th Annual Maryland Entrepreneur Expo on November 17, 2015 (in conjunction with Global Entrepreneurship Week) to bring together the various entities that have a vested interest in the development of entrepreneurs. The Maryland event was one of 10 nationally-recognized by Global Entrepreneurship Week. **This event attracted almost 700 people** comprised of new and seasoned entrepreneurs, investors, students, legislators, service providers, inventors, tech transfer officers and economic development professionals. Due to its success, TEDCO is planning to continue the Entrepreneur Expo in 2016.

New Programs for 2016

- **mdPACE-** TEDCO received a grant from the federal Department of Commerce to develop a program to increase the flow of the U.S. Food and Drug Administration (FDA)-cleared devices in Maryland. The program will provide experienced executives, who have successfully navigated the FDA medical device commercialization process, to assist entrepreneurs to generate 510(k) cleared technology in 12-18 months instead of the typical 36-42 months needed by an inexperienced, unguided team. Program experts will focus the team on an early design freeze and on the specific, proven, design control-oriented requirements of the 510(k) submittal process. The nuances of these requirements are often apparent only after taking several medical devices through the process; they are certainly not readily apparent to an inexperienced team.
- **N-STEP-**The National Institute of Standards and Technology (NIST) asked TEDCO to develop an entrepreneurial development program to train graduating post docs to become entrepreneurs and start new companies utilizing the technologies they were working on while at NIST. This program will combine entrepreneurial development activities with seed investments in start-up companies.
- **Life Science Investment Fund-** The Life Science Investment Fund was developed to meet the needs of Maryland companies developing products addressing human health that require approval from the FDA for commercialization. The program helps to move products along this pathway by making investments that will enable companies to reach critical milestones early in their product development efforts, to increase the company's valuation, and to better position the company for follow-on investment, product commercialization, and job creation.
- **Maryland Venture Fund-**The Maryland Venture Fund (MVF) was transferred from the Department of Business and Economic Development to TEDCO on October 1, 2015.

This transfer was the result of legislation passed during the 2015 General Assembly session upon the recommendation of the Augustine Commission, which was created to make recommendations for improving the business climate in Maryland. MVF consists of the Enterprise Fund, the InvestMD fund and the federal State Small Business Credit Initiative (SSBCI). With the transfer of MVF, TEDCO is now able to offer a one-stop opportunity for entrepreneurs (our customers) seeking capital for the technology start-up companies.

Management and Administration

As you are aware, TEDCO is required by statute to seek an independent audit of its annual financial statements. **For the sixteenth consecutive year, TEDCO received an unqualified (clean) audited financial statement.**

Also, TEDCO completed its Department of Legislative Audit in 2015. **There were no findings in this report.**

I would like to thank members of this Committee for their courtesy toward me and TEDCO, and for your steadfast support of our programs.