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*Secretary*

## **CONFIDENTIAL MEMO**

**DATE:** January 27, 2003

**TO:** Secretary Aris Melissaratos

**THROUGH:** Rhonda J. Ray, Assistant Secretary, Office of Economic Policy & Legislation, DBED

**FROM:** Dr. Lawrence C. Mahan, Senior Bioscience Executive, DBED/DBD  
Ms. Asuntha Chiang-Smith, Director of Policy Development, DBED  
Mr. Michael Evitts, National Publications Manager, DBED  
Dr. Philip Singerman, Executive Director, TEDCO

**RE:** Maryland 2003 Bioscience Strategic Plan:  
Preliminary Recommendations

A preliminary summary of the State's 2003 Bioscience Strategic Plan will be submitted to the State Legislature prior to DBED's budget hearings next week (February 6 & 7, 2003). The Strategic Plan identifies key elements of success for industry growth and international recognition:

Excellence of Academic & Research Institutes	Technology Transfer Initiatives
Availability of Capital	Workforce Development
Business Infrastructure	Public Policy
Industry Advocacy	

This addendum contains the recommendations primarily put forth by bioscience industry representatives (with cost estimates where applicable) through a series of meetings with members of the bioscience industry, DBED, Universities and the Maryland Technology Development Corporation (TEDCO). The recommendations do not in all cases reflect a consensus of views from the University System, TEDCO and DBED staff.

These recommendations were not included in the summary to the Legislature so that necessary and appropriate members of the new administration could first review them. Some of the recommendations fall in line with the general business development direction of the present administration. Others may be achieved only through significant investment and/or changes to current State operations or policy. Given the complexity of implementation, some of the recommendations may need additional evaluation before being fully embraced.

## **BACKGROUND**

During the past two years, in coordination with the previous administration, DBED staff convened a series of workgroups following an industry dialogue with the Lieutenant Governor and leaders of Maryland's bioscience industry, university representatives, and members of TEDCO. The purpose of these workgroups was to define the challenges and needs of the rapidly growing industry in the State. In all ten workgroups were formed to outline the key elements and priority in each of ten issue areas identified in those discussions:

- (1) Finance Process
- (2) Investing State Pension Funds
- (3) Communicating State Programs
- (4) Biomanufacturing
- (5) Centers of Excellence
- (6) Net Operating Losses Legislation
- (7) Workforce Development
- (8) Clinical Trials – State Role
- (9) In-State Clinical Trials Programs
- (10) State to Federal Advocacy

These discussions produced a series of recommended actions that are outline below.

## **WORK GROUP RECOMMENDATIONS**

Below is a summary of the suggestions of each work group along with estimated cost analysis:

### **(1) Finance Process**

- Formalize and expand DBED's program of investing into venture capital limited partnerships, requiring a commitment of best efforts to invest in local companies. (Cost estimate: \$3 million in FY04, increasing to \$10 million in FY06)
- Take leadership and sponsorship roles at events/ maintain active relationships. (Cost estimate: \$50,000 annually/ \$300,000 for BIO2003)
- Actively promote the benefits of directing investment opportunities into funds in Maryland. (Cost estimate: \$5,000 annually)

- Expand efforts to sponsor seminars, training opportunities and consulting assistance for securing federal Small Business Innovation Research (SBIR) funding and/or attracting venture capital funding.  
(Cost estimate: \$10,000 annually)
- Request the Comptroller of the Treasury to develop a certification document that companies can present to vendors to allow companies to take advantage of sales tax exemptions for R&D equipment.  
(Cost estimate: None)

## **(2) Investing State Pension Funds**

- Propose to the Maryland State Pension Board that a small percentage of total assets (approximately 0.5%) be dedicated to equity investments in the biotech industry, particularly in Maryland.  
(Cost estimate: None)
- Propose to the Maryland State Pension Board that the compensation structure in place for its equity managers provide additional incentive for Maryland-based biotechnology investments.  
(Cost estimate: None)

## **(3) Communicating State Programs**

- Develop a communications plan for disseminating information to bioscience executives and educate the bioscience community about State activities in the industry. This will include compiling and maintaining a comprehensive database and communications with Maryland bioscience companies.  
(Cost estimate: \$150,000 for database implementation and coordination with MdBio and Delta Graphics/ \$20,000 for database annual maintenance)
- Focus more State marketing efforts to attract venture capital interests, especially large national firms and investment banks.  
(Cost estimate: historically, cost incurred in DBED marketing/ business development budget)

## **(4) Biomanufacturing**

- Support the expansion of biomanufacturing capacity (including process development and pilot-scale as well as contract manufacturing facilities in the State. (This would include the expansion of the University of Maryland Biotechnology Institute CARB II project and the renovation of the Bioprocess Scaleup Facility at the University of Maryland, College Park.)  
(Cost estimate: \$43 million for CARB II/ \$1 million for Bioprocess Scaleup Facility renovation)
- Finance partnerships and facility management for shared facility alternatives, with 2-3 smaller bioscience companies.  
(Cost estimate: Facility costs vary between \$100 - \$500 million, with the majority of costs borne by private partners)

- Finance partnerships and post-incubator wet lab space in the range of 5,000 – 15,000 square feet.  
(Cost estimate: Joint DBED/ TEDCO study underway on this issue)
- Convene a specific policy group to consider changes to the qualification criteria of existing State programs and creation of a new funding program with criteria appropriate for R&D companies.  
(Cost estimate: None for workgroup meeting)

#### **(5) Centers of Excellence**

- Place emphasis on the role of University Centers of Excellence and research parks in strategic plans currently under development.  
(Cost estimate: None)
- Conduct a benchmarking assessment of the State's universities against national "best practices" and invest in the best.  
(Cost estimate: To Be Determined)
- Foster focused discussions among public and private policy makers to raise the level of discussion of inter-institutional collaboration.  
(Cost estimate: None)

#### **(6) Net Operating Loss Legislation (Business Tax Benefit Transfers)**

- Support legislation for bioscience companies to transfer their unused net operating losses (NOL) to other Maryland corporations.  
(Cost estimate: \$10 million)

#### **(7) Workforce Development**

- Complete a comprehensive survey of Maryland's bioscience industry workforce needs.  
(Cost estimate: \$30,000)
- Create a Bioscience Industry-Education Advisory Board to keep the content and curricula of training programs current.  
(Cost estimate: None)
- Establish a comprehensive bioscience internship program for both teachers and students. Establish a central coordinating Internship Office to match interns with employers.  
(Cost estimate: \$250,000 for Internship office/ \$500,000 for incentives)

#### **(8) Clinical Trials – State Role**

- Subsidize training courses on clinical trials for bioscience managers.  
(Cost estimate: To Be Determined)
- Develop an in-State geographic registry of specific patient populations and a registry of resources available to Maryland companies engaged in clinical research.  
(Cost estimate: To Be Determined)
- Increase the State's emphasis on recruiting world-class physician researchers to act as magnets for specific patient pools. (Cost estimate: To Be Determined)

- Expand current law(s) regarding insurance coverage for participants in clinical trials.  
(Cost estimate: To Be Determined)

**(9) In-State Clinical Trials Program**

- Actively market through promotional materials the clinical trial capabilities of Maryland medical institutions to the pharmaceutical and bioscience industries.  
(Cost estimate: To Be Determined)
- Augment current training for pharmacists, nurses and physicians by making training for clinical trials a specialty area in the curricula of medical institutions.  
(Cost estimate: To Be Determined)
- Create a network of research coordinators to work with community hospitals and physicians throughout the State.  
(Cost estimate: To Be Determined)

**(10) State to Federal Advocacy**

- Have the State/ Department take a leadership role in national bioscience events (such as BIO2003), foster and/or lead strategic partnering and trade missions, speaking opportunities at relevant events, etc.  
(Cost estimate: None)
- Establish a permanent working group of industry, academia, advocates and economic development officials for federal biotechnology policy.  
(Cost estimate: None)
- Provide the Maryland Congressional delegation with specific recommendations on biotechnology policy in the annual package of priorities.  
(Cost estimate: None)
- Utilize the Congressional delegation to promote the state on national biotechnology issues.  
(Cost estimate: None)