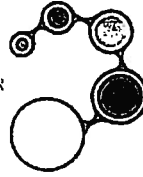


**HERSHEY CENTER FOR
APPLIED RESEARCH**
Here for tomorrow.



**Testimony of
Laura J. Butcher
Executive Director
Hershey Center for Applied Research**

Submitted to the PA House Republican Policy Committee

November 17, 2010

On behalf of the Hershey Center for Applied Research (HCAR), I would like to thank Chairman Saylor, Representative Payne and members of the House Republican Policy Committee for the opportunity to submit comments from the research park's unique vantage point regarding current funding challenges faced by early-stage bioscience companies in Pennsylvania. I would like to also offer some accompanying recommendations for consideration on ways the Commonwealth can ensure that Pennsylvania remains a global competitor in this important sector.

First, let me offer some background on HCAR—As a Wexford Science and Technology property, HCAR is part of a thriving network with connections to some of the country's most respected research institutions. Our strategic partnership with Penn State University offers our domestic and foreign-based tenants access to advanced technology and other research resources, and immerses them in a climate of innovation. With an ideal east-coast location convenient to New York, Philadelphia, Baltimore and Washington D.C., Hershey is an emerging research hotspot that offers a high quality of life and access to a well-educated and stable workforce. By leasing fully customizable lab, research, manufacturing and office space while also providing integrated strategic business services tailored to each tenant, HCAR helps early stage to mature biosciences companies innovate and grow.

The research park has had the opportunity to interact with many early-stage bioscience companies from around the United States and the globe, and it is clear that the most common and significant hurdle that these companies face is the emergence of the funding gap (often referred to as the "valley of death"), which occurs post seed capital investment and prior to follow on investment by venture groups or private equity groups. In response to the gap, the Tobacco Settlement Act of 2001 provided a visionary approach to commercializing human health innovations by creating a capital continuum to move innovation from research bench to patient bedside. A \$1.6B commitment was made to the industry at that time, including a \$100M award to the three Life Sciences Greenhouses, and an additional \$60M award to four venture capital funds. This was great progress and helped to make Pennsylvania a national leader in the biosciences. However, four factors are emerging that jeopardize this momentum:

First, additional public investment dollars are needed in order to continue to fill the widening gap. We view recent policy discussions with the Department of Health regarding the redirection of a portion of the non-formula Commonwealth Universal Research Enhancement (CURE) funds as a step in the right direction, as it will move technologies from lab bench to marketplace for public use and benefit. As part of this coordinated effort, scientific entrepreneurs, academic institutions, private investors, entities like HCAR and the Greenhouses and our other partners will join with industry to enhance our current process and accelerate clinical and translational research, thereby making the Commonwealth's pipeline more robust. This effort will also stimulate additional spinout companies that are aligned with the Commonwealth's greatest research priorities, thereby creating more family-sustaining jobs.

Second, the global financial crisis of 2008 has forced venture funding to concentrate investments on companies closer to commercialization and thus, a possible exit, in order to deliver returns to investors. This has created a funding gap for some promising technologies as they move out of seed funding and onto early or emerging stages of development. In addition, the total dollars invested by venture capitalists has dropped dramatically. According to the National Association of Seed and Venture Funds, venture capital investment has dropped by over 50 percent in three years, and the funds that are closing on new money are smaller than they were before.

Third, the overall consolidation of the biosciences industry has resulted in several thousand layoffs in Pennsylvania alone, and many of these talented individuals have chosen to invest their efforts in start-up companies in the Commonwealth. There are hundreds more whom, if presented with a formal program and clear opportunities, would choose this entrepreneurial path. Without access to capital, however, many of these talented scientists and entrepreneurs will migrate to states like Ohio, Maryland, California and Massachusetts where commitments to the industry are significant and clear.

Fourth, Pennsylvania is becoming increasingly impotent in its ability to seriously compete for medium and large biosciences company attraction and expansion projects which is a result of cuts to grant, tax credit and loan programs designed to attract these companies from other states and nations. As an example, the Opportunity Grant Program, historically a significant economic development tool for the Commonwealth, has gone from a level of funding of approximately \$60M in FY00-01 to just under \$20M in FY10-11.

In 2008 Business Facilities Magazine ranked Pennsylvania #1 nationally in overall biotechnology strength. In the two years since this accolade was celebrated, it is now widely accepted within the industry that our competitive position has slipped.

Non-traditional ideas must be considered in order to continue to compete including bond financing, gaming revenues and the development of mechanisms to incentivize other sources of private capital, such as angel capital.

Pennsylvania must reclaim its leadership position in the biosciences sector. We join Pennsylvania Bio in its call to create a new long-term plan that engages industry, investors, universities and the

public sector and looks through the lens of the entire PA Bioscience Continuum to thoughtfully fill gaps and play up our strengths.

The great opportunity before us is that Pennsylvania is home to all of the critical ingredients necessary to remain a global competitor in the bioscience sector. Significant economic impacts and improvements to human health will come from relatively small amounts of public funds deployed wisely. The Hershey Center for Applied Research is certain that by working together, we can and will enhance Pennsylvania's position in the global biosciences community.

Thank you.

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**Testimony Before PA House Republican
Policy Committee on PA's Competitiveness
in the Biosciences Industry**

Wednesday, November 17, 2010

HCAR is...

- Connected to the some of country's most respected research institutions
- A provider of advanced technology and other research resources
- Ideally located in an emerging research hotspot
- A strategic business partner to every tenant
- **Accelerating the success of PA's bioscience companies**

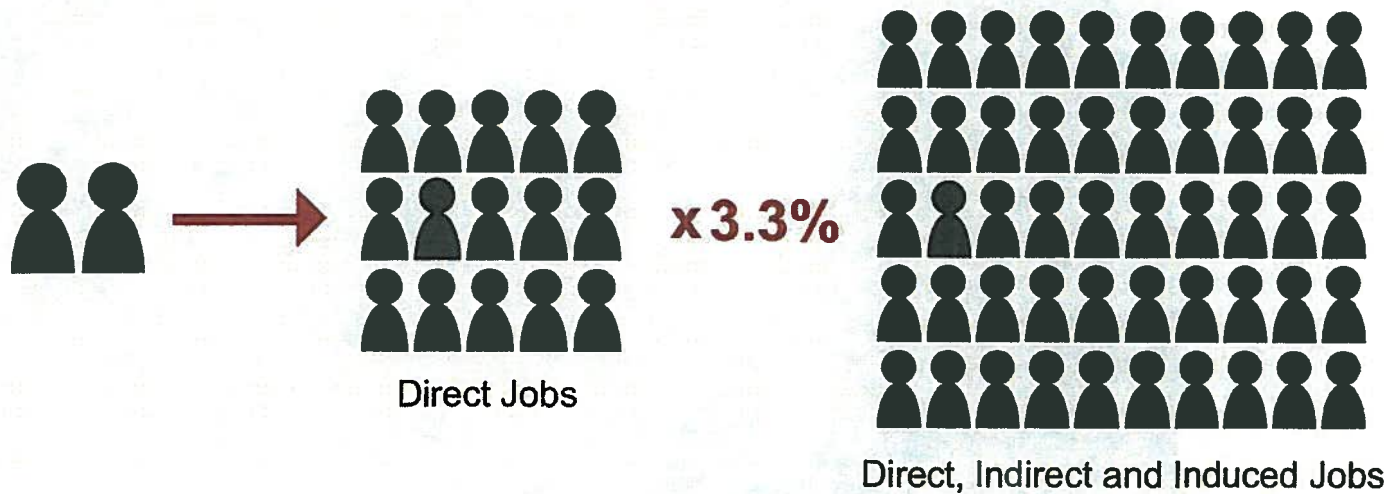


Master Plan: 12 Buildings Totaling 1.2 MM sq/ft



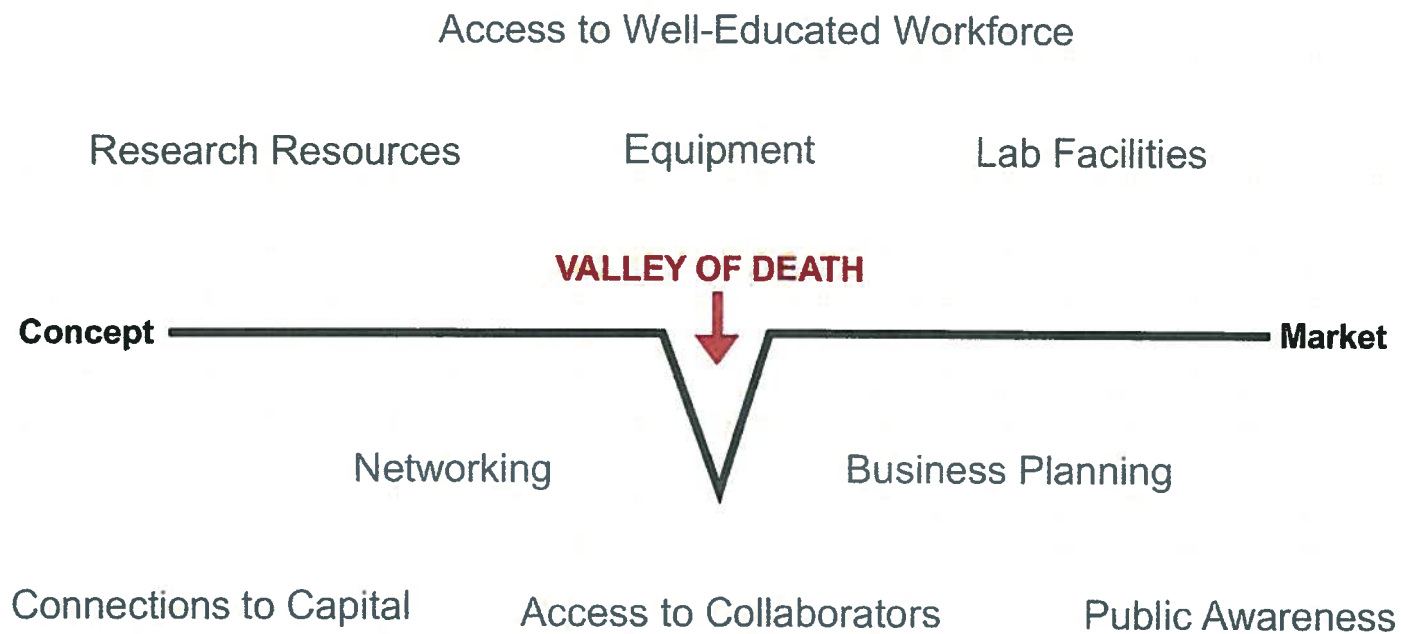
Driving Economic Development

Average Wage of PA Bioscience Worker in 2008: \$82,262*



*Battelle/BIO State Bioscience Initiatives 2010 Report

HCAR's Strategic Business Services



“Pennsylvania Ranked #1 in Overall Biotechnology Strength”

(Business Facilities Magazine, 2008)

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Forces Impacting PA's Competitive Position

- Higher hurdles for increasingly scarce venture capital
- Reduced incentives to attract/expand companies
- Consolidation of bioscience industry

Ideas for Consideration

- Portion of non-formula CURE funds to support commercialization
- Entertain non-traditional ideas: bond financing, gaming revenues, mechanisms to incentivize other sources of private capital
- Create fresh, long-term, integrated plan that engages industry, investors and universities



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Thank You

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