Joint Democratic and Republican House Policy Committee Hearing

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The Testimony of Christopher P. Molineaux
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Chairman Benninghoff, Chairman Sturla, and members of the Democratic and Republican House Policy Committees, good morning.

I am Chris Molineaux, President and CEO of Pennsylvania Bio. For the past six years I have had the privilege of leading Pennsylvania Bio and witnessing its dramatic growth in membership and its ability to represent Pennsylvania's life sciences community in Harrisburg and Washington D.C. With over 680 members, we are the second largest life sciences trade association in the country. In our membership you will find the full spectrum of the life sciences community – pharma, biotech, medical devices, diagnostics, healthcare IT, contract research organizations, academic research institutions, investment organizations, patient advocacy groups, and the many companies that provide services to the industry.

At Pennsylvania Bio we are tasked with doing two things each and every day:

- Facilitate strategic connections between our members and the resources they need to be successful, and,
- Advocate on behalf of our members in Harrisburg and Washington D.C.

The life sciences industry in Pennsylvania plays an important role in the Commonwealth's economy. More than 2,300 life sciences companies directly employ some 77,000 people. Furthermore, each of those jobs supports another 6 jobs in companies I like to refer to as the industry around the industry. All told nearly a half-million Pennsylvanians' are either directly or indirectly employed in life sciences-related.

Pennsylvania is a major hub for the life sciences and life sciences research. Last year Pennsylvania research institutions attracted $1.5 billion in funding from the National Institutes of Health – the NIH. In fact, we can now boast of having two of the top five funding recipients here - The University of Pennsylvania and the University of Pittsburgh. Pennsylvania also ranked number four in venture capital investment and number four in academic institutions' research and development spending.

If you are wondering what these companies do and what they produce, I can give you a snapshot into their product pipelines. The CEOs in the second panel will give you a more detailed view into what a life sciences company looks like and the challenges they face.

Pennsylvania is becoming the leader in developing immuno-oncology therapies that are revolutionizing the approach to a cancer diagnosis. Boosted by world-class academic institutions like the ones found in Philadelphia, they are fostering innovative approaches to infectious diseases, gene editing, and biodefense. Dr. Tang will elaborate more on the companies involved in these exciting developments and what we can expect to see in the future of these innovations in science, but clearly the foundation for future leadership in cutting-edge science is found in Pennsylvania.

To provide you an overall view of the scientific developments in Pennsylvania let me tell you about Pennsylvania's scientific pipeline that will produce future treatments and drugs for patients. There are currently 1,752 drugs, therapies and medical devices in the pipeline of Pennsylvania's life sciences companies. The top therapeutic areas are cancer, the central nervous system, infectious diseases, cardiovascular, and the immune system. Many, if not most of the products will not successfully navigate the arduous process of discovery, development and clinical trials. The innovation of new therapies, drugs, and medical devices is a very long and expensive process. A successful product can take ten years and more than $2.6 billion to research and develop. According to the Pharmaceutical Research and Manufacturers of America trade association, the odds of a drug successfully completing the process from discovery through approval and into the hands of a physician or patient are 1,500 to 1. It is a very risky venture.

While many people are fixated on the price of some drugs today, the price discussion obscures the major advances that we have seen in human health. Over the past 100 years, medicines have helped raise the U.S. life expectancy from 47 years to 78 years. The 5 year cancer survival rates are up 39 percent across all cancers. The death rate for cancer has fallen 22% from its peak in 1991. Additionally, the new hepatitis C therapies have cure rates of more than 90%. That's correct, you heard that right...cures.

When discussing the issue of drug ***price*** there are several things to keep foremost in your mind. First, the percentage of the overall healthcare ***cost*** in the U.S. of prescription drugs to the system has remained remarkably constant at between 9-12% of the healthcare dollar since 1960. In recent months health insurers have falsely claimed that it is drug prices that are driving up the premiums for their customers. It is the old game of passing the blame.

As you know, Pennsylvania competes each and every day on a global stage. This is very true for my members and the larger life sciences community. At stake in this competition are these very valuable jobs that pay high salaries. Jobs in the life sciences pay approximately $90,267 per year in Pennsylvania.

As Pennsylvania competes for these companies and their high-paying jobs, the Commonwealth has several programs that I would like to briefly highlight.

Pennsylvania's Research and Development Tax Credit, an opportunity of $55 million each year and with its tradable nature, provides critical cash to young companies. For example, we have a young medical device company in Bellefonte that over the past six years has successfully applied for eight patents. The patent approvals cost the company $520,000. During that same time period, the CEO traded her tax credits and netted $505,000, almost covering the cost of the patents. In 2015, just under $12 million of R & D Tax Credits were awarded to life sciences companies. In each of the past three legislative sessions there has been legislation to raise the cap to $100 million. I would urge you to support that increase so that more companies can access this tax credit.

The Life Sciences Greenhouses were created more than fourteen years ago with funds from the Tobacco Settlement Fund. Each year the state legislature appropriates another $3 million to the three regional greenhouses supporting their investments in life sciences start-ups. Beyond the initial funding that these organizations provide start-ups are billions of follow on investments that come from other venture capital investors. The most recent statistics are stunning. The $77 million that the state has invested in

the Greenhouses has attracted $4.4 billion in follow on investments. 209 companies have been formed employing 4,509 people. At a 58 to 1 ratio, this is a wise investment of the taxpayers' money.

The Ben Franklin Technology Partners have four regional offices that serve start-up and emerging companies throughout the Commonwealth. The state legislature supports these offices with a $14.5 million annual appropriation. The types of companies supported by the Ben Franklins are diverse and a sizable amount of funding goes to life sciences companies. In 2015 alone, 48 companies were formed creating 1195 jobs. And here again, the taxpayers' investment attracted $520 million additional funding from private sources.

The Keystone Innovation Zones play an important role for young and emerging companies. These tax advantaged zones can be found throughout the Commonwealth. We are sitting in one right now. Dozens of life sciences companies start and grow in these zones. The zones provide an important shelter from taxes until the companies are ready to relocate to larger facilities. A note of caution. In this year's enacted budget, the appropriation for these zones was reduced from $25 million to $15 million. I urge the legislature to restore this program to the full $25 million in the next budget.

And finally, I'd like to commend you on the Innovate in PA program. This is a new source of funding for the innovation economy in Pennsylvania. As you know, over $85 million will become available over the next few years. With 5% of the money set aside for the Life Sciences Greenhouses, more start-up life sciences companies will be supported financially.

That is what Pennsylvania is doing today. But if you take even a cursory look around the nation you will find it pales in comparison to other states. In Massachusetts, a $1 billion 10-year commitment to invest in the life sciences has been underway for six years. Just north of us, New York City launched a $150 million Early Stage Life Sciences Funding Initiative last year. With $50 million from the city's economic development fund and added funds from large pharmaceutical companies, this fund will seek to launch 15 to 20 companies by 2020. A look to our southern border and we find a $1.3 billion investment in the life sciences by the State of Maryland. To the west, Ohio has funds provided by a voter approved $3 billion bond referendum. As you all know, everything is bigger in Texas and their $3 billion investment, which started in 2007, proves it. And finally, not known for its life sciences, even Kansas has invested $580 million to promote and grow its life sciences industry footprint over the last twelve years.

These are but a few of the many examples of how our neighboring and competitor states are investing in this critical industry. Other states use tax credit incentives like a Small Business Innovation Research Tax credit. A state dollar investment for every dollar a company receives from this competitive federal program. Another popular tax credit is an Angel Investor Tax Credit to encourage private investors to invest their funds in companies based in that state. Quite simply, Pennsylvania is being out-maneuvered by our competitor states each and every day with more resources committed to attract life sciences companies.

Rather than allow this situation to continue, Pennsylvania Bio convened a large group of stakeholders five years ago to develop a plan to make Pennsylvania the hub for the life sciences. We made it a ten year plan that would be independent of any administration in Harrisburg. After forming the Life Sciences Leadership Advisory Council, the goals of the strategic plan were announced in Harrisburg in 2012. The five stated goals are:

- Promote the life science industry as a key driver of Pennsylvania's economic competitiveness.

- Ensure the continued growth and vitality of the Pennsylvania life science community through ongoing monitoring, evaluation, and action of its stakeholders to maintain the industry's competitiveness.

- Support the research and development of emerging life science technologies including previous and new life science investments.

- Seek investment capital to support early and mid-stage life science companies.

- Encourage the creation of a tax system and business climate that provides a supportive environment for the life science and other technology-based industry job creation.

A copy of the complete, ten-year plan has been submitted to the Committee for the record.

These goals, proposed policies, and ideas found in the plan guide our advocacy work on a daily basis. It is important that Pennsylvania develops programs and a business climate that encourages growth of this vital industry. Pennsylvania Bio has been its voice for over twenty six years and we look forward to continuing our advocacy on its behalf and our work with the state legislature, the companies we represent, and the patients they strive to serve.

Thank you for coming to Philadelphia and for allowing me to present today.