

Chairman Edwards, Vice Chair LaRe, Ranking Member Sweeney, and Members of the House Finance Committee, thank you for the opportunity to present interested party testimony on House Bill 33.

My name is Eddie Pauline, and I am the President and CEO of Ohio Life Sciences. We are the trade association for the bio and life industry here in Ohio. Our organization represents over 300 members including biopharma companies, laboratories, medical device manufacturers, agtech, and digital health firms, just to name a few. Our members are on the absolute cutting edge of biotech advancements curing rare diseases and chronic conditions diseases and allowing Ohioans to live happier and healthier lives.

Some of you may know that Ohio is trying to emerge as a hub for the life sciences industry, but I worry we are not doing enough to sustain this effort.

We have seen massive investments totaling hundreds of millions of dollars from Amgen and Sarepta Therapeutics alone. Just yesterday I was in Vandalia Ohio visiting Adare pharmaceuticals...there they have a 180,000 square foot research and manufacturing facility and employ nearly 300...and want to grow. Amgen requires approximately 400 employees solely to assemble and package medicines. This number does not consider the HR professionals, accountants, supervisors, and the hundred or so other positions needing to be filled in order for the site to function properly. Amgen, Adare, Andelyn, Amplify, Axogen, National Resilience, Forge, are just a few others that are creating jobs and need talent.

We are concerned that Ohio does not have a workforce that is prepared to take on these roles. This, in turn, discourages companies from coming to Ohio or staying in Ohio. I think it is important to briefly mention what has led us to this point so we understand how to resolve these challenges.

There are 4 primary issues facing the life sciences industry when it comes to workforce:

1. **Industry and education partners are not communicating enough**. As the trade association, I can assure you we are hearing this from both sides of the matter. Industry leaders struggle to design these partnerships that maximize mutual benefit, and education leaders are generally unaware of what they are expected to do in these

relationships. As we can all imagine, ineffective (or in some cases, non-existent) communication leads to a plethora of other challenges.

2. The educational offerings are generally not aligned with what the industry needs, specific to life sciences. To put it in simpler terms, recent graduates and individuals just entering the workforce must overcome skills gaps that are costly (to the employer and sometimes the individual) and time consuming (it takes time to earn the proper certifications and trainings). This not only puts individuals and companies in the life sciences at a disadvantage, but it hinders overall progress and innovation. The expectation is not that new hires will be able to walk onto a job and immediately master it, but our goal is to reduce skills gaps as much as possible to decrease the amount of on-the-job training.

3&4. The third and fourth issues go hand in hand. We see that life sciences employers are struggling to compete for talent. This is partially to do with other states *pouring* money and resources into the industry allowing it to prosper *far* beyond what we are seeing in Ohio. And the fourth point is that this industry is lacking overall awareness. Put simply, people aren't aware of the huge variety of jobs that are available across all sectors of the life sciences. Lack of awareness naturally leads to fewer students pursuing degrees, trainings, or certifications that prepare them for a position in the life sciences. With fewer individuals qualified for positions, we are left with companies unable to find people willing and able to work in the industry.

This is not to say that we are asking the State of Ohio to cover expenses for 5000 students to get a degree in biochemistry. This is to acknowledge and vocalize that there are real obstacles preventing a multitrillion-dollar industry from booming in Ohio. And with a comparably small investment, we can start to overcome a lot of those obstacles.

For these reasons, Ohio Life Sciences is requesting 5 million dollars over the biennium to enact a comprehensive workforce strategy that will systematically invigorate the life sciences industry. This strategy includes 22 separate initiatives that target those 4 main areas of concern.

Specifically, we envision a formalization and replication of successful industry-education partnerships across the state. One way we would see this in practice is Ohio Life Sciences working with a college or university to institute a training program that reskills or upskills workers in any number of disciplines. Columbus State Community College is a prime example of this. They have 2 "bootcamp" programs – one for pharmaceutical manufacturing and one for biotechnology. These programs are 12-weeks, and the individual emerges fully

prepared to start working in a biomanufacturing or pharmaceutical technician-type role.

These bootcamps are costly. The major costs include hiring a professional qualified to teach these courses, obtaining the equipment needed to properly train the students, and developing the curriculum for the courses.

Another portion of the funding would go towards enhancing the former BioEnterprise building in Cleveland in partnership with Case Western. This is a prime piece of real estate that could easily be transformed into an incubator for startups, house workforce training, and create additional wet lab space.

We also plan to launch a robust Entrepreneur in Residence program dedicated to the life sciences to help create a "sticker" environment for new companies emerging from our research institutions. The pipeline of new technology coming from our research institutions is growing. When these companies spin out of places like Nationwide Children's Hospital or Ohio State and can't find the talent, the space, or the funding to grow, they will leave. We need a focused effort to ensure we have a strong bench of life science expertise ready to help these companies grow. There is already too much temptation to move to places like Austin, Phoenix or the coasts. A few years ago, Avexis came out of NCH, couldn't find the talent and space here, and is now an 8 billion dollar company in Chicago.

While I am sure you all see the very real up-front cost of \$5 million, I encourage you to look beyond that. Let's note that the life sciences industry generated \$7.1 billion in payroll in 2019. There are close to 84,000 life sciences employees in Ohio. The average wage for someone in this industry is \$84,000. To put that in perspective, the average wage across all industries in Ohio (in 2019) was \$50,502. By encouraging individuals to enter this lucrative and well-paying field, theoretically, we would see a decrease in the number of unemployed and underemployed workers.

These are positions that clearly pay well, provide health insurance, and ultimately promote innovation.

As I mentioned before, other states are already investing hundreds of millions of dollars into the life sciences. Rhode Island invested \$30 million directly into the industry. The Connecticut Governor just proposed a \$25 million investment to establish it as a bioscience hub. Arizona invested \$50 million into the Arizona Health Innovation Trust Fund. Virginia invested \$66.7 million to expand the life sciences industry across the state. Lastly, the City of New York announced their plans to double their current investment to an even \$1 BILLION as part of the LifeSci NYC initiative.

Ohio is behind the curve with a direct investment in the life sciences. We risk losing massive investments, businesses, and scientific breakthroughs if we don't act. This is the time for bold action. This is the time to invest in Ohio's life sciences.

Chairman Edwards and Members of the House Finance Committee, thank you very much for your time. I would be happy to answer any questions you may have.

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