Massachusetts reauthorizes LSI for at least another five years

On June 15, Gov. Charlie Baker signed into law a bill establishing the next phase of the state’s life sciences initiative (LSI). In its final form, the law will build on the initial 10-year, $1 billion program with $473 million in new capital authorizations over the next five years and up to $300 million in tax incentives over the next 10 years.

The bill is a major milestone for the industry’s continued success in Massachusetts, and a concrete step toward ensuring the Commonwealth remains the best place in the world for life sciences.

“Reauthorizing the Mass. Life Sciences Initiative will facilitate stronger public-private partnerships and strategic investments to train our workforce and attract world-class companies to the Commonwealth,” said Gov. Baker.

“In partnership with the Legislature, our administration remains dedicated to generating economic growth and supplying researchers with the tools they need to create new advancements in medical care.”

“The reason Massachusetts is the best place in the world for life sciences is because government is a true partner,” said MassBio President & CEO Robert K. Coughlin. “MassBio and our 1,100+ members applaud Gov. Baker and the Legislature for closely examining the data, concluding that the original life sciences initiative was a valuable investment, and agreeing to pass the next phase into law. By providing targeted investments in workforce development, biomanufacturing, convergence and early stage science, this bill ensures all of Massachusetts remains the best place in the world for life sciences, and that diversity and opportunity become synonymous with our industry.”

The funding will continue to be managed by the
Embracing Diversity and Inclusion

The BIO Convention has come to MassBio. As a member of "Massachusetts: The State of Possibility," we are proud to serve as a catalyst for why and how the work of the life sciences industry in our state matters. And we believe that what is possible here as a community is even larger than what is possible in any single company, in any single workplace. In fact, the larger the diverse community, the more innovation, the larger the impact, the more opportunity.

Diversity and Inclusion in our industry. Not only is Initiative 2.0, Governor Baker and his administration's commitment to expanding opportunities in the life sciences, important for our common future. It's also vital to the success of each of our member companies. Is your company ready to do its part to advance this work in our state and our industry? Our state and our industry as a whole can only reach its full potential when we embrace the very best from a diverse range of perspectives and ideas.

As we continue to expand our D&I campaign, MassBio and the MAI team will be focused on:

• Meeting with members individually to discuss diversity, recruitment, growth and progress, including qualitative and quantitative data
• As a resource for support throughout the month of June

Together, bring together the life sciences community for inclusive, open and productive dialogue and interaction.

Altering the mindset from D&I being the right thing to do, to understanding that diversity and inclusion are a necessity for innovation and growth.

Lea Page is an Executive Director of Public Policy at MassBio.

State roundtables reSuzi for another five years

Massachusetts Life Sciences Center (MLSC) with a focus on regional initiatives that spur workforce and economic development and art and cultural opportunities for young people in the area.

The range of strategic priorities include:

• Leveraging talent capital for current and future workforce needs
• Innovators in growth areas that also bring equal opportunity in the life sciences; and
• Fostering an environment of opportunity by fostering a network of diversity and inclusion.

We are grateful for the continued leadership of Governor Baker and especially his administration. As Governor, Baker has prioritized the development of the Massachusetts life sciences industry and the Massachusetts Life Sciences Center (MLSC) as a catalyst for creating a more diverse and inclusive ecosystem.

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The theme of BIO’s 2018 Convention was “make history,” and by all accounts, that’s precisely what BIO and its member companies did.

The numbers speak for themselves:

18,289 biotechnology industry leaders from 49 states, the District of Columbia, Puerto Rico and 67 countries in attendance

BIO 2018
BY THE NUMBERS

WE BELIEVE THAT BECAUSE OF THE WORK THAT’S BEEN DONE AND THE WORK THAT WILL BE DONE MOVING FORWARD, ANYTHING IS POSSIBLE.

— Gov. Charlie Baker

1. Amy Schulman, a partner at Polaris Ventures, participated in one of the Mass. Pavilion’s “Possible Talks” on female entrepreneurs in life sciences.


3. Magdalena Schoeneich, Global Head of Takeda Digital Accelerator, R&D, spoke on improving scientific and patient decision-making through artificial intelligence.


5. Mikael Dolsten, President of R&D at Pfizer, joined by Denis Patrick and Barbara Dalton of Pfizer Ventures, and Dr. Glenn Larson, Co-founder, President and CEO of Aquinnah, announced plans to invest $600 million through Pfizer Ventures.

6. Travis McCready, President & CEO of Massachusetts Life Sciences Center, spoke about talent development in the Commonwealth.

7. Maureen Sheney, Senior Director of Marketing and Lead Division 2020 Patient Dimension at Sunevus Pharmaceuticals, chatted with an attendee after presenting on why patient portrayals matter.


PHOTOS: DAVID FOX
BIO RETURNS TO THE STATE OF POSSIBLE
Event draws more than 18,000 attendees

By Maigan Carter

When Boston is the host site for the Biotechnology Innovation Organization (BIO)’s International Convention, attenders typically come in droves to make the most of their time. This year was no exception.

BIO 2018, held June 4-7 at the Boston Convention & Exhibition Center and co-hosted by MassBio, attracted more than 18,000 attenders from across the globe to the most in the last 10 years. With nearly 47,000 partnering meetings, its a Clamor Week for the “Great Business Partnering Event.”

BIO previously came to Boston in 2000, 2007 and 2012. This year’s event celebrated BIO’s 25th anniversary and the innovations that have developed over the years. We also recognized the companies, patient groups, academic centers and innovators that contribute to solving the world’s toughest challenges.

“What do you mean we’re thrilled to welcome the world to Massachusetts, so they can see firsthand why we’re the state of possible,” said Robert K. Coughlin, President & CEO of MassBio. “From Cambridge to Worcester, our state is at the hub of biotechnology innovation, and BIO 2018 allowed us to show what’s possible when industry, academia and government work together as partners to expand our footprint in our state.”

At the Massachusetts Pavilion, located on the exhibition floor, industry leaders and government partners shared the Commonwealth’s story of why it’s possible for up-and-coming companies to expand their footprint in our state. The Massachusetts Pavilion helped showcase all the services and resources available to entrepreneurs and their teams.

During the convention, Gov. Charlie Baker announced another major milestone for the state — 231 MSc affiliated companies. The awards were approved by the board of directors of the Massachusetts Life Sciences Center (MLSC) and will create more than 1,100 new jobs across the Commonwealth in 2018. In addition, they will support life sciences job growth in 18 different Massachusetts communities, the majority of which are outside of Boston and Cambridge.

“Our administration is committed to supporting strategic investments to create more jobs and continue to improve Massachusetts’ overall position as a global leader in the life sciences,” said Baker.

“Through this program we are fulfilling our commitment to supporting an ecosystem that fuels job growth, promotes innovation within the industry, and provides a constant stimulant for research and development, manufacturing, and commercialization that is the hallmark of how our unique private and public partnership, including MassBio and the Ryan Foundation, has positioned Massachusetts as a state of interest and possibility,” said Robert K. Coughlin, President & CEO of MassBio.

“It means the world to be able to continue supporting the next generation of entrepreneurs and innovators,” said Coughlin. “It not only helps to grow our footprint in Massachusetts, but also empowers women in biopharma, creating the diverse workforce of the future that we need to succeed.

In addition to increased funding, Pfizer will be recruiting in leadership as a venture capital investor in an expanded role that leverages expertise across venture capital investing, business development, drug discovery and clinical development.

“By acquiring Pfizer’s venture capital efforts under Pfizer Ventures, we hope to extend both the breadth and depth of Pfizer’s support for the development of cutting-edge science from concept to product,” said Barbara D even, Vice President of Pfizer Worldwide Business Development and Senior Managing Partner of Pfizer Ventures. “Building on our existing investment, we look to identify and invest in emerging companies that are advancing compounds and technologies with the hope of delivering life-changing therapies to patients in need.”

As part of the Massachusetts Pavilion activities, three-time Grammy Award-winning group Little Big Town performed a concert at the Blue Hills Bank Pavilion, and MassBio held a Women in Biotech event, discussing outcomes such as Zika and how to be prepared.

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A CALL TO ACTION

Parents build network, advocate for advances in newborn screening and drug access

By Meaghan Casey

The job of a parent is to protect his/her child, so it can be very frustrating when something goes wrong and no one has the answers. That was the case for Jon and Amanda Miller of Tuckerton, N.J. Following a standard newborn screening, the Millers were given a clean bill of health for their son, Evan, who was born in 2009.

But, over the next 12 weeks, they began noticing signs that all was not well. “He was a beautiful, awesome baby, but we had some concerns,” said Jon. “He was hard to settle down and seemed uncomfortable unless he was sitting up. By the third month, if you touched his abdomen, he would writhe in pain. His stomach was so enlarged, it looked like he was pregnant.”

The Millers’ pediatrician initially tried to dissuade their concerns, attributing the symptoms to colic. Not convinced, Jon and Amanda took Evan to the emergency room, where a series of tests and an X-ray of his abdomen were performed. There, it was discovered that the entire cavity of his abdomen was filled with fluid — a condition known as ascites, which is commonly caused by liver disease or kidney failure. They were rushed by ambulance to Jersey Shore University Medical Center, and then to Children’s Hospital of Philadelphia.

“We were told ‘if we don’t figure out what’s wrong in the next 24-48 hours, he’s going to die,’” said Jon. “When we got to Philly at 2 a.m., there were 20 doctors in the room.”

After countless tests, they got the diagnosis later that morning. Evan had been born with hereditary tyrosinemia type 1 (HT-1), a genetic disorder characterized by elevated blood levels of the amino acid tyrosine, a building block of most proteins. Tyrosinemia is caused by the shortage of one of the enzymes required for the multistep process that breaks down tyrosine. If untreated, toxic substances build up in the blood and can cause liver failure, kidney dysfunction and neurological problems. Of the three types of tyrosinemia, HT-1 affects about 1 in 100,000 individuals.

Although Evan had been tested for tyrosinemia during newborn screening, the test only looked at elevated levels of tyrosine and not succinylacetone, so he had been given a false negative. Had he been properly diagnosed, doctors could have started treatment before some of the harmful effects occurred. “My son was not the only one not diagnosed or misdiagnosed,” said Jon. “Fortunately, it was caught, but that was after three hospital visits and being days away from dying. In cases where it was never caught, those deaths were probably written off to an unknown liver disease.”

Following his diagnosis — and 56 hours without food — Evan was given his first dose of nitisinone, which had to be flown in from Nashville. The medicine has been shown to slow the breakdown of tyrosine, thereby reducing the amount of toxic by-products in the body. Patients must also follow a special low-protein diet.

“We were still in the hospital and I remember Googling tyrosinemia and coming up with nothing — just one website of a kid with the same condition in North Carolina,” said Jon. “I had no idea what we were going to do next or how we would pay $8,000 to leave with the medication, so I ended up talking to that family, and they told me about NORD.”

Since 1987, NORD (National Organization for Rare Disorders) has provided assistance programs to help patients obtain life-saving or life-sustaining medication they could not otherwise afford.

Equipped with the new knowledge and assistance, Jon wanted to pay it forward. He started a Facebook group to connect with other families with children with tyrosinemia. “I got a call from a father in India and his 8-month-old twins needed the medication,” said Jon. “I called NORD, my senators, the Red Cross and Sobi [which has developed and marketed the drug under the brand name Orfadin]. Sobi caught wind of it and did the right thing. Two weeks later, those kids had the medicine.”

HT-1 patient Evan Miller has already set his sights on becoming a commercial pilot.

Since then, Jon has assisted other families in Mexico and Algeria to receive medicine and care packages with food. He went on to form the Network of Tyrosinemia Advocates (N.O.T.A.), connecting with 300 families. The organization is committed to ensuring that no child or individual around the globe goes untreated, that every parent has the support they need and that newborn screening never misses a child’s diagnosis again. Although newborn screening reaches nearly 4 million babies born in the U.S. each year, it is a state public health service and 11 states are still not in compliance with the recommended screening for tyrosinemia. Jon has gone to each of those states to advocate for change.

“It’s my calling,” said Jon. “Evan suffered tremendously, and for no reason. The screening failed us. I’m so grateful we eventually went to the ER, but the feeling I still have is guilt.”

Evan is now almost 9 years old and, according to his father, “a rock star.” He loves Cub Scouts, “Ghost Busters” and his younger sister, Alice. He hopes to be a commercial pilot one day. As long as he maintains his diet and medication, he will no doubt be able to achieve that goal and more.