NEW UNITED WAY INITIATIVE SUPPORTS MASSBIOED AND BOSTEM

United Way recently launched a new initiative to support science, technology, engineering, and mathematics (STEM) education in Massachusetts public schools.

The goal of this initiative is to garner broader financial and volunteer support for MassBioEd’s BioTeach program, which brings new lab-based lessons in biotechnology to over 10,000 additional students annually throughout Massachusetts through workshops and mentoring for public high school science teachers, and BoSTEM, which is focused on delivering industry volunteers to middle school classrooms in Boston to lead hands-on STEM-based activities with students.

The new campaign is centered on providing companies the opportunity to support STEM educational programs through employee giving. Upon opting into the program, companies will receive a dedicated contribution page that will be set up and administered by United Way, and all proceeds will support BioTeach and BoSTEM.

The campaign idea developed in a meeting with life sciences industry leaders, MassBio President & CEO Robert K. Coughlin and Michael Durkin, President of United Way of Massachusetts Bay.

See UNITED WAY Page 3
As we continue to embark upon a new legislative session under a new administration, we recognize the strong headwinds we face as an industry. We at MassBio are energized to play a proactive role in conversations about the value of innovative therapies and cures to the healthcare system, to society as a whole, and, most importantly, to patients around the world.

We had an animated discussion about the changing landscape of healthcare at our 2017 Policy Leadership Breakfast. In the coming months, we’ll continue to address that evolution — whether it’s exploring new models for more efficient R&D, piloting innovative pricing models or working directly with patients to define desired outcomes and endpoints. Also at the breakfast, we announced our commitment to register our members to the #DonateLife. This is a cause that’s near and dear to me, and I’m thrilled to be able to work with our new friends at the New England Organ Bank. It isn’t a hard sell — 95 percent of Americans are in favor of being a donor. But only 52 percent are registered. That’s why our team has volunteered to share information and help people register online. If you haven’t done so already, I urge you to take the time to register and potentially save lives.

Since we last published, we also hosted the fifth annual CRO/CMO Symposium. Here in Massachusetts, we’re lucky to have some of the premiere CROs and CMOs providing a full spectrum of expertise and experience. We know we must not only maintain these strategic partnerships, but explore the best practices and innovative models being used in order to remain a growing, thriving industry cluster.

I hope to see many of you at our Annual Meeting on March 30-31. I’m looking forward to hearing Gov. Charlie Baker, as well as with cancer survivor keynote speaker Dan Schorr and many others who will be reminding us how important it is to be #PATIENTDRIVEN® every day.

Thank you for your support and participation. We look forward to a successful 2017.

Robert K. Coughlin is President & CEO of MassBio.

**NEW SAVINGS THROUGH THE MASSBIO PURCHASING CONSORTIUM: TTE LABORATORIES & AFR FURNITURE RENTAL**

More than 70 percent of MassBio members actively use MassBio’s Purchasing Consortium. In 2016, MassBio members spent $858 million and saved $41 million. In the fall of 2016, MassBio expanded the Purchasing Consortium offerings to include new savings on pipette calibration services from TTE Laboratories and on furniture rental from AFR Furniture Rental (AFR).

**TTE Laboratories:** Founded in 1989 by molecular scientists, TTE Laboratories is the world’s first affordable, metrology-driven, ISO 17025 and 6655 compliant pipette service provider. Over the years, TTE Laboratories has grown into one of the leading facilities offering pipette calibration near Cambridge, Massachusetts. TTE Laboratories offers MassBio members its lowest negotiated rates, next-day service, customized pipette service programs, and access to their cloud-based Asset Management System.

**AFR Furniture Rental:** AFR, established in 1975, is the nation’s second-largest furniture rental company. AFR offers 23 strategic locations across the United States. AFR offers MassBio members a nine percent discount on commercial, residential, special event and trade show furniture. AFR will also provide specialized customer service, space planning, CAD drawing, and a waived security deposit for MassBio members nationwide.

The MassBio Purchasing Consortium aggregates the purchasing power of MassBio member companies to negotiate contracts with vendors that create significant savings for members. Current contracts include lab supplies and equipment, prescription/safety eyewear and footwear, uniform and facility services, equipment maintenance, hazardous and biomedical waste removal, packaged and bulk gases, office supplies and furniture, furniture rental, technology hardware and services, travel management, domestic and international shipping and scientific journals and subscriptions.


There were nine IPOs from Massachusetts biotech companies in 2016. Of all U.S.-based IPOs, 30 percent were from Massachusetts companies.

**MASSACHUSETTS IPOS, 2016**

<table>
<thead>
<tr>
<th>Company</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>editas</td>
<td>$147 MM</td>
</tr>
<tr>
<td>PROTEOSTASIS</td>
<td>$50 MM</td>
</tr>
<tr>
<td>Syros Pharmaceuticals</td>
<td>$50 MM</td>
</tr>
<tr>
<td>Syndax</td>
<td>$52 MM</td>
</tr>
<tr>
<td>Cronos</td>
<td>$11 MM</td>
</tr>
<tr>
<td>Ra</td>
<td>$72 MM</td>
</tr>
</tbody>
</table>

Q&A
WITH Anh Hoang

Chief Science Officer and Co-founder of Sofregen Medical

Anh Hoang earned her doctorate degree in material science engineering from Vanderbilt University as a National Science Foundation graduate fellow. She completed her post-doctoral training in biomedical engineering at Harvard Medical School/Massachusetts General Hospital as an Executive Committee on Research (ECOR) fellow. She is the Chief Science Officer and Co-founder of Sofregen Medical. Sofregen develops and delivers innovative and transformative silk-based solutions for soft tissue defects, restoring confidence and improving the quality of life for medical and aesthetic patients around the world. As part of its growing portfolio of medical technologies, it is the supplier of SERI® Surgical Scaffold, the only silk-based biological mesh. Pipeline products includes silk-based wound healing and dermal filler products. Learn more at www.sofregenmedical.com.

What advice would you give to help an entrepreneur make the most out of the MassCONNECT program?

I would advise entrepreneurs to be more open-minded to advice and to be motivated to reach their goal destination rather than be married to the path. During the program, several mentors recommended that we evaluate alternate paths to market that may present a lower barrier to entry. This advice led to the discovery of the medical aesthetic field where our platform technology can contribute significantly to its unmet needs.

Do you have any other general advice for entrepreneurs?

I’ve learned that the team can be more important than the idea. The right team can strategically navigate (almost) any idea to success. At Sofregen, we are lucky to have a mixture of seasoned biotech business leaders and enthusiastic younger entrepreneurs and scientists. The “new-blood” brings fresh innovation and we are guided by the experience of our industry vets.
MassBio President & CEO Robert K. Coughlin echoed Celniker’s concerns and call to action. "MassBio and its member organizations are committed to being part of a sustainable healthcare ecosystem where patients have access to the innovative treatments and therapies they need," said Coughlin. "That’s why we advocate for research funding, and why our member companies are investing in new diagnostics and new drugs to solve some of the world’s most vexing medical challenges. But that R&D investment is threatened by a growing wave of efforts to increase barriers for companies trying to bring the next generation of treatments and cures here in Massachusetts, those years have come at a critical time. Legislation, mandated under the guise of transparency. In reality, the proposals we’ve seen to date would have no impact on ensuring patients’ access to the medications they need. Instead, those efforts would burden innovative companies to justify and account for investments. MassBio will continue to oppose proposals that undermine the market and impede innovation. In 2017, we will focus on solutions that shed light on how decisions are made throughout the healthcare system." 

"We’ve been talking about how we move toward paying for value for a while now," said Dr. Michael Sherman, Chief Medical Officer and Senior Vice President at Harvard Pilgrim HealthCare. "Harvard Pilgrim made a groundbreaking deal with Amgen in 2015 for its cholesterol-lowering drug, Repatha. In addition to providing a discount, Amgen would be at risk financially if Harvard Pilgrim members’ cholesterol levels were not lowered to the levels of clinical trials. "Amgen was the first to step up, and since then we’ve signed agreements with Novartis and Eli Lilly and we have many more dialogues underway," said Sherman. "It’s very exciting. We’re easing a large backlog of potential deals that I think will solve some of the problems." 

"Our business communities — many of them — are innovation-based, but some more than the unprotected life sciences industry that we’re at a part of," Celniker continued. "Hopefully we can ensure that our innovation culture is not smothered by a lack of understanding. Our industry is committed to being part of the solution. We all need to work together, think outside the box and develop a common message around how our industry works, the value it creates and the lives it can change." 

"Hopefully we can ensure that our innovation culture is not smothered by a lack of understanding. Our industry is committed to being part of the solution. We all need to work together, think outside the box and develop a common message around how our industry works, the value it creates and the lives it can change." 

"If a patient is readmitted to the hospital after a month and before a year, which is in line with our label, we will pay for their medications," said Sullivan. "We’re standing behind the medicine, but we have to make sure the patient gets on — and stays on — therapy. For us, a big goal is communicating with the patient so they really understand how to take their medications, so they’re getting the most value." 

"We have the opportunity to put some of these issues we’ve heard today in front of a national audience. The challenge going forward is to tell your story and show people that this industry is thriving and driving the Massachusetts economy." 

"We have the opportunity to put some of these issues we’ve heard today in front of a national audience. The challenge going forward is to tell your story and show people that this industry is thriving and driving the Massachusetts economy." 

"We have the opportunity to put some of these issues we’ve heard today in front of a national audience. The challenge going forward is to tell your story and show people that this industry is thriving and driving the Massachusetts economy." 

"We have the opportunity to put some of these issues we’ve heard today in front of a national audience. The challenge going forward is to tell your story and show people that this industry is thriving and driving the Massachusetts economy."
AN OPEN LETTER TO THE BIOPHARMA COMMUNITY

Hundreds of life sciences leaders support guiding principles and best practices to increase gender diversity

On January 11, 2017, more than 100 life sciences industry leaders outlined guiding principles and best practices to improve gender diversity throughout industry. See the full list of 275+ signatories and stay tuned for MassBio’s next steps at www.MassBio.org.

Now that it’s 2017, we are choosing to write this letter to provide recommendations for best practices to establish gender diversity as a priority for the biopharma industry.

Last year’s open letter to the industry sparked a dialogue that led to changes in some company practices, new training programs, regional gender diversity initiatives and much more. But we believe this is just the start of the work to be done.

Below is the culmination of recent recommendations collected from industry executives for guiding principles and a top 10 list of best practices that we believe will continue the momentum of 2016 into 2017 and beyond.

Guiding Principles for Gender Diversity as a Priority for the BioPharma Industry:

1. We, as community leaders, commit to driving diversity and inclusion in the biopharma industry.
2. Diversity is good for the business performance of our industry. Research proves that diversity leads to:
   • Better decision making
   • Increased productivity and financial performance
   • Enhanced engagement, recruitment and retention of talent
3. To ensure that the biopharma industry thrives and is sustainable, we, as community leaders, see it as our responsibility to drive diversity as a top priority.
4. Unconscious biases are ubiquitous and difficult to pinpoint and address. Still, we need to make a conscious commitment to eradicate unconscious biases in recruitment, performance evaluation, promotion and decision making in order to improve gender diversity.
5. While we recognize that there are many forms of diversity needed to ensure the future of our industry, there are clear best practices that can be implemented now to increase gender diversity.

Top Ten Best Practices for Increasing Gender Diversity in the BioPharma Industry:

1. We as executives and board members declare gender diversity as a priority, as a key value and ethos. We commit to living it visibly at all of our companies and organizations.
2. We will create opportunities for open dialogue on enhancing gender diversity and ensuring an inclusive environment, both within our organizations and across the industry.
3. We recognize the importance of formal sponsorship programs to ensure diversity in our executive leadership pipeline and commit to building these programs in our companies.
4. We also recognize that it is important to provide formal mentorship programs to encourage women to engage with executives, both inside and outside of our organization. We commit to building these programs in our companies.
5. We will ask our board members to be active sponsors of women who are “board ready” to pursue board appointments. We will endorse and sponsor our high potential female talent to take part in training programs to become “boardroom ready”.
6. We will measure and track promotion of female talent to senior management positions.
7. We will seek out and celebrate positive role models within our organizations.
8. We will review our hiring processes and train our hiring managers on diversity and inclusion as a priority.
9. We agree with the importance of setting concrete hiring goals to achieve gender parity and inclusion at each level of our organizations and to measure and report regularly on our progress towards goals.
10. We will support the work of our trade organizations, like MassBio, on industry-wide efforts to improve gender diversity at the macro level.

We, as community leaders, have the responsibility to ensure our biopharma industry can continue to grow and thrive. We need to take a holistic view on the next generation of leaders to prepare for the future. We believe that diversity and inclusion will deliver better results for our industry and society. We have the opportunity and the responsibility to lead by example, setting the tone and pace for the biopharma industry.

We invite you to join us, to sign this open letter, and to work to implement these practices to ensure the continued success of our industry.
GET TO MARKET

2016 MassBio CRO/CMO Symposium presents new models for research, development and commercialization using strategic partnerships

BY MEAGHAN CASEY

As advances in technology within the life sciences industry continue to grow, as does the demand to deliver more affordable, accessible products and therapies to patients, the role of contract research and manufacturing partners remains vital.

“We know that life sciences companies continue to outsource more of their discovery and development in order to focus on their core competencies, a trend that should bring new products to market faster and more efficiently,” MassBio President Robert K. Coughlin said to attendees at MassBio’s fifth annual CRO/CMO Symposium, held on Dec. 8.

The symposium brought together regional biopharmaceutical leaders, CRO and CMO representatives and other MassBio members from around the globe to develop new partnerships. New this year, the event featured pre-conference workshops on how to sell large pharma and how to find your next strategic partner.

Panels in the opening discussion on the trends in outsourcing stressed the importance of managing both time and talent.

“Time is the name of the game,” said Manny Lazaro, senior director and head of clinical operations at Jounce Therapeutics. “You want to start early enough, get the right people in the room and do a thorough selection process.”

“Part of the success of any relationship is communication, but that means we struggle with how to find people who we can — at least once, but hopefully more regularly — interact with on a more personal level,” said Andy Nichols, Chief Scientific Officer at Catabasis Pharmaceuticals. “We’re very fortunate in Massachusetts that we have a large number of really good boutique groups that we can work with.”

Touching on the direction the field is heading, toward targeted therapies and precision medicine, Lazaro said planning, risk-based monitoring and the use of technology to drive efficiency will become even more critical moving forward.

“There’s a realization that clinical trials are getting more complex,” said Lazaro. “We’re asking for more data, and the trials are becoming more global. Now, with access to electronic health records and pharmacy data, the trend I’ve seen is trying to weave in and incorporate technology and the use of data to drive some of the strategy and decision-making.”

During a roundtable discussion on partnerships home and abroad, participants discussed where they find their right sourcing partners. Celgene Corporation Associate Director Rich Tester, who led the discussion, began the conversation by asking: “How do you balance cost versus location?” The discussion shifted to challenges related to travel and time zones when dealing with vendors abroad, and the added costs associated with managing such a project.

“As the distance becomes greater, we may put in more effort in terms of communication,” Tester said. “How much is a time zone worth to you? How much is it worth to be able to pick up the phone and change something on a dime?”

“I typically want to work with someone where I can get on a plane and be there in six hours or less,” said Stuart Levy, Principal of SGL Chemistry Consulting. “For me, the overriding concern is the fit of the organization with the science. Sometimes you might have such a specific need that you have to go with a certain vendor, while other times you might have time to bring a vendor up to speed.”

“Think about how you would get to your colleagues a lot about not only finding the right fit, but having a strategy around supplier relationships,” added Tester. “Fit sometimes is more than just the immediate project in front of you. What’s the long-term relationship? There’s no simple answer to ‘where in the world do I find my right sourcing partner?’ You need a focused portfolio of advisors.”

The topic of sourcing for startups and early-stage firms was the focus of another roundtable discussion, led by MassBio News
THE GIFT OF LIFE

Organ transplant saves Milford resident with pulmonary hypertension

BY MEAGHAN CASEY

Across the U.S., more than 120,000 people are waiting for organ transplants. Every 10 minutes, another person is added to the list.

Milford resident Tom Harmon, 28, was one of those people seven years ago. Harmon, who has battled pulmonary hypertension most of his life, received a life-saving, double-lung transplant at age 21.

It was 10 years earlier, at age 11, that Harmon was diagnosed with the rare type of high blood pressure that affects the arteries of his lungs and the right side of his heart.

“As a child, I played sports but I was always out of breath,” said Harmon. “We thought it was asthma, but the inhalers weren’t working.”

There are fewer than 200,000 cases of pulmonary hypertension in the U.S. each year. As the pressure builds, the heart’s lower right chamber must work harder to pump blood through the patient’s lungs, eventually causing heart muscle to weaken and fail.

Harmon was put on continuous intravenous treatments. For 10 years, he carried a small pump (used to infuse the treatment) on him at all times. The medication ran 24 hours a day, every day.

“As the years went on, I became more and more out of breath,” he said. “I played baseball until high school and then golf, but it was becoming more difficult to do any activity.”

During his second year of college, he went to Brigham and Women’s Hospital for what he thought was a precautionary step to talk about a future lung transplant.

“They told me I needed one right away,” Harmon said. “That was a shock. It was a difficult time because I didn’t want to do it at first, but they pretty much gave me another year to live if I didn’t have the transplant.”

He decided to get listed, and luck was on his side. He was notified of a match 16 days later, in August of 2010. The recovery, therefore, was not an easy road. Harmon was in a coma for three weeks after the transplant, required a feeding tube and dropped down to 85 pounds. His kidneys also went into failure. He was in the intensive care unit for a month, followed by physical therapy.

“The doctors and nurses at Brigham and Women’s were amazing,” said Harmon.

Though his kidneys temporarily recovered, they failed again, forcing him to still be on dialysis today. He’s back on the organ donation list, looking for a healthy kidney, which he says is typically a 5-year wait.

“It was a setback, but otherwise I’m healthy,” said Harmon. “I’m absolutely happy I went through with the transplant. I wouldn’t be here now if I hadn’t.”

Harmon went back to Worcester State University to study communications (focusing on journalism and broadcasting) and graduated in 2014. He’s currently trying to write an autobiography, but also has a strong interest in writing screenplays or pursuing a career in television production. He’s also back to playing golf, and his golden retriever keeps him quite active.

“I can exercise and run like normal now,” he said. “I’m looking forward to traveling and being more independent when I’m not held back by dialysis.”

In the meantime, he finds time to do some volunteer work at Brigham and Women’s and with organizations promoting organ donation, such as New England Donor Services.

“Organ donation can save so many lives,” Harmon said, emphasizing that across the country, 8,000 deaths occur every year because organs are not donated in time.

“It’s an amazing thing to do,” he continued. “There’s no risk or downside; it only helps other people. I’m living proof.”

Harmon isn’t alone in advocating for more organ donors. MassBio kicked off 2017 with a resolution to spread awareness of organ donation and work to register its members to give life. MassBio’s partnering with New England Donor Services — an affiliation of two federally designated organ procurement organizations: LifeChoice Donor Services and New England Organ Bank. Together, the organizations coordinate the recovery of donated organs and tissues at nearly 200 hospitals to provide life-saving and life-enhancing transplants to patients in need.

MassBio President & CEO Robert K. Coughlin spoke about the commitment at the Policy Leadership Breakfast.

“Just one organ donor can save and heal 75 lives,” said Coughlin. “We’re going to ask every person we know to register as a donor.”

“New England Donor Services is proud to partner with MassBio to help educate the public about organ and tissue donation and encourage people to learn more and register as donors either at the RMV when renewing their driver’s license or online at www.RegisterMe.org,” said Matt Boger of New England Donor Services.