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Mass Bionews

MASSACHUSETTS BIOTECHNOLOGY COUNCIL



Former Gov. Paul Cellucci 左 goes to bat for ALS research

By Meaghan Casey

It's a campaign he never expected to launch. Yet former Mass. Governor Paul Cellucci is opening a new chapter in his storied publicservice career, spearheading the UMass ALS Champion Fund - a fundraising initiative that aims to raise millions of dollars in support of the ALS research breakthroughs taking place at the University of Massachusetts Medical School (UMMS). See Champion, Page 7.

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MassBio explores collaboration, partnerships



ROBERT K. COUGHLIN

MassBio was thrilled to host BioPharm America here in Boston and welcome our colleagues from around the world. Our mission is to ensure the Massachusetts life sciences ecosystem continues to grow, and the conference provided an ideal venue for industry stakeholders to make the connections they need to thrive.

As we move forward through a new frontier of partnering strategies, it is important to understand where interests among pharma, biotech, academia and policy makers are

aligned, and where they differ. I think our panelists at BioPharm did a tremendous job in exploring different models

of collaboration and creative means of raising capital for drug scholars. Your participation and continued interest in all that development and healthcare delivery.

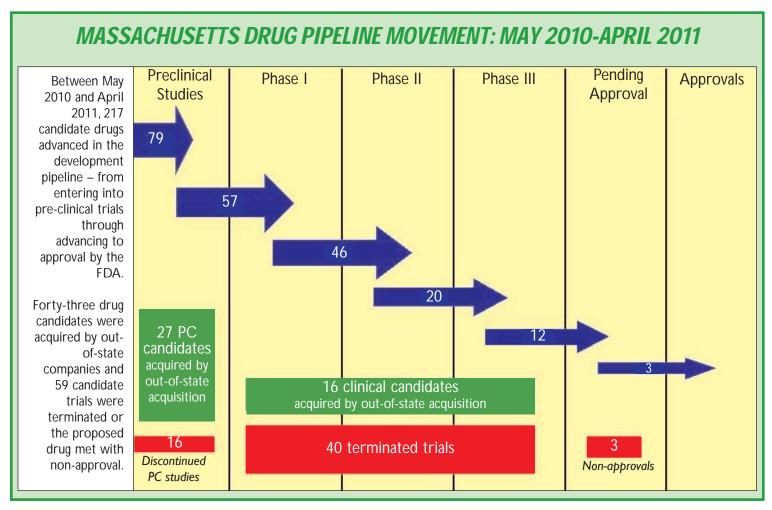
This industry is a noble enterprise and, at the end of the day, the innovative work you are doing is changing the lives of patients around the world - patients like former Governor Paul Cellucci, who has courageously stepped up to launch the UMass ALS Champion Fund. The work that the UMass Medical School team, led by Dr. Robert Brown, is doing is inspiring. However, in a tough financing market, they cannot move forward alone. It is the responsibility of all of us to support the work being done at laboratories throughout the Commonwealth.

Finally, I want to thank all of you who came out and supported us in our 17th Annual Golf Classic, which raised significant funds to support the initiatives of the MassBioEd Foundation and cultivate the next generation of biotech

we do is much appreciated.

Robert K. Coughlin is President & CEO of MassBio.







WASTE NOT, **WANT NOT**

E.L. Harvey and Sons answers the call for recycling and waste removal services

A new primary supplier has been added to MassBio's already robust Purchasing Consortium.

E.L. Harvey & Sons, Inc., a four-generation, familyowned business celebrating 100 years of recycling and waste removal services in Massachusetts, has committed to offering MassBio members significant discounts on lab plastics recycling, as well as other recycling and removal services.

This partnership came about in direct response to MassBio member feedback that lab recycling services were difficult and complicated for biotechnology companies to obtain.

"We appreciate E.L. Harvey stepping up to the plate to provide a service that helps our members dispose of their recyclable lab products," said MassBio President & CEO Robert K. Coughlin.

"We are extremely pleased to have the opportunity to provide our recycling and waste services to the members of

MassBio," said Brian Alexson, Vice President of Sales for E.L. Harvey & Sons. "We are proud to work with an organization whose members are as committed to ensuring the future of our planet as we are."

Charvey

Founded by Emory Larkin Harvey in 1911, the business is located in Westborough. The Worcester Business Journal

named it its 2010 Family Business Award Winner. The company has also been recognized by MassRecycle, Massachusetts Audubon and a number of other organizations.

Overall, 85 percent of what E.L. Harvey collects is recycled, and the remaining waste is brought to wasteto-energy plants for disposal. No waste collected by the company ends up in a landfill.

In addition to lab plastics recycling, E.L. Harvey is offering MassBio members a 15 percent discount on services including document shredding, e-waste recycling and destruction, construction materials recycling, LEEDS reporting and roll-off and compactor services. The company will also offer competitive cardboard rebates to MassBio members based on the existing Industry Yellow Sheet from the Official Board Markets Sheet.

Contract highlights are available online at www.massbio.org.



LYNNE MORIN

Leukemia & Lymphoma Society

What does a typical week consist of for not only a patient, but also a patient advocate like

A typical week can vary greatly. At The Leukemia & Lymphoma Society we are here to serve patients and families affected by blood cancer, so we may be conducting an education program in the local community, testifying at the State House or

visiting a treatment center to LYNNE make sure their patients are MORIN aware of our services. We receive numerous calls on a daily basis from patients, families and health care professionals for a variety of reasons. Many patients are calling looking for information, are newly diagnosed and don't know what to do. Some are struggling with psychosocial issues and many are

PHOTO BY MATTHEW WEST PHOTOGRAPHY

from family members in crisis, trying to manage work along with taking care of a sick spouse, child or close friend/relative. Cancer affects the whole family and, in addition to having a psychological impact, a cancer diagnosis can be financially devastating.

Patients' weeks will also vary greatly depending on their diagnosis, access to treatment, and overall health. Many patients struggle on a day-to-day basis with pain and fatigue, while others have good quality of life but are struggling financially or emotionally. Patients with chronic cancers who are on oral therapies have to take their medication every day, and for the rest of their lives. Other types of blood cancer are treated in an outpatient basis with chemotherapy, radiation and other treatments. Some may have a stem cell transplant. At LLS our role is to help patients and their families with any issues they are facing and help them access services.

We have been hearing a lot recently about reforming the way in which health care is delivered and how we pay for it. What are your thoughts on some of the federal and state efforts to tackle this complex and multi-layered issue?

From the state perspective, one of the greatest challenges in health care over the last several years has been how to tackle massive budget deficits in state budgets, while minimizing the impact of cuts in state funding, reimbursements to health care providers, and patient benefits, as well as program

restructuring to find savings, in state Medicaid programs. Medicaid is the primary source of health insurance for low income, underserved and disabled Americans and also provides long-term care services such as home care and nursing home care for low- to middle-income seniors with limited

looking for financial resources. We also get numerous calls resources. For many blood cancer patients enrolled in this important program, who usually do not have access to other sources of affordable health insurance, the fallout of these efforts is potentially life-threatening. There are similar issues federally, and the restructuring of Medicare reimbursement payments has been affecting seniors' access to medications and other expensive therapies.

> Massachusetts is the only state in the country to not allow patients to take advantage of rebates and discounts offered by biopharmaceutical manufacturers. How does that impact the patients you work with?

The lack of patient access to rebates and discounts offered by biopharmaceutical companies leaves many patients vulnerable. Many Massachusetts blood cancer patients are unable to afford life-saving drugs, including oral chemotherapies like Gleevec. The total cost out of pocket for all these medications can be devastating. Many patients skip doses, cut pills in half or wait until they can afford to purchase them, all of which affect the outcome of their disease, and can be life-threatening. This also causes poor quality of life. Patients' inability to tap into rebate and discount programs makes them even more vulnerable. The fact that Massachusetts is the only state that doesn't allow these rebates, yet has universal health insurance, makes no sense. I have worked with many patients this past year who were faced with overwhelming costs for their prescription drugs, so these programs would significantly help. Our co-pay assistance program, which helps blood cancer patients pay for costly, treatment-related medications, helped 245 Massachusetts residents totaling over \$530,000 in our 2011 fiscal year. Access to medication is a very real problem in Massachusetts, and we should do what we can to help patients afford their life-saving medications.

BY JOHN HEFFERNAN

On July 11, MassBio hosted a roundtable discussion with Sen. John Kerry and Food and Drug Administration (FDA) Commissioner Margaret Hamburg at Boston University's School of Management. Sen. Kerry has always been a strong supporter of life sciences and the jobs the industry represents in Massachusetts, as well as the cutting-edge technologies and therapies that improve lives of patients around the world.

Accordingly, Sen. Kerry and his staff took the lead and worked closely with MassBio to plan and play an active role in this important event. Commissioner Hamburg was joined by Janet Woodcock, Director of the Center for Drug Evaluation and Research (CDER) at the FDA and Jeffrey E. Shuren, Director of the Center for Devices and Radiological Health.

In what was billed as the first of many similar discussions with FDA, Sen. Kerry committed to continuing to work with MassBio and industry leaders in ensuring that the government regulators work hard to match the

innovation that is happening here each and every day to the approach of the primary regulating entity.

"Massachusetts isn't just the industry leader in medical devices and biotech, but the policy leader as well," said Sen. Kerry. "There are a host of issues before the FDA that our industry leaders are watching closely because they directly affect their ability to create

MassBio President & CEO Robert Coughlin welcomed all attendees after Sen. Kerry opened the session and introduced Commissioner Hamburg. Geoff MacKay, CEO of Organogenesis and Vice Chair of the MassBio Board of Directors, played Master of Ceremonies for the event, and introduced the issue of fostering collaboration and partnership with



FDA Commissioner Margaret Hamburg, second from left, responds to questions from an audience of MassBio member company executives.

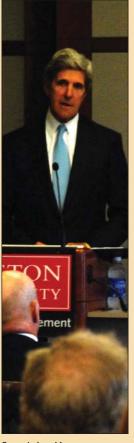
jobs, spur innovation and help patients. My goal is to foster a direct conversation between two vital Massachusetts industries and the regulators that oversee them. I want to create an open dialogue and build a collaborative relationship for our companies and the federal government."

emerging companies and first time sponsors. David Schenkein, CEO of Agios spoke on the FDA Review Process and how to balance benefits and risks, followed by a lively discussion on biosimilars led by Geoff Eich, Executive Director of Biosimilars Policy & Strategy at Amgen. The

program continued with two experts on Personalized Medicine, Companion Diagnostics, and Regulation of Advanced Molecular Diagnostics -Deborah Dunsire, CEO of Millennium - The Takeda Oncology Company, and On-Q-ity Founder Mara Aspinall. The main program was closed out with Cubist Pharmaceuticals CEO Mike Bonney talking about Closing the Life Science "Gap" in Federal Innovation Policy.

While this was an ambitious program with limited time, we were able to open floor for a brief discussion on orphan drugs from David Meeker, EVP and COO at Genzyme and Deanna Peterson, MassBio Board Member and VP of Business Development at Shire HGT.

"This meeting was a huge success," said Coughlin. "I'd like to thank Sen. Kerry for his continued leadership on issues related to jobs and patients and Commissioner Hamburg and her team, as we look forward to this type of healthy dialogue moving forward to ensure that this vital industry can thrive and give hope to sick people and their families.



Sen. John Kerry addresses the crowd.



MassBioEd's Bob Ross, third from left, joins Lt. Gov. Tim Murray and representatives from the five other organizations endorsed by the Mass. STEM Advisory Council.

BIOTEACH PROGRAM GETS GOOD GRADES FROM MASS. STEM ADVISORY COUNCIL

MassBioEd's BioTeach program has been named just one of six STEM education initiatives in Massachusetts endorsed by the Governor's Science, Technology, Engineering and Math (STEM) Advisory Council.

"As we encourage more students to pursue careers in STEM fields, it is imperative that we create lasting partnerships that will provide students with the right tools and resources to gain an appreciation and interest in STEM education," Lt. Governor Tim Murray, Chair of the Governor's STEM Advisory Council, announced at a conference last month. "These selected STEM initiatives will build a pipeline for success between elementary and secondary education to post-secondary education and careers in Massachusetts' growing innovation economy for students in all regions of the Commonwealth."

The BioTeach program aims to add a strong biotechnology program to the Commonwealth's science curricula in public schools. Through hands-on learning, job shadow opportunities and lab experiences, students gain interest in the growing field of biotechnology. Since 2005, MassBioEd has been providing local schools with high-tech equipment and professional development programs for teachers to improve education. Currently, BioTeach is in 179 Massachusetts schools and has trained more than 600 science teachers.

"We are very pleased to be recognized by the state STEM Council for the work we have accomplished through our BioTeach program," said Lance Hartford, Executive Director of MassBioEd. "With this endorsement we hope to identify additional funding partners with the resources necessary to introduce schools, teachers and students to the wonders of biotechnology."

The STEM Advisory Council endorsement recognized BioTeach as a promising program to

achieve quantitative gains in student interest and readiness in STEM. These goals are defined in the STEM plan and encourage students to pursue STEM post-secondary majors and careers. The endorsements were announced at the National Governors Association's (NGA) Center for Best Practices conference in Boston on August 18. Officials from over a dozen states attended the conference to support Massachusetts as one of the nation's leaders in STEM education.

PROVIDE STUDENTS WITH THE RIGHT TOOLS AND RESOURCES TO GAIN AN INTEREST IN STEM EDUCATION. LT. GOV. MURRAY

As chair of the Governor's STEM Advisory Council, Lt. Governor Murray engaged STEM stakeholders from across the state to identify potential initiatives that will increase the number of students who are both prepared and interested in STEM. The STEM Operations Board, a subcommittee of the Governor' STEM Advisory Council, reviewed applications and selected six projects known as @Scale Endorsements. The other programs are: Advanced Robotics Initiative at Quinsigamond Community College; Massasoit Community College's Science Transfer Initiative; DIGITS Project; WPI's Project Lead the Way; and Mass Math and Science Initiative – Mass Insight.

STEM: Helping children

imagine boundless futures



BY: TIMOTHY P. MURRAY

Children are like sponges – they soak up so much knowledge, both inside and outside of the classroom. I see it in my two young daughters who are easily captivated by morning cartoons, and find themselves imagining the next invention they can create, just like the inventors Phineas and Ferb in episodes on the Disney Channel. If children can be inspired by science on Disney, then we should find ways to engage students in science, technology, engineering and math (STEM) from the earliest days of their education.

Governor Patrick and I often speak about generational responsibility. As a society, we need to make critical investments that will position the Commonwealth for a brighter future. Empowering a child's imagination with education that opens the door to STEM fields is one of the best things we can do to honor that responsibility.

When I was mayor of Worcester, I saw first-hand how the life sciences and biotechnology sectors helped to reposition the city's economy for growth. I engaged directly with many in the field, and learned that access to talent and brain power was critical to their success. Now as lieutenant governor, I travel across the Commonwealth, meeting with leaders in both the public and private sector, to make sure our administration is doing everything we can to promote economic and community development. In my travels, I hear a common refrain—that Massachusetts's highly skilled, educated and motivated workforce is our greatest asset. Then, the follow-up is usually this: there are jobs open, but companies are limited in their growth because they need more people who are well versed in STEM disciplines, whether that is a lab technician working with living cells, or a precision machinist able to work a computer-controlled milling machine.

In July, the Obama administration reported that only about a third of bachelor's degrees earned in the United States are in STEM fields compared to approximately 53 percent of first university degrees earned in China and 63 percent in Japan. The same report also projected in the next decade, STEM occupations will increase by 17 percent, compared to 9.8 percent in other occupations.

In Massachusetts, over the past few years, we have seen similar trends, which is why the governor and I, working closely with our partners in academia and the private and non-profit sector, have brought special focus to improving and expanding STEM education, from kindergarten on up. We have created the state's first STEM Advisory Council, which I chair, to foster this strong partnership that is now driving a statewide effort to develop the right tools and resources to support a comprehensive STEM agenda.

In September 2010, we released the state's first STEM plan, titled "A Foundation for the Future: Massachusetts' Plan for Excellence in STEM Education." This plan goes further than we have ever gone before, setting targeted goals and benchmarks as we work with K-16 programs to promote STEM education, jobs, and workforce development.

This August, almost a year after launching the STEM plan, the advisory council endorsed six statewide programs to engage students, K-16, in ambitious programs that will support the state's long-term goals to improve STEM education and complement our investments in jobs and workforce development. MassBioEd Foundation's BioTeach program, which has done tremendous work over the years providing professional development opportunities for over 600 educators in 179 Massachusetts high schools, is among the six programs endorsed by the council. It's precisely the kind of public-private partnership that we hope to increase across many STEM fields.

Through the leadership of the STEM Advisory Council, and support from partners across the Commonwealth, we are creating a strong platform for STEM education that will help students access STEM learning experiences that will open their imaginations to the excitement of scientific discovery and technology development. In this way, we are helping our children imagine a boundless future as we also support the growth industries of our economy.

Timothy P. Murray serves as Lieutenant Governor of the Commonwealth.

MASSBIO MEMBER APPRECIATION DAY



gathered for the first Member Appreciation Day, hosted by the Purchasing Consortium Primary Suppliers at Le Meridien in Cambridge on July

From left, Kendalle Burlin O'Connell, Director of Purchasing and Strategic Alliances at MassBio, welcomed Veolia's Gerry Beland and Derek Nelhuebel and Linde's Chuck Tower.



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For more information on membership, contact Jon Allard at 617-674-5100 or jon.allard@massbio.org.

Stallergenes, Inc.

Former Gov. Paul Cellucci goes to bat for ALS research

CHAMPION: from Page 1

He is assuming the role not as a politician, but as a patient. Cellucci, who has enjoyed a quiet, private life with his family since leaving public office after 35 years, announced in January that he has been diagnosed with amyotrophic lateral sclerosis (ALS), or Lou Gehrig's Disease, a degenerative disorder that causes progressive muscle weakness and the loss of voluntary muscle movement. It often begins with muscle twitching and weakness in an arm or leg, or with slurring of speech. Eventually, ALS affects a person's ability to control the muscles needed to move, speak, eat and breathe. There is no current treatment that does more than slightly slow the progression.

Cellucci is under the care of Dr. Robert H. Brown Jr., chair of the UMMS Department of Neurology and one of the world's leading and most promising ALS researchers.

"He's an amazing person, a wonderful, compassionate physician and a top-notch researcher, and I'm very fortunate he's my doctor," said Cellucci.

Brown is widely recognized as a pioneer in neurodegenerative disease research and has been part of nearly every ALS breakthrough to date, including the identification of mutations in a gene that is responsible for 20 to 25 percent of the rarer, familial form of the disease.

Brown came to UMMS in 2008 from Harvard Medical School and Massachusetts General Hospital.

Coincidentally, he works out of a UMass research building that was created, in part, by legislations Cellucci signed in 1997 that helped expand the medical school's research enterprise.

'There has never been a better time to be hopeful," said Brown. "There's a plurality of possibilities that just didn't exist six or seven years ago - other models of treatment besides drugs, such as gene therapy, gene silencing and stem cell therapies. There's an incredible urgency to try to move forward to do everything we can do and to employ and deploy every resource

to find a solution and put an end to this disease."

Inspired by the realistic hope he was given by Brown, Cellucci made a commitment to spread that hope to others and help fuel the progress that was being made in the laboratory.

"It was clear after the first couple of appointments that Dr. Brown was probably the best person in the world to be treating ALS," said Cellucci. "He's someone who will leave



Gov. Cellucci, center, is joined by UMMS Chancellor Michael Collins and Dr. Robert Brown, chair of the UMMS Department of Neurology.

no stone unturned in trying to help his patients. I was very impressed by that and I told him early on I'd like to help raise money for his research to continue. I see it as a continuation of my career in public service. I'm taking a difficult diagnosis and hopefully doing some good with it.'

A Hudson native, Cellucci was elected as Governor William Weld's Lieutenant Governor in 1990 and was sworn in to

complete the remainder of Weld's term of office in 1997. He was elected Governor in his own right in 1998. In 2001, President George W. Bush named him U.S. Ambassador to Canada, and he served in that capacity for four years. When he left his post in Ottawa, he returned to work in the private sector, focusing on strengthening the economies of the U.S. and Canada and practicing law with the Boston law firm

McCarter & English.

In May, Cellucci stepped up to launch the Champion Fund during a special event at Fenway Park. News of his diagnosis sparked an outpouring of support from friends and colleagues. Governor Deval Patrick declared the day "Paul Cellucci/ALS Champion Day" throughout the Commonwealth and Mayor Thomas Menino declared the day "Champion Day" in the City of Boston. Governor Patrick and all of the former Governors of Massachusetts agreed to serve as honorary chairs of the fundraising effort.

The goal of the initiative is to raise \$10 million, which will go directly to Brown and his team at UMMS.

"The Champion Fund is about all of us coming together to help Dr. Brown and his colleagues pursue leads and breakthroughs now that might otherwise take years to attract funding from traditional sources," said UMMS Chancellor Michael F. Collins, MD. "As a result, this fund will make us better prepared to seize the moment when highly promising ALS discoveries are made."

For patients like Cellucci, timing is everything. "I think they're close to unlocking some of the

mysteries around ALS, as well as multiple sclerosis and Alzheimer's," said Cellucci. "My hope is that we can get breakthroughs that will slow or stop ALS progression, and ultimately lead to a cure - the sooner, the better.'

To become a champion in the fight against ALS, or for more information on the UMass ALS Champion Fund, visit www.UMassALS.com or join the fight on Facebook (Facebook.com/UMassALS) or Twitter (@UMassALS).



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Teeing off for bio-science education

Nearly 300 golfers turned out for MassBio's 17th Annual Golf Classic on Sept. 9 at the prestigious Pinehills Golf Club in Plymouth, raising more than \$140,000 for the MassBioEd Foundation.

Tournament proceeds help support MassBioEd in its mission to build biotechnology literacy, prepare the biotechnology workforce and develop future Massachusetts' biotechnology leaders. Lance Hartford, Executive Director of the MassBioEd Foundation, praised MassBio and the member companies' involvement. "This tournament is another example of how the life science industry is supporting education and workforce development programs which are critical to the sectors' future success," he said.

The foundation's BioTeach program strives to provide Massachusetts high school teachers with the skills and equipment necessary to integrate cutting-edge and innovative science into the classroom. Since its inception in 2005, BioTeach has raised and distributed more than \$6 million in equipment, supplies and services to support secondary science education in 179 high schools and has trained more than 600 teachers.

Partnering with MassBio members, MassBioEd is also able to offer exciting professional development and guest speaker opportunities, internships, externships, site visits, college awareness and planning curriculum and workforce development training. Through its Biotech Learning Center, it offers several options for courses, seminars and hands-on training targeted towards those already in the industry.



MassBioEd Executive Director Lance Hartford and MassBio President and CEO Robert K. Coughlin address the golfers.



Walmart's Chris Buchanan, second from left, and Bob Coughlin congratulate the winning team from the Nicklaus course.

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