MASSACHUSETTS
LIFE SCIENCES CENTER

Fiscal Year 2014 Annual Report

Massachusetts: The Global Leader in Life Sciences

To: Governor Deval Patrick
Secretary of Administration and Finance Glen Shor
Senate President Therese Murray
Speaker of the House Robert DeLeo
State Comptroller Martin Benison
Clerk of the Senate William Welch
Clerk of the House of Representatives Steven James

By forward: House and Senate Committees on Ways and Means and the Joint Committee on Economic Development and Emerging Technologies

From: Susan Windham-Bannister, Ph.D., President & CEO

Date: September 30, 2014

Re: FY 2014 Annual Report of the Massachusetts Life Sciences Center

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The Massachusetts Life Sciences Center (MLSC) respectfully submits this Annual Report detailing our operations and accomplishments during Fiscal Year (FY) 2014.

The Center is the hub of the Commonwealth's thriving life sciences community and we proudly serve as stewards of the $1 billion Massachusetts Life Sciences Initiative, proposed by Governor Deval Patrick in 2007, and passed by the state legislature and signed into law by the Governor in June 2008. After six years of strategic investment by the MLSC, Massachusetts has emerged as the global leader in life sciences, serving as a magnet for growing companies from every part of the world, and accelerating innovation toward a new generation of treatments, therapies and cures.

This report and the accompanying FY 2014 Audit Report are submitted in fulfillment of the requirements mandated by the General Court pursuant to the MLSC's enabling statute of the Massachusetts General Laws, Chapter 23I (formerly Section 7, now Section 15), as amended by Chapter 130 of the Acts of 2008. Financial statements are contained in the accompanying FY 2014 Audit Report by McGladrey LLP.

This will be the last Annual Report that I submit as President & CEO of the Massachusetts Life Sciences Center. It has been my privilege to serve as the founding executive of this organization and I would like to express my sincere appreciation to Governor Patrick for his vision and leadership; the legislature for its continued support; the Center's Board of Directors and Scientific Advisory Board (SAB), who have volunteered their time and expertise to ensure the Life Sciences Initiative's success; and to my wonderful staff for their dedication and hard work.

As always, we appreciate your continued interest and support.

Sincerely,

SRWindham-Bannister

Susan R. Windham-Bannister, Ph.D.
President & CEO

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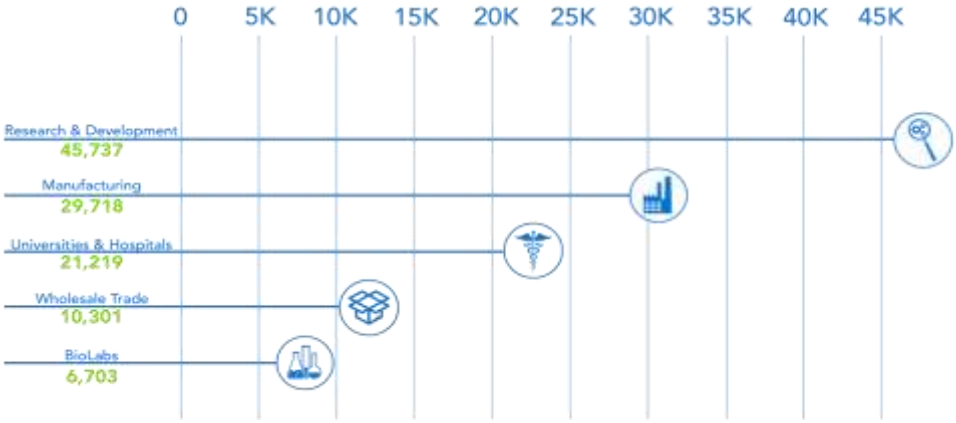
Massachusetts: The Global Leader in Life Sciences

Through Fiscal Year 2014 (FY 2014) the MLSC has continued to use focused and strategic investments to transform our state's life sciences cluster into the world's leading ecosystem for innovation and growth. As we have "built it, they have come" – over the past year, numerous companies of all sizes and from every region of the world have opened or expanded facilities here, or relocated their corporate headquarters to the Commonwealth.

The MLSC continues to serve as both a funding *and* innovating organization - developing new investment programs, tools and collaborative partnerships that strengthen Massachusetts' innovation platform for the benefit of the state's entire life sciences community. Through this strategy we have encouraged economic growth, created jobs, catalyzed innovation, and accelerated the commercialization of promising treatments, therapies, and cures that hold great potential for improving human health and patient care.

International collaboration was a focus for the MLSC in FY 2014. We announced the inauguaral round of awards under the International Collaborative Industry Program (ICIP) and the launch of the new Universal Partnerships Program (UP). Both of these programs are designed to further increase the global focus on Massachusetts and to promote international collaborations in research and development.

The Dukakis Center at Northeastern University continued its role in FY 2014 as an objective third party evaluator of the impact of the Life Sciences Initiative and the impact of the life sciences sectors on the state's economy. Northeastern University economists, Dr. Barry Bluestone and Dr. Alan Clayton-Matthews, released new data in June 2014, confirming that the the Life Sciences sectors have played a key role in Massachusetts' overall employment growth and economic recovery. The data shows that the Life Sciences sectors now account for more than 113,000 jobs across the state. Their findings also show that Massachusetts now ranks ***#1 per capita in total life sciences employment among all U.S. states.***



FY 2014 also brought national recognition for the MLSC; in September 2013 the MLSC received the State Science and Technology Institute's Techology-based Economic Development Award as the best and most effective program in the nation focused on the growth of existing technology industries.

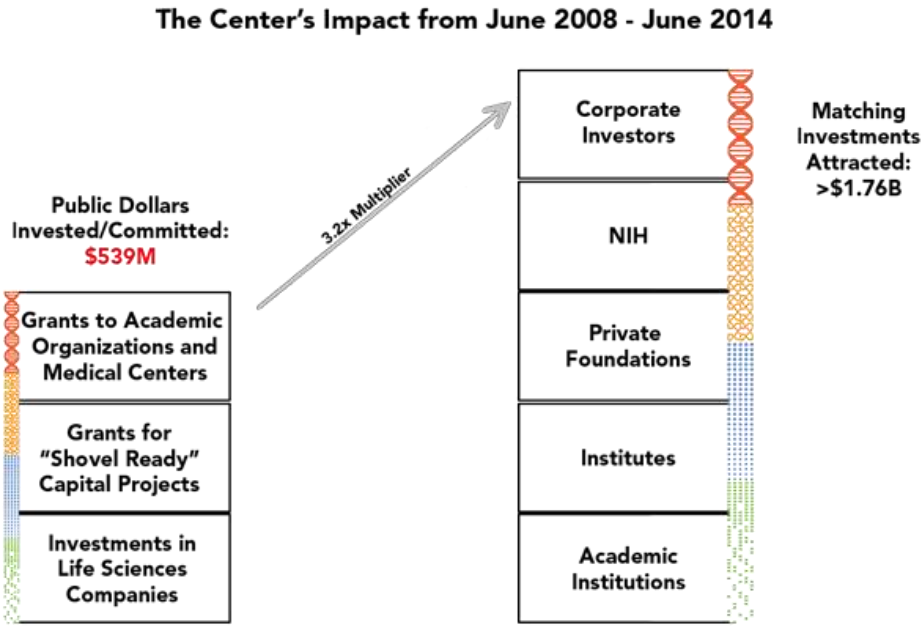
Now six years into our mission, the MLSC continues to see exciting new products and therapies enter the market that have been enabled by our funding. Cristcot Inc., a FY 2012 recipient of an MLSC Accelerator Loan, released Sephure, a first-of-its kind applicator for suppository medications. Other Accelerator Loan

awardees, including Myomo and Sample 6 Technologies, also have brought exciting new technologies to the market. Sanofi acquired Pluromed, Inc. and subsequently launched its product LeGoo® in FY 2013, and Good Start Genetics, Inc. commercialized its pre-pregnancy genetic testing technology in 2012.

Newton-based AesRx LLC, which received $750,000 in MLSC funding in FY 2011, was acquired in 2014 by Baxter International Inc., a diversified healthcare company based in Deerfield, IL. AesRx is a biopharmaceutical company dedicated to the development of a novel drug that targets orphan diseases. The Company's lead program, Aes-103, is a potential breakthrough in the treatment of sickle cell disease (SCD). Baxter will now advance that drug candidate with the goal of commercializing the technology and delivering it to patients.

The Bottom Line

The MLSC's investment strategy remains focused on public-private collaboration and achieving high leverage on public tax dollars. Since 2008, the MLSC has directly invested or committed more than $539 million and leveraged over $1.76 billion in third-party investment. In other words, ***every $1 of taxpayer money that the MLSC has invested has attracted over $3 in additional, outside investment***. This has created a portfolio of approximately $2.3 billion in public-private investments in the state's life sciences ecosystem that would not have existed without the Life Sciences Initiative.



The MLSC continues to rely on the "wisdom of crowds" to guide its award decisions, using competitive solicitations and a rigorous, transparent review process that draws on multi-disciplinary experts from the life sciences sectors across the state. This ensures that all investments are evaluated on the basis of merit and relative value. The multi-disciplinary scientific, investment, business and legal expertise that informs the MLSC's decisions has proven to be the "secret sauce" in making strategic use of public dollars, attracting matching investment capital, highly leveraging the Commonwealth's funds, and delivering impact.

Investment Portfolio: An Overview

The MLSC's investment portfolio continues to grow and reflects the organization's strategy of filling gaps and strengthening the state's "innovation platform" – the enablers that support and accelerate innovation and growth in the life sciences. The MLSC invests in five key "innovation enablers":

- ✓ Translational research partnerships between industry and academic institutions;
- ✓ Entrepreneurship and the pipeline of early stage companies;
- ✓ Workforce development;
- ✓ Infrastructure; and
- ✓ New models of collaboration within the state and internationally.

The MLSC currently manages a portfolio of over 530 individual grants, loans and tax incentives

Highlights of the MLSC's FY 2014 investment commitments include:

- Capital Grants for 11 infrastructure projects totaling approximately $44.7 million in investment or commitment;
- Equipment and Supply Grants to 35 high schools across the state totaling approximately $3.3 million;
- Grants to 6 community colleges totaling over $2.4 million;
- Grants or Accelerator Loans to seven early-stage companies totaling over $3.5 million;
- Tax incentive awards to 32 companies totaling more than $24 million; and
- Placement of 443 interns at companies across the state.

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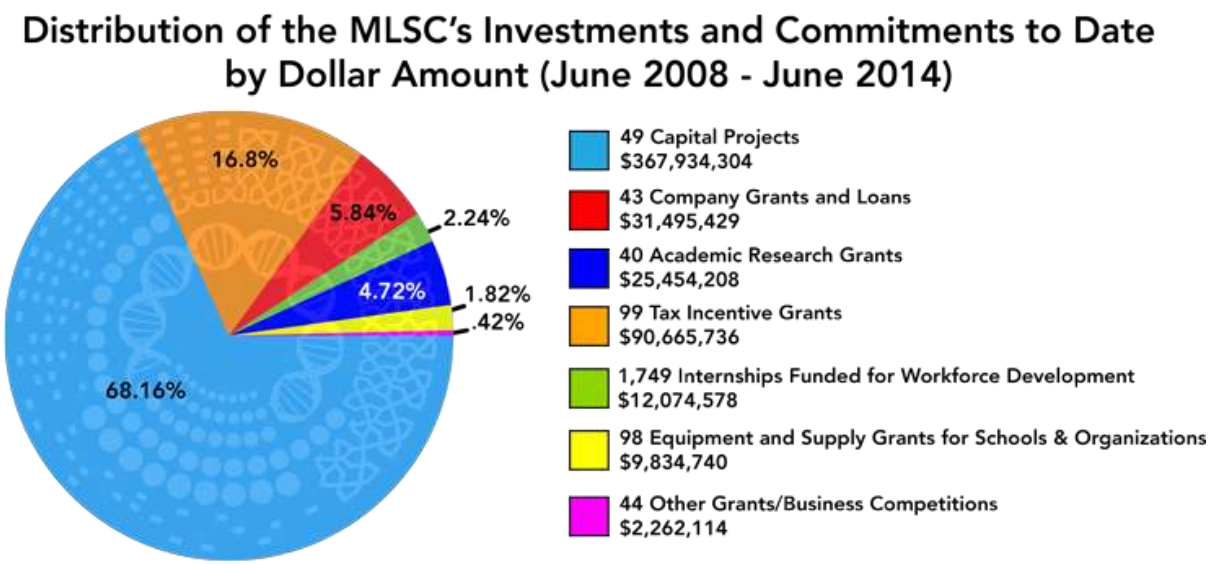


The MLSC's investment portfolio addresses a wide array of disease areas:

Investing in Infrastructure

The MLSC's investments in infrastructure are funded through the MLSC's capital fund, which expended approximately $49.3 million in FY 2014 as part of the state's overall capital plan. Half of the resources committed through the Life Sciences Initiative ($500 million of the total $1 billion) are dedicated to capital projects.

The MLSC is committed to using its capital fund to ensure that there is strong enabling infrastructure to accelerate life sciences-driven economic development across the entire Commonwealth. In support of this commitment, the MLSC uses its grants to engage and build on the strengths of the state's different regions and to ensure that institutions and regions across the state have the necessary infrastructure to be "life-sciences ready." During FY 2014, the MLSC awarded funding to support capital projects literally from Cape Cod to Cape Ann to the Berkshires.

To date, the MLSC's infrastructure investments have contributed to the creation of more than 1.4 *million* square feet of new life sciences research and manufacturing space across the Commonwealth, while creating more than 3,700 jobs in the building trades and in the life sciences.

In response to our FY 2014 (second annual) competitive solicitation, the MLSC received 51 eligible applications for infrastructure projects from across the state. The MLSC's Board of Directors approved 11 new Capital Project Grants, Equipment and Supply Grants for six community colleges and 35 high schools and three new Planning Grants, totaling more than $50.5 million. These are summarized below, ordered from the highest to lowest amount committed:

- **The City of Pittsfield** was awarded an approximately $9.7 million capital grant for construction of a new Berkshire Innovation Center. In June 2013, the City of Pittsfield received a $55,000 planning grant from the MLSC to conduct a study and create a business plan for the Berkshire Innovation Center. The $9.7 million capital grant (inclusive of the prior planning grant) will allow the Berkshire Innovation Center (BIC) project to move forward. The BIC will catalyze, enable and accelerate innovation and growth of existing companies in Western Massachusetts – primarily small to medium sized manufacturing companies (SME's) in life sciences and the life sciences supply chain – with the ultimate objective of spurring economic growth, jobs, and investment in the region. The facility will enable shared research, early-stage production and commercialization, and workforce training.

- **The University of Massachusetts Boston (UMass Boston) and Dana-Farber/Harvard Cancer Center (DF/HCC)** were awarded $8 million to support the Center for Personalized Cancer Therapy (CPCT). The grant is the second round of funding for the project, building on a $2 million initial grant awarded in FY 2011. The CPCT is a joint program of UMass Boston and DF/HCC aimed at fostering and facilitating collaborative translational cancer research focused on human cancer diagnosis, prognosis, treatment, and response to therapy. The CPCT seeks to translate laboratory-based discoveries into clinical practice that will identify and implement individualized therapeutic choices to successfully eliminate human tumor progression and recurrence.

- **The Life Sciences Consortium of the North Shore (LSCNS)**, which consists of Endicott College, Gordon College, North Shore InnoVentures, North Shore Community College, and Salem State University, was awarded a $5 million grant to fund major lab/facility and equipment upgrade projects at the member institutions and organizations. The funding will permit the expansion of current facilities and the purchase of advanced instrumentation for use by students, faculty, and early-stage companies on the North Shore.

- **The University of Massachusetts Medical School's MassBiologics** was awarded a $5 million grant for the construction of a first-in-Massachusetts cGMP Vector Manufacturing Center (VMC) to respond to a new era in the use of viral vectors to prevent and treat human diseases. The VMC will enhance the ability of the Massachusetts life sciences community to translate breakthrough science into viable commercial products.

- **LabCentral** was awarded $5 million to fund the build-out of additional space near LabCentral's existing 700 Main Street location. The decision to award this grant was based on strong demand from industry for participation in the LabCentral model of shared lab faciliites.

- **The University of Massachusetts Lowell (UMass Lowell)** was awarded over $4 million to create the Big Company/Little Company Innovation Hub where medical device and biotech startup companies will benefit from Massachusetts Medical Device Development Center (M2D2) incubation services while receiving funding and mentoring from larger, established medical device companies. The funding will allow M2D2 to dedicate 11,000 square feet of new incubator space to medical device and bio-tech startup companies. In addition, the project will provide "soft landing" incubation space for European startup companies looking to enter the Massachusetts medical device market.

- **Framingham State University (FSU)** was awarded a $3 million grant to fund laboratory renovations to support life sciences workforce development and training, as well as research and development. FSU intends to utilize the lab expansion and renovation to provide additional biology and chemistry teaching and research laboratories, to enhance their capacity to support STEM academic programs and meet workforce readiness goals, and to upgrade existing infrastructure.

- **Middlesex Community College (MCC)** was awarded $3 million to construct and equip a new biotechnology facility to replace the college's current, outdated facility. The proposed facility, to be located on the fifth floor of the Talbot Science Building, will include a combined lecture and laboratory room, a clean room, gowning area, and prep room.

- **The University of Massachusetts Lowell (UMass Lowell)** was awarded $1 million to create a University of Massachusetts Lowell Innovation Hub. This space will foster innovation, entrepreneurship, economic development, and job creation. The Innovation Hub will serve as a co-working space that allows entrepreneurs and early-stage ventures to test products and business concepts, and will link start-up innovators and entrepreneurs with the research and development, business mentoring and financial resources needed to develop a new business venture in Massachusetts.

- **The University of Massachusetts Boston Venture Development Center (VDC)** was awarded approximately $600,000 to help build a fifth ready-to-use wet laboratory, as well as a core facility with shared equipment in order to launch additional high potential life sciences start-up companies within the 18,000 square foot VDC. As a result, the VDC will be able to meet the needs of one to three additional life sciences startups. The increased capacity will also create internship opportunities for talented students, thereby furthering the diversity of the life science workforce, and help the VDC to be 100 percent financially self-supporting through company memberships.

- **Mount Wachusett Community College (MWCC)** was awarded a $500,000 grant to upgrade aging and outdated equipment and to add new equipment that aligns with current industry standards for its core life sciences courses in biology, organic chemistry, inorganic chemistry, biochemistry, microbiology, and plant science. The funding will enable MWCC to fully upgrade its laboratory science equipment and to ensure employers have the skilled workforce they require for creating and retaining jobs in the life sciences.

- **Quincy College** was awarded a $500,000 grant that will enable its Biotechnology and Compliance program to continue training students on the single-use biomanufacturing equipment that is used by today's biotechnology industry. The College currently offers associate degree and certificate programs in Biotechnology and Compliance. This grant award follows closely on the heels of a previous $100,000 grant from the Massachusetts Life Sciences Center and a $3 million federal grant from the Trade Adjustment Assistance Community College and Career Training Grant Program. The funds will be used to purchase laboratory supplies and equipment and to assist in furthering curriculum development.

- **Western New England University (WNEU)** in Springfield was awarded a $500,000 grant to fund equipment related to the development of test and filtration platforms for cancer drug research and development. The new facility will promote collaboration with area companies.

- **Quinsigamond Community College (QCC)** was awarded nearly $500,000 to help fit, furnish, and equip specialized space for life sciences programs in its new 30,000 square foot Quinsigamond Engineering, Science, and Technology Building located on the main campus in Worcester, slated to open in 2016. The new building and state-of-the-art equipment will be used to address the area's growing need for skilled workers in biotechnology, biomedical engineering, pharmaceuticals and related fields. Its three floors will house classrooms, offices and specialized laboratories vital to graduating workers with the requisite skills needed for the regional life sciences economy.

- **Cape Cod Community College (CCCC)** was awarded approximately $400,000 to help upgrade the equipment available in the biology and chemistry laboratory facilities on campus.

- **The Venture Café Foundation** was awarded $347,000 for upgrades in furniture, A/V, high-speed internet, and security. This equipment will strengthen the Café's ability to connect communities of innovation and transform the user experience at District Hall, the world's first civic, public-purpose innovation center.

- **The City of New Bedford** was awarded a $75,000 capital planning grant to support a study of a regional incubation center for life sciences innovation to be located there and operated in conjunction with the University of Massachusetts at Dartmouth and Bristol Community College. The planning grant proposal describes a data driven life sciences environment assessment combined with strong engagement of the life sciences community to create and prioritize life sciences program options, the best of which will be developed in greater depth for use of the New Bedford capital earmark dollars that are contained in the Life Sciences Initiative.

- **The City of Taunton** was awarded a $55,000 planning grant for a life sciences research project at the Myles Standish Industrial Park in Taunton. The research project will support the creation of a proposed Life Sciences Education and Training Center, a 16,000-square-foot facility being jointly developed by the Taunton Economic Development Corporation and MassDevelopment at the former Paul A. Dever School campus.

- **MassBay Community College** was awarded a $50,000 planning grant to develop a robust strategic action plan for the Applied Life Sciences and Technology Center (ALSTC) housed within the downtown Framingham campus that is currently in its design phase, utilizing a $22.1 million state capital appropriation. The ALSTC presents a unique and catalytic opportunity to establish downtown Framingham as a MetroWest hub for start-up life sciences companies.

The following is a list of awards made by the MLSC since the inception of the MLSC capital fund and the status of each project:

Capital Awards from Inception through June 30, 2014			
Project	**Total Award**	**Year of First Award**	**Status at End of FY 2014**
Framingham Wastewater and Pumping Station	$12.9 million	FY 2009	Completed
Marine Biological Laboratory in Woods Hole	$10 million	FY 2009	Completed
Tufts/Cummings School of Veterinary Medicine, NE Regional Biosafety Lab in Grafton	$9.5 million	FY 2009	Completed
Albert Sherman Center at UMass Medical School	$90 million	FY 2010	Completed
Worcester Polytechnic Institute/Gateway Park	$5.15 million	FY 2010	Completed
UMass Boston/Dana Farber Center for Personalized Cancer Therapy	$10 million	FY 2011	Ongoing
UMass Dartmouth Biomanufacturing Center	$20.6 million	FY 2012	Ongoing
Dana Farber Molecular Cancer Imaging Center	$10 million	FY 2012	Ongoing
Joslin Translational Center for the Cure of Diabetes	$5 million	FY 2012	Completed
Museum of Science "Hall of Human Life"	$5 million	FY 2012	Completed
UMass Lowell Emerging Technologies and Innovation Center	$10 million	FY 2012	Ongoing
UMass Dartmouth Advanced Technology Manufacturing Center (ATMC)	$11.4 million	FY 2012	Scheduled for FY 2015
LabCentral	$10 million	FY 2013	Ongoing
UMass Amherst Life Sciences Laboratories	$95 million	FY 2013	Ongoing
BayState Medical/PVLSI	$5.5 million	FY 2013	Ongoing
Massachusetts Green High Performance Computing Center (HPCC)	$4.54 million	FY 2013	Ongoing

Holyoke Community College (HCC)	$3.8 million	FY 2013	Ongoing
Springfield Technical Community College (STCC)	$150,000	FY 2013	Ongoing
Bay Path College	$50,000	FY 2013	Ongoing
Quinsigammond Community College (QCC)	$810,000	FY 2013	Ongoing
The Forsyth Institute	$4.1 million	FY 2013	Ongoing
Northern Essex Community College (NECC)	$1.24 million	FY 2013	Ongoing
Boston Children's Hospital	$4 million	FY 2013	Ongoing
Harvard Medical School	$5 million	FY 2013	Ongoing
Bunker Hill Community College (BHCC)	$200,000	FY 2013	Ongoing
Quincy College	$600,000	FY 2013	Ongoing
Regis College	$50,000	FY 2013	Ongoing
Pittsfield Economic Development Authority (PEDA)	$9.7 million	FY 2013	Ongoing
City of Taunton	$55,000	FY 2014	Ongoing
Framingham State University (FSU)	$3 million	FY 2014	Ongoing
MassBay Community College	$50,000	FY 2014	Ongoing
Mount Wachusett Community College (MWCC)	$500,000	FY 2014	Ongoing
Life Sciences Consortium of the North Shore (LSCNS)	$5 million	FY 2014	Ongoing
UMass Lowell M2D2	$4 million	FY 2014	Ongoing
Middlesex Community College (MCC)	$3 million	FY 2014	Ongoing
UMass Medical School MassBiologics	$5 million	FY 2014	Ongoing
The Venture Café Foundation	$347,000	FY 2014	Ongoing
UMass Boston Venture Development Center (VDC)	$588,848	FY 2014	Ongoing
New Bedford Economic Development Council, Inc.	$75,000	FY 2014	Ongoing
Western New England University	$500,000	FY 2014	Ongoing
Cape Cod Community College (CCCC)	$395,485	FY 2014	Ongoing
UMass Lowell Innovation Hub	$1 million	FY 2014	Ongoing
Just-A-Start	$46,099	FY 2014	Ongoing

In FY 2015, the Capital Project Matching Grant program will provide up to $35 million in awards for life sciences-related capital projects around the state.

Propelling the Companies of the Future

Accelerating the Growth of Early-Stage Companies

In FY 2014, the MLSC continued its commitment to entrepeneurship and the pipeline of new life sciences companies in Massachusetts by awarding $2.5 million in Accelerator Loans to three early-stage companies. To date, Accelerator companies have raised more than $180 million in funding and acquisition proceeds subsequent to receiving a loan from the MLSC.

The MLSC's Accelerator Loan Program provides working capital to early-stage life sciences companies at a critical stage in their development. This program seeks to de-risk these companies for future – usually private – investment by funding the steps necessary to achieve critical milestones. Some of these companies may hold the promise of becoming the next Vertex or Boston Scientific, while others will be acquired by large companies that are increasingly depending on "external innovation" for growth. The large pool of creative entrepreneurs developing promising technologies fuels Massachusetts' vibrant innovation culture. This thriving entrepreneurial environment is playing a central role in drawing global life science leaders to expand in Massachusetts, in order to have a front-row seat to the innovation that is happening here.

During FY 2014, the MLSC administered two rounds of the Accelerator Loan Program, receiving a total of 40 applications, of which 37 were eligible for review by experts selected from among the MLSC's 200-plus *pro bono* peer reviewers. The MLSC's peer reviewers recommended 21 of these applicants for review by the MLSC's Scientific Advisory Board (see Appendix B). Eight companies were then recommended by the Scientific Advisory Board ("SAB") for due diligence and review by the Investment Subcommittee of the MLSC's Board of Directors (see Appendix A). Three of these companies were approved for a loan by the full Board of Directors ("Board") as indicated below:

Accelerator Loans awarded in FY 2014			
Company	**Location**	**Area of Development**	**Loan Amount**
Excellims Corporation	Acton	Designs, manufactures, and sells High Performance Ion Mobility Spectrometers (HPIMS) that bring the advantages of speed, resolution, sensitivity, and field robustness to analytical applications in life sciences.	$980,000
Guided Surgery Solutions, Inc.	Wellesley	Develops 3D image-based drill guides to enable dentists to place dental implants with greater accuracy and confidence.	$520,000
Vaxess Technologies, Inc.	Cambridge	Invents advanced manufacturing technology leveraging silk biomaterials to create vaccines that do not need refrigeration and may increase global vaccine access.	$1,000,000

From the Accelerator Loan Program's inception through the end of FY 2014, the MLSC has funded or committed to lend a total of approximately $18.7 million in Accelerator Loans to 28 early-stage companies.

In FY 2014, two companies, Sample6 Technologies, Inc. and AesRx, LLC., repaid their Accelerator Loans with interest prior to the maturity date of the loans, after achieving significant success in private fundraising or the sale of the company. As of the close of FY 2014, a total of eight companies have repaid their loans: two in FY 2014, two in FY 2013, two in FY 2012, and two in FY 2011.

Sample6 Technologies, a Boston based recipient of a $750,000 Accelerator Loan funded in FY 2013, repaid the loan early after successfully raising $11 million in its Series B financing round. Sample6 provides the world's first synthetic-biology based bacteria diagnostic system that allows for enrichment-free detection and subsequent remediation of pathogens in less than eight hours, or a single work shift. Current technologies to identify and remediate bacterial contamination can take several days to yield results, putting the safety of the food supply at risk. Sample6 DETECT/L is the company's first diagnostic assay and is designed to identify *Listeria* contamination. Sample6 CONTROL is the company's software platform, which is used by food companies to plan, execute, remediate and analyze food safety programs. Both products are commercially available.

Newton-based AesRx, LLC., a $750,000 Accelerator awardee from FY 2011, repaid its loan early after being acquired by Baxter International Inc., a diversified healthcare company based in Deerfield, IL. AesRx is a biopharmaceutical company dedicated to the development of a novel drug that targets orphan diseases. The Company's lead program, Aes-103, is a potential breakthrough in

the treatment of sickle cell disease (SCD). Baxter will now advance that drug candidate, with the goal of commercializing the technology and delivering it to patients in the near future.

As the program awardees continue to advance their product development efforts through to commercialization, we have seen exciting new products enter the market. A FY 2012 awardee, Cristcot Medical, released Sephure, the fifth commercialized product based on a technology developed with the support of an Accelerator Loan. Sephure is a first-of-its kind applicator for suppository medications. This comes after Good Start Genetics commercialized their pre-pregnancy genetic testing technology in 2012.

Myomo, Inc., a FY 2011 awardee whose mission is to improve function and use of paralyzed limbs in individuals who suffer from debilitating muscle weakness due to stroke, brain injury, ALS, MS, spinal cord injury, or other neuromuscular conditions, commercialized their product in 2012. The MyoPro is focused on providing assistive function for joint motion to improve mobility.

Momelan, another FY 2011 Accelerator loan awardee, developed Cellutone, the first tool that enables the user to harvest epidermal tissue from a patient in a non-invasive manner for treating different types of wounds. Momelan was acquired by Kinetic Concepts, Inc (KCI) in December 2012, and KCI is now commercializing the product. Sanofi acquired Pluromed and subsequently launched their product LeGoo® in FY 2013.

The MLSC further supported life sciences entrepreneurship and company creation by continuing to co-sponsor two important business plan competitions in FY 2014: MassChallenge was awarded a $100,000 contribution for its international business plan competition, and the Massachusetts Institute of Technology was awarded a $10,000 contribution for its annual business plan competition.

From Bench to Bedside: Academic Research Matching Grant Programs

The MLSC's key priorities include preserving the strong competitive position of Massachusetts' academic institutions and medical centers, supporting translational research in the life sciences, and accelerating the discovery and transfer of technology out of academic settings. To accomplish these objectives, the MLSC has created several grant programs.

Cooperative Research Matching Grants

The MLSC's Cooperative Research Matching Grants encourage industry-sponsored research collaborations with Massachusetts academic institutions to accelerate translational research. Non-profit academic/research institutions and industry partners are eligible to apply for grant funding of up to $500,000 over two years, provided that the industry sponsor matches the MLSC funds on at least a 1:1 basis. Funds to support these cooperative research projects are given as grants to the academic partner. Since 2008, the MLSC has awarded 12 grants under this program, totaling over $6.7 million. Half of these grants were active in FY 2014.

One of these research grants, awarded to **Massachusetts General Hospital**, had a notably successful year. The project, titled "Combined Optical and Mammographic Breast Imaging", aims to develop a stand-alone near-infrared diffuse optical breast scanner that can be used in conjunction with any existing 2D x-ray mammography system to bring functional diagnosis to the clinic. Over the past year, Principal Investigator Qianqian Fang and his team have refined their image registration approach and significantly improved

"After working closely with the Philips engineers and managers over 3 years, we found ourselves in a much better position in moving our technology to the next steps. We have identified the key barriers that our technology has to overcome and developed clear plans to address these issues. Together with the accumulated strong clinical results, we position ourselves nicely on the verge of long-term development and scale-up of our technology. Without the timely and generous funding support from MLSC, all of these were not possible."

- Qianqian Fang, Ph.D.
Principal Investigator
Massachusetts General Hospital

the structural-prior generation with help from industry partner **Philips Healthcare**. They have also conducted a small population clinical study to validate the robustness and performance of the proposed technique. Meanwhile, the integration of optical images with the Philips IntelliSpace Breast (ISB) system has proceeded in parallel.

Faculty Start-Up Grants

Dr. Jill Macoska was hired by the University of Massachusetts Boston in January of 2013 to be the Director of the Center for Personalized Cancer Therapy (CPCT), a collaboration between the University and the Dana-Farber/Harvard Cancer Center (DF/HCC). Dr. Macoska was hired through a $750,000 Faculty Start-Up Grant that the MLSC awarded to UMass Boston in 2009. The CPCT's mission is to create research support platforms to facilitate high-impact translational cancer research in academia and start-up companies, focus research efforts on the development, validation, and commercialization of cancer biomarkers with significant clinical utility, train and bring diverse student talent into DF/HCC, and to provide UMass Boston students with skills suitable for academic careers or employment in the regional biomedical industry.

During the past year, Dr. Macoska has facilitated industry collaborations with a global pharmaceutical company, Sanofi US, which has given a $1 million gift to the CPCT, and with start-up companies including Boston Strategics, a subsidiary of Fuji Film, and Parabase Genomics. In addition, she has created the UMass Boston Cancer Research Network to encourage a multi-disciplinary approach by faculty at UMass Boston, and initiated the CPCT Biomarker Facility to develop RNA-based tests for tumor subtyping and treatment response.

Training the Next Generation of Life Sciences Experts

STEM Equipment and Supplies Grant Program

The Equipment and Supplies Grants provide funding of up to $250,000 per institution to support the purchase of life sciences equipment and supplies at vocational technical high schools, public high schools in Massachusetts' Gateway Cities, high schools serving a low-income student population, and also workforce training programs across the state. To be eligible for an award of greater than $100,000, applicants must have secured matching funds or in-kind donations from an industry partner that supports the training program for which the equipment and supplies are needed.

The Equipment and Supply Grants enable recipient schools to provide a breadth of training ranging from general STEM education curricula to biotechnology. Our goal is that these grants will help increase the diversity of workers whom are being well prepared for entry-level positions in the life sciences workforce.

In December 2013, the MLSC awarded 35 grants across the state totaling nearly $3.3 million. Industry sponsors contributed nearly $300,000 in matching funds and in-kind donations as part of this year's program.

In June of 2014, the MLSC launched the fourth round of the program, which now also includes funding opportunities for middle schools.

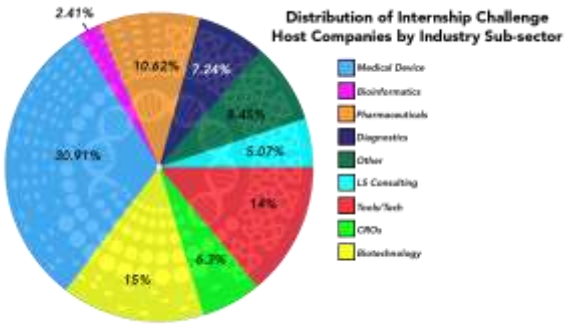
Schools and Organizations Awarded Equipment and Supplies Grants in FY 2014

School/Organization	City/Town	Award Amount
Assabet Valley Regional Technical Vocational High School	Marlborough	$40,000
Billerica Memorial High School	Billerica	$116,012
Blackstone Valley Regional Vocational Technical School District	Upton	$90,000
Boston Latin School	Boston	$99,993
Bristol County Agricultural High School	Dighton	$70,038
Charlestown High School	Boston	$100,000

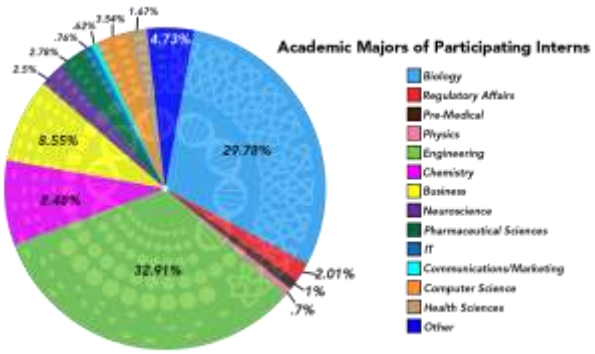
Codman Academy Charter Public School	Dorchester	$9,847
East Boston High School	East Boston	$100,000
Essex Technical High School	Middleton	$139,950
Greater Lowell Technical High School	Tyngsborough	$89,636
Greater New Bedford Regional Vocational Technical High School	New Bedford	$99,836
Lowell Public Schools	Lowell	$87,028
Lynn Classical High School	Lynn	$99,998
Madison Park Technical Vocational High School	Boston	$100,000
Martha's Vineyard Public Charter School	West Tisbury	$150,000
Massachusetts Academy of Math and Science	Worcester	$95,429
Massachusetts Biotechnology Education Foundation	Cambridge	$248,730
Nashoba Valley Technical High School	Westford	$100,000
New Bedford Public Schools	New Bedford	$92,000
Northern Berkshire Vocational Regional School District (McCann Tech)	North Adams	$26,251
Old Colony Regional Vocational Technical High School	Rochester	$99,854
Quaboag Regional School District	Warren	$99,567
Shrewsbury High School	Shrewsbury	$75,587
Smith Vocational and Agricultural High School	Northampton	$95,644
South Shore Regional School District	Hanover	$79,287
Springfield High School of Science and Technology	Springfield	$44,766
Sturgis Charter Public School	Hyannis	$100,000
The BioBuilder Educational Foundation	Cambridge	$75,000
Tri-County Regional Vocational Technical High School	Franklin	$99,459
Waltham High School	Waltham	$99,686
Watertown High School	Watertown	$99,998
Westfield Public Schools	Westfield	$99,436
Weymouth High Schools	Weymouth	$66,620
Worcester Public Schools- Doherty High School	Worcester	$99,526
Worcester Public Schools- Worcester Vocational Technical High School	Worcester	$83,675

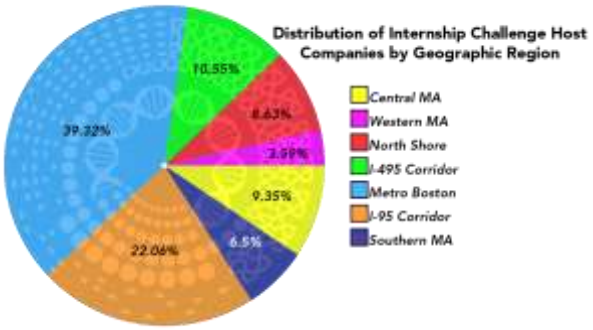
Internship Challenge

The year-round Internship Challenge has become the MLSC's flagship workforce development program, creating almost two thousand internship opportunities to date at nearly 400 life sciences companies throughout the Commonwealth. Interns have represented more than 160 different colleges and universities.



The Internship Challenge Program focuses on enhancing the talent pipeline for life sciences companies while simultaneously providing students and recent graduates with practical, "hands-on" experience that prepares them to step into the workforce ready to meet the job requirements of life sciences employers. The program subsidizes paid internships for undergraduate sophomores, juniors and seniors; community college students; Master's students; and recent college graduates.



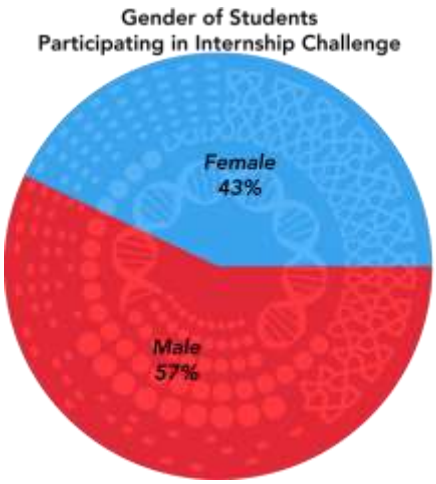


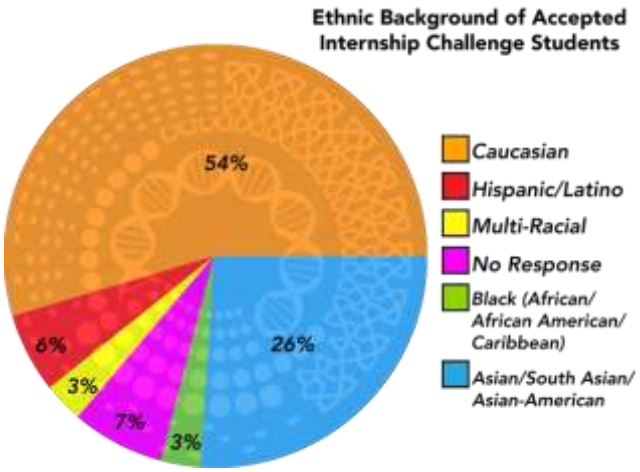
Host companies commit to providing a dedicated mentor and a meaningful internship opportunity related to the academic focus of their interns. The MLSC provides a web-based interface to connect student candidates with host companies; students complete an online application, which includes a cover letter and their resume, and host companies review applications to match skills with their needs. Host companies can hire up to two interns per year, but have the option to hire an additional two interns that are enrolled in a community college. At the conclusion of the internship, the MLSC reimburses companies for intern stipends of up to $7,200, which allows for 12 weeks of full-time work at the maximum reimbursable pay rate of $15 per hour.

The Internship Challenge is designed to expand the pool of prospective employees who have practical experience, enhance opportunities for mentoring, enable more students to explore career opportunities, provide students interested in working in the life sciences with a peer network through educational and informational exchange events, and expose students to entrepreneurship.

The Internship Challenge is also a human-capital subsidy program for small and early-stage companies. The MLSC only reimburses intern stipends for companies with 100 or fewer employees in Massachusetts (and up to 250 globally). Larger life sciences companies and research institutions can access the program's database to recruit students, but cannot seek reimbursement for the interns that they hire. Because participating interns work in smaller companies, they also receive exposure to the dynamic entrepreneurial environment.

FY 2014 saw the highest level of participation in the program since its inception. More than 2,000 students and recent graduates submitted applications for review by nearly 300 companies across Massachusetts. The program placed a total of 443 interns with 241 host companies (See Appendix C for a complete list of 2013-14 Internship Challenge host companies.) Interns were demographically diverse and represented 92 different colleges and universities. The Internship Challenge program is broadly inclusive, as the data in this section illustrates.





Feedback about the Internship Challenge Program

The MLSC conducts a survey of both interns and sponsors at the conclusion of each internship period because the MLSC believes that the Internship Challenge participants themselves provide the best evidence of the program's value and impact.

Surveys of participating interns show that over 30 percent of the interns that were entering the workforce (recent graduates) found immediate full-time employment as a result of their internships. In most cases, these interns were hired by the company that hosted their respective internships.

Survey results for the 2013-2014 Program also showed that:

- **92%** of intern respondents indicated that their internship **met or exceeded their expectations**.
- **91%** of intern respondents indicated that their internship provided the **right level of challenge**.
- **89%** of intern respondents indicated that their internship has **reinforced their interest in working in the life sciences**.
- **85%** of intern respondents indicated that their **interest in working in a MA life sciences company has increased**.
- **97%** of company respondents indicated that their intern(s) **met or exceeded their expectations.**
- **80%** of company respondents were **pleased with the caliber of candidates** in the MLSC's database.
- **79%** of company respondents indicated that the **technical skills** demonstrated by their intern(s) were **comparable to their best hires at this stage** in their educational and career development.
- **96%** of company respondents participated in the program **because it was subsidized**.
- **62%** of company respondents participated in the program to **"test-drive" potential employees**.

Supporting STEM (Science, Technology, Engineering and Math) Education and an Inclusive Workforce

The MLSC awarded approximately $310,000 to seven programs focused on STEM education and diversity in the life sciences workforce during FY 2014. The grants reflect the Patrick Administration's commitment to enhance STEM educational opportunities across Massachusetts, and the MLSC's commitment to build a more inclusive life sciences workforce. Additionally, Dr. Windham-Bannister serves on the Governor's STEM Council.

The seven organizations that received FY 2014 grants focus on different strategies for enhancing STEM education and diversity:

- **Tufts Medical School/Sackler School: Pathway to PhD Program ($50,000)** will use this grant toward expansion, and offering year-round educational activities through a Pre-PhD Club for UMass Boston undergraduates considering careers in biomedical research. Pathway to the PhD is an intensive three-week research experience for sophomore and junior year undergraduates with an interest in biomedical research careers. This new program offered during the UMass January intersession emerged from 1) the understanding that diversity is important for the scientific workforce; 2) a commitment to increasing diversity in the Sackler School student body; and 3) the recognition that many undergraduates with a passion for science, particularly under-represented minorities and economically disadvantaged students, have not had meaningful exposure to careers in science.

- **The Urban League of Springfield, Inc. "Be the STEM" ($50,000):** The Springfield Urban League (SUL) serves the African American and other minority communities in Greater Springfield by advocating for and providing model services that enhance the academic and social development of young people and families, promoting economic self-sufficiency, and fostering racial inclusion and social justice. The SUL will use the grant towards its Academic and Career Mentoring Program. The SUL headquarters is an exceptional resource to support a high school transition program such as the SUL Youth STEM Enrichment Program (YSEP). The SUL

has a strong track record of supporting urban youth through direct services, and youth advocacy across a broad spectrum of issue areas.

- **DIGITS ($35,000)** will utilize their grant towards the expansion of participation by life sciences companies. DIGITS is a sixth-grade classroom program that pairs STEM professionals with sixth-grade classes throughout the state to increase students' interest in math and science subjects and careers. The DIGITS concept is based on a uniquely designed alphabet with a STEM icon embedded in each letter. Created in 2008 by Massachusetts IT, life sciences, engineering and energy industry associations, DIGITS is in its fifth year of implementation in schools across the Commonwealth.

- **Tufts University School of Medicine ($49,258)** will use their grant to enable a co-mentoring for Career Awareness Interactive Biosciences Curricula Program to promote collaboration between scientists at Tufts' Center for Translational Science Education (CTSE) and teachers and students in the Boston Public Schools. The goal of the Program is to prepare skilled technology workers entering careers in STEM and Information Technology fields through a solid preparation in real-world sciences and an awareness of available career options.

- **Girls Inc. of Holyoke: Eureka! Program ($25,000)** will use their grant to expand access to its intensive five-year program for underserved girls ages 12 to 18. The program encourages girls to pursue post-secondary education and career paths in scientific, technical, engineering, and mathematical fields.

- **MASSMEDIC: MedTech IGNITE's Bay State Shadowing Program ($50,000)** matches medical technology entrepreneurs with device industry experts who provide expert business plan coaching, end-user feedback, regulatory strategies, intellectual property advice, and finance strategies with the goal of increasing the number and sustainability of startups throughout the Commonwealth. MLSC's funding will support the expansion of IGNITE's existing mentorship and educational support programs for early-stage medical device entrepreneurs by providing shadowing opportunities (cross-pollinating entrepreneurs with medical physicians throughout the state), thereby increasing the likelihood that products address an unmet clinical need by encouraging collaboration between entrepreneurs, physicians, and other health care providers.

- **Youth CITIES Life Sciences Learning Labs ($50,000)** will utilize this grant towards its expansion into Lawrence. Youth CITIES' (Creating Impact Through Innovation, Entrepreneurship, and Sustainability) Life Sciences Learning Labs (L3) program is a weekly course that will launch in the fall of 2014. The program will expose STEM-inclined middle school and high school students in the Greater Boston, Greater Lawrence, and Greater Lowell areas to a unique action-learning experience that assembles cross-disciplinary teams to fund and build solutions for real-world problems. Drawing from companies from each region's MedTech community, students will be mentored through the program by industry professionals, providing youth an opportunity to build relationships and learn about the various career pathways available in STEM – specifically occupation options within the Life Sciences arena.

The MLSC will continue to seek additional opportunities to expand access to STEM education and to ensure an inclusive life sciences workforce in the fiscal year ahead.

Investing in Industry and Job Creation

The Life Sciences Tax Incentive Program

In FY 2014, the MLSC awarded over $24 million in tax incentives to 32 life sciences companies under the MLSC's 2013 Life Sciences Tax Incentive program. The companies receiving tax incentive awards have committed to creating more than 1,200 new jobs in the Commonwealth during calendar year 2014.

The Life Sciences Act authorizes up to $25 million in tax incentives each year for companies engaged in life sciences research and development, commercialization, and manufacturing. The primary goal of the program is to incentivize life sciences companies to *create new long-term jobs in Massachusetts*. Companies receiving incentives must commit to the creation of a specific number of net new jobs during the following calendar year and also to the retention of those jobs for a five-year period.

The 2013 round of the program offered 10 different incentives, which address the significant expenditures associated with the life sciences R&D cycle, high costs of translating research into commercially viable products, and substantial investment in manufacturing products.

A total of 42 companies applied for tax incentives in 2013. Details of the 32 tax incentive awardees are below:

Tax Incentives Awarded Under the MLSC's 2013 Life Sciences Tax Incentive Program

Company	Location	Tax Incentive Amount Awarded	Jobs Committed
908 Devices, Inc.	Boston	$180,000	12
Aegerion Pharmaceuticals, Inc.	Cambridge	$715,085	35
Alkermes, Inc.	Waltham	$1,021,550	50
Alnylam Pharmaceuticals, Inc.	Cambridge	$612,930	30
Biogen Idec MA, Inc.	Weston	$6,250,000	325
bluebird bio, Inc.	Cambridge	$306,465	15
Boston Heart Diagnostics Corporation	Framingham	$1,021,550	50
Charm Sciences, Inc.	Lawrence	$204,000	10
CSA Medical, Inc.	Lexington	$204,310	10
Daktari Diagnostics, Inc.	Cambridge	$347,327	17
Foundation Medicine, Inc.	Cambridge	$1,225,860	60
Instrumentation Laboratory Company	Bedford	$715,085	35
inviCRO, LLC.	Boston	$204,310	10
Jounce Therapeutics, Inc.	Cambridge	$204,310	10
Masy Systems, Inc.	Pepperell	$100,000	12
Merrimack Pharmaceuticals, Inc.	Cambridge	$633,361	31
Micron Products, Inc.	Fitchburg	$215,255	15
Moderna Therapeutics, Inc.	Cambridge	$919,395	45
Nova Biomedical Corporation	Waltham	$1,532,325	75
Nuclea Biotechnologies, Inc.	Pittsfield	$510,775	25
NX Stage Medical, Inc.	Lawrence	$449,482	22
Omni Life Science	East Tauton	$306,465	15
Pall Corporation	Westborough	$204,310	10
PAREXEL International Corporation	Billerica	$1,062,412	52
Quanterix Corporation	Lexington	$245,172	12
Quest Diagnostics, Inc.	Cambridge	$1,838,790	90
Ra Pharmaceuticals, Inc.	Cambridge	$204,310	10
Shire Human Genetic Therapies, Inc.	Lexington	$597,076	25
Synageva BioPharma Corporation	Lexington	$1,021,550	50
SynapDx Corporation	Lexington	$178,000	10
T2 Biosystems, Inc.	Lexington	$245,172	12
uniQure, Inc.	Lexington	$1,021,550	50

The MLSC takes its stewardship of these resources seriously and has built in strong accountability measures to ensure that the program has "teeth." The MLSC carefully monitors the performance of

companies that have received tax incentives to ensure compliance with the headcount requirements they are required to reach per their agreement with the Center. Headcount requirements must not only be met in the year following receipt of the award, but also maintained for the following five years. As part of the MLSC's agreements with awardees, recipients of tax incentives are required to report job creation results to the Center by the end of the calendar year. Under the Life Sciences Act, the Department of Revenue has the authority to recover or "claw back" incentives from companies that the MLSC determines will not meet the minimum job creation threshold in their tax incentive agreement.

Summary of the Tax Incentive Program from Inception to June 30, 2014				
Program Year	Number of Awards Provided	Dollar Amount of Awards Provided	Number of Active Awards as of June 30, 2014	Dollar Amount of Active Awards as of June 30, 2014
2009	26	$24,420,000	13	$13,955,500
2010	24	$24,390,292*	13	$17,624,085
2011	26	$20,340,884	19	$14,045,386
2012	24	$22,992,583	22	$20,542,583
2013	32	$24,498,182	32	$24,498,182
Total	132	$116,641,941,	99	$90,665,736

*In FY 2012, Shire HGT, Inc., of Lexington received an additional $3.5 million of tax incentives under an existing tax commitment by the Commonwealth.

Some awardees have declined their awards due to changes in their business or general economic conditions. Some awardees also have determined that they were unlikely to reach their job creation commitment under the statutory guidelines and opted to voluntarily terminate their agreements, either by foregoing taking the tax benefits at all or by returning the benefits to the Commonwealth if they had already received them. Since inception, the MLSC has decertified two awardees for not achieving the statutory thresholds. A total of 26 active companies have received two or more active awards, illustrating their continued commitment to growing their headcount in the Commonwealth.

In FY 2014, awardees from the 2009 through 2012 tax programs were required to report their headcount as of December 31, 2013. As of December 31, 2013, reporting awardees from the 2009 through 2012 programs had hired and maintained 4,478 employees, representing a 159% percent attainment of their commitment.

As of June 30, 2014, there were 67 active awards from the 2009 through 2012 program years, with a combined commitment of fulfilling or maintaining 2,529 new hires under the program.

The 2013 program awardees have committed to creating an additional 1,230 jobs within the Commonwealth during calendar year 2014. The results of these awards will be reported to the MLSC in January 2015. To date, the Tax Incentive Program has resulted in a combined net new hire commitment of more than 3,750 jobs among active awardees.

Massachusetts Company Attraction and Expansion

Massachusetts continues to be a magnet for companies looking to expand in the U.S., including companies large and small, domestic and international. The Commonwealth is a great place for life sciences companies to set up shop, offering world-class academic institutions, teaching hospitals and research institutes, access to a talented workforce and a vibrant investment community. Companies coming to or expanding in Massachusetts also have opportunities to partner with existing industry leaders in all sectors of the life sciences, benefit from proximity to innovative young companies, and enjoy a supportive environment for growth. The MLSC actively recruits new companies to the state through its extensive marketing efforts and programs, and supports the integration of these companies into Massachusetts' life sciences community.

FY 2014 was a banner year for company attraction and expansion. In partnership with the state's industry associations, MassBio and MassMEDIC, and with sister agencies in state and local government, the MLSC continued to work with companies large and small from across the world, helping to organize numerous grand openings and press announcements for new or expanding life sciences companies in Massachusetts:

- Scotland-based BioOutsource, a global leader in biologics contract testing and BioSimilar characterization for the biopharmaceutical industry, announced that the company will be expanding their U.S. presence, opening a new lab facility in Massachusetts in 2015.

- Boston Biomedical, Inc., a subsidiary of Japanese life sciences leader Dainippon Sumitomo, officially opened its new headquarters in Cambridge.

- Cryogenetics, based in Norway and the world leader in fish reproduction products and services, opened a new laboratory in Woburn.

- Halifax Biomedical Inc. (HBI), a Nova Scotia based company that specializes in precision assessment of spine and joint-replacement micro-instability, opened its first US office at the Cambridge Innovation Center in Cambridge.

- Intellimedix is an Atlanta-based company devoted to developing and applying novel methods to accelerate the discovery of new treatments and cures, with a focus on epilepsy and other neurological disorders. The company celebrated the opening of its new research lab in Cambridge's Kendall Square.

- InviCRO, LLC, a leading provider of imaging services and software solutions in the drug discovery and development market, opened its new office and laboratory in Boston's Innovation District.

- Moderna Therapeutics, the pioneer in developing messenger RNA (mRNA) Therapeutics™, announced the company's expansion to a new facility in Cambridge's Kendall Square, a move that adds nearly 50,000 square feet of office, laboratory and manufacturing facilities to Moderna's operations in Massachusetts.

- MPR Associates specializes in medical, diagnostic and laboratory devices, as well as in consumer product design and development. MPRs' Product Development Group established a Massachusetts presence with a 3,300-square-foot facility in Chelmsford. MPR is headquartered in Washington DC.

- Neuroelectrics, a neuroscience devices designer, manufacturer and provider based in Spain, announced the opening of its first U.S. office, located in the Cambridge Innovation Center (CIC) in Cambridge.

- Oncovision, an innovative medical imaging technology company from Valencia, Spain, announced the opening of its U.S. subsidiary, Oncovision, Inc., located in Boston.

- Ornim Medical, an Israeli medical technology company, announced its decision to open its U.S. headquarters in Foxboro. Ornim's arrival was a direct result of Governor Patrick's recent trade mission to Israel.

- PerkinElmer, Inc., a global leader focused on improving the health and safety of people and the environment, officially opened a new Center for Innovation in Hopkinton.

- Sanofi, the global biopharma giant, opened a new 112,000-square-foot Global Research and Development facility near Kendall Square in Cambridge.

- Sarepta Therapeutics, Inc., originally from Washington, a developer of innovative RNA-based therapeutics, announced the opening of its new global headquarters in Cambridge's Kendall Square.

- Japanese companies MBL International Corporation and SCIVAX USA, INC. announced the official opening of a new 3,000 square-foot shared wet laboratory in Woburn.

- Swedish Orphan Biovitrum AB (Sobi) announced that the Company has decided to establish its North American operations in Waltham.

- Takeda broke ground on a new 250,000 square foot facility in Cambridge.

- Velesco Pharma, which focuses on early-stage drug development projects, expanded operations with the opening of a new business development office at the Quincy Center for Innovation.

- Vertex Pharmaceuticals opened a new 1.1 million square foot global headquarters in Boston.

- Xenetic Biosciences, Inc., a biopharmaceutical company formerly headquartered in the UK focused on developing next-generation biologic drugs and novel oncology therapeutics, announced the opening of its new corporate headquarters and research and development facility in Lexington. Xenetic's arrival was a direct result of Governor Patrick's trade mission to the U.K. in 2011.

- ZS Genetics, developer of a Third-Generation DNA sequencing platform, expanded its Bay State presence with the opening of a new facility in Wakefield.

The MLSC continues to engage companies across the nation and around the world to encourage them to invest and locate in Massachusetts. The MLSC anticipates many more announcements in FY 2015.

Building Partnerships

International Partnerships

The MLSC created its international programs based on our belief that knowledge creation occurs worldwide, and global collaboration between life sciences organizations will accelerate scientific and commercial breakthroughs and fuel economic development. The MLSC has generated a high level of global interest in collaboraton with Massachusetts through our International Collaborative Industry Program (ICIP), and our active participation in global conferences and Governor Patrick's innovation trade missions. To build on this momentum the MLSC launched its second international program, the Universal Partnerships (UP) Program, in FY 2014.

International Collaborative Industry Program (ICIP) 2013-2014

In 2013, the MLSC successfully completed its first round of the International Collaborative Industry Program (ICIP). ICIP creates the opportunity for Massachusetts companies to apply for matching grants ($100,000 minimum to $500,000 maximum) to fund collaborative R&D projects with companies in international partner regions. The first round of ICIP included four partner regions:

- Alsace (France)
- Quebec (Canada)
- Victoria (Australia)
- Wallonia (Belgium)

Collaborative projects selected for awards are funded collectively: each of the awarded companies contributes funding, the MLSC provides a grant to the Massachusetts partner company and the collaborating region provides a grant to its regional partner company.

Applications were submitted for collaborations from each of the four foreign geographies. These applications were jointly reviewed by the MLSC Scientific Advisory Board (SAB) and expert reviewers in our partner geographies.

At its February 2014 meeting, the MLSC Board of Directors approved awards to four teams, totaling more than $1 million:

2013/2014 ICIP Program Awards			
Company	**Location**	**Amount Awarded**	**In Partnership With**
inviCRO, LLC.	Boston	$249,750	**Biospective** Quebec, Canada
Covaris, Inc.	Woburn	$160,000	**Coris** Wallonia, Belgium
New England Biolabs, Inc.	Ipswich	$250,000	**Transgene** Alsace, France
EMDMillipore Corporation	Billerica	$400,000	**Promethera** Wallonia, Belgium

On March 10, 2014, the MLSC, together with representatives from our partner agencies, announced the ICIP awards at the BioEurope (Spring) meeting in Turin, Italy. Based on the success of the first round of the program, the MLSC also announced the launch of a second round of ICIP. Two additional partners will participate in this second round: Israel and Medicon Valley (Sweden and Denmark).

For the 2014-15 round, $2 million in funding is available in matching grants that can range from $75,000 to $400,000 for selected projects. ICIP 2014-15 is now in the partnering stage and applications are due October 1, 2014.

The Universal Partnerships Program (UP)

UP reflects the MLSC's commitment to seek new and innovative models of collaboration, to drive future economic growth and to further strengthen Massachusetts's global leadership position in the life sciences.

Governor Deval Patrick launched the MLSC Universal Partnerships (UP) program at the 2014 BIO International Convention in San Diego, California. This program expands the MLSC's global collaboration efforts by offering Massachusetts companies broader opportunities for partnerships worldwide. UP provides grant funding for R&D collaborations between Massachusetts companies and partners than can include industry, academic institutions, hospitals, or research institutes *in any non-U.S. geography*. Grants can range from $50,000 to 200,000. For the inaugural launch of the UP program, the MLSC will make available up to $1 million in total funding.

Applications for UP will be accepted year-round and an ongoing review will allow for a short decision timeframe. A competitive proposal will focus on a well-articulated milestone within an R&D project and will typically last up to one year.

The International Partnership Assistant Portal (IP-ap)

In November 2012, the MLSC launched the International Partnership Assistance Portal (IP-ap), a tool that enables international and Massachusetts companies to explore potential partnerships 24/7/365. The portal also is designed to facilitate partnerships between Massachusetts companies. The MLSC hosts IP-ap as a free, password-protected, cloud-based portal. Since its launch, IP-ap has become a growing global database of potential partners from a range of therapeutic areas and industry sectors within the life sciences.

At the close of FY 2014, the IP-ap database contained 227 company profiles (143 International and 74 Massachusetts) and dozens of profiles from international and local life sciences-related agencies and institutions. International companies listed in the portal represent twenty-five (25) countries and five (5) continents. Massachusetts companies from more than 37 cities and towns have registered their business profiles in the portal.

Participation in Global Trade Missions and Conferences

The MLSC has actively invested and participated in business development – both domestically and internationally -- for the state's life sciences cluster. In FY 2014, the MLSC participated in key international life sciences conferences and was a member of trade mission delegations to Canada, Japan, Singapore, Panama, Mexico, Israel, and the United Arab Emirates. Through its business development efforts MLSC has established strategic relationships with industry, governments, and academic institutions in many regions of the world. These relationships, and those established in previous years, have created opportunities abroad for Massachusetts companies, as well as job growth in Massachusetts through the expansion and relocation of international companies to the Commonwealth. Coupled with funding through the MLSC's UP and ICIP programs, these relationships are helping the Commonwealth maintain its global leadership in the life sciences while playing an expanded role in the global economy.

BIO International Convention 2014

The 2014 BIO convention took place in San Diego, CA, June 23-26. As in past years, Massachusetts created significant "buzz" at the Convention and also received major attention in the California press. The Massachusetts Pavilion was the site for two press announcements, three panel discussions, and a well-attended networking reception with Governor Patrick. State and local officials participated in more than 20 business development meetings with domestic life sciences companies and met with more than 10 international delegations to strengthen relationships and collaborations. Governor Patrick met with both companies and international delegations wanting to learn more about Massachusetts.

During BIO, the MLSC announced two company wins for Massachusetts: BioOutsource, which was an expansion, and Ornim Medical, an Israeli company who's decision to locate their U.S. headquarters in Massachusetts was a direct result of Governor Patrick's recent trade mission. The MLSC expects to announce additional wins from the 2014 BIO Convention in the months ahead.

The Massachusetts Neuroscience Consortium

The Massachusetts Neuroscience Consortium was launched in June 2012 at the BIO International Convention in Boston. Charter Consortium members were AbbVie, Biogen Idec, EMD Serono, Janssen, Merck, Pfizer, and Sunovion Pharmaceuticals Inc. For the first solicitation, Consortium members received and evaluated nearly 100 applications, selecting seven pre-clinical projects to fund at Massachusetts academic and research institutions. Selected projects focus on Alzheimer's disease, Multiple Sclerosis,

Neuropathic Pain and Parkinson's disease. Members of the Consortium are working collaboratively with the project Principal Investigators, and are making good progress.

In April of 2014, the MLSC issed a second call for proposals and broadened the areas of disease focus to include Amyotrophic lateral sclerosis (also known as Lou Gehrig's disease), Huntington's disease, Parkinson's disease, and Treatment-Resistant Depression. Nearly 60 applications were received in this second round and Consortium members decided to advance fourteen applications to a more detailed Phase II application. Participating members have each committed $250,000 to the Consortium for this round, for a total of $1.5 million.

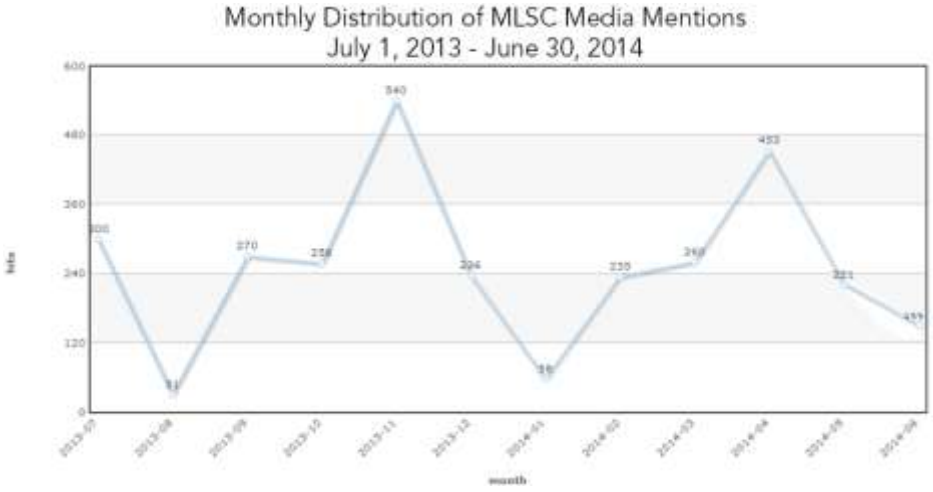
Staying Connected

The MLSC's active communications and marketing program keeps stakeholders and the general public informed about the MLSC's investments of public dollars, promotes public accountability for the MLSC's progress in accomplishing its mission, and provides ongoing updates and information exchange with the life sciences community in order to encourage its involvement and input. Communication and outreach have been integral to the MLSC's success in attracting a robust and diverse pool of applicants for MLSC programs.

During FY 2014, the MLSC grew its contact list from 4,600 contacts to over 5,500. The MLSC used its website as both a hub for information about the MLSC and a portal for submitting applications to MLSC programs. The MLSC also ramped up its social media efforts, growing its Twitter follower base from 700 to more than 1,600 and Facebook fans from 50 to over 150. Additionally, the MLSC has more than 600 impressions (views) on LinkedIn. The MLSC also continued its monthly television segment on New England Cable News (NECN),sharing updates on MLSC activities and important news from the state's life sciences community.

In FY 2014 the MLSC increased its media visibility -- from 2,200 media mentions in FY 2013 to nearly 3,000 media mentions in FY 2014, a 36% increase over the prior fiscal year. Publications across the nation and around the world covered the MLSC's activities and successes. During FY 2014, MLSC staff participated as presenters, speakers, or panelists at more than 55 public events.

The chart below shows the monthly distribution of the MLSC's media coverage during FY 2014. Periods of greater coverage tended to coincide with the announcement of new programs or investments.



The Way Forward

Six years into the 10-year Massachusetts Life Sciences Initiative, the MLSC has played a major role in solidifying Massachusetts' status as the global leader in life sciences. Prior to 2008 the state's life sciences cluster was certainly strong and globally respected. Through targeted investment, the MLSC has helped to create the world's premier ecosystem for life sciences growth. Some have compared the MLSC to the "dash of salt" that brings a simmering pot to a roiling boil.

The impact of the Life Sciences Initiative goes far beyond the prestige of global leadership. The life sciences ecosystem helped to lead Massachusetts out of the recession and has become a major engine for economic growth in the state. Massachusetts' life sciences sectors are growing jobs at a rapid pace -- jobs for workers with all levels of skill and education. Life sciences jobs are "innovation economy" jobs and will help provide a pathway to prosperity for the next generation of the state's workforce. Members of the life sciences community also are making major investments in infrastructure across the state and young life sciences companies are attracting significant infusions of investment capital to Massachusetts. In sum, since 2008 the life sciences sectors have become an even more important pillar of the state's economy.

However we cannot rest on our laurels or take the achievements of the past six years for granted. Other states are making substantial investments to capture the economic benefits of global leadership in life sciences, and many countries are making substantial public investments in an effort to build strong life sciences clusters of their own. Ongoing, strong support for the Life Sciences Initiative by the Governor's Office and the state Legislature is required to ensure that Massachusetts continues to capture the economic value of the life sciences sectors.

The state budget calls for a FY 2015 investment fund appropriation of $25 million, a $5.5 million increase from FY 2014, contingent on the State Comptroller's declaration of a consolidated net surplus for FY 2014. The MLSC is appreciative and excited about this vote of confidence by Governor Patrick and his administration, and the State Legislature, under the leadership of Senate President Therese Murray and Speaker of the House Robert DeLeo. The MLSC looks forward to delivering another productive and impactful year.

Appendix A - The Board of Directors of the Massachusetts Life Sciences Center as of June 30, 2014

- **Gregory Bialecki, Co-Chair**
  Secretary, Executive Office of Housing and Economic Development
- **Glen Shor, Co-Chair**
  Secretary, Executive Office for Administration and Finance
- **Edward J. Benz, Jr., M.D.**
  President and CEO, Dana-Farber Cancer Institute
- **Robert L. Caret, Ph.D.**
  President, University of Massachusetts
- **Adelene Perkins**
  Chair, President and Chief Executive Officer, Infinity Pharmaceuticals
- **Lydia Villa-Komaroff, Ph.D.**
  Director and Chief Scientific Officer, Cytonome/ST
- ***Joshua Boger, Ph.D.**
  Founder & CEO (retired), Vertex Pharmaceuticals

*As of June 30, 2014, Joshua Boger's term on the MLSC Board of Directors concluded.

Appendix B - Massachusetts Life Sciences Center Scientific Advisory Board as of June 30, 2014

- **Harvey Lodish, Ph.D., Chair**
  Whitehead Institute for Biomedical Research and Professor of Biology and of Bioengineering, Massachusetts Institute of Technology

- **Hillel Bachrach**
  Chairman, Viztek & UltraSPECT

- **James Barry, Ph.D.**
  Executive Vice President and COO, Arsenal Medical

- **Kevin J. Bitterman, Ph.D.**
  Principal, Polaris Venture Partners

- **Dalia Cohen, Ph.D.**
  Chief Scientific Officer, ALN Associates

- **James J. Collins, Ph.D.**
  Professor of Biomedical Engineering, Boston University

- **John M. Collins, Ph.D.**
  Chief Operating Officer, Center for Integration of Medicine & Innovative Technology (CIMIT)

- **Robert D'Amato, M.D., Ph.D.**
  Judah Folkman Chair in Surgery and Director, Center for Macular Degeneration Research, Children's Hospital, Boston

- **T. (Teo) Forcht Dagi, M.D.**
  Partner, HLM Venture Partners

- **Rainer Fuchs, Ph.D.**
  Chief Information Officer, Harvard Medical School

- **Glenn R. Gaudette, Ph.D.**
  Associate Professor, Biomedical Engineering, Worcester Polytechnic Institute

- **José-Carlos Gutiérrez-Ramos, Ph.D.**
  Senior Vice President, head of BioTherapeutics Research & Development, Pfizer Inc.

- **Andrew Jay, DMD**
  Fund Head, Healthcare Fund, Siemens Venture Capital

- **Rick Jones, MD**
  Co-COO, Broadview Ventures

- **Henry Kay**
  U.S. Partner, Medica Venture Partners

- **Dale Larson**
  Director of Biomedical Systems, Draper Laboratory

- **Alison Lawton**
  Board Member, Cubist Pharmaceuticals & Verastem

- **Judith Lieberman, Ph.D., M.D.**
  Senior Investigator, Immune Disease Institute, Children's Hospital Boston and Professor of Pediatrics, Harvard Medical School

- **Lita L. Nelsen**
  Director, Technology Licensing Office, Massachusetts Institute of Technology

- **Barbara Osborne**
  Professor of Veterinary and Animal Sciences, University of Massachusetts Amherst

- **Carmichael Roberts, Ph.D.**
  Partner, North Bridge Venture Partners

- **Frederick J. Schoen, M.D., Ph.D.**
  Executive Vice-Chairman, Department of Pathology at Brigham and Women's Hospital

- **Lauren Silverman, Ph.D.**
  Managing Director, Novartis Option Fund

- **Alan E. Smith, Ph.D.**
  Former Chief Scientific Officer, Genzyme Corporation

- **Alison Taunton-Rigby, Ph.D.**
  Co-founder, CEO and Director, RiboNovix, Inc.

- **Guillermo Tearney, M.D., Ph.D.**
  Professor of Pathology, Harvard Medical School

- **David Walt, Ph.D.**
  Robinson Professor of Chemistry and Howard Hughes Medical Institute Professor, Tufts University School of Medicine

- **Phillip Zamore, Ph.D.**
  Professor, Biochemistry and Molecular Pharmacology, UMass Medical School

Appendix C - 2013-14 Internship Challenge Host Companies

206 ORTHO, Inc.	Lowell	**Hepatochem, Inc.**	Beverly
A Chemtek, Inc.	Worcester	**Hstar Technologies Co.**	Cambridge
AB Biosciences, Inc.	Boston	**Hybrid Silica Technologies, Inc.**	Cambridge
Abazyme LLC	Cambridge	**HydroCision, Inc.**	North Billerica
Acceleron Pharma	Cambridge	**Imagine Optic Inc**	Cambridge
Acetylon Pharmaceuticals, Inc.	Boston	**Imgen BioSciences, Inc.**	Fall River
Addgene, Inc.	Cambridge	**Immunetics, Inc.**	Boston
AdMeTech Foundation	Boston	**Incite Advisors, Inc**	Auburn
Advanced Radiation Therapy	Tyngsboro	**InfoBionic**	Lowell
Advanced Research and Development	Lexington	**InfraReDx, Inc.**	Burlington
AdvanDx	Woburn	**Institute for Pediatric Innovation**	Cambridge
Advantagene, Inc.	Auburndale	**Integral BioSystems LLC**	Bedford
Aegerion Pharmaceuticals, Inc.	Cambride	**Interscope, Inc.**	Whitinsville
Agilux Laboratories	Worcester	**inviCRO, LLC**	Boston
Agrivida, Inc.	Medford	**InVivo Therapeutics Corporation**	Cambridge
Akrivis Technologies, LLC	Cambridge	**iOmics Co.**	Worcester
Alacrita LLC	Cambridge	**IonSense, Inc.**	Saugus
Albright Technologies	Leominster	**iQuartic, Inc.**	Cambridge
Allurion Technologies	Wellesley	**IQuum, Inc.**	Marlborough
Alzheimers Disease Center	Quincy	**iSpecimen Inc.**	Lexington
Anderson Biotests, LLC	Bedford	**Janus Biotherapeutics**	Worcester
Anika Therapeutics	Bedford	**Jounce Therapeutics**	Cambridge
Antagen Pharmaceuticals, Inc	Boston	**Kibur Medical, Inc.**	Boston
Apptomics LLC	Wellesley	**Lantos Technologies Inc**	Cambridge
Arietis Corporation	Boston	**Lariat Biosciences, Inc.**	Beverly
Arsenal Medical	Watertown	**LaVoie Group, Inc.**	Cambridge
Arteriocyte Medical Systems	Hopkinton	**Life Science Nation**	Boston
Artisan Healthcare Consulting	Waltham	**Little Sparrows Technology**	Winchester
Atanse, Inc.	Belmont	**MagneMotion Inc.**	Devens
Atlantic Lab Equipment LLC	Salem	**Manus Biosynthesis, Inc.**	Cambridge
Aura Biosciences	Cambridge	**Massachusetts Medical Device**	Boston
Avaxia Biologics, Inc.	Wayland	**Matrivax R&D Corp.**	Boston
Averica Discovery Services	Worcester	**Mayly Inc**	Brighton
AVIA Biosystems LLC	Norton	**MC10**	Cambridge
Bach Pharma, Inc	North Andover	**MedChem Partners LLC**	Lexington
Bio2 Technologies, Inc.	Woburn	**MedPanel, LLC**	Cambridge
BIOBASE Corporation	Beverly	**Metabolix, Inc.**	Cambridge
Biomedical Research Models, Inc.	Worcester	**Metis Manufacturing LLC**	Beverly
Biomirex, Inc.	Watertown	**Microbiotix, Inc.**	Worcester
BioProcess Technology Consultants, Inc	Woburn	**Microtest Laboratories, Inc.**	Agawam

BioScale	Lexington	**Mouse Specifics, Inc.**	Quincy
BioSensics LLC	Cambridge	**MSM Protein Technologies**	Medford
BioSurfaces, Inc.	Ashland	**MX Orthopedics**	Billerica
Biotrofix, Inc.	Waltham	**Myomo, Inc.**	Cambridge
Blend Therapeutics, Inc.	Watertown	**Nemucore Medical Innovations, Inc.**	Worcester
Blue Ocean Biomanufacturing, Inc.	Worcester	**Neo-Advent Technologies, LLC**	Littleton
Blue Sky Biotech, Inc.	Worcester	**Nereus Life Sciences, LLC**	Kingston
Blue Stream Laboratories, Inc.	Cambridge	**Neurotrek, Inc.**	Boston
Boston Biomedical Associates	Northborough	**New England Peptide Inc**	Gardenar
Boston Bioprocess Inc	Westborough	**Nexcelom Bioscience LLC**	Lawrence
Boston Device Development Inc.	Newton	**Nivarta, Inc.**	Cambridge
Boston MedTech Advisors	Dedham	**NLT Spine**	Dedham
Boston Micromachines Corporation	Cambridge	**Northeast Biomedical, Inc.**	Tyngsboro
Boyd Technologies	South Lee	**Nuclea Biotechnologies, Inc.**	Pittsfield
Cambridge Biomedical	Boston	**OC10, LLC**	Boston
CarePoint Solutions, Inc.	Worcester	**Ocean Genome Legacy**	Ipswich
Catapult Product Development, Inc.	Waltham	**Olaf Pharmaceutical, Inc.**	Worcester
Celldex Therapeutics	Needham	**Olea Medical**	Cambridge
Cerulean Pharma Inc.	Cambridge	**OnSite Therapeutics, Inc.**	North Andover
CeQur Corp.	Marlborough	**OpenClinica LLC**	Waltham
ChemGenes Corp.	Wilmington	**Optimum Technologies, Inc.**	Southbridge
CIRTEC Medical Systems	East Longmeadow	**Ora, Inc**	Andover
CMC Consulting Boston, Inc.	Framingham	**Parcell Laboratories, LLC**	Natick
Collegium Pharmaceutical, Inc.	Canton	**Pavoda Inc**	Boxford
Concert Medical	Norwell	**pION INC**	Woburn
Constellation Pharmaceuticals	Cambridge	**Precision Fabricators Ltd**	Stoughton
CONTINUUS Pharmaceuticals, Inc.	Boston	**PremMD**	Braintree
Corindus, Inc.	Waltham	**Pressure BioSciences, Inc.**	South Easton
Court Square Group, Inc.	Springfield	**Privo Technologies**	Cambridge
Courtagen Life Sciences	Woburn	**Project Lever LLC**	Cambridge
CreaGen Biosciences, Inc.	Woburn	**Progenika Inc**	Medford
CRYOOCYTE INC	Boston	**Proveris Scientific Co.**	Marlborough
CryoXtract Instruments, LLC	Arlington	**Quad Technologies LLC**	Beverly
CSA Medical, Inc.	Lexington	**REBIScan**	Cambridge
CuriRx Inc	Wilmington	**Respiratory Motion, Inc.**	Lexington
Custom NMR Service	Ayer	**ReSurfX, Inc.**	Lexington
Cytonome/ST, LLC	Boston	**Riparian Pharmaceuticals**	Boston
Daktari Diagnostics, Inc.	Cambridge	**Rogers Sciences Inc.**	Beverly
Dental Photonics, Inc.	Walpole	**Rowat Management Services, LLC**	Sherborn
Detector Technology, Inc.	Palmer	**S2N Health, LLC**	Boston
DiscX, LLC.	Shrewsbury	**SafePath Medical, Inc.**	Lowell

DNA Medicine Institute	Cambridge	**Safety Partners, Inc.**	Burlington
DocBox Inc	Waltham	**Sage Science Inc.**	Beverly
Edimer Pharmaceuticals	Cambridge	**Sample6 Technologies, Inc.**	Boston
Ekam Imaging, Inc.	Boston	**Scientia Advisors**	Cambridge
Empiriko Corporation	Newton	**Selecta Biosciences, Inc**	Watertown
Endodynamix, Inc.	Salem	**SemiNex Corporation**	Peabody
EndoSim, LLC	Berlin	**Senscio Systems, Inc.**	Boxborough
Energesis Pharmaceuticals, Inc.	Cambridge	**Seventh Sense Biosystems, Inc.**	Cambridge
enEvolv, Inc.	Cambridge	**Shaser, Inc.**	Lexington
Enumeral Biomedical, Corp.	Cambridge	**Sialix, Inc.**	Newton
Environmental Health & Engineering Inc.	Needham	**Speech Technology and Applied Research**	Bedford
Enzymatics	Beverly	**SpineFrontier Inc.**	Beverly
EpigenDx, Inc.	Hopkinton	**Sproxil, Inc.**	Cambridge
Essential Life Solutions Ltd.	Stoughton	**SQZ Biotechnologies Company**	Needham
Etiometry LLC	Boston	**STC Biologics, Inc.**	Cambridge
Eutropics Pharmaceuticals	Cambridge	**Strohl Medical Technologies**	Norwell
Excellims Corporation	Acton	**Sunovion Pharmaceuticals Inc.**	Marlborough
Extend Biosciences Inc.	Cambridge	**T2 Biosystems, Inc.**	Lexington
FDR Center for Prosthetics and Orthotics, Inc.	Burlington	**Tetraphase Pharmaceuticals, Inc.**	Watertown
Firefly BioWorks, Inc.	Cambridge	**Thermal Technologies Inc.**	Cambridge
First Light Biosciences	Bedford	**Thermedical, Inc.**	Waltham
Five Star Surgical, Inc.	New Bedford	**THINQ Pharma**	Natick
FloDesign Sonics Inc.	Wilbraham	**Tim Rosa Associates, LLC**	Waltham
Flow Forward Medical, LLC	Lowell	**Tissue Solutions, LLC**	Marlblehead
Focused Genomics (dba Parabase Genomics)	Boston	**Two Square Science**	Fall River
Fractyl Laboratories Inc.	Waltham	**Union Biometrica, Inc.**	Holliston
G & F Medical, Inc	Danvers	**VasoTech, Inc.**	Lowell
Gecko Health Innovations, Inc.	Cambridge	**Vaxess Technologies, Inc.**	Boston
Gen9, Inc.	Cambridge	**Viatar LLC**	Lowell
Genetic Services, Inc	Cambridge	**Visus Technology, Inc.**	Boston
Genocea Biosciences, Inc.	Cambridge	**VitaThreads, LLC**	Worcester
GI Dynamics, Inc.	Lexington	**Vivonics, Inc.**	Waltham
Giner, Inc.	Newton	**VivoPath**	Worcester
Ginkgo BioWorks, Inc.	Boston	**VLK Research**	Medford
Global Business Support Inc	North Attleboro	**WaveMark**	Littleton
GnuBIO Inc	Cambridge	**WorldCare Clinical**	Boston
Grove Instruments	Worcester	**X-BODY, Inc.**	Waltham
Guided Surgery Solutions	Wellesley	**X-Chem, Inc.**	Waltham
Gweepi Medical Inc.	Cambridge	**Xtal BioStructures Inc**	Natick
Hemedex Inc.	Cambridge		

Appendix D - List of Active Certified Life Sciences Companies as of June 30, 2014

Company	Location
908 Devices, Inc.	Boston
Aegerion Pharmaceuticals, Inc.	Cambridge
AesRx, LLC	Newton
Alcyone Lifesciences, Inc.	Concord
Alkermes, Inc.	Waltham
Allurion Techologies, Inc.	Wellesley
Alnylam, Inc.	Cambridge
Arch Therapeutics, Inc.	Wellesley
Avaxia Biologics, Inc.	Burlington
Ariad Pharmaceuticals, Inc.	Cambridge
Bind Biosciences, Inc.	Cambridge
Bio2 Technologies, Inc.	Woburn
Biogen Idec MA, Inc.	Cambridge
Bluebird Bio, Inc.	Cambridge
Blueprint Medicines Corporation	Cambridge
Boston Heart Diagnostics Corporation	Framingham
Bruker Corporation	Billerica
Cell Signaling Technology	Danvers
Charm Sciences, Inc.	Lawrence
Constellation Pharmaceuticals, Inc.	Cambridge
Covaris, Inc.	Woburn
Cristcot Medical, Inc.	Sudbury
CSA Medical, Inc.	Lexington
Cubist Pharmaceuticals, Inc.	Lexington
CytonomeST, LLC	Boston
Daktari Diagnostics, Inc.	Cambridge
DePuy Othopaedics, Inc.	Raynham
Dyax Corporation	Cambridge
EMD Millipore Corporation	Billerica
Enzymatics, Inc.	Cambridge
Epizyme, Inc.	Cambridge
Eutropics Pharmaceuticals, Inc.	Cambridge
Excellims Corporation	Acton
Foundation Medicine, Inc.	Cambridge
Grove Instruments, Inc.	Worcester
Guided Surgery Solutions, LLC	Wellesley
Hepatochem, Inc.	Cambridge
Immunexcite, Inc.	Lexington
InfraReDx, Inc.	Burlington
Instrumentation Laboratory Company	Bedford
inviCRO, LLC	Boston
Ironwood Pharmaceuticals, Inc.	Cambridge
Jounce Therapeutics, Inc.	Cambridge
Lumicell Diagnostics, Inc.	Wellesley

LeMaitre Vascular, Inc.	Burlington
Lightlab Imaging, Inc.	Westford
Masy Systems, Inc.	Pepperell
MedicaMetrix, Inc.	Wayland
Merrimack Pharmaceuticals, Inc.	Cambridge
Mevion, Inc.	Littleton
Micron Products, Inc.	Fitchburg
Moderna Therapeutics, Inc.	Cambridge
Momenta Pharmaceuticals, Inc.	Cambridge
Myomo, Inc.	Cambridge
New England Biolabs, Inc.	Ipswich
NinePoint Medical, Inc.	Cambridge
Nova Biomedical Corporation	Waltham
Nuclea Biotechnologies, LLC	Pittsfield
NxStage Medical, Inc.	Lawrence
OmniGuide, Inc.	Cambridge
OMNIlife science, Inc.	Taunton
Organogenesis, Inc.	Canton
Pall Corporation	Westborough
PAREXEL International Corporation	Lowell
PerkinElmer, Inc.	Waltham
Pharmalucence, Inc.	Bedford
Quanterix Corporation	Cambridge
Quest Diagnostics, Incorporated	Cambridge
Quintiles Consulting	Cambridge
Ra Pharmaceuticals, Inc	Cambridge
Sample6 Technologies, Inc.	Boston
Sanofi-Aventis, Inc.	Cambridge
SBH Sciences, Inc.	Natick
Shire Human Genetic Therapies, Inc.	Lexington
STD Med, Inc.	Stoughton
Strohl Medical Technologies, Inc.	Weymouth
Synageva BioPharma Corporation	Lexington
SynapDx Corporation	Lexington
T2Biosystems, Inc.	Lexington
uniQure, Inc.	Lexington
Valerion Thereapeutics, Inc.	Boston
Valeritas, Inc.	Shrewsbury
Vaxess Technologies, Inc.	Cambridge
Vertex Pharmaceuticals, Inc.	Cambridge
Wadsworth Medical Technologies, Inc.	Westborough
Wolfe Laboratories, Inc.	Watertown