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**INDEPENDENT STATE AUDITOR'S REPORT ON
CERTAIN ACTIVITIES OF THE
MASSACHUSETTS LIFE SCIENCES CENTER
JULY 1, 2007 TO JUNE 30, 2009**

**OFFICIAL AUDIT
REPORT
AUGUST 27, 2010**

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The Massachusetts Life Sciences Center (MLSC) was established in 2006 by Chapter 23I of the Massachusetts General Laws as an independent governmental entity to expand life-sciences-related employment opportunities in the Commonwealth and to promote health-related innovations by supporting and stimulating research, development, manufacturing, and commercialization in the life sciences. This work includes making financial investments in public and private institutions; supporting life sciences research, development, and commercialization; and building ties between sectors of the Massachusetts life sciences community. Although established in 2006, the MLSC had no significant activity, and only one employee, through fiscal year June 2008. On June 16, 2008, the Life Sciences Act was signed into law, which committed the Commonwealth to investing \$1 billion over a 10-year period in the life sciences industry. MLSC is the steward of the \$1 billion and uses three statutory funding vehicles to achieve the Commonwealth's mission: the Life Sciences Investment Fund, the Capital Program, and the Life Sciences Tax Incentive Program.

In accordance with Chapter 11, Section 12, of the General Laws, we conducted an audit of MLSC's controls and oversight activities. Our audit covered the period July 1, 2007 through June 30, 2009 and was conducted in accordance with applicable generally accepted government auditing standards. Our objective was to evaluate the adequacy of MLSC's oversight policies, procedures, and internal controls in order to determine whether MLSC is effectively fulfilling its mission to expand life-sciences-related employment opportunities in the Commonwealth and to promote health-related innovations by supporting and stimulating research, development, manufacturing, and commercialization in the life sciences in accordance with the criteria contained within Chapter 23I.

AUDIT RESULTS

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1. IMPROVEMENTS NEEDED IN INTERNAL CONTROLS OVER FINANCIAL AND MANAGEMENT ACTIVITIES

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Our review disclosed that MLSC needed to improve its internal controls over its financial reporting and management activities. Specifically, although MLSC had documented policies and procedures for individual phases of its operations, it had not developed them into a comprehensive internal control plan. In addition, MLSC had not completed and documented a risk assessment to determine the internal control procedures needed to minimize any identified risks. Generally accepted accounting principles advocate that entities such as MLSC should establish and implement an adequate internal control system. Without such a documented internal control system, there is inadequate assurance that agency goals and objectives are met; resources are used efficiently, effectively, and in compliance with applicable laws, rules, and regulations; assets are safeguarded against potential waste, loss, and misuse; and financial data is maintained, reported, and fairly disclosed in reports.

2. IMPROVEMENTS NEEDED IN PROCUREMENT OF SERVICES

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We found that, contrary to sound business practices, MLSC had not established adequate written policies and procedures regarding the selection of professional service firms. As a result, MLSC was unable to provide adequate documentation that a formal process was used in selecting contractors to provide legal and executive search services totaling \$265,000 during our audit period. Consequently, there is inadequate assurance that MLSC obtained the best services for the lowest price.

INTRODUCTION

Background

The Massachusetts Life Sciences Center (MLSC) was established on June 24, 2006 by Chapter 123, Section 24, of the Acts of 2006 and codified in Chapter 23I of the Massachusetts General Laws as an entity within but not subject to the control of Executive Office of Housing and Economic Development. MLSC's mission is to expand life-sciences-related employment opportunities in the Commonwealth and to promote health-related innovations by supporting and stimulating research, development, manufacturing, and commercialization in the life sciences. This work includes making financial investments in public and private institutions; supporting life sciences research, development, and commercialization; and building ties between sectors of the Massachusetts life sciences community.

MLSC is governed by a seven-member Board of Directors consisting of the Secretary of Administration and Finance or his/her designee; the Secretary of Housing and Economic Development or his/her designee; the president of the University of Massachusetts or his/her designee; and four members appointed by the Governor, one of whom must be a physician licensed to practice medicine in Massachusetts and affiliated with an academic medical center, one of whom must be the chief executive officer of a Massachusetts-based life services corporation that is a member of the Massachusetts Biotechnology Council, one of whom must be a researcher involved in the commercialization of biotechnology, pharmaceuticals, or medical diagnostic products, and one of whom shall have significant financial experience in the life sciences sector.

On March 26, 2008, in anticipation of the enactment of the Life Science Act (Chapter 130 of the Acts of 2008), the MLSC Board created a Scientific Advisory Board (SAB) consisting of 14 members, each of whom is a recognized leader in the life sciences field. The SAB is responsible for conducting the review process of companies applying for research grants and making recommendation to the MLSC Board. The SAB also serves as a science advisor to the Legislature and the Governor.

On June 16, 2008, the Life Sciences Act established by the Massachusetts Legislature was signed into law, which committed the Commonwealth to investing \$1 billion in the life sciences field over a 10-year period. Life sciences is defined within the act as "advanced and applied sciences, including but

not limited to, regenerative medicine, biotechnology, biopharmaceuticals, nanotechnology, and medical devices.” MLSC is the steward of the \$1 billion commitment and uses three statutory funding vehicles to achieve the Commonwealth’s mission: the Life Sciences Investment Fund, the Capital Program, and the Life Sciences Tax Incentive Program, which are capped at \$250 million, \$500 million, and \$250 million, respectively.

The Massachusetts Life Sciences Investment Fund makes grants or loans to leverage development and investments in life sciences in Massachusetts. The MLSC Capital Program provides funding to municipalities and institutions for buildings, upgrades to roads, sewer lines, and other infrastructure that supports growth in the life sciences sectors. The Life Sciences Tax Incentive Program allows MLSC to award tax incentives to companies at every stage of development.

Massachusetts Life Sciences Investment Fund

The Life Sciences Act of 2008 anticipated an annual appropriation from the Legislature totaling \$250 million over 10 years. The Massachusetts Life Sciences Investment Fund is also used to support the administrative expenses and investment in property and equipment of MLSC. The Legislature appropriated \$15 million in fiscal year 2009, \$15 million in fiscal year 2008, and \$10 million in fiscal year 2007.

The following schedule sets forth the commitments and expenditures from the fund during the three fiscal years ended June 30, 2009.

Investment	Location	Area of Development	Investment Commitment	Investment Expensed	Investment Remaining
Donahue Institute	University of Massachusetts, Amherst	To study the workforce, training, and education needs of the life sciences industry in Massachusetts	\$200,000	\$200,000	\$ 0
International Stem Cell Registry	University of Massachusetts Worcester	To establish the registry and the affiliated Massachusetts Stem Cell Bank for embryonic stem cell research	8,900,000	4,700,000	4,200,000
Research Matching Grants	Multiple	To attract top scientific talent, spur new research opportunities, and increase industry-sponsored research	6,900,000	*	6,900,000
Cooperative Research Grants	Multiple	To foster collaborations between scientists, academic institutions, and industry	3,800,000	0	3,800,000

Investigator Grants	Multiple	To spur innovative research and advance the careers of new investigators working in the life sciences at research institutions in the Commonwealth	1,400,000	0	1,400,000
Organogenesis	Canton	To assist the company in the construction of its regenerative medicine research and development and manufacturing plant	7,400,000	3,700,000	3,700,000
Workforce Development	Multiple	Internship Challenge Program	<u>500,000</u>	<u>*</u>	<u>500,000</u>
Totals			<u>\$29,100,000</u>	<u>\$8,600,000</u>	<u>\$20,500,000</u>

* A minimal amount

In addition to these investments and included within the Massachusetts Life Sciences Investment Fund is MLSC's Accelerator Program, which is designed to provide working capital loans to early-stage life sciences companies at a critical point of their development. The program seeks to reduce the liquidity risk of these companies in order to encourage private investment and help commercialize scientific research into jobs, products, and therapies. The loans are unsecured, five-year-term loans with a 10% interest rate. The interest is due along with the principal at the end of the five-year term or upon a financing event by the company of \$5 million or more. In April 2009, the Board of Directors approved \$3.4 million in Accelerator Program loans to seven MLSC-certified life sciences companies, in accordance with the Life Sciences Act. The status of these seven accelerator loans as of June 30, 2009 follows:

Company	Location	Area of Development	Loan Amount
Eutropics Pharmaceuticals	Dorchester	Developing drugs for treating aggressive forms of cancer	\$500,000
Good Start Genetics	Boston	Developing a low-cost pre-pregnancy test for 50 genetic disorders	500,000
InVivo Therapeutics	Cambridge	Developing technology to treat traumatic spinal cord injuries	500,000
Pluomed	Woburn	Pioneering injectable plugs that occlude blood flow to provide surgeons with bloodless fields	500,000
Spectra Analysis	Marlborough	Developing instrumentation to analyze the molecular structure of each compound in a complex mixture	500,000
Wadsworth Medical Technologies	Westborough	Developing a painless, needleless wound closure system without anesthesia or sutures	400,000
Wolfe Laboratories	Watertown	Providing quality assay, formulation, and process development for biotech and pharmaceutical companies	<u>500,000</u>
Total			<u>\$3,400,000</u>

In accordance with the Life Sciences Act, administrative expenses and purchases of property and equipment are provided by the fund. In fiscal year 2009, MLSC incurred approximately \$2.5 million in administrative expenses and purchases of property and equipment compared to administrative expenses of \$347,000 in fiscal year 2008 and \$232,000 in fiscal year 2007. The increase in expenditures from both fiscal years 2008 and 2007 was due to an increase in staffing and operations at MLSC. In June 2009, the Commonwealth reduced the administrative expenditure cap from \$3.75 million to \$3 million for fiscal year 2010.

Capital Program

The Capital Program, which is funded by bonds issued by the Executive Office for Administration and Finance, originated in fiscal year 2009. MLSC made three commitments totaling \$24.7 million, including approximately \$10 million in grant expenses incurred in fiscal year 2009. As of June 30, 2009, remaining payment commitments on the grants totaled approximately \$14.7 million, as follows:

Grantee	Approval Date	Area of Development	Grant Amount Total	Grant Amount Expensed As of 6/30/2009	Remaining Payment Commitment
Town of Framingham	October 2008	Replacement of a wastewater pump station that will help support the expansion of Genzyme Corporation's manufacturing facility in Framingham	\$5,200,000	\$300,000	\$4,900,000
Marine Biological Laboratory in Woods Hole	November 2008	Renovation of the international, independent, nonprofit institution that provides education in the biological, biomedical and environmental sciences	10,000,000	2,700,000	7,300,000
Tufts University Cummings School of Veterinary Medicine New England Regional Biosafety Laboratory	March 2009	Construction and capital improvements of the Tufts University Cummings School of Veterinary Medicine New England Regional Biosafety Laboratory to improve the public health, protect public safety, improve science education and stimulate economic development	<u>9,500,000</u>	<u>7,000,000</u>	<u>2,500,000</u>
Totals			<u>\$24,700,000</u>	<u>\$10,000,000</u>	<u>\$14,700,000</u>

Life Sciences Tax Incentive Program

The Life Sciences Tax Incentive Program was created by the Life Sciences Act and allows MLSC to award tax incentives to companies at every stage of development. MLSC has the ability to award nine different tax incentives with a cumulative cap of \$25 million per year for 10 years. MLSC did not award any tax incentives in fiscal year 2009, but is expected to award such incentives in fiscal year 2010.

Job Creation

MLSC projects that the funds committed during the three fiscal years ended June 30, 2009 will create 1,157 jobs across the Commonwealth. Chapter 23I, Section 2, of MLSC's enabling legislation defines an eligible new job as "a new job that does not replace an existing job in the Commonwealth and which may be a retained job, and will be deemed to have been created on the day on which Massachusetts personal income tax withholding is required in connection with the compensation paid or the first day for which Massachusetts estimated tax payments are payable by a partner of a partnership." Chapter 23I also defines permanent full-time employee as "an individual who is employed in a position that at its inception, does not have a termination date determined by the completion of a specified scope of work; works a minimum number of weekly hours as the center [MLSC] may specify and receives employee benefits at least equal to those provided to other full-time employees."

MLSC tracks jobs created through its programs by requiring reports from recipient entities. Entities receiving tax incentives or funds from the Life Sciences Investment Fund must be registered life sciences companies, which are subject to annual reporting requirements. All capital grant agreements we reviewed specifically required recipients to annually report the number of employees employed and the total salary of these employees at the benefiting facility. The MLSC Chief Financial Officer monitors all jobs created and tracks them according to each MLSC program from which they are produced.

MLSC projected that 1,157 jobs will be created through the lifespan of each individual MLSC investment. According to MLSC's calculations, 619 jobs had been created as of March 4, 2010.

This number includes 443 permanent full-time employee jobs and 176 construction jobs. The breakdown of these jobs according to each MLSC investment follows:

Investment	Projected Permanent Jobs	Projected Construction Jobs	Projected Jobs Total	Actual Permanent Jobs	Actual Construction Jobs	Actual Jobs Total
Town of Framingham/Genzyme	300	125	425	305	18	323
Marine Biological Laboratory in Woods Hole	50	200	250	0	95	95
Tufts University Cummings School of Veterinary Medicine New England Regional Biosafety Laboratory	29	56	85	5	63	68
International Stem Cell Registry	21	N/A	21	3	N/A	3
Research Matching Grants	24	N/A	24	24	N/A	24
Cooperative Research Grants	1	N/A	1	1	N/A	1
Investigator Grants (2008)	32	N/A	32	32	N/A	32
Investigator Grants (2009)	29	N/A	29	29	N/A	29
Organogenesis	280	N/A	280	31	N/A	31
Accelerator Program	N/A	N/A	N/A	N/A	N/A	N/A
Workforce Development	<u>10</u>	<u>N/A</u>	<u>10</u>	<u>13</u>	<u>N/A</u>	<u>13</u>
Totals	<u>776</u>	<u>381</u>	<u>1,157</u>	<u>443</u>	<u>176</u>	<u>619</u>

Some of the projects are closer to completion than others. For example, the Town of Framingham/Genzyme project is 50% complete, as reflected by the higher number of actual jobs created. Conversely, the Organogenesis project is not slated for completion until 2014 and has a much lower actual to projected jobs ratio.

Certified life sciences companies that receive funds through the Life Sciences Investment Fund may be decertified if their performance materially varies from the projected targets in their certification proposal, a material variance being an actual return on investment of less than 70% of that proposal. If there is a material variance for two years, decertification is mandatory. MLSC is to revoke the funds and/or tax incentives of decertified companies and may recover any funding or incentives already extended.

Audit Scope, Objectives, and Methodology

Our audit, which covered the period July 1, 2007 to June 30, 2009, was conducted in accordance with applicable generally accepted government auditing standards for performance audits. The objectives of the audit were to evaluate the adequacy of MLSC's oversight activities and controls over grants, loans, and other fund disbursements to determine their effectiveness in ensuring that funds are used as intended and program objectives (e.g., job creation, promoting economic growth, fostering collaboration and investments in life sciences) are met, and to determine whether MLSC is operating in an efficient and effective manner. In order to accomplish our objectives, we reviewed the policies and procedures governing the oversight of grants, loans, and capital fund commitments and tested the controls over revenue recognition and administrative expenses, to ensure that they are reasonable and applicable to MLSC's operations. We also reviewed contract management activities to determine compliance with generally accepted practices regarding the procurement and monitoring of contracts. We reviewed financial statements for the fiscal years ended June 30, 2008 and June 30, 2009, interviewed various members of management, read the minutes of the Board of Directors meetings, and reviewed the oversight of jobs created by the programs administered by MLSC.

Our audit was not made for the purpose of forming an opinion on MLSC's financial statements. Rather, our report was intended to report findings and conclusions on the extent of MLSC's compliance with applicable laws, rules, regulations, and contractual agreements, and to identify services processes, methods, and internal controls that could be made more efficient and effective.

Our audit indicated that, except as discussed in the Audit Results section of our report, MLSC maintained adequate oversight policies, procedures, and internal controls to effectively fulfill its mission to promote health-related innovations and expand life-sciences-related employment opportunities in the Commonwealth.

AUDIT RESULTS

1. IMPROVEMENTS NEEDED IN INTERNAL CONTROLS OVER FINANCIAL AND MANAGEMENT ACTIVITIES

Our review disclosed that the Massachusetts Life Sciences Center (MLSC) needed to improve its internal controls over its financial reporting and management activities. Specifically, although MLSC had documented policies and procedures for individual phases of its operations, it had not developed them into a comprehensive internal control plan. In addition, MLSC had not completed and documented a risk assessment to determine the internal control procedures needed to minimize any identified risks. Generally accepted accounting principles (GAAP) advocate that entities such as MLSC should establish and implement an adequate internal control system. Without such a documented internal control system, there is inadequate assurance that agency goals and objectives are met; resources are used efficiently, effectively, and in compliance with applicable laws, rules, and regulations; assets are safeguarded against potential waste, loss, and misuse; and financial data is maintained, reported, and fairly disclosed in reports.

In order to comply with GAAP, MLSC is required to have a documented, comprehensive plan of internal controls describing its goals and objectives and the means by which these goals and objectives can be achieved. An effective internal control system would establish clear lines of authorization and approval for an entity's various business functions, such as purchasing, contracting, asset management, payroll, and personnel. In addition, an entity's internal control system should be backed up with a set of detailed subsidiary policies and procedures that would communicate responsibilities and business operations, such as accounting, billings, cash receipts, accounts payable, human resources, and payroll.

There is guidance available to organizations in designing an internal control system. For example, in a report titled Internal Control – Integrated Framework, the Committee of Sponsoring Organization (COSO) of the Treadway Commission provides a framework for organizations to design, implement, and evaluate the controls that will facilitate compliance with GAAP.

The COSO report includes the following five components:

- Control environment sets the tone of an organization influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure.
- Risk assessment is the entity's identification and analysis of relevant risk to the achievement of its objectives, forming a basis for determining how the risk should be managed.
- Control activities are the policies and procedures that help ensure that management's directives are carried out.
- Information and communication are the identification, capture, and exchange of information in a form and timeframe that enable people to carry out their responsibilities.
- Monitoring is a process that assesses the quality of internal control performance over time.

In addition, although not designed specifically for use by all public entities, MLSC could refer to Chapter 647 of the Acts of 1989, An Act Relative to Improving the Internal Controls within State Agencies, for guidance in structuring its internal control plan. Chapter 647 states that "Internal control systems for the various state agencies and departments of the Commonwealth shall be developed in accordance with internal control guidelines established by the Office of the Comptroller." Subsequent to the passage of Chapter 647, the Office of the State Comptroller (OSC) issued written guidance in the form of the Internal Control Guide for Managers and Internal Control Guide for Departments. In these guides, the OSC stressed the importance of internal controls and the need for departments to develop an internal control plan, defined as follows:

[A] high-level summarization, on a department-wide basis, of the department's risks (as the result of a risk assessment) and of the controls used by the department to mitigate those risks. This high level summary must be supported by lower level detail, i.e. departmental policies and procedures...

A sound system of internal controls would coordinate MLSC's policies and procedures to safeguard its assets, check the accuracy and reliability of accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies. In addition, a risk assessment would help MLSC to determine the most effective and productive internal control system by indicating where specific controls are necessary.

Recommendation

MLSC should review its operations and identify areas of inherent risk and vulnerability, including those activities with potential for loss from fraud, waste, unauthorized use, or misappropriation. MLSC should then document areas of risk to specific internal control procedures. Finally, MLSC should conduct annual risk assessments and update its internal control plan based on its results.

2. IMPROVEMENTS NEEDED IN PROCUREMENT OF SERVICES

We found that, contrary to sound business practices, MLSC had not established adequate written policies and procedures regarding the selection of professional service firms. As a result, MLSC was unable to provide adequate documentation that a formal process was used in selecting contractors to provide legal and executive search services totaling \$265,000 during our audit period. Consequently, there is inadequate assurance that MLSC obtained the highest quality services for the lowest price.

On October 25, 2007, MLSC's Board of Directors authorized the procurement of legal counsel services. MLSC received three similar proposals from area law firms to provide general counsel services, and selected one of them at a cost of \$102,000. However, MLSC was unable to provide a list of firms solicited by the Request for Proposals (RFP) or to provide the criteria upon which the selection of the successful firm was based. As a result, there is inadequate assurance that MLSC's solicitation for law services reached all of the qualified firms in the area, or that it received the best price for these services.

We also reviewed four MLSC proposals to conduct a search for an Executive Director. Three of these proposals were based on a percentage of the salary to be paid the Executive Director, and one quoted a fixed fee of \$50,000 for the service. The position specification for the job of Executive Director stated that "compensation would be commensurate with the importance of the position, a competitive package consistent with the role." MLSC then selected one of the firms which had proposed a fee based on a percentage of the yet-undetermined salary of the Executive Director without any documentation of the selection criteria. This firm successfully completed the executive search and was paid approximately \$142,000. As a result, absent

documentation to the contrary, MLSC may have been able to save \$92,000 of expenses associated with the search for an Executive Director if it had chosen the firm that quoted a fixed fee.

As an independent governmental entity, MLSC is not required to comply with the competitive procurement process with which state agencies must comply. Nevertheless, this process (801 Code of Massachusetts Regulations 21.00 and its accompanying policies and procedures) does contain criteria for the selection and monitoring of contracts that would be beneficial to MLSC. Such requirements include developing a request for response and a process for evaluating responses received as well as the maintenance of a procurement file to provide an accurate record of the procurement and to serve as a management tool to monitor and document contract performance. Our audit revealed that, contrary to sound business practices, MLSC had not developed such policies.

Recommendation

In order to ensure that it receives the most cost-effective and efficient services from its professional advisors, MLSC should develop policies and procedures over its procurement process that incorporate the criteria contained within the state's competitive procurement process.

Auditee's Response

In responding to the issues raised in our report, the MLSC made the following comments.

The audit period addressed by the report covers fiscal years 2008 and 2009. During fiscal year 2008, the Center had only one employee – who did not begin until the sixth month of fiscal year 2008. In addition, the Center's Chief Financial Officer (CFO) did not join the Center until March 30, 2009 and therefore was only on board for the final quarter of fiscal year 2009.

We are appreciative of the two recommendations contained in the report. We would like to mention some of the policies that our CFO has put into place to strengthen our internal controls over financial and management activities and to formalize the Center's procurement of services. Specifically, the Center has implemented policies on purchase requisitions, purchase orders, check/cash authorizations, travel and personnel. The CFO will continue to formalize additional policies and processes going forward.