MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE MASSACHUSETTS LIFE SCIENCES CENTER

DATE: November 16, 2016 TIME: 2:08 p.m. EST

PLACE: MassTech Collaborative

2 Center Plaza, Suite 200 Boston, Massachusetts

DIRECTORS PRESENT: Mike Kennealy (designee for Secretary Jay Ash)

Dominick Ianno (designee for Secretary Kristen Lepore)

Peter Parker

Lydia Villa-Komaroff

Abigail Barrow (designee for UMass President Martin Meehan)

Pam Randhawa Gary Kearney

DIRECTORS ABSENT: Jay Ash, Secretary, Executive Office of Housing and Economic

Development

Kristen Lepore, Secretary, Executive Office for Administration

and Finance

Martin Meehan, President, University of Massachusetts

3. Call to Order

Mike Kennealy called the meeting of the Board of Directors (the "Board") of the Massachusetts Life Sciences Center (the "MLSC") to order at 2:08 p.m. The meeting, having been duly convened, was ready to proceed with its business.

4. Approval of Board Minutes

The Board then reviewed the minutes of the September 21, 2016 Board meeting. Upon a motion duly made, seconded and carried, the Board adopted the resolution to approve the minutes.

5. Chairs' Updates

Mike Kennealy reported that on the business development front EOHED is busy with opportunities. He was also looking forward to the meeting discussion, feeling that the topics to be presented illustrated the Center's strengths.

6. CEO Update

Travis McCready, President & CEO of the MLSC, expressed his thanks to the MassTech Collaborative for allowing the Board to use their space.

Mr. McCready then gave an overview of business development at MLSC. He thanked Mr. Kennealy for his partnership in helping companies grow in Massachusetts and Dominick Ianno for ensuring the Center has the capital for the tax incentives it deploys.

Mr. McCready gave an update on the event the MLSC is hosting on November 30th. The event is an appreciation and networking opportunity for all of the MLSC's grantees, awardees, and project proponents in the Center's portfolio. The event will include academicians, nonprofits, funders, and company leaders. It will provide an opportunity for collaboration, information exchange, and success stories for those organizations that have received MLSC funding. Bob Coughlin from MassBio will speak as well as Tom Sommers from MassMEDIC, and the event will take place at District Hall. He encouraged all Board members to attend.

Mr. McCready gave an update on a new organization that the MLSC is promoting, Life Sciences Cares. Life Sciences Cares is a nonprofit started by Rob Perez, former CEO of Cubist. The organization was started to rally the life sciences community behind hunger and homelessness, education, and economic sustainability. There are now 60 organizations along with the MLSC working together to find key nonprofit companies that the life sciences can support in a civic way. Mr. McCready stated that the group will see more information coming from Life Sciences Cares, and he encouraged the group to participate.

Finally, Mr. McCready noted that in the last quarter, Massachusetts had two significant openings of facilities the MLSC funded. The first was a new cryoEM advanced microscopy piece of equipment at UMass Medical, supported by a \$5 million investment of capital funds. UMass Medical will use the equipment to generate 20 new private-sector partnerships with pharma in New England. The second significant opening was the Institute of Applied Life Sciences (IALS) at UMass Amherst. The MLSC supported this with \$95M in capital funds which enabled a greater integration of the sciences.

7. Update and Proposal: Internship Challenge Program

Ryan Mudawar, Director of the Academic & Workforce Programs, updated the Board on the status of the Internship Challenge. He noted that the program has been successfully running for 8 years and would like the Board to consider a 9th year. Mr. Mudawar gave an overview of the program, including program statistics. The program creates hundreds of new, paid internship opportunities each year for the life sciences industry. Since 2009, MLSC has funded more than 2,700 internships at nearly 600 companies, 69 of whom are new this year alone. Also, close to 25% of interns are offered employment directly following their internship experience.

He concluded with requesting authorization for a ninth round of the program. One modification for next year's program would be to expand eligibility to include rising sophomores. This is in response to growing demand from freshmen and sophomores looking for internships during the academic year. Mr. Ianno asked what types of jobs the interns are doing and what the companies are looking for in an intern. Mr. Mudawar responded that after following up with several companies, MLSC created a one-page handout, grouped by major, that outlines the skill sets companies are looking for, with updates each year as more information is obtained. After further discussion, the Board reviewed the relevant Resolution, and upon motions duly made, seconded and unanimously carried by all voting Board members, the Board adopted the resolution to authorize \$3.7 million to fund up to 500 internships for the 2017-18 Internship Challenge.

8. Update and Proposal: High School Apprenticeship Program

Beth Nicklas, General Counsel and Vice President for Academic and Research Programs, welcomed a colleague from the Executive Office of Education, James Popletsky, and thanked him for his collaborative work on the High School Apprenticeship Program.

Ms. Nicklas gave an overview of the High School Apprenticeship Program. The aim of the Program is to stimulate interest in and access to cutting edge science and career opportunities and supplement skill development for underrepresented students from low-income households. MLSC also wants to provide an array of options to young people to expand their vision of how they can productively contribute to the life sciences ecosystem and expand the pipeline of talent for the life sciences now and for the future.

The Apprenticeship Program will be comprised of two components. The first is modeled on the MLSC's successful Internship Challenge Program for college students which will rely on an online portal for matching high school students with interested life sciences companies. The second component of the Program is built on an 8-week after-school pilot for lab readiness training conducted by BioBuilder in the spring of 2016 at MIT. Eleven graduates were placed in paid internships, and MLSC is working to run the program again at MIT and expand it across the state. Students will have to demonstrate English language proficiency and competency in math to be eligible for the training. Subsequent to the lab readiness training in locations throughout the Commonwealth, students will be placed in research institutions across the state who can mentor the students. Launch of the Program is anticipated in January 2017.

After further discussion, the Board reviewed the relevant Resolution, and upon motions duly made, seconded and unanimously carried by all voting Board members, the Board adopted the resolution to authorize \$400,000 for the High School Apprenticeship Program.

9. Update and Proposal: Industry Programs for FY17

Pamela Norton, Vice President for Industry Relations and Programs, gave an update on two new proposed Industry programs for FY17, the Massachusetts Ramp-Up Program (MassRUP) and the Capacity Building Program.

The MassRUP Program targets early-stage companies who received Phase I Federal grants over the last 2 years. MLSC funding will supplement the federal funding received by awardees to enable companies to sustain the pipeline of innovation, fill funding gaps to complete milestones, and achieve Phase II grant or other funding and generate intellectual property.

After further discussion, the Board reviewed the relevant Resolution, and upon motions duly made, seconded and unanimously carried by all voting Board members, the Board adopted the resolution to authorize \$3 million to fund the MassRUP Program.

Ms. Norton then described the Capacity Building Program which would provide structured mentoring programs to early-stage companies. The purpose of such mentoring includes helping companies obtain grant or other funding to enhance their viability, sustain the innovation pipeline and build companies with commercial intention. After an engaged discussion, the Board decided to delay the vote to allocate funds to the Capacity Building Program to the February 2017 Board meeting in order to learn more about the programmatic approach.

10. Update: MassTAG Program

Ben Bradford, Director of Regional Development Strategy, gave an update to the Board on the Massachusetts Transition and Growth Program (MassTAG). The objective of MassTAG is to increase the Center's ability to attract companies to locate in Massachusetts, with a potential start date of December 2016/January 2017.

11. Southeast Market Demand Analysis by UMass Dartmouth

Travis McCready gave a quick update on the Southeast Market Demand Analysis. There are two earmarks in the MLSC's enabling legislation for training centers in the southeast area, one in New Bedford and one in Taunton. In order to understand the life sciences region and economy in which these two cities reside, the MLSC proposes to engage the Public Policy Institute at UMass Dartmouth to perform a market demand analysis for the Southeast Massachusetts region.

After further discussion, the Board reviewed the relevant Resolution, and upon motions duly made, seconded and unanimously carried by all voting Board members, the Board adopted the resolution to authorize \$85,101 for UMass Dartmouth to conduct the Southeast Market Demand Analysis.

12. 401a Retirement Plan Consent

Brad Rosenblum, Chief Financial and Administrative Officer, reviewed the 401a Retirement Plan for the MLSC. In 2009, the Center adopted a 401a retirement plan that was allowed under the Life Sciences Initiative. The plan was deemed a qualified retirement plan by the Internal Revenue Service (IRS). In 2015 the Center had to submit a restated plan to incorporate mandated IRS changes. The plan was approved by the IRS, contingent upon Board approval of the restated plan by December 14, 2016. There were no economic or financial changes to the plan.

After further discussion, the Board reviewed the relevant Resolution, and upon motions duly made, seconded and unanimously carried by all voting Board members, the Board adopted the resolution to approve and restate the MLSC's 401a Retirement Plan.

13. Adjourn

Mike Kennealy, upon motion duly made, seconded and unanimously carried, adjourned the meeting at 4:03 p.m.

List of Materials and Exhibits Used During Meeting:

- Minutes from September 21, 2016 Board meeting
- Update and Proposal: Internship Challenge Program PowerPoint Presentation
- Motion: To approve funding for the 2017 Internship Challenge Program
- Update and Proposal: High School Apprenticeship Program PowerPoint Presentation
- Motion: To approve funding for the 2017 High School Apprenticeship Program
- Update and Proposal: Industry Programs for FY17 PowerPoint Presentation
- Motion: To approve funding for the Massachusetts Ramp Up Program
- Motion: To approve funding for the Massachusetts Capacity Building Program
- Update: MassTAG Program PowerPoint Presentation
- Southeast MA Market Demand Analysis Proposal
- Motion: To approve funding for the Southeast Market Demand Analysis by UMass Dartmouth
- Massachusetts Life Sciences Center 401a Plan pdf
- Massachusetts Life Sciences Center IRS Determination Letter Dated September 15, 2016
- Motion: To approve the 401a Retirement Plan and Restatement
- Massachusetts Life Sciences Center Marcom Team Update