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

DATE: May 29, 2013

TIME: 2:00 p.m. EST

PLACE: Mack Conference Room, Room #1/2

One Ashburton Place, 21st Floor

Boston, Massachusetts

DIRECTORS PRESENT: Edward Benz, M.D.

Josh Boger, Ph.D.

Tom Chmura (designee for Robert Caret, Ph.D.) Michael Hunter (designee for Secretary Greg Bialecki)

Secretary Glen Shor

Lydia Villa-Komaroff, Ph.D.

DIRECTOR(S) ABSENT: Secretary Greg Bialecki

Robert Caret, Ph.D. Abbie Celniker, Ph.D.

1. Call to Order

Michael Hunter, designee for Secretary Greg Bialecki, called to order the meeting of the Board of Directors (the "Board") of the Massachusetts Life Sciences Center (the "Center") at 2:03 p.m. The meeting, having been duly convened, was ready to proceed with its business.

Dr. Edward Benz left the meeting at 2:04 p.m.

2. Approval of Board Minutes

The Board then reviewed the minutes of the May 29, 2013 Board meeting. Upon motions duly made, seconded and unanimously carried, the Board adopted the resolution to approve the minutes.

3. Proposal: Massachusetts-Israel Innovation Partnership (MIIP) FY '13

Pamela Norton, the Center's Vice President of Industry Relations and Programs, presented to the Board on the second round of the Massachusetts-Israel Innovation Partnership (MIIP II). She described the program parameters and review process. She explained that the program received six applications, five advanced to a review by the Center's Scientific Advisory Board (SAB) and the Israeli Office of the Chief Scientist.

Dr. Harvey Lodish, Chair of the SAB, described the rigorous two-phase review process. He next discussed the due diligence process and the in-person presentations to the Board's Investment Committee. Dr. Edward Benz then presented to the Board on the two companies recommended for funding under the MIIP II Program.

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 authorizing the expenditure of monies for Massachusetts-Israel Innovation Partnership Grant to the following companies: Bio-Tree Systems, Inc. in the amount of \$250,000 and Cytonome/ST, LLC in the amount of \$200,170.

Dr. Lydia Villa-Komaroff recused herself from the presentation and the vote.

Dr. Edward Benz left the meeting at 2:18 p.m.

Secretary Glen Shor joined the meeting at 2:18 p.m. and presided as Chair.

4. Presentation and Discussion: MLSC Impact Report

Dr. Barry Bluestone, Professor of Political Economy and Director of the Dukakis Center for Urban and Regional Policy at Northeastern University, presented to the Board on the results of the study he and Dr. Alan Clayton-Matthews conducted to evaluate the impact of the Center at its half way (five year) mark. The report revealed that the Center was a catalyst for economic

development in the Commonwealth. Bluestone stated that he discovered a "fascinating story of regional economic development." The Center's investment strategy, supported by its portfolio of programs, was credited with increasing employment, creating jobs, providing crucial training to the workforce, and attracting companies (large and small, domestic and international) to Massachusetts. He also discussed the importance of the Center's Scientific Advisory Board in the decision making process. He closed by lauding the Center's role in supporting the life sciences ecosystem.

5. Presentation: MLSC News Update

Angus McQuilken, the Center's Vice President for Communications and Marketing, updated the Board on the Center's noteworthy activities since his last update. He began by discussing the BIO International Convention in Chicago, where the Center launched its International Collaboration Industry Program (ICIP), connected with over 40 companies from around the world, and held panel discussions. He next discussed the Center's role in company openings and expansions in Massachusetts, of note were the expansions of Bristol Myers Squibb and EMD Serono. He closed with highlights from the launch event held for Center's Impact Report and the Capital Program grant award announcements that took place across the state.

6. Proposal: UMass Medical School Stem Cell Registry

Brad Rosenblum, the Center's Chief Financial and Administrative Officer, presented to the Board on the International Stem Cell Registry at the University of Massachusetts Medical School. He explained that the International Stem Cell Registry was a searchable database for stem cell lines. He then requested additional funding in the amount of \$270,000 to support the Registry's operations through Fiscal Year 2014.

After further discussion, the Board reviewed the relevant Resolution, and, upon motions duly made, seconded and carried by a majority of voting Board members, the Board adopted the

resolution authorizing the expenditure of \$270,000 for the International Stem Cell Registry. Voting in favor were Tom Chmura, Michael Hunter, Secretary Glen Shor, and Dr. Lydia Villa-Komaroff. Voting in opposition was Dr. Josh Boger.

7. Proposal: Approval of new SAB Member

Dr. Harvey Lodish presented to the Board his recommendation for a new member to join the SAB: Dr. Barbara Osborne. He shared that she is a pioneering immunologist at the University of Massachusetts Amherst and co-leader of the Center for Soft Materials Immunology.

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 approved the addition of Barbara Osborne to the Scientific Advisory Board.

8. Proposal: Accelerator Loan Program

Pamela Norton, presented to the Board on the second round of the Accelerator Loan Program for Fiscal Year 2014. She began with an overview of the program parameters, outreach strategy and review process. She explained that the Center received a total of 29 applications, 26 of which advanced to the peer review stage, and 19 of which advanced to the SAB review.

Dr. Harvey Lodish then explained that the SAB selected eight finalists for due diligence and that six were asked to present to the Board's Investment Committee. Dr. Lydia Villa-Komaroff then presented to the Board on the two companies recommended for funding under the Accelerator Loan Grant.

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 authorizing the expenditure of monies for the Accelerator Loan Program to the Cytrellis Biosystems Inc. and Lumicell Diagnostics, Inc. in the amount of \$1,000,000 each.

9. Proposal: University of Massachusetts Amherst Earmark

Dr. Kumble Subbaswamy, Chancellor of the University of Massachusetts Amherst, introduced to the Board Dr. Michael Malone, Vice Chancellor for Research and Engagement at University of Massachusetts Amherst, who presented a proposal for three unique translational science centers that were conceptualized with the help of key life sciences stakeholders as a result of a planning grant from the Center. The Centers are dedicated to: (1) personalized health monitoring that will catalyze the precision manufacturing cluster in Western Massachusetts; (2) protein homeostasis to reveal new drug targets for intractable diseases; and (3) a bioactive delivery bridge that will integrate polymer, chemical, animal, food, and analytical sciences. The University will partner with the Baystate Medical Center to create a fourth center, the Center for Healthcare Informatics and Technology Innovation, which will be established in Springfield at the Pioneer Valley Life Sciences Institute.

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 authorizing the expenditure of monies for the University of Massachusetts Amherst in the amount of \$95,692,000.

10. Proposal: Baystate Medical Center Earmark

Dr. Mark A. Keroack, Executive Vice President and Chief Operating Officer at Baystate Health, next discussed the functions of Center for Healthcare Informatics and Technology Innovation, namely its role in accelerating informatics and technology products that will solve healthcare problem and drawing start-ups to the 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 authorizing the expenditure of monies for Baystate Medical Center in the amount of \$5,500,000.

11. Adjournment

Secretary Glen Shor, upon motion duly made, seconded and unanimously carried, adjourned the meeting at 3:43 p.m.

List of Materials and Exhibits Used During Meeting:

- Minutes from May 29, 2013 Board meeting
- Executive Report
- "MLSC Impact Report" PowerPoint Presentation
- "2013 MLSC Massachusetts Israel Industrial Partnership II (MIIP II)" PowerPoint Presentation
- "Life Sciences Innovation as a Catalyst for Economic Development: The Role of the Massachusetts Life Sciences Center" PowerPoint Presentation
- "Life Sciences Center News" PowerPoint Presentation
- "Accelerator Loan Program FY'13 Winter Round Awards Proposal" PowerPoint Presentation
- "Life Sciences Research & Innovation: Growth Strategy for UMass Amherst in the Massachusetts Bioeconomy" PowerPoint Presentation