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

DATE: June 24, 2009

TIME: 3:00 p.m. EST

PLACE: 100 Cambridge Street, 2nd Floor

Boston, Massachusetts

DIRECTORS PRESENT: Secretary Leslie Kirwan

Marc Beer

Josh Boger, Ph.D.

George Ramirez (for Sec. Greg Bialecki) Tom Chmura (for Dr. Jack Wilson)

DIRECTOR(S) ABSENT: Peter Slavin, M.D.

Lydia Villa-Komaroff, Ph.D.

OTHERS PRESENT: Harvey Lodish, Ph.D.

Angus McQuilken

Beth Nicklas Robert Sepucha Melissa Walsh Gary Stein, M.D. Kelly Smith Mai Luong

1. Call to Order.

Secretary Kirwan, presiding as Chairman of the meeting, called to order the meeting of the Board of Directors (the "Board") of the Massachusetts Life Sciences Center (the "Center"). Secretary Kirwan announced that a quorum of directors was present and that neither Lydia Villa-Komaroff nor Peter Slavin were able to attend. Robert Sepucha served as Secretary of the meeting. The meeting, having been duly convened, was ready to proceed with its business.

2. **Approval of Board Minutes**.

The Board then reviewed the minutes of the April 29, 2009 meeting. Following discussion, upon motion duly made, seconded and unanimously carried, the Board adopted the following resolution:

RESOLVED, that the minutes of the meeting of the Board of Directors of the Center held on April 29, 2009 be, and they hereby are, approved as presented at this meeting.

3. **Chair Report**.

Secretary Kirwan provided a brief summary of the Commonwealth's budget process and the affect of the current economic conditions on the Center's budget. Secretary Kirwan went on to describe the difficult budgetary climate facing the Commonwealth, but reiterated the Governor's commitment to the Center and life sciences industry as a whole.

Secretary Kirwan then turned the meeting over to Melissa Walsh for the Executive Report.

Mr. Beer joined the meeting.

4. **Executive Report**.

Ms. Walsh provided an update on the Center's programs, including a brief description of the Center's efforts at the BIO International Conference held in Atlanta in May. Ms. Walsh thanked the Executive Office of Housing and Economic Development, the Massachusetts Office of Business Development, the Massachusetts Office of International Trade and Investment, the Massachusetts Biotechnology Council, and the rest of the governmental and industry partners who helped make BIO a success.

Ms. Walsh also provided an overview of the Center's Internship Challenge pursuant to which more than fifty industry and research partners have engaged 104 interns. The need for the program was perhaps most evident by the more than 500 interns who applied to the program. On June 1, the Center held a kick-off event at the Whitehead Institute, which was a strong success.

Ms. Walsh also briefly described the overwhelming response to the Center's Tax Incentive Program, with more than 80 applications requesting more than \$240 million in assistance. The Center is engaged with the government, academic and industry experts to design an efficient and effective evaluation process, with awards expected to be announced in September.

Finally, Ms. Walsh reviewed the Center's programming and operating budget for fiscal year 2010 in light of the Commonwealth's budget process. She emphasized that, despite the uncertainty in coming months, the Center is committed to using its resources from fiscal year 2009 to continue to engage the marketplace and

promote life sciences at all levels.

5. Fiscal Year 2010 Operating Budget.

The Board then reviewed the proposed interim operating budget for the Center. Following discussion, upon motion duly made, seconded and unanimously carried, the Board adopted the following resolution:

RESOLVED, that the Board, acting pursuant to the authority delegated under Chapter 23I of the General Laws of the Commonwealth, does hereby authorize the expenditure of monies by the Center in an amount not to exceed \$220,000 per month for the purposes of an operating budget until the formal adoption of the FY2010 budget by the Board at its next regularly scheduled meeting.

6. **Banking Relationship**.

Secretary Kirwan next informed the Board that because the Center had administering its investment and operating funds from the same bank account, the Center's staff recommended the creation of an operating account with TD Bank. Following discussion, upon motion duly made, seconded and unanimously carried, the Board adopted the following resolutions:

WHEREAS, the Center has an investing and financial management relationship with the Massachusetts Municipal Depository Trust ("MMDT"); and

WHEREAS, in addition to the MMDT relationship, the Board deems it in the best interest of the Center to open an operating account with a banking institution of national standing;

NOW, THEREFORE, BE IT RESOLVED, that the Board, acting pursuant to the authority delegated under the Life Sciences Act,

hereby authorizes and directs the officers of the Center to open bank accounts with TD Bank and to take all such actions necessary and advisable to open such accounts;

RESOLVED FURTHER, that any of the following persons shall have signature authority over such accounts:

Sue Windham-Bannister, President and Chief Executive Officer Brad Rosenblum, Chief Financial Officer Melissa Walsh, Chief Operating Officer

RESOLVED FURTHER, that the officers of the Center be, and each of them hereby is, authorized, directed and empowered to execute any agreements or any other instruments or documents or amendments or supplements to such documents, or to do or to cause to be done any and all other acts and things as such officers, in their discretion, may deem necessary or advisable and appropriate to carry out the purposes of the foregoing resolutions, including without limitation, execution of a Deposit Account Agreement and all related documents.

7. International Stem Cell Registry.

Secretary Kirwan next asked Dr. Gary Stein of the University of Massachusetts Medical School to present a proposal for continued funding of the International Stem Cell Registry (the "Registry"), which was originally approved by the Board in October 2007.

Dr. Stein provided an overview of the Registry's operations and its work with the Massachusetts Stem Cell Bank (the "Bank") at the University of Massachusetts' Shrewsbury campus. Dr. Stein explained the Registry's mission to become the singular destination for research in stem cell lines, including induced pluripotent lines, both

nationally and internationally. He asserted that, building on its success thus far, the Registry is providing a competitive advantage to Massachusetts-based researchers.

Dr. Stein introduced Dr. Mai Luong, who described the functionality of the Registry, which is a free online database available to the public. It includes data and information on cell lines originated and developed all over the world. As of today, the Registry has compiled data on 461 stem cell lines. Dr. Kelly Smith provided a tour of the Registry's website and demonstrated the depth and breadth of information available on the database. Dr. Stein also provided an overview of the educational outreach program by the Registry and the Bank.

Dr. Boger asked about the impact of the new guidelines promulgated by the National Institutes of Health ("NIH") on the Registry's operations. Dr. Stein noted that the Registry has submitted comments on the proposed guidelines to the NIH but admitted that it is waiting to learn what the final guidelines provide for. Dr. Boger encouraged Dr. Stein to be proactive in designing the Registry in a way to capitalize on new regulatory developments.

Dr. Lodish then provided his perspective on the Registry and the Bank. He noted that the original funding of the Bank and Registry occurred before the creation of the Center's Scientific Advisory Board ("SAB"). He noted that the SAB supports the resolution regarding the Registry and that the SAB is excited at the prospect of working more closely with the Registry and the Bank this fall to conduct a peer review of their mission and operations. He supports the Registry and stressed the importance of convening a peer review to determine how best to capitalize on the enormous opportunity that stem cell research provides. Tom Chmura then left the room, to avoid a conflict of

interest during the subsequent vote.

Following discussion, upon motion duly made and seconded (and with designee Tom Chmura recused), the Board adopted the following resolutions:

WHEREAS, in accordance with the Life Sciences Act, the Center entered into an agreement with the University of Massachusetts Medical School to provide \$570,000 in funding for the International Stem Cell Registry at the University of Massachusetts Medical School (the "Registry"); and

WHEREAS, the Registry has incurred costs of \$673,000 through March 31, 2009, or approximately \$103,000 more than the Center's grant allows, on staffing and other operations to achieve its goal of becoming a preeminent resource for information about human embryonic stem cells to the academic and biomedical research community; and

WHEREAS, the Center firmly supports the Registry's mission of providing a searchable, comprehensive database that includes published and validated unpublished information on all human embryonic and induced pluripotent stem cell lines;

NOW, THEREFORE, BE IT RESOLVED, that the Board, acting pursuant to the authority delegated under the Life Sciences Act, does hereby authorize a grant in the amount of \$695,000 for the Registry to support the activities set forth in the proposal provided to the Board;

RESOLVED FURTHER, that approval of these grant is subject to the execution of a grant agreement by the Center and the Registry in a form and with terms approved by the President and Chief Executive Officer of the Massachusetts Life Sciences Center; and

RESOLVED FURTHER, that in order to assist the Center in determining future funding of the Registry and the International Stem Cell Bank (the "Bank"), the Center's Scientific Advisory Board shall convene an independent peer review of the Registry and the Bank, including, without limitation, their respective mission, strategy and operations, which review shall be completed not later than December 31, 2009; and

RESOLVED FURTHER, that the officers of the Center be, and each of them hereby is, authorized, directed and empowered to execute any agreements or any other instruments or documents or amendments or supplements to such documents, or to do or to cause to be done any and all other acts and things as such officers, in their discretion, may deem necessary or advisable and appropriate to carry out the purposes of the foregoing resolutions, including without limitation, execution of the applicable grant agreement.

8. New Investigator Grant Program.

Secretary Kirwan next invited Dr. Lodish to present the SAB's report on the New Investigator Grant Program, the solicitation for which was approved by the Board at its February 2009 meeting. Dr. Lodish provided an overview of the solicitation process and noted that the Center received 57 applications from 19 research institutions across Massachusetts. All of the applications were peer-reviewed and submitted by the SAB for evaluation. Dr. Lodish informed the Board that, following extensive review and evaluation, the SAB would recommend ten (10) researchers for funding.

Following discussion, upon motion duly made, seconded and unanimously carried, the Board adopted the following resolutions:

WHEREAS, Chapter 23I of the General Laws of the Commonwealth of Massachusetts (the "Life Sciences Act") establishes the

Massachusetts Life Sciences Investment Fund from which the Center may make loans, grants and other investments to advance life sciences research in the Commonwealth; and

WHEREAS, at its February 2009 meeting, the Board authorized up to \$2,000,000 to be spent on another round of the Center's New Investigator Grant Program (the "Program");

WHEREAS, the Center's Scientific Advisory Board has reviewed the proposed cooperative research grants under the Program and has recommended certain of them for funding based on their scientific merit;

NOW, THEREFORE, BE IT RESOLVED, that the Center, acting pursuant to the authority delegated under the Life Sciences Act, does hereby authorize the expenditure of monies for grants to such institutions and up to such amounts (to be funded over a two-year period) as set forth below:

	Aggregate
Grantee (Principal Investigator)	Grant Amount
University of Massachusetts Medical School (Jeffrey Bailey)	\$200,000
Boston University Medical Center (Christopher Gabel)	\$200,000
Immune Disease Institute, Children's Hospital (Sun Hur)	\$200,000
Massachusetts General Hospital (Raul Mostolovsky)	\$200,000
Northeastern University (Mark Niedre)	\$180,256
Massachusetts Eye and Ear Infirmary (Konstantina Stankovic)	\$200,000
Brandeis University (Satoshi Yoshida)	\$200,000
Total	\$1,380,256

RESOLVED FURTHER, that approval of these grants is subject to the execution of a grant agreement by the Center and each of the above companies in a form and with terms approved by the President and Chief Executive Officer of the Massachusetts Life Sciences Center;

RESOLVED FURTHER, that the officers of the Center be, and each of them hereby is, authorized, directed and empowered to execute any agreements or any other instruments or documents or amendments or supplements to such documents, or to do or to cause to be done any and all other acts and things as such officers, in their discretion, may deem necessary or advisable and appropriate to carry out the purposes of the foregoing resolutions, including without limitation, execution of applicable grant agreements.

Due to conflicts relating to certain Board members, the Board agreed to postpone deliberation on three grant proposals affiliated with Harvard University until a later date.

9. Other Matters.

Mr. Chmura next announced that the Sloan Foundation awarded the University of Massachusetts a significant grant for professional science degrees. The Board congratulated the University and encouraged future workforce development efforts. Dr. Boger also noted that the operations of the Center have exceeded expectations and hopes the State will continue its support. The economic climate

demands now more than ever, for continued investment in the life sciences in all stages of research and development.

10. **Adjournment.**

	There being	g no further	business	to come	before the	meeting,	upon 1	motion
duly made, se	econded and	unanimously	carried,	the meet	ing was ad	journed.		

	Robert Sepucha Secretary of the Meeting
APPROVED:	
Leslie Kirwan Chair of the Meeting	