

ADVISORY COMMITTEE
of the Connecticut Bioscience Innovations Fund
Minutes – Regular Meeting
Thursday, October 30, 2014

A regular meeting of the **Advisory Committee of the Connecticut Bioscience Innovation Fund** (the “Advisory Committee”) was held on October 30, 2014, at the office of the Connecticut Innovations, 865 Brook Street, Rocky Hill, CT.

Call to Order: Claire Leonardi, Chairperson of the Advisory Committee, called the meeting to order at 1:12 p.m. Advisory Committee members present: Marc Lalande, Ph.D. (by phone), Charles Lee, Ph.D., Claire Leonardi, Alan Mendelson, Carolyn Slayman, Ph.D. (by phone, arrived at 2:00 p.m.), Catherine Smith, Joseph Kaliko, Katharine Lewis, Ph.D.

Member Absent: Peter Farina, Ph.D., Steven Hanks, M.D., Bill LaRochelle, Ph.D., Edmund Pezalla, M.D., and Eleanor Tandler.

Staff present: Margaret Cartiera, Ph.D., (CI), Ariel Drew (CI), Dave Wurzer (CI), Christine Gemelli (CI), Matt Storeygard (CI), Leslie Larson (CI).

Ms. Leonardi welcomed the Committee and thanked everyone for participating in today’s meeting. Because quorum was not yet met, Ms. Leonardi changed the order of the agenda.

Introduction to Katharine Lewis

Ms. Leonardi introduced Katharine Lewis, who joined the CBIF Advisory Committee as the DPH designee on behalf of Jewel Mullen. Ms. Leonardi discussed Dr. Lewis’ expertise, stating that she brings a rich and diverse background to the Committee. Ms. Leonardi welcomed and thanked Dr. Lewis for participating.

Other Business

Ms. Leonardi reviewed the BioInnovation Team’s current operations plan. She discussed the team’s responsibility and management role, and how resources within CI will be leveraged to execute Fund responsibilities. Dr. Cartiera identified team responsibilities, day-to-day operational duties, and areas where internal CI skillsets may be utilized. She introduced Christine Gemelli (SBI) and Matt Storeygard (Venture); CI team members that will be supporting CBIF in market diligence, deal closings, and financial structure analysis.

Dr. Cartiera discussed Fund objectives and outreach efforts that have been put into action. She reviewed how the BioInnovation Team is increasing visibility and

educating non-profit and academic sectors of the Fund and its mission. She stated that goal of outreach efforts is to build a bridge across the state, resulting in a positive impact on bioscience.

Ms. Leonardi reviewed how CBIF fits into the funding continuum within CI. She discussed the overall investment structure associated with the different stages of funding that CI offers; including preseed investments, CBIF, venture and later stage loan investments. She reviewed the possibility of CBIF offering follow on funding and who eligible recipients would be.

Dr. Lee joined the meeting at 1:20 p.m. Noting the presence of a quorum, Ms. Leonardi moved back to the original order of agenda.

Wave 2 Funding Opportunities

Dr. Cartiera gave a recap of Wave 2 applications and highlighted differences between the first and second waves brought before the Committee.

Dr. Cartiera gave a brief restatement of the peer review process, detailing the scientific and market diligence components. She stated that there were four applications from Wave 2 recommended for funding that are being brought before the Committee.

Ms. Leonardi discussed the process that has been implemented with resubmission applications. She stated that for “resubmit” applications, active dialogue occurs early in the process with the applicant in an effort to address outstanding issues before the Advisory Committee meets to make funding decisions. She stated that the associated review is expedited.

Wave 2 Resubmission Applications

Dr. Cartiera reviewed the three applications from Wave 2 that were recommended for resubmission. She discussed reasons for the resubmission recommendation specific to each application. Ms. Smith asked about the range of applications and what the expectation is regarding stage of technology. A discussion ensued regarding the technology readiness level (TRL) scale, and if an applicant can get to an appropriate stage of commercial readiness with CBIF funding. Ms. Leonardi suggested the topic of TRL scales to be a subject at a future Committee meeting.

Dr. Lewis asked about the criteria for peer review, and what other criteria is considered besides commercialization. Ms. Leonardi discussed the scientific and business review, and the significance and importance of innovation and technology. She suggested a supplemental meeting with Dr. Lewis and CI staff to review specifics of the Fund and its mission.

Wave 2 Fund Applications

Dr. Cartiera introduced the four applications that were recommended for funding, highlighting the diverse range of projects.

- 524—Yale (Flavell)

Dr. Cartiera introduced the proposed project. She reviewed the research study, project accomplishments and the stage of the technology. She discussed the strong team, highlighting their record of accomplishment and prior experience in commercializing technologies. She reviewed progress to date, as well as the benefits and risks associated with the project. The project was recommended for funding, in the full requested amount.

Mr. Kaliko asked how much additional money, alongside CBIF dollars, is needed to get the technology to the final stage. Dr. Cartiera stated that according to the outlined proposal the CBIF support would likely take the technology through to the last stage at which time the technology will be licensed to a NewCo. A discussion ensued regarding financial terms and possible returns to the Fund. Mr. Kaliko had questions related to the quality of the IP portfolio and requested that the staff explore the maturation of the IP.

Upon a motion made by Catherine Smith, seconded by Joe Kaliko, the Advisory Committee members voted in favor of funding Application 524, Yale, Flavell (Principal Investigator), in the amount of \$500,000.

VOTE: 6-0-1 (In favor: Leonardi, Smith, Kaliko, Mendelson, Lalande, Lewis; Recused: Lee).

MOTION PASSED.

- 521—Yale (Crews)

Dr. Cartiera reviewed the proposed project. She discussed the novel mechanism of action, the systematic approach that had previously been used with success, the PI's accomplished career as a researcher and entrepreneur, the project milestones and commercialization path. She reviewed the benefits and risks associated with the project. The project was recommended for funding, in the full requested amount.

Mr. Mendelson asked what the primary treatment for multiple myeloma was. A discussion ensued regarding the testing and data which would result from the requested funding. Mr. Kaliko commented that the PI has identified a novel approach to addressing the treatment resistance problem.

Upon a motion made by Catherine Smith, seconded by Joe Kaliko, the Advisory Committee members voted in favor of funding Application 521, Yale, Crews (Principal Investigator), in the amount of \$500,000.

VOTE: 7-0-0 (In favor: Leonardi, Smith, Kaliko, Mendelson, Lalande, Lewis, Lee).

MOTION PASSED.

Dr. Slayman joined the meeting at 2:00 p.m.

- 517—UCHC (Clark)

Dr. Cartiera discussed the proposed project. She reviewed the project objectives, research findings and existing proof-of-concept data. She noted the team held relevant scientific knowledge and deep experience in the area. She reviewed the benefits and risks associated with the project. The project was recommended for funding, in the full requested amount.

Concerns were raised regarding clinical impact and patient outcomes. Dr. Lee expressed concerns relating to the preliminary data and the study design. Dr. Slayman agreed that the biostatistician assigned to the project should take a closer look at the study groups. The Committee noted that the project would benefit from having a neurologist with relevant experience as part of team.

Further discussion ensued on the impact the project would have on multiple sclerosis treatment. The Advisory Committee agreed that the applicant needs to address outstanding concerns. Specifically, the applicant will provide what the clinical application and utility of the project are; consult with a knowledgeable biostatistician to review the study test design and its relevance; and detail if this diagnostic could impact the course of treatment and clinical outcomes.

Upon a motion made by Joe Kaliko, seconded by Charles Lee, the Advisory Committee members voted in favor of not funding Application 517, UCHC, Clark (Principal Investigator), in the amount of \$454,813.

Once the above questions/issues have been sufficiently addressed, the application could be brought back before the Advisory Committee.

VOTE: 8-0-1 (In favor: Leonardi, Smith, Kaliko, Mendelson, Lewis, Lee, Slayman; Recused: Lalande).

MOTION PASSED.

- 519—Loon Medical (Douglas)

Dr. Cartiera discussed the proposed project. She reviewed the product, highlighting that the functional and tested beta product addresses a market need. She reviewed the benefits and risks associated with the project.

Ms. Smith asked about the product price point and anticipated cost of goods. Dr. Cartiera provided details relating to product price and how it compared to competitor products. A discussion ensued regarding costs of goods and product distribution. Mr. Mendelson asked how the company will generate revenue and

whether there will only be a one-time fee, or additional monthly fees with the product.

Mr. Kaliko expressed concerns over liability, and asked whether the company has considered those aspects of the project. A discussion ensued.

Upon a motion made by Joe Kaliko, seconded by Catherine Smith, the Advisory Committee members voted in favor of funding Application 519, Loon Medical, Douglas (Principal Investigator), in the amount of \$458,000 subject to the applicant providing a company revenue model, and details addressing regulatory and liability issues prior to the second tranche of funding.

VOTE: 8-0-0 (In favor: Leonardi, Smith, Kaliko, Mendelson, Lalande, Lewis, Lee, Slayman).

MOTION PASSED.

Wave 1 Resubmission Update

Dura Biotech

Ms. Leonardi provided a review of the project that was selected for Wave 1 funding. She updated the Committee on the project status, and steps the team had taken since the last Committee meeting. In specific, Dura consulted with a biostatistician (per the Committee's request) to review the animal study design. As a result, the group and animal sizes for the project increased and affected an increase in project budget. Ms. Leonardi asked the Committee to approve an increased budget of "up to \$500,000", as the final budgetary quotes have not yet been received.

Upon a motion made by Alan Mendelson, seconded by Charles Lee, the Advisory Committee members voted in favor of accepting the increased budget of up to \$500,000 for Dura Biotech.

VOTE: 7-1-0 (In favor: Leonardi, Smith, Kaliko, Mendelson, Lalande, Lee, Slayman; Abstained: Lewis).

MOTION PASSED.

Tangen Biosciences

Dr. Cartiera reviewed Tangen's progress to date and proposed project. She discussed the initial application and the concerns that were highlighted by AAAS in the scientific review. She stated that Tangen resubmitted their application with additional detail and had sufficiently addressed the concerns relating to the project. She summarized the proposed project milestones, and highlighted the execution-oriented team supporting the project and mentors surrounding them. Dr. Cartiera recommended accepting the application resubmission, and that the Committee approves funding of the project in the full requested amount.

Upon a motion made by Joe Kaliko, seconded by Alan Mendelson, the Advisory Committee members voted in favor of funding Application 501, Tangen, Nobile (Principal Investigator), in the amount of \$500,000. VOTE: 7-1-0 (In favor: Leonardi, Smith, Kaliko, Mendelson, Lalande, Lee, Slayman; Abstained: Lewis).
MOTION PASSED.

Catherine Smith left the meeting at 2:45 p.m.

Updates

Dr. Cartiera gave a status update on the CaroGen project, as well as applications that are expected to resubmit.

Financial Agreements

Convertible Loans & Equity

Ms. Leonardi reviewed the proposed investment terms for CBIF financial agreements. Dr. Cartiera reviewed the terms associated with a convertible note and equity investments. A discussion ensued regarding returns to the fund and outlined terms. Ms. Leonardi reviewed that CBIF investments would have the flexibility to be assigned to CI. The agreements between CI and the applicant are designed to enable entities to work seamlessly within the CI continuum of funding when necessary.

Grants

Ms. Leonardi reviewed the royalty agreements associated with the grant instrument. She reviewed funding repayments and return opportunities. Mr. Mendelson asked about deal structure and award funding tranches. A discussion ensued.

Mr. Kaliko noted that the Fund is moving in the right direction.

Statement of Financial Interest and Ethics Training

Ms. Leonardi provided an update with regard to the requirement of filing Statement of Financial Interest (SFI) forms. She noted CI had been advised that counsel had received an informal indication that, Advisory Committee members are not required to file SFI's as of now. She reminded the Committee members

that as public officials that they were subject to the state Code of Ethics and that they are still required to complete the Office of State Ethics online training.

Ms. Leonardi stated that proposed 2015-2016 Advisory Committee meeting dates will be sent to members in the coming weeks. She requested the members review and notify the BioInnovation Team with availability.

Adjournment

Upon a motion made by Alan Mendelson, seconded by Charles Lee, the Advisory Committee members voted in favor of adjourning the meeting at 3:01 p.m. VOTE: 7-0-0 (In favor: Leonardi Kaliko, Mendelson, Lalande, Lee, Slayman, Lewis).

MOTION PASSED.