[1]Empire State Stem Cell Board
Full Board Meeting Minutes
May 21, 2013

A meeting of the full Empire State Stem Cell Board was held on Tuesday, May 21, 2013, at the offices of the New York State Department of Health, 90 Church Street, New York, New York. Janet Cohn presided as Chairperson Designee.

Funding Committee Members Present:
Ms. Janet Cohn, Chairperson Designee
Mr. Robin Elliott
Dr. Richard Gronostajski
Dr. David Hohn*
Dr. Mario Loomis
Dr. Samuel Packer
Dr. Allen Spiegel, Vice-Chair
Dr. Melissa Wasserstein
Ms. Madelyn Wils

Ethics Committee Members Present:
Ms. Janet Cohn, Chairperson Designee
Ms. Jann Armantrout
Dr. Inmaculada de Melo-Martin
Ms. Nancy Dubler
Dr. Brooke Ellison*
Dr. Samuel Gorovitz
Dr. Robert Klitzman
Rev. Hugh Maynard-Reid
Dr. Samuel Packer
Dr. Allen Spiegel, Vice-Chair
Dr. Camille Wicher

*participated via video-conference

Department of Health Staff Present:
Ms. Bonnie Brautigam
Dr. Kathy Chou
Dr. Matthew Kohn
Dr. Jill Taylor
Ms. Mary Thatcher

Observers Present:
Mr. Harley Bowman
Mr. John Gee
Ms. Julia Gelman
Dr. Steven A. Goldman
Dr. Sally Temple

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Welcome and Introductions

Ms. Cohn called the meeting to order and welcomed Board members, staff and the public. She then asked members and staff to introduce themselves.

Approval of Minutes for the May 22, 2012, Full Board Meeting

Ms. Cohn directed members to the minutes of the Full Board Meeting of May 22, 2012, and asked for a motion to approve them. A motion was made and seconded, and the motion passed.

Approval of the Annual Report for Fiscal Years 2009-10, 2010-11 and 2011-12

The full Board moved next to a discussion of the final version of the most recent Annual Report, which actually covered three fiscal years. A motion was made to approve the report, the motion was seconded and it passed unanimously.

Strategic Planning

Dr. Spiegel led a discussion concerning plans for the next Strategic Plan. He noted that Michelle Cissell, who had worked on the first Plan, would be returning, that Board members contributing would include Dr. Berk, Dr. Wicher and Dr. Wasserstein and that outsiders would include Stuart Orkin of Boston Children's Hospital.

A first section would restate the original strategic goals and examine progress to date, supported by data collected from the surveys, followed by the main body, a forward-looking plan allocating remaining funds. For that the group would solicit ideas from the scientific community on how best to build on accomplishments and to maximize the particular strengths of the local stem cell community.

Dr. Klitzman suggested that the Plan also consider the future of stem cell research support in New York State after the current funding is exhausted. Dr. Spiegel agreed that it was critical to consider the implications of ceasing state funding, whether industry would be picking up some of these costs and how the effort can be taken forward. Dr. Klitzman suggested fostering discussions between researchers and industry.

Dr. Klitzman further recommended that the years following the current NYSTEM allocations be part of the focus of strategic planning. Dr. Spiegel agreed, stating that the document should anticipate where New York institutions will be at that time and include proposals for how we can capitalize on the momentum created thus far.

Program Updates

Ms. Brautigam briefly discussed the outstanding Requests for Applications (RFAs) and the Request for Proposals (RFP) for Graphic Novels, and the planned order of release. She noted

that all approved RFAs and RFPs could be issued during the next fiscal year, subject only to how quickly the program could move the projects through the system and the preferences of the Funding Committee to prioritize Round 2 of Consortia to Accelerate Therapeutic Applications of Stem Cell Research and the next (Round 5) Investigator-Initiated Research Projects (IIRPs) and Innovative, Developmental and Exploratory Activities (IDEAs) in Stem Cell Research RFAs.

Presentations by Sally Temple, Ph.D. and Steven A. Goldman, M.D., Ph.D.

Ms. Cohn then introduced two guest speakers, both of whom are engaged in the first round of NYSTEM Consortia awards, Sally Temple of the Neural Stem Cell Institute (NSCI) and Steven A. Goldman of the University of Rochester.

Dr. Sally Temple

Dr. Temple is the co-founder and scientific director of the NSCI in Rensselaer, New York, which was founded in 2007 and is the research arm of the Regenerative Research Foundation (RRF), founded in 2005. It currently employs about 30 people. She provided an overview of the Institute's ongoing projects, which aim to develop therapies for central nervous system disorders using neural stem cells.

In 2008, the NSCI identified a novel retinal pigment epithelial stem cell (RPESC) in humans. Over 11 million patients in the United States have retinal pigment epithelium degeneration which could cause central vision loss and lead to macular degeneration. Dr. Temple's NYSTEM-funded consortium aims to conduct clinical trials using adult RPE cells, taken from cadaver tissue, to treat age-related macular degeneration. Dr. Temple noted that similar efforts are ongoing using human embryonic stem cell (hESC) derived cells and induced pluripotent stem cells (iPSCs) as the source for the replacement cells.

In addition to its grant-funded research, the RRF has also worked to commercialize its discoveries. One such product is StemBeads-FGF2, a stem cell culturing reagent, which helps prevent differentiation and reduces feedings without any loss of pluripotency markers. Dr. Temple formed a company called Stem Cultures, Inc. to sell this product, which it is now providing to 63 customers in 13 countries with positive cash flow. The revenue will be used as seed funding for new ideas or translational projects.

Dr. Steve A. Goldman

Next, Dr. Steven Goldman, from the University of Rochester (U of R), described the approach his group has taken to target Multiple Sclerosis (MS). In MS, inflammation in the central nervous system leads to death of oligodendrocytes, the cells that provide the myelin sheath around axons, which allows transmission of neural impulses. Once the oligodendrocytes are lost, nerve impulses can no longer travel down axons and the neurons slowly die.

Using a mouse model of MS, Dr. Goldman's group showed that transplantation of human

oligodendrocyte progenitor cells (OPCs) was able to rescue the phenotype. Analysis of the mice showed the OPCs had migrated throughout the mouse central nervous system, wrapping and remyelinating the axons and restoring transmission of the neural impulses.

These proof of concept data form the basis for the NYSTEM-funded Consortium based at SUNY Upstate Medical University (UMU). The consortium comprises three upstate medical centers, UMU, U of R and the University at Buffalo (UB). The state MS registry at UB includes over 26,000 patients, more than 8,000 of whom are among the target population for clinical trials to test safety and efficacy proposed by the Consortium. Dr. Goldman indicated that a similar approach would likely be applicable to other diseases that affect oligodendrocytes, including radiation toxicity, congenital leukodystrophies, lysosomal storage diseases and cerebral palsy.

Finally, Dr. Goldman summarized the funding his extended group at the U of R Center for Translational Neuromedicine has received from NYSTEM. Roughly one fifth of the outside funding for the Center comes from NYSTEM, which is supplemented by federal and foundation dollars. Several other Center NYSTEM awards are also approaching, translation, including those targeting Huntington's Disease and malignant glioma, which have since received foundation funds to help move the NYSTEM-funded research to the clinic.

Motion to Adjourn

Ms. Cohn asked for a motion to adjourn the Full Board meeting. Rev. Maynard Reid so moved and Ms. Armantrout seconded. All members were in favor.

s/
Janet Cohn
Executive Secretary to the
Empire State Stem Cell Board
Approved: October 31, 2014