

Regenerative Medicine Update from the State of Rhode Island

The Rhode Island House Finance Committee approved a community service grant of \$35,600 for the Rhode Island Blood Center (RIBC) to assist them with collections of donated umbilical cord blood from approximately 1,000 to 1,500 deliveries at Women & Infants Hospital. In May 2009 the RIBC will begin a pilot program where cord blood from pre-registered women at Women & Infants Hospital will be collected in an effort to study the feasibility of creating a permanent public cord blood bank. Five specially trained blood center staff members will facilitate collections. The participation of obstetricians, residents, and midwives in the cord blood collections, are encouraged after training on the procedure. All mothers go through questioning about their health and their family's health to determine eligibility. The pilot program will run for a period of 12 months at which time the results will be reviewed in order to determine what if any role a public cord blood bank would have in Rhode Island.

The collection project is estimated to be at around \$134,900. This is the first step in the development of a Public Cord Blood Program, which will provide stem cells for transplants. The goal of the project is to determine what percentage of collected cord blood will have enough stem cells to constitute a transplantable unit. Current national surveys suggest a wide range in that 10% up to 30% of collected cords have sufficient stem cells to be transplantable. Improving the collection techniques and developing a standard for collections would be a significant step in establishing a public cord blood program.

The Rhode Island Blood Center (RIBC) is a non-profit organization whose primary customers are all 12 of Rhode Island's hospitals. They also serve several hospitals in the New England area. RIBC first became involved with adult stem cells in the early 1990's with its participation in the National Marrow Donor Program (NMDP). Since their involvement with the NMDP, the blood center began collecting peripheral blood stems cells for autologous use as part of Roger Williams Hospital's bone marrow transplant center.

The Science and Technology Advisory Council gives out \$1.5 million annually for research projects with commercial potential. The Slater Technology Fund, a taxpayer-backed source of venture capital, has \$3 million to spread around annually to small life-sciences and information-technology firms.

As of January 2009, The Rhode Island Science and Technology Advisory Council (STAC) announced the awardees of the 2009 Collaborative Research Award program. The awards supported seven projects, representing 23 scientists from 10 organizations throughout Rhode Island.

The program is designed to stimulate collaborative research projects that are well positioned to attract significant follow-on funding from agencies such as the National Science Foundation and National Institutes of Health or are ripe for commercialization.

They specifically want to strengthen collaboration between universities in Rhode Island to boost economic development in the biotechnology arena.

As of now, the STAC funding has not been awarded to researchers studying embryonic stem cell research. In the near future they hope to pursue funding from the NIH for this type of study.

The Rhode Island Economic Development Council board agreed to spend \$100,000 to help build the Center for Innovation and Entrepreneurship (CIE). Two other public bodies — The Slater Technology Fund and the Science and Technology Advisory Council — are contributing an additional \$50,000 apiece. Eventually, the state's largest businesses will be encouraged to contribute money and expertise.

Brown University recently opened the CIE which is housed in a converted rubber plant in Providence. The university has also donated furniture and the 5,000-square-foot office space in a building it owns at 1 Davol Square, across from the Manchester Street power station.

Brown will staff the center and will bring some of the newest research and inventions from the lab or laptop to the business market. The center is open to everyone from hospital and university researchers to young students interested in science and technology. Seminars will focus on writing business plans, conducting market research and branding products.

Submitted by:

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