CIRM Invests in Treatment Focused on High Risk Blood Cancers, Leukemia and Lymphoma

Posted: February 18, 2016

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Oakland, CA – Cord blood transplants can be life saving for people battling deadly blood cancers, but they can also cause complications that are life-threatening. That's why the California Institute for Regenerative Medicine (CIRM) has approved almost $3.5 million to fund a program to find a more effective, efficient and safer way to deliver those transplants.

Angiocrine Bioscience, a San Diego-based company, plans to develop a product called AB-110, which blends an expanded mix of stem cells from cord blood with genetically modified endothelial cells, the kind of cell that forms the lining of blood vessels, to improve the success rate of cord blood transplantation.

The hope is that AB-110 will reduce the complications that can occur with a cord blood transplant – such as viral infections or pneumonia – and increase the likelihood the transplanted cells will successfully engraft, meaning they start growing and creating new, healthy, blood cells.

"Our mission at CIRM is to accelerate stem cell treatments to patients and this project aims to do precisely that, speeding up the body's ability to create new white blood cells and platelets – both essential qualities when treating deadly diseases like leukemia and lymphoma," says C. Randal Mills, Ph.D. the President and CEO of CIRM. "Under CIRM 2.0, we are trying to create a pipeline of products that move out of the lab and into clinical trials in people, and we're hopeful this program will demonstrate it's potential and get approval from the Food and Drug Administration (FDA) to begin a clinical trial."

While cord blood transplants have been performed for more than 25 years, one of the problems they often face is the small size of the cord blood unit and the low number of cells it contains. That can prolong the recovery time or lead a physician to use cells from two cords. Both situations increase the risk of serious complications, even death.

By expanding the number of stem cells in the cord blood unit, and infusing it with the genetically-modified endothelial cells, the research team hopes to get around that problem.

The need for more effective therapies is great. According to the Leukemia Research Foundation, someone is diagnosed with blood cancer every four minutes. That means more than 200,000 new cases in the US every year, of whom almost 68,000 will die from the condition.

About CIRM

At CIRM, we never forget that we were created by the people of California to accelerate stem cell treatments to patients with unmet medical needs, and act with a sense of urgency to succeed in that mission.

To meet this challenge, our team of highly trained and experienced professionals actively partners with both academia and industry in a hands-on, entrepreneurial environment to fast track the development of today's most promising stem cell technologies.

With $3 billion in funding and approximately 300 active stem cell programs in our portfolio, CIRM is the world's largest institution dedicated to helping people by bringing the future of cellular medicine closer to reality.

For more information, go to **www.cirm.ca.gov**

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