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U.S. Department of Defense Awards \$3.5 Million Grant to Platelet BioGenesis

Research award will support development of donor-independent platelets to treat battlefield and civilian casualties

June 27, 2018 07:00 AM Eastern Daylight Time

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Platelet BioGenesis (PBG), the leader in the production of functional human platelets (PLTs+™) from stem cells and the development of platelet-based therapeutics, announced it has been awarded a two-year, \$3.5 million grant from the Department of Defense to support the development of its proprietary bioreactor to produce therapeutic quantities of platelets.

Specifically, the Department of Defense is funding PBG's continued development of a mobile and scalable system to supply functional human platelets on-demand, without the need for human donors – a fundamental advance in emergency medical care.

Platelets are the cells in the bloodstream that promote clot formation. They are also a crucial therapeutic for those exposed to radiation, which damages the body's ability to produce platelets, and for many patients undergoing treatment for cancer. But because of their short five-day shelf life, human platelets are almost always in limited supply. It is almost impossible to access platelets outside of major cities in developed countries. The technology advanced by this grant seeks to extend that access to soldiers and civilians in remote locations.

"This peer-reviewed grant will accelerate our development of donor-independent, functional human platelets," said Jonathan Thon, Ph.D., co-founder and chief executive officer of Platelet BioGenesis. "Our goal is to produce platelets that can be used for life-saving transfusions to wounded soldiers and civilians."

Platelet BioGenesis is a venture-funded, development stage company that emerged from the labs of Harvard University and Brigham and Women's Hospital in Boston and has been supported by the National Institutes of Health.

The Platelet BioGenesis Platform

Platelet BioGenesis produces functional human platelets in a two-stage process. The company uses induced pluripotent human stem cells to create megakaryocytes, the progenitor cells that produce platelets in human bone marrow, in a wholly owned, novel process.

Then, the megakaryocytes are placed in PBG's proprietary recirculating bioreactor. The bioreactor mimics the environment inside human bone marrow, creating the conditions for the megakaryocytes to generate large quantities of platelets. Both parts of the platform are scalable to generate significant therapeutic quantities of platelets.

PBG's unique approach holds the promise of providing functional human platelets without the need for donors. Compared to traditional donated platelets, PBG's PLTs+™ will be less costly, longer lasting, available on demand, and 100 percent disease-free.

Said Sven Karlsson, president and co-founder, "This award, responding to a call from the Combat Casualty Care Research Program of the U.S. Army's Medical Research and Materiel Command, provides further validation of our breakthrough approach to creating a new, reliable, donor-independent source of human platelets. It will enable us to advance our lifesaving technology more quickly."

About Platelet BioGenesis

Platelet BioGenesis is a venture-backed, development stage biotech company creating designer platelets (PLTs+™) as a new class of therapeutics. Platelet BioGenesis has developed and patented a scalable cGMP-compliant process to generate PLTs+™ from clinical grade induced pluripotent stem cells. The company was spun out of Harvard University and has received funding from the [Massachusetts Life Sciences Center](#) and the [National Institutes of Health](#). Learn more at www.plateletbiogenesis.com and follow us on Twitter @plateletbiogen.

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