

Terumo Blood and Cell Technologies takes part in Connecting the Dots: a new film series showcasing the pivotal role of medical technologies to improve healthcare

- **See how an Austrian police officer fighting leukemia is helped by a stem cell donation from his sister – just one way that apheresis technology helps make potentially curative cell therapies more accessible**
- **The series is presented by MedTech Europe, and the film was produced for us by BBC StoryWorks Commercial Productions, the creative content studio of BBC Studios**

Lakewood, Colorado, US, December 7, 2023 – Terumo Blood and Cell Technologies (Terumo BCT), a medical technology company, is pleased to participate in the second Connecting the Dots series. The film series is produced for MedTech Europe member companies and highlights medical devices and their role in improving the healthcare landscape, elevating our quality of life and guiding the path toward a healthier future for the global population.

Terumo BCT's film explores how cell collections using the company's Spectra Optia(R) Apheresis System play a critical role in enabling emerging cell therapies by helping overcome challenges that limit patient access and facilitating lifesaving treatments for diseases, including leukemia.

"We chose a story focused on the struggles endured by a family when one member is fighting for his life against leukemia," said Veerle d'Haenens, General Manager, Global Therapeutic Systems and Cell Therapy Technologies, Terumo BCT. "This is a story about hope. When it comes to managing symptoms or finding new cures using blood-based therapies, the answer lies within us. Our healthy blood and cells have the demonstrated power to bring healing. Blood is an essential medicine."

Terumo BCT shares a story about a brother and sister – Michael, an Austrian police officer fighting leukemia, and Liz, a healthy mom of three and a self-proclaimed technology geek. It shows how a stem cell collection from Liz was critical in Michael's treatment. Dr. Nina Worel, one of Michael's doctors, discusses his care, demonstrates how a stem cell collection works and highlights the ongoing need for more stem cell donors.

Beyond the personal story, the film sheds light on the progress and limitations of cell therapies. While stem cell therapy has been a lifesaving technique for blood cancer patients, access has been limited. Notably, approximately 3,000 patients per year with diffuse large cell lymphoma are potentially eligible for CAR T-cell therapy, while the Cellular Immunotherapy Data Resource (CIDR) reported that only 2,581 patients received CAR T-cell therapy for this indication between 2016 and 2020.(1)

New research and innovations have broadened the promise of cell therapy to treat new patient populations from genetic and neurological to cardiovascular and autoimmune diseases such as sickle cell disease, Parkinson's disease, coronary artery disease, rheumatoid arthritis and more.(2) The surge in demand for cell collections to meet this expanding spectrum of medical needs has posed challenges for patients seeking timely access to treatment, meaning patients can suffer and even die waiting to access treatment. Furthermore, the rapid expansion of therapies has outpaced the development of standards in the field, presenting an opportunity for clinicians and industry experts to optimize collection processes and services, leading to enhanced cell and gene therapy manufacturing.

"Blood cells are the critical starting material for existing and emerging blood-based therapies. Without cell collections, stem cell transplants and cell therapies are not possible. But for every person like Michael who receives treatment, there are others who won't be able to access it for many reasons," d'Haenens says. "We are looking beyond our medical devices and seeking ways to enable patients to access these innovative technologies, along with supporting the training of therapy developers, so they consider therapeutic apheresis as a frontline treatment for the many disease states it has the potential to help manage."

Around the world, over 85 percent (3) of cells like those Liz donated are collected with Spectra Optia. Cell collection is just one protocol* enabled by Spectra Optia — it is also used to perform therapeutic plasma exchanges and other types of therapeutic apheresis.

Explore Connecting the Dots here – www.medtechconnectingthedots.com

1. Ramakrishnan P, et al. *Curr Hematol Malig Rep*. 2021;16(4):345-356. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8179081/>
2. Alliance for Regenerative Medicine. State of the industry briefing, January 22, 2022. SOTI-Presentation-FINAL.pdf (alliancerm.org)
3. Based on internal market share data analysis. Data on file at Terumo BCT.

Spectra Optia(R) Apheresis System

The Spectra Optia system is a user-friendly, versatile, industry-leading therapeutic apheresis, cell processing and cell collection platform that allows operators to spend more time focusing on patient care. Therapeutic apheresis is used widely for a variety of applications. For example, practitioners use red blood cell exchange (RBCX) for sickle cell disease treatment; cell collections for stem cell transplantations and to collect starting material for cell therapies; and therapeutic plasma exchange (TPE) to treat many diseases in both the chronic and acute setting in the neurology, nephrology and hematology spaces.

*Product and protocol availability varies by country.

About Terumo Blood and Cell Technologies

Terumo Blood and Cell Technologies is a medical technology company. Our products, software and services enable customers to collect and prepare blood and cells to help treat challenging diseases and conditions.

Our employees worldwide believe in the potential of blood and cells to do even more for patients than they do today. This belief inspires our innovation and strengthens our collaboration with customers.

Terumo Blood and Cell Technologies' customers include blood centers, hospitals, therapeutic apheresis clinics, cell collection and processing organizations, researchers and private medical practices. Our customers are based in over 160 countries across the globe. We have 750+ granted patents, with more than 150 additionally pending.

We have global headquarters in Lakewood, Colorado, U.S.A., along with five regional headquarters, seven manufacturing sites and six innovation and development centers across the globe. Terumo Blood and Cell Technologies is a subsidiary of Terumo Corporation (TSE: 4543), a global leader in medical technology.