

## One Millionth Blood Stem Cell Transplant Marks Major Medical Milestone: International Cooperation Among Physicians, Scientists Credited for Landmark Achievement

Dietger Niederwieser

**B**ern, Switzerland, Jan. 30, 2013. The collaborative work of medical scientists and physicians across the globe has resulted in a major medical milestone: the world's 1 millionth blood stem cell transplant, a procedure that has become a proven and essential therapy for many patients battling blood cancers like leukemia and lymphoma, as well as other critical diseases.

The Worldwide Network for Blood and Marrow Transplantation (WBMT) announced the landmark achievement today. The WBMT—a nonprofit scientific organization whose mission is promoting excellence in stem cell transplantation, stem cell donation and cellular therapy—said the 1 millionth transplant occurred in late December 2012. The finding is based on data collected by WBMT international member organizations involved in blood stem cell transplantation, which were analyzed and verified by the WBMT.

“One million transplants is a milestone that may surprise many people, because blood stem cell transplants were viewed as a rare procedure until the last decade or so,” said Dietger Niederwieser, MD, president of the WBMT.

---

Professor of Medicine, Dr. H.C. Division of Hematology and Medical Oncology, University of Leipzig, Johannisallee 32A, 04103 Leipzig, Germany

Correspondence: dietger@medizin.uni-leipzig.de

This article should be cited as: Niederwieser D. One Millionth Blood Stem Cell Transplant Marks Major Medical Milestone: International Cooperation Among Physicians, Scientists Credited for Landmark Achievement. Rev Hematol Mex 2013;14:84-85.

and professor of medicine in the division of hematology and medical oncology at the University Hospital of Leipzig, Germany. “But important discoveries—and the vital cooperation of many scientists and physicians around the world—have dramatically improved outcomes for patients who undergo stem cell transplantation.”

The first blood stem cell transplant was reported by Dr. E. Donnall Thomas in 1957, who received the Nobel Prize in 1990 for pioneering the use of this innovative approach to treatment of leukemia and other life-threatening diseases.

By the late 1960s, as knowledge of the requirements for matching patients with donors evolved, physicians were performing successful allogeneic transplants, using bloodforming stem cells from sibling donors (among the first in U.S., Holland and France). In 1973, the first successful transplant between two unrelated people occurred in New York, when a young boy received a transplant from a donor identified as a match through a 222232 blood bank in Denmark. In 1988, the first successful umbilical cord blood transplant was performed in Paris.

Since then, a near-exponential rise in all types of blood stem cell transplants, particularly from unrelated donors, has occurred. This is largely thanks to the willingness of now more than 20 million voluntary stem cell donors worldwide. Today, unrelated transplants are often as successful as those that use family donors.

International partners will help make this continued growth possible. Already, data from the World Marrow Donor Association (WMDA), a WBMT partner, show that nearly half of the transplants performed with unrelated donors cross an international border.

International donor registries not only expand the pool of potential donors, they help advance the global science of transplantation through the exchange of information.

Founding partners of the WBMT include the Center for International Blood and Marrow Transplant Research® (CIBMTR), the Asia-Pacific Blood and Marrow Transplantation Group (APBMT), the European Group for Blood and Marrow Transplantation (EBMT) and the WMDA. Other regional and national organizations that participate and contribute data include the Australasian Bone Marrow Transplant Recipient Registry (ABMTRR), the Canadian Blood and Marrow Transplant Group (CBMTG), the Eastern Mediterranean Blood and Marrow Transplant Group (EMBMT) and the Sociedade Brasileira de Transplante de Medula Ossea (SBTMO), among others.

“It must be especially emphasized that WBMT has contributed to the advances of blood stem cell transplants in emerging countries in the Asia-Pacific region and in the other areas of the world, where the awareness to this medical procedure is sharply increasing,” said Yoshihisa Kodera, vice president of WBMT, chairman of APBMT and professor of Aichi Medical University, Japan.

The World Health Organization (WHO) has recognized transplantation as an important global task, recently recognizing the WBMT as a non-governmental organization (NGO). “Transplantation has extended the lifespan of hundreds of thousands of patients worldwide and enhanced their quality of life,” said Luc Noël, MD, of WHO. “It has become the standard of care for many patients, and should no longer be restricted to affluent countries or individuals.”

Today, more than 70 malignant and non-malignant diseases are treated routinely with blood stem cell transplantation, providing new cures for patients around the globe. The procedure technique itself has improved considerably because of dedicated cancer centers but also because of collaboration and cooperation among scientists, clinicians, nurses and data managers, as well as the 19 international scientific societies that establish standards, collect data on the procedure and analyze outcomes. In

patients with optimal conditions, disease-free survival rates are now reaching more than 90 percent.

“Worldwide, more than 50,000 patients a year are receiving transplants, in regions ranging from the Asia-Pacific to the Mid-East to Central America,” said Dennis Confer, MD, treasurer of the WBMT and chief medical officer of the U.S.-based National Marrow Donor Program® (NMDP). “The curative potential of this therapy will only increase, thanks to the commitment and collaboration of researchers and physicians across the globe.”

#### **About the Worldwide Network for Blood and Marrow Transplantation (WBMT)**

The WBMT is a nonprofit, non-governmental organization (NGO) that promotes excellence in hematopoietic cell transplantation (HCT), stem cell donation and cellular therapy. It was created in 2006 by four pioneering stem cell transplantation groups from around the globe: the Center for International Blood and Marrow Transplant Research (CIBMTR), Asia-Pacific Blood and Marrow Transplantation Group (APBMT), European Group for Blood and Marrow Transplantation (EBMT) and the World Marrow Donor Association (WMDA). With a current network of 19 member organizations worldwide, the WBMT is the leading voice among the stem cell transplantation community. Through its annual global survey of HCT activities, scientific and educational conferences, and the development of HCT guidelines and accreditations, the WBMT is advancing life-saving therapies that treat blood, immune system and genetic disorders. Learn more at [www.wbmt.org](http://www.wbmt.org).

#### **About the World Health Organization (WHO)**

WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.