



## **Pursuing NetCord-FACT Accreditation: How Ankara University Cord Blood Bank Became Globally Visible to Reach More Patients**

### **Interview with Meral Beksac, MD, PhD, Cord Blood Bank Director**

**Mikaela VanMoorlegghem**

Foundation for the Accreditation of Cellular Therapy  
Omaha, NE USA

*FACT is interviewing personnel at cord blood banks that are FACT-NetCord-accredited in geographically unique locations. We were pleased to talk with Meral Beksac, MD, PhD, Director of the Ankara University Cord Blood Bank in Turkey. We asked Dr. Beksac to share her bank's accreditation experience with members of ISCT. She explained the unique benefits and challenges her bank faces in Turkey, and why FACT-NetCord accreditation is important and necessary for quality cord blood banking.*

#### **The History of Ankara University Cord Blood Bank**

Ankara University Cord Blood Bank (AUCBB) is a public cord blood bank, and the first and only in Turkey to receive FACT-NetCord accreditation. The first cord blood to be used for related purposes was cryopreserved in 1994; in 1995, the first related cord blood transplant was performed at Ankara University for a thalassemia patient. In 1996, pediatric transplant teams were launched in Ankara University followed by NetCord participation. According to Dr. Beksac, "At this time only related cord blood banking and transplantation were performed in our Institution."

In 2009, the Turkish Government accepted a grant application to establish a registry and a cord blood bank and to renovate related laboratories. In 2011, Ankara University Cord Blood Bank was granted approval for cord blood banking by the Ministry of Health. In 2015, Ankara University Cord Blood Bank became accredited by FACT-NetCord.

#### **Geographic Characteristics and Challenges**

Turkey has a population of over 75 million people, the majority of which are Turkish. The geographic location of Turkey is particularly unique, lying partly in Asia and partly in Europe. The vast majority of Turkey is composed of the Asian territory of Anatolia, or Asia Minor, a large mountainous peninsula. The capital city, Ankara, is located centrally on this peninsula. The population of the region dates back to a combination of various haplotypes because the Anatolian region is at the intersection of the silk and spice trade routes and ancient civilizations. The Silk Road, stretching thousands of kilometers from East to West, was used in transporting silk, porcelain, paper, spices, and jewels, and was a means for cultural exchange between continents. Traveled for 2000 years, it bears the mark of cultures, religions, and ethnicities that have inhabited the region. "Furthermore, ancient civilizations dating back to 3000-4000 BC, have lived here leaving behind archeological findings which have provided us clues about the

origin and migration of humans,” said Dr. Beksac. The diversity in population results in a wide range of HLA genotype variations, which brings about the necessity of a greater donor pool in order to increase the HLA matching possibilities. This underscores the importance of unrelated cord blood banking in Ankara.

According to Dr. Beksac, “Our experience with unrelated donor search has documented that we are facing HLA genotypes which consist of a very heterogeneous admixture and rare haplotypes. Donor pool size, which has reached 200,000 recently, is not able to meet the need of such patients. The bigger donor registries in countries where donors of Turkish origin are included do not represent the actual Turkish haplotypes. Due to the fact that cord blood is a source of hematopoietic stem cells allowing more mismatches, it is of importance that cord blood is used as an alternate for allogeneic, unrelated, or related stem cell transplantations.”

An unrelated cord blood bank in Turkey provides an opportunity to answer the need for cell donors. So far, AUCBB has been able to detect cord blood units for difficult cases who have no matched adult donors worldwide. The main obstacle against cord blood transplant for these cases were inadequate CD34 positive cell counts for adults. Thus, mostly pediatric patients have benefited from AUCBB’s inventory.

### **The Path to Accreditation and Beyond**

The national regulations of Turkish health authorities for cord blood banking do not cover all international cord blood banking requirements. AUCBB sought FACT-NetCord accreditation to be able to collect and provide the best quality cord blood units and cryopreserve cord blood to the highest international criteria. “Also, in order to be visible globally, and reach all the patients in need of a transplantation, FACT-NetCord accreditation is essential. This is only the beginning of a non-stop marathon that we will run at a speeding pace,” stated Dr. Beksac.

The accreditation process took almost three years and required long planning and preparation. During that time, AUCBB faced several challenges. “It was difficult to apply standards to our situation, and we did not have any peers in the area to rely on. AUCBB is the only public cord blood bank in Turkey. Although it was such an honor to be the first and the only public cord blood bank in Turkey, many steps of the process were challenging. Organizing SOPs, establishing a strong quality control system, adaptation of the staff to this new process, and training of collection site members were of the many difficulties we went through,” according to Dr. Beksac.

After working through the challenges posed by the accreditation process, and the inspection and approval by the FACT-NetCord Accreditation Committee, AUCBB was rewarded for its hard work and dedication and became the first FACT-NetCord-accredited bank in Turkey.

After completing the accreditation process, the bank has been able to note some improvements. AUCBB’s SOPs were rewritten and translated into English. The Quality Manual and all paperwork were also reorganized, and new validations were introduced. Also, collection centers were highly improved. IDM tests, medical questionnaire forms, and acceptability criteria were all

modified. The quality of the cord blood increased, allowing wider user potential. As a result of FACT-NetCord accreditation, the AUCBB was able to obtain resources from the Ankara University administration and National Finance Authorities. As an expected outcome of becoming visible, export to international transplant centers with successful outcomes has begun.

### **About FACT-NetCord Accreditation**

The FACT-NetCord accreditation process is designed to be supportive, consistent, and objective. FACT and NetCord promote improvement and progress by establishing minimum standards, providing education, and inspecting and accrediting programs worldwide. Expert inspectors and the comprehensive accreditation program verify programs provide high quality cellular products and help to achieve desirable outcomes for patients. For more information, visit [www.factwebsite.org](http://www.factwebsite.org).