Report on the extramural tissue typers meeting, Vienna, February 28, 2014

Two topics have been covered during this meeting. First, Yvonne Zoet from the ETRL presented the **new web-based tool for external proficiency testin**g within Eurotransplant. The prototype has been made and pretesting by 4 participating laboratories has led to many suggestions for improvement and adaptation. Also during the meeting good suggestions came forward. The coming months, the tool will be made ready for HLA typing and cross matching while later in the year reporting antibody screening results will be made possible as well. Starting January 2015, this tool will be routinely used for the proficiency testing program organized by the ETRL. It is to be expected that introduction of this tool, will diminish the administrative work load for both participants and organizer. The presentation of Yvonne is also available on the ETRL website.

The other topic of the day was the **definition of acceptable and unacceptable HLA mismatches** in sensitized patients. Local policies were presented by Constance Schonemann (Berlin, Malte Ziemann (Lubeck), Blanka Vidan-Jeras (Ljubljana) and Dave Roelen (Leiden). Furthermore, Caner Susal (Heidelberg) presented a preliminary version of the German guidelines. It is clear that within Eurotransplant, the situation is similar to the rest of the world. A lot of variation exists with respect to the interpretation of the results of luminex antibody screening (which MFI is positive?) and the possible clinical relevance of DSA only detectable in luminex.

A positive development is that most centers take the immunization history into consideration when interpreting the results of luminex single antigen bead antibody screening. Also the fact that in contrast to DSA derectable in CDC, DSA detectable in luminex are rather a risk factor than a contra-indication for transplantation is more and more accepted. The determination of acceptable and unacceptable mismatches is often done in close collaboration with the clinicians and for long waiting patients sometimes unacceptable mismatches are removed in order to enhance transplantation.

It is important to notice that luminex assays also detect natural HLA antibodies directed against epitopes on denatured HLA molecules. These antibodies are clinically not relevant. Caner Susal has made a list of HLA specificities , which are often targets of these natural antibodies. This list is available elsewhere on this website.

For the definition of acceptable and unacceptable mismatches in immunized patients, the centers are allowed to use their own criteria. For the acceptable mismatch program of Eurotransplant more strict criteria are used as patients included in this program get a high priority in the allocation process. The antibody status of patients to be included in the acceptable mismatch program is checked by the ETRL in order to determine whether they are indeed eligible and meeting all criteria. For AM patients waiting for their first transplant, omnly antibodies detectable in CDC are considered clinically relevant. In case of retransplant candidates, the CDC results are combined with luminex data, which can be explained by immunization to mismatches HLA antigens of the previous graft.

The extensive discussions made clear that the topic of acceptable versus non-acceptable mismatches is not solved yet and will remain on the program of future tissue typing meetings.