



Research Grant Report Form

Name and origin of applicants:

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Jan Holgersson (Sahlgrenska University Hospital, Gothenburg)
Christian Naper (Oslo University Hospital)

Purpose of research project granted:

The project 'Comparison of HLA antibody testing methods in highly sensitized patients' aimed to compare Luminex single antigen (SAg) assay with and without different serum pre-treatments. Furthermore, the Luminex SAg and C1q results were compared, and the results will be correlated to previous complement-dependent cytotoxicity (CDC) crossmatch results.

Amount granted:

20.000 EUR

Report of scientific progress:

Altogether, 30 CDC crossmatch-positive and 30 CDC crossmatch-negative serum samples from highly immunized kidney transplant patients have been analyzed. Sera were pre-treated with EDTA or DTT to investigate how different pre-treatments affect the Luminex SAg assay. Also, complement fixing antibodies were analyzed using the Luminex C1q assay. All the laboratory work has been performed.

No prominent changes in overall HLA antibody profiles were observed between the different serum pre-treatments. However, in a few individual cases, significant changes (new DSA detected and markedly higher MFI levels) could be seen in sera treated with EDTA. Also, the C1q assay shows slightly different HLA antibody profiles and lower MFI levels. The data for the comparison study between Luminex results and CDC crossmatch results is being collected, and a manuscript is in preparation.

The preliminary findings have been discussed at the Scandiatransplant Tissue Typers' Meeting in September 2016.
