



“Non-invasive Biomarkers for Allograft Rejection” - Additional Q&A
From Wednesday, October 12, 2019
<https://ast.digitellinc.com/ast/sessions/2801/view>

How [much] time [does it take] to make an epitope mismatch calculation? Is it possible to use it to find a recipient to a deceased donor, or it takes to much time for the test?

Dr. Nickerson: The rate limiting step is the time it takes to do high resolution HLA typing. If done by NGS it can take 3 days, if done by SSO/SSP it can take a day or two. For all recipients this can be done in advance while on the waiting list. For the donor it can sometimes be done in advance but for sure it can be done post-transplant and the information used to devise a post-transplant monitoring plan and/or therapeutic approach. While this is theoretical it is something that should formally be studied in prospective clinical trials.

How are you going to implement the subclinical rejection gene set biomarker prospectively? Is it reliable enough to warrant increased immunosuppression if it identifies and intermediate risk?"

Dr. Murphy: The ai is that it would help guide immunosuppression management however we have not conducted a clinical utility study yet, we have plans to do so.

How were patients noted to have SCR on biopsies managed at different centers in the GoCAR study? Thanks.

Dr. Murphy: SCR was found on protocol biopsy performed in the study. They were not treated as they biopsies were not reported in real time but rather as part of the study.

Did you identify any gene expression signatures in peripheral blood associated with various types of rejection, ABMR, CMR, or mixed rejection, etc.?

Dr. Murphy: We did not have enough cases of ABMR to identify a separate gene set.

Thank you for such an interesting talk. My understanding is that the 17 gene ACR-3 score was determined by looking at acute cellular rejection at 3 months, but one of the cohorts that you validated the signature in (GSE50084) which only lo [sic - the remainder of the question was cut off]

Dr. Murphy: The external cohorts that we validate on are all clinical acute rejections.

Do the 2 speakers think that the 2 sets of pre-transplant biomarkers (eplet differences and blood gene expression) could be combined for even better predictive risk value post-transplant than either alone?

*Dr. Murphy: This is an interesting question and one we would like to explore.
Dr. Nickerson: I agree with Dr. Murphy.*