

13th EIP Open Symposium

Summary - Outlook

April 27th 2022

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„Prediction“

- Impact of Covid-19 on prediction tools
 - Since 2021
 - Drop of CD8+ cells
 - Increase of CD4+ cells
 - Increase of HLA-DR positive cells
 - Increase of B-cells (towards end of 2021)
 - Impact on human immunogenicity to be seen
- Machine learning methods is a promising approach to improve immunogenicity
- Certain HLA alleles are associated with a higher likelihood for ADA responses
 - HLA-DQA1*05 is associated with immunogenicity to anti-TNFs in Croh's disease
 - Should we introduce HLA typing in our clinical trials?

Immunogenicity Assay Strategies

- EIP initiative to harmonize Immunogenicity Risk Assessment
- Risk assessment for gene and cellular therapies is presents some additional challenges compared to classical biotherapeutics
- Selection of positive controls is key for ADA validation results
- Cross-validation of ADA assays is an upcoming important topic
 - Chinese studies present a certain challenge
- Are singulets are way forward to minimize the burden for titrating confirmed positive ADA samples?

Critical Quality Attributes

- The effect of infliximab on immunogenicity could be either due to
 - Deliver of a danger signal (e.g. TLR2) boosting a humoral immune response
 - Augmentation of presentation of (novel) T-cell epitopes
- The battery of assays to analyze particles in biologics is substantial
- Are non-natural (D-amino acids) a way to decrease immunogenicity
- For certolizumab pegol the PEG moiety seems to inhibit the uptake into antigen presenting cells thereby reducing immunogenicity

Clinical Relevance

- Sometimes a dedicated Nab assay might not provide added value over a holistic ADA, PK, PD (& efficacy) evaluation (Emicizumab in hemophilia A)
- The VEGF levels might be a good indicator of neutralization of Bevacizumab

Next EIP Meeting

- Lisbon, April 24th - 26th 2023 (tbc)



Conference Report

- EIP wishes to share the discussion at the meeting with a broader audience
 - Intention to publish a conference report
 - We will find ways to combine it with the report from last year
- Sophie Tourdot will reach out to each speaker to send a small abstract of their talks

- Join the EIP
 - High class scientific discussions
 - Training for singing ;-)

Thanks for joining and have a good trip back