

FEB. 9 FDA ARTHRITIS ADVISORY COMMITTEE MEETING

**REMARKS FROM JAY SIEGEL, M.D., CHIEF BIOTECHNOLOGY OFFICER AND HEAD, SCIENTIFIC STRATEGY AND POLICY AT JOHNSON & JOHNSON**

Mr. Chairman, distinguished members of the committee and FDA officials, thank you.

Johnson & Johnson has long supported the implementation of biosimilars pathways that place the highest priority on ensuring that patients receive drugs which are safe and effective.

Over two decades of experience in the development, study, manufacture, and use of REMICADE® have provided our scientists and physicians substantial insights relevant to today's proceeding.

I will focus on issues regarding the use of CT-P13 in inflammatory bowel disease (IBD).

CT-P13 differs from REMICADE® with regard to a number of chemical and physical attributes including glycosylation, glycation, and aggregation.

These differences impact FcR binding and have the potential to impact various drug functions important in IBD. There is a substantial body of evidence that Fc mediated functions –and not just binding of soluble and transmembrane TNF—are important in the treatment of IBD with REMICADE®.

While some *functional* assays found differences and others were less sensitive to differences, there is little or no basis for concluding that the less sensitive assays are more physiological. *None* of the assays are validated for predicting responses to a drug in a patient.

Not only does the REMICADE® mechanism of action differ in IBD compared with rheumatoid arthritis and ankylosing spondylitis, so too do its pharmacokinetics, site of action, typical dosing, concomitant meds, immunogenicity and safety profile. All raise questions about extrapolation.

Trials of CT-P13 to date do not adequately address residual uncertainty regarding use in IBD.

- **It has been demonstrated that clinical trials of anti-TNFs in arthritis are not sensitive to detect differences that emerge in treating IBD. While all approved anti-TNFs perform well in RA & AS, those with lower or no Fc mediated activity, appear to perform less well in IBD.**
- **Studies of switching from REMICADE® to CT-P13 provide varied results and no valid basis for concluding that patients thus switched did any better than had they been switched to placebo, as the limited data in patients who discontinued chronic REMICADE® maintenance in IBD indicate persistent remission is not uncommon.**

- **Uncontrolled induction studies using CT-P13 also provide varied results and, for several reasons, support no valid comparison of response rates to those of REMICADE®.**

Only direct clinical comparisons of CT-P13 and REMICADE® in active IBD can provide the requisite assurance that CT-P13 is similarly safe and effective. We urge the FDA and committee to await and consider, at a minimum, the results of ongoing Celltrion Study 3.4 comparing the two drugs in IBD, before making a determination about CT-P13 in IBD.

I thank you and urge you to read our detailed written testimony.