

**DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY**

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February 3, 2018

Dear Dr. Casadevall,

We would like to resubmit for your review: “***Fecal microbiota signatures are associated with response to Ustekinumab therapy among Crohn’s Disease patients***” by Matthew Doherty and our colleagues. This manuscript was previously “Accepted, In principle” (mBio02120-17). We have addressed the reviewers’ comments and are confident that the manuscript is now ready to be accepted.

As you are aware, there is growing interest in the role of the gut microbiota in a number of diseases including inflammatory bowel disease. This study is unique because it uses samples collected as part of a prospective clinical trail with longitudinal sampling to test the efficacy of ustekinumab to treat Crohn’s Disease. Using baseline samples we were able to identify bacterial populations that would predict whether a patient would respond to the therapy. This is a significant result because, to the best of our knowledge, no one has been able to make predictions about responses to medications based on a patient’s microbiota. Beyond these predictions, we also characterized the temporal changes in the gut microbiota of patients who received a placebo and those receiving the therapy.

The data presented in this manuscript are original and the manuscript is not under consideration elsewhere. None of the manuscript contents have been previously published. All authors have read and approved the manuscript for publication. The work was funded in part by Janssen Pharmaceuticals, makers of ustekinumab and members of their company are co-authors on the manuscript.

Thank you very much for your consideration and we look forward to your response.

Sincerely,

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Patrick D. Schloss, Ph.D.

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