Author's response to reviews

Title: Survival and digestibility of orally-administered immunoglobulins through the gastrointestinal tract in humans.

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Author's response to reviews:

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Dear Editors and Review Committee,

You will find this cover letter to be identical to the first cover letter which was uploaded for this manuscript. The purpose of changing which manuscript was submitted is merely because I accidentally uploaded the wrong file for the manuscript. The attached file is the correct manuscript. The main differences are stylistic. I apologize for any inconvenience this may cause you all.

Description of the work: This manuscript summarizes human clinical trials regarding the digestibility of orally-administered immunoglobulin (Ig) preparations. Although it is well appreciated that secretory IgAs (sIgAs) are not easily digested, it is not widely appreciated that IgG is less susceptible to digestion than other dietary proteins. This has been illustrated in various human clinical trials. There are a few reports indicating that orally-administered Ig preparations only result in trace amounts of active Ig in feces, however, quality studies in healthy volunteers have illustrated higher recovery. There is a multitude of literature in animal models which illustrate the nutritional implications of orally-administered IgG through spray-dried animal plasma. The goal of this review is to reemphasize the feasibility of orally-administered IgGs in human health.

Novelty and Originality: There is another review regarding pharmacokinetics of orally-administered Igs in humans:

This review is now 17 years old. We could not find another review article on the topic. This review also focuses more on clinical outcomes – our review mentions some clinical outcomes, however, the primary point of our review is to summarize both recovered IgG and measured immunological activity after oral administration. We summarize this in Table 1, which, itself is a useful reference as this field grows. We also include biochemical stability studies such as: melting temperature and length of time for in vitro enzymatic digestion, to bring to the reader’s attention that the structure of the IgG is directly responsible for increased stability against digestion.

We declare that this article is the original work of both Dr. Bruce Burnett and Dr. Victoria Jasion. We also declare that this article is not submitted elsewhere and we have not breached copyright of other work during the writing of this manuscript.

Authorship: We, Dr. Bruce Burnett and Dr. Victoria Jasion, both contributed to this manuscript per ICJME guidelines. We have omitted no one who made equal contributions. We have both reviewed and agreed upon this submitted version of the manuscript. We are both salaried employees for Entera Health, which markets an orally-administered immunoglobulin medical food.

Suggested Reviewers:
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Thank you for your careful review.
Respectfully,
Victoria S. Jasion, PhD.