

**Title: Role of nucleic acid sensing in pathogenesis of type-1 diabetes**

**Responses to reviewers' comments**

**Specific Comments to Authors:** The review describes in detail the role of nucleic acids, their sensors and downstream signaling pathways involved in the pathogenesis of T1D. In addition, the novel therapeutic approaches have been proposed to treat autoimmune diseases including T1D. The review has substantial content and proposes a conceptual framework to guide future research. Furthermore, the review is well written and easy to understand. However, few clinical studies have been cited in this review and therefore the review has the potential to have carried more conviction if it had cited more clinical studies. In general, I would like to highly recommend the publication of this review.

**Response:** At first, on behalf of all the authors I thank and appreciate the comments raised by the reviewers in this elaborate review. Since the topic is relatively new in context of type-1 diabetes and similar autoimmune diseases, there are very few clinical studies available where nucleic acid sensing pathways have been targeted.

As suggested by the reviewers, we have now included a few more clinical studies, particularly those aimed at assessing new therapeutic approaches to modulate inflammatory responses induced by aberrant nucleic acid sensing. In addition, we have now enlisted few more clinical trials and preclinical studies in the table-2 to underline the importance of nucleic acid sensing in T1D and similar autoimmune diseases. All the changes have been highlighted in the revised document. With these additions, I hope the reviewers will now find the revised version of the manuscript suitable for publication.

Thank you

Sincerely

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