

Peer Review File

Immunopeptidomics-based design of mRNA vaccine formulations against *Listeria monocytogenes*



Open Access This file is licensed under a Creative Commons Attribution 4.0

International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to

the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. In the cases where the authors are anonymous, such as is the case for the reports of anonymous peer reviewers, author attribution should be to 'Anonymous Referee' followed by a clear attribution to the source work. The images or other third party material in this file are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

Editorial Note: This manuscript has been previously reviewed at another journal that is not operating a transparent peer review scheme. This document only contains reviewer comments and rebuttal letters for versions considered at Nature Communications.

Reviewers' Comments:

Reviewer #1:

Remarks to the Author:

The authors have addressed all my comments with care, detail and discussion, and I have no further comments. As to my original assessment, this is a technically excellently performed study demonstrating the suitability for immunopeptidomics data to inform rational bacterial mRNA vaccine design in the context of *Listeria* infection, and it is suitable for publication in Nature Communication.

I noticed the occasional use of "epitope" before T cell reactivity of the peptide antigen was established which had escaped my previous evaluation, so this should be reviewed before publication.

Reviewer #3:

Remarks to the Author:

All of my previous concerns have been satisfactorily addressed!

Note: changes in the main text related to the reviewer comments and the items in the Author Checklist are highlighted in **green**.

Reviewer #1

The authors have addressed all my comments with care, detail and discussion, and I have no further comments. As to my original assessment, this is a technically excellently performed study demonstrating the suitability for immunopeptidomics data to inform rational bacterial mRNA vaccine design in the context of *Listeria* infection, and it is suitable for publication in *Nature Communications*.

I noticed the occasional use of "epitope" before T cell reactivity of the peptide antigen was established which had escaped my previous evaluation, so this should be reviewed before publication.

Answer: We thank the reviewer for his positive feedback and general support of our study. We have now replaced the term "epitope" with "immunopeptide" or "peptide" throughout the manuscript, except when the term was in a more broader context in the introduction or the discussion, or in the results after T-cell reactivity was established.

Reviewer #3

All of my previous concerns have been satisfactorily addressed!

Answer: We thank the reviewer for his positive feedback.