Author’s response to reviews

Title: Investigating the physiology of normothermic ex vivo heart perfusion in an isolated slaughterhouse porcine model used for device testing and training

Authors:

Benjamin Kappler (b.kappler@amc.uva.nl)
Carlos Ledezma (c.ledezma@ucl.ac.uk)
Sjoerd van Tuijl (s.vantuijl@lifetecgroup.com)
Veronique Meijborg (v.m.meijborg@amc.uva.nl)
Bastiaan Boukens (b.j.boukens@amc.uva.nl)
Bülent Ergin (b.ergin@amc.uva.nl)
PJ Tan (pj.tan@ucl.ac.uk)
Marco Stijnen (m.stijnen@lifetecgroup.com)
Can Ince (c.ince@amc.uva.nl)
Vanessa Díaz-Zuccarini (v.diaz@ucl.ac.uk)
Bas de Mol (b.a.demol@amc.uva.nl)

Version: 2 Date: 15 Sep 2019

Author’s response to reviews:

Dear Dr. Fitzpatrick, Dr. Byrne and Dr. Freed

we would like to thank you for your time to review this manuscript. The suggestions of the editor and reviewer have been addressed. We have added a summary table which indicates which results were found from each figure and have excluded the paragraph which was elaborating on the comparison of slaughterhouse hearts and DCD hearts. In addition, small textual changes have been corrected with some significant changes in one of the result paragraphs “Activation maps and wave propagation velocity measurements”.

We have added a table with changes for each point raised by the reviewers on the following pages.
Kind regards,

Benjamin Kappler

Editor

1) As requested by reviewer 2, due to the large amount of data generated by this study, please modify the existing summary diagram or create another indicating which results were found from each figure.

A table which highlights the results from each figure has been integrated in the discussion section in page 17.

(Darren Freed) Reviewer 1

Darren Freed (Reviewer 1): The authors have substantially changed the text of the manuscript and have altered the conclusions to more appropriately reflect the data presented. I still believe that this report suffers from an appropriate 'control' group making it difficult to assess the comparability of slaughterhouse hearts to other methods of donor heart procurement, or the comparability of the PhysioHeart system to other ex situ heart perfusion platforms and protocols.

We have deleted the discussion paragraph “Possible clinical relevance”, which was dealing with the possible similarities between slaughterhouse and DCD hearts.

Consequently, no comparison between slaughterhouse hearts and DCD hearts are mentioned throughout the manuscript.