Journal of Clinical and Translational Research
Peer review process file 05.201902.001

Redirection of transfusion waste and by-products for xeno-free research applications

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Review timeline:

Received: 14 August, 2019
Editorial decision: 17 October, 2019
Revision received: 28 October, 2019
Editorial decision: 31 October, 2019
Revision received: 1 November, 2019
Editorial decision: 3 November, 2019
Published online: 9 November, 2019

1st editorial response

17-Oct-2019

Ref.: Ms. No. JCTRes-D-19-00017

Repurposing transfusion waste and by-products for xeno-free research applications

Journal of Clinical and Translational Research

Dear authors,

An expert in the field has critically appraised your manuscript and has advised against publication of the work in its current format. The reviewer raised concerns regarding (1) lacking controls in your experiments; (2) lack of novelty; and (3) English language issue.

Two members of the editorial board have deliberated on the decision to be made regarding your manuscript in light of the reviewer comments, and it was decided to give the authors a chance to improve the manuscript in accordance with the issues raised. In doing so, we would

like you to 1) ensure that proper controls are used in your experiments; 2 address the novelty; and 3 correct the typos. With respect to the novelty issue, it would greatly benefit the paper to indicate where existing protocols, whether complementary or redundant to your work, can be retrieved. This could for example be incorporated into Figure 3. Naturally, the Discussion section also constitutes an appropriate platform to further elaborate on how your work is discriminatory and additive to existing literature.

Your revision is due by Nov 16, 2019.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Please do not hesitate to contact us in case of any questions.

We look forward to your resubmission.

Kindest regards, also on behalf of the associate editor,

Michal Heger

Editor-in-Chief

Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #1: Although the topic is interesting and of practical significance regarding the usage of xeno-free products for clinical applications I don´t think that the presented data add up significant new data/information in this field. Several previous publications (incl. protocols to isolate the components) already have taken up the idea of reusing blood products such as platelets (i.e. Optimized human platelet lysate as novel basis for a serum-, xeno-, and additive-free corneal endothelial cell and tissue culture. Thieme D et al. J Tissue Eng Regen Med. (2018)).

Besides several spelling errors and typos the lack of controls is also a point of criticism.

Author’s rebuttal

28-Oct-2019

Dear Editor,

We would like thank the Reviewer for going through our manuscript.

The Reviewer has stated that “Several previous publications (incl. protocols to isolate the components) already have taken up the idea of reusing blood products such as platelets”. We are by no means stating we are the first to use all the available products from a single Blood Establishment. In our paper we compare various methods of how to prepare and adapt these products for cell culture and fill in gaps in the information made available by previous authors. Examples of this in our work include the preparation of serum and platelet lysate by multiple methods (and comparing them), and the determination of TGF-β (which was not previously determined within all the different blood products used for culture).

The Reviewer cites Thieme et al., 2018 as being similar in scope to our work. However, in that paper the authors only prepare platele lysate by freeze-thawing and then check the viability of corneal cells cultured in 0.1mg/mL platelet lysate compared to 5% FCS. Their main conclusion from this is that platelet lysate is suitable for primary endothelial cell expansion. This is very limited in scope compared to our work. The research by Muraglia et al., 2018, which we cite uses both human platelet lysate (only freeze-thaw extraction) and serum (cleared by CaCl2). However, they do not look at 3D cultures using fibrin or WBCs. Moreover, their focus is on cell cycle reentry and proliferation after switching from FCS culture, rather than the constitution and applicability of all form of blood products available from a Blood Establishment for complete replacement. The growth factors they focus on are PDGF-BB and VEGF in platelet lysate and serum, with no comparison to FCS, while in our study, the focus was on TGF-β with a comparison in all available products including a comparison to FCS.

The Reviewer goes on to state that there are “several spelling errors and typos” but as the Editor can see from our corrected manuscript, there isn’t a single spelling error or typo. We have however tried our best to improve further on the text by including the temperature of every centrifugation and solution, the brand and catalogue number of all reagents used, the details of reagent preparations (including medium supplementation) and further clarifications of the procedures performed.

Finally, the Reviewer has stated that there is a “lack of controls”. However, each experiment compares either to FBS or where it is known that FBS is not compatible, we have provided a range of conditions to cover the expected functional range. This is the standard approach by authors in this field.

Your Faithfully,

Dr Byron Baron

2nd Editorial decision

31-Oct-2019

Ref.: Ms. No. JCTRes-D-19-00017R1
Repurposing transfusion waste and by-products for xeno-free research applications
Journal of Clinical and Translational Research

Dear author(s),

The editor has performed a final perusal of your paper. His comments are appended below. Based on their comments and evaluation by the editorial board, your work was FOUND SUITABLE FOR PUBLICATION AFTER MINOR REVISION.

If you decide to revise the work, please itemize the reviewers' comments and provide a point-by-point response to every comment. An exemplary rebuttal letter can be found on at http://www.jctres.com/en/author-guidelines/ under "Manuscript preparation." Also, please use the track changes function in the original document so that the reviewers can easily verify your responses.

Your revision is due by Nov 30, 2019.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely,

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Reviewers' comments:

• Section 2.3: please indicate the centrifugation time and temperature.
• Section 2.5: provide more detail about how protein concentration was determined. If no assay was used, at least provide information on which wavelengths were used.
• Section 2.10: With “basal DMEM:F12”, are you referring to non-supplemented medium? If yes, please use that phrase.
• Section 2.13: please indicate at which wavelengths the RNA concentration was determined spectrophotometrically.

Please implement these last modifications in the Word document that I have prepared for you, which encompasses some more minor corrections by me. This document can be downloaded via the following secure link:

https://filesender.surf.nl/?s=download&token=699d6d69-4599-4c7c-b7da-7562437a6956

The link will remain active until 10 November 2019.

3rd Editorial decision

3-Nov-2019

Ref.: Ms. No. JCTRes-D-19-00017R2
Repurposing transfusion waste and by-products for xeno-free research applications
Journal of Clinical and Translational Research

Dear authors,

I am pleased to inform you that your manuscript has been accepted for publication in the Journal of Clinical and Translational Research.

You will receive the proofs of your article shortly, which we kindly ask you to thoroughly review for any errors.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Comments from the editors and reviewers: