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Mitochondria—hubs for regulating cellular biochemistry: emerging concepts and networks

Alexander J. Anderson, Thomas D. Jackson, David A. Stroud and Diana Stojanovski

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Review timeline

Original submission:	7 June 2019
Revised submission:	11 July 2019
Final acceptance:	12 July 2019

Note: Reports are unedited and appear as submitted by the referee. The review history appears in chronological order.

Review History

RSOB-19-0126.R0 (Original submission)

Review form: Reviewer 1

Recommendation

Accept with minor revision (please list in comments)

Scientific importance: Is the manuscript an original and important contribution to its field? Excellent

General interest: Is the paper of sufficient general interest? Excellent

Quality of the paper: Is the overall quality of the paper suitable? Excellent

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Is it accessible? N/A Is it clear? N/A Is it adequate? N/A

Do you have any ethical concerns with this paper? N_0

Comments to the Author

This is an excellent, up-to-date review on mitochondrial biology, dynamics and regulation. The authors discuss the large variety of mitochondrial functions and their integration into a dynamic network. The chapters are structured very well and are presented in a clear and logic arrangement. The figures are oustanding. I fully recommend publication of this excellent review article.

Minor points:

- Explain abbrevations, e.g. DRP1, MFF, MiD49, MiD51. Due to the large number of factors presented, it would be helpful for the reader to include a table where all abbreviations are explained (possibly arranged in functional groups such that the table of abbrevations also provides an overview of the numerous mitochondrial tasks).

- Indicate that HUMAN mitochondria are meant in the part describing that mtDNA encodes 13 polypeptides.

- TIM23 can also mediate the import of polytopic (multi-spanning) inner membrane proteins, e.g. ABC transporters. To distinguish the functions of TIM23 and TIM22, the authors can include that TIM22 mediates the insertion of NON-CLEAVABLE polytopic membrane proteins.

Decision letter (RSOB-19-0126.R0)

05-Jul-2019

Dear Dr Stojanovski

We are pleased to inform you that your manuscript RSOB-19-0126 entitled "Mitochondria - hubs for regulating cellular biochemistry: emerging concepts and networks" has been accepted by the Editor for publication in Open Biology. The reviewer(s) have recommended publication, but also suggest some minor revisions to your manuscript. Therefore, we invite you to respond to the reviewer(s)' comments and revise your manuscript.

Please submit the revised version of your manuscript within 14 days. If you do not think you will be able to meet this date please let us know immediately and we can extend this deadline for you.

To revise your manuscript, log into https://mc.manuscriptcentral.com/rsob and enter your Author Centre, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, please revise your manuscript and upload a new version through your Author Centre.

When submitting your revised manuscript, you will be able to respond to the comments made by the referee(s) and upload a file "Response to Referees" in "Section 6 - File Upload". You can use this to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the referee(s).

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2) A separate electronic file of each figure (tiff, EPS or print-quality PDF preferred). The format should be produced directly from original creation package, or original software format. Please note that PowerPoint files are not accepted.

3) Electronic supplementary material: this should be contained in a separate file from the main text and meet our ESM criteria (see http://royalsocietypublishing.org/instructions-authors#question5). All supplementary materials accompanying an accepted article will be treated as in their final form. They will be published alongside the paper on the journal website and posted on the online figshare repository. Files on figshare will be made available approximately one week before the accompanying article so that the supplementary material can be attributed a unique DOI.

Online supplementary material will also carry the title and description provided during submission, so please ensure these are accurate and informative. Note that the Royal Society will not edit or typeset supplementary material and it will be hosted as provided. Please ensure that the supplementary material includes the paper details (authors, title, journal name, article DOI). Your article DOI will be 10.1098/rsob.2016[last 4 digits of e.g. 10.1098/rsob.20160049].

4) A media summary: a short non-technical summary (up to 100 words) of the key findings/importance of your manuscript. Please try to write in simple English, avoid jargon, explain the importance of the topic, outline the main implications and describe why this topic is newsworthy.

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- DNA sequences: Genbank accessions F234391-F234402
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- Final DNA sequence assembly uploaded as online supplemental material
- Climate data and MaxEnt input files: Dryad doi:10.5521/dryad.12311

Once again, thank you for submitting your manuscript to Open Biology, we look forward to receiving your revision. If you have any questions at all, please do not hesitate to get in touch.

Sincerely, The Open Biology Team mailto:openbiology@royalsociety.org

Reviewer(s)' Comments to Author:

Referee: 1

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Decision letter (RSOB-19-0126.R1)

12-Jul-2019

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We are pleased to inform you that your manuscript entitled "Mitochondria - hubs for regulating cellular biochemistry: emerging concepts and networks" has been accepted by the Editor for publication in Open Biology.

You can expect to receive a proof of your article from our Production office in due course, please check your spam filter if you do not receive it within the next 10 working days. Please let us know if you are likely to be away from e-mail contact during this time.

Thank you for your fine contribution. On behalf of the Editors of Open Biology, we look forward to your contributions to the journal.

Sincerely,

The Open Biology Team mailto: openbiology@royalsociety.org