



2018-2019 Mid-Term Credibility Plan Review

PI: Jonathan Lederer

#	Ten Simple Rules	REVIEWER #1		REVIEWER #2	
		Considered in the Credibility Plan?	Comments	Considered in the Credibility Plan?	Comments
1	Define context clearly	sufficient	Very clear statement of the COU, including a statement of targeted end-users.	sufficient	Investigators provide a good and concise description of the context of model application
2	Use appropriate data	sufficient	The researchers appear to be leveraging the most appropriate data from the literature, and those collected within the scope of their investigation.	sufficient	Describes that model data is obtained from literature, however, needs to mention traceability
3	Evaluate within context	sufficient	Good V&V strategy in place	insufficient	Investigators give concise overview of verification and validation activities. Needs more detail on UQ and sensitivity assessment.
4	List limitations explicitly	sufficient	Excellent description of the known limitations.	sufficient	Good description of primary limitations. Improvement in description indicates how these are tracked and communicated
5	Use version control	sufficient	The manual version control seems to be adequate for the lifecycle of this investigation. The researchers may also want to consider a version control system for long-term sustainability of the work (e.g. when other researchers and modelers want to build on the work)..	sufficient	Used built in system VCell system.
6	Document adequately	sufficient	There seems to be an adequate documentation strategy for the lifecycle of this study. As part of the above recommendation for long-term sustainability of the project, the researchers should consider syncing the documentation with the version control.	sufficient	A document system is described, so credibility can be assessed.
7	Disseminate broadly	insufficient	A strategy does not seem to be in place on how the model will be shared with the rest of the research community The current description seems to be focused more on conference presentations, tutorials and publication without clear indication of how potential users can access the model..	sufficient	Dissemination today is primarily through publication. Supplementary material describes a broad dissemination plan by various outlets. Future iterations should discuss how feedback acquisition and assessment will be handled
8	Get independent reviews	sufficient	Sufficient strategy is in place	insufficient	Outlines of a plan to involve independent reviews is provided, Unclear the extent of this review or timeline for completing.
9	Test competing implementations	sufficient	There does not seem to be any competing implementation. But the investigators have a plan to compare 3D membrane segmentation methods to existing computational methods.	sufficient	Investigators adequately explain that no competing implementations exist for model, although the segmentation algorithm will be compared.



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10	Conform to standards	sufficient		sufficient	Standards being followed are noted and specified.
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General Comments

Reviewer 1:

None Provided

Reviewer 2:

Thank you for submitting an assessment of this very interesting project's credibility, even though a credibility plan was not required for this award. In general the investigators are doing a very good job in communicating the model credibility and in developing evidence of credibility as standard practice in the model development effort. This is to be applauded. A few areas that could be improved as the project moves forward involve implementing and communicating a more consistent documentation system, descriptions of uncertainty quantification and sensitivity analysis, and more specifics in getting and implementing feedback through planned dissemination and independent reviews. Also noted is the excellent description of Issues and concerns and other factors that involve credibility. It is suggested that these could also be captured in the explicit limitations factors.