Reviewer Report

Title: **KREAP: An automated Galaxy Platform to Quantify in vitro Re-Epithelialization Kinetics**

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Reviewer name: **Dannon Baker**

Reviewer Comments to Author:

This is an informative article presenting KREAP, a Kinetic Re-Epithelialization Analysis Pipeline for use in Galaxy. The pipeline consists of several separate, complex tools wrapped into two comprehensive Galaxy tools, one for image analysis and one for data modeling, making it very easy to use. A virtual machine is provided encapsulating a Galaxy instance with the tools pre-installed, and the authors have made sample data available for demonstrating the pipeline's utility. The provided virtual machine was easy to configure and launch, and Galaxy starts automatically and is immediately available for use. Here I would make a discretionary revision recommendation that instead of shipping the .vmdk virtual drive it would be beneficial to utilize the .ova (Open Virtual Appliance) format for simpler, more standard distribution. A docker version would probably be well-received, too, as it's rapidly becoming the standard way to ship services like this. Lastly, it would be nice for these tools to ultimately be added to the Galaxy Tool Shed for non-VM distribution, though it looks like the dependencies might be cumbersome to deal with and I understand the distribution choices made here. The tool interfaces in Galaxy are straightforward and easy to use, especially considering the additional tutorial materials available. The tools worked well for me, with no errors. The only discretionary recommendation I have here is related to the somewhat cumbersome manifest file. It'd be more convenient, I think, to add an additional tool in Galaxy that can consume a collection to generate this file, or perhaps modify the initial image analysis tool itself to support collections, in addition to the pre-bundled zip format. In my opinion the work presented here is a solid, easy to use addition to the Galaxy ecosystem (not to mention the larger analysis space) in an area that is currently underserved and sometimes complicated to navigate. attached.

Level of Interest

Please indicate how interesting you found the manuscript: An article of importance in its field

Quality of Written English

Please indicate the quality of language in the manuscript: Acceptable

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