**Reviewer’s report**

**Title:** Statistical Permutation-based Artery Mapping (SPAM): A Novel Approach to Evaluate Imaging Signals in the Vessel Wall

**Version:** 1  **Date:** 07 Mar 2017

**Reviewer:** Dimitrios Fotiadis

**Reviewer’s report:**

In this paper a novel facial method for analysis molecular images with regard to atherosclerosis plaque formulation is presented; it is based on a semi-automatic standardization approach in combination with permutation testing and cluster enhancement method.

- The manuscript is well written and structured.

- In the introduction the rationale and state of the art are clearly described supported by several up to date references.

- The proposed method is sound and it utilizes almost up to date literature. Moreover the method is described in detail supported by several figures, which explain it.

- The proposed method has been validated satisfactorily in the result section.

- Finally, the discussion session provides a summary of the findings and explains well the prons and cons of the model as well as future direction.

- In my opinion, this manuscript could be accepted as it is.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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