Reviewer's report

Title: Flow: Statistics, visualization and informatics for flow cytometry

Version: 1 **Date:** 13 May 2008

Reviewer number: 2

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1. The challenging in the analysis of high-throughput data is one the bottlenecks in the current post-genomic era. The need of tools that allow the easy application of statistical methods is increasing. Although the Bioconductor project provides the packages rflowcyt and flowCore (and derivatives) for the analysis of Flow Cytometry data, the nature of the R graphic display makes difficult the interaction with the user. Therefore, the user needs to know how to do the analysis using the command line interface. The existence of free tools for the analysis of FCS data from an interactive point of view is very welcome, and this reviewer finds that this software will be undoubtedly very useful for experimentalist.

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

None found.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

2. In page 2, Background, first paragraph. The sentences: “Polychromatic flow cytometry (PFC) is the only currently available assay that can track individual functional responses in different cell subsets simultaneously...” needs a citation.

3. In page 9, Discussion and Conclusions, first paragraph. The correct case for Rflowcyt is rflowcyt and for FlowCore is flowCore, according to the description in the Bioconductor web page.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

4. Although this software might be very useful for people working with FCS data, the drawback this reviewer sees is that the installation of all the dependencies needed for the program to run is not trivial. Consequently, a regular user will find a lot of problems with it, limiting the number of potential users or requiring the advice of an expert. Therefore, my advice is that as much as possible, the authors buddle some of the requirements in the distribution. This will have the benefit of reducing the dependencies and including compatible versions of them.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.