Reviewer's report

Title: Three-dimensional mapping of mechanical activation patterns, contractile dyssynchrony and dyscoordination by two-dimensional strain echocardiography. Rationale and design of a novel software toolbox.

Version: 1 Date: 14 April 2008

Reviewer: Rosa Sicari

Reviewer's report:

In the present manuscript De Boeck et al. propose a novel method for the assessment of contractile dyssynchrony. The manuscript is well written, the study is fair and balanced in addressing the limitations of the technologies available so far for the assessment of dyssynchrony. There are a few issues that authors should address.

1. It would be important to stress the fact that new technologies have entered the clinical arena long before they demonstrated to have an added value when compared to more conventional, user-friendly and routine applicable methods. Authors are aware of these issues but may give a stronger message.

2. The search for the perfect parameter to assess dyssynchrony has yet to be identified. Please comment how the proposed method can be clinically implemented.

3. Outline the advantages of the proposed method and how it improves analysis when compared to SR.

4. Figures are a little too complicated and should be simplified with a more straightforward message.

5. Authors can upload movies.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

'I declare that I have no competing interests'