Reviewer’s report

Title: Comparison of the Novel Medtentia Double Helix Mitral Annuloplasty System with the Carpentier-Edwards Physio Annuloplasty Ring: Morphological and Functional Long-Term Outcome in a Mitral Valve Insufficiency Sheep Model

Version: 1 Date: 23 January 2013

Reviewer: Namsik Chung

Reviewers report:

<Major Compulsory Revisions>
1) Are there any compelling requirements for the new double helix system in patients with mitral insufficiency? Please clarify why this new system was developed and how it fulfilled preexisting unmet needs.

2) Time for surgery, perfusion time, and total implantation time is operator dependent variable. It should be clarified how the study was designed to overcome the operator dependency.

3) Any figures after the Medtentia annuloplasty double helix system implantation with TTEs might be helpful.

4) Although there were no clinical thromboembolic events, unevaluated subclinical thromboembolism in the animal study could be their limitations.

<Minor Essential Revisions>
1) 11 page: hromboembolic -> thromboembolic

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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