Reviewer's report

Title: Increased Rod Stiffness Improves the Degree of Deformity Correction by Segmental Pedicle Screw Fixation in Adolescent Idiopathic Scoliosis

Version: 1 Date: 14 June 2011

Reviewer: Marc Asher

Reviewer's report:

Minor-Abstract, Results, Line 5. Do you mean likewise rather than likely?

Minor-Page 9, Age, Gender, and curve type, Line 1. Cobb angle rather than angel.

Discretionary-I'm not sure why you give the increase in kyphosis a negative value. It seems to me that should be a positive value.

Discretionary-Page 9, Correlation between the deformity correction and the order of operation. In this paragraph you use r values and in Figure 2 you use r square values. This makes reconciliation between these two areas confusing for the reader. Would suggest using the same values for both.

Discretionary- Reference 8. While it is true that their fusions were stiffer with the larger rod, the constructs were not similar. As I remember it, in the experimental study the anchors were wires and thus the connections not stiff. I could be wrong so you might want to check it. In your study the anchor (screw) -rod connections were stiff. In other experimental studies stiffer constructs, with longer follow-up, did have a negative effect fusion stiffness.

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.

Declaration of competing interests:

Yes, codesigner of Isola Implants.