Reviewer's report

Title: Biomechanical Analysis and Modeling of Different Vertebral Growth Patterns in Adolescent Idiopathic Scoliosis and Healthy Subjects

Version: 2 Date: 4 April 2011

Reviewer: Keith Bagnall

Reviewer's report:

Major compulsory revisions

none

Minor essential revisions

- the whole manuscript lacks an english 'flow'. The authors might be encouraged to allow somebody whose first language is english to read the manuscript and make suggestions:
- Background
  1st para - ....during the adloescent growth spurrt ....
  3rd para - .... and contributes ....
- Methods
  2nd para - ...was built ...
  simulation of different ....; ....in centimeters per year
  sensitivity analyses ......; ...undertaken to ensure ...
- Discussion
  2nd para - ....reported in the literature ..... 
  there are more 'mistakes' and overall constrction of some phrases and sentences could be better

Overall this is a very good paper. This type of work is to be encouraged and supported because of the potential it holds for the future. The steps that need to be taken to improve and perfect this methodology are being taken and this paper represents the latest work in this area.

Discretionary revisions

Level of interest: An article of importance in its field

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.
Declaration of competing interests:

'I declare that I have no competing interests'