Reviewer's report

**Title:** Adolescent idiopathic scoliosis (AIS), environment, exposome and epigenetics A molecular perspective of postnatal normal spinal growth and the etiopathogenesis of AIS with consideration of a network approach and possible implications for medical therapy A molecular perspective of postnatal normal spinal growth and the etiopathogenesis of AIS with consideration of a network approach and possible implications for medical therapy

**Version:** 1  **Date:** 21 October 2011

**Reviewer:** Stefano Negrini

**Reviewer's report:**

Very nice and interesting paper, worthwhile publication. Only 3 points to be considered for me.

**Minor Essential Revisions**

1. Page 3-4. Aim of paper should be only one statement and not a list of the different points composing the paper. Please, synthesize all these points in one sentence

2. Page 6. If you look at Physical Activities for patients with AIS, you should consider also that physical exercises proved to be useful in scoliosis treatment, and this gives another very important point in favour of your hypothesis. Please, shortly refer to the relevant literature (in particular, there are already 4 systematic reviews published where you can find all the relevant papers, as well as the recent editorial in Scoliosis presenting the Rehabilitation Schools Series)

3. Following on this topic, while didn’t you consider also the efficacy of braces, that proved to be able to change the natural history of scoliosis (weak proves, but proves !). A Cochrane Review has been published recently, and a lot of papers in Scoliosis Journals that should be cited.

**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:**

I declare that I have no competing interests