Reviewer's report

**Title:** Twenty-four hours secretion pattern of serum estradiol in healthy prepubertal and pubertal boys as determined by a validated ultra-sensitive extraction RIA

**Version:** 1  **Date:** 7 May 2008

**Reviewer:** Offie Soldin

**Reviewer's report:**

The outcomes of this research are interesting and of importance, and the manuscript is well written.

**Major Compulsory Revisions:**

The biggest problem is that there is no proof or validation that the immunoassay used for estradiol detection is specific. Does it cross react with other steroids? Even a small degree of cross reactivity would explain these results. Therefore, the authors need to compare the estradiol results in groups of age 12.4, 13.5, 15.2 and 17.2 with estradiol results using a specific and sensitive mass spectrometry method (in the published literature).

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'