Reviewer’s report

Title: Growth Inhibition of Anaplastic Thyroid Cancer by Opioid Growth Factor (OGF)

Version: 2 Date: 27 June 2009

Reviewer: jim yeung

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Major Compulsory Revisions:
1. The last paragraph in the Introduction need to be rewritten. As the authors did not obtain any additional ATC cell lines, and opted to use one additional FTC cell line. The statement that "The present investigation............ untreatable form of thyroid cancer - ATC" need to be changed.
2. Since "OGF and OGFr have been detected by immunohistochemistry in surgical samples of non-medullary thyroid cancer including, papillary, follicular, and anaplastic, as well as thyroid tissue from patients with non-malignant disease", it is not logical to only expand the investigation to include only FTC and not PTC which accounts for about 80% of thyroid cancers. I would suggest that at least one more papillary thyroid cancer cell line to be included in the study.
3. "Data ..... represent means +/- SE for at least 2 aliquots/well from 2 wells/group." My understanding for the t-test and ANOVA, the measurements must be independent of each other. As described by the authors, there were only two independent measurements per group. This casts doubt on the validity of all the statistics. This issue escaped my attention in the previous review. I am not a statistician and I would recommend that this issue should be reviewed by a statistician.

Level of interest: An article of importance in its field

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.