Reviewer’s report

**Title:** Genetic and bioinformatic analyses of the expression and function of PI3K regulatory subunit PIK3R3 in an Asian patient gastric cancer library

**Version:** 1 **Date:** 3 February 2012

**Reviewer:** Masaru Katoh

**Reviewer’s report:**

The authors carried out microarray analyses to find relatively frequent upregulation of PIK3R3 among 126 cases of primary gastric cancer, and also upregulation of PIK3R3 in HGC27 and IM95 cells among four gastric cancer cell lines. They then showed effects of PIK3R3 knockdown in HGC27 cells. The following issues were noticed in this paper.

1. The authors showed upregulation of PIK3R3 in primary gastric cancer and gastric cancer cells by using microarray analyses. According to the current common sense on data sharing, the authors should disclose whole data of microarray analyses on gastric cancer based on data deposition to the public database.

2. The authors showed effects of PIK3R3 siRNA in HGC27 cells. To avoid cell line-based bias, the authors need to add data of parallel experiments on PIK3R3 knockdown in IM95 cells.

3. In addition to knockdown experiments, the authors are advised to carry out PIK3R3 overexpression experiments in KATO-III or MKN45 cells.

**Level of interest:** An article of outstanding merit and interest 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.