Reviewer's report

**Title:** Increased expression of urokinase plasminogen activator and its cognate receptor in human seminomas

**Version:** 1  **Date:** 2 January 2010

**Reviewer:** Yasuyoshi Miyata

**Reviewer's report:**

The authors investigated m-RNA and protein expression of urokinase plasminogen activating system (uPAS) in normal human testis and seminomas. These parameters were evaluated by quantitative RT-PCR, western blot, zymographic analysis, and immunohistochemistry. They found that m-RNA expressions of urokinase plasminogen activator (uPA) and its cognate receptor (uPAR) in tumor tissues were higher than those in control tissues. In addition, their protein expressions in tumor tissues were also increased compared to those in normal tissues. On the other hand, all members of uPAS were not associated with TNM stage and tumor size.

I appreciated that this manuscript had important information regarding the clinical and pathological significance of uPAS in seminomas. In addition, there is no major mistake on methodology and direction for discussion. However, I have some major questions and you should explain them.

(Major Compulsory Revisions)

1. In this study, quantitative RT-PCR was performed in 14 cases. On the other hand, western blot, zymographic analysis, and immunohistochemistry were done in 3, 3, and 10 cases, respectively. These analyses are relatively simple and easy methods. Please tell me reasons that number of cases were different in each analyses.

2. One of the most important results in this study was obtained by correlation analysis between these parameters and clinicopathological features. I agree that Pearson's correlation is useful method to analyze these correlations. However, in this study, number of patients is relatively low (n=14) and there are several outliers (of uPA and uPAR). Number of variables and outlier are well known to be influent with correlation coefficient and p value. I am afraid that these results always demonstrate accurate phenomenon. Please tell me your opinion and show it into text.

(Minor Essential Revisions)

1. In Methods (Normal and tumoral human testicular tissues), you showed that "14 cases of TGCT and 6 normal...". In this study, you analyzed uPAS expressions in only seminomas. In general, TGCT (testicular germ cell tumors) included non-seminoma cancers. I am afraid that this sentence may give
confusion to readers. Please modify it.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.