Reviewer's report

**Title:** QPRT: a potential marker for follicular thyroid carcinoma including minimal invasive variant. A gene expression, RNA and immunohistochemical study.

**Version:** 1 **Date:** 26 December 2008

**Reviewer:** Kenneth Devaney

**Reviewer's report:**

To begin with the less substantial observations- the grammar could do with a very minor bit of editing- which I trust will occur during the formal editing process.

Follicular lesions of the thyroid continue to be a vexing problem; while quinolinate phosphoribosyltransferase is known to be upregulated in follicular adenomas, this is the first suggestion I have seen that it is substantially more upregulated in follicular malignancies than in follicular adenomas. The potential use of the antibody is appealing- prospectively, almost 80% of adenomas were QPRT negative, while over 80% of minimally invasive carcinomas were QPRT positive- but it seems likely that this antibody will probably be most useful as one component of a panel, and not as a stand-alone entity. Which is certainly not an uncommon experience in diagnostic surgical pathology. Still, the appearance of QPRT in over a quarter of the nodular goiters gives oen pause. Perhaps as experience with the antibody grows, differential patterns of staining may be revealed which will make the distinctions here clearer.

The dermatopontin immuno results were disappointing, but who could have predicted that in advance, without doing the experiment? Even negative data is valuable in this problematic area.

In sum, this is a particularly thorough examination of a significant number of thyroid lesions which revealed unexpected results- some of which might prove to be of use to the working surgical pathologist in the future.

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have no competing interests.