Reviewer’s report

Title: The pathophysiology of hyperuricaemia and its possible relationship to cardiovascular disease, morbidity and mortality

Version: 1 Date: 9 June 2013

Reviewer: Pascal Houillier

Reviewer’s report:

This is an interesting, comprehensive and objective review on the physiological and pathophysiological aspects of uric acid homeostasis and hyperuricemia.

I only have a few minor essential comments

1. Since the renal handling of uric acid/urate is a major determinant of blood urate level, the factors known to alter the renal tubular handling of uric acid/urate should be listed and shortly commented.

2. "Chronic kidney disease" section, first paragraph. The sentence "However, an alternative explanation..." confuses me a bit. Could the authors be more explicit and quote references supporting the statement if any is available?

3. A few typos need to be corrected:
   Abstract: second line "of" is missing after "pathophysiology"
   Conclusion, 3rd line: "Understanding"
   Figure 1: bottom of the figure: tubular instead of tubilar

Discretionary revision

1. The intriguing observation that UMOD mutations are associated with hyperuricemia suggest that urate transport (in the proximal tubule) might be directly or indirectly affected by UMOD. Would the authors comment on this?

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