Reviewer's report

Title: Pseudonymization of patient identifiers for translational research

Version: 2 Date: 23 December 2012

Reviewer: Klaus Pommerening

Reviewer's report:

Major Compulsory Revisions

1. The proposed method is quite similar to the pseudonymization procedure in German epidemiological cancer registries. A suitable reference is Pommerening K, Miller M, Schmidtmann I, Michaelis J: Pseudonyms for cancer registry. Meth Inf Med 35 (1996): 112–121. The authors should compare their approach with the one given there. What then is innovative in the authors' approach?

2. The legal position of the proposed "ombudsmen" is not clear. There is a thorough expertise on the legal requirements for trusted third parties (in German) available online from the TMF website: http://www.tmf-ev.de/Produkte/Uebersicht/ctl/ArticleView/mid/807/articleId/296/P052011.aspx The authors should use this to discuss the requirements for ombudsmen.

Minor Essential Revisions

3. A field report describing practical experiences with the proposed approach would be welcome. It should address usability and acceptance.

4. Genetic data lead to a high inherent re-identification risk, see Lin/Owen/Altman, Science 305 (2004). The authors should address this problem.

Discretionary Revisions

5. In section "Background/ Identity Management" the reference to [9] is inadequate.

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 declare that I have no competing interests.