Reviewer's report

Title: Aluminum concentrations in central and peripheral areas of malignant breast lesions do not differ from those in normal breast tissues

Version: 3 Date: 3 October 2012

Reviewer: Chris Exley

Reviewer's report:

The authors have made significant efforts to improve their manuscript. The following are suggested Discretionary Revisions.

I would like to have seen matched-pairs statistical analyses comparing the aluminium content of tumour tissue (all) with 'normal' breast tissue. At the moment these comparisons seem to be between two types of tumour tissue and non-tumour tissue? When this is done for unfatted tissue, as is the case in this research, it would be important to try to compare like with like in the terms of the fat content as tissues with higher fat content give both higher 'dry' weights and our previous research suggested that aluminium was less likely to accumulate in breast fat (oil) compared to the non-fatty tissue. One way of matching like with like would be to compare % water loss during drying. Non-fatty tissue tends to lose about 80% of its wet weight while fatty tissue may lose only 10-20% of its wet weight.

The authors should be aware that Krewski et al is also a non-peer reviewed publication funded by the aluminium industry! Again, i would prefer it if such types of publication were not cited.

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:

We have a similar manuscript to this under review at the moment.