Author's response to reviews

Title: Mammaglobin A and lipophilin B are co-expressed in breast cancer and gynecologic malignancies

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REVISION NOTE

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Expression analysis of Mammaglobin A (SCGB2A2) and Lipophilin B (SCGB1D2) in more than 300 human tumors and matching normal tissues reveals their co-expression in gynecologic malignancies

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Responses to reviewers' comments:

Reviewer: Timothy Fleming

Comment 1: The authors have provided very interesting data that suggests that mammaglobin and lipophilin B are strongly expressed in cervical, uterine, and ovarian tumors, along with the breast cancer material. The data is very reliant on a commercial dot blot array, containing synthesized cDNAs from tumor and normal matched tissue specimens. And this data is not quantitative. To verify this preliminary finding, the authors should analyze tumor samples and normal control material, ideally intra-patients samples to confirm this in a more quantitative and meaningful assay - qRT/PCR or IHC analysis. This will validate the promising data obtained in the tissue array analysis. An additional validation experiment, using a small number of patient samples (5-10), is necessary to confirm and validate the findings. IHC could be done on paraffin-fixed samples - antibodies that recognize mammaglobin/lipoB protein are available through Zeta-Corporation (USA) and AgriSera (www.agrisera.se).

Response 1: We have performed immunohistochemistry analysis with a mammaglobin A-specific antibody on paraffine-embedded normal and tumor tissue samples from breast, cervical and endometrial cancer. These data clearly show that cervical and endometrial tumors express mammaglobin A as well. Unfortunately, we could not get the lipophilin B specific antibody suggested by the reviewer from the named companies.
Comment 2: Figure 2 - while being very informative, was very difficult to follow. It would be better to label the panels, with the tissue name, so it is easier to read and understand.

Response 2: We have labeled the panels with the tissue names (and gene probes used) as suggested by the reviewer.

Reviewer: Paul Span

Comment 1: The abstract should contain more actual data. The numbers of tissues tested and percentages positives, etc. are necessary to properly value the paper when reading the abstract.

Response 1: We have included in the abstract the numbers of tumor/normal tissues samples and cell lines analyzed. Furthermore the abstract now contains the key numbers of differential expression from Table 2 (mammaglobin A /lipophilin B coexpression data). Finally we have altered the title to properly value the amount of data contained in the manuscript to: "Expression analysis of Mammaglobin A (SCGB2A2) and Lipophilin B (SCGB1D2) in more than 300 human tumors and matching normal tissues reveals their co-expression in gynecologic malignancies".

Comment 2: Similarly, the results section might contain a statistical analysis of the coexpression of both proteins, e.g. a Spearman correlation test or similar.

Response 2: We performed the Spearman correlation test to determine the significance of the mammaglobin A and lipophilin B coexpression. These values have been added to the result section.

Comment 3: The labels in figure 2 of the different amounts of MG and LipB contains a mistyping: mg should be ng. The 1 pg label is missing.

Response 3: We have corrected this mistyping. Thank you.

Comment 4: Please use the same order of reporting in both materials & methods, and in the results section; the Northern Blot method should be mentioned before the expression analyses.
Response 4: We established the same order of reporting for both material & methods and the result section. The order is now: Northern, Cancer profiling array, qPCR, in situ hybridization and immunohistochemistry.