Reviewer's report

Title: Mesenchymal and stemness circulating tumor cells in early breast cancer diagnosis

Version: 3 Date: 20 December 2011

Reviewer: Lisa Rydén

Reviewer's report:

Review on Mesenchymal and stemness circulating tumor cells in early breast cancer diagnosis

Major concerns:

1. The definition of a CTC in the paper is not clarified. Obviously the authors have used both the basic AdnaGen test (as stated on p 3 on the top in the discussion section) and the test including Twist and other putative EMT markers. However, the authors have only collected 7 ml of whole blood from the patients – is this volume enough for both analysis? The data on CTC according to the basic AdnaGen test has to be provided so a comparison to the experimental panel can be performed for each patient. The detection rate of 1/61 patients with primary breast cancer being CTC positive according to the AdnaGen detect kit is not in accordance with the literature.

2. The basic characteristics of the patients in the Table 1 is not given according to the standard procedure in the literature today (no HER2 status, no proliferation marker). The information of a proxy marker for the intrinsic subclasses (lum A, lum B, HER2 and triple-negative) would have strengthened the finding of the EMT markers in specific subclasses of primary breast cancer.

3. The statistic section in the methods is not completely written (lack of software etc). Table 1 lacks data on the statistical analysis.

Minor concerns:

The manuscript must be sent to linguistic revision. There are several copyediting failures like the way the authors spell AdnaGen for instance besides that it is not written in correct English.