Reviewer’s report

Title: The high affinity selectin glycan ligand C2-O-sLex and mRNA transcripts of the core 2 beta-1,6-N-acetylglusaminyltransferase (C2GnT1) gene are highly expressed in human colorectal adenocarcinomas

Version: 1 Date: 17 September 2008

Reviewer: Fabio Dall'Olio

Reviewer’s report:

Major compulsory revisions

A comparison of the reactivity between CHO-131 and a "usual" anti sLex antibody, such as csLex1, on a some selected specimens is necessary to understand the differences in the pattern of expression of "general sLex" and C2-O-sLex epitope. For example, 1 sample for each of the three differentiation classes (well, moderately and poorly) and for each class of staining reactivity (from 0 to 3), total 12 samples. The same for metastasis (other 12 samples). This is very important to establish whether the reactivity of the two antibodies are overlapping or not.

Fig. 5 is confusing and should be deleted. The piece of information they report is already given by Table 1.

Minor essential revisions

The level of expression of C2-O-sLex is higher in less differentiated cancers. On the other hand, the level of C2GnT1 mRNA seems to be lower in less differentiated cases. This apparent discrepancy could be due to the fact that different groups of patients have been analyzed but also to the fact that in the less differentiated cases the percentage of tissue with glandular structures is decreased. This point should be breafly discussed.

The mucin type Core 2 GnT (C2GnT2) has been found to be downregulated in colon cancers (Huang et al, Oncogene 25 3267-3276, 2006). Since the two enzymes can be involved in the biosynthesis of the same structure, their opposite regulation in colon cancer tissues should at least be discussed.

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