Reviewer's report

Title: Selection, affinity maturation, and characterization of a human scFv antibody against CEA protein.

Version: 1 Date: 19 December 2005

Reviewer: Rhona Stein

Reviewer's report:

General

As described by the authors, a human anti-CEA single-chain fragment has been selected and characterized. The selected agent has potential as a clinically relevant agent for various CEA expressing cancer types, among these melanoma and colorectal cancer. It will also be convenient that the agent recognizes both human and murine CEACAM proteins. Although I do not feel qualified to review the production of the scFv antibody fragments, the characterization of the fragments presented in the manuscript (flow cytometry, Elisa, Western, blots, immunohistology, and affinity studies) support the authors conclusions.

The background and discussion sections need to be strengthened in order for the manuscript to be acceptable for publication. The authors need to include a comparison to other known anti-CEA Abs and scFvs as well as provide a general rationale for the use of scFvs.

Although not major, the manuscript needs grammatical editing.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
Must improve background and discussion, as well as grammatical editing.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests