Reviewer's report

Title: Rapid and Simultaneous Detection of Human Hepatitis B Virus and Hepatitis C Virus Antibodies Based on a Protein Chip Assay Using Nano-gold Immunological Amplification and Silver Staining Method

Version: 4 Date: 2 June 2005

Reviewer: Maria Martell

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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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)

I agree with the authors that the results from any array are determined by comparison between detection spots and negative control spots on the same chip. But the question is, can we extrapolate the results from the model array to the protein chips for detection of serum samples? I do not think so, because the conditions are different. I am not sure that a sample containing 3 ng/ml of either HBs, HBe, HBc or HCV antibodies could be discriminated from the background shown in negative samples or negative controls (figure 6), otherwise normal when using serum samples. In my opinion the detection limit experiment should be performed using either a serial dilution of a previously quantified serum sample or a negative serum sample containing serial dilutions of anti-IgG.

In the absence of these experiments, the authors should stress that their detection limit experiment is for guidance only.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential 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