

Format for ANSWERING REVIEWERS



August 29, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: RICCARDI_ESPS Manuscript 7182.doc).

Title: Diagnostic tests for hepatitis C: recent trends in electrochemical immunosensor and genosensor analysis

Authors: Carolina Venturini Uliana, Carla dos Santos Riccardi, Hideko Yamanaka

Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 7182

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) Reviewer 1: Basic technical background should be provided in the beginning of the sections of electrochemical immunosensors and genosensors. More figures should be included for better explanation.

(2) Reviewer 2: For more clarity, some schemes (figures) on how immunosensors and genosensors work, would be a good addition to the paper.

Answer: According to the suggestion, we revised the manuscript and the text consideration was added to the manuscript for explanation of schematic diagram of biosensor devices, corresponding to Figure 2 (added in the manuscript, page 11). For the same point of view, the figure 3 was added to the manuscript for explanation of HCV genosensor described by Riccardi et al. (ref. 129, cited in page 20).

Abstract: Diagnostic tests for HCV are used to prevent infection by screening donor blood and plasma, to establish clinical diagnoses, and to provide treatment strategies of chronic HCV stages. Conventional HCV diagnostic tests include virus isolation, immunofluorescence microscopy, enzyme immunoassays and polymerase chain reaction techniques are becoming obsolete for routine clinical practices. In this context, rapid, inexpensive, sensitive, and robust analytical devices are therefore essential for effective diagnosis and monitoring of disease treatment. It is well known that biosensor devices can provide a target-molecular receptor interaction into useful analytical signal.

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Figure 2 shows a schematic diagram of biosensor devices. The biological recognition element immobilized on bioreceptor surface interacts to analyte; the transducer converts the recognition event into a measurable signal; finally, the output from the transducer is amplified, processed and displayed. The intensity of signal can be proportional to the analyte concentrations.

Figure 2. Scheme of biosensors devices.

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Figure 3. HCV DNA genosensor.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,



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