

September 02, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 11665-Review.docx).

Title: Identification of host miRNAs that may limit human rhinovirus replication

Authors: Victor Paky Bondanese, Ana Francisco-Garcia, Nicole Bedke, Donna E Davies, Tilman Sanchez-Elsner.

Name of Journal: *World Journal of Biological Chemistry*

ESPS Manuscript NO: 11665

The manuscript has been modified according to the suggestions of the reviewer, as follows.

Major comments:

- 1) The bioinformatics analysis has been expanded by including two widely used prediction algorithms. Therefore, we now present and discuss results obtained from Targetscan, miRanda and PITA.
- 2) As mentioned in the introduction, the genome of HRVs consists of one single RNA molecule. The latter functions directly as mRNA inside the cell, producing a single polyprotein which is then cleaved into different mature viral proteins. As a consequence, the HRV-1B transcriptome consists of one RNA species, since there is one single transcriptional unit (gene). Nevertheless, we are very grateful for this observation that prompted us to highlight the viral genomic organization in Figure 7 and to enrich our discussion. We hope these additions will satisfy the reviewer's concerns.

Minor comments:

- 1) The DICER knock-down efficiency has been measured at the mRNA level by RT-qPCR. The downstream activity that we aimed to target was the microRNA maturation process. Since DICER mRNA reduction lead to lower expression of mature microRNA, we are confident of the efficiency of the anti-DICER siRNA transfections.
- 2) The recombinant lentivirus was not titrated prior to use. Nevertheless, measurement of miR-155 expression in the established cell line guarantees the accuracy of our report.
- 3) HRV-1B stocks were titrated, and it was essential to use the appropriate MOI (multiplicity of infection). This information has been added to the materials and methods section.
- 4) Punctuation and grammar were improved as suggested

References, typesetting and notes of statistical significance in the figures and figure captions were all corrected as requested. All the changes in the revised version have been highlighted as requested.

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

Sincerely yours,

A handwritten signature in black ink, appearing to read 'T. Sanchez', written in a cursive style.

Tilman Sanchez-Elsner, PhD

Senior Lecturer in Biomedical Sciences,
Academic Unit of Clinical and Experimental Sciences,
University of Southampton,
Faculty of Medicine
Southampton General Hospital,
Tremona Road,
Southampton SO16 6YD,
United Kingdom.

Telephone: +44 23 80 79 4410

Fax: +44 23 8120 1761

e-mail: t.sanchez-elsner@soton.ac.uk