

# Reply to Finol: Viral small RNA from Dengue virus and its regulatory role in different serotypes

Finol (1) carried out additional bioinformatics analysis of the recently reported viral small RNA (vsRNA)-5 from Dengue virus (DENV) serotype 2 and its target sequence NS1 (2), using all of the available sequences of the four serotypes of DENV. Based on this comprehensive analysis, Finol concluded that the relevance of vsRNA-5 might be limited to DENV-2. In principle, we do not disagree with the author's conclusion. In Hussain and Asgari (2), we mainly concentrated on the characterization of vsRNAs, and in particular functional analysis of vsRNA-5 in relation to DENV-2. Our bioinformatics analysis of different serotypes of DENV was limited and concentrated on representatives

of the other serotypes with the highest sequence identity. We did not experimentally explore whether serotypes other than DENV-2 produce the vsRNA-5 homolog, and therefore the microRNA mimics used in figure 6 of our report (2) were designed based on hypothetical vsRNAs from the other serotypes, and their effects were only tested on DENV-2. However, based on extended analysis in Finol (1) showing variations in different serotypes in respect to vsRNA-5, the interaction may well be limited to DENV-2. Still, it remains to be explored if vsRNA-5 is produced by at least serotypes 1 and 3, and whether there is any interaction with NS1 sequences in the serotypes.

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**1** Finol E (2014) Are viral small RNA regulating Dengue virus replication beyond serotype 2? *Proc Natl Acad Sci USA* 111:E2915–E2916.

**2** Hussain M, Asgari S (2014) MicroRNA-like viral small RNA from Dengue virus 2 autoregulates its replication in mosquito cells. *Proc Natl Acad Sci USA* 111(7):2746–2751.

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The authors declare no conflict of interest.

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