Reviewer’s report

Title: Brachial Artery Flow-mediated Dilation Following Exercise with Augmented Oscillatory and Retrograde Shear Rate

Version: 1 Date: 20 July 2012

Reviewer: Rosa Maria M Bruno

Reviewer’s report:

This well designed study explores a very interesting field, that is endothelial function in exercise and the influence of oscillatory / retrograde shear stress. They found that supine bicycle exercise is able to increase post-exercise FMD. The induction of increases of oscillatory shear rate, achieved by forearm cuff inflating below arterial pressure, caused endothelial function impairment, restored by vitamin C administration.

The article is suitable for publication on Cardiovascular ultrasound, with minor discretional changes.

In particular:

- Results section is quite redundant. We suggest to put p values #2 in tables.
- Discussion can be shortened and simplified, in particular the part about lack of proportionality between FMD impairment and increased retrograde shear rate, which should be more succinctly explained by unchanged oscillatory shear rate.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'