Reviewer's report

Title: Global expression profiling identifies adipogenesis-regulated microRNAs in mouse primary adipocytes and links miR-21 to human obesity

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Reviewer: Zlatko Trajanoski

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The manuscript by Keller et al. describes a miRNA expression profiling study in primary white and brown fat mouse cells. 65 miRNAs were differentially expressed of which 10 were confirmed by qPCR. Furthermore, 5 miRNA were profiled using human fat biopsies.

The study is well designed and the selected experimental methods are appropriate. The computational analyses could be extended by including additional miRNA target prediction methods (e.g. miRANDA, PicTAr, PITA, ElMMo or RNA22). It would be also interesting to see if some of the target genes are downregulated (if there is enough material for mRNA profiling).

The Exiqon miRNA array data should be deposited in a public archive (GEO or ArrayExpress).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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