Reviewer’s report

Title: Expression profiles of muscle disease-associated genes and their isoforms during differentiation of cultured human skeletal muscle cells

Version: 3 Date: 21 November 2012

Reviewer: Sabine Krause

Reviewer’s report:

The authors present an interesting, detailed study of gene expression during human myofibrillogenesis in myogenic cells upon proliferation and differentiation in vitro. They suggest that satellite cells derived from human normal skeletal muscle may serve as an important model system to understand early myofiber development. In addition, future studies in this model system involving regulatory or structural proteins in skeletal muscle may elucidate their particular role in the pathogenesis of congenital myopathies at the cellular level.

Minor Essential Revisions (not meant for publication)

1. For differentiation of myogenic cells, the time points of 6, 16 and 24 days are mentioned in the methods section. In the following, only data are shown from the 6 day differentiation period. Are there any additional data the authors may wish to show or to mention from later time points? If not these time points may be omitted from Materials and Methods.

2. The results in Fig. 2-4 are only confirmatory and may be moved to the Supplementary data section.

3. In Fig. 9, please make sure to use the same font size in the entire panel.

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.

Declaration of competing interests:

I declare that I have no competing interests.