Reviewer's report

Title: Hypogelsolinemia, a disorder of the extracellular actin scavenger system, in patients with multiple sclerosis

Version: 2 Date: 1 July 2010

Reviewer: Golo Kronenberg

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The role of actin-related pathology and of the actin-scavenger system is emerging as a new treatment target for neurodegenerative and neuropsychiatric disease. The study by Kulakowska et al. on gelsolin levels in MS patients is therefore a timely and interesting report.

My major concern is that the methods used for measuring F-actin and especially for measuring gelsolin seem rather crude. The authors should comment on why they did not use/establish an ELISA to measure gelsolin in blood and CSF? Could this still be done with the available samples? In the methods, they do not report on essential control experiments ('spiking' of samples; replicate analyses; reference materials etc.).

It would be interesting to test a possible correlation between blood and CSF levels (F-actin, DBP, gelsolin). It would also be interesting to test the correlations between each of these measurements (especially gelsolin with F-actin and gelsolin with DBP in both blood and CSF).

Level of interest: An article of importance 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'