Reviewer's report

Title: Aging enhances serum cytokine response but not task-induced grip strength declines in a rat model of work-related musculoskeletal disorders

Version: 1 Date: 3 February 2011

Reviewer: Andrea Maier

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The relation between GS and systemic cytokine levels was studied dependent on chronological age and intervention (tasks) in rats. The level of systemic inflammation was increased in elder rats; however, GS was not different in young versus old rats in 2 of the 4 groups. Furthermore, GS did not correlate with systemic cytokine level.

The paper is nicely written, however, too many abbreviations are used.

Major points:
- The choice of intervention is not very clear. What is the reason including a food restricted group?
- please explain in more detail why grip strength is not correlated with serum cytokine levels (in humans the correlation is positive)
- please extend the discussion: difference between pro and anti-inflammatory on development in strength loss and interplay with intervention
- page 6, line 1: ' training period of approximately 4 weeks, give mean SD.
- Explain: 'resolution of systemic inflammation'

minor:

textual changes: page 10, line 20: 'small number of cytokines' specify (small is relative)
rewrite page 3, line 11-17

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.