Reviewer's report

Title: Sensory response following knee joint damage in rabbits

Version: 1 Date: 26 August 2013

Reviewer: Jochen Baumeister

Reviewer's report:

The paper addresses an important topic in ACL/sensorimotor research. But there are some flaws (especially in the description of the methodology) which prevent publication in its current state. A decision can be taken after a major compulsory revision:

Major issues

1. INTRODUCTION

The introduction lacks a problem statement. Why is it important to know details about afferent changes after ACL injuries/reconstructions? Please explain the sensory deficiency hypothesis in ACL’s and show why it is relevant to do such studies. Why did the authors use rabbits?

The authors hypothesize “that composite signaling from the femoral nerve would be increased in rabbits” with transection or reconstruction. There is no rationale given for this hypothesis in the introduction

2. METHODS

The neural activity recordings must be explained in every detail. Are there common procedures, the authors are following – if so, please give references.

Even after reading this section again and again, I could not find any baseline measures before intervention to ensure the same starting level. Please provide baseline measures or give an argument in the limitations section.

Please provide also the original peak data (mean/SD) and also the ICC for reliability

3. RESULTS

The authors should provide statistics on original peak data as well as ICC for the five consecutive measurements to get a better insight into the data.

4. DISCUSSION

On page 8 (line 147 – 150) the authors explain that the “transected” rabbits appeared to recover, but the reconstructed ones did not. The authors did not
mention that in the method section. This might be a problem, because you measured at different outcome levels (recovered vs. not recovered). Please explain and/or clarify.

Minor issues

#4, 57-59: please explain why rabbits are excellent models?

#6, 89: please explain postoperative care in more detail. Did the control group also get any kind of care?

#8, 134: change “greater” into “changed”

#10, 180-201: please delete this section because it is only based on speculation and is not following the hypothesis given in the introduction

**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.