Reviewer's report

Title: Structural and functional consequences of buserelin-induced enteric neuropathy in rat

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Reviewer: Bridget Southwell

Reviewer's report:

Busrelin and enteric neuropathy
MS: 1552626293142224

Structural and functional consequences of buserelin-induced enteric neuropathy in rat Elin Sand, Bodil Roth, Björn Weström, Peter Bonn, Eva Ekblad and Bodil Ohlsson BMC Gastroenterology

Review of revision 1.
The authors have greatly improved the manuscript and answered the questions. There are some small editing changes. I would like to see the manuscript again after these changes.

Page 2- abstract. The results for VACht are not in the results now. So this should be removed from the abstract line 42.

Page 7 line 129- what does ‘x R x’ mean?

Page 12 line 250. Add ‘Analysis of’ before ‘antibodies’

Page 14 line 308-. Figure 1 shows Submucosal ganglia and then myenteric ganglia. Change the order in the text or figure so that they are the same.

Page 14 line 311. Says the loss of neurons in the myenteric ganglia was greater than in the submucosal ganglia. But there was a reduction of 61% in colon submucosal neurons. As this is larger, change text to say ‘loss of neurons in the colonic submucosal ganglia was greater than in the myenteric ganglia’.

Page 15- there are no results for VACht now. If they are not included remove the antibody information from the abstract and methods. Or add results.

Page 17 lines 359 to 362- ‘However in a complementary study…(unpublished data)’. Add this data to results and methods. You can’t add data into the discussion.

Page 18 line 380- VACht is listed here but not in results- add to results or delete here

Page 25 line 532- delete ‘s’ from ‘indicates’

Page 25 line 536- change ‘magnification bar’ to ‘scale bar’, delete ‘in micrograph (j)’

Page 33- table 2- you have combined saline and busrelin treated rat data in this
table. This is awkward as the aim is to show they are the same. Make this clear in the heading: change to ‘Nerve fiber density and distribution in colon was identical in saline and busrelin-treated rats’.

Page 33- table 2 line 778 and 780. Move last sentence and add to end of sentence in line 778 to read ‘...in colon of saline- and busrelin-treated rats are shown combined as no differences in nerve fibre.....’.

Figure 2- shows high numbers of NOS neurons in the submucosal ganglia and very few SP neurons. There are no NOS nerve fibers in the mucosa but many SP nerve fibers in the mucosa and many SP neurons in the SG. Is this data correct or miss labelled?

Figure 3. the text in the scale bar is not readable. Make it larger or leave it out. The text can go above the scale bar in white.

Figure 5- galactose is misspelt.