

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**Manuscript NO:** 35070

**Title:** Region-dependent effects of diabetes and insulin-replacement on nNOS- and HO-immunoreactive submucous neurons

**Reviewer's code:** 00507108

**Reviewer's country:** Afghanistan

**Science editor:** Yuan Qi

**Date sent for review:** 2017-06-16

**Date reviewed:** 2017-06-21

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> [ Y] Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> [ Y] Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> [ ] High priority for publication
<input type="checkbox"/> [ Y] Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> [ ] Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> [ ] Minor revision
<input type="checkbox"/> Grade E: Poor		[ Y] No	<input type="checkbox"/> [ ] Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

### COMMENTS TO AUTHORS

Region dependent effects of diabetes and insulin replacement Major bowel complications of poor diabetic control such as gastroparesis and diabetic diarrhoea are thankfully rare but devastating when they occur. The physiology of bowel function is complex. The present paper sets out to examine alterations in neuronal nitrate synthase (nNOS) neurone density in different regions of the bowel in Streptozotocin induced diabetic rats. The Authors also examined 2 isoforms of the heme oxygenase enzyme. The Authors mention in the introduction that an unchanged nitrergic submucous neuronal density was found in the jejunum and ileum in STZ diabetic animals as compared to controls but no information on the effect of insulin. The introduction is well written and referenced, the references displaying the expertise of the authors in the field. Five control animals, 6 diabetic and 4 insulin treated diabetic animals were studied. STZ animals showed an increase in the proportion of nitrergic neurons in the distal intestinal segments but total neurons were not increased. The treated diabetic animals



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had a higher proportion of nitrergic neurons in the ileum as compared to the non treated diabetic animals but not in the colon. Looking at the heme oxygenase, this was decreased in the colon in the diabetics and further decreased in the insulin treated group . The discussion is rather too long and too much involved in comparison of the present findings and those the authors found in the myenteric plexus in a previous paper. No mention is made of the small number of animals in each group and for example, the difficulty of knowing whether a two fold increase 6% viz 12% is of biological importance. Or in the case of HO1-IR a 6% viz 0% in the ileum. Although insulin in vitro may have damaging effects on cells in vivo lowering the blood sugar reduces free radical production hence it is a surprise that the insulin treated animals have an increase of percentage of nitrergic neurons in the ileal segment and Heme oxygenase decreased even further in the insulin treated animals in the colon..? In conclusion a well written paper based on carefully executed experiments. The Authors are to be congratulated in their honesty when they write that it is difficult to understand these findings but at least a start has been made.



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**Name of journal:** World Journal of Gastroenterology

**Manuscript NO:** 35070

**Title:** Region-dependent effects of diabetes and insulin-replacement on nNOS- and HO-immunoreactive submucous neurons

**Reviewer's code:** 02946445

**Reviewer's country:** Turkey

**Science editor:** Yuan Qi

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input checked="" type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

### COMMENTS TO AUTHORS

I have no comments.