

Reviewer #1:

Scientific Quality: Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: Dear editors, The authors carried out an interesting experimental work, the results of which provide a new understanding of the processes developing in the pancreas in acute pancreatitis. Immunohistochemical and genetic analyzes were carried out, which allowed to study the course of acute pancreatitis from the early phase to regeneration, focusing on the role of AAT LAT1 (slc7a5). The expression of various AATs, protein synthesis and upstream regulatory mechanisms, markers of damage, proliferation, and fibrosis of the pancreas were studied. There was a delay in the recovery phase of LAT1-ko mice compared to LAT1-wt mice after AP induction. This study identified important elements for a better understanding of the recovery processes in pancreatic tissue after AP. Title. The title reflects the content of the manuscript. Abstract. The abstract summarizes and reflect the work described in the manuscript. Key words. Sufficient, do not require addition or correction. Background. The manuscript is adequately described the background, present status and significance of the study in pancreatology. Methods. The methods used in this study are detailed and fully reproducible. Results, discussion and illustrations and tables support the hypothesis defined by the authors before starting the study. Biostatistics. The manuscript meets the requirements of biostatistics? Units. The authors used to designate of SI units. References. Relevant and reflective of the leading sources on the subject of the peer-reviewed manuscript. Quality of manuscript organization and presentation. The manuscript is organized and presented well, concisely and coherently. Research methods and reporting. Authors should have prepared their manuscripts according to manuscript type and the appropriate categories, as follows The ARRIVE Guidelines - Basic study. Ethics statements have been respected.

Responses to reviewer comments:

Reviewer #1 comments	Authors responses to reviewer comments
For a better understanding of the content of the manuscript, authors can add a figure-diagram of the molecular pathways of pancreatic regeneration after acute pancreatitis with focusing on the role of AAT LAT1 (slc7a5) during this process.	We thank the referee for the suggestion. We added a new figure (Fig. 9A-C) compiling the changes in acinar cells during the early injury and regeneration. The main differences in the adaptation of acinar cell of wild type and cells lacking LAT1 expression (knockout) are depicted.