RESPONSE TO DECISION LETTER

November 15, 2018

Dear Editor,

Thank you for reviewing the manuscript titled *"Up-to-date intraoperative computer assisted solutions for liver surgery"* and considering it for publication in your esteemed journal. The authors have made the proposed required modifications, which the referees had indicated, and wish that the study be evaluated for publication.

- **Regarding Crosscheck**

We have rewritten the sentences highlighted in the crosscheck report. However, sentences containing informatics or medical terms cannot be totally rephrased because of meaning change.

Reviewer's code: 03727922

Interesting manuscript entiteled "Up-to-date intraoperative computer assisted solutions for liver surgery", however needs improvement in the methods, results and description of the benefits and limitations of this study. Introduction - I believe it is necessary to be more clearer and specific state your scientific hypothesis and aim of your study. Material and Methods - Important to state the information on approval of a Local Ethical Committee and also be provided the number and year. Should describe clearly the selection, type of the study and also is mandatory to better explain the study performed. Where were datacollection? Search of material and data? Discussion - I suggest describing the real benefit of this study in clinical practice and also is mandatory discribe the limitations of this study. Figures - needs improvements in details and quality. If you use two pictures needs to explain all diferences.

- **Regarding the comments of the reviewer with Reviewer's code: 03727922**

Thank you for your precious suggestion and critical view. Our manuscript is a narrative minireview with the aim to provide an update to the readers and thus there is no hypothesis. It is not an experimental study and no animals have been used. An approval of the Local Ethical Committee although available, is not obligatory   in   this   type   of   manuscript

(Guidelines_and_Requirements_for_Manuscript_Revision-Minireviews section 4 ETHICS AND RELEVANT DOCUMENT(S) REQUIRED FOR MINIREVIEWS). There is not a "Material and Methods" section for this type of manuscripts. The last two paragraphs of the "TODAY'S CLINICAL PRACTICE" section describe the benefits and the limitations as required for a narrative minireview.

Reviewer's code: 00044311

Apollon and Ioannis et al. is a review article summerizing the Computer science technology efficacy to assisting modern surgeons during complex liver operations, mainly by providing image guidance with individualized 2D images and 3D models of the various anatomical and pathological structures of interest. Furthermore, additional color-coded or text information can be available intraoperatively for the surgical team and new intraoperative findings can be adapted on the preoperative data. Intraoperative manipulation of computer data and on-site surgical risk analysis are fissile. Finally, they conclude that real-time simple or sophisticated navigation systems can help the surgeon and his team to find his way through the hepatic "black-box". If we want to be precise on the definition of up-to-date in intraoperative computer assisted liver surgery, we should admit that AR and intraoperative risk analysis are currently state of the art. However, from the point of view of cost effectiveness and practical application, 3D model guidance and intraoperative risk analysis, both based on systems running on common operating systems, remain the most realistic and reliable solutions. The article is interesting, informative and of educational values and is publishable in its current version.

- **Regarding the comments of the reviewer with Reviewer's code:** 00044311

Thank you for your critical review and your kind words.

Reviewer's code: 00057659

This ist a short but crucial overview of current strategies in advanced liver resection. Especially, hands-on experience of the authors and critical evaluation of the techniques is useful for the reader.

- **Regarding the comments of the reviewer with Reviewer's code:** 00057659

Thank you for your critical review and your kind words.