Reviewer’s report

Title: Dual tracer evaluation of dynamic changes in intratumoral hypoxic and proliferative states after radiotherapy of human head and neck cancer xenografts using radiolabeled FMISO and FLT

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Reviewer: Hong Zhang

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Biological dynamic change after radiotherapy is critical for tumor treatment strategy. The current manuscript investigated tumor hypoxia and proliferation by PET imaging approach, and sensitively detected their changes by using dual tracers in human head and neck cancer xenografts (FaDu). This study concluded that concomitant monitoring of dynamic changes in tumor hypoxia and proliferation may provide more accurate information for radiotherapy planning, leading to an appropriate individualized treatment strategy for head and neck cancers. This is an interesting study which provided a new approach for non-invasively evaluating change of tumor radiotherapy. This study is well designed and conducted. The manuscript is well organized. Therefore the current version is acceptable.