Specific Comments to Authors:

This is a well researched and well-written paper investigating and laboratory conditions the telomerase inhibitor BIBRI1532. The background to the study is well discussed with up-to-date references cited. The current state of knowledge and research of BIBRI1532 is discussed. This study researches a novel application of the inhibitor, namely oesophageal squamous cell carcinoma. Possible use of telomerase inhibitors in cancer therapy is a relatively new field. Various studies in telomeres exist however to my knowledge this is a novel application to oesophageal squamous cell carcinoma. The methods and analysis of results are robust and clearly detailed in the paper. Standard and well-established methods I used both in the study and statistical analysis. The results are well analysed and are clearly presented. The discussion includes previous research leading to this study, and clearly summarises the mechanisms and implications of the findings. Limitations of the study are discussed. There are certain mechanisms which have yet to be elucidated, and these are also mentioned as future directions for research which the authors intend to undertake regarding the function of the BIBRI1532 telomere inhibitor. This is important work which may lead to eventual human therapeutic applications. How this fits into current knowledge is discussed. Diagrams and figures of high-quality and clearly annotated. Appropriate ethics approval has been obtained by the authors. The standard of writing is high however I would recommend modifying the last sentence of the discussion, "in the near future, we will further dig the role of BIBRR1532 on ESCC so as to provide more information for its clinical application" As this is somewhat unclear. Possible modification includes, "in the near future, we will further investigate the role of BIBRR1532 on ESCC so as to provide more information for its clinical application ". This is important laboratory research into the field and I fully recommend its publication. Hopefully the authors will continue this line of research.

Response: Thank you very much for your carefully review of this study. We have made some modifications according to the suggestions of the reviewer, please check.

Studies have reported that cell cycle arrest is involved in the inhibitory effect of BIBR1532[18, 33, 34]; however, its impact on ESCC cell cycle distribution was previously unknown. In this study, we found that BIBR1532 induced cell cycle arrest in the G2/M phase in a dose-dependent manner. Additionally, we observed that BIBR1532 induced cellular senescence in a concentration-dependent manner, which is consistent with a series of reactions following telomere attrition, such as triggering the DDR pathway, leading to cell cycle arrest, cellular senescence, and apoptosis[35, 36].