Reviewer’s report

Title: Reversible Inhibition of Lysine Specific Demethylase 1 is a Novel Anti-Tumor Strategy for Poorly Differentiated Endometrial Carcinoma

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Reviewer: Yi Huang

Reviewer’s report:

Theisen et al. reported in this manuscript that inhibition of LSD1 with a novel inhibitor, HCL2509, is a novel anti-tumor strategy for poorly differentiated endometrial carcinoma. Although this study is potentially important, there are several issues that the authors need to improve.

1. In Figure 2, authors did not show the effect of HCL2509 on levels of H3K4me1/2, which are bona fide histone targets for LSD1. H3K4me3 is not a target for LSD1. Therefore, increased levels of H3K4me3, H3K9me2 and H3K27me3 suggest HCL2509 may have off-target effect in AN3CA and KLE cells.

2. At least three biological replicates and appropriate statistical analysis are needed for experiments shown in Figure 3.

3. Again, statistical study is needed for xenograft animal study.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.