**Editorial Note:** this manuscript has been previously reviewed at another journal that is not operating a transparent peer review scheme. This document only contains reviewer comments and rebuttal letters for versions considered at Nature Communications.

**REVIEWERS' COMMENTS:** 

Reviewer #1 (Remarks to the Author):

The revised paper is much improved and all my previous concerns have been addressed.

Reviewer #4 (Remarks to the Author):

The authors has sufficiently addressed the minor points raised in the first round of reviews, and I appreciate their good-faith effort to clarify issues in the rebuttal re: temporal establishment of H3K36me3 and DNA methylation in NGO/GO. I enthusiastically recommend publication and congratulate the authors on their solid work.