Reviewer’s report

Title: EGFR Exon 20 Insertion Mutations and Response to Osimertinib in Non-small-cell Lung Cancer

Version: 0 Date: 22 Apr 2019

Reviewer: Mark S. Huberman

Reviewer's report:

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Please overwrite this text when adding your comments to the authors. This is a well done paper evaluating the frequency and genetic specifics of EGFR Exon 20 insertion mutations in a large number (2316) of NSCLC cases in Chinese patients. In addition it reviews the response to osimertinib in 6 patients so treated. Although the treatment report involves too few patients to reach firm conclusions, it does add to a very limited data base on 3rd generation inhibitors which awaits completion of larger phase 2 trials in the infrequent exon 20 insertion patient population. The large number (up to 64 in reference 17) of unique exon 20 insertion mutations will require much larger numbers to better assess response that clearly varies by different mutations. I have no major criticisms. I will mention a few minor points. The male/female frequency of Exon 20 insertions lacks the female predominance noted in other series. The M/F in Tables 1 and 2 are slightly different 26/23 and 28/25. Perhaps this represents a typo. The authors might note that the response to osimertinib in reference #33 was at 160 mg/d dose double the standard dose used in their trial. The authors need to complete references 17 and 29.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
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Yes

Are the conclusions drawn adequately supported by the data shown?
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Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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Not relevant to this manuscript

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