Reviewer's report

Title: Mechanisms of Acquired Resistance to EGFR-tyrosine kinase inhibitor in Korean Patients with Lung Cancer

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Reviewer: Wan-Teck Lim

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Major compulsory revisions

1) The authors did not make clear whether the methods used to analyze the initial tumor and define the baseline EGFR status was the same as that done for the resistance biopsy. If it was different e.g. Sanger sequencing to define baseline and Sequenom resequencing to define the resistance biopsy, then the resistance biopsy readout may not be completely reflective of the evolution of resistance mechanisms. It is well described that EGFR mutant cases can have co-existent T790M mutations at baseline.

2) In addition the disappearance of L858R mutation on subsequent analysis may reflect sampling bias due to tumor heterogeneity rather than actual development of resistance. Would the authors comment on this?

3) The superior prognosis in the tumors that developed T790M as a resistance mechanism is intriguing and counter-intuitive. Could the authors indicate what salvage therapy was used in these patients as opposed to those who did not carry T790M mutation?

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare I have no competing interests