Aim-PD-L1 was deployed on whole slide images (WSI) from a front-line Phase 3 study of anti-PD-L1-atezolizumab combination with carboplatin and paclitaxel, and/or bevacizumab in metastatic NSCLC (NCT03266143). Digital and manual SP263 PD-L1 TC scores were compared and interrogated for their respective potential to predict response to aldesleukin combination treatments.

**RESULTS**

At the 1% cutoff, digital assessment of PD-L1 TC positivity identified more positive patients than manual scoring (70% vs. 55% prevalence, respectively; Figure 3B). At the 50% cutoff, treatment benefit improved in a continuous manner for patients with PD-L1 positivity across a continuous range of cutoffs by digital and manual scoring. Solid colored lines indicate the observed treatment benefit improved in a continuous manner for patients with PD-L1 positivity across a continuous range of cutoffs by digital and manual scoring. For OS and PFS, continuous digital PD-L1 TC scores showed that treatment benefit improved in a continuous manner for patients with scores ≥50% compared to manual scoring (Figure 6).

**DISCUSSION**

Digital SP263 PD-L1 tumor cell scoring in non-small cell lung cancer achieves comparable outcome prediction to manual pathology scoring.

**CONCLUSIONS**

- AIM-PD-L1 scoring was as effective at predicting outcomes as manual using the ≥2% SP263 PD-L1 TC expression, and at the ≥50% TC cutoff digital scoring identified a subgroup with enriched efficacy compared to manual.
- Notably, treatment benefit was seen in patients identified as PD-L1 positive by digital scoring across all cutoffs, in line with previous observations.
- Continuous improvement was seen in HRs across all cutoffs in patients identified by digital pathology, a trend not seen in patients selected by manual scoring.
- Further evaluation of the accuracy and reproducibility of PD-L1 scoring by digital pathology as well as its potential use for patient enrollment or stratifications in clinical trials is needed.