By employing an untargeted approach, we found new acquired mutations including those in the pathway (Figure 4). At T2 we observed the emergence of 9 new mutations in 7 genes (ESR1, AKT1, ARID1A, BRIP1, CACNB2, STK11 and TP53). The clono-phenotypic characteristics of the study population are illustrated in Table 1. The mutational landscape is shown in Figure 2. The most frequently mutated genes at T0 were ESR1 (26%), PIK3CA (17%), AR, FGFR2 and TP53 (10%).

CONCLUSIONS

- By employing an untargeted approach, we found new acquired mutations including those in ARID1A, BRIP1 and CACNB2, which had not been previously described in patients treated with CDK4/6 inhibitors. Confirmatory experiments using digital droplet PCR are ongoing.
- At baseline, mutations in ESR1 and in PIK3 pathway genes were associated with worse prognosis in patients treated with palbociclib, while TMB and TF were not.

ACKNOWLEDGMENTS

This study was supported by Fondazione Sandra Piligiani per la lotta contro i tumori ONLUS, Fondazione ABC (NAP 18880 to LM) and Hospital of Prato Azienda USL Toscana centri. CxM statement: Dr Malorni received research support and consultancy fees from Pfizer.

REFERENCES