Oncogenic variants guiding treatment in thoracic malignancies

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Propositions Belonging to the PhD thesis Oncogenic variants guiding treatment in thoracic malignancies 1. Customized RNA-based all-in-one assay has a good performance in testing multiple therapeutic guiding mutations and may be applicable in a clinical diagnostic setting. (this thesis) 2. Tumor-educated platelets of patients with active NSCLC do not contain enough tumor-derived mRNA molecules to detect therapy-guiding mutations with a sensitivity required in a diagnostic setting. (this thesis) 3. Initial concurrent mutations of genes in the PI3K or MAPK pathways with BRAF p.(V600E) does not predict a worse PFS of combined dabrafenib and trametinib treatment. (this thesis) 4. Combination of dabrafenib and trametinib concurrently with osimertinib is a promising treatment strategy for EGFR-mutant patients with a BRAF p.(V600E) resistance mutation. (this thesis) 5. High EGFR copy numbers as determined by amplicon-based NGS data predict a worse overall survival in EGFR mutated patients treated with first-line EGFR-TKI, especially in those who developed a T790M mutation. (this thesis) 6. Circulating tumor DNA levels in low disease-stage ESCC patients are associated with tumor load in real-time, and may be used to monitor disease load. (this thesis) 7. The challenge of tumor heterogeneity should not discourage or intimidate efforts to overcome cancer but should push the field forward. (Seung Ho Shin et al. NPJ Precis Oncol, 2017) 8. That which does not kill us makes us stronger. (Friedrich Nietzsche) 9. Great things in research are never done by one person. They're done by a team of people. (Adapted from Steven Jobs) 10. Busy is a choice. Stress is a choice. Joy is a choice. Choose well. (Ann Voskamp)