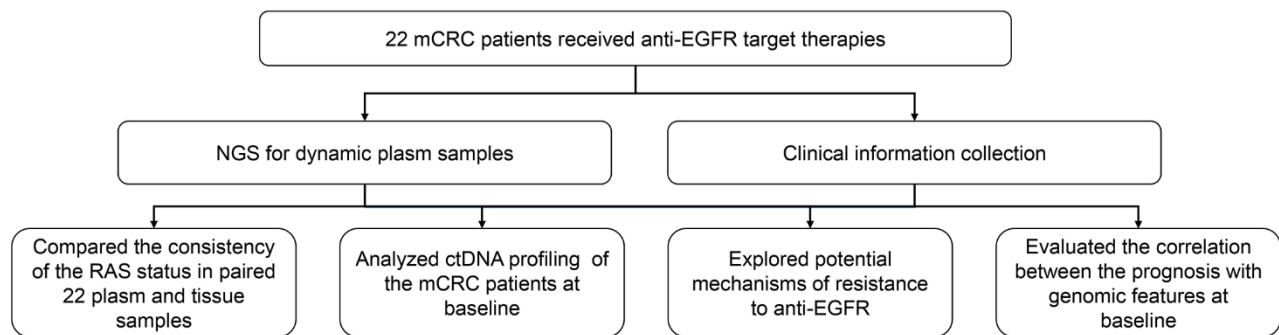


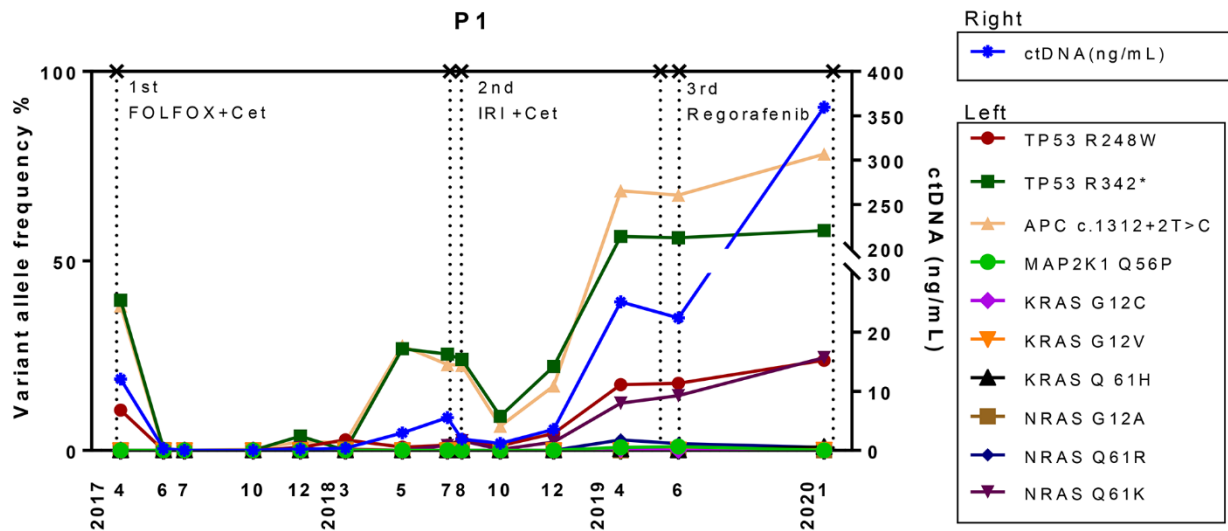
Supplementary Material

Supplementary Figures and Tables

1.1 Supplementary Figures



Supplementary Figure 1. An overview of the workflow in this study.



Supplementary Figure 2. Clinical utility of longitudinal ctDNA testing in patient 1 (P1). $ctDNA (ng/mL) = VAF_{max} * m(ctDNA) / Volume$

1.2 Supplementary Tables

Table S1. The list of 61 cancer-related genes.

| | | | | | | | | | |
|---------|--------|-------|-------|---------|--------|--------|-------|-------|--------|
| AKT1 | ALK | AR | ARAF | BCL2L11 | BRAF | BRCA1 | BRCA2 | CDK4 | CDKN2A |
| CYP2C19 | CYP2D6 | DPYD | EGFR | ERBB2 | ERBB3 | ESR1 | FGFR1 | FGFR2 | FGFR3 |
| GNA11 | GNAQ | GNAS | HRAS | IDH1 | IDH2 | JAK2 | JAK3 | KIT | KRAS |
| MAP2K1 | MAP2K2 | MDM2 | MET | MLH1 | MSH2 | MSH6 | MTOR | NRAS | NRG1 |
| NTRK1 | NTRK2 | NTRK3 | PALB2 | PDGFRA | PDGFRB | PIK3CA | PMS2 | POLD1 | POLE |
| PTEN | RAF1 | RB1 | RET | ROS1 | SMO | STK11 | TERT | TP53 | TPMT |
| UGT1A1 | | | | | | | | | |

Table S2. The list of 65 cancer-related genes.

| | | | | | | | | | |
|-------|-------|------|------|--------|--------|---------|------|-------|-------|
| AKT1 | ALK | APC | ARAF | ARID1A | ATM | BCL2L11 | BRAF | BRCA1 | BRCA2 |
| CCND1 | CD274 | CDK4 | CDK6 | CDKN2A | CTNNB1 | CYP2C19 | DDR2 | DPYD | EGFR |

| | | | | | | | | | |
|-------|-------|-------|--------|--------|----------|--------|--------|-------|-------|
| ERBB2 | ERBB3 | FBXW7 | FGF19 | FGFR1 | FGFR2 | FGFR3 | FLT3 | HRAS | JAK2 |
| KDR | KIT | KRAS | LRP1B | MAP2K1 | MAP2K2 | MET | MLH1 | MSH2 | MSH6 |
| MTOR | NF1 | NRAS | NTRK1 | NTRK2 | PDCD1LG2 | PDGFRA | PIK3CA | PMS2 | POLD1 |
| POLE | PTEN | RAF1 | RET | ROS1 | SMAD4 | SMO | SPTA1 | STK11 | TP53 |
| TPMT | TSC1 | TSC2 | UGT1A1 | VEGFA | | | | | |