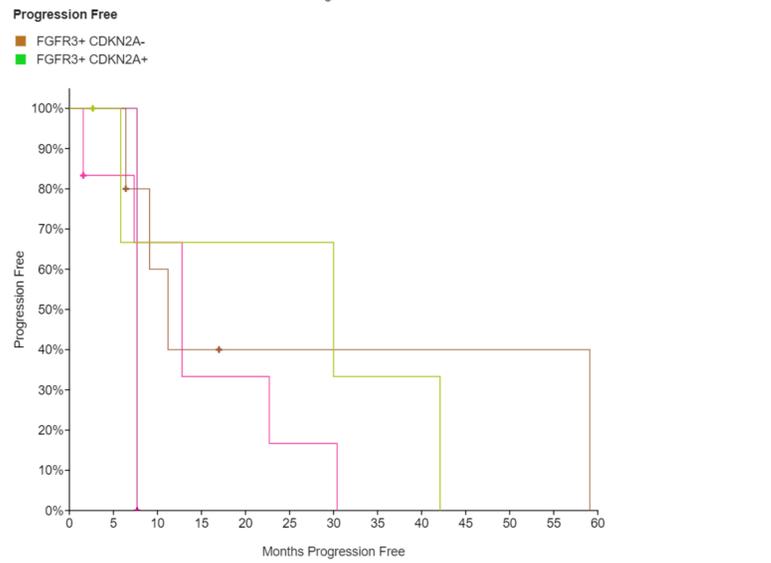
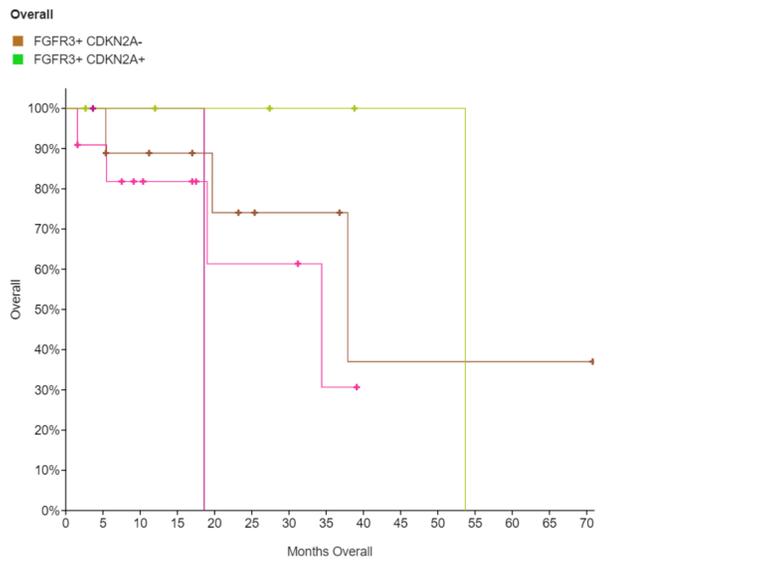
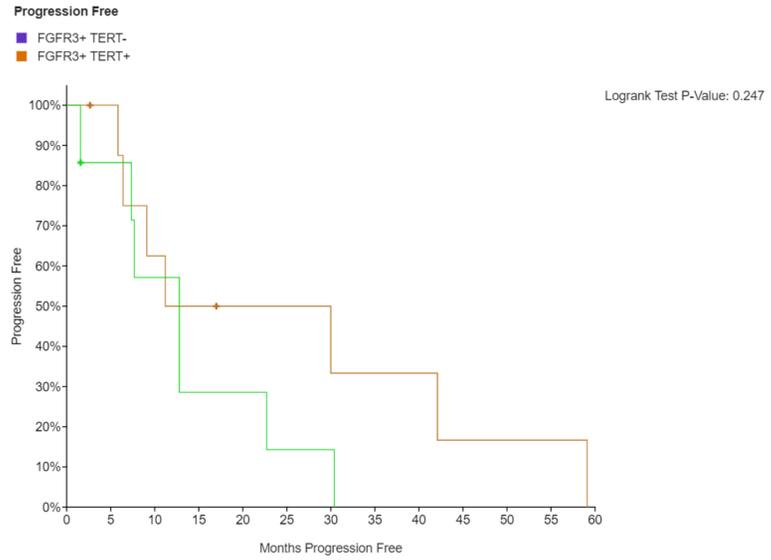
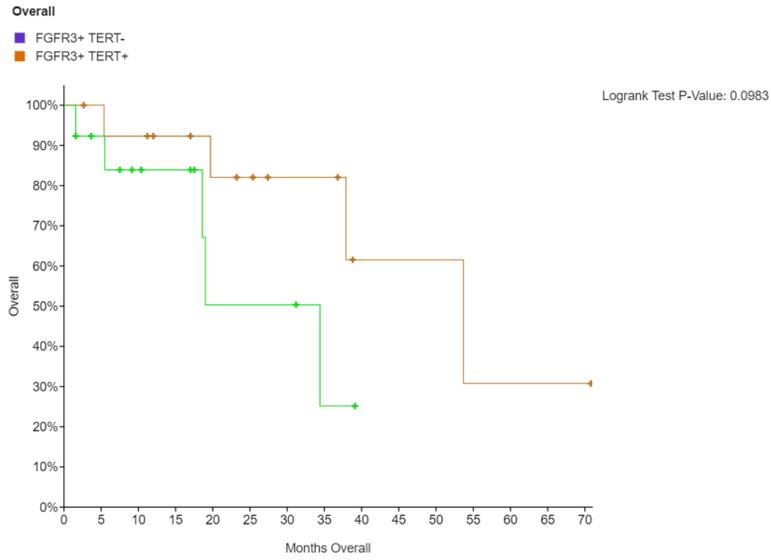
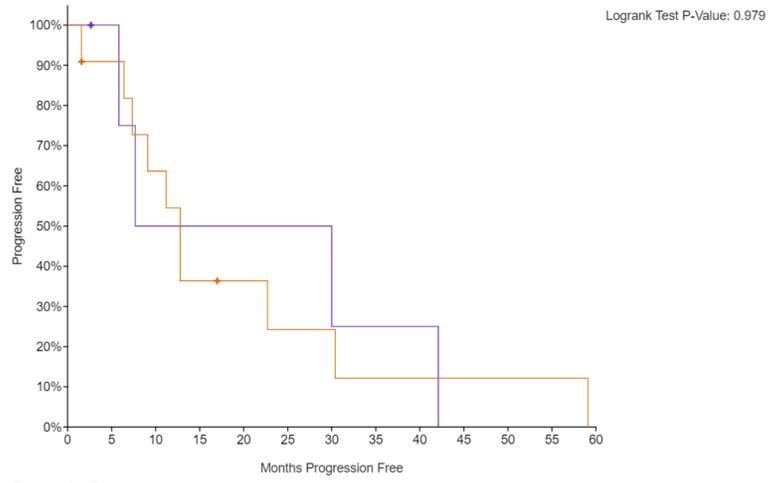
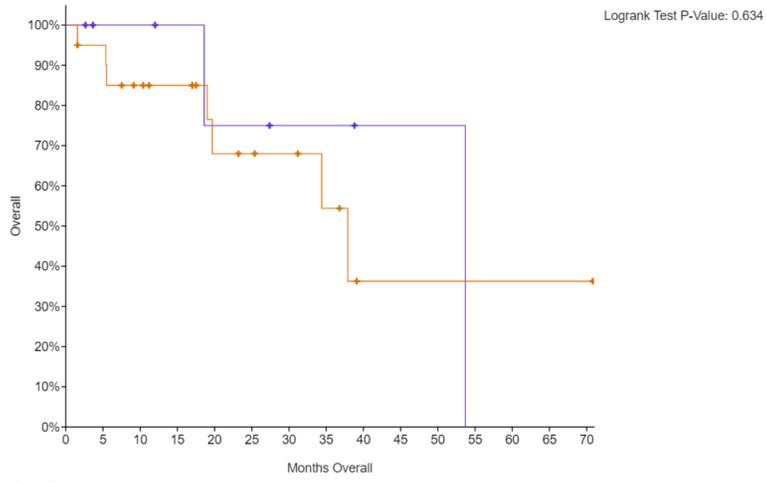


Supplementary Figure 1 – TERT and CDKN2A alterations



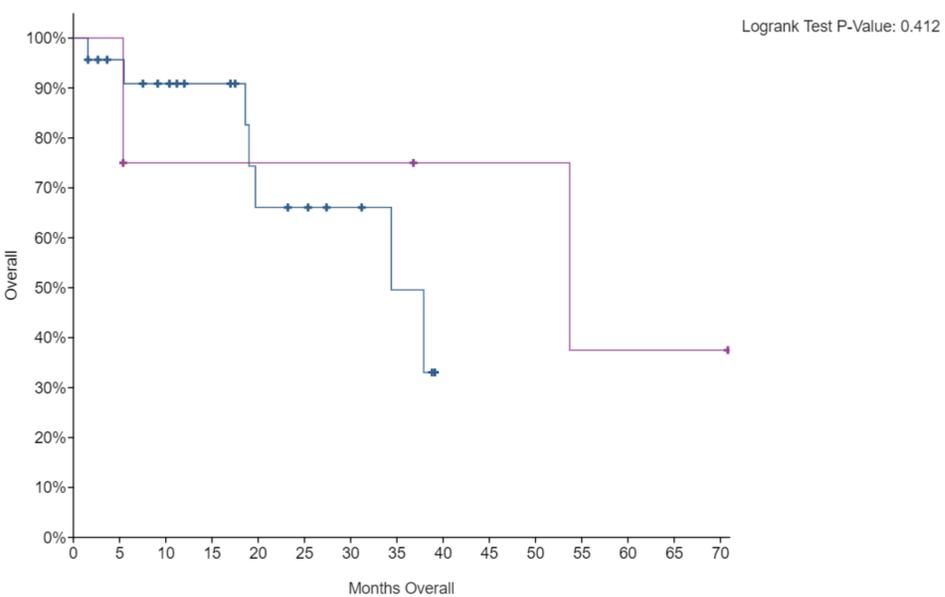
Overall

- FGFR3+ CDKN2A+ TERT-
- FGFR3+ CDKN2A+ TERT+
- FGFR3+ CDKN2A- TERT+
- FGFR3+ CDKN2A- TERT-

Progression Free

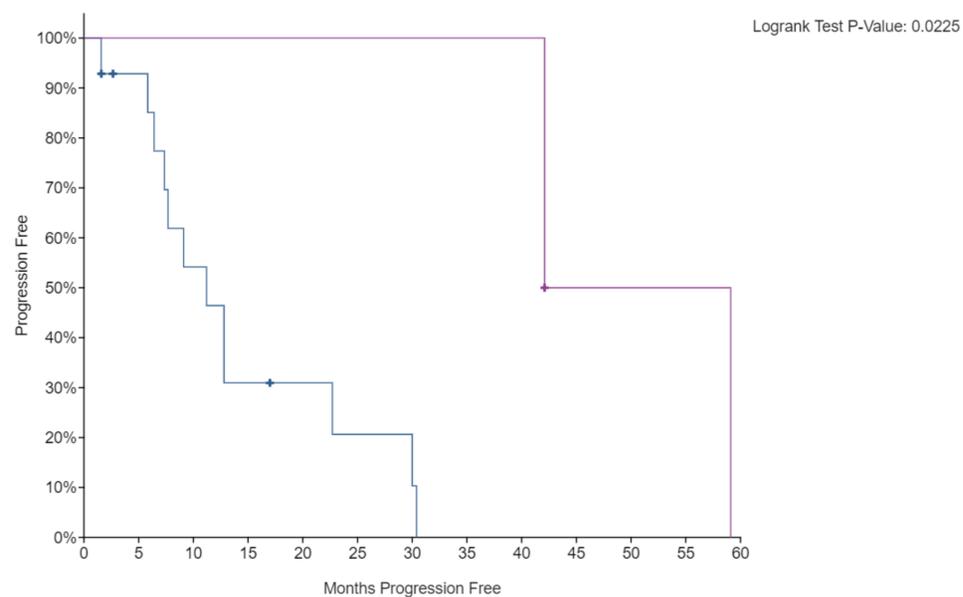
- FGFR3+ CDKN2A+ TERT-
- FGFR3+ CDKN2A+ TERT+
- FGFR3+ CDKN2A- TERT+
- FGFR3+ CDKN2A- TERT-

Supplementary Figure 2 – Other p16-RB1 pathway alterations



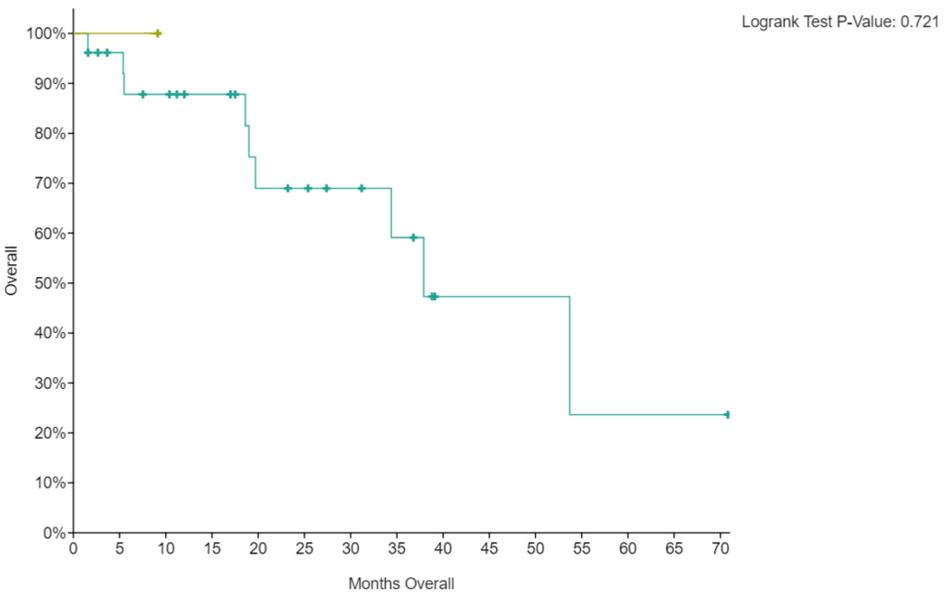
Overall

- FGFR3+ CDK4-
- FGFR3+ CDK4+



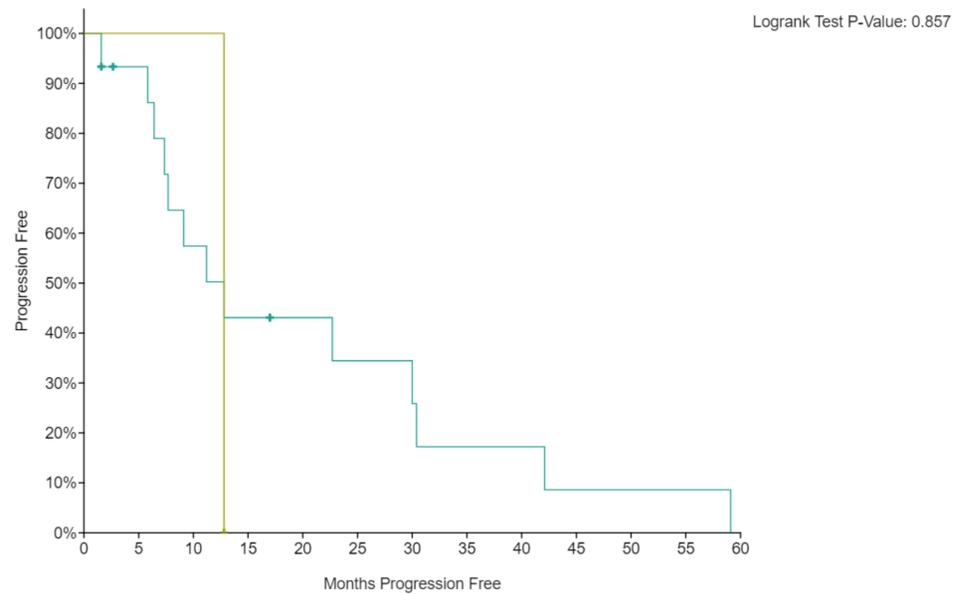
Progression Free

- FGFR3+ CDK4-
- FGFR3+ CDK4+



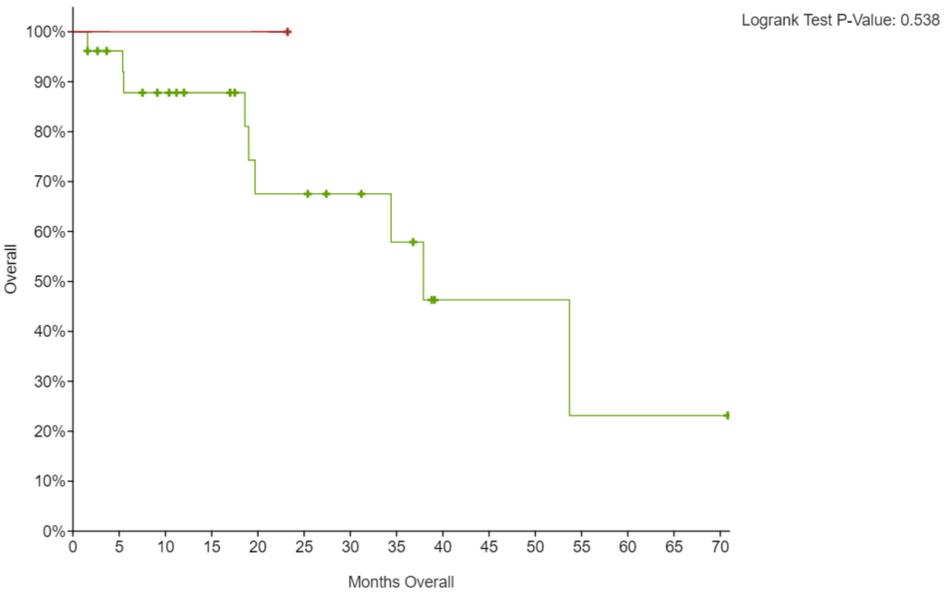
Overall

- FGFR3+ CDK6-
- FGFR3+ CDK6+



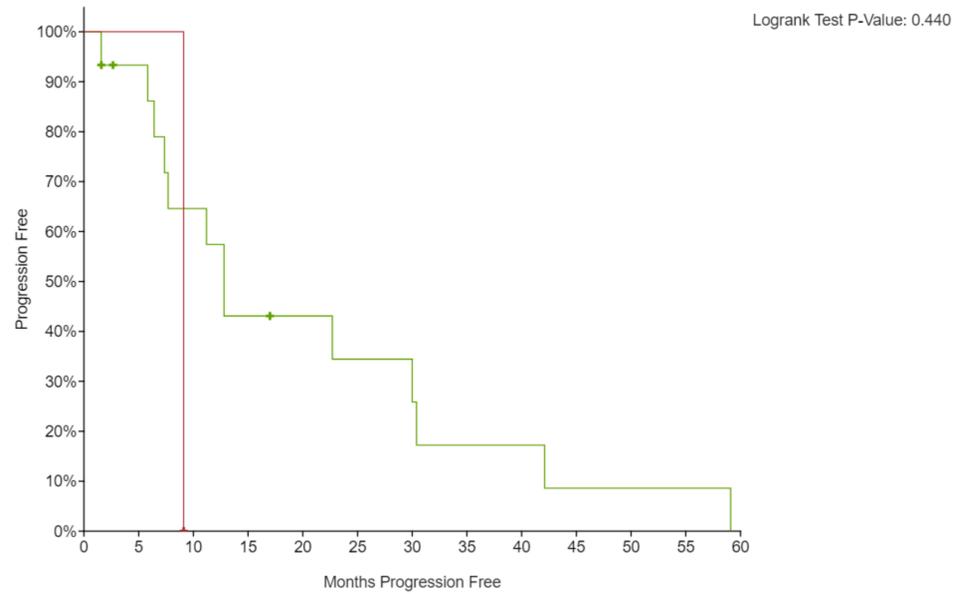
Progression Free

- FGFR3+ CDK6-
- FGFR3+ CDK6+



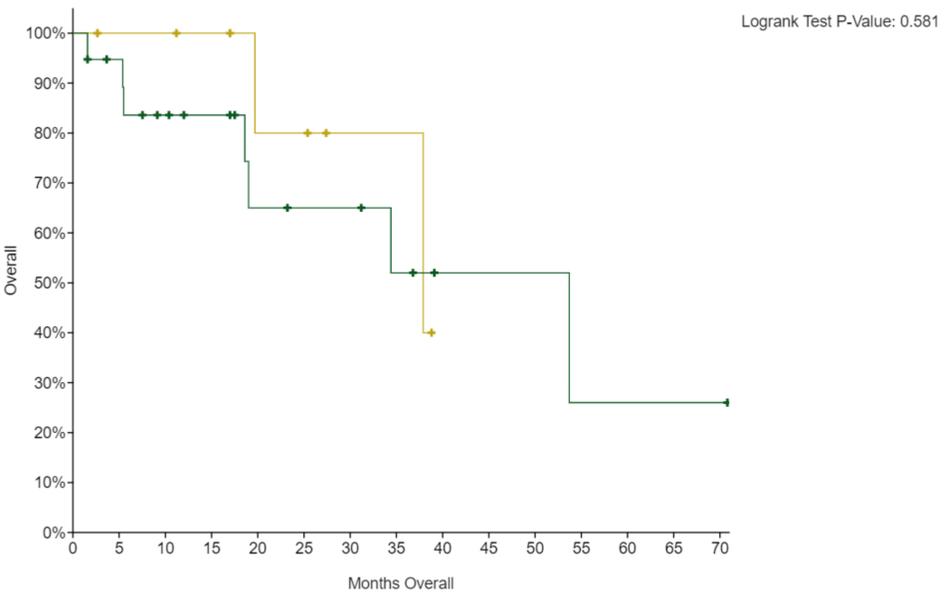
Overall

- FGFR3+ RB1-
- FGFR3+ RB1+



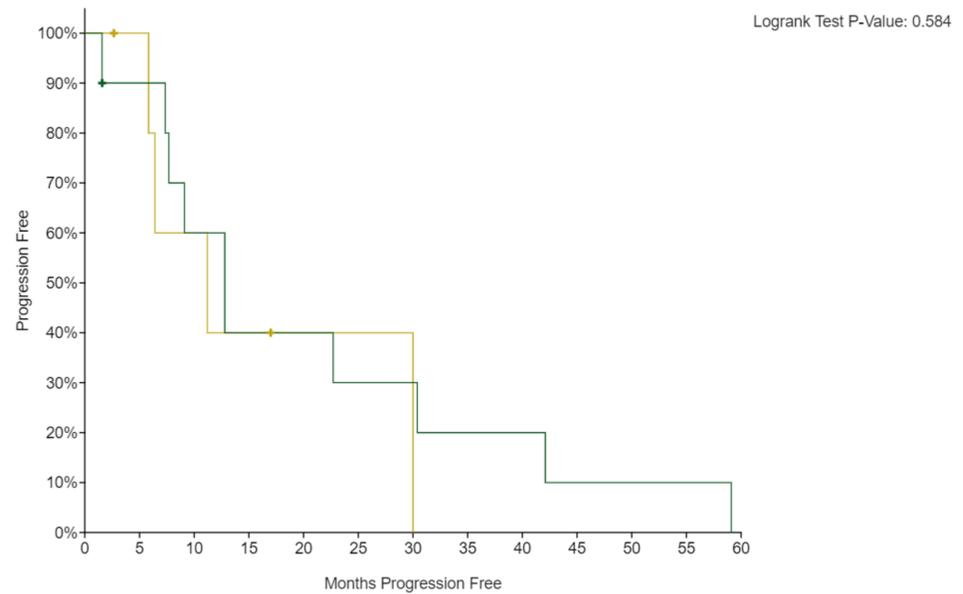
Progression Free

- FGFR3+ RB1-
- FGFR3+ RB1+



Overall

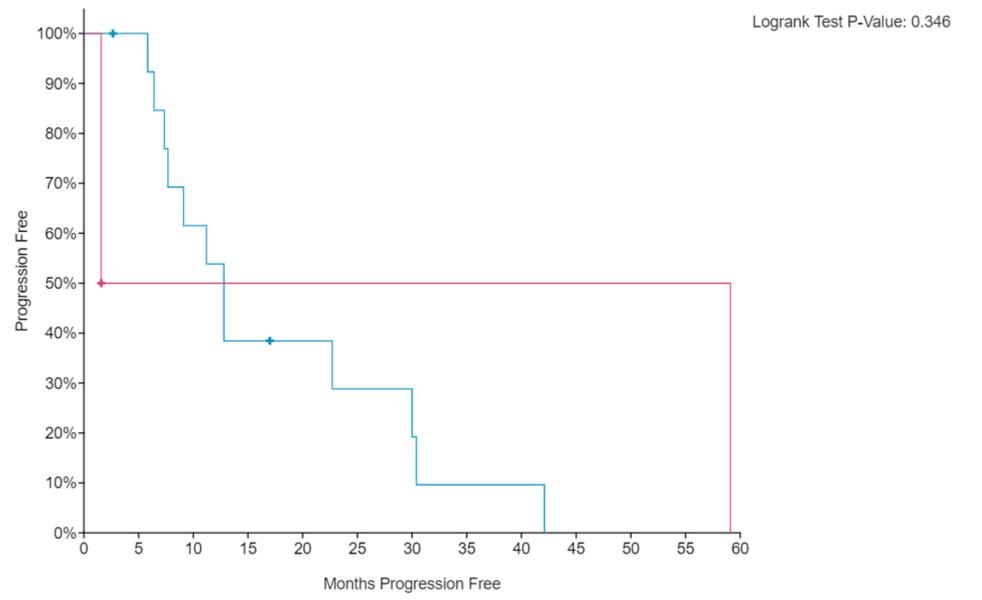
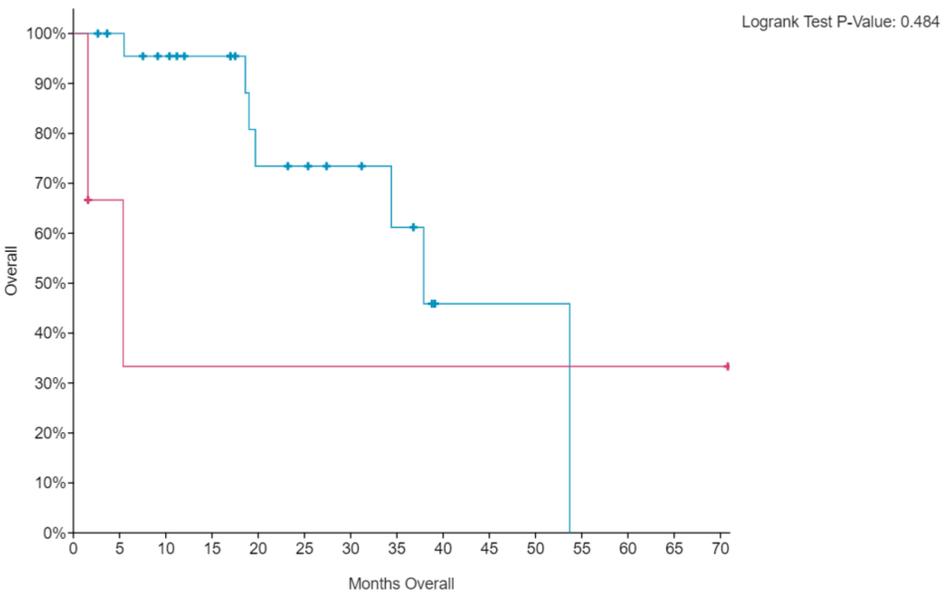
- FGFR3+ p16ink4 signaling-
- FGFR3+ p16ink4 signaling+



Progression Free

- FGFR3+ p16ink4 signaling-
- FGFR3+ p16ink4 signaling+

Supplementary Figure 3 – Other p14-p53 pathway alterations

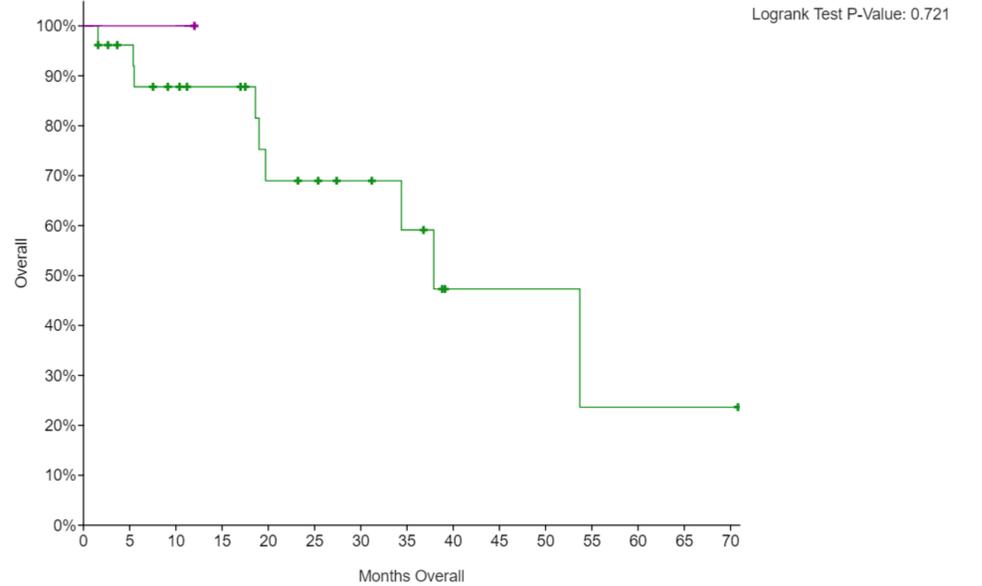
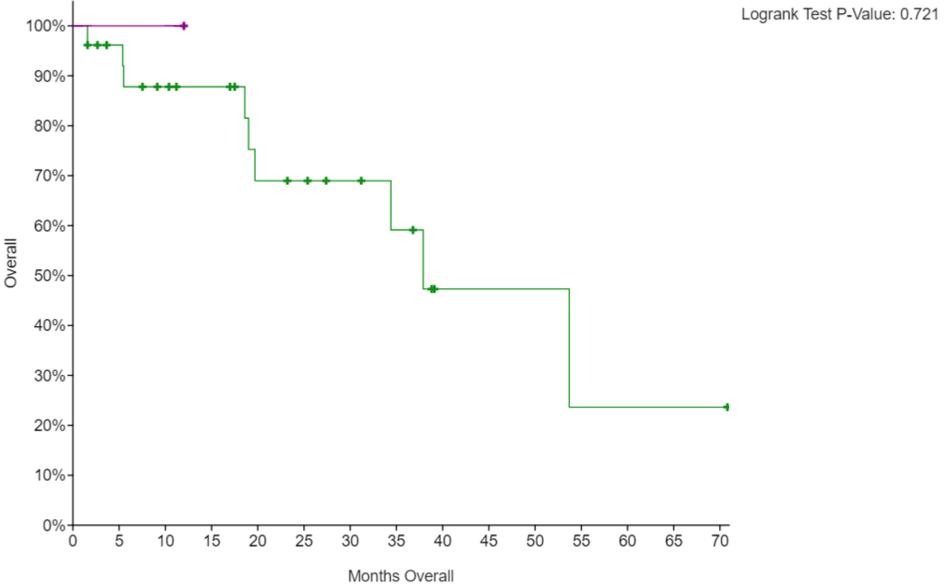


Overall

■ FGFR3+ MDM2-
■ FGFR3+ MDM2+

Progression Free

■ FGFR3+ MDM2-
■ FGFR3+ MDM2+

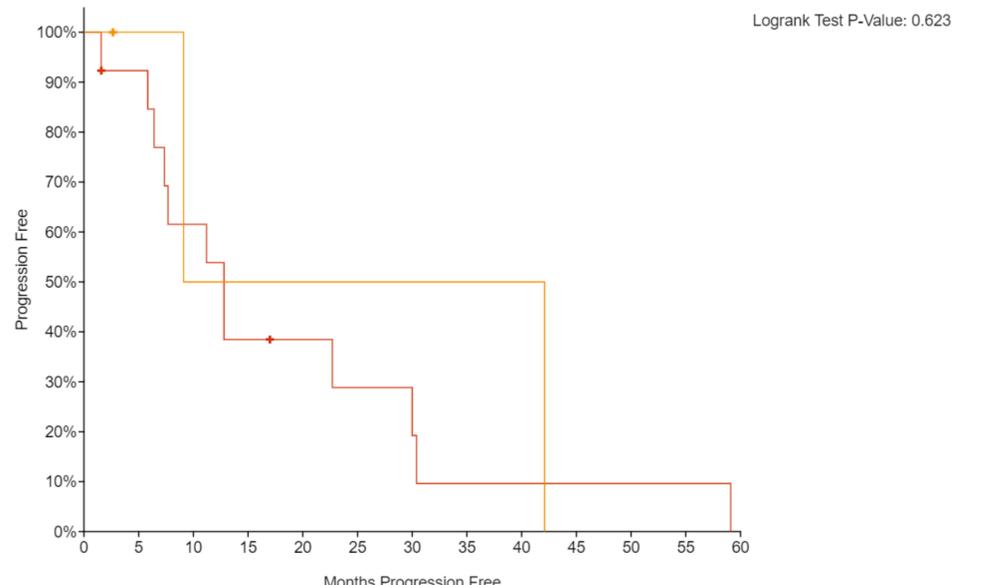
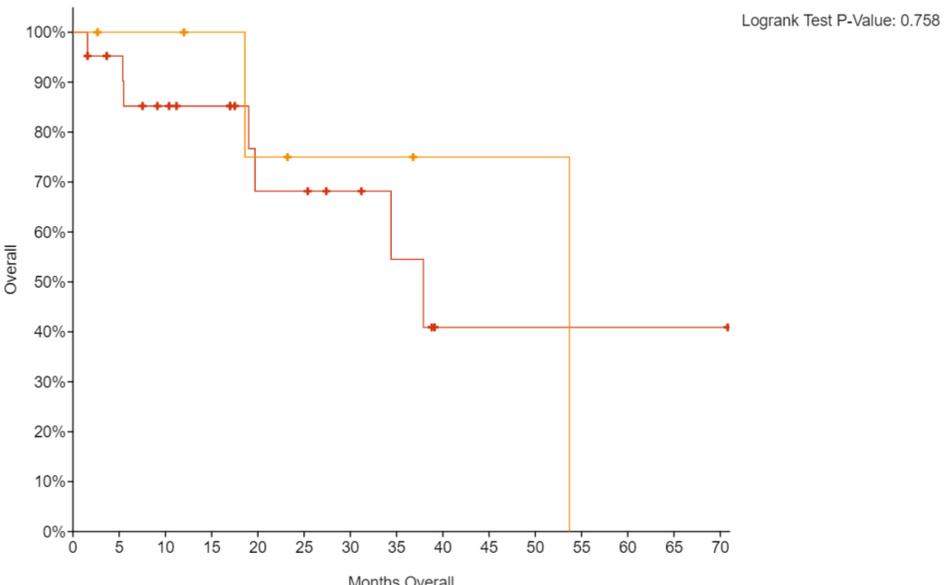


Overall

■ FGFR3+ ATM-
■ FGFR3+ ATM+

Overall

■ FGFR3+ ATM-
■ FGFR3+ ATM+

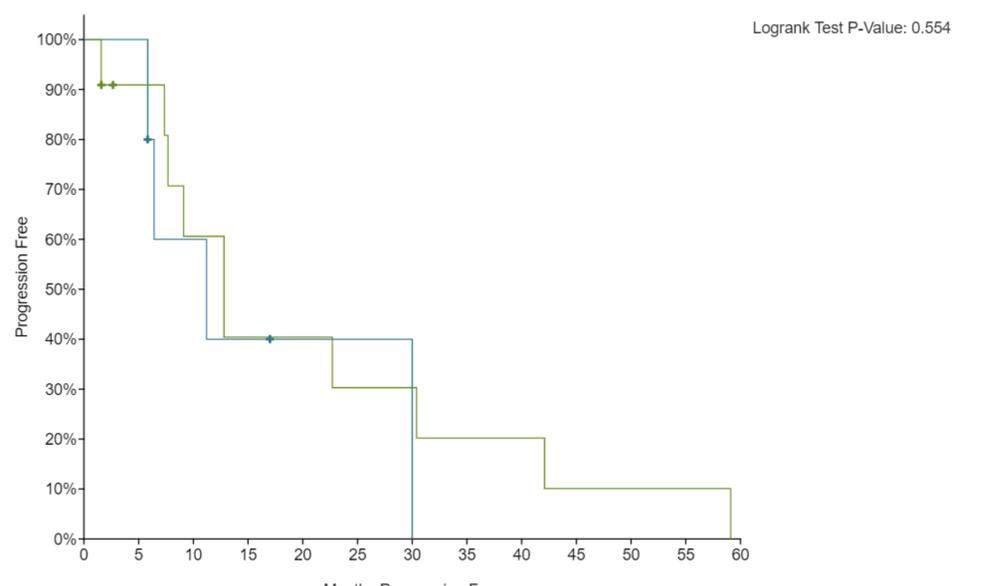
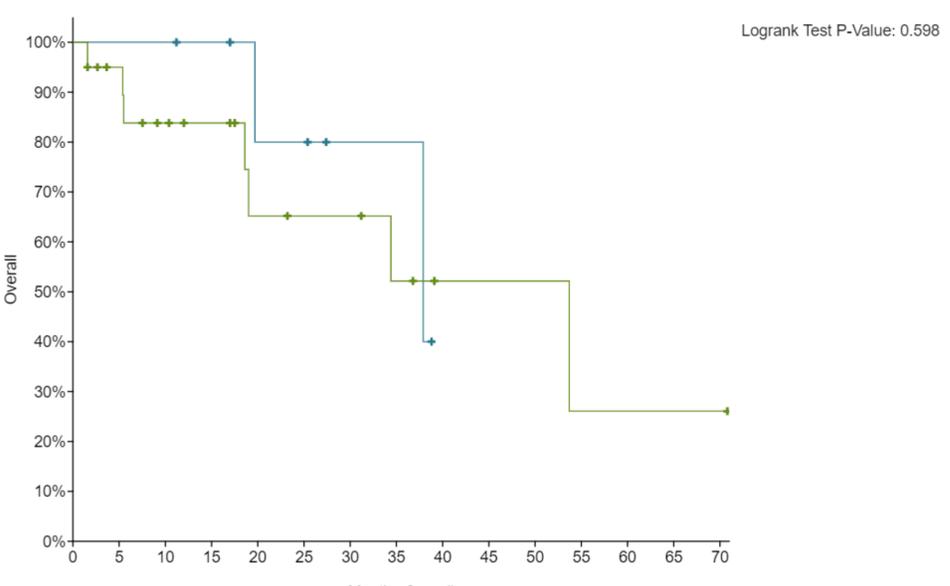


Overall

■ FGFR3+ TP53-
■ FGFR3+ TP53+

Progression Free

■ FGFR3+ TP53-
■ FGFR3+ TP53+



Overall

■ FGFR3+ p14arf signaling-
■ FGFR3+ p14arf signaling+

Progression Free

■ FGFR3+ p14arf signaling-
■ FGFR3+ p14arf signaling+

Supplementary Figure 4 – Telomere maintenance genes

