

## Expanded View Figures

**Figure EV1. RPPA analysis of BET inhibitor- and FGF2-induced changes in protein expression.**

A, B RPPA heat map of protein expression in UM001, UM004 and OMM1.3 cells treated with (A) BET inhibitors alone or (B) in combination with 50 ng/ml FGF2 for 48 h. UM001 and OMM1.3 cells were treated with 1  $\mu$ M JQ1, 1  $\mu$ M PLX51107 or 100 nM PLX72853, and UM004 cells were treated with 2  $\mu$ M JQ1, 2  $\mu$ M PLX51107 or 200 nM PLX72853. Each condition is in triplicate.

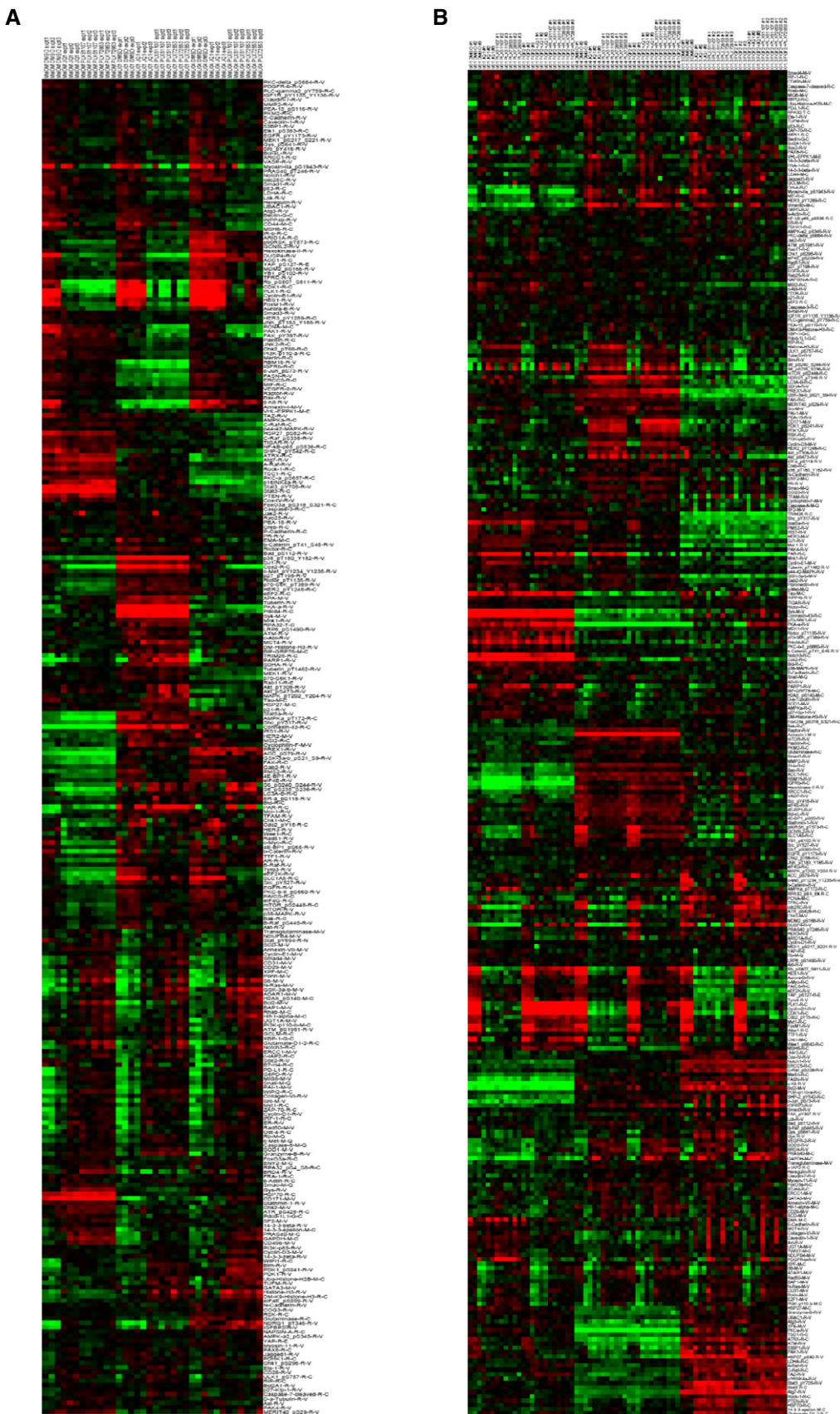


Figure EV1.

**Figure EV2. Effects of BLU9931 on FGF2-mediated resistance to UM cell growth inhibition by BET inhibitors.**

UM001 and OMM1.3 cells were treated with 1  $\mu$ M JQ1, 1  $\mu$ M PLX51107 or 100 nM PLX72853 in combination with 50 ng/ml FGF2 and 0–10  $\mu$ M FGFR4 inhibitor BLU9931. UM004 was treated with 2  $\mu$ M JQ1, 2  $\mu$ M PLX51107 or 200 nM PLX72853 in combination with 50 ng/ml FGF2 and 0–10  $\mu$ M BLU9931. Cell growth was determined after 8 days of treatment by crystal violet staining. Fold change in crystal violet stain compared to JQ1 treatment and mean  $\pm$  SEM of data from triplicate experiments (or  $n = 3$ ) is shown. The unpaired  $t$ -test was used. Scale bar: 100  $\mu$ m.

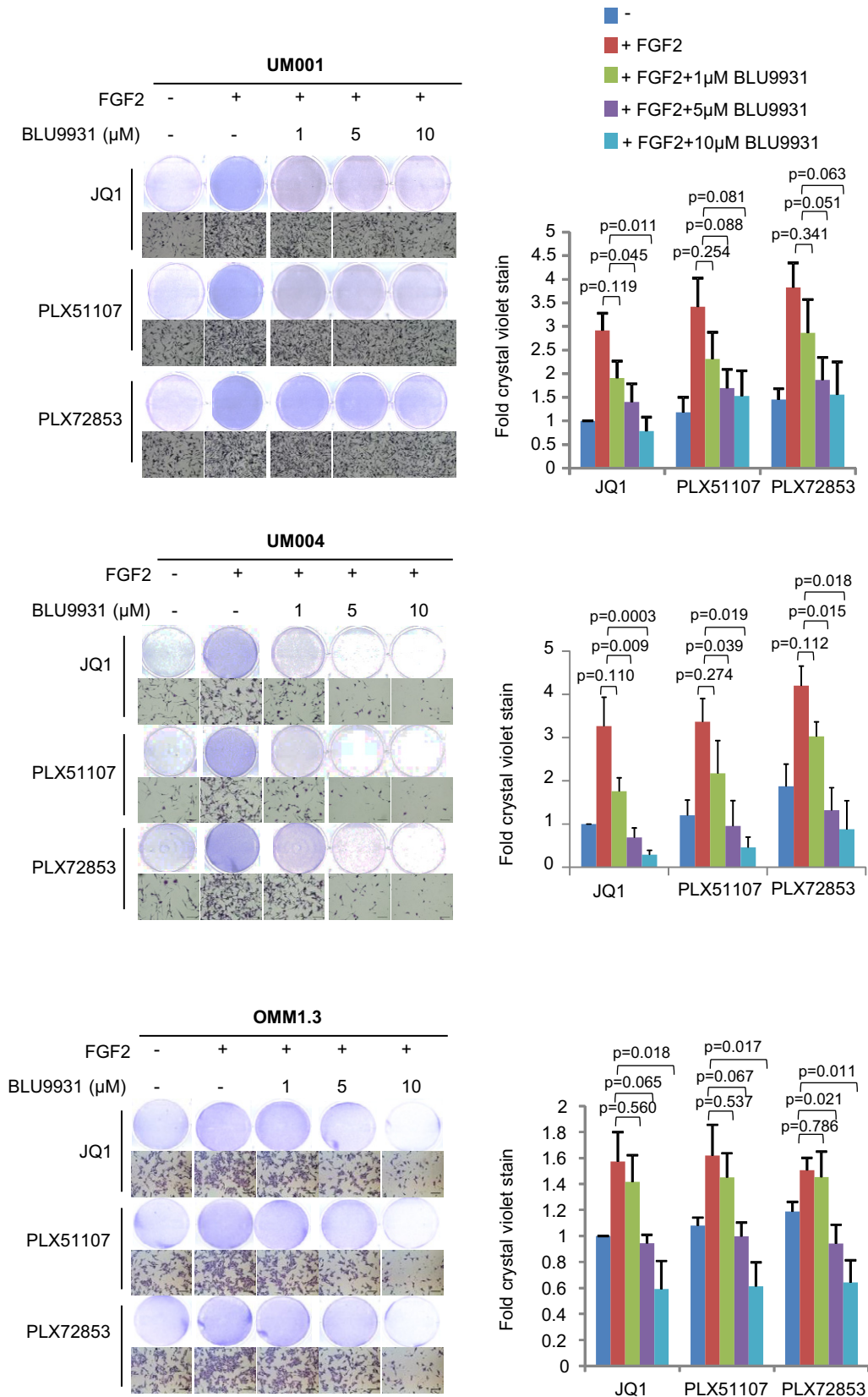
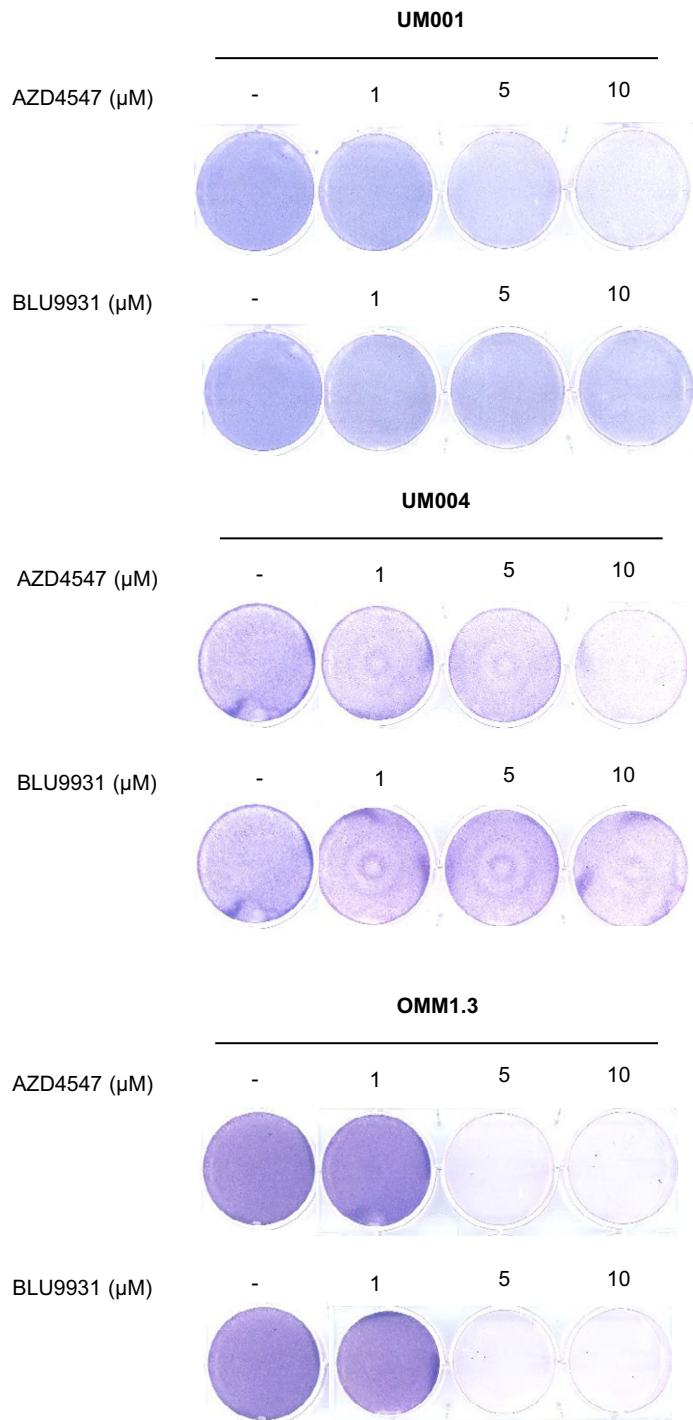


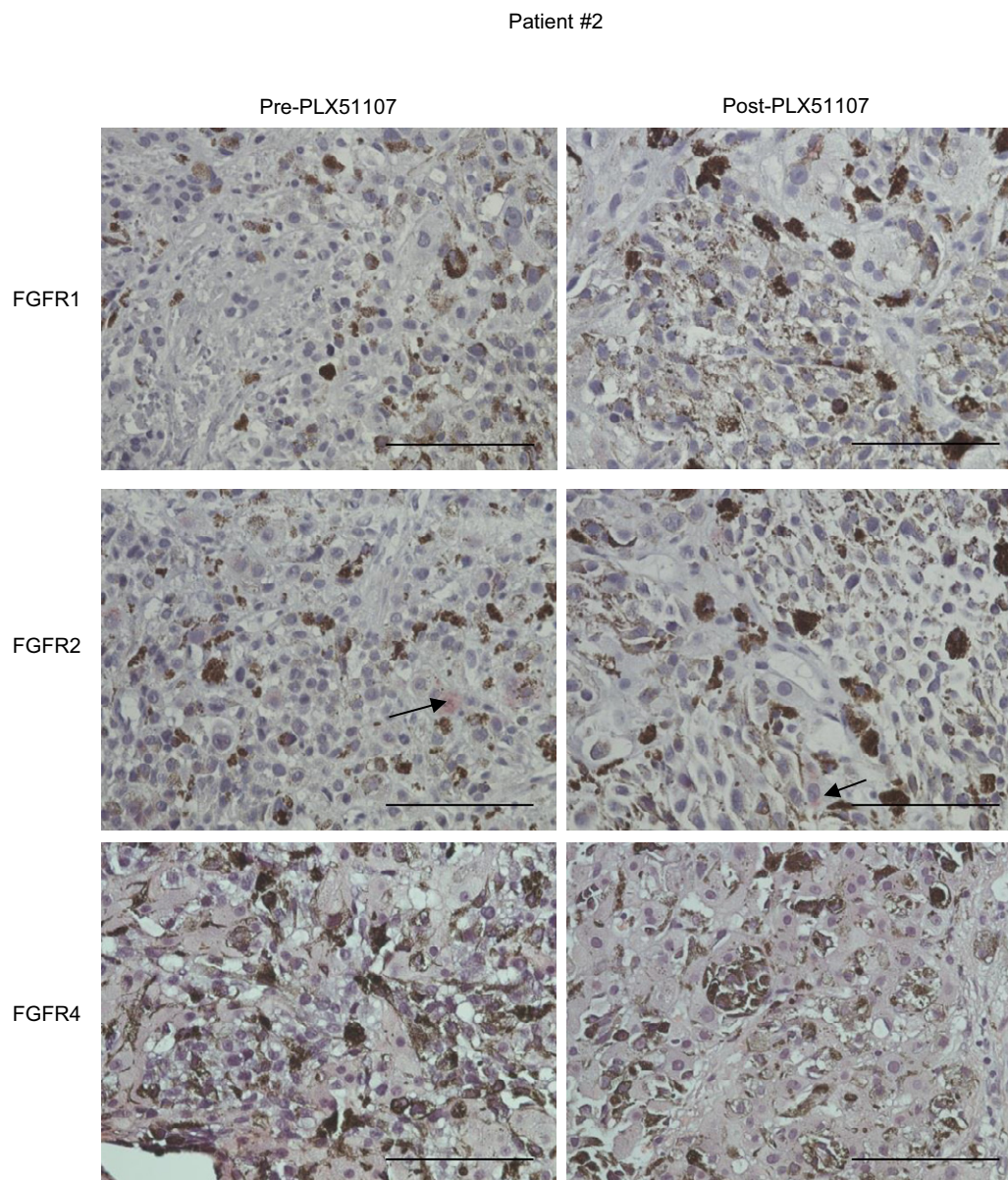
Figure EV2.



**Figure EV3. FGFR inhibitor effects on UM001 colony growth.**

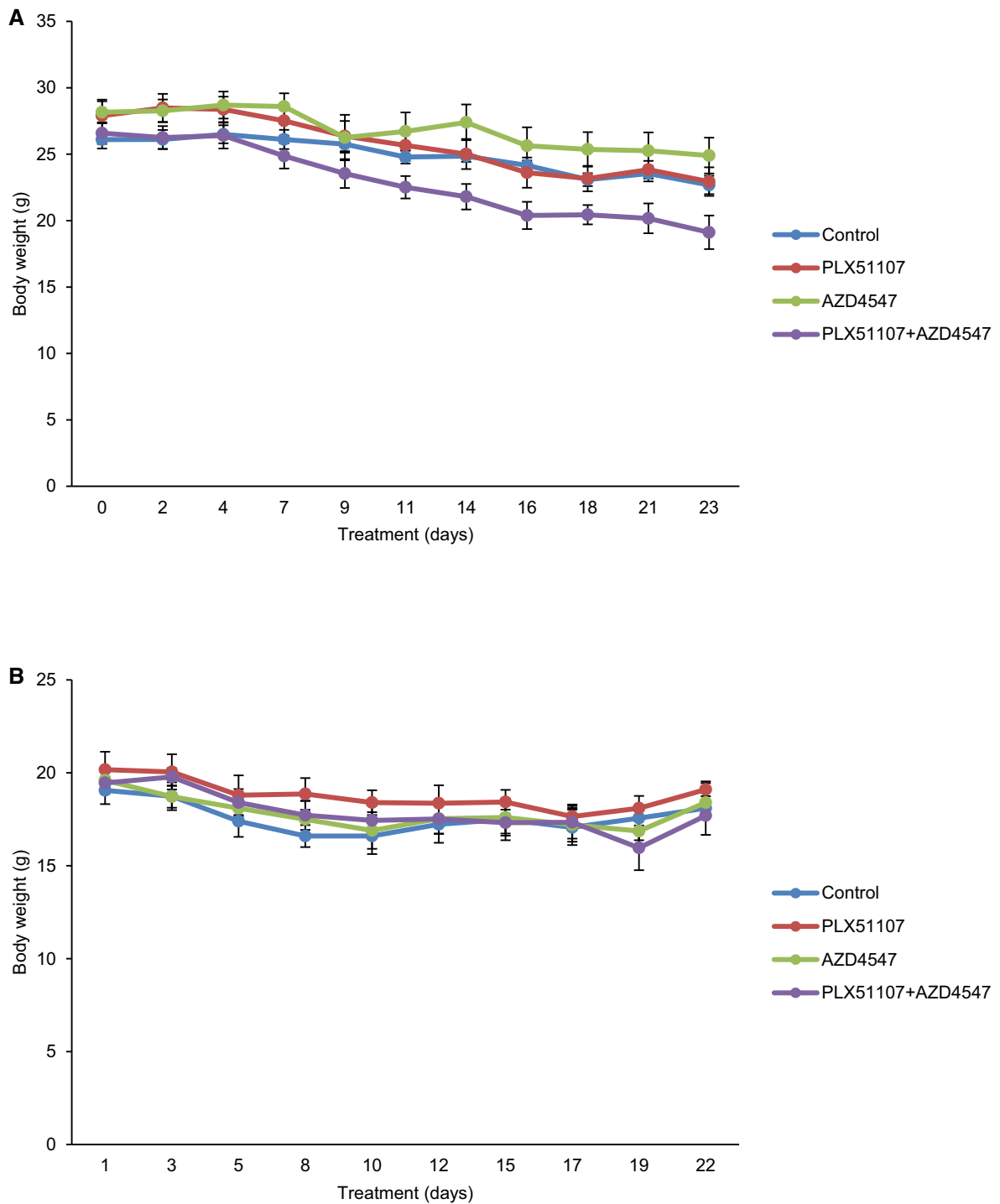
AZD4547 and BLU9931 effects on UM cell growth. UM001, UM004 and OMM1.3 were treated with increasing concentrations of AZD4547 or BLU9931. Cell growth was determined after 8 days of treatment by crystal violet staining. AZD4547 and BLU9931 have little/no effect on UM cell growth at 1 μM.





**Figure EV4. FGFR staining in patient #2 biopsy (PLX51107 clinical trial).**

FGFR1, FGFR2 and FGFR4 staining in pre- and post-PLX51107 treatment tissues isolated from liver metastases of patient #2 enrolled in the PLX51107 clinical trial. Representative images are shown. Arrows are indicating positive FGFR2 staining. FGFR1, FGFR2 and FGFR4 antibody concentrations were 1:25, 1:50 and 1:100, respectively. Scale bar: 100  $\mu$ m.



**Figure EV5. Weight of animals monitored during the *in vivo* experiments.**

A, B (A) Nude mice and (B) NSG mice body weight monitored thrice a week during treatment with 90 mg/kg PLX51107, 5 mg/kg AZD4547, PLX51107 + AZD4547, and DMSO (control).