Supplementary Figure S1

500

0

200

0

0

Days

≧ 100 %

0

Days

Α. Β. MGH1518-1BX untreated MGH1518-1BX + EP 2000 200 TTP xenograft 1 xenograft 4 ≧ 100 Resp Xenograft Volume (mm³) 1500 0 200 xenograft 2 xenograft 5 ≧ 100 % 1000 0 200

50

50

≧ 100

0





1

Supplementary Figure S1. Calculation of delta-AUC and comparison of EC with EP in PDX models. (A-C) Calculation of △AUC for MGH1518-1BX treated with EP. (A) (Top) Untreated tumor-volume (TV) curves for 94 replicate xenografts of MGH1518-1BX from starting volume of 100-300 mm³ to final volume of 1200-1500 mm³. For each xenograft, growth coefficient was derived from linear regression of log-transformed tumor volume measurements. Tan dashed line + shading: exponential growth model of MGH1518-1BX from 94 xenografts with mean initial tumor volume (ITV) of 227.3 mm³ and mean growth coefficient of 0.0659 +/-0.0029 (SEM). (Bottom) Exponential growth model of MGH1518-1BX to volume endpoint 200% ITV over 50 days. Gray shade = area under the untreated TV curve (AUC). (B) (Top) TV curves for 7 replicate xenografts of MGH1518-1BX treated with EP starting at ITV = 300-600 mm³, with measurements every 3-4 day until days until endpoints of 200% ITV or 50 days. Red shade = area under the TV curve (AUC) estimated from sum of right trapezoids between TV measurements. Arrows indicate metrics of maximum tumor regression (best response, "Resp.") or time to volume endpoint (time to progression, "TTP") for the first xenograft. (Bottom) Mean TV curve for MGH1518-1BX treated with EP +/- 95% CI. Gray shade = mean AUC for MGH1518-1BX treated with EP. (C) Effect of EP on MGH1518-1BX tumor volume. Gray shade = change in AUC with EP treatment (AAUC^{EP}). (D) Comparison of EC and EP in vivo in the serial PDX models MGH1518-1BX (EPsensitive) and MGH1518-3A (EP-resistant), as well as a second EP-sensitive model from a chemo-naïve patient, MGH1542-1A. Solid color lines = tumor-volume (TV) curves for treated xenografts starting from initial tumor volume (ITV) of 300-600 mm³. (created with BioRender.com)