

Patient-derived organoids for prediction of treatment response in oesophageal adenocarcinoma

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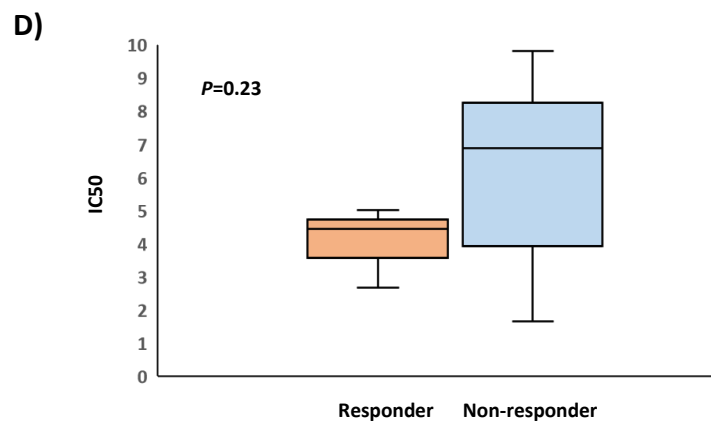
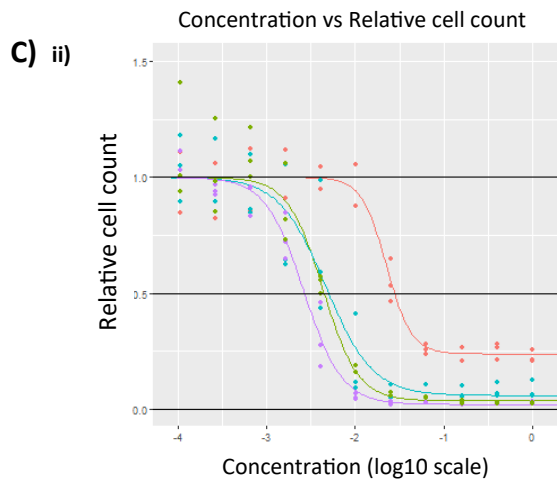
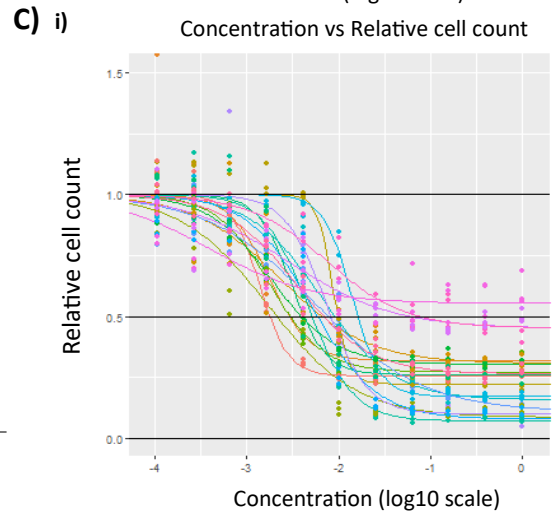
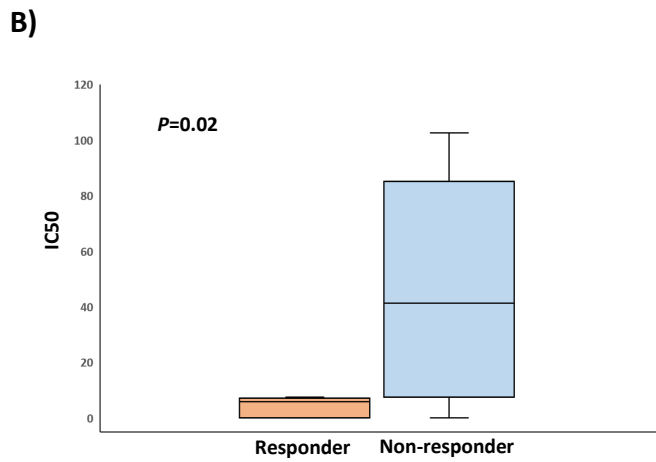
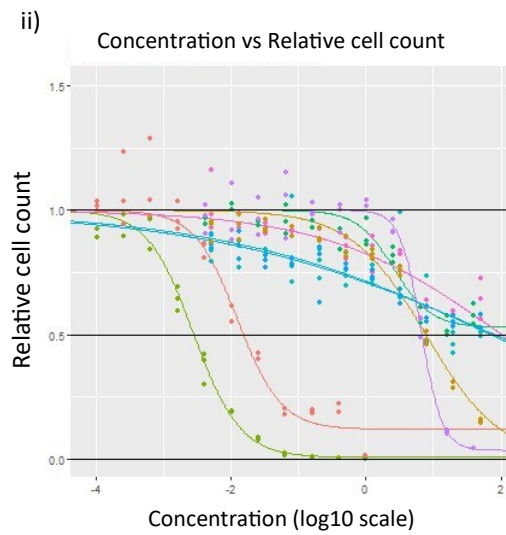
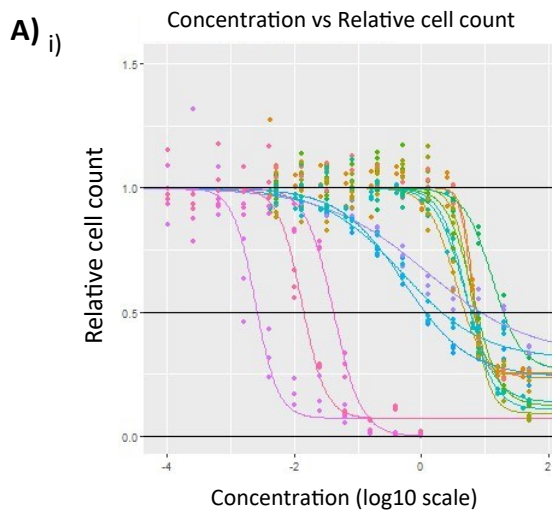
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E)

Platinum treatment (n=23)	IC50	<i>p</i> -value	EC50	<i>p</i> -value
TRG 1	2.28 (2.41)		1.33 (1.88)	
TRG 2	14.50 (28.90)		4.39 (4.07)	
TRG 3	47.50 (45.10)	0.03	33.57 (39.6)	0.04
Taxane treatment (n=24)				
TRG 1	9.32 (4.95)		6.88 (5.04)	
TRG 2	8.85 (14.00)		3.90 (2.40)	
TRG 3	4.04 (1.22)	0.22	3.85 (1.09)	0.43

Figure 1: A) normalized concentration curves for 11-point drug response curves for cisplatin-treated organoids from i) 'responder' and ii) 'non-responder' subsets based on TRG, x-axis shows concentration on a log10scale, y-axis shows relative cell counts. Each line represents a single organoid. B) Box-plot demonstrating differences in mean IC50 between 'responder' and 'non-responder' subsets for cisplatin treated organoids, y-axis shows IC50, $p=0.02$. Median, 1st and 3rd quartile, and the maximum and minimum values are presented. C) normalized concentration curves for 11-point drug response curves for paclitaxel-treated organoids from i) 'responder' and ii) 'non-responder' subsets based on TRG, x-axis shows concentration on a log10scale, y-axis shows relative cell counts. D) Box-plot demonstrating differences in mean IC50 between 'responder' and 'non-responder' subsets for paclitaxel treated organoids, y-axis shows IC50, $p=0.23$. E) Comparison of IC50 and EC50 for cisplatin and paclitaxel treated organoids. Values for IC50 and EC50 for platinum treated organoids are μM concentration of cisplatin (standard deviation). Values for IC50 and EC50 for taxane treated organoids are mM concentration of paclitaxel (standard deviation). Values are compared using one-way ANOVA (Kruskal-Wallis).