

Supplementary Table 1. Antibody staining conditions for immunohistochemistry

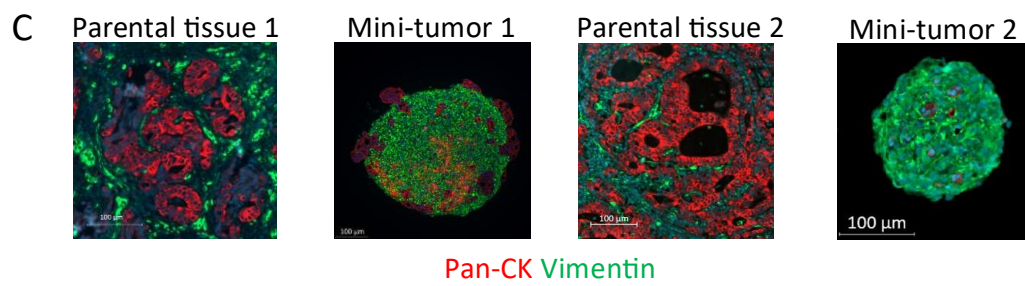
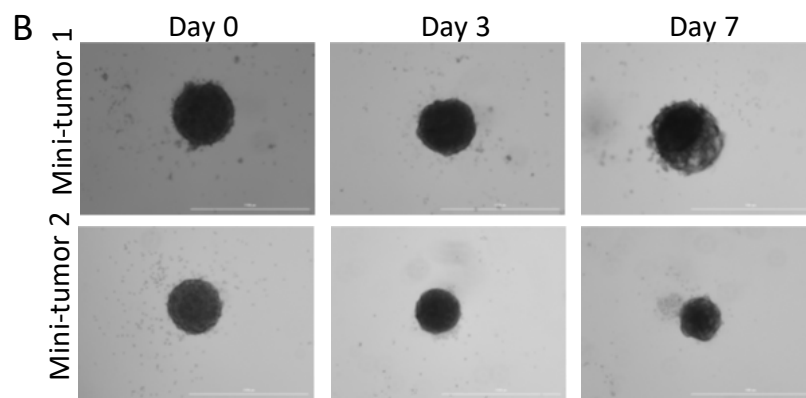
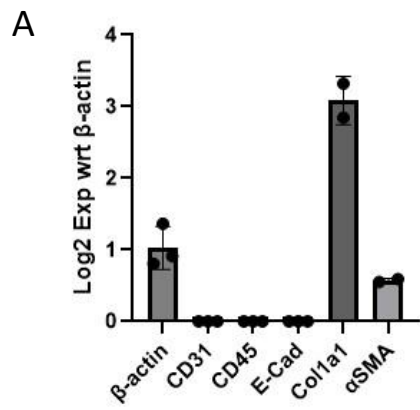
Marker	Antigen retrieval	Blocking	Primary antibody			Secondary antibody	
			Antibody	Diluted in	Incubation temperature	Antibody	Diluted in
Pan-CK	Sodium-citrate (pH = 6.00)	-	1:3200, monoclonal mouse, PCK-26 Sigma-Aldrich	1% BSA in PBS	Room temperature	Biotinylated anti-mouse (1:200, polyclonal goat, abcam)	1% BSA in PBS
Ki67	Sodium-citrate (pH = 6.00)	Teng-T	1:300, monoclonal rabbit, SP6, Abcam	1% BSA in PBS	4°C	Biotinylated anti-rabbit (1:1000, polyclonal goat, abcam)	1% BSA in PBS
Cleaved-caspase 3	Sodium-citrate (pH = 6.00)	-	1:300, monoclonal rabbit, D175, Cell Signaling Technology	1% BSA in PBS	Room temperature	Biotinylated anti-rabbit (1:1000, polyclonal goat, abcam)	1% BSA in PBS
HER2	Sodium-citrate (pH = 6.00)	-	1:100, polyclonal rabbit, Dako	1% BSA in PBS	Room temperature	Biotinylated anti-rabbit (1:1000, polyclonal goat, abcam)	1% BSA in PBS
Endoglin	Sodium-citrate (pH = 6.00)	-	1:400, Baf1097, polyclonal goat, R&D	1% BSA in PBS	Room temperature	Biotinylated anti-goat (1:200, polyclonal)	1% BSA in PBS

						Rabbit, Dako)	
Vimentin	Sodium-citrate (pH = 6.00)	-	1:400, D21H3, monoclonal rabbit, Cell Signaling Technology	1% BSA in PBS	Room temperature	Biotinylated anti-rabbit (1:1000, polyclonal goat, abcam)	1% BSA in PBS
aSMA	Sodium-citrate (pH = 6.00)	-	1:1600, Progen	1% BSA in PBS	Room temperature	Biotinylated anti-mouse (1:200, polyclonal goat, abcam)	1% BSA in PBS

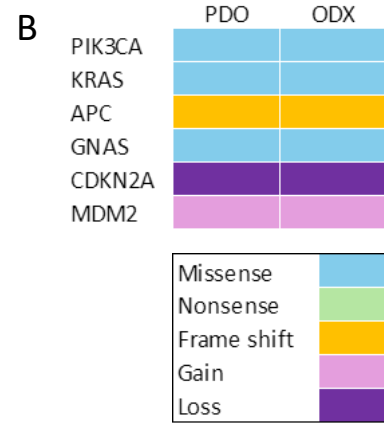
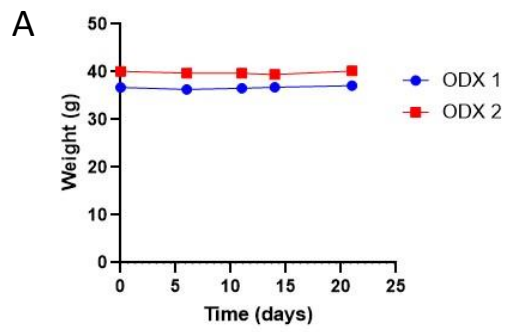
Abbreviations: PCK: pan-cytokeratin, BSA: bovine-serum albumin, PBS: phosphate-buffered saline,

HRP: horseradish peroxidase, HER2: human epidermal growth factor receptor 2

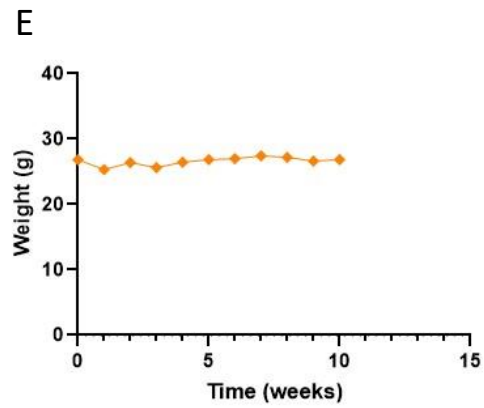
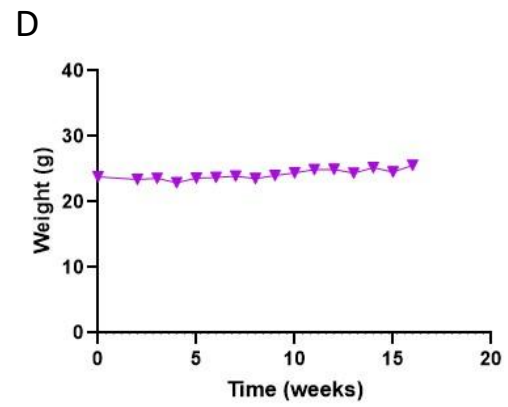
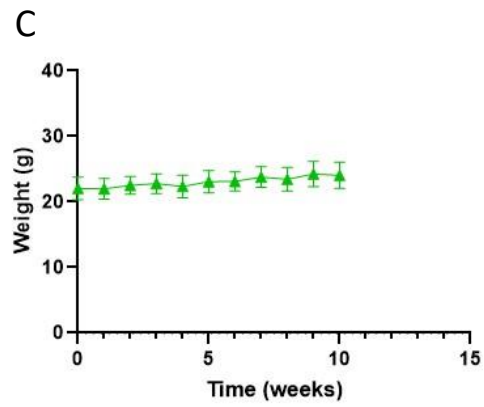
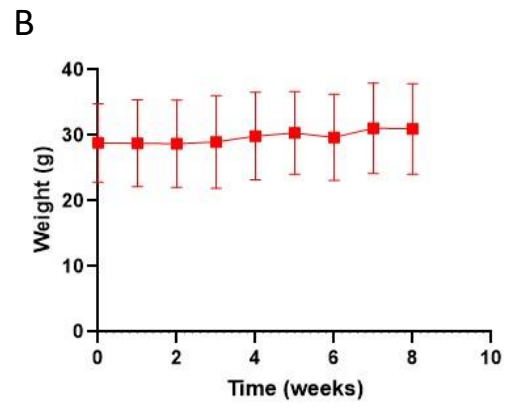
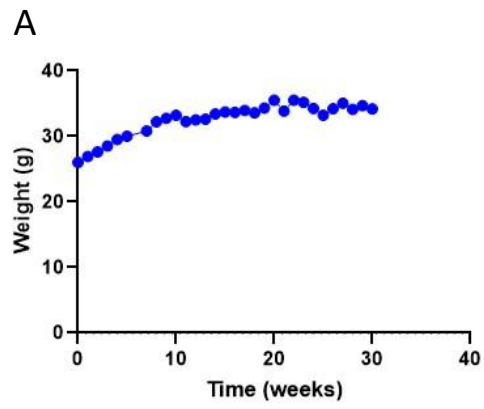
Supplementary figure 1



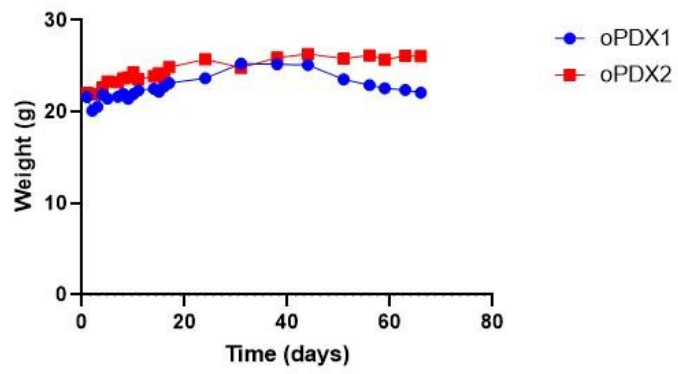
Supplementary figure 2



Supplementary figure 3



Supplementary figure 4



Supplementary figure legends

Supplementary Figure 1 GC mini-tumors.

A) Expression of epithelial, immune and stromal markers of the used fibroblasts. B) GC-mini-tumor structures over the span of 7 days. Scale bar represents 1000 μm . C) Immunofluorescent stainings for Pan-CK and vimentin of mini-tumors and their parental tissue. Scale bar represents 100 μm .

Supplementary Figure 2 Subcutaneous injection of GC-PDOs.

A) Mouse weights after subcutaneous injection of GC-PDOs (n=2). B) Mutational spectrum of GC-ODX material compared to GC-PDOs.

Supplementary Figure 3 Weights of mice with subcutaneous engrafted GC fragments.

Weights of mice receiving A) G0 (n=1), B) G1 (n=2), C) G2 (n=3), D) G1 (frozen) (n=1) and E) G2 (frozen) (n=1) material.

Supplementary Figure 4 Mouse weight after orthotopic engraftment of GC tumors.

Weight was monitored over the span of the experiment