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Supplementary Materials: High Clinical Value of Liquid Biopsy to Detect Circulating Tumor Cells and Tumor Exosomes in Pancreatic Ductal Adenocarcinoma Patients Eligible for Up-Front Surgery

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Age, year, (median; range)	68.8 (69.5; 57–81) *	58.3 (61;22–73) *
Male gender, n (%)	13 (59)	8 (28)
BMI (median; range)	24(25;18–35)	26.5(25; 18–45)
ASA score		
1–2	16 (72)	19 (67)
≥3	6 (28)	9 (33)
Smoking status	5 (22)	12 (42)
First symptoms		IPMN $(n = 8)$
Acute pancreatitis	0 (0)	2(25)
Jaundice	13 (59)	0(0)
New onset of diabetes	0 (0)	1(12.5)
Weight loss	5 (22)	0(0)
Diarrhea and/or steatorrhea	0 (0)	0(0)
Abdominal pain	3 (13)	3(37.5)
No symptoms	4 (18)	3(37.5)

Table S1. Clinical features of the cohort.

PDAC Group (n = 22) (%) Control GROUP (n = 28) (%)

23 (83)

5 (17)

Positive n = 0 (0)

Negative n = 3 (100)

Variables

Serum CA 19-9 Normal

Elevated

EUS-FNA

Positive

Negative

16 (72)

6 (28)

Total n = 13

n = 7 (54)n = 6 (46)

^{*} Statistically significant; IPMN are included in the control group. Abbreviations: med, median; PDAC, pancreatic ductal adenocarcinoma; IPMN, intraductal papillary and mucinous neoplasm; EUS-FNA, endoscopic ultrasound-guided fine needle aspiration; BMI, Body mass index; ASA, American society of anesthesiologists. Serum CA 19-9 was considered as elevated when greater than 37 UI/mL.

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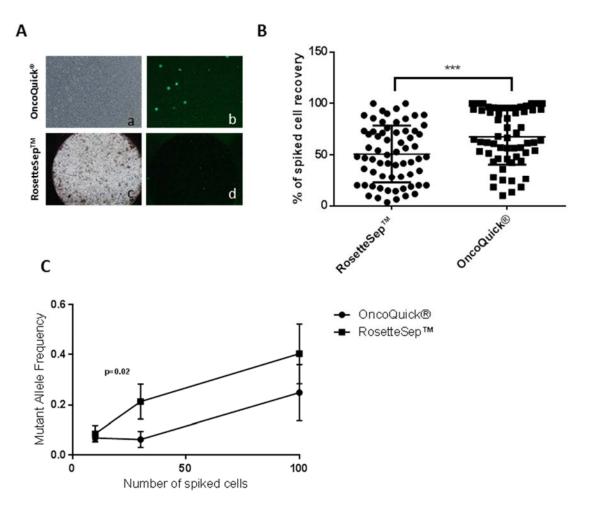


Figure S1. Tumor cell detection in cell spiking experiments. **(A)**. 60-well plate pictures after fluorescent cell spiking and recovery images of tumor cells obtained after OncoQuick® enrichment (a, bright field; b, fluorescence) and RosetteSepTM enrichment (c, bright field; d, fluorescence) all images with original magnification ×100. **(B)**. Recovery efficiency for two methods. ***: p < 0.001: Cell count and tumor cell recovery after spiking experiments. Statistically greater count in Oncoquick® compared with RosetteSepTM paired analysis performed by Wilcoxon test (p < 0.001). **(C)**. Mutant allele frequency determined by ddPCR after enrichment according to spiked cells: Molecular detection of mutant K-RAS alleles by ddPCR after RosetteSepTM enrichment was 3- to 4-fold more sensitive than after OncoQuick®.



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