WP6

Prospective study to evaluate the association between individual profiles and clinical outcomes in 1st line metastatic colorectal cancer (mCRC) patients

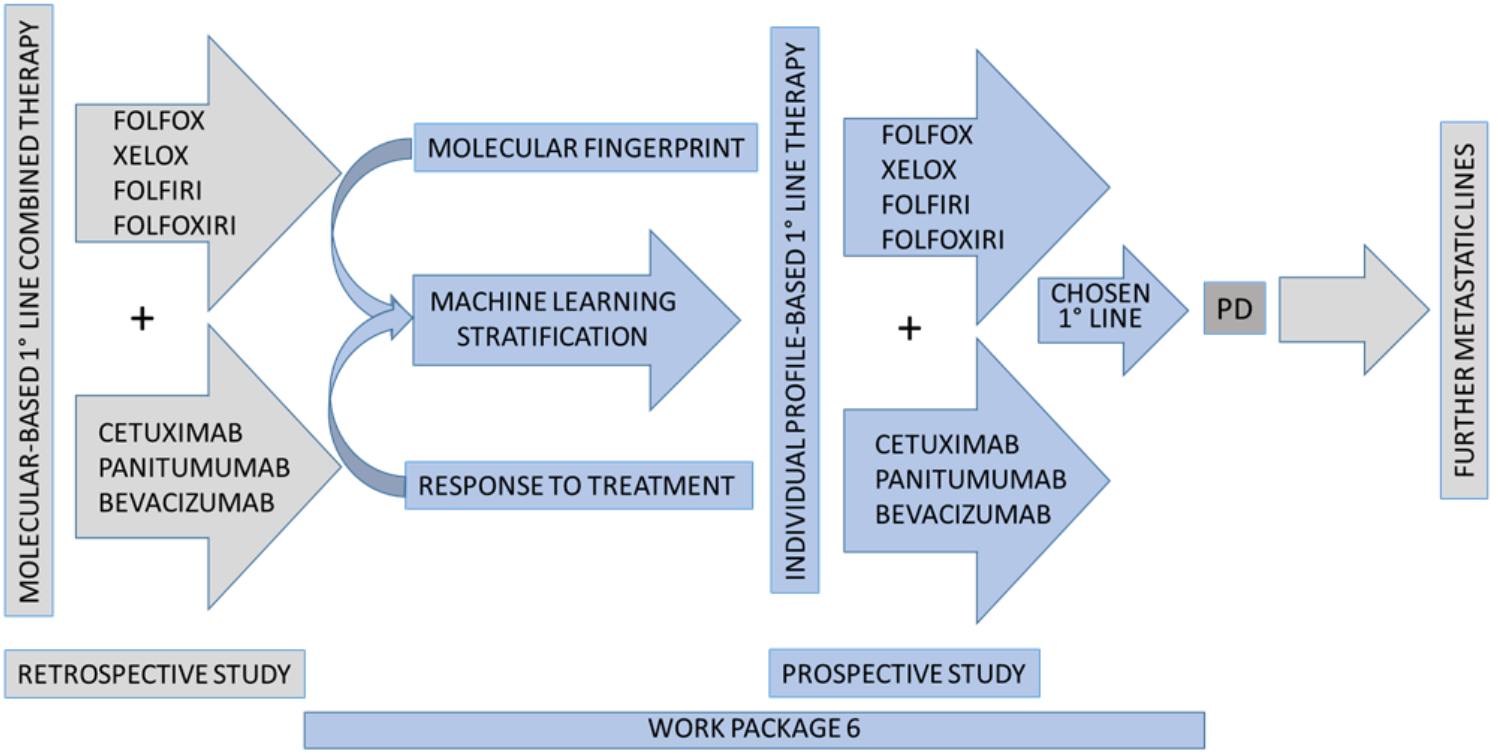
WP Leader: UNITOV

FINAL EVENT

2024

December 10th - ROME

CLINICAL STUDY DESIGN - rationale



March 2023 1st FIRST PATIENT ENROLLED

ClinicalTrials.gov PRS
Protocol Registration and Results System

ClinicalTrials.gov Protocol Registration and Results System (PRS) Receipt
Release Date: November 27, 2024

ClinicalTrials.gov ID: NCT05396807

Study Identification

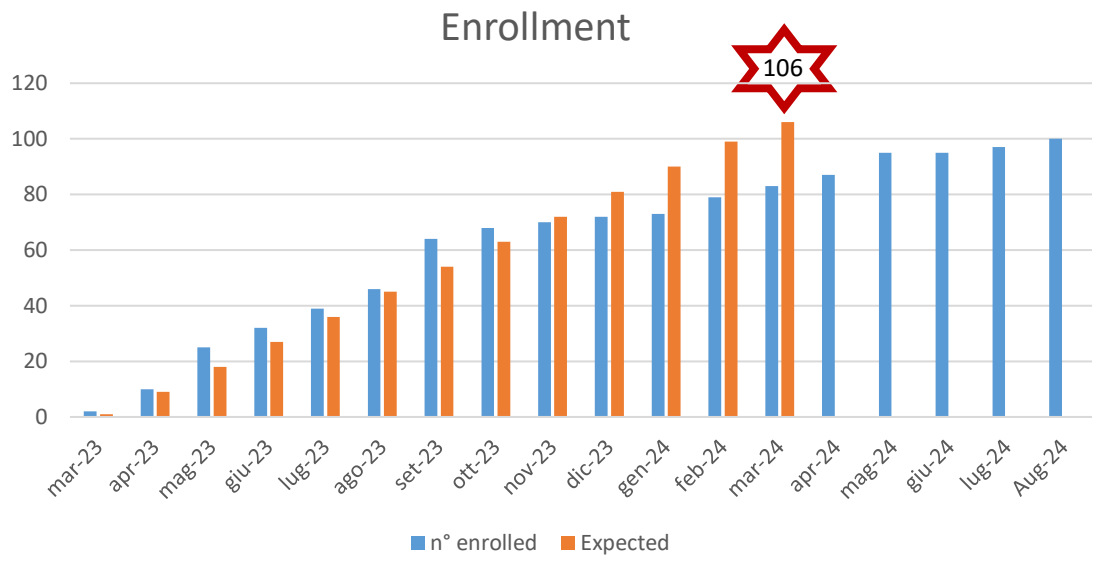
Unique Protocol ID:	University Tor Vergata
Brief Title:	REVERT - taRgeted thErapy for adVanced colorEctal canceR paTients
Official Title:	REVERT - taRgeted thErapy for adVanced colorEctal canceR paTients
Secondary IDs:	

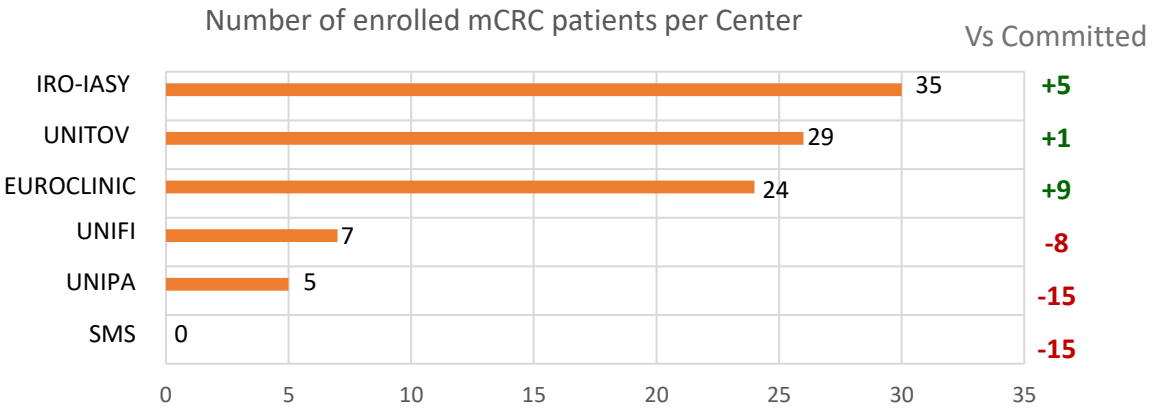
Study Status

Record Verification:	November 2024
Overall Status:	Completed
Study Start:	March 21, 2023 [Actual]
Primary Completion:	March 31, 2024 [Actual]
Study Completion:	November 25, 2024 [Actual]

REVERT - taRgeted thErapy for adVanced colorEctal canceR paTients

Month	n° enrolled	n° expected
mar-23	2	1
apr-23	10	10
may-23	25	20
jun-23	32	29
jul-23	39	39
aug-23	46	48
sep-23	64	58
oct-23	68	68
nov-23	70	77
dec-23	72	88
jan-24	73	96
feb-24	79	106
mar-24	83	
apr-24	94	
may-24	95	
jun-24	95	
jul-24	97	
aug-24	100	





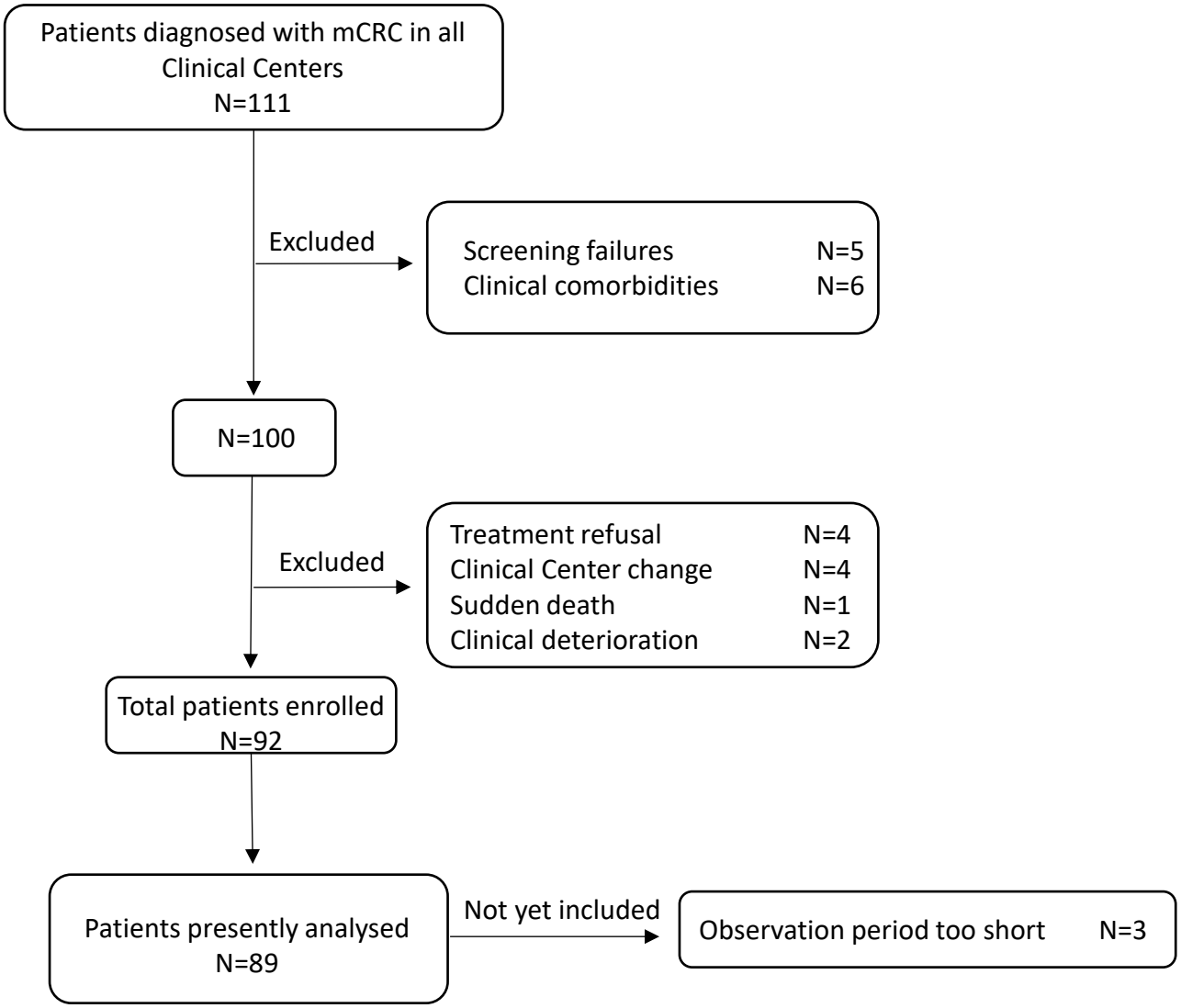
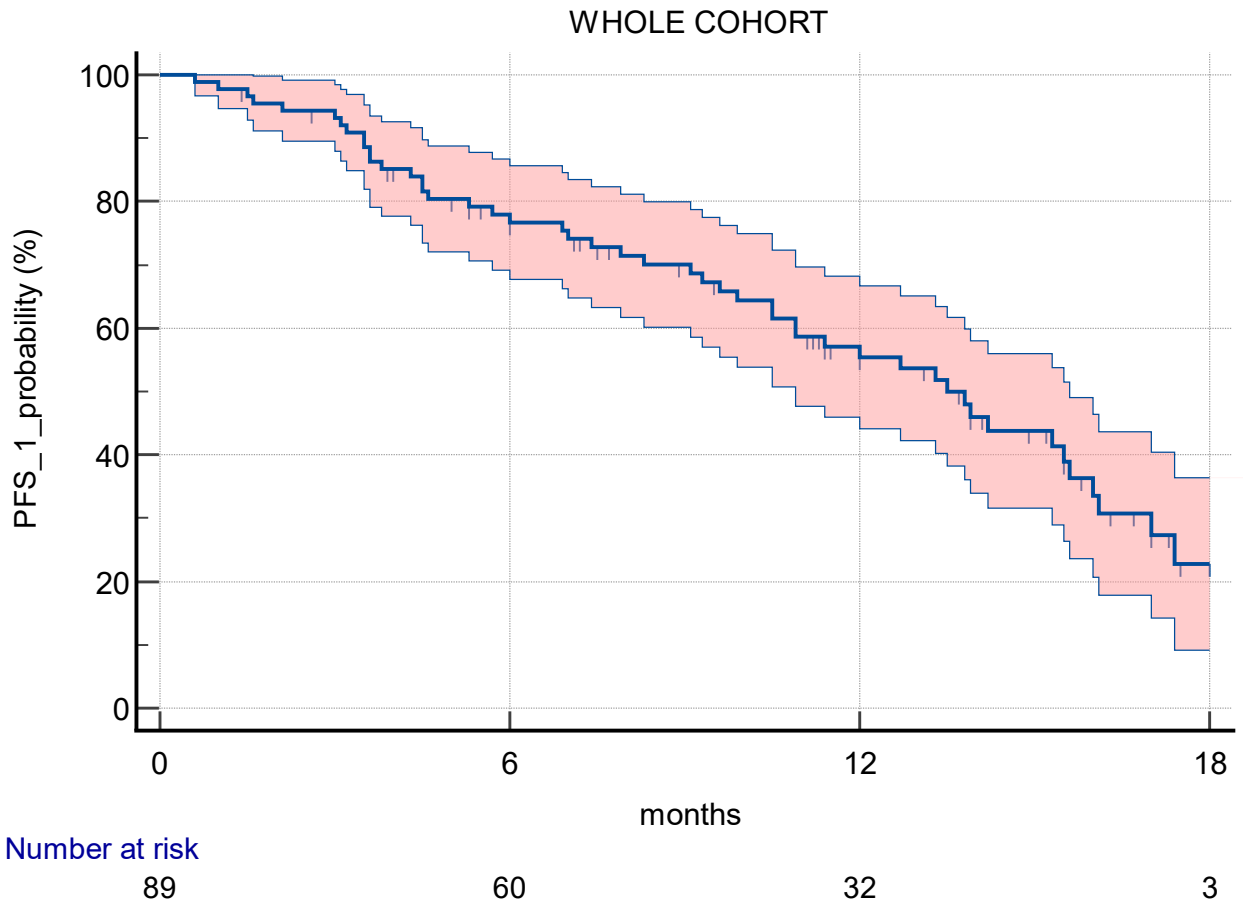

Patients diagnosed with mCRC in all Clinical Centers
N=111
Excluded
Screening failures N=5
Clinical comorbidities N=6
N=100
Excluded
Treatment refusal N=4
Clinical Center change N=4
Sudden death N=1
Clinical deterioration N=2
Total patients enrolled
N=92
Patients presently analysed
N=89
Not yet included
Observation period too short N=3

Table 1. Demographic and Patient Characteristics at Baseline	
Characteristic	
Median age – yrs (range)	61.2 (20–83)
> 65 years of age - no. (%)	32 (35.9)
Sex - no. (%)	
Male	55 (61.8)
Female - no. (%)	34 (38.2)
ECOG performance-status score - no. (%)	
0	25 (28.1)
1	64 (71.9)
BMI - mean (range)	24.6 (16.7-36.4)
Site of primary tumour - no. (%)	
Right side	26 (29.2)
Left side	63 (70.8)
Metastatic disease in multiple sites - no. (%)	
1	23 (25.8)
>1	66 (74.2)
Liver-only disease - no. (%)	32 (35.9)
Prior primitive surgery - no. (%)	56 (62.9)
Prior radiotherapy - no. (%)	4 (3.4)
Prior systemic therapy - no. (%)	
Adjuvant	9 (10.1)
Neoadjuvant	4 (3.4)
RAS and BRAF status - no. (%)	
BRAF, KRAS, NRAS all wild type	49 (55.1)
RAS mutated	42 (47.2)
BRAF mutated	4 (3.4)
Microsatellite instability - no. (%)	
YES	3 (3.4)
NO	58 (65.2)
UNKW/not reported	28 (31.5)

Table 2. Variables at baseline	
Haematology	**mean**
WBC (10³/µL)	7.9
HGB (g/dL)	11.95
PLTS (10³/µL)	336.5
Neutrophils (10³/µL)	5.26
Lymphocytes (10³/µL)	1.87
PLT/Lymphocytes (ratio)	199.6
Neutrophils/Lymphocytes (ratio)	3.31
Biochemistry	
Albumin (g/dL)	4.25
ALT (UI/L)	29.35
AST (UI/L)	31.5
g-GT (UI/L)	110.7
Bilirubin (total) (mg/dL)	0.52
ALP (UI/L)	246.6
LDH (UI/L)	264.0
Fibrinogen (mg/dL)	487
D-Dimer (ng/dL; range)	1933.1 (0.6-20000)
CEA (ng/mL; range)	331.6 (0.5-4991)
CA19.9 (UI/L; range)	1093.3 (1-25736)
CHOSEN TREATMENT	
OXALIPLATIN-BASED – n. (%)	85(95.5)
IRINOTECAN-BASED	3 (3.4)
FOLFOXIRI – n. (%)	1 (1.1)
Concordance with AI-based chosen treatment	89.7%

Table 3. Survival analysis	
RECIST at 1st restaging	
CR – n. (%)	2 (2,2)
PR – n. (%)	19 (21,3)
SD – n. (%)	37 (41,6)
PD – n. (%)	26 (29,2)
UNKW/NOT REPORTED	6 (6,7)
Survival	
PFS1 - months	13.5
PFS2 - months	19.2
OS - months	Not yet reached

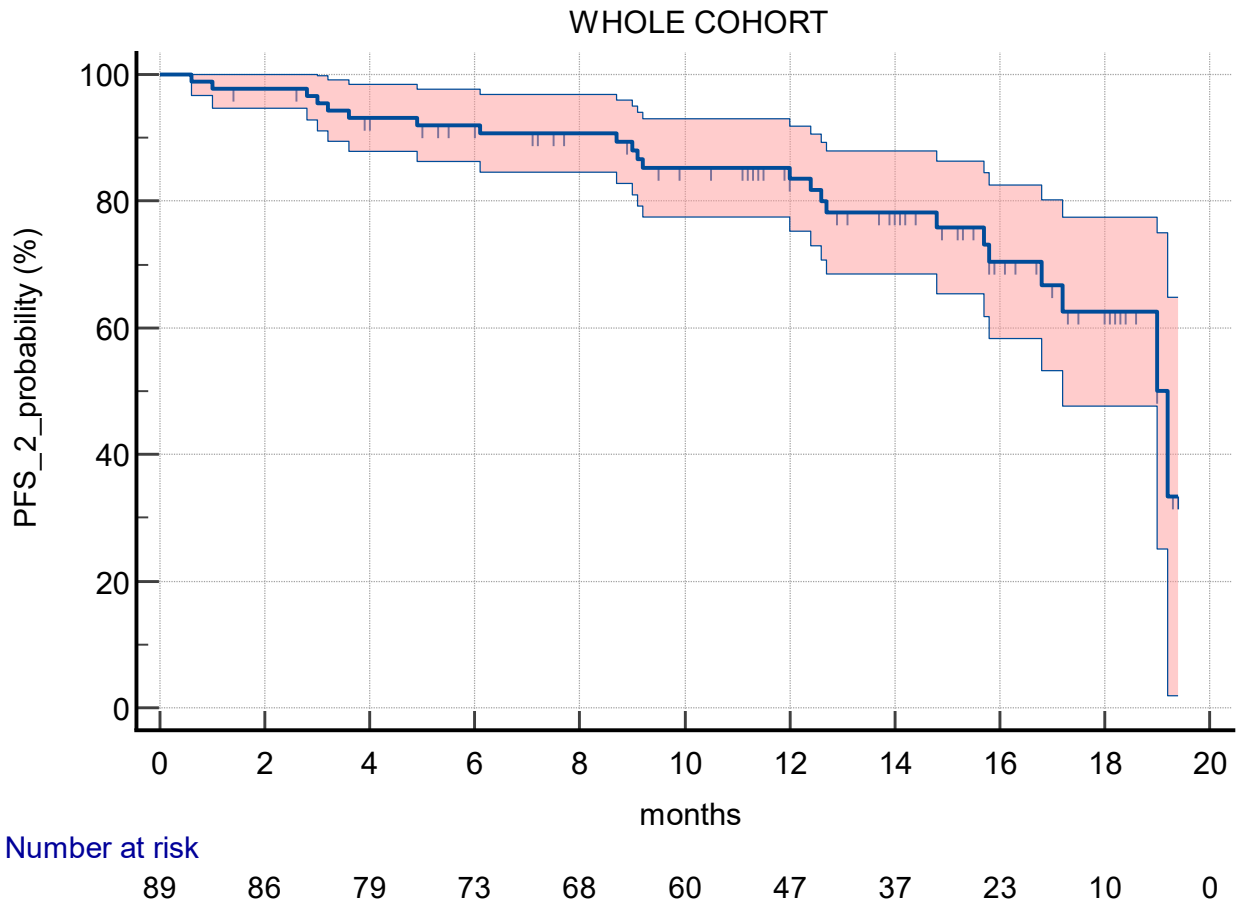
Progression Free Survival (PFS1, i.e. PD to first line) in the prospective cohort



Factor	Median	95% CI
PFS	13.500 mo	10.500 to 15.600

Factor	12-mo-rate	95% CI
PFS	57%	46% to 68%

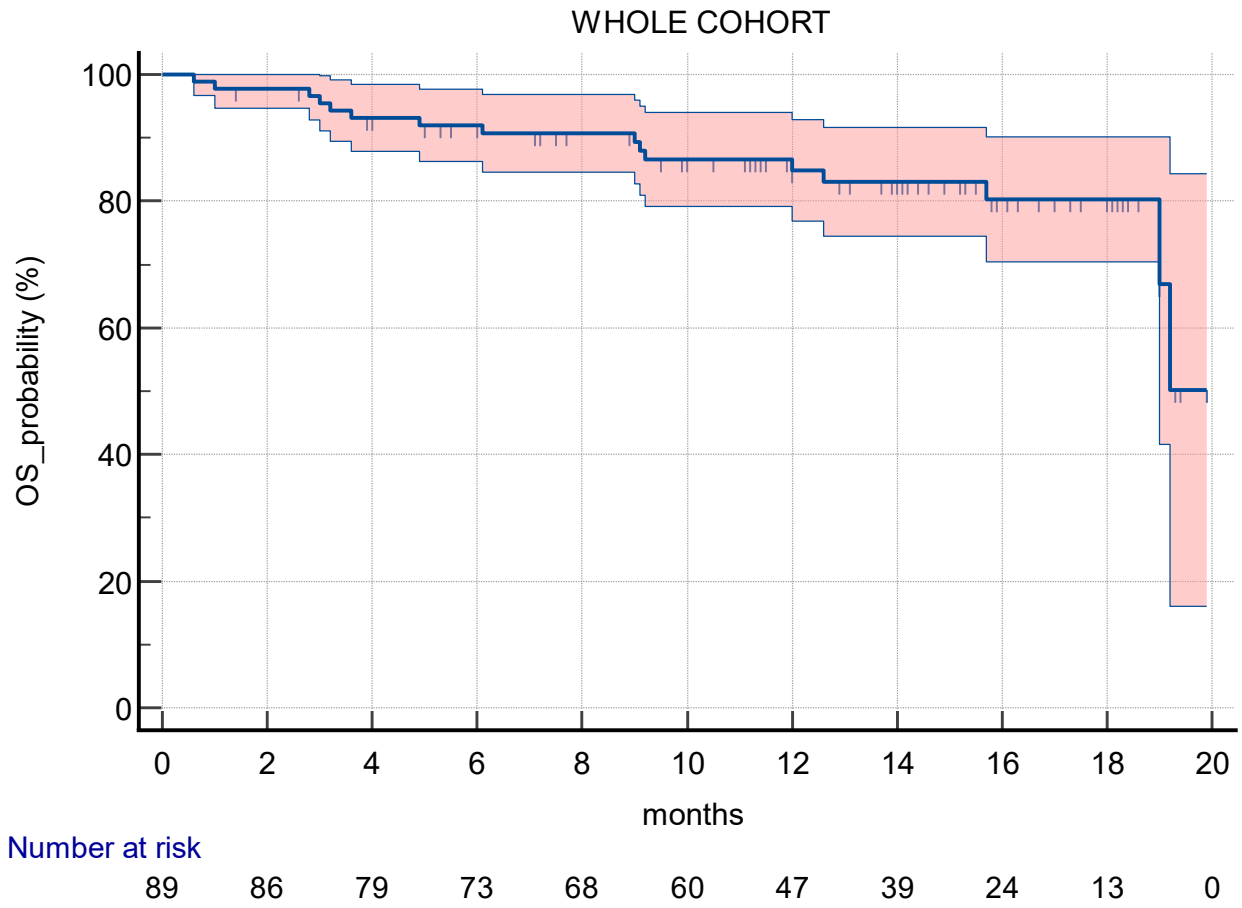
Progression Free Survival 2 (PFS2, i.e. PD to second line) in the prospective cohort



Factor	Median	95% CI
PFS2	19.200	17.200 to 19.200

Factor	12-mo-rate	95% CI
PFS2	85%	77% to 93%

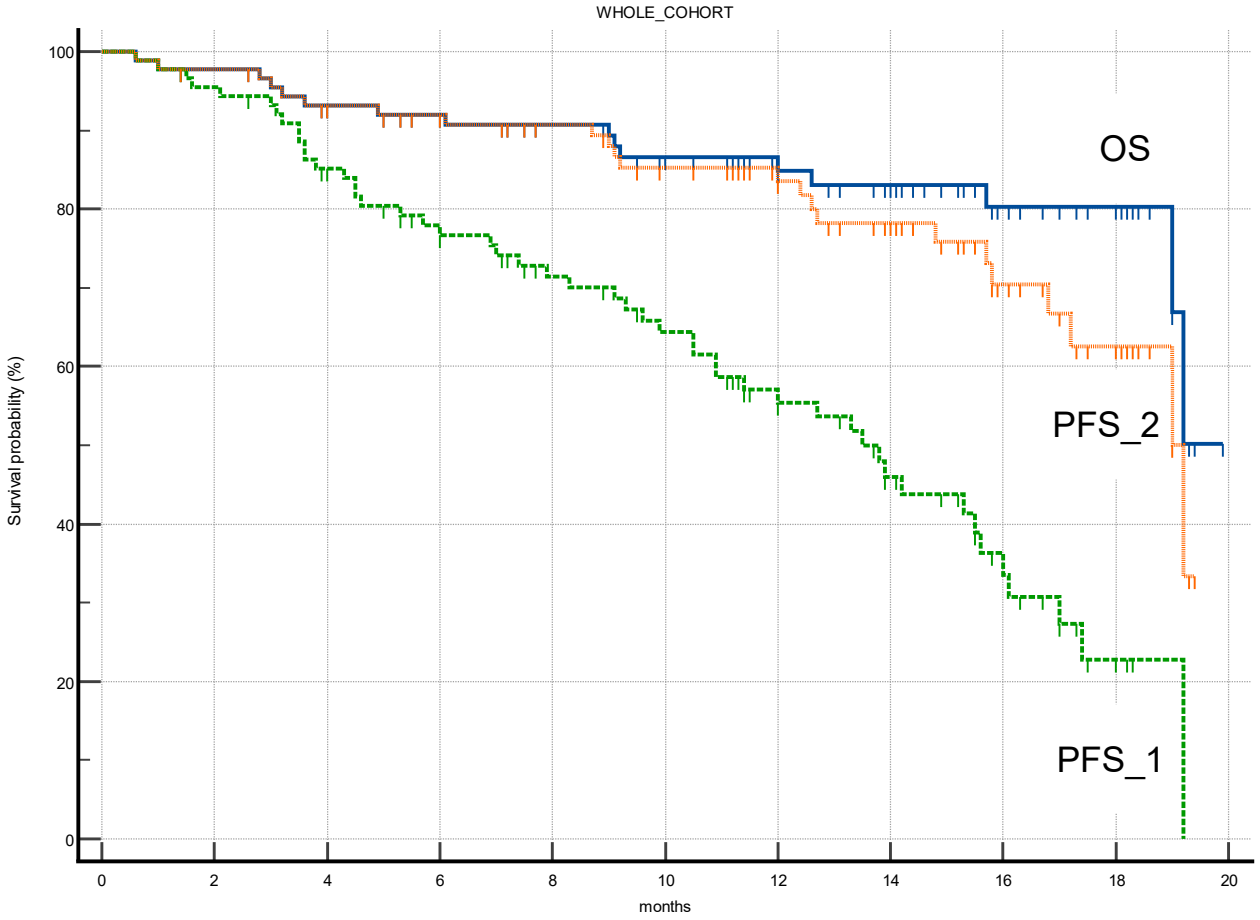
Overall Survival (OS) in the prospective cohort – median follow-up 14.2 months



Factor	Median	95% CI
OS	Not reached	.

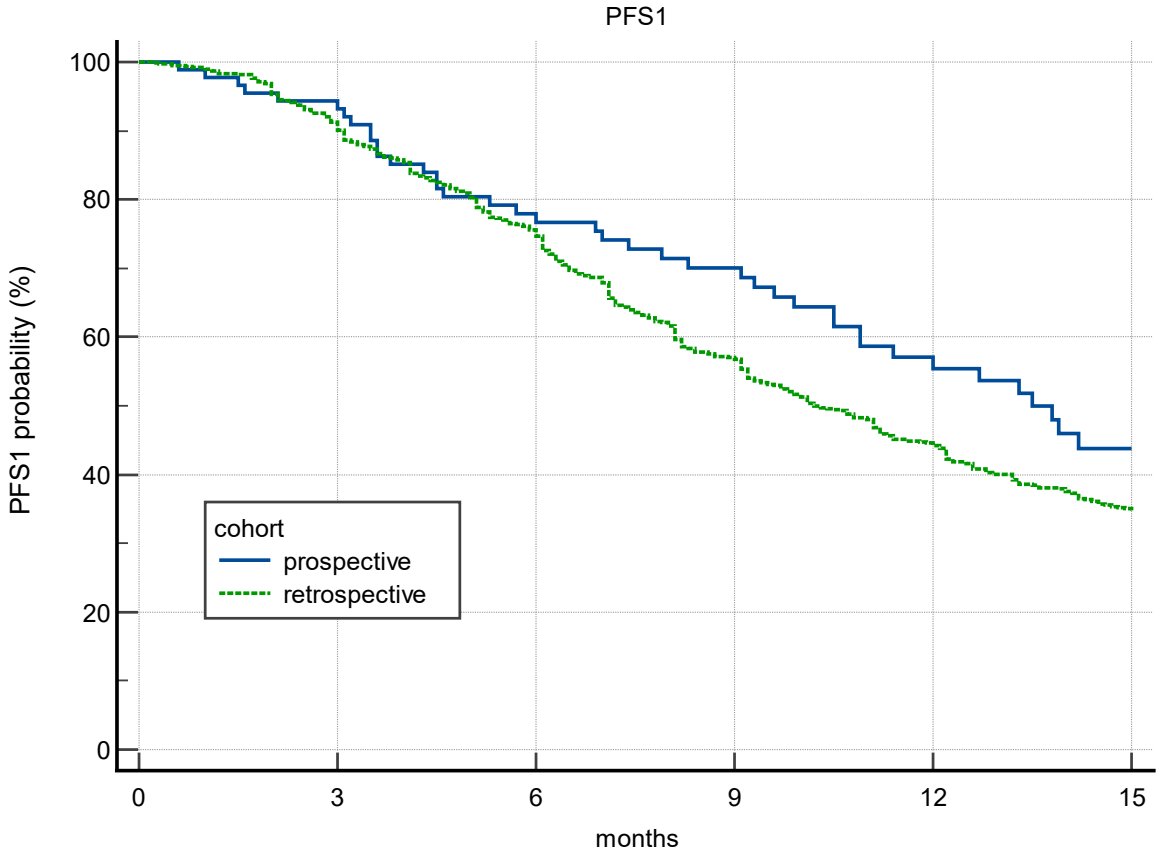
Factor	12-mo-rate	95% CI
OS	87%	80% to 94%

PFS1, PFS2 and OS



Factor	Median
Overall_Survival	-
PFS2	19.200 mo
PFS1	13.500 mo

Difference in PFS1 between Prospective patients and Retrospecitve ones



Cohort	Median	95% CI
prospective	13.500	10.500 to 15.600
retrospective	10.200	9.400 to 11.200

Significance P = 0.3258

AI Class IIa - Premarket Medical Device "early phase"

ClinicalTrials.gov PRS ID: NCT05396807

The results achieved are highly encouraging as they demonstrate that the use of the AI-based multi-party Decision Support System Model led to a significant improvement in progression-free survival 1 (PFS1), thus demonstrating that the use of AI can aid in treatment decisions in mCRC.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 848098".