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BeSTRO Autumn Meeting
RTT Pre-meeting course
10/10/25

Ongoing trials and future perspectives

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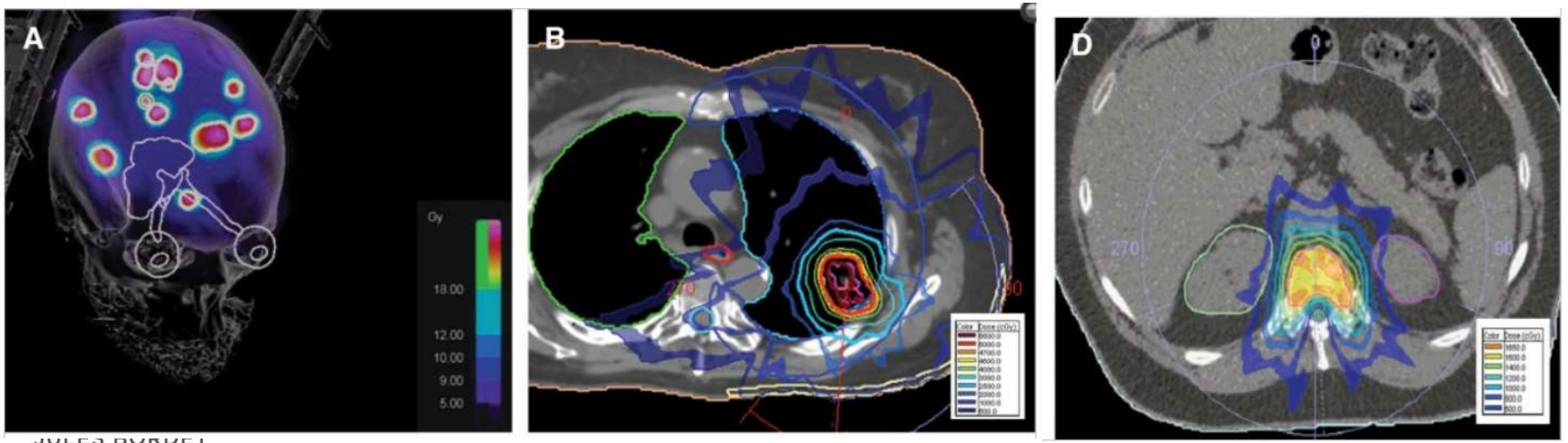
Clinical trials & SBRT

- Constantly progressing field (technical innovations…) = development of indications!

- Focus on ongoing trials in Belgium (non exhaustive list!)



Ongoing EORTC study

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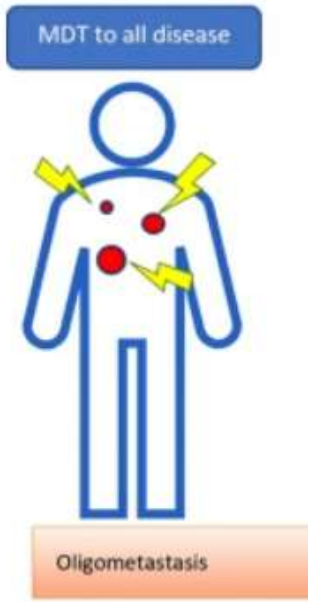
Ongoing EORTC study

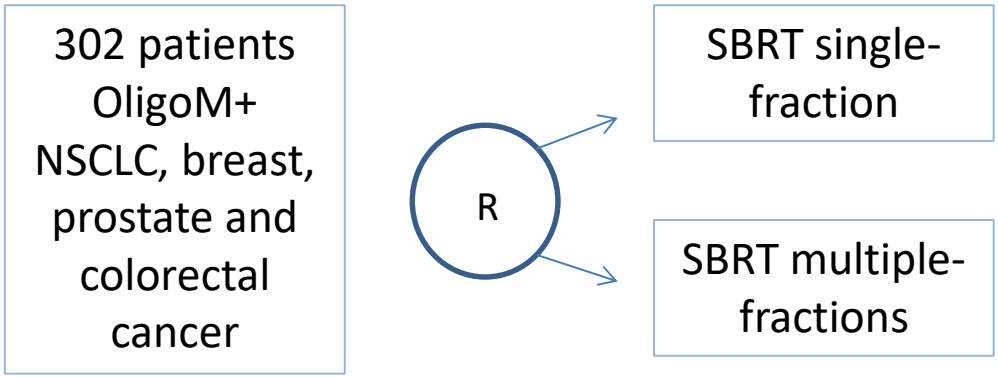
- **OligoCare**
  - Observational prospective study registry
  - Evaluate the impact of SBRT as a definitive local TT for oligoM+ disease (real-world data)
  - Aims: give insight to develop new clinical trials & provide info about best clinical practice
  - > 3000 patients included in EU
  - « Gave birth » to the SPRINT trial as a 1st pan-EU TwiCs study



EORTC
European Organisation for Research and Treatment of Cancer

Ongoing EORTC study

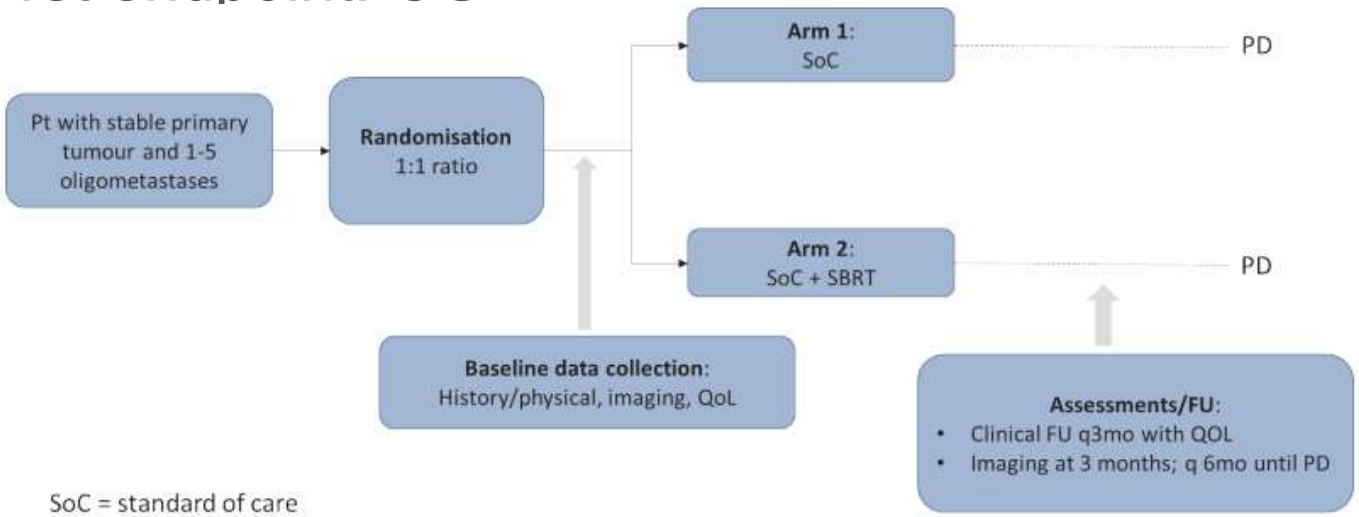
- **SPRINT study**
  - Within OligoCare
  - Randomized phase II non-inf study
  - 1st endpoint: incidence of G3+ SBRT-related toxicity



EORTC
European Organisation for Research and Treatment of Cancer

Ongoing EORTC study

- **OligoRare**
  - Randomized phase III study
  - 200 patients with cancer other than breast, prostate, lung and colorectal
  - 1st endpoint: OS



SoC = standard of care

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European Organisation for Research and Treatment of Cancer

Ongoing study for prostate cancer

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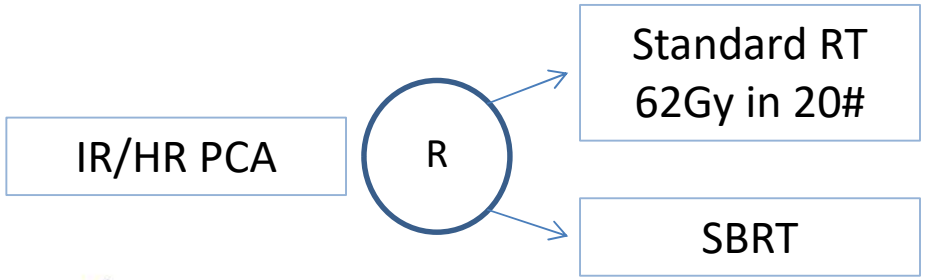
Ongoing study for prostate cancer

- **Hypo-FLAME**
  - Randomized phase III study
  - 484 patients with intermediate or high-risk PCA
  - 1st endpoint: 5-y biochemical DFS



FLAME CONSORTIUM

OTT = 29 days

5 sessions, 1x/week

Whole-gland irradiation
+ focal tumor boost

Prostate
(35 Gy / 7 Gy)
Tumor
(50 Gy / 10 Gy)

Draulans et al. Radioth Oncol 2024

Ongoing study for prostate cancer

- **StereoBed**
  - Randomized phase II/III non-inf study
  - 284 patients with PAC after radical prostatectomy

Co- Primary endpoints QoL
2-y change score from baseline for the
(1) urinary and
(2) bowel domain of the EPIC-26

Inclusion
- Persistent PSA or rising PSA*
- No pT4, pN1, no R2
- No recurrence visible on imaging

N=284

R

CONTROL ARM
Radiotherapy of prostate bed ± WPRT**
32-35# or 20#

EXPERIMENTAL ARM
Radiotherapy of prostate bed ± WPRT **
25-32Gy in 5#

Randomisation 1:1, Stratification:
- Study center
- 1) No ADT, no WPRT, 2) ADT but no WPRT, 3) ADT and WPRT**

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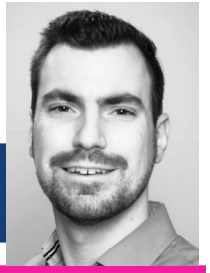
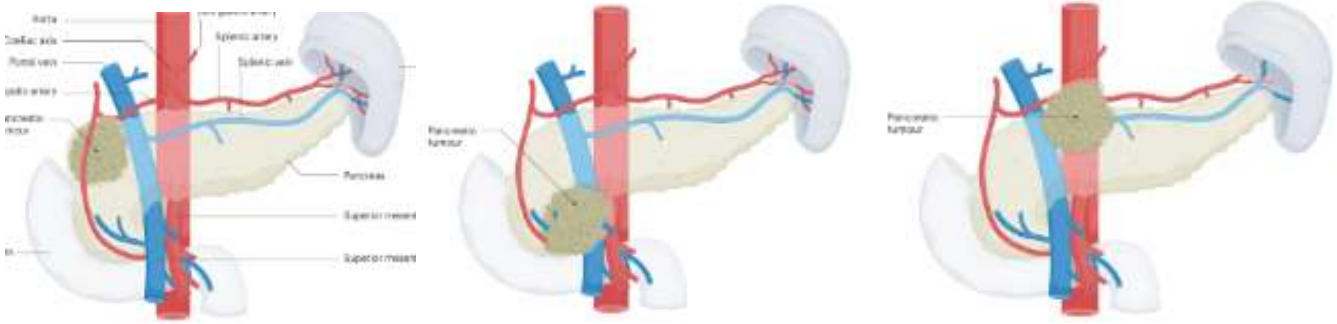


Ongoing study for pancreatic cancer

Pancreatic cancer

Resectability status	Resectable	Borderline	Locally Advanced
Frequence	≈15%	10-15%	≈25%
Vascular contacts	None or few	**Various definitions** Moderate Reconstructible	Major Unreconstructible
R0 Margins	High	Intermediate	Low to none
Treatment options (adjuvant excluded)	**Surgery**	**No standard**	CT +/- RT +/- surgery



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Bouchart et al. TAM 2020; images from Neoptolemos et al. Nature 2018

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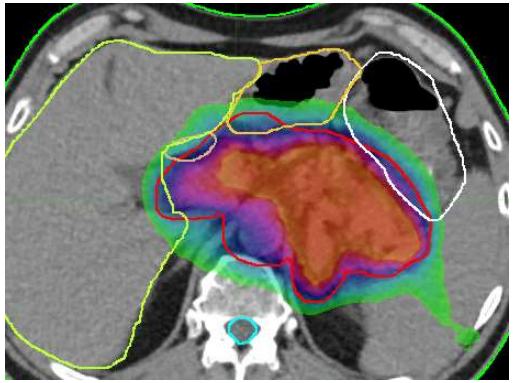
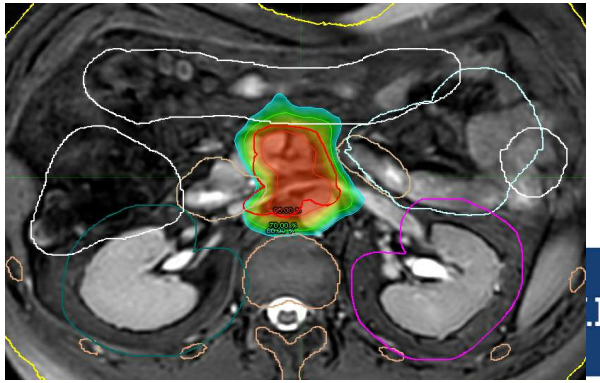
Radiotherapy for PDAC

	Chemoradiotherapy (CRT)	Stereotactic body RT (SBRT)
Equipment	Standard	Advanced
EUS Fiducials	No	Mandatory
Volume	Large	Limited
TT duration	5 – 6 w.	1 – 2 w.
Dose / fraction	Low (1,8-2Gy)	Intermediate to high (6 to 10Gy)
Concomitant chemo.	Yes	No

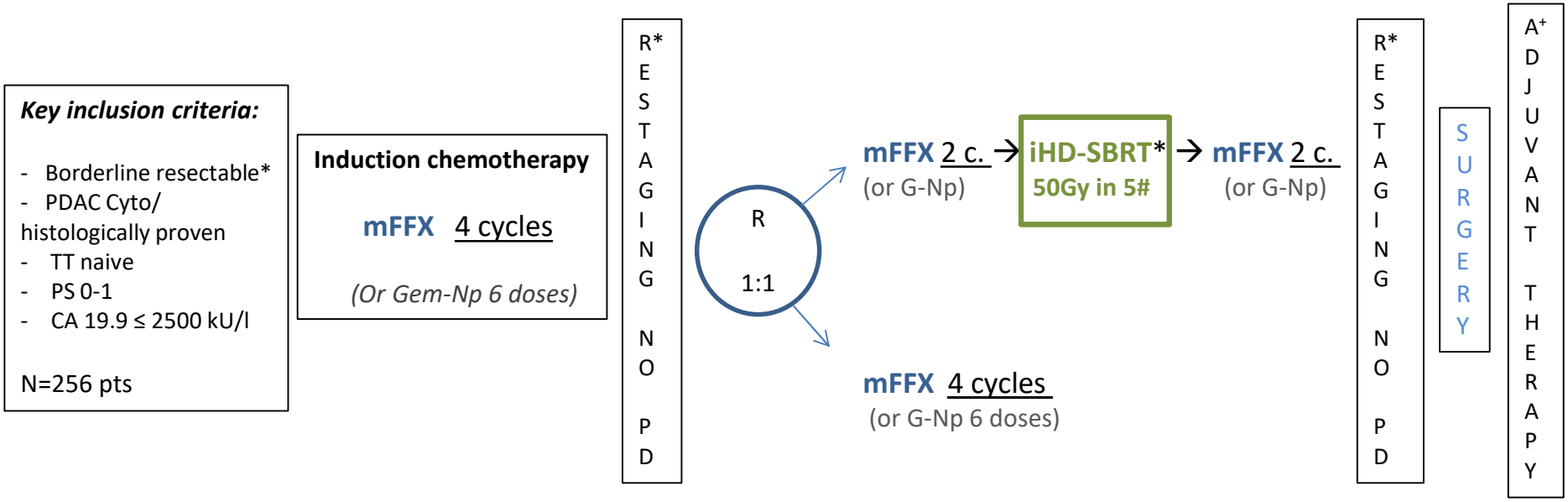
Failure in clinical trials





Ongoing study for pancreatic cancer

- ***STEREOPAC trial*** : **Preoperative treatment with mFFX (or Gem-Nab-P) +/- iHD-SBRT for borderline resectable PDAC: a randomised comparative multicentre phase II study**



- Co-primary end-points: DFS and R0

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NCT05083247; Bouchart C et al. BMC Cancer 2023

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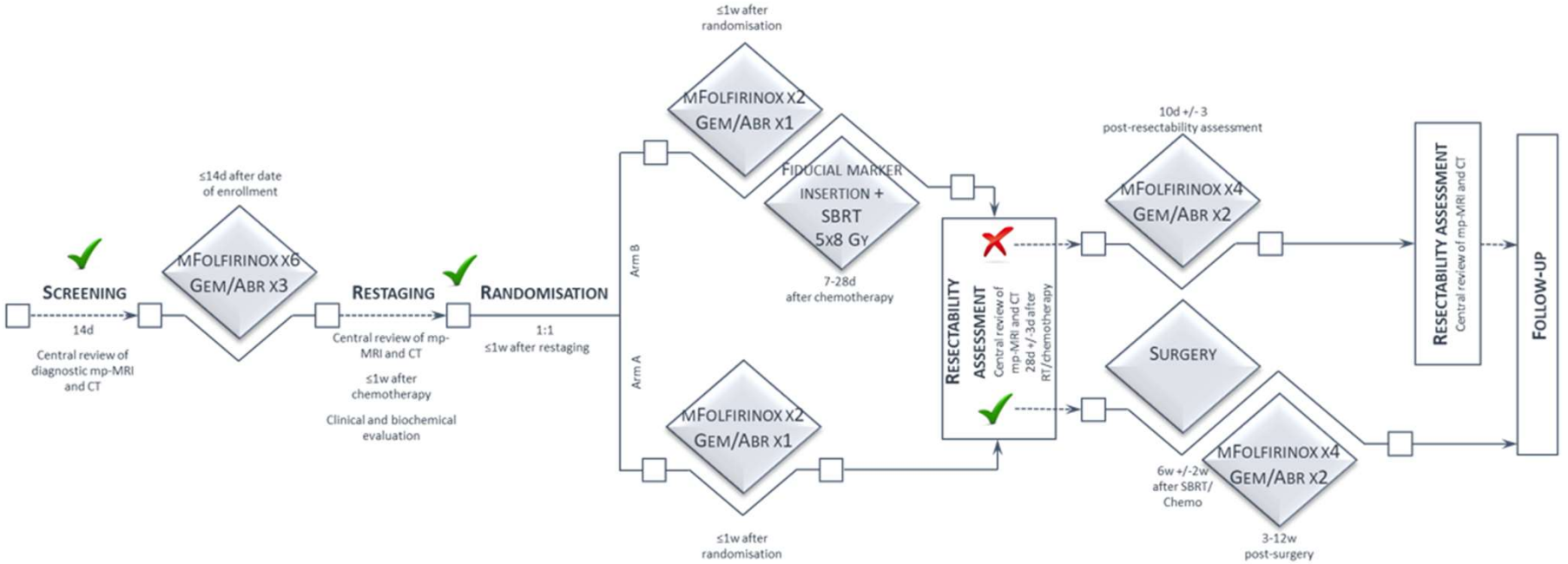
Ongoing study for pancreatic cancer

- ***TORPEDO trial***: **sTereotactic bOdy Radiation therapy for inoperable non-metastasized pancrEatic aDenocarcinOma: a randomized phase II study**



Abbreviations: SBRT = stereotactic body radiotherapy; CT = computed tomography; mp-MRI = mp-MRI: multiparametric MRI.

- 160 patients: LAPC and inoperable BR (medically unfit or refusal)
- 1st end-point: PFS

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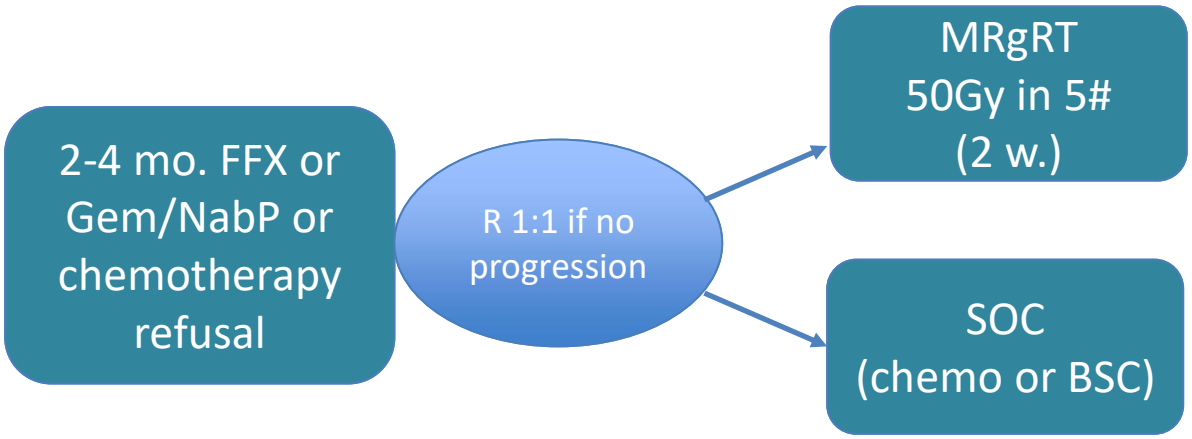
NCT06691425; Staas D et al. BMC Cancer 2025 (accepted)

SBRT for PDAC

- ***LAPSTAR trial***: **Locally advanced pancreatic cancer after systemic therapy: ablative MR-guided radiotherapy – a phase III randomized controlled trial**

L. A. Daamen, MD, PhD



- 156 LAPC patients
- 1st end-point: HRQoL (EORTC QLQ-C30) deterioration-free survival, defined as the time until definitive deterioration including death. Monitoring using Trial@home platform

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NCT06272162

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Ongoing study for biliary cancer

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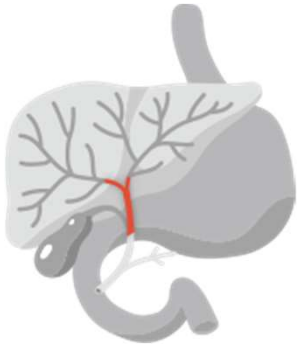
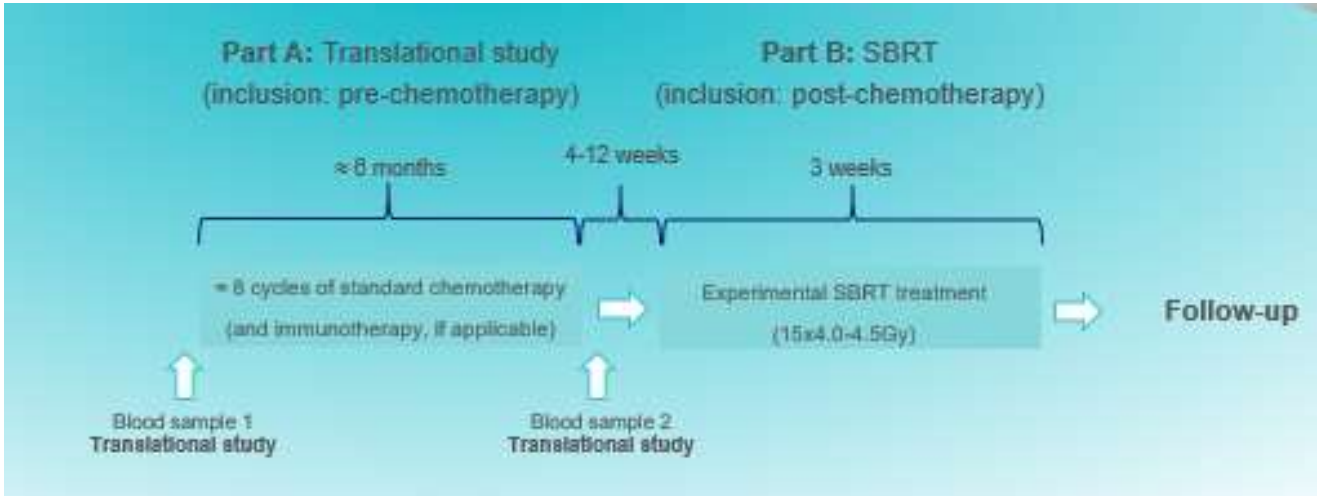
Ongoing study for biliary cancer

- **STRONG 2**
  - Prospective phase II study
  - 30 patients with unresectable perihilar CCK
  - 1st endpoint: LC





Example of feasability study

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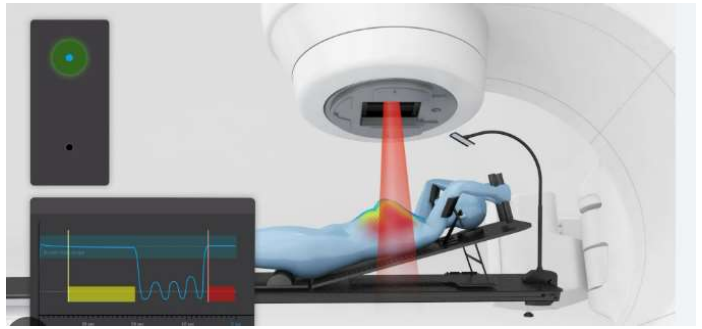
SBRT feasability study

- **Feas_SBRT_Lung**
  - 24 patients with lung lesions
  - 1st endpoint: feasability of BH markerless SBRT using SGRT



- **Feas_Cran_Mask**
  - 40 patients with cranial lesions
  - 1st endpoint: mesuring positioning errors when using closed mask versus open mask

Universitair Ziekenhuis Brussel

VUB

Future directions

- Still a lot to do!
- Optimizing use of SBRT with immunotherapy /targeted therapy
- Developping new technological advances (FLASH, AI-guided systems…)
- Personalized SBRT treatments according to translationnal data
- Refining motion management
- Developping new indications (HCC…)

Thank you for your attention!

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