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Sponsor

Novartis Pharmaceuticals

Generic Drug Name

[^{177}Lu]Lu-FF58 and [^{68}Ga]Ga-FF58

Trial Indication(s)

Advanced solid tumors

Protocol Number

CAAA604A12101

Protocol Title

A phase I, open-label, multi-center study to evaluate the safety, tolerability, dosimetry and preliminary activity of [^{177}Lu]Lu-FF58 in patients with selected advanced solid tumors.

Clinical Trial Phase

Phase 1

Phase of Drug Development

Phase 1

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Study Start/End Dates

Study Start Date: October 06, 2023 (Actual)
Primary Completion Date: December 13, 2024 (Actual)
Study Completion Date: December 13, 2024 (Actual)

Reason for Termination

The study was terminated early during the escalation phase after careful evaluation of clinical data collected and not as a consequence of any safety concerns.

Study Design/Methodology

This was a first-in-human (FIH), open-label, phase I, multi-center radiotheranostic study of [^{177}Lu]Lu-FF58 as a single agent that consisted of a dose escalation part followed by an expansion part in patients with locally advanced unresectable or metastatic pancreatic ductal adenocarcinoma (PDAC), or locally advanced unresectable or metastatic gastroesophageal adenocarcinoma (GEA) (collectively referred to as non-GBM), or recurrent glioblastoma multiforme (GBM).

The escalation part planned to enroll approximately 36 patients and the expansion part approximately 80 patients. In both parts of the study, patients were planned to be screened with a [^{68}Ga]Ga-FF58 positron emission tomography (PET)/computed tomography (CT) or PET/magnetic resonance imaging (MRI) scan to assess eligibility for treatment with [^{177}Lu]Lu-FF58 (based upon investigator' assessment). In the escalation part, different doses of [^{177}Lu]Lu-FF58 had to be tested to identify the recommended dose. Once the recommended dose(s) and schedule(s) of [^{177}Lu]Lu-FF58 as a single agent were determined, the expansion part could commence.

The study was terminated during the escalation phase, and hence the expansion part was not opened.

Centers

5 centers in 4 countries: Israel(1), Netherlands(1), Switzerland(1), Spain(2)

Objectives:

The primary objectives of the study were:

- Assess the safety and tolerability of [^{177}Lu]Lu-FF58
- Identify the recommended dose(s) and schedule(s) for [^{177}Lu]Lu-FF58

The secondary objectives were:

- Evaluate the preliminary anti-tumor activity of [^{177}Lu]Lu-FF58
- Characterize the pharmacokinetics (PK) and radiation dosimetry of [^{177}Lu]Lu-FF58 in blood, selected organs and tumor lesions
- Characterize the safety and imaging properties of [^{68}Ga]Ga-FF58 (biodistribution, tumor lesion uptake, optimal time for scanning, image quality)

Test Product (s), Dose(s), and Mode(s) of Administration

For this study, the term “investigational drug” refers to [^{68}Ga]Ga-FF58 and/or [^{177}Lu]Lu-FF58, and the term “study treatment” refers only to [^{177}Lu]Lu-FF58. Both investigational drugs were administered intravenously.

[^{68}Ga]Ga-FF58 solution for injection was administered as a single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection. Patients with tumor lesions showing [^{68}Ga]Ga-FF58 uptake per investigator’s assessment may then be treated with [^{177}Lu]Lu-FF58.

[^{177}Lu]Lu-FF58 was administered at 50 mCi (1.85 GBq) for 1 cycle and then increased to 100 mCi (3.7 GBq) for 3 subsequent cycles. Patients had to receive a total of 4 cycles of [^{177}Lu]Lu-FF58 at 6-week intervals. However, the maximum duration of exposure to [^{177}Lu]Lu-FF58 was 12 weeks.

Increasing doses of [^{177}Lu]Lu-FF58 were planned for administration over 3 cycles at 6-week intervals. However, these were not administered due to the early termination of the study.

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Statistical Methods

Analysis of primary endpoints:

Dose-Limiting Toxicities (DLTs) were listed and their incidence were summarized by Preferred Term (PT) based on the Common Terminology Criteria for Adverse Events (CTCAE) version 5.0.

The assessment of safety was based on the type and frequency of adverse events (AEs).

The overall observation period for [^{177}Lu]Lu-FF58 was divided into two mutually exclusive segments:

On-treatment period for [^{177}Lu]Lu-FF58: From date of first [^{177}Lu]Lu-FF58 administration to 42 days after date of last [^{177}Lu]Lu-FF58 administration.

Post-treatment period for [^{177}Lu]Lu-FF58: Starting 43 days after last [^{177}Lu]Lu-FF58 administration to 180 days after date of last administration.

Safety summaries were primarily based on all data from the on-treatment period. Select summaries of adverse events were produced for the combined on-treatment and post-treatment periods for patients who received [^{177}Lu]Lu-FF58.

Analysis of secondary endpoints

Efficacy was based on local investigator assessment per the modified Response Assessment in Neuro-Oncology (mRANO) in patients with glioblastoma multiforme (GBM) and per Response Evaluation Criteria in Solid Tumors version 1.1 (RECIST v1.1) in patients with non-glioblastoma multiforme (non-GBM) tumors.

Overall response rate (ORR): The observed ORR was summarized along with the 90% confidence interval (CI) based on the exact binomial distribution.

Disease control rate (DCR): The observed DCR was summarized along with the 90% CI based on the exact binomial distribution.

Duration of response (DOR): DOR for responders (i.e., patients who experienced a complete response or partial response at any time on study) was summarized.

Progression free survival (PFS): PFS was to be summarized at the recommended dose and for all other treatment groups with at least 10 patients treated, using the Kaplan-Meier method along with 90% CI.

Pharmacokinetics: Plasma and urine PK parameters were reported using summary statistics.

Dosimetry: Dosimetry analyses were reported using summary statistics.

Safety and imaging properties of [^{68}Ga]Ga-FF58: The statistical analyses of imaging properties of [^{68}Ga]Ga-FF58 were descriptive in nature and included summaries of data. No formal testing was performed.

The safety assessments included AE monitoring (incidence and severity of AEs and SAEs).

Study Population: Key Inclusion/Exclusion Criteria

Key Inclusion criteria

- Age >= 18 years old
- Patients with locally advanced unresectable or metastatic pancreatic ductal adenocarcinoma (PDAC), locally advanced unresectable or metastatic gastroesophageal adenocarcinoma (GEA), or recurrent glioblastoma multiforme (GBM)
- To be treated with [^{177}Lu]Lu-FF58, patients must have at least one measurable lesion that shows [^{68}Ga]Ga-FF58 uptake on PET/CT or PET/MRI

Key Exclusion criteria

- Absolute neutrophil count (ANC) < 1.5 x 109/L, hemoglobin < 10 g/dL, or platelet count < 100 x 10^9/L
- Prior external beam radiation therapy (EBRT) to > 25% of the bone marrow
- Creatinine clearance < 60 mL/min
- Unmanageable bladder outflow obstruction or urinary incontinence

- Non-GBM patients: Presence of symptomatic central nervous system (CNS) metastases, or CNS metastases that require local CNS-directed therapy (such as radiotherapy or surgery), or increasing doses of corticosteroids within 1 week before [^{177}Lu]Lu-FF58 administration

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Participant Flow Table

Administration of [68Ga]Ga-FF58

	[68Ga]Ga-FF58	[177Lu]Lu-FF58 Q6W 350mCi	Total
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks	
Started	24	0	24
Completed	6	0	6
Not Completed*	18	0	18
Absence Of Tumor Uptake On Imaging	18	0	18

*Not completed refers to not eligible for treatment with [^{177}Lu]Lu-FF58.

Treatment with [^{177}Lu]Lu-FF58

	[68Ga]Ga-FF58	[177Lu]Lu-FF58 Q6W 350mCi	Total
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks	
Started	0	6	6
Completed	0	0	0
Not Completed**	0	6	6
Progressive Disease	0	5	5
Subject Decision	0	1	1

**Not completed refers to treatment discontinuation. Reasons for treatment discontinuation are listed.

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Baseline Characteristics

	[68Ga]Ga-FF58
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection
Number of Participants [units: participants]	24
Baseline Analysis Population Description	[68Ga]Ga-FF58 Safety Set included all patients who received the administration of [68Ga]Ga-FF58.
Age Continuous (units: years) Analysis Population Type: Participants Mean ± Standard Deviation	
	59.4±9.87
Age, Customized (units: participants) Analysis Population Type: Participants Count of Participants (Not Applicable)	
18 - <65 years	18
65 - <85 years	6
Sex: Female, Male (units: participants) Analysis Population Type: Participants Count of Participants (Not Applicable)	
Female	11
Male	13
Race/Ethnicity, Customized (units: participants) Analysis Population Type: Participants Count of Participants (Not Applicable)	
White	24

Study Specific Characteristic **Diagnosis of Disease** (units: participants) Analysis Population Type: Participants Count of Participants (Not Applicable)	
Glioblastoma multiforme	8
Gastroesophageal adenocarcinoma	2
Pancreatic ductal adenocarcinoma	14

Primary Outcome Result(s)

Number of participants with Dose-Limiting Toxicities (DLTs) after [177Lu]Lu-FF58 administration

Description	A dose-limiting toxicity (DLT) is defined as an adverse event or abnormal laboratory value of Common Terminology Criteria for Adverse Events (CTCAE) grade 3 or higher that occurs within the DLT evaluation period (i.e., 6 weeks starting from the first administration of [177Lu]Lu-FF58) and that is not primarily related to disease, disease progression, intercurrent illness, or concomitant medications. Other clinically significant toxicities could be considered to be DLTs, even if not CTCAE grade 3 or higher.
Time Frame	6 weeks starting from the date of first administration of [177Lu]Lu-FF58
Analysis Population Description	All patients who received at least one dose of [177Lu]Lu-FF58, and who met the minimum exposure criterion defined in the protocol and had sufficient safety evaluations or experienced a DLT during Cycle 1.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	4
Number of participants with Dose-Limiting Toxicities (DLTs) after [177Lu]Lu-FF58 administration (units: participants)	**Count of Participants (Percentage)**

0
(%)

Number of participants with AEs and SAEs during the on-treatment period for [177Lu]Lu-FF58

Description	Number of participants with AEs (any adverse events regardless of seriousness) and serious adverse events (SAEs), including changes from baseline in vital signs, electrocardiograms and laboratory results qualifying and reported as AEs. The on-treatment period for [177Lu]Lu-FF58 extends from the date of first administration to 42 days post-last dose. AE grades to characterize the severity of the AEs were based on the Common Terminology Criteria for Adverse Events (CTCAE) version 5.0. For CTCAE, Grade 1 = mild; Grade 2 = moderate; Grade 3 = severe; Grade 4 = life-threatening; Grade 5 = death.
Time Frame	From first dose of study treatment to 42 days after last dose, up to maximum 18 weeks
Analysis Population Description	All patients who received at least one dose of [177Lu]Lu-FF58.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Number of participants with AEs and SAEs during the on-treatment period for [177Lu]Lu-FF58 (units: participants)	**Count of Participants (Percentage)**
AEs	4 (66.67%)
Treatment-related AEs	1 (16.67%)
AEs grade ≥3	2 (33.33%)
Treatment-related AEs grade ≥3	0 (%)
SAEs	3 (50%)

Treatment-related SAEs	0 (%)
Fatal SAEs	0 (%)
Treatment-related fatal SAEs	0 (%)

Number of participants with dose reductions and dose interruptions of [177Lu]Lu-FF58

Description	Number of participants with at least one dose reduction and at least one dose interruption of [177Lu]Lu-FF58. For patients who did not tolerate the protocol-specified dosing schedule, dose or schedule adjustments were permitted to allow the patient to continue the study treatment.
Time Frame	From first dose of study treatment to last dose, up to maximum 12 weeks
Analysis Population Description	All patients who received at least one dose of [177Lu]Lu-FF58.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Number of participants with dose reductions and dose interruptions of [177Lu]Lu-FF58 (units: participants)	**Count of Participants (Percentage)**
At least one dose reduction or interruption	0 (%)
At least one dose reduction	0 (%)
At least one dose interruption	0 (%)

Dose intensity of [177Lu]Lu-FF58

Description	Dose intensity of [177Lu]Lu-FF58 was calculated as actual cumulative dose in mCi divided by duration of exposure in weeks and multiplied by the duration of one cycle (6 weeks).
Time Frame	From first dose of study treatment to last dose, up to maximum 12 weeks
Analysis Population Description	All patients who received at least one dose of [177Lu]Lu-FF58.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Dose intensity of [177Lu]Lu-FF58 (units: mCi/Cycle)	**Median (Full Range)**
	49.41 (46.8 to 73.2)

Secondary Outcome Result(s)

Overall Response Rate (ORR) per mRANO for GBM

Description	ORR is the percentage of patients with a best overall response of complete response (CR) or partial response (PR). Efficacy was based on local investigator assessment per the modified Response Assessment in Neuro-Oncology (mRANO) in patients with glioblastoma multiforme (GBM).
Time Frame	Up to 12 weeks
Analysis Population Description	All patients with GBM who received at least one dose of [177Lu]Lu-FF58

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	4
Overall Response Rate (ORR) per mRANO for GBM (units: percentage of participants)	**Number** **(90% Confidence Interval)**
	0 (0 to 52.7)

Disease Control Rate (DCR) per mRANO for GBM

Description	DCR is the percentage of patients with a best overall response of complete response (CR), partial response (PR) or stable disease (SD). Efficacy was based on local investigator assessment per the modified Response Assessment in Neuro-Oncology (mRANO) in patients with glioblastoma multiforme (GBM).
Time Frame	Up to 12 weeks
Analysis Population Description	All patients with GBM who received at least one dose of [177Lu]Lu-FF58

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	4
Disease Control Rate (DCR) per mRANO for GBM (units: percentage of participants)	**Number** **(90% Confidence Interval)**
	0 (0 to 52.7)

Duration of Response (DOR) per mRANO for GBM

Description	DOR only applies to responders with confirmed responses. DOR is the time between the first documented response (CR or PR) and the date of progression as per local review and according to mRANO (GBM), or death due to any cause. If a patient did not have an event, DOR was censored at the date of last adequate tumor assessment. DOR was planned to be analyzed using the Kaplan-Meier method.
Time Frame	Up to 12 weeks
Analysis Population Description	All patients with GBM who received at least one dose of [177Lu]Lu-FF58 and had confirmed response (CR or PR).

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	0
Duration of Response (DOR) per mRANO for GBM (units: months)	**Median (90% Confidence Interval)**

Progression-Free Survival (PFS) per mRANO for GBM

Description	PFS is defined as the time from the date of start of treatment to the date of the first documented progression as per local review and according to mRANO (GBM), or death due to any cause. If a patient did not have an event, PFS was censored at the date of last adequate tumor assessment. PFS was planned to be summarized at the recommended dose (RD) and for all other treatment groups with at least 10 patients treated, using the Kaplan-Meier method.
Time Frame	Up to 38 weeks
Analysis Population Description	All patients with GBM who received at least one dose of [177Lu]Lu-FF58

[177Lu]Lu-FF58 Q6W 350mCi

Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	4
Progression-Free Survival (PFS) per mRANO for GBM (units: months)	**Median (90% Confidence Interval)**
	NA (NA to NA)[1]

[1] Not estimable due to insufficient number of participants with events.

Overall Response Rate (ORR) per RECIST v1.1 for non-GBM

Description	ORR is the percentage of patients with a best overall response of complete response (CR) or partial response (PR). Efficacy was based on local investigator assessment per Response Evaluation Criteria in Solid Tumors version 1.1 (RECIST v1.1) in patients with non-glioblastoma multiforme (non-GBM) tumors, specifically those with pancreatic ductal adenocarcinoma.
Time Frame	Up to 12 weeks
Analysis Population Description	All patients with pancreatic ductal adenocarcinoma who received at least one dose of [177Lu]Lu-FF58

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	2
Overall Response Rate (ORR) per RECIST v1.1 for non-GBM (units: percentage of participants)	**Number (90% Confidence Interval)**
	0 (0 to 77.6)

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Disease Control Rate (DCR) per RECIST v1.1 for non-GBM

Description	DCR is the percentage of patients with a best overall response of complete response (CR), partial response (PR) or stable disease (SD). Efficacy was based on local investigator assessment per Response Evaluation Criteria in Solid Tumors version 1.1 (RECIST v1.1) in patients with non-glioblastoma multiforme (non-GBM) tumors, specifically those with pancreatic ductal adenocarcinoma.
Time Frame	Up to 12 weeks
Analysis Population Description	All patients with pancreatic ductal adenocarcinoma who received at least one dose of [177Lu]Lu-FF58

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	2
Disease Control Rate (DCR) per RECIST v1.1 for non-GBM (units: percentage of participants)	**Number (90% Confidence Interval)**
	50.0 (2.5 to 97.5)

Duration of Response (DOR) per RECIST v1.1 for non-GBM

Description	DOR only applies to responders with confirmed responses. DOR is the time between the first documented response (CR or PR) and the date of progression as per local review and according to RECIST v1.1 (non-GBM), or death due to any cause. If a patient did not have an event, DOR was censored at the date of last adequate tumor assessment. DOR was planned to be analyzed using the Kaplan-Meier method.
Time Frame	Up to 12 weeks
Analysis Population Description	All patients with pancreatic ductal adenocarcinoma who received at least one dose of [177Lu]Lu-FF58 and had confirmed response (CR or PR)

[177Lu]Lu-FF58 Q6W 350mCi

Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	0
Duration of Response (DOR) per RECIST v1.1 for non-GBM (units: months)	**Median (90% Confidence Interval)**

Progression-Free Survival (PFS) per RECIST v1.1 for non-GBM

Description	PFS is defined as the time from the date of start of treatment to the date of the first documented progression as per local review and according to RECIST v1.1 (non-GBM), or death due to any cause. If a patient did not have an event, PFS was censored at the date of last adequate tumor assessment. PFS was planned to be summarized at the recommended dose (RD) and for all other treatment groups with at least 10 patients treated, using the Kaplan-Meier method.
Time Frame	Up to 38 weeks
Analysis Population Description	All patients with pancreatic ductal adenocarcinoma who received at least one dose of [177Lu]Lu-FF58

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	2
Progression-Free Survival (PFS) per RECIST v1.1 for non-GBM (units: months)	**Median (90% Confidence Interval)**
	NA (NA to NA)[1]

[1] Not estimable due to insufficient number of participants with events.

Area under the concentration-time curve from time zero to the time of the last quantifiable concentration (AUClast) of [177Lu]Lu-FF58

Description	The [177Lu]Lu-FF58 pharmacokinetic (PK) analysis was performed based on decay-corrected blood radioactivity concentration data converted to mass units, obtained by measuring the blood samples drawn at pre-defined time points using a calibrated gamma-counting device. PK parameters were determined using the actual recorded sampling times and non-compartmental method(s). The linear trapezoidal rule was used for AUC calculation.
Time Frame	Pre-infusion, end of infusion, 10 minutes, 30 minutes, and 1, 2, 4, 6, 12, 24, 48, 72 and 168 hours after end of infusion of [177Lu]Lu-FF58.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Area under the concentration-time curve from time zero to the time of the last quantifiable concentration (AUClast) of [177Lu]Lu-FF58 (units: hr*pg/mL)	**Geometric Mean (Geometric Coefficient of Variation)**
	6610 (22.2%)

Area under the concentration-time curve from time zero to infinity (AUCinf) of [177Lu]Lu-FF58

Description	The [177Lu]Lu-FF58 pharmacokinetic (PK) analysis was performed based on decay-corrected blood radioactivity concentration data converted to mass units, obtained by measuring the blood samples drawn at pre-defined time points using a calibrated gamma-counting device. PK parameters were determined using the actual recorded sampling times and non-compartmental method(s). The linear trapezoidal rule was used for AUC calculation.
Time Frame	Pre-infusion, end of infusion, 10 minutes, 30 minutes, and 1, 2, 4, 6, 12, 24, 48, 72 and 168 hours after end of infusion of [177Lu]Lu-FF58.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Area under the concentration-time curve from time zero to infinity (AUCinf) of [177Lu]Lu-FF58 (units: hr*pg/mL)	**Geometric Mean (Geometric Coefficient of Variation)**
	7650 (21.6%)

Maximum concentration (Cmax) of [177Lu]Lu-FF58

Description	The [177Lu]Lu-FF58 pharmacokinetic (PK) analysis was performed based on decay-corrected blood radioactivity concentration data converted to mass units, obtained by measuring the blood samples drawn at pre-defined time points using a calibrated gamma-counting device. PK parameters were determined using the actual recorded sampling times and non-compartmental method(s).
Time Frame	Pre-infusion, end of infusion, 10 minutes, 30 minutes, and 1, 2, 4, 6, 12, 24, 48, 72 and 168 hours after end of infusion of [177Lu]Lu-FF58.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Maximum concentration (Cmax) of [177Lu]Lu-FF58 (units: pg/mL)	**Geometric Mean (Geometric Coefficient of Variation)**
	445 (41.6%)

Total body clearance (CL) of [177Lu]Lu-FF58

Description	The [177Lu]Lu-FF58 pharmacokinetic (PK) analysis was performed based on decay-corrected blood radioactivity concentration data converted to mass units, obtained by measuring the blood samples drawn at pre-defined time points using a calibrated gamma-counting device. PK parameters were determined using the actual recorded sampling times and non-compartmental method(s).
Time Frame	Pre-infusion, end of infusion, 10 minutes, 30 minutes, and 1, 2, 4, 6, 12, 24, 48, 72 and 168 hours after end of infusion of [177Lu]Lu-FF58.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Total body clearance (CL) of [177Lu]Lu-FF58 (units: mL/hr)	**Geometric Mean (Geometric Coefficient of Variation)**
	7500 (30.0%)

Volume of distribution (Vz) of [177Lu]Lu-FF58

Description	The [177Lu]Lu-FF58 pharmacokinetic (PK) analysis was performed based on decay-corrected blood radioactivity concentration data converted to mass units, obtained by measuring the blood samples drawn at pre-defined time points using a calibrated gamma-counting device. PK parameters were determined using the actual recorded sampling times and non-compartmental method(s).
Time Frame	Pre-infusion, end of infusion, 10 minutes, 30 minutes, and 1, 2, 4, 6, 12, 24, 48, 72 and 168 hours after end of infusion of [177Lu]Lu-FF58.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

[177Lu]Lu-FF58 Q6W 350mCi

Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Volume of distribution (Vz) of [177Lu]Lu-FF58 (units: mL)	**Geometric Mean (Geometric Coefficient of Variation)**
	736000 (28.8%)

Elimination half-life (T1/2) of [177Lu]Lu-FF58

Description	The [177Lu]Lu-FF58 pharmacokinetic (PK) analysis was performed based on decay-corrected blood radioactivity concentration data converted to mass units, obtained by measuring the blood samples drawn at pre-defined time points using a calibrated gamma-counting device. PK parameters were determined using the actual recorded sampling times and non-compartmental method(s).
Time Frame	Pre-infusion, end of infusion, 10 minutes, 30 minutes, and 1, 2, 4, 6, 12, 24, 48, 72 and 168 hours after end of infusion of [177Lu]Lu-FF58.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Elimination half-life (T1/2) of [177Lu]Lu-FF58 (units: hours)	**Geometric Mean (Geometric Coefficient of Variation)**
	68.1 (10.5%)

Cumulative urinary excretion (% ID) of [177Lu]Lu-FF58

Description	Urine elimination data for [177Lu]Lu-FF58 was assessed based on decay-corrected urine radioactivity concentration data, obtained by measuring aliquots of the urine samples collected over pre-defined time intervals using a calibrated gamma-counting device. Urine elimination data is expressed as cumulative percentage of injected activity (%ID) excreted over all time intervals. The first urine collection interval started

	at the beginning of the [177Lu]Lu-FF58 infusion and ended at the beginning of the first Single Photon Emission Computed Tomography / Computed Tomography (SPECT/CT) image acquisition.
Time Frame	Beginning of infusion - first SPECT/CT, first SPECT/CT – 6 hours post dose, 6-24 hours post dose, 24-48 hours post dose, 48-72 hours post dose.
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Cumulative urinary excretion (% ID) of [177Lu]Lu-FF58 (units: % of injected activity (%ID))	**Mean ± Standard Deviation**
Beginning of infusion-first SPECT/CT (n=5)	6.16 ± 4.44
First SPECT/CT-6 hr Post Dose (n=5)	8.29 ± 3.76
6-24 hr Post Dose (n=6)	14.5 ± 5.84
24-48 hr Post Dose (n=5)	19.3 ± 7.14
48-72 hr Post Dose (n=6)	20.7 ± 6.87

Renal clearance (CLr) of [177Lu]Lu-FF58

Description	Renal clearance (CLr) was calculated as Ae/AUC, where Ae is the cumulative amount of radioactivity excreted in the urine up to time t (the time of the last measurable radioactivity concentration), and AUC is the area under the blood radioactivity concentration versus time curve up to time t.
Time Frame	Up to 72 hours following the end of the infusion of [177Lu]Lu-FF58
Analysis Population Description	Participants in the Pharmacokinetic analysis set (PAS) with an available value for the outcome measure. The PAS included all patients with at least one available valid blood or urine radioactivity measurement and with no protocol deviations that impact the interpretability of the data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	5
Renal clearance (CLr) of [177Lu]Lu-FF58 (units: mL/hr)	**Geometric Mean (Geometric Coefficient of Variation)**
	2780 (30.3%)

Time course of percent injected activity for each organ after [^{177}Lu]Lu-FF58 dosing

Description	Patients enrolled in the dosimetry set underwent a series of single photon emission computed tomography (SPECT) scans in order to determine absorbed doses to normal organs and to target tumor lesions. A low dose non-contrast-enhanced computed tomography (CT) was performed at the same time points. Percent Injected Activity was based on decay-corrected data.
Time Frame	4, 24, 48, 72 and 168 hours after the end of the infusion of [177Lu]Lu-FF58
Analysis Population Description	Participants in the Dosimetry analysis set (DAS) with an available value for the outcome measure. The DAS included all patients who received at least one dose of study treatment [177Lu]Lu-FF58 and provided at least one set of dosimetry data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Time course of percent injected activity for each organ after [^{177}Lu]Lu-FF58 dosing (units: Percent injected activity)	**Mean ± Standard Deviation**
Brain - 4 hours (n=6)	0.41 ± 0.188
Brain - 24 hours (n=6)	0.55 ± 0.253
Brain - 48 hours (n=6)	0.61 ± 0.362
Brain - 72 hours (n=6)	0.66 ± 0.244

Brain - 168 hours (n=5)	0.50 ± 0.193
Esophagus - 4 hours (n=6)	0.07 ± 0.023
Esophagus - 24 hours (n=6)	0.05 ± 0.013
Esophagus - 48 hours (n=6)	0.03 ± 0.007
Esophagus - 72 hours (n=6)	0.02 ± 0.008
Esophagus - 168 hours (n=5)	0.01 ± 0.008
Eyes - 4 hours (n=6)	0.01 ± 0.003
Eyes - 24 hours (n=6)	0.02 ± 0.007
Eyes - 48 hours (n=6)	0.01 ± 0.009
Eyes - 72 hours (n=6)	0.01 ± 0.003
Eyes - 168 hours (n=5)	0.00 ± 0.002
Gallbladder Contents - 4 hours (n=4)	1.48 ± 2.102
Gallbladder Contents - 24 hours (n=4)	0.80 ± 0.849
Gallbladder Contents - 48 hours (n=4)	0.29 ± 0.258
Gallbladder Contents - 72 hours (n=4)	0.21 ± 0.218
Gallbladder Contents - 168 hours (n=3)	0.08 ± 0.120
Kidneys - 4 hours (n=6)	2.41 ± 0.806
Kidneys - 24 hours (n=6)	1.06 ± 0.459
Kidneys - 48 hours (n=6)	0.70 ± 0.334
Kidneys - 72 hours (n=6)	0.60 ± 0.243
Kidneys - 168 hours (n=5)	0.29 ± 0.111
Left Colon - 4 hours (n=6)	0.72 ± 0.572
Left Colon - 24 hours (n=6)	4.33 ± 2.624
Left Colon - 48 hours (n=6)	4.27 ± 4.019
Left Colon - 72 hours (n=6)	4.49 ± 5.754
Left Colon - 168 hours (n=5)	0.69 ± 0.964

Liver - 4 hours (n=6)	8.84 ± 1.404
Liver - 24 hours (n=6)	4.56 ± 1.018
Liver - 48 hours (n=6)	2.58 ± 0.457
Liver - 72 hours (n=6)	2.30 ± 0.749
Liver - 168 hours (n=5)	0.69 ± 0.314
Lungs - 4 hours (n=6)	3.28 ± 1.977
Lungs - 24 hours (n=6)	1.85 ± 0.759
Lungs - 48 hours (n=6)	1.68 ± 1.605
Lungs - 72 hours (n=6)	1.00 ± 0.647
Lungs - 168 hours (n=5)	0.40 ± 0.255
Rectum - 4 hours (n=6)	0.01 ± 0.003
Rectum - 24 hours (n=6)	0.11 ± 0.184
Rectum - 48 hours (n=6)	0.05 ± 0.039
Rectum - 72 hours (n=6)	0.07 ± 0.072
Rectum - 168 hours (n=5)	0.02 ± 0.026
Right Colon - 4 hours (n=6)	2.65 ± 2.188
Right Colon - 24 hours (n=6)	6.75 ± 3.828
Right Colon - 48 hours (n=6)	5.65 ± 4.282
Right Colon - 72 hours (n=6)	3.84 ± 3.871
Right Colon - 168 hours (n=5)	0.50 ± 0.641
Small Intestine - 4 hours (n=6)	5.63 ± 3.205
Small Intestine - 24 hours (n=6)	4.43 ± 2.588
Small Intestine - 48 hours (n=6)	5.66 ± 5.772
Small Intestine - 72 hours (n=6)	3.33 ± 3.103
Small Intestine - 168 hours (n=5)	0.47 ± 0.518
Spleen - 4 hours (n=6)	1.21 ± 0.192

Spleen - 24 hours (n=6)	0.49 ± 0.092
Spleen - 48 hours (n=6)	0.31 ± 0.059
Spleen - 72 hours (n=6)	0.20 ± 0.051
Spleen - 168 hours (n=5)	0.06 ± 0.028
Total Body - 4 hours (n=6)	95.71 ± 4.608
Total Body - 24 hours (n=6)	81.14 ± 8.661
Total Body - 48 hours (n=6)	62.39 ± 16.310
Total Body - 72 hours (n=6)	49.53 ± 14.001
Total Body - 168 hours (n=5)	15.07 ± 3.818
Urinary Bladder Contents - 4 hours (n=4)	1.36 ± 0.939
Urinary Bladder Contents - 24 hours (n=4)	0.16 ± 0.131
Urinary Bladder Contents - 48 hours (n=4)	0.16 ± 0.143
Urinary Bladder Contents - 72 hours (n=4)	0.09 ± 0.077
Urinary Bladder Contents - 168 hours (n=3)	0.02 ± 0.011

Time course of percent injected activity for tumors after [^{177}Lu]Lu-FF58 dosing

Description	Patients enrolled in the dosimetry set underwent a series of single photon emission computed tomography (SPECT) scans in order to determine absorbed doses to normal organs and to target tumor lesions. A low dose non-contrast-enhanced computed tomography (CT) was performed at the same time points. Percent Injected Activity was based on decay-corrected data.
Time Frame	4, 24, 48, 72 and 168 hours after the end of the infusion of [177Lu]Lu-FF58
Analysis Population Description	Participants in the Dosimetry analysis set (DAS) with an available value for the outcome measure. The DAS included all patients who received at least one dose of study treatment [177Lu]Lu-FF58 and provided at least one set of dosimetry data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks

Number of Participants Analyzed [units: participants]	6
Number of number of tumors Analyzed	9
Time course of percent injected activity for tumors after [^{177}Lu]Lu-FF58 dosing (units: Percent injected activity)	**Mean ± Standard Deviation**
4 hours (n=6, m=9)	0.05 ± 0.040
24 hours (n=6, m=9)	0.05 ± 0.034
48 hours (n=6, m=9)	0.05 ± 0.028
72 hours (n=5, m=7)	0.03 ± 0.024
168 hours (n=5, m=8)	0.02 ± 0.025

n: number of participants; m: number of tumors

Absorbed dose per unit activity (Gy/GBq) for each organ after [^{177}Lu]Lu-FF58 dosing

Description	The dosimetry analysis was performed using quantitative imaging data from source organs and lesions to construct Time-Activity Curves (TACs) that represent the injected activity per gram of tissue (%IA/g) as a function of time. These TACs were then fitted to mono- or multi-exponential functions from which Time Integrated Activity Coefficients (TIACs) were calculated. The absorbed radiation dose to target organs and lesions (in units of Gy/MBq) was then calculated by entering the TIAC values for all source organs and lesions into the OLINDA/EXM software.
Time Frame	Up to 168 hours after the end of the infusion of [177Lu]Lu-FF58
Analysis Population Description	Participants in the Dosimetry analysis set (DAS) with an available value for the outcome measure. The DAS included all patients who received at least one dose of study treatment [177Lu]Lu-FF58 and provided at least one set of dosimetry data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Absorbed dose per unit activity (Gy/GBq) for each organ after [^{177}Lu]Lu-FF58 dosing (units: Gy/GBq)	**Mean ± Standard Deviation**

Adrenals (n=6)	0.07 ± 0.029
Brain (n=6)	0.07 ± 0.041
Breasts (n=1)	0.09
Esophagus (n=6)	0.09 ± 0.042
Eyes (n=6)	0.07 ± 0.016
Gallbladder Wall (n=6)	0.36 ± 0.361
Heart Wall (n=6)	0.06 ± 0.029
Kidneys (n=6)	0.29 ± 0.129
Left Colon (n=6)	4.14 ± 0.912
Liver (n=6)	0.17 ± 0.039
Lungs (n=6)	0.10 ± 0.045
Osteogenic Cells (n=6)	0.06 ± 0.029
Ovaries (n=1)	0.11
Pancreas (n=6)	0.07 ± 0.028
Prostate (n=5)	0.06 ± 0.026
Rectum (n=6)	3.94 ± 0.858
Red Marrow (n=6)	0.05 ± 0.024
Right Colon (n=6)	2.23 ± 0.495
Salivary Glands (n=6)	0.05 ± 0.029
Small Intestine (n=6)	0.40 ± 0.083
Spleen (n=6)	0.21 ± 0.067
Stomach Wall (n=6)	0.06 ± 0.030
Testes (n=5)	0.05 ± 0.025
Thymus (n=6)	0.05 ± 0.029
Thyroid (n=6)	0.05 ± 0.029
Total Body (n=6)	0.09 ± 0.037

Urinary Bladder Wall (n=6)	0.12 ± 0.051
Uterus (n=1)	0.13

Absorbed dose per unit activity (Gy/GBq) for tumors after [^{177}Lu]Lu-FF58 dosing

Description	The dosimetry analysis was performed using quantitative imaging data from source organs and lesions to construct Time-Activity Curves (TACs) that represent the injected activity per gram of tissue (%IA/g) as a function of time. These TACs were then fitted to mono- or multi-exponential functions from which Time Integrated Activity Coefficients (TIACs) were calculated. The absorbed radiation dose to target organs and lesions (in units of Gy/MBq) was then calculated by entering the TIAC values for all source organs and lesions into the OLINDA/EXM software.
Time Frame	Up to 168 hours after the end of the infusion of [177Lu]Lu-FF58
Analysis Population Description	Participants in the Dosimetry analysis set (DAS) with an available value for the outcome measure. The DAS included all patients who received at least one dose of study treatment [177Lu]Lu-FF58 and provided at least one set of dosimetry data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Number of number of tumors Analyzed	9
Absorbed dose per unit activity (Gy/GBq) for tumors after [^{177}Lu]Lu-FF58 dosing (units: Gy/GBq)	**Mean ± Standard Deviation**
	0.55 ± 0.315

Effective dose per unit activity (mSv/MBq) for total body after [^{177}Lu]Lu-FF58 dosing

Description	The effective dose was estimated to reflect the overall radiation burden to the body resulting from the administration of the radioligand. This calculation integrates the contributions from all source organs and lesions, using time-integrated activity coefficients (TIACs) derived from time-activity curves (TACs) based on quantitative imaging data.
Time Frame	Up to 168 hours after the end of the infusion of [177Lu]Lu-FF58

Analysis Population Description	Participants in the Dosimetry analysis set (DAS) with an available value for the outcome measure. The DAS included all patients who received at least one dose of study treatment [177Lu]Lu-FF58 and provided at least one set of dosimetry data.

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
Effective dose per unit activity (mSv/MBq) for total body after [^{177}Lu]Lu-FF58 dosing (units: mSv/MBq)	**Mean ± Standard Deviation**
	0.46 ± 0.096

Number of participants with AEs and SAEs during the on-treatment period for [68Ga]Ga-FF58

Description	Number of participants with AEs (any adverse events regardless of seriousness) and serious adverse events (SAEs), including changes from baseline in vital signs, electrocardiograms and laboratory results qualifying and reported as AEs. The on-treatment period for [68Ga]Ga-FF58 extends from the date of administration to 14 days post dose. AE grades to characterize the severity of the AEs were based on the Common Terminology Criteria for Adverse Events (CTCAE) version 5.0. For CTCAE, Grade 1 = mild; Grade 2 = moderate; Grade 3 = severe; Grade 4 = life-threatening; Grade 5 = death.
Time Frame	From the date of administration to 14 days post dose
Analysis Population Description	Participants who received at least one dose of [68Ga]Ga-FF58

	[68Ga]Ga-FF58
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection
Number of Participants Analyzed [units: participants]	24

Number of participants with AEs and SAEs during the on-treatment period for [68Ga]Ga-FF58 (units: participants)	**Count of Participants (Percentage)**
AEs	4 (16.67%)
Treatment-related AEs	2 (8.33%)
AEs grade ≥3	0 (%)
Treatment-related AEs grade ≥3	0 (%)
SAEs	0 (%)
Treatment-related SAEs	0 (%)
Fatal SAEs	0 (%)
Treatment-related fatal SAEs	0 (%)

[68Ga]Ga-FF58 SUVmean by lesion and organ for gastroesophageal cancer

Description	SUVmean (mean standardized uptake value) is the average SUV of all the voxels within a region of interest (ROI). It provides a measure of the overall uptake of the radioligand in that region. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had gastroesophageal cancer, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Gastroesophageal cancer
Arm/Group Description	Patients with gastroesophageal cancer

Number of Participants Analyzed [units: participants]	2
[68Ga]Ga-FF58 SUVmean by lesion and organ for gastroesophageal cancer (units: g/mL)	**Mean ± Standard Deviation**
Lymph Node Para-Aortic Left Lesion (n=1)	2.3
Lymph Node Para-Aortic Right Lesion (n=1)	2.6
Lymph Node Paratracheal Right Lesion (n=1)	2.5
Lymph Node Subcarinal (7) Lesion (n=1)	2.7
Peritoneum Lesion (n=1)	4.0
Blood (n=2)	0.5 ± 0.25
Brain (n=2)	0.00 ± 0.0
Choroid Plexus (n=2)	2.2 ± 0.89
Heart Wall (n=2)	2.4 ± 0.07
Kidney Left (n=2)	8.0 ± 0.74
Kidney Right (n=2)	8.4 ± 0.82
Lacrimal Glands (n=2)	2.3 ± 0.78
Large Intestine (n=2)	2.9 ± 0.31
Liver (n=2)	9.7 ± 0.91
Lumbar Vertebrae Red Marrow (n=2)	4.1 ± 0.02
Lung (n=2)	0.4 ± 0.01
Muscle (Gluteus) (n=2)	0.4 ± 0.03
Nasal Cavity (n=2)	2.1 ± 0.36
Pancreas (n=2)	5.4 ± 1.62
Pituitary Gland (n=2)	2.2 ± 0.69
Salivary Glands (n=2)	3.1 ± 0.19
Small Intestine (n=2)	5.2 ± 0.07
Spleen (n=2)	9.7 ± 1.68

Stomach Contents (n=2)	3.8 ± 1.34
Thyroid (n=2)	7.3 ± 1.43
Urinary Bladder Contents (n=2)	5.3 ± 3.13

[68Ga]Ga-FF58 SUVmean by lesion and organ for glioblastoma

Description	SUVmean (mean standardized uptake value) is the average SUV of all the voxels within a region of interest (ROI). It provides a measure of the overall uptake of the radioligand in that region. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had glioblastoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Glioblastoma
Arm/Group Description	Patients with glioblastoma
Number of Participants Analyzed [units: participants]	8
[68Ga]Ga-FF58 SUVmean by lesion and organ for glioblastoma (units: g/mL)	**Mean ± Standard Deviation**
Brain Frontal Lobe Left Lesion (n=1)	1.1
Brain Frontal Lobe Right Lesion (n=2)	1.0 ± 0.05
Brain Temporal Lobe Right Lesion (n=1)	0.6
Blood (n=8)	0.7 ± 0.31
Brain (n=8)	0.1 ± 0.05
Choroid Plexus (n=8)	2.5 ± 0.42
Eyes (n=5)	1.5 ± 0.33
Gallbladder (n=7)	11.9 ± 2.79
Heart Wall (n=8)	2.7 ± 0.49

Kidney Left (n=8)	8.2 ± 0.38
Kidney Right (n=8)	8.5 ± 0.36
Lacrimal Glands (n=8)	2.1 ± 0.61
Large Intestine (n=8)	3.3 ± 1.19
Liver (n=8)	7.9 ± 1.96
Lumbar Vertebrae Red Marrow (n=8)	3.7 ± 0.36
Lung (n=8)	0.6 ± 0.19
Muscle (Gluteus) (n=8)	0.6 ± 0.20
Nasal Cavity (n=8)	2.1 ± 0.58
Pancreas (n=8)	5.4 ± 0.79
Pituitary Gland (n=8)	2.3 ± 0.32
Salivary Glands (n=8)	3.3 ± 0.61
Small Intestine (n=8)	6.3 ± 1.29
Spleen (n=8)	10.0 ± 1.92
Stomach Contents (n=8)	3.9 ± 1.52
Thyroid (n=8)	7.6 ± 0.69
Urinary Bladder Contents (n=8)	6.0 ± 3.72

[68Ga]Ga-FF58 SUVmean by lesion and organ for pancreatic carcinoma

Description	SUVmean (mean standardized uptake value) is the average SUV of all the voxels within a region of interest (ROI). It provides a measure of the overall uptake of the radioligand in that region. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had pancreatic carcinoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Pancreatic carcinoma
Arm/Group Description	Patients with pancreatic carcinoma
Number of Participants Analyzed [units: participants]	14
[68Ga]Ga-FF58 SUVmean by lesion and organ for pancreatic carcinoma (units: g/mL)	**Mean ± Standard Deviation**
Adrenal Gland Left Lesion (n=1)	7.7
Adrenal Gland Right Lesion (n=1)	7.6
Lung Lower Lobe Left Lesion (n=1)	1.1
Lung Upper Lobe Left Lesion (n=1)	2.0
Lymph Node Para-aortic Left Lesion (n=1)	2.6
Lymph Node Retroperitoneal Left Lesion (n=1)	2.5
Lymph Node Retroperitoneal Right Lesion (n=1)	2.7
Pancreas Head Lesion (n=2)	2.8 ± 0.03
Blood (n=14)	0.5 ± 0.19
Brain (n=14)	0.1 ± 0.05
Choroid Plexus (n=14)	2.4 ± 0.68
Eyes (n=12)	1.3 ± 0.27
Gallbladder (n=7)	9.2 ± 4.07
Heart Wall (n=14)	2.4 ± 0.44
Kidney Left (n=14)	8.0 ± 1.38
Kidney Right (n=14)	8.7 ± 1.96
Lacrimal Glands (n=13)	2.2 ± 0.48
Large Intestine (n=14)	3.0 ± 0.91
Liver (n=14)	8.2 ± 1.35
Lumbar Vertebrae Red Marrow (n=14)	3.3 ± 0.81
Lung (n=14)	0.5 ± 0.20

Muscle (Gluteus) (n=14)	0.5 ± 0.13
Nasal Cavity (n=14)	1.8 ± 0.76
Pancreas (n=14)	3.6 ± 1.08
Pituitary Gland (n=14)	2.1 ± 0.59
Salivary Glands (n=14)	3.1 ± 0.50
Small Intestine (n=14)	4.8 ± 0.76
Spleen (n=14)	9.9 ± 2.76
Stomach Contents (n=14)	3.7 ± 1.05
Thyroid (n=14)	5.9 ± 1.20
Urinary Bladder Contents (n=13)	4.8 ± 2.36

[68Ga]Ga-FF58 SUVmax by lesion and organ for gastroesophageal cancer

Description	SUVmax (maximum standardized uptake value) represents the highest SUV found within a lesion. It focuses on the single voxel with the highest uptake, which can be indicative of the most active or aggressive part of a tumor. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had gastroesophageal cancer, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Gastroesophageal cancer
Arm/Group Description	Patients with gastroesophageal cancer
Number of Participants Analyzed [units: participants]	2
[68Ga]Ga-FF58 SUVmax by lesion and organ for gastroesophageal cancer (units: g/mL)	**Mean ± Standard Deviation**
Lymph Node Para-Aortic Left Lesion (n=1)	3.2
Lymph Node Para-Aortic Right Lesion (n=1)	3.6

Lymph Node Paratracheal Right Lesion (n=1)	4.6
Lymph Node Subcarinal (7) Lesion (n=1)	4.3
Peritoneum Lesion (n=1)	6.8
Blood (n=2)	0.9 ± 0.22
Brain (n=2)	0.1 ± 0.03
Choroid Plexus (n=2)	4.4 ± 2.76
Heart Wall (n=2)	4.0 ± 0.02
Kidney Left (n=2)	14.8 ± 0.87
Kidney Right (n=2)	15.0 ± 0.72
Lacrimal Glands (n=2)	3.1 ± 1.48
Large Intestine (n=2)	5.4 ± 0.48
Liver (n=2)	12.3 ± 1.39
Lumbar Vertebrae Red Marrow (n=2)	4.8 ± 0.24
Lung (n=2)	0.7 ± 0.07
Muscle (Gluteus) (n=2)	0.7 ± 0.02
Nasal Cavity (n=2)	2.8 ± 0.83
Pancreas (n=2)	11.7 ± 3.04
Pituitary Gland (n=2)	3.6 ± 1.79
Salivary Glands (n=2)	5.4 ± 0.28
Small Intestine (n=2)	22.7 ± 5.04
Spleen (n=2)	11.4 ± 1.97
Stomach Contents (n=2)	9.0 ± 2.77
Thyroid (n=2)	18.6 ± 3.25
Urinary Bladder Contents (n=2)	9.0 ± 4.94

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[68Ga]Ga-FF58 SUVmax by lesion and organ for glioblastoma

Description	SUVmax (maximum standardized uptake value) represents the highest SUV found within a lesion. It focuses on the single voxel with the highest uptake, which can be indicative of the most active or aggressive part of a tumor. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had pancreatic carcinoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Glioblastoma
Arm/Group Description	Patients with glioblastoma
Number of Participants Analyzed [units: participants]	8
[68Ga]Ga-FF58 SUVmax by lesion and organ for glioblastoma (units: g/mL)	**Mean ± Standard Deviation**
Brain Frontal Lobe Left Lesion (n=1)	3.0
Brain Frontal Lobe Right Lesion (n=2)	2.2 ± 0.03
Brain Temporal Lobe Right Lesion (n=1)	1.9
Blood (n=2)	1.1 ± 0.37
Brain (n=2)	0.3 ± 0.33
Choroid Plexus (n=2)	6.0 ± 1.87
Eyes (n=5)	1.8 ± 0.44
Gallbladder (n=7)	24.4 ± 9.64
Heart Wall (n=8)	4.4 ± 0.89
Kidney Left (n=8)	14.4 ± 1.52
Kidney Right (n=8)	14.7 ± 1.35
Lacrimal Glands (n=8)	3.0 ± 1.04
Large Intestine (n=8)	7.3 ± 3.27

Liver (n=8)	9.4 ± 2.36
Lumbar Vertebrae Red Marrow (n=8)	4.5 ± 0.46
Lung (n=8)	0.9 ± 0.22
Muscle (Gluteus) (n=8)	0.9 ± 0.22
Nasal Cavity (n=8)	3.5 ± 1.31
Pancreas (n=8)	10.6 ± 1.46
Pituitary Gland (n=8)	3.7 ± 1.00
Salivary Glands (n=8)	5.9 ± 1.51
Small Intestine (n=8)	17.0 ± 4.51
Spleen (n=8)	11.9 ± 2.27
Stomach Contents (n=8)	7.8 ± 2.63
Thyroid (n=8)	18.7 ± 2.57
Urinary Bladder Contents (n=8)	11.5 ± 9.41

[68Ga]Ga-FF58 SUVmax by lesion and organ for pancreatic carcinoma

Description	SUVmax (maximum standardized uptake value) represents the highest SUV found within a lesion. It focuses on the single voxel with the highest uptake, which can be indicative of the most active or aggressive part of a tumor. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had pancreatic carcinoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Pancreatic carcinoma
Arm/Group Description	Patients with pancreatic carcinoma
Number of Participants Analyzed [units: participants]	14

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[68Ga]Ga-FF58 SUVmax by lesion and organ for pancreatic carcinoma (units: g/mL)	**Mean ± Standard Deviation**
Adrenal Gland Left Lesion (n=1)	18.9
Adrenal Gland Right Lesion (n=1)	14.7
Lung Lower Lobe Left Lesion (n=1)	1.7
Lung Upper Lobe Left Lesion (n=1)	3.3
Lymph Node Para-aortic Left Lesion (n=1)	4.7
Lymph Node Retroperitoneal Left Lesion (n=1)	5.6
Lymph Node Retroperitoneal Right Lesion (n=1)	4.1
Pancreas Head Lesion (n=2)	4.7 ± 0.52
Blood (n=14)	0.8 ± 0.29
Brain (n=14)	0.1 ± 0.08
Choroid Plexus (n=14)	5.7 ± 2.70
Eyes (n=12)	1.7 ± 0.44
Gallbladder (n=7)	19.1 ± 16.22
Heart Wall (n=14)	3.7 ± 0.75
Kidney Left (n=14)	13.8 ± 2.90
Kidney Right (n=14)	15.2 ± 4.11
Lacrimal Glands (n=13)	3.6 ± 1.11
Large Intestine (n=14)	7.9 ± 2.85
Liver (n=14)	9.7 ± 1.47
Lumbar Vertebrae Red Marrow (n=14)	4.0 ± 1.02
Lung (n=14)	0.8 ± 0.30
Muscle (Gluteus) (n=14)	0.7 ± 0.17
Nasal Cavity (n=14)	2.8 ± 1.89
Pancreas (n=14)	8.8 ± 2.86

Pituitary Gland (n=14)	3.5 ± 1.44
Salivary Glands (n=14)	5.0 ± 0.80
Small Intestine (n=14)	14.4 ± 3.08
Spleen (n=13)	11.3 ± 3.18
Stomach Contents (n=14)	7.2 ± 1.73
Thyroid (n=14)	14.0 ± 4.69
Urinary Bladder Contents (n=13)	11.5 ± 11.82

[68Ga]Ga-FF58 SUVrmean by lesion location and reference region for gastroesophageal cancer

Description	SUVrmean (mean standardized uptake value ratio) is defined as SUVmean of lesion divided by SUVmean of different reference regions. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had gastroesophageal cancer, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Reference region: Blood	**Reference region: Brain**	**Reference region: Liver**	**Reference region: Muscle**
Arm/Group Description	Reference region of blood for patients with gastroesophageal cancer	Reference region of brain for patients with gastroesophageal cancer	Reference region of liver for patients with gastroesophageal cancer	Reference region of muscle for patients with gastroesophageal cancer
Number of Participants Analyzed [units: participants]	1	1	1	1
[68Ga]Ga-FF58 SUVrmean by lesion location and reference region for gastroesophageal cancer (units: g/mL)	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**
Lymph Node Para-Aortic Left Lesion (n=1,1,1,1)	6.4	46.8	0.2	5.0

Lymph Node Para-Aortic Right Lesion (n=1,1,1,1)	7.2	53.0	0.2	5.7
Lymph Node Paratracheal Right Lesion (n=1,1,1,1)	7.0	51.4	0.2	5.5
Lymph Node Subcarinal (7) Lesion (n=1,1,1,1)	7.5	55.0	0.3	5.9
Peritoneum Lesion (n=1,1,1,1)	11.2	81.9	0.4	8.7

[68Ga]Ga-FF58 SUVrmean by lesion location and reference region for glioblastoma

Description	SUVrmean (mean standardized uptake value ratio) is defined as SUVmean of lesion divided by SUVmean of different reference regions. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had glioblastoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Reference region: Blood	**Reference region: Brain**	**Reference region: Liver**	**Reference region: Muscle**
Arm/Group Description	Reference region of blood for patients with glioblastoma	Reference region of brain for patients with glioblastoma	Reference region of liver for patients with glioblastoma	Reference region of muscle for patients with glioblastoma
Number of Participants Analyzed [units: participants]	4	4	4	4
[68Ga]Ga-FF58 SUVrmean by lesion location and reference region for glioblastoma (units: g/mL)	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**
Brain Frontal Lobe Left Lesion (n=1,1,1,1)	1.0	15.3	0.2	2.3
Brain Frontal Lobe Right Lesion (n=2,2,2,2)	2.0 ± 0.14	12.3 ± 5.36	0.1 ± 0.00	1.4 ± 0.39
Brain Temporal Lobe Right Lesion (n=1,1,1,1)	1.8	12.0	0.1	1.3

[68Ga]Ga-FF58 SUVrmean by lesion location and reference region for pancreatic carcinoma

Description	SUVrmean (mean standardized uptake value ratio) is defined as SUVmean of lesion divided by SUVmean of different reference regions. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had pancreatic carcinoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Reference region: Blood	**Reference region: Brain**	**Reference region: Liver**	**Reference region: Muscle**
Arm/Group Description	Reference region of blood for patients with pancreatic carcinoma	Reference region of brain for patients with pancreatic carcinoma	Reference region of liver for patients with pancreatic carcinoma	Reference region of muscle for patients with pancreatic carcinoma
Number of Participants Analyzed [units: participants]	3	3	3	3
[68Ga]Ga-FF58 SUVrmean by lesion location and reference region for pancreatic carcinoma (units: g/mL)	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**
Adrenal Gland Left Lesion (n=1,1,1,1)	16.9	782.0	0.8	19.0
Adrenal Gland Right Lesion (n=1,1,1,1)	16.8	775.3	0.8	18.9
Lung Lower Lobe Left Lesion (n=1,1,1,1)	3.6	34.9	0.2	2.9
Lung Upper Lobe Left Lesion (n=1,1,1,1)	6.4	62.1	0.3	5.2
Lymph Node Para-aortic Left Lesion (n=1,1,1,1)	5.8	267.0	0.3	6.5
Lymph Node Retroperitoneal Left Lesion (n=1,1,1,1)	5.6	258.6	0.3	6.3
Lymph Node Retroperitoneal Right Lesion (n=1,1,1,1)	6.0	278.5	0.3	6.8

Pancreas Head Lesion (n=2,2,2,2)	7.5 ± 1.84	60.7 ± 34.29	0.3 ± 0.04	6.5 ± 0.85

[68Ga]Ga-FF58 SUVrmax by lesion location and reference region for gastroesophageal cancer

Description	SUVrmax (maximum standardized uptake value ratio) is defined as SUVmax of lesion divided by SUVmax of different reference regions. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had gastroesophageal cancer, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Reference region: Blood	**Reference region: Brain**	**Reference region: Liver**	**Reference region: Muscle**
Arm/Group Description	Reference region of blood for patients with gastroesophageal cancer	Reference region of brain for patients with gastroesophageal cancer	Reference region of liver for patients with gastroesophageal cancer	Reference region of muscle for patients with gastroesophageal cancer
Number of Participants Analyzed [units: participants]	1	1	1	1
[68Ga]Ga-FF58 SUVrmax by lesion location and reference region for gastroesophageal cancer (units: g/mL)	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**
Lymph Node Para-Aortic Left Lesion (n=1,1,1,1)	9.0	66.0	0.3	7.1
Lymph Node Para-Aortic Right Lesion (n=1,1,1,1)	10.2	74.5	0.3	8.0
Lymph Node Paratracheal Right Lesion (n=1,1,1,1)	12.9	94.4	0.4	10.1
Lymph Node Subcarinal (7) Lesion (n=1,1,1,1)	12.1	88.7	0.4	9.5
Peritoneum Lesion (n=1,1,1,1)	19.3	141.9	0.7	15.2

[68Ga]Ga-FF58 SUVrmax by lesion location and reference region for glioblastoma

Description	SUVrmax (maximum standardized uptake value ratio) is defined as SUVmax of lesion divided by SUVmax of different reference regions. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had glioblastoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Reference region: Blood	**Reference region: Brain**	**Reference region: Liver**	**Reference region: Muscle**
Arm/Group Description	Reference region of blood for patients with glioblastoma	Reference region of brain for patients with glioblastoma	Reference region of liver for patients with glioblastoma	Reference region of muscle for patients with glioblastoma
Number of Participants Analyzed [units: participants]	4	4	4	4
[68Ga]Ga-FF58 SUVrmax by lesion location and reference region for glioblastoma (units: g/mL)	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**
Brain Frontal Lobe Left Lesion (n=1,1,1,1)	2.7	40.9	0.4	6.1
Brain Frontal Lobe Right Lesion (n=2,2,2,2)	4.5 ± 0.61	27.5 ± 10.36	0.3 ± 0.02	3.1 ± 0.69
Brain Temporal Lobe Right Lesion (n=1,1,1,1)	6.1	40.6	0.3	4.3

[68Ga]Ga-FF58 SUVrmax by lesion location and reference region for pancreatic carcinoma

Description	SUVrmax (maximum standardized uptake value ratio) is defined as SUVmax of lesion divided by SUVmax of different reference regions. Participants may have more than 1 lesion per organ/lesion location.
Time Frame	1 hour post-injection of [68Ga]Ga-FF58 (optimal imaging timepoint)
Analysis Population Description	Participants who had pancreatic carcinoma, received [68Ga]Ga-FF58 and had evaluable PET scans.

	Reference region: Blood	Reference region: Brain	Reference region: Liver	Reference region: Muscle
Arm/Group Description	Reference region of blood for patients with pancreatic carcinoma	Reference region of brain for patients with pancreatic carcinoma	Reference region of liver for patients with pancreatic carcinoma	Reference region of muscle for patients with pancreatic carcinoma
Number of Participants Analyzed [units: participants]	3	3	3	3
[68Ga]Ga-FF58 SUVrmax by lesion location and reference region for pancreatic carcinoma (units: g/mL)	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**	**Mean ± Standard Deviation**
Adrenal Gland Left Lesion (n=1,1,1,1)	41.7	1929.6	1.9	47.0
Adrenal Gland Right Lesion (n=1,1,1,1)	32.4	1499.9	1.5	36.5
Lung Lower Lobe Left Lesion (n=1,1,1,1)	5.4	52.3	0.2	4.3
Lung Upper Lobe Left Lesion (n=1,1,1,1)	10.4	100.7	0.4	8.4
Lymph Node Para-aortic Left Lesion (n=1,1,1,1)	10.5	483.9	0.5	11.8
Lymph Node Retroperitoneal Left Lesion (n=1,1,1,1)	12.3	569.6	0.6	13.9
Lymph Node Retroperitoneal Right Lesion (n=1,1,1,1)	9.0	414.5	0.4	10.1
Pancreas Head Lesion (n=2,2,2,2)	12.4 ± 1.85	99.7 ± 47.67	0.6 ± 0.01	10.9 ± 0.34

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Post-Hoc Outcome Result(s)

All-Collected Deaths in the treatment arm

Description	Deaths during the 180-day safety follow-up period were collected from the first dose of study treatment through 180 days after the last dose. Following completion of this 180-day period, deaths were collected until the end of the study. “All deaths” refers to the total number of deaths reported during the 180-day safety follow-up and those occurring beyond this period up to study completion.
Time Frame	The 180-day safety follow-up period extended up to 38 weeks. Beyond this, deaths were collected until Day 341 (end of study).
Analysis Population Description	All patients who received at least one dose of [177Lu]Lu-FF58

	[177Lu]Lu-FF58 Q6W 350mCi
Arm/Group Description	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks
Number of Participants Analyzed [units: participants]	6
All-Collected Deaths in the treatment arm (units: participants)	
Deaths in ≤180-day Safety Follow-up (n=6)	3
Deaths >180-day Safety Follow-up (n=3)	2
All deaths (n=6)	5

Safety Results

Time Frame	Adverse events (AEs) are reported for [68Ga]Ga-FF58 from single dose on Day 1 up to Day 14. For [177Lu]Lu-FF58, AEs are reported from first dose until 180 days after last dose, up to maximum 38 weeks. All deaths are reported from first dose of investigational drug to end of study, up to maximum Day 341.

Additional Description	For patients who received both investigational drugs, adverse events were reported under the treatment the patient was receiving at the time of the event or during the corresponding safety follow-up period.
Source Vocabulary for Table Default	MedDRA (27.0)
Collection Approach for Table Default	Systematic Assessment

All-Cause Mortality

	[68Ga]Ga-FF58 N = 24	**[177Lu]Lu-FF58 Q6W 350mCi N = 6**
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection.	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks.
Total Number Affected	0	5
Total Number At Risk	24	6

Serious Adverse Events

Time Frame	Adverse events (AEs) are reported for [68Ga]Ga-FF58 from single dose on Day 1 up to Day 14. For [177Lu]Lu-FF58, AEs are reported from first dose until 180 days after last dose, up to maximum 38 weeks. All deaths are reported from first dose of investigational drug to end of study, up to maximum Day 341.
Additional Description	For patients who received both investigational drugs, adverse events were reported under the treatment the patient was receiving at the time of the event or during the corresponding safety follow-up period.
Source Vocabulary for Table Default	MedDRA (27.0)

Collection
Approach for Table Default Systematic Assessment

	[68Ga]Ga-FF58 N = 24	[177Lu]Lu-FF58 Q6W 350mCi N = 6
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection.	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks.
Total # Affected by any Serious Adverse Event	0	4
Total # at Risk by any Serious Adverse Event	24	6
Gastrointestinal disorders		
Upper gastrointestinal haemorrhage	0 (0.00%)	1 (16.67%)
Nervous system disorders		
Brain oedema	0 (0.00%)	1 (16.67%)
Hemiparesis	0 (0.00%)	1 (16.67%)
Psychiatric disorders		
Behaviour disorder	0 (0.00%)	1 (16.67%)

Other (Not Including Serious) Adverse Events

Time Frame	Adverse events (AEs) are reported for [68Ga]Ga-FF58 from single dose on Day 1 up to Day 14. For [177Lu]Lu-FF58, AEs are reported from first dose until 180 days after last dose, up to maximum 38 weeks. All deaths are reported from first dose of investigational drug to end of study, up to maximum Day 341.
Additional Description	For patients who received both investigational drugs, adverse events were reported under the treatment the patient was receiving at the time of the event or during the corresponding safety follow-up period.
Source Vocabulary for Table Default	MedDRA (27.0)
Collection Approach for Table Default	Systematic Assessment

Frequent Event Reporting Threshold 5%

	[68Ga]Ga-FF58 N = 24	**[177Lu]Lu-FF58 Q6W 350mCi N = 6**
Arm/Group Description	[68Ga]Ga-FF58 single dose of 3 MBq/kg/injection ±10%, with no less than 150 MBq and no more than 250 MBq/injection.	[177Lu]Lu-FF58 at 50 mCi (1.85 GBq) for cycle 1, then 100 mCi (3.7 GBq) for cycles 2–4, every 6 weeks.
Total # Affected by any Other Adverse Event	3	4
Total # at Risk by any Other Adverse Event	24	6
Blood and lymphatic system disorders		
Anaemia	0 (0.00%)	1 (16.67%)
Endocrine disorders		
Cushingoid	0 (0.00%)	2 (33.33%)

Gastrointestinal disorders		
Diarrhoea	1 (4.17%)	1 (16.67%)
General disorders and administration site conditions		
Asthenia	0 (0.00%)	1 (16.67%)
General physical health deterioration	0 (0.00%)	1 (16.67%)
Investigations		
Lymphocyte count decreased	0 (0.00%)	1 (16.67%)
Musculoskeletal and connective tissue disorders		
Back pain	2 (8.33%)	0 (0.00%)
Nervous system disorders		
Headache	0 (0.00%)	1 (16.67%)
Hemiparesis	0 (0.00%)	1 (16.67%)
Nervous system disorder	0 (0.00%)	1 (16.67%)
Psychiatric disorders		
Behaviour disorder	0 (0.00%)	1 (16.67%)
Respiratory, thoracic and mediastinal disorders		
Oropharyngeal pain	0 (0.00%)	1 (16.67%)
Pulmonary embolism	0 (0.00%)	1 (16.67%)
Vascular disorders		
Deep vein thrombosis	0 (0.00%)	1 (16.67%)

Conclusion:

- The administration of a single dose of [^{68}Ga]Ga-FF58 in a total of 24 participants appears to be safe and no SAE was observed. The 1-hour post-dose timepoint was identified as the optimal imaging timepoint for PET-avid brain and body lesions.
- [^{68}Ga]Ga-FF58 biodistribution in organs appeared to be consistent across participants and indications. Lesion SUV values were generally low compared to organs and had no meaningful change over time.
- Eighteen (75%) out of 24 participants were not eligible for the administration of [^{177}Lu]Lu-FF58 due to the absence of at least one measurable lesion that showed [^{68}Ga]Ga-FF58 uptake on imaging per investigator's assessment.
- A total of 6 (25.0%) participants were treated with [^{177}Lu]Lu-FF58. [^{177}Lu]Lu-FF58 has an acceptable safety and tolerability profile with no DLTs observed at the doses administered in this study.
- [^{177}Lu]Lu-FF58 dosimetry showed left colon, rectum and right colon as dose-limiting organs. Lesion absorbed dose were found to be consistently low.
- Pharmacokinetic analysis of blood and urine data indicated that the mean biological half-life of [^{177}Lu]Lu-FF58 in blood was approximately 70 hours and that the renal clearance of [^{177}Lu]Lu-FF58 was approximately one-third of the total systemic clearance.
- No clinical responder was observed among the participants treated with [^{177}Lu]Lu-FF58.
- The study was halted and subsequently terminated during the escalation phase, and hence the expansion part was not opened.

Date of Clinical Trial Report

23-Oct-2025