Division	:	Worldwide Development
Information Type	:	Reporting and Analysis Plan (RAP)

Title	:	Reporting and Analysis Plan for PET imaging study to investigate the biodistribution and clearance of a GSK3128349 in Healthy Volunteers.
Compound Number	:	GSK3128349
Effective Date	:	06-MAR-2017

Description :

- The purpose of this RAP is to describe the planned analyses and output to be included in the Clinical Study Report for Protocol RES117169.
- This RAP is intended to describe the PET, safety and pharmacokinetic analyses required for the study.
- This RAP will be provided to the study team members to convey the content of the SAC deliverable.

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1. REPORTING & ANALYSIS PLAN SYNPOSIS

Overview	Key Elements of the RAP
Purpose	The purpose of this RAP is to describe the planned analyses and output to be included in the Clinical Pharmacology Study Report for study RES117169.
Protocol	This RAP is based on the original protocol (Dated: 23/MAY/2016) for study RES117169 (GlaxoSmithKline Document Number 2014N202021_00)
Primary Objective	• Evaluate biodistribution of 89Zr-GSK3128349 in regions of interest following IV administration to support future AlbudAb products and the development of a PBPK model.
Primary Endpoint	• Quantitative parameters (including but not limited to ^{89}Zr-GSK3128349 concentration) derived from Positron Emission Tomography – Computer Tomography (PET-CT) data (e.g. Standardised Uptake Values (SUVs)[a], volume of Regions Of Interest (ROI) to assess average and total uptake into regions of interest (e.g. liver, kidney, muscle, spleen, heart, lung, bladder, thymus – if feasible -,blood and bone).
Secondary Objectives	• Measure PK of 89Zr-GSK3128349 by whole blood, plasma and urine radiolabel detection to support future AlbudAb products and the development of a PBPK model. • Measure PK of GSK3128349 by mass spectroscopy (MS) to support the development of a PBPK model. • Measure dosimetry of 89Zr-GSK3128349 from PET scans and blood radioactivity • Assess the safety and tolerability of 89Zr-GSK3128349. • Investigate the presence and levels of anti-GSK3128349 antibodies, including pre- and post-dose.
Secondary Endpoint	• Whole blood, plasma and urine radioactivity concentrations and derived pharmacokinetic parameters, as data allows, based on blood, plasma and urine scintillation counting. • Plasma concentrations and derived pharmacokinetic parameters. • Compare plasma exposure assessments via different GSK3128349 mass Spectroscopy methods. • Organ doses (mSv) • Effective dose (mSv) • Adverse events (AEs), serious adverse events (SAEs). • Safety laboratory values, proteinuria, electrocardiograms (ECGs) and vital signs.
Study Design	• A single cohort of six to eight healthy male subjects. • An open label, single centre,single drug study to investigate the biodistribution and pharmacokinetics of the AlbudAb platform scaffold protein GSK3128349. • After completion of the first 2 subjects, dosimetry assessments will be performed and used to refine the radiation dose administered to subsequent subjects. This data may also be used to adjust the time post dose for PET scans performed on subsequent subjects. • The total duration of a subject's participation is approximately 10 weeks, including the screening period of up to 28 days.
Analysis Populations	• 'Screen Failures Population' comprises of all potentially eligible subjects who have signed the ICF and subsequently fail screening.

Overview	Key Elements of the RAP
	• 'Safety Population' comprises of all subjects who receive a dose of 89Zr-GSK3128349. • 'PK Population' comprises of Subjects in the 'Safety' population for whom a PK sample was obtained and analysed, and/or for which a PET scan was completed. • 'All Screened Population' comprises of all subjects who were screened (or 'pre screened') for the trial, irrespective of whether they were enrolled or not. .
Hypothesis	• There are no formal hypotheses being tested in the study; instead an estimation and inference approach will be adopted to evaluate the objectives.
Primary Analyses	• Descriptive statistics where appropriate, (i.e. n, arithmetic mean, geometric mean, standard deviation, minimum, median and maximum) will be calculated for all generated PET-CT imaging endpoints over time. • Graphical displays will be produced over time for applicable PET-CT imaging endpoints. • If analysed, all data will be listed, including unscheduled and/or repeat assessments. • If data permits, further statistical analyses (i.e. mixed effects models) will be performed to estimate quantitative parameters in ROI over time from PET-CT following IV administration.
Secondary Analyses	• Whole blood and plasma concentrations time data of 89Zr-GSK3128349 and plasma concentrations time data of GSK3128349 will be analyzed by non-compartmental methods. • As data permits, from the plasma concentration-time data, the following PK parameters may be determined as data permits: Cmax, Tmax, t1/2,AUC(0-t), AUC(0-∞), clearance, volume of distribution. • Pharmacokinetic data will be presented in graphical and/or tabular form, summarized descriptively and listed. • Dosimetry results as organ radiation doses and subject effective dose will be listed. • Safety, tolerability and immunogenicity data will be presented in tabular and/or graphical format and summarized descriptively according to GSK's Integrated Data Standards Library (IDSL) standards.

2. SUMMARY OF KEY PROTOCOL INFORMATION

2.1. Changes to the Protocol Defined Statistical Analysis Plan

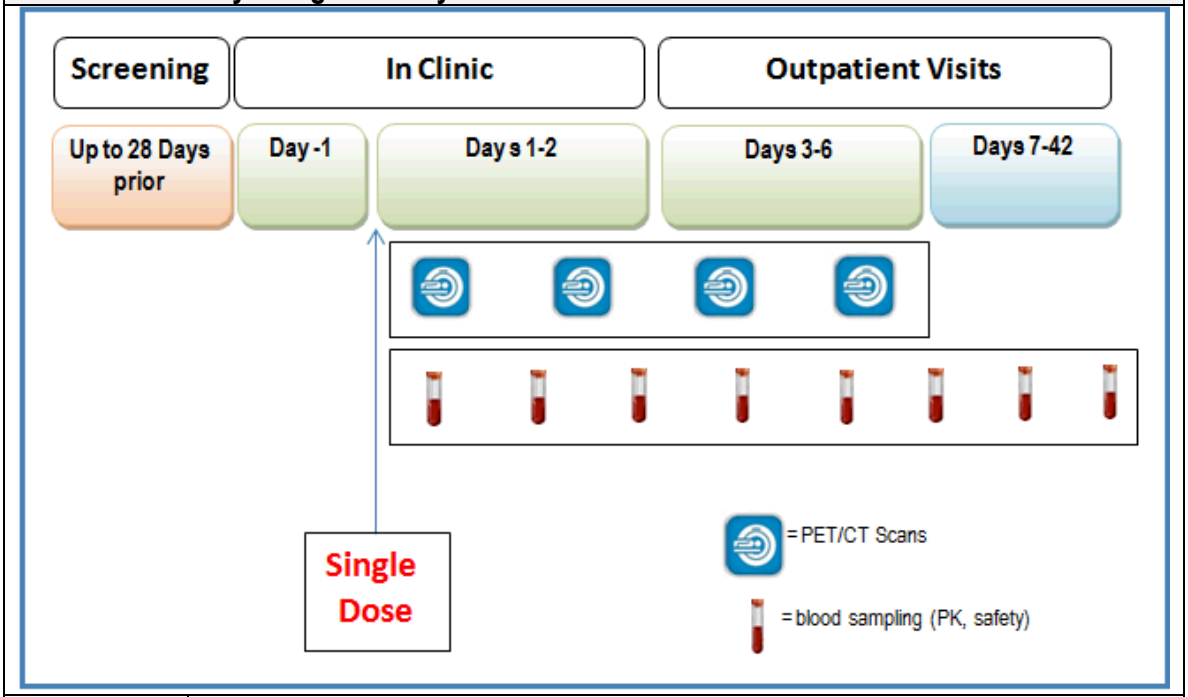
There were no changes or deviations to the originally planned statistical analysis specified in the protocol (Dated: 23/MAY/2016).

2.2. Study Objective(s) and Endpoint(s)

Objectives	Endpoints
Primary Objectives	**Primary Endpoints**
1) Evaluate biodistribution of 89Zr-GSK3128349 in regions of interest following IV administration to support future AlbudAb products and the development of a PBPK model.	• Quantitative parameters (including but not limited to 89Zr-GSK3128349 concentration) derived from Positron Emission Tomography – Computer Tomography (PET-CT) data (e.g. Standardised Uptake Values (SUVs)a, volume of Regions Of Interest (ROI) to assess average and total uptake into regions of interest (e.g. liver, kidney, muscle, spleen, heart, lung, bladder, thymus – if feasible -, blood and bone).
Secondary Objectives	**Secondary Endpoints**
1) Measure PK of 89Zr-GSK3128349 by whole blood, plasma and urine radiolabel detection to support future AlbudAb products and the development of a PBPK model.	• Whole blood, plasma and urine radioactivity concentrations and derived pharmacokinetic parameters, as data allows, based on blood, plasma and urine scintillation counting.
2) Measure PK of GSK3128349 by mass spectroscopy (MS) to support the development of a PBPK model.	• Plasma concentrations and derived pharmacokinetic parameters. • Compare plasma exposure assessments via different GSK3128349 mass spectroscopy methods.
3) Measure dosimetry of 89Zr-GSK3128349 from PET scans and blood radioactivity.	• Organ doses (mSv) • Effective dose (mSv)
4) Assess the safety and tolerability of 89Zr-GSK3128349.	• Adverse events (AEs), serious adverse events (SAEs). • Safety laboratory values, proteinuria, electrocardiograms (ECGs) and vital signs.
5) Investigate the presence and levels of anti-GSK3128349 antibodies, including pre- and post-dose.	• Incidence of anti-GSK3128349 antibodies. • Serum titres of anti-GSK3128349 antibodies.

2.3. Study Design

Overview of Study Design and Key Features



Design Features	• A single cohort of six to eight healthy male subjects. • An open label single centre study. • GSK3128349 will be administered as a single drug product consisting of a mix of unlabeled GSK3128349 and 89Zr-GSK3128349. • On Day 1, enrolled subjects will receive one intravenous (IV) infusion of 89Zr-GSK3128349 to deliver a dose of 1 mg and undergo PET/CT scans and blood sampling assessments prior to discharge at 24 hrs post-dose, on day 2. • Subjects will be required to visit the clinic repeatedly over the subsequent 42 days and undergo further blood sampling and PET/CT scans up to 10 days after dosing.
Dosing	• Subjects will receive one intravenous (IV) infusion of 89Zr-GSK3128349 to deliver a dose of 1 mg.
Interim Analysis	• There are no formal interim analyses planned.

2.4. Statistical Hypotheses

There are no formal statistical hypotheses being tested, due to the exploratory nature of the study. Where applicable, an estimation approach will be adopted to evaluate the primary objectives.

3. PLANNED ANALYSES

3.1. Interim Analyses

There are no formal interim analyses planned. However, the following in-stream data review is planned:
Following completion of the first two subjects' PET scans, the study team will evaluate the emerging PET-CT scan data for:

- Dosimetry to potentially refine the radiation dose estimates, and to identify other ROIfor further investigation, if required.

3.2. Final Analyses

The final planned primary analyses will be performed after the completion of the following sequential steps:

1. All subjects have completed the study as defined in the protocol
2. All required database cleaning activities have been completed and final database release and database freeze has been declared by Data Management.
3. All criteria for unblinding the randomisation codes have been met.
4. Randomisation codes have been distributed according to RandAll NG procedures.

4. ANALYSIS POPULATIONS

Population	Definition / Criteria	Analyses Evaluated
All Screened	The All Screened population is defined as all subjects who were screened for the trial, irrespective of whether they were enrolled or not.	• Screen Failure
Safety	Comprised of all subjects who receive a dose of 89Zr-GSK3128349.	• Study Population • Safety
PK	Subjects in the 'Safety' population for whom a PK sample was obtained and analysed, and/or for which a PET scan was completed.	• PK

NOTES :

- Please refer to Appendix 8: List of Data Displays which details the population to be used for each displays being generated.

4.1. Protocol Deviations

- Important protocol deviations (including deviations related to study inclusion/exclusion criteria, conduct of the trial, patient management or patient assessment) will be listed.
- Protocol deviations will be tracked by the study team throughout the conduct of the study in accordance with the Protocol Deviation Management Plan.
    - Data will be reviewed prior to freezing the database to ensure all important deviations are captured and categorised on the protocol deviations dataset.
    - This dataset will be the basis for the summaries and listings of protocol deviations.
- A separate listing of all inclusion/exclusion criteria deviations will also be provided. This listing will be based on data as recorded on the inclusion/exclusion page of the eCRF.

5. CONSIDERATIONS FOR DATA ANALYSES AND DATA HANDLING CONVENTIONS

Table 2 provides an overview of appendices within the RAP for outlining general considerations for data analyses and data handling conventions.

Table 1 Overview of Appendices

Section	Component
Section 10.1	Appendix 1: Protocol Deviation Management
Section 10.2	Appendix 2: Time & Events
Section 10.3	Appendix 3: Data Display Standards & Handling Conventions
Section 10.4	Appendix 4: Derived and Transformed Data
Section 10.5	Appendix 5: Premature Withdrawals & Handling of Missing Data
Section 10.6	Appendix 6: Values of Potential Clinical Importance
Section 10.7	Appendix 7 – Abbreviations & Trade Marks
Section 10.8	Appendix 8: List of Data Displays
Section 10.9	Appendix 9: Example Mock Shells for Data Displays

6. STUDY POPULATION ANALYSES

6.1. Overview of Planned Analyses

The study population analyses will be based on the Safety population, unless otherwise specified.

Table 2 provides an overview of the planned study population analyses, with full details of data displays being presented in Appendix 8: List of Data Displays.

Table 2 Overview of Planned Study Population Analyses

Study Population	Data Displays Generated		
	Table	Figure	Listing
Subject Disposition			
Subject Disposition	Y		
Reasons for Screen Failure			Y
Reasons for Subject Withdrawal			Y
Planned and Actual Treatments			Y
Protocol Deviations			
Important Protocol Deviations			Y
Subjects with Inclusion/Exclusion Criteria Deviations			Y [1]
Populations Analysed			
Study Population	Y		
Subjects Excluded from Any Population			Y
Demographic and Baseline Characteristics			
Demographic Characteristics	Y		Y
Race and Racial Combinations	Y		Y [2]
Race and Racial Combination Details	Y		
Prior and Concomitant Medications			
Medical Conditions (Current/Past)	Y		Y
Concomitant Medication	Y		Y
Exposure and Treatment Compliance			
Exposure to Study Treatment			Y

NOTES :
Y = Yes display generated.

[1] Listing also includes analysis population exclusions.
[2] Listing of race

7. PRIMARY STATISTICAL ANALYSES

7.1. PET Analyses

7.1.1. Overview of Planned PET Analyses

The PET analyses will be based on the Pharmacokinetic population, unless otherwise specified.

Table 3 provides an overview of the planned analyses, with full details being presented in Appendix 8: List of Data Displays.

Table 3 Overview of Planned PET Analyses

[Endpoint / Parameter/ Display Type]	Stats Analysis			Summary		Individual	
	T	F	L	T	F	F	L
Mean SUV				Y	Y	Y	Y
Peak SUV				Y	Y	Y	Y
Max SUV				Y	Y	Y	Y
Activity Conc. Mean				Y	Y	Y	Y
Total Activity				Y		Y	Y
ROI Volume				Y			Y
Percent Injected Dose				Y	Y	Y	Y
Organ Doses				Y	Y		Y
Effective Dose				Y	Y		Y

7.1.2. PET Scan Parameters

7.1.2.1. Deriving PET Scan Parameters

- The PET Scan parameters will be compiled into csv files as per specifications agreed in the External Data Vendor Agreement and will be transmitted to GSK via the External Alliance Portal

Table 4 Derived PET Scan Parameters

Parameter	Parameter Description
SUV_{Mean}	Ratio of tissue mean radioactivity concentration, averaged over a larger RoI, at a point in time C(T) and the injected dose of radioactivity per kilogram of the patient's body weight for larger regions of interest(>=3 cm): SUV = C(T)/[injection dose (MBq)/patient's weight (kg)]
SUV_{Peak}	Ratio of tissue radioactivity concentration, averaged over a small sphere of defined diameter (typically 10 mm) at a point in time C(T) and the injected dose of radioactivity per kilogram of the patient's body weight for smaller regions of interest: SUV = C(T)/[injection dose (MBq)/patient's weight (kg)]
SUV max	Ratio of maximum tissue radioactivity signal at a point in time C(T) and the injected dose of radioactivity per kilogram of the patient's body weight for larger regions of interest(>=3 cm): SUV = C(T)/[injection dose (MBq)/patient's weight (kg)]

Parameter	Parameter Description
Activity Conc. Mean	Tissue mean radioactivity in Bq/ml from the RoI used for SUVmean
Total Activity	The total amount of radioactivity in MBq or Bq contained within ROI at time (T). This corresponds to the total organ radioactivity if ROI corresponds to the total tissue volume.
ROI Volume	The volume of the ROI used in measurements
Percent Injected Dose	The percent of Injected dose found within ROI at time (T)
Organ Doses	The amount of radiation delivered to a particular organ
Effective Dose	The tissue-weighted sum of the organ doses in all specified tissues and organs of the human body

7.1.2.2. Statistical Analysis of PET Scan Parameters

All derived PET Scan Imaging parameters will be summarized where appropriate, (i.e. n, arithmetic mean, standard deviation, minimum, median and maximum) over time. Graphical displays will also be produced over time for applicable PET-CT imaging endpoints.
Listings will be produced for all the collected data.

8. SECONDARY STATISTICAL ANALYSES

8.1. Pharmacokinetic Analyses

8.1.1. Overview of Planned Pharmacokinetic Analyses

The pharmacokinetic (PK) analyses will be based on the PK population, unless otherwise specified.

Table 5 provides an overview of the planned analyses, with full details being presented in Appendix 8: List of Data Displays.

Table 5 Overview of Planned Pharmacokinetic Analyses

[Endpoint / Parameter/ Display Type]	Untransformed							Log-Transformed						
	Stats Analysis			Summary		Individual		Stats Analysis			Summary		Individual	
	T	F	L	T	F	F	L	T	F	L	T	F	F	L
PK Concentration														
Whole blood concentration of ^{89}Zr-GSK3128349				Y	Y[1]	Y[1]	Y							
Plasma Concentration of ^{89}Zr-GSK3128349				Y	Y[1]	Y[1]	Y							
Plasma concentration of GSK3128349				Y	Y[1]	Y[1]	Y							
Urine Concentration of ^{89}Zr-GSK3128349				Y	Y[1]	Y[1]	Y							
PK Parameters														
Derived PK parameters for whole blood concentration of ^{89}Zr-GSK3128349				Y			Y				Y			
Derived PK parameters for plasma concentration of ^{89}Zr-GSK3128349				Y			Y				Y			
Derived PK parameters for plasma concentration of GSK3128349				Y			Y				Y			

NOTES :

- T = Table, F = Figure, L = Listings, Y = Display generated.
- Y[1]= Linear and Semi-Log Plots would be produced

8.1.1.1. Analyses

Whole blood and plasma concentrations time data of 89Zr-GSK3128349 and plasma concentrations time data of GSK3128349 will be analyzed by non-compartmental methods. From the plasma concentration-time data, the following PK parameters may be determined as data permits:

Maximum observed plasma concentration (Cmax), Time to achieve Cmax (Tmax), Apparent terminal phase half-life (t1/2), Area under the concentration-time curve from time zero (predose) to last time of quantifiable concentration within a subject (AUC[0-t]) for 89Zr-GSK3128349 and GSK3128349, Area under the concentration-time curve from time zero (predose) extrapolated to infinite time (AUC[0-∞]) only for GSK3128349, Clearance and Volume of distribution.

Pharmacokinetic data will be presented in graphical and/or tabular form and will be summarized descriptively. Figures for individual plasma concentrations will be presented on both a linear and semilog scale for ^{89}Zr-GSK3128349 and GSK3128349. Linear and semi-log figures for mean and median plasma concentrations versus time for each treatment regimen will also be generated.

For each of the derived PK parameters of ^{89}Zr-GSK3128349 and GSK3128349, the following summary statistics will be calculated: n (number of observations), arithmetic mean, standard deviation, median, minimum, maximum, and the 95% confidence interval of arithmetic mean. In addition, summary statistics for log-transformed PK parameters [i.e., AUC(0-t), AUC(0-∞), Cmax, Clearance, t½ and Volume], except tmax will include geometric mean, 95% confidence interval of the geometric mean, standard deviation of the logarithmically transformed data, and inter-subject coefficient of variation [CVb (%)].

8.1.2. Drug Concentration Measures

Refer to Appendix 3: Data Display Standards & Handling Conventions (Section 10.3.3 Reporting Process & Standards).

8.1.3. Pharmacokinetic Parameters

8.1.3.1. Deriving Pharmacokinetic Parameters

- Refer to Appendix 3: Data Display Standards & Handling Conventions (Section 10.3.3 Reporting Process & Standards).
- The pharmacokinetic parameters will be calculated by standard non-compartmental analysis according to current working practices and using Matlab 2016b/SimBiology v5.4, Phoenix 6.3 or higher.
- All calculations of non-compartmental parameters will be based on actual sampling times.
- Pharmacokinetic parameters described in Table 5 will be determined from the 89Zr-GSK3128349 and GSK3128349 concentration-time data, as data permits.

Table 6 Derived Pharmacokinetic Parameters

Parameter	Parameter Description
AUC(0-t_z)	Area under the concentration-time curve from time zero to the time of the last quantifiable concentration (C(t_z)) will be calculated using the linear trapezoidal rule for each incremental trapezoid and the log trapezoidal rule for each decremental trapezoid. $AUMC(0-t_z) = \int_0^{t_z} C(t) \times dt$
AUC(0-∞)	Area under the concentration-time curve extrapolated to infinity will be calculated as: $AUC = AUC(0-t) + \frac{C(t_z)}{lambda\_z}$
Cmax	Maximum observed concentration, determined directly from the concentration-time data.
tmax	Time to reach Cmax, determined directly from the concentration-time data.
t½	Apparent terminal half-life will be calculated as: $t_{½} = \frac{\ln(2)}{lambda\_z}$
lambda_z	The terminal phase rate constant
V_ss	Apparent volume of distribution at steady state $V_{ss} = \frac{Dose \times AUMC}{AUC^2}$
AUMC	Total area under the first moment of the concentration–time curve extrapolating to *Inf* using *lambda_z* $AUMC = AUMC(0-t) + \frac{C(t_z)}{lambda\_z^2} + \frac{t_z \times C(t_z)}{lambda\_z}$
AUMC(0-t_z)	Area under the first moment of the concentration–time curve from time 0 to the last time point t_z. $AUMC(0-t_z) = \int_0^{t_z} t \times C(t) \times dt$
MRT	Mean residence time. $MRT = \frac{AUMC}{AUC}$
CL	Total drug clearance $CL = \frac{Dose}{AUC}$

1. **NOTES:**

- Additional parameters may be included as required.

8.2. Safety Analyses

8.2.1. Overview of Planned Adverse Event Analyses

The safety analyses will be based on the Safety population, unless otherwise specified. This section will be completed in the final RAP.

Table 7 provides an overview of the planned analyses, with further details of data displays being presented in Appendix 8: List of Data Displays.

Table 7 Overview of Planned Adverse Event Analyses

Endpoint / Parameter/ Display Type	Absolute		
	Summary		Individual
	T	F	L
Adverse Events (AEs)			
All AEs by System Organ Class	Y		Y
All Drug-Related AEs by System Organ Class	Y		Y
Subject Numbers for Individual AEs			Y
Relationship Between AE SOCs, PT & Verbatim Text			Y
Serious and Other Significant AEs			
Serious AEs by System Organ Class	Y		Y
Reasons for Considering as a Serious AE			Y
AEs Leading to Withdrawal from Study	Y		Y

NOTES:

- T = Table, F = Figures, L = Listings, Y = Yes display generated, SOC = System Organ Class, PT = Preferred Term.

8.2.2. Overview of Planned Clinical Laboratory Analyses

The safety analyses will be based on the Safety population, unless otherwise specified.

Table 8 provides an overview of the planned analyses, with further details of data displays being presented in Appendix 8: List of Data Displays.

Table 8 Overview of Planned Clinical Laboratory Analyses

Endpoint / Parameter/ Display Type	Absolute			Change from BL		
	Summary		Individual	Summary		Individual
	T	F	L	T	F	L
Chemistry						
Clinical Chemistry Parameters	Y			Y		
Chemistry Data for Subjects with Abnormalities of Potential Clinical Concern			Y			
Chemistry Data Abnormalities of Potential Clinical Importance			Y			
Hematology						
Hematology Parameters	Y			Y		
Hematology Data for Subjects with Abnormalities of Potential Clinical Concern			Y			
Hematology Data Abnormalities of Potential Clinical Importance			Y			
Urinalysis						
Urine Concentration Data	Y		Y	Y		

8.2.3. Overview of Planned Other Safety Analyses

The safety analyses will be based on the Safety population, unless otherwise specified.

Table 9 provides an overview of the planned analyses, with further details of data displays being presented in Appendix 8: List of Data Displays.

Table 9 Overview of Planned Other Safety Analyses

Endpoint / Parameter/ Display Type	Absolute			Change from BL		
	Summary		Individual	Summary		Individual
	T	F	L	T	F	L
ECG						
ECG Findings	Y					
ECG Values by Visit	Y			Y		
All ECG Values for Subjects with a Value of PCI			Y			
ECG Values of PCI			Y			
Abnormal ECG Findings			Y			
Vital Signs						
Vital Signs by Visit	Y			Y		
All Vital Signs for Subjects with Values of PCI			Y			
Vital Signs Values of PCI			Y			

9. REFERENCES

GlaxoSmithKline Document Number 2014N202021_00 Study ID RES117169 An open label positron emission tomography (PET) imaging study using 89Zirconium labelled GSK3128349 to investigate the biodistribution and clearance of an albumin binding domain antibody (AlbudAb) GSK3128349 following single dose intravenous administration in healthy male subjects.MAY/2016

10. APPENDICES

Section	Appendix
RAP Section 4 : Analysis Populations	
Section 10.1	Appendix 1: Protocol Deviation Management
RAP Section 5 : General Considerations for Data Analyses & Data Handling Conventions	
Section 10.2	Appendix 2: Time and Events
Section 10.3	Appendix 3: Data Display Standards & Handling Conventions • Study Treatment & Sub-group Display Descriptors • Baseline Definitions & Derivations • Reporting Process & Standards
Section 10.4	Appendix 4: Derived and Transformed Data • General, Study Population & Safety
Section 10.5	Appendix 5: Premature Withdrawals & Handling of Missing Data • Premature Withdrawals • Handling of Missing Data
Section 10.6	Appendix 6: Values of Potential Clinical Importance
Other RAP Appendices	
Section 10.7	Appendix 7: Abbreviations & Trade Marks
Section 10.8	Appendix 8List of Data Displays
Section 10.9	Appendix 9: Example Mock Shells for Data Displays

10.1. Appendix 1: Protocol Deviation Management

10.1.1. Exclusions from Per Protocol Population

As detailed in Section 4.1, Protocol deviations will be tracked by the study team throughout the conduct of the study in accordance with the Protocol Deviation Management Plan and a listing of important Protocol Deviations will be provided.

A Per Protocol Population is not being defined for this study. However additional exploratory sensitivity summaries may be considered, if there are protocol deviations that may affect the primary PET endpoints. Any additional sensitivity summaries will be documented in the CSR.

10.2. Appendix 2: Time & Events

10.2.1. Protocol Defined Time & Events

Procedures	Screening up to 28 days prior to day 1
Informed Consent	X
Demographics	X
Eligibility	X
Full Physical Exam	X
Medical/Medication/Drug/Alcohol Hx	X
12-lead ECG (triplicate)	X
Vital Signs	X
Urine Drug/Alcohol	X
HIV, Hep B and Hep C Screen[1]	X
Haem/Chem/Urinalysis Tests/UPCR	X
Concomitant Medication Review	X
1 If test performed within 3 months prior to first dose of study treatment, testing at screening is not required	

Day of study	Day -1	Day 1						Day 2	Day 4	Day 6	Day 13 ± 1 day	Day 20 ± 2 days	Day 31 ± 2 days
Time post dosing		Pre-dose	0	1 hour	3 hours	6 hours	8 hours	24 hours					
Admission to Unit	X												
Brief Physical Exam	X							Xs					
Medical/Medication/Drug/Alcohol Hx	X												
12-lead ECG		Xf		X				X					
Vital Signs		X		X				X					
Urine Drug/Alcohol	X												
Urinalysis	X							Xi		X	X	X	
Spot Urine Protein/Creatinine ratio	X							Xe			X		
Haematology								X				X	
Clinical chemistry	X							X		X	X	X	X
Randomisation	X												
Immunogenicity Blood Sample		X											
IV Infusion Dosing			X										
PET imaging and co-localising CT (first subject)[a]				X		X		X		X			
PET imaging and co-localising CT (second subject)[a]					X		X		X	X			
PET imaging and co-localising CT (subsequent subjects)[a, b]			←----------								----------→		
PK Blood Sampling for MS		X		X	X	X	X	X	X	X	X	X	X
PK Blood Sampling for scintillation counting[h]		X		X	X	X	X	X	X	X	X		
Bladder Void[c]		X											
Urine Collection[d]			←----------					----------→					

Day of study	Day -1	Day 1						Day 2	Day 4	Day 6	Day 13 ± 1 day	Day 20 ± 2 days	Day 31 ± 2 days
Time post dosing		**Pre-dose**	**0**	**1 hour**	**3 hours**	**6 hours**	**8 hours**	**24 hours**					
Adverse Event Review			←----------										----------→
Concomitant Medication Review	←----------												----------→
Discharge								X					
Outpatient Visit									X	X	X	X	X

a. Each PET/CT scan must be preceded by heart rate and blood pressure assessments.
b. For subsequent subjects (3rd and beyond) timings of PET scans will be based on data analysis from subjects 1 and 2 and may be carried out anytime between 1 and 10-12 days post injection. A maximum of 4 PET scans will be conducted in each subject.
c. Pre-dose urine will not be retained.
d. 24 hour urine collection. Total volume will be measured. Part of urine sample will be used for scintillation counting. An aliquot will be utilized for UPCR assessment and another stored for later MS PK analysis if required. Based on data from first 2 subjects, urine may be collected for longer than 24 hrs post dose for subsequent subjects.
e. Aliquot from 24 hr collection sample, taken after 24 hr collection is complete.
f. Triplicate measurement
g. Prior to discharge
h. Aliquot from MS PK blood sample
i. Urine sample to be collected prior to discharge

Note: all time points are relative to start of infusion administration.

10.3. Appendix 3: Data Display Standards & Handling Conventions

10.3.1. Study Treatment & Sub-group Display Descriptors

Treatment Group Descriptions			
RandAll NG		Data Displays for Reporting	
Code	Description	Description	Order
A	1 mg of Zirconium labeled GSK3128349	GSK3128349	1

10.3.2. Baseline Definition & Derivations

10.3.2.1. Baseline Definitions

Parameter	Study Assessments Considered As Baseline			Baseline Used in Data Display
	Screening	Day -1	Day 1 (Pre-Dose)	
Safety				
Haematology	X			Screening
Chemistry	X	X		Day -1
Urinalysis	X	X		Day -1
ECG	X		X	Day 1(Pre-Dose)[1]
Vitals	X		X	Day 1(Pre-Dose)[1]

NOTES :

[1] Mean of Day 1 (Pre-Dose) values will taken as baseline.

10.3.2.2. Derivations and Handling of Missing Baseline Data

Definition	Reporting Details
Change from Baseline	= Post-Dose Visit Value – Baseline
% Change from Baseline	= 100 x [(Post-Dose Visit Value – Baseline) / Baseline]

NOTES :

- Unless otherwise specified, the baseline definitions specified in Section 10.3.2.1 Baseline Definitions will be used for derivations for endpoints / parameters and indicated on summaries and listings.
- Unless otherwise stated, if baseline data is missing no derivation will be performed and will be set to missing.

10.3.3. Reporting Process & Standards

Reporting Process	
Software	
• The currently supported versions of SAS software SAS 9.4 will be used.	
Reporting Area	
HARP Server	: uk1salx00175
HARP Area	: gsk3128349/res117169/final
QC Spreadsheet	: gsk3128349/res117169/final/qc
Analysis Datasets	
• Analysis datasets will be created according to Legacy GSK A&R dataset standards	
Generation of RTF Files	
• RTF files will be generated for all the tables	

Reporting Standards
General
• The current GSK Integrated Data Standards Library (IDSL) will be applied for reporting, unless otherwise stated: o 4.03 to 4.23: General Principles o 5.01 to 5.08: Principles Related to Data Listings o 6.01 to 6.11: Principles Related to Summary Tables o 7.01 to 7.13: Principles Related to Graphics
Formats
• All data will be reported according to the actual treatment the subject received unless otherwise stated. • GSK IDSL Statistical Principles (5.03 & 6.06.3) for decimal places (DP's) will be adopted for reporting of data based on the raw data collected. • Numeric data will be reported at the precision collected on the eCRF. • The reported precision from non eCRF sources will follow the IDSL statistical principles.
Planned and Actual Time
• Reporting for tables, figures and formal statistical analyses : • Planned time relative to dosing will be used in figures, summaries, statistical analyses and calculation of any derived parameters, unless otherwise stated. • The impact of any major deviation from the planned assessment times and/or scheduled visit days on the analyses and interpretation of the results will be assessed as appropriate. • Reporting for Data Listings: • Planned and actual time relative to study drug dosing will be shown in listings (Refer to IDSL Statistical Principle 5.05.1). • Unscheduled or unplanned readings will be presented within the subject's listings. • Visits outside the protocol defined time-windows (i.e. recorded as protocol deviations) will be included in listings but omitted from figures, summaries and statistical analyses.

Reporting Standards	
Unscheduled Visits	
• Unscheduled visits will not be included in summary tables. • Unscheduled visits will not be included in figures. • All unscheduled visits will be included in listings.	
Descriptive Summary Statistics	
Continuous Data	Refer to IDSL Statistical Principle 6.06.1
Categorical Data	N, n, frequency, %
Reporting of Pharmacokinetic Concentration Data	
Descriptive Summary Statistics	Refer to IDSL Statistical Principle 6.06.1 Assign zero to NQ values (Refer to GUI_51487 for further details)
Reporting of Pharmacokinetic Parameters	
Descriptive Summary Statistics (Log Transformed)	N, n, geometric mean, 95% CI of geometric mean, standard deviation (SD) of logged data and [between and or within] geometric coefficient of variation (CVb/w (%)) will be reported. [1] CV_b (%) = $\sqrt{}$ (exp(SD^2) - 1) * 100 (SD = SD of log transformed data)
Parameters Not Being Log Transformed	Tmax
Graphical Displays	
• Refer to IDSL Statistical Principals 7.01 to 7.13.	

10.4. Appendix 4: Derived and Transformed Data

10.4.1. General

Multiple Measurements at One Time Point
• Mean of the measurements will be calculated and used in any derivation of summary statistics but if listed, all data will be presented. • If there are two values within a time window the value closest to the target day for that window will be used. If values are the same distance from the target then the mean will be taken. • Subjects having both High and Low values for Normal Ranges at any post-baseline visits for safety parameters will be counted in both the High and Low categories of "Any visit post-baseline" row of related summary tables. This will also be applicable to relevant Potential Clinical Importance summary tables.
Study Day

• Calculated as the number of days from randomisation date :
  • Ref Date = Missing → Study Day = Missing
  • Ref Date < Randomisation Date → Study Day = Ref Date – Randomisation Date
  • Ref Data ≥ Randomisation Date → Study Day = Ref Date – (Randomisation Date) + 1

10.4.2. Study Population

Demographics
Age

• Screening date will be used as a reference date for calculating age.
• GSK standard IDSL algorithms will be used for calculating age where birth date will be imputed as follows:
  ○ Any subject with a missing day will have this imputed as day '15'.
  ○ Any subject with a missing date and month will have this imputed as '30th June'.
• Birth date will be presented in listings as 'YYYY'.

Body Mass Index (BMI)
• Calculated as **Weight (kg) / [Height (m)]^2**

10.4.3. Safety

ECG Parameters
RR Interval
• IF RR interval (msec) is not provided directly, then RR can be derived as : [1] If QTcB is machine read & QTcF is not provided, then : $$RR = \left[\left(\frac{QT}{QTcB}\right)^2\right] * 1000$$ [2] If QTcF is machine read and QTcB is not provided, then:

ECG Parameters
$$RR = \left[\left(\frac{QT}{QTcF}\right)^{3}\right] * 1000$$ • If ECGs are manually read, the RR value preceding the measurement QT interval should be a collected value THEN do not derive.
Corrected QT Intervals
• When not entered directly in the eCRF, corrected QT intervals by Bazett's (QTcB) and Fredericia's (QTcF) formulas will be calculated, in msec, depending on the availability of other measurements. • IF RR interval (msec) is provided then missing QTcB and/or QTcF will be derived as : $$QTcB = \frac{QT}{\sqrt{\frac{RR}{1000}}} \qquad QTcF = \frac{QT}{\sqrt[3]{\frac{RR}{1000}}}$$

10.5. Appendix 5: Premature Withdrawals & Handling of Missing Data

10.5.1. Premature Withdrawals

Element	Reporting Detail
General	• Subject study completion (i.e. as specified in the protocol) was defined as one who has completed all phases of the study including the follow-up visit. The end of the study is defined as the last subject's last visit. • Withdrawn subjects may be replaced in the study. • All available data from subjects who were withdrawn from the study will be listed and all available planned data will be included in summary tables and figures, unless otherwise specified.

10.5.2. Handling of Missing Data

Element	Reporting Detail
General	• Missing data occurs when any requested data is not provided, leading to blank fields on the collection instrument : ○ These data will be indicated by the use of a "blank" in subject listing displays. Unless all data for a specific visit are missing in which case the data is excluded from the table. ○ Answers such as "Not applicable" and "Not evaluable" are not considered to be missing data and should be displayed as such.
Outliers	• Any subjects excluded from the summaries and/or statistical analyses will be documented along with the reason for exclusion in the clinical study report.

10.5.2.1. Handling of Missing Dates

Element	Reporting Detail
General	Partial dates will be displayed as captured in subject listing displays.
Adverse Events	• The eCRF allows for the possibility of partial dates (i.e., only month and year) to be recorded for AE start and end dates; that is, the day of the month may be missing. In such a case, the following conventions will be applied for calculating the time to onset and the duration of the event: ○ Missing Start Day: First of the month will be used unless this is before the start date of study treatment; in this case the study treatment start date will be used and hence the event is considered On-treatment as per Appendix 4: Treatment States and Phases. ○ Missing Stop Day: Last day of the month will be used, unless this is after the stop date of study treatment; in this case the study treatment stop date will be used. • Completely missing start or end dates will remain missing, with no imputation applied. Consequently, time to onset and duration of such events will be missing.

Element	Reporting Detail
	• Start or end dates which are completely missing (i.e. no year specified) will remain missing, with no imputation applied.

10.5.2.2. Handling of Partial Dates

Element	Reporting Detail
Concomitant Medications	• Partial dates for any concomitant medications recorded in the CRF will be imputed using the following convention: o If the partial date is a start date, a '01' will be used for the day and 'Jan' will be used for the month o If the partial date is a stop date, a '28/29/30/31' will be used for the day (dependent on the month and year) and 'Dec' will be used for the month. • The recorded partial date will be displayed in listings.
Adverse Events	• Any partial dates for adverse events will be raised to data management. If the full date cannot be ascertained, the following assumptions will be made: o If the partial date is a start date, a '01' will be used for the day and 'Jan' will be used for the month. o However, if these results in a date prior to Week 1 Day 1 and the event could possibly have occurred during treatment from the partial information, then the Week 1 Day 1 date will be assumed to be the start date. o The AE will then be considered to start on-treatment (worst case). o If the partial date is a stop date, a '28/29/30/31' will be used for the day (dependent on the month and year) and 'Dec' will be used for the month. • The recorded partial date will be displayed in listings.

10.6. Appendix 6: Values of Potential Clinical Importance

10.6.1. Laboratory Values

Haematology				
Laboratory Parameter	**Units**	**Category**	**Clinical Concern Range**	
			Low Flag (< x)	**High Flag (>x)**
Hematocrit	Ratio of 1	Male		0.54
		Female		0.54
		Δ from BL	↓0.075	
Hemoglobin	g/L	Male		180
		Female		180
		Δ from BL	↓25	
Lymphocytes	$x10^9$/ L		0.8	
Neutrophil Count	$x10^9$/ L		1.5	
Platelet Count	$x10^9$/ L		100	550
While Blood Cell Count (WBC)	$x10^9$/ L		3	20

Clinical Chemistry				
Laboratory Parameter	**Units**	**Category**	**Clinical Concern Range**	
			Low Flag (< x)	**High Flag (>x)**
Albumin	mmol/L		30	
Calcium	mmol/L		2	2.75
Creatinine	mmol/L	Δ from BL		↑ 44.2
Glucose	mmol/L		3	9
Magnesium	mmol/L		0.5	1.23
Phosphorus	mmol/L		0.8	1.6
Potassium	mmol/L		3	5.5
Sodium	mmol/L		130	150
Total CO2	mmol/L		18	32

Liver Function			
Test Analyte	**Units**	**Category**	**Clinical Concern Range**
ALT/SGPT	U/L	High	≥ 2x ULN
AST/SGOT	U/L	High	≥ 2x ULN
AlkPhos	U/L	High	≥ 2x ULN
T Bilirubin	µmol/L	High	≥ 1.5xULN
T. Bilirubin + ALT	µmol/L U/L	High	1.5xULN T. Bilirubin + ≥ 2x ULN ALT

10.6.2. ECG

ECG Parameter	Units	Clinical Concern Range	
		Lower	Upper
Absolute			
Absolute QTc Interval	msec	> 450	
		> 450	≤ 479
		≥ 480	≤ 499
		≥ 500	
Absolute PR Interval	msec	< 110	> 220
Absolute QRS Interval	msec	< 75	> 110

10.6.3. Vital Signs

Vital Sign Parameter (Absolute)	Units	Clinical Concern Range	
		Lower	Upper
Systolic Blood Pressure	mmHg	< 85	> 160
Diastolic Blood Pressure	mmHg	< 45	> 100
Heart Rate	bpm	< 40	> 110

10.7. Appendix 7 – Abbreviations & Trade Marks

10.7.1. Abbreviations

Abbreviation	Description
AE	Adverse Event
AIC	Akaike's Information Criteria
A&R	Analysis and Reporting
CDISC	Clinical Data Interchange Standards Consortium
CI	Confidence Interval
CPMS	Clinical Pharmacology Modelling & Simulation
CS	Clinical Statistics
CSR	Clinical Study Report
CTR	Clinical Trial Register
CV_b / CV_w	Coefficient of Variation (Between) / Coefficient of Variation (Within)
DOB	Date of Birth
DP	Decimal Places
eCRF	Electronic Case Record Form
IA	Interim Analysis
ICH	International Conference on Harmonisation
IDMC	Independent Data Monitoring Committee
IDSL	Integrated Data Standards Library
IMMS	International Modules Management System
IP	Investigational Product
ITT	Intent-To-Treat
GUI	Guidance
LOC	Last Observation Carries Forward
MMRM	Mixed Model Repeated Measures
PCI	Potential Clinical Importance
PD	Pharmacodynamic
PDMP	Protocol Deviation Management Plan
PK	Pharmacokinetic
PP	Per Protocol
QC	Quality Control
QTcF	Frederica's QT Interval Corrected for Heart Rate
QTcB	Bazett's QT Interval Corrected for Heart Rate
RAP	Reporting & Analysis Plan
SAC	Statistical Analysis Complete
SDTM	Study Data Tabulation Model
SOP	Standard Operation Procedure
TA	Therapeutic Area
TFL	Tables, Figures & Listings
GSK	GlaxoSmithKline

10.7.2. Trademarks

Trademarks of the GlaxoSmithKline Group of Companies
HARP

Trademarks not owned by the GlaxoSmithKline Group of Companies
SAS
WinNonlin

10.8. Appendix 8: List of Data Displays

10.8.1. Data Display Numbering

The following numbering will be applied for RAP generated displays

Section	Tables	Figures
Study Population	1.1 to 1.8	
PET	2.1 to 2.8	2.1 to 2.7
Pharmacokinetic	3.1 to 3.7	3.1 to 3.9
Safety	4.1 to 4.13	
Section	**Listings**	
ICH Listings	1 to 23	
Other Listings	24 to 38	

10.8.2. Mock Example Shell Referencing

Non IDSL specifications will be referenced as indicated and if required an example mock-up displays provided in Appendix 9: Example Mock Shells for Data Displays.

Section	Figure	Table	Listing
Study Population	POP_Fn	POP_Tn	POP_Ln
Efficacy	EFF_Fn	EFF_Tn	EFF_Ln
Safety	SAFE_Fn	SAFE_Tn	SAFE_Ln
Pharmacokinetic	PK_Fn	PK_Tn	PK_Ln
Pharmacodynamic and / or Biomarker	PD_Fn	PD_Tn	PD_Ln
Pharmacokinetic / Pharmacodynamic	PKPD_Fn	PKPD_Tn	PK/PD_Ln

NOTES:

- Non-Standard displays are indicated in the 'IDSL / TST ID / Example Shell' or 'Programming Notes' column as '[Non-Standard] + Reference.'

10.8.3. Deliverable [Priority]

Delivery	Description
SAC	Final Statistical Analysis Complete

10.8.4. Study Population Tables

Study Population Tables					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
1.1.	Safety	ES1	Summary of Subject Disposition		SAC
1.2.	All Screened	ES6	Summary of Reasons for Screen Failure		SAC
1.3.	All Screened	SP1	Summary of Study Populations		SAC
1.4.	Safety	DM1	Summary of Demographic Characteristics		SAC
1.5.	Safety	DM5	Summary of Race and Racial Combinations		SAC
1.6.	Safety	DM6	Summary of Race and Racial Combination Details		SAC
1.7.	Safety	MH1	Summary of Current/Past Medical Conditions		SAC
1.8.	Safety	CM1	Summary of Concomitant Medications		SAC

10.8.5. PET Tables

PET: Tables					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
2.1.	PK	PET1	Summary of Mean SUV for Each Organ at All Time Points		SAC
2.2.	PK	PET1	Summary of Peak SUV for Each Organ at All Time Points		SAC
2.3.	PK	PET1	Summary of Max SUV for Each Organ at All Time Points		SAC
2.4.	PK	PET1	Summary of Volume of Regions of Interest for Each Organ at All Time Points		SAC
2.5.	PK	PET1	Summary of Percent Injected Dose for Each Organ at All Time Points		SAC
2.6.	PK	PET1	Summary of Activity Concentration Mean for Each Organ at All Time Points		SAC
2.7.	PK	PET1	Summary of Total Uptake values for Each Organ at All Time Points		SAC
2.8.	PK	PET1	Summary of Organ And Effective Dose		SAC

10.8.6. PET Figures

Efficacy: Figures					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
2.1.	PK	FIG1	Individual Subject Single Panel Plot : Mean SUV over Time	Y-axis: Result X-axis : Planned Time Points	SAC
2.2.	PK	FIG1	Individual Subject Single Panel Plot : Peak SUV over Time	Y-axis: Result X-axis : Planned Time Points	SAC
2.3.	PK	FIG1	Individual Subject Single Panel Plot : Max SUV over Time	Y-axis: Result X-axis : Planned Time Points	SAC
2.4.	PK	FIG2	Mean Profile (mean +/- SE) Plot : Mean SUV over Time	Y-Axis :Mean +/- SE X-Axis: Time Points	SAC
2.5.	PK	FIG2	Mean Profile (mean +/- SE) Plot : Peak SUV over Time	Y-Axis :Mean +/- SE X-Axis: Time Points	SAC
2.6.	PK	FIG2	Mean Profile (mean +/- SE) Plot : Max SUV over Time	Y-Axis :Mean +/- SE X-Axis: Time Points	SAC
2.7.	PK	FIG1	Percent Injected Dose over time	Y-Axis : Percent Injected Dose X-axis : Time Points	SAC

10.8.7. Pharmacokinetic Tables

PK : Tables					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
PK Concentration					
3.1.	PK	PK01	Summary of Whole blood concentration of 89Zr-GSK3128349 Pharmacokinetic Concentration-Time Data		SAC
3.2.	PK	PK01	Summary of Plasma Concentration of ^{89}Zr-GSK3128349 Pharmacokinetic Concentration-Time Data		SAC
3.3.	PK	PK01	Summary of Plasma Concentration of GSK3128349 Pharmacokinetic Concentration-Time Data		SAC
3.4.	PK	PK01	Summary of Urine Concentration of ^{89}Zr-GSK3128349 Pharmacokinetic Concentration-Time Data		SAC
PK Parameters					
3.5.	PK	PK06	Summary of Derived Pharmacokinetic parameters for whole blood concentration of ^{89}Zr-GSK3128349(non-transformed and log-transformed)		SAC
3.6.	PK	PK06	Summary of Derived Pharmacokinetic parameters for plasma concentration of ^{89}Zr-GSK3128349(non-transformed and log-transformed)		SAC
3.7.	PK	PK06	Summary of Derived Pharmacokinetic parameters for plasma concentration of GSK3128349(non-transformed and log-transformed)		SAC

10.8.8. Pharmacokinetic Figures

PK : Figures					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
PK Concentration					
3.1.	PK	PK16a	Individual Whole Blood Concentration-Time Plots of 89Zr-GSK3128349 (Linear and Semi-log)		SAC
3.2.	PK	PK16a	Individual Plasma Concentration-Time Plots of 89Zr-GSK3128349 (Linear and Semi-log)		SAC
3.3.	PK	PK16a	Individual Plasma Concentration-Time Plots of GSK3128349 (Linear and Semi-log)		SAC
3.4.	PK	PK17	Mean Whole Blood Concentration-Time Plots of 89Zr-GSK3128349 (Linear and Semi-log)		SAC
3.5.	PK	PK17	Mean Plasma Concentration-Time Plots of 89Zr-GSK3128349 (Linear and Semi-log)		SAC
3.6.	PK	PK17	Mean Plasma Concentration-Time Plots of GSK3128349 (Linear and Semi-log)		SAC
3.7.	PK	PK18	Median Whole Blood Concentration-Time Plots of 89Zr-GSK3128349 (Linear and Semi-log)		SAC
3.8.	PK	PK18	Median Plasma Concentration-Time Plots of 89Zr-GSK3128349 (Linear and Semi-log)		SAC
3.9.	PK	PK18	Median Plasma Concentration-Time Plots of GSK3128349 (Linear and Semi-log)		SAC

10.8.9. Safety Tables

Safety : Tables					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
Adverse Events (AEs)					
4.1.	Safety	CP_AE1p	Summary of All Adverse Events by System Organ Class		SAC
4.2.	Safety	CP_AE1p	Summary All Drug-Related Adverse Events by System Organ Class		SAC
Laboratory: Chemistry					
4.3.	Safety	LB1	Summary of Chemistry Data		SAC
4.4.	Safety	LB1	Summary of Chemistry Changes from Baseline		SAC
Laboratory: Haematology					
4.5.	Safety	LB1	Summary of Haematology Data		SAC
4.6.	Safety	LB1	Summary of Haematology Changes From Baseline		SAC
Laboratory: Urinalysis					
4.7	Safety	LB1	Summary of Urinalysis Data		SAC
4.8	Safety	LB1	Summary of Urinalysis Changes from Baseline		SAC
ECG					
4.9	Safety	EG1	Summary of ECG Findings		SAC
4.10	Safety	EG2	Summary of ECG values		SAC
4.11	Safety	EG2	Summary of Change from Baseline in ECG Values by Visit		SAC
Vital Signs					
4.12	Safety	VS1	Summary of Vital Signs		SAC
4.13	Safety	VS1	Summary of Change From Baseline in Vital Signs by Visit		SAC

10.8.10. ICH Listings

ICH : Listings					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
Subject Disposition					
1.	All Screened	ES7	Listing of Reasons for Screen Failure		SAC
2.	Safety	ES2	Listing of Reasons for Study Withdrawal		SAC
Protocol Deviations					
3.	Safety	DV2	Listing of Important Protocol Deviations		SAC
4.	All Screened	IE3	Listing of Subjects with Inclusion/Exclusion Criteria Deviations		SAC
Populations Analysed					
5.	All Screened	SA3a	Listing of Subjects Excluded from Any Population		SAC
Demographic and Baseline Characteristics					
6.	Safety	DM2	Listing of Demographic Characteristics		SAC
7.	Safety	DM9	Listing of Race		SAC
Prior and Concomitant Medications					
8.	Safety	CP_CM3	Listing of Concomitant Medications		SAC
Exposure and Treatment Compliance					

ICH : Listings					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
9.	Safety	EX3	Listing of Exposure Data		SAC
Adverse Events					
10.	Safety	CP_AE8	Listing of All Adverse Events		SAC
11.	Safety	AE7	Listing of Subject Numbers for Individual Adverse Events		SAC
12.	Safety	AE2	Listing of Relationship Between Adverse Event System Organ Classes, Preferred Terms, and Verbatim Text		SAC
Serious and Other Significant Adverse Events					
13.	Safety	CP_AE8	Listing of Serious Adverse Events		SAC
14.	Safety		Listing of Reasons for considering as a Serious Adverse Event		SAC
Chemistry Data					
15.	Safety	LB5	Listing of All Clinical Chemistry Data for Subjects with Abnormalities of Potential Clinical Importance		SAC
16.	Safety	LB5	Listing of Chemistry Abnormalities of Potential Clinical Importance		SAC
Laboratory Data					
17.	Safety	LB5	Listing of All Haematology Data for Subjects with Abnormalities of Potential Clinical Importance		SAC
18.	Safety	LB5	Listing of Haematology Abnormalities of Potential Clinical Importance		SAC
ECG					
19.	Safety	CP_EG3	Listing of All ECG Values for Subjects with a Value of Potential Clinical Importance		SAC
20.	Safety	CP_EG3	Listing of ECG Values of Potential Clinical Importance		SAC

ICH : Listings					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
21.	Safety	CP_EG5	Listing of Abnormal ECG Findings		SAC
Vital Signs					
22.	Safety	CP_VS4	Listing of All Vital Signs for Subjects with Values of Potential Clinical Importance		SAC
23.	Safety	CP_VS4	Listing of Vital Signs Values of Potential Clinical Importance		SAC

10.8.11. Non-ICH Listings

Non-ICH : Listings					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
PK Concentration					
24.	PK	PK07	Listing of Whole Blood Concentration Time Data of 89Zr-GSK3128349		SAC
25.	PK	PK07	Listing of Plasma Concentration Time Data of 89Zr-GSK3128349		SAC
26.	PK	PK07	Listing of Plasma Concentration Time Data of GSK3128349		SAC
27.	PK	PK07	Listing of Urine Concentration Time Data of 89Zr-GSK3128349		SAC
PK Parameters					
28.	PK	PK13	Listing of Derived Pharmacokinetic Parameters for Whole Blood Concentration of 89Zr-GSK3128349		SAC
29.	PK	PK13	Listing of Derived Pharmacokinetic Parameters for Plasma Concentration of 89Zr-GSK3128349		SAC
30.	PK	PK13	Listing of Derived Pharmacokinetic Parameters for Plasma Concentration of GSK3128349		SAC
PET					
31.	PK	PET2	Listing of Peak SUV Data		SAC
32.	PK	PET2	Listing of Mean SUV Data		SAC
33.	PK	PET2	Listing of Max SUV Data		SAC
34.	PK	PET2	Listing of Activity Concentration Mean Data		SAC

Non-ICH : Listings					
No.	**Population**	**IDSL / TST ID / Example Shell**	**Title**	**Programming Notes**	**Deliverable [Priority]**
35.	PK	PET2	Listing of Volume of Regions of Interest		SAC
36.	PK	PET2	Listing of Percent Injected Dose		SAC
37.	PK	PET3	Listing of Organ Doses and Effective Doses		SAC
Immunogenicity					
38.	Safety	IMM2	Listing of Immunogenicity Results		SAC

10.9. Appendix 9: Example Mock Shells for Data Displays

Example PET1
Protocol: RES117169
Population: PK

Table X
Summary of Mean SUV for Each Organ At All Time Points[units]

Organ	N	Planned Relative Time	n	Mean	95% CI of Mean	SD	Median	Min.	Max.
Kidney	24	Pre-dose	24	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
		30m	24	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
		1h	23	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
		2h	24	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
Liver	24	Pre-dose	24	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
		30m	21	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
		1h	21	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx
		2h	21	xxxx.xx	(xxxx.xx, xxxx.xx)	xx.xx	xxxx.x	xxxx	xxxx

Example PET2
Protocol: RES117169
Population: PK

Listing X
Listing of Peak SUV Data

Inv./ Subj.	Visit	Planned Relative Time	Date	Actual Time	Organ	Result (units)

PPD - This section has been excluded to protect patient privacy.

Example PET3
Protocol: RES117169
Population: PK

Listing X

Listing of Organ Doses and Effective Doses

Subj.	Treatment	Age(y)/Sex	Spleen (mSv)	Bone Marrow (mSv)	Liver (mSv)	Lungs (mSv)	Kidney (mSv)	Body (mSv)	First Dose GSK2849330
PPD - This section has been excluded to protect patient privacy.									

Example FIG1
Protocol: RES117169 Page 1 of 1
Population: PK

Individual Subject Single Panel Plot : PET Imaging Parameters over Time

PPD - This section has been excluded to protect patient privacy.

Example FIG2
Protocol: RES117169
Population: PK