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A study in volunteers to look at the safety and tolerability of the new test medicine GUB014295 and how it is taken up by the body when given as a single and multiple dose by injection

Submission date	Recruitment status	[X] Prospectively registered
14/11/2023	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
14/11/2023	Ongoing	[_] Results
Last Edited	**Condition category**	[_] Individual participant data
22/09/2025	Nutritional, Metabolic, Endocrine	[X] Record updated in last year

Plain English summary of protocol

Background and study aims
The Sponsor is developing the test medicine, GUB014295, as a potential treatment for obesity. Around 15% of the world's population are obese. Obesity increases the risk of certain diseases and medical conditions, for example type 2 diabetes, heart disease and fatty liver disease which can decrease life expectancy and quality of life.

Who can participate?
We plan to enrol up to 124 healthy volunteers aged 18-65 years.

What does the study involve?
In this study, we'll give healthy volunteers doses of test medicine, to assess the safety and tolerability by reviewing side effects, and measuring what the body does to the test medicine.

The test medicine hasn't been given to humans before. We'll start with a low dose and test higher doses as the study progresses.

Volunteers in each cohort will receive a dose of test medicine or placebo (dummy medicine), at different dose levels, by injection under the skin.

We'll collect blood and urine samples to:
* complete safety tests.
* measure the amount of test medicine and its breakdown products.
* assess the effect of the test medicine on blood levels of substances linked to processing of sugar in the diet.
* assess the presence of anti-drug antibodies, which can indicate allergic reactions, following the study

What are the possible risks and benefits of participating?
Healthy volunteers will get no medical benefit from the test medicine, however, the aims of the study can be most efficiently met in volunteers with no concurrent medical conditions and who do need to take concomitant medication that might interfere with the study objectives or increase the risk of the study. Volunteers may experience side effects from the test medicine. The test medicine has never been given to humans before so its side effects are unknown. Full information on possible side effects is in the Participant Information Sheet and Informed Consent Form. There is always a risk of unexpected side effects or an allergic reaction. To mitigate the risk, we'll ensure that volunteers meet the entry criteria for the study and monitor volunteers closely throughout the study.

Where is the study run from?
Quotient Sciences Limited (UK)

When is the study starting and for how long is it expected to run for?
September 2023 to January 2026

Who is funding the study?
Gubra A/S (Denmark)

Who is the main contact?
Mads Axelsen, max@gubra.dk

Contact information

Type(s)
Public, Scientific

Contact name
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Type(s)
Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

Integrated Research Application System (IRAS)
1008236

ClinicalTrials.gov (NCT)
NCT06144684

Protocol serial number
GUC17-01

Study information

Scientific Title
A two-part first-in-human study to assess the safety, tolerability, pharmacokinetics and pharmacodynamics of single and multiple ascending subcutaneous doses of GUB014295 in lean to overweight or obese but otherwise healthy men and women

Study objectives
Current study hypothesis as of 28/11/2024:

To assess the safety and tolerability of single (Part 1) and multiple (Part 2) ascending subcutaneous doses of GUB014295 in lean to overweight or obese but otherwise healthy men (Part 1) and men and women (Part 2

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Previous study hypothesis:

To assess the safety and tolerability of single ascending subcutaneous doses of GUB014295 in lean to overweight or obese but otherwise healthy men

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 10/11/2023, HSC REC A (Lissue Industrial Estate West 5 Rathdown Walk, Lisburn, Co. Antrim, BT28 2RF, United Kingdom; +44 28 9536 1400; RECA@hscni.net), ref: 23/NI/0109

Study design
Single centre first-in-human safety and pharmacokinetics randomized controlled trial

Primary study design

Interventional

Study type(s)
Safety

Health condition(s) or problem(s) studied
Controlling obesity

Interventions
Current interventions as of 08/04/2024:

Part 1 is a double-blind (within cohorts), randomised, placebo-controlled, single ascending dose (SAD) study. It is planned to enrol 4 cohorts of 8 subjects (Regimens A, B, C and D), with 2 additional optional cohorts of 8 subjects (Regimens E and F).

Part 2A is a double-blind (within cohorts), randomised, placebo-controlled, multiple ascending dose (MAD) study. It is planned to enrol 2 cohorts of 8 subjects (Regimens G and H).

Part 2B is a double-blind (within cohorts), randomised, placebo-controlled, MAD study. It is planned to enrol 3 cohorts of 12 subjects (Regimens I, J and K).

Part 2C is a double-blind (within cohorts), randomised, placebo-controlled, MAD study. It is planned to enrol 2 cohorts of up to 12 subjects (Regimens L and M), randomised in a ratio of 9 active to 3 placebo per cohort, where possible.

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Previous interventions as of 28/11/2024:

Part 1 is a double-blind (within cohorts), randomised, placebo-controlled, single ascending dose (SAD) study. It is planned to enrol 4 cohorts of 8 subjects (Regimens A, B, C and D), with 2 additional optional cohorts of 8 subjects (Regimens E and F).

Part 2A is a double-blind (within cohorts), randomised, placebo-controlled, multiple ascending dose (MAD) study. It is planned to enrol 2 cohorts of 8 subjects (Regimens G and H). Part 2B is a double-blind (within cohorts), randomised, placebo-controlled, MAD study. It is planned to enrol 3 cohorts of 12 subjects (Regimens I, J and K).

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Previous interventions:

Participants will receive a single dose of 5 mg/mL, GUB014295 Solution for Subcutaneous Injection or placebo on one occasion. Participants will be allocated to receive GUB-14295 or placebo in a 6:2 ratio using a computer generated randomisation schedule.

Intervention Type
Drug

Phase
Phase I

Drug/device/biological/vaccine name(s)
GUB014295

Primary outcome(s)
Updated primary outcome measure as of 09/05/2025:

Safety and tolerability will be measured by assessing: incidence of AEs, physical examinations and change from baseline for vital signs, ECGs, and laboratory safety tests at screening, from baseline (day 0) to end of trial (day 29) part 1, (day 64) part 2A, (day 120) part 2B, and (day 127) in part 2C, and follow-up.

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Previous primary outcome measure as of 28/11/2024:

Safety and tolerability will be measured by assessing: incidence of AEs, physical examinations and change from baseline for vital signs, ECGs, and laboratory safety tests at screening, from baseline (day 0) to end of trial (day 29) part 1, (day 64) part 2A and (day 106) in part 2B, and follow-up.

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Previous primary outcome measure:

Safety and tolerability will be measured by assessing: incidence of AEs, physical examinations and change from baseline for vital signs, ECGs, and laboratory safety tests at screening, Day -1 to Day 5, and at return visits on Days 8, 15, 22 and 29, and follow-up.

Key secondary outcome(s))
Updated secondary outcome measure as of 09/05/2025:
1. Pharmacokinetic parameters measured from blood samples taken from baseline (day 0) to end of trial (day 29) part 1, (day 64) part 2A, (day 120) part 2B, and (day 127) in part 2C, and follow-up.
2. Change in body weight (kg) from screening to the follow-up visit.
3. Changes in blood concentrations of glucose, insulin, C-peptide, glucagon, and paracetamol from samples taken before dosing (day -1) and day 4 part 1, day-1 and day 39 part 2A and day-1 and day 81 part 2B.

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Previous secondary outcome measures as of 28/11/2024:

1. Pharmacokinetic parameters measured from blood samples taken from baseline (day 0) to end of trial (day 29) part 1, (day 64) part 2A and (day 106) in part 2B, and follow-up.
2. Change in body weight (kg) from screening to the follow-up visit.
3. Changes in blood concentrations of glucose, insulin, C-peptide, glucagon, and paracetamol from samples taken before dosing (day -1) and day 4 part 1, day-1 and day 39 part 2A and day-1 and day 81 part 2B.

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Previous secondary outcome measures:

1. Pharmacokinetic parameters measured from blood samples taken from Day -1 to Day 5, and at return visits on Days 8, 15, 22 and 29, and follow-up.
2. Change in body weight (kg) from screening to the follow-up visit.
3. Changes in blood concentrations of glucose, insulin, C-peptide, glucagon, and paracetamol from samples taken on Day -1 and Day 4

Completion date
01/04/2026

Eligibility

Key inclusion criteria
Current inclusion criteria as of 09/05/2025:
1. Males (Part 1 only) aged 18 to 55 years, and males and females (Part 2 only) aged 18 to 65 years inclusive at the time of signing informed consent
2. Must agree to adhere to the contraception requirements
3. Lean to overweight or obese but otherwise healthy males (Part 1 and 2) or nonpregnant, non-lactating females (Part 2 only)
4. BMI of 22.0 to 32.0 kg/m2 for Part 1 and Part 2A, and a BMI of 27.0 to 35.0 kg/m2 for Part 2B and Part 2C, as measured at screening. Overweight or obese as assessed by BMI should be due to excess adipose tissue, as judged by the investigator
5. Weight for males ≥70 kg (all parts), and for females ≥60 kg (Part 2 only) at screening

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Previous inclusion criteria as of 28/11/2024:

1. Males (Part 1 only) aged 18 to 55 years, and males and females (Part 2 only) aged 18 to 65 years inclusive at the time of signing informed consent
2. Must agree to adhere to the contraception requirements
3. Lean to overweight or obese but otherwise healthy males (Part 1 and 2) or nonpregnant, non-lactating females (Part 2 only)
4. BMI of 22.0 to 32.0 kg/m2 for Part 1 and Part 2A, and a BMI of 27.0 to 35.0 kg/m2 for Part 2B, as measured at screening. Overweight or obese as assessed by BMI should be due to excess adipose tissue, as judged by the investigator
5. Weight for males ≥70 kg and ≤110 kg (all parts), and for females ≥60 kg and ≤110 kg (Part 2A and 2B only) at screening

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Previous inclusion criteria:

1. Must provide written informed consent
2. Must be willing and able to communicate and participate in the whole study
3. Males aged 18 to 55 years inclusive at the time of signing informed consent
4. Must agree to adhere to the contraception requirements defined in the clinical protocol
5. Lean to overweight or obese but otherwise healthy males
6. BMI of 22.0 to 32.0 kg/m² as measured at screening. Overweight or obese as assessed by BMI should be due to excess adipose tissue, as judged by the investigator
7. Weight ≥70 kg at screening

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Upper age limit
65 years

Sex
All

Key exclusion criteria
Current exclusion criteria as of 09/05/2025:
1. Serious adverse reaction or serious hypersensitivity to any drug or formulation excipients
2. Presence or history of clinically significant allergy requiring treatment, as judged by the investigator. Hay fever is allowed unless it is active
3. Known or suspected hypersensitivity or allergy to paracetamol
4. Presence or history of clinically significant cardiovascular, renal, hepatic, dermatological, respiratory, neurological, psychiatric, malignant, metabolic, endocrinological, haematological or venereal disorder, as judged by the investigator
5. Presence or history of any clinically relevant gastrointestinal diseases or symptoms of gastrointestinal disorders potentially affecting interpretation of study data
6. Presence or history of diseases associated with impaired calcium homeostasis and/or increased bone turnover (e.g. Paget´s disease, osteoporosis)
7. History of major depressive disorder within 2 years prior to screening
8. Part 2B only: Subjects with haemoglobin <LLN at screening and/or admission
9. Subjects unable to take paracetamol for any reason
10. Subjects who do not have suitable veins for multiple venepunctures/cannulation as assessed by the investigator or delegate at screening
11. Subjects with tattoos or scars on the abdomen which may interfere with injection site assessments as determined by the investigator or delegate at screening
12. Clinically significant abnormal clinical chemistry, haematology, coagulation or urinalysis as judged by the investigator. Subjects with Gilbert's Syndrome are not allowed.
13. HbA1c ≥48 mmol/mol (≥6.5%) and/or fasting plasma glucose ≥7.0 mmol/L at screening
14. Prolongation of the QTcF over 450 msec for males and 470 msec for females or any other clinically significant abnormal ECG results as judged by the investigator
15. Supine blood pressure (after ≥5 min rest) <90 mmHg or >150 mmHg (systolic) and/or <50 mmHg or >90 mmHg (diastolic)
16. Heart rate (ECG-recorded after ≥5 min rest) <45 or >90 beats per minute
17. Positive hepatitis B surface antigen (HBsAg), hepatitis C virus antibody (HCV Ab) or human immunodeficiency virus (HIV) 1 and 2 antibody results
18. Evidence of renal impairment at screening, as indicated by an estimated GFR of <70 mL/min /1.73m² using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI; 2009) equation
19. Subjects who have received any IMP in a clinical research study within the 90 days prior to

Day 1, or less than 5 elimination half-lives prior to Day 1, whichever is longer
20. Subjects who have previously been administered IMP in this study
21. Donation of blood or plasma within the previous 3 months or loss of greater than 400 mL of blood
22. Subjects who are taking, or have taken, any prescribed or over-the-counter drug or herbal remedies/vitamins in the 14 days before IMP administration
23. Subject reports prior receipt of an amylin and/or calcitonin receptor agonist within the last 6 months
24. History of any drug or alcohol abuse in the past 2 years
25. Regular alcohol consumption >21 units per week and in females >14units per week
26. A confirmed positive alcohol breath test at screening or admission
27. Current smokers and those who have smoked within the last 12 months
28. Current users of e-cigarettes and nicotine replacement products and those who have used these products within the last 12 months
29. A confirmed breath carbon monoxide reading of greater than 10 ppm at screening or admission
30. Confirmed positive drugs of abuse test result at screening or admission
31. Anticipated change in lifestyle (such as eating, exercise or sleeping pattern) during the trial and/or clinically significant body weight change (≥5% self-reported change) or comprehensive dieting attempts (e.g. participation in a weight reduction program or treatment with any medication indicated for weight management) within the last 90 days prior to screening
32. Subjects who do not agree to consume the liquid mixed meal
33. Male subjects with pregnant or lactating partners
34. Any disorder, unwillingness or inability, not covered by any of the other exclusion criteria, that the investigator evaluates might jeopardise the subject's safety or compliance with the protocol

35. Part 2 only: Females who are pregnant or lactating (all female subjects must have a negative highly sensitive urine or serum pregnancy test)
36. Paracetamol (up to 4 g per day) will be permitted except in the 48 h prior to the mixed meal tests on Day -1 and Day 4 (Part 1 Cohorts 2 to 6), Day 39 (Part 2A) and Day 81 (Part 2B) where paracetamol is not permitted
37. NSAIDs can be given at the discretion of the investigator to treat any AEs if necessary

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Previous exclusion criteria as of 28/11/2024:

1. Serious adverse reaction or serious hypersensitivity to any drug or formulation excipients
2. Presence or history of clinically significant allergy requiring treatment, as judged by the investigator. Hay fever is allowed unless it is active
3. Known or suspected hypersensitivity or allergy to paracetamol
4. Presence or history of clinically significant cardiovascular, renal, hepatic, dermatological, respiratory, neurological, psychiatric, malignant, metabolic, endocrinological, haematological or venereal disorder, as judged by the investigator
5. Presence or history of any clinically relevant gastrointestinal diseases or symptoms of gastrointestinal disorders potentially affecting interpretation of study data
6. Presence or history of diseases associated with impaired calcium homeostasis and/or increased bone turnover (e.g. Paget´s disease, osteoporosis)
7. History of major depressive disorder within 2 years prior to screening
8. Part 2B only: Subjects with haemoglobin <LLN at screening and/or admission
9. Subjects unable to take paracetamol for any reason

10. Subjects who do not have suitable veins for multiple venepunctures/cannulation as assessed by the investigator or delegate at screening
11. Subjects with tattoos or scars on the abdomen which may interfere with injection site assessments as determined by the investigator or delegate at screening
12. Clinically significant abnormal clinical chemistry, haematology, coagulation or urinalysis as judged by the investigator. Subjects with Gilbert's Syndrome are not allowed.
13. HbA1c ≥48 mmol/mol (≥6.5%) and/or fasting plasma glucose ≥7.0 mmol/L at screening
14. Prolongation of the QTcF over 450 msec for males and 470 msec for females or any other clinically significant abnormal ECG results as judged by the investigator
15. Supine blood pressure (after ≥5 min rest) <90 mmHg or >150 mmHg (systolic) and/or <50 mmHg or >90 mmHg (diastolic)
16. Heart rate (ECG-recorded after ≥5 min rest) <45 or >90 beats per minute
17. Positive hepatitis B surface antigen (HBsAg), hepatitis C virus antibody (HCV Ab) or human immunodeficiency virus (HIV) 1 and 2 antibody results
18. Evidence of renal impairment at screening, as indicated by an estimated GFR of <70 mL/min /1.73m² using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI; 2009) equation
19. Subjects who have received any IMP in a clinical research study within the 90 days prior to Day 1, or less than 5 elimination half-lives prior to Day 1, whichever is longer
20. Subjects who have previously been administered IMP in this study
21. Donation of blood or plasma within the previous 3 months or loss of greater than 400 mL of blood
22. Subjects who are taking, or have taken, any prescribed or over-the-counter drug or herbal remedies/vitamins in the 14 days before IMP administration
23. Subject reports prior receipt of an amylin and/or calcitonin receptor agonist within the last 6 months
24. History of any drug or alcohol abuse in the past 2 years
25. Regular alcohol consumption >21 units per week
26. A confirmed positive alcohol breath test at screening or admission
27. Current smokers and those who have smoked within the last 12 months
28. Current users of e-cigarettes and nicotine replacement products and those who have used these products within the last 12 months
29. A confirmed breath carbon monoxide reading of greater than 10 ppm at screening or admission
30. Confirmed positive drugs of abuse test result at screening or admission
31. Anticipated change in lifestyle (such as eating, exercise or sleeping pattern) during the trial and/or clinically significant body weight change (≥5% self-reported change) or comprehensive dieting attempts (e.g. participation in a weight reduction program or treatment with any medication indicated for weight management) within the last 90 days prior to screening
32. Subjects who do not agree to consume the liquid mixed meal
33. Male subjects with pregnant or lactating partners
34. Any disorder, unwillingness or inability, not covered by any of the other exclusion criteria, that the investigator evaluates might jeopardise the subject's safety or compliance with the protocol

35. Part 2A and 2B only: Females who are pregnant or lactating (all female subjects must have a negative highly sensitive urine or serum pregnancy test)
36. Paracetamol (up to 4 g per day) will be permitted except in the 48 h prior to the mixed meal tests on Day -1 and Day 4 (Part 1 Cohorts 2 to 6), Day 39 (Part 2A) and Day 81 (Part 2B) where paracetamol is not permitted
37. NSAIDs can be given at the discretion of the investigator to treat any AEs if necessary

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Previous exclusion criteria:

1. Serious adverse reaction or serious hypersensitivity to any drug or formulation excipients
2. Presence or history of clinically significant allergy requiring treatment, as judged by the investigator. Hay fever is allowed unless it is active
3. Known or suspected hypersensitivity or allergy to paracetamol
4. Presence or history of clinically significant cardiovascular, renal, hepatic, dermatological, respiratory, neurological, psychiatric, malignant, metabolic, endocrinological, haematological or venereal disorder, as judged by the investigator
5. Presence or history of any clinically relevant gastrointestinal diseases or symptoms of gastrointestinal disorders potentially affecting interpretation of study data, e.g. by affecting absorption of nutrients or drugs, as judged by the investigator
6. Presence or history of diseases associated with impaired calcium homeostasis and/or increased bone turnover (e.g. Paget´s disease, osteoporosis)
7. History of major depressive disorder within 2 years prior to screening or history of other severe psychiatric disorders (e.g. schizophrenia or bipolar disorder) or suicidal attempt
8. Subjects unable to take NSAIDs for any reason
9. Subjects unable to take paracetamol for any reason
10. Subjects who do not have suitable veins for multiple venepunctures/cannulation as assessed by the investigator or delegate at screening
11. Subjects with tattoos or scars on the abdomen which may interfere with injection site assessments as determined by the investigator or delegate at screening
12. Clinically significant abnormal clinical chemistry, haematology, coagulation or urinalysis as judged by the investigator. Subjects with Gilbert's Syndrome are not allowed.
13. HbA1c ≥48 mmol/mol (≥6.5%) and/or fasting plasma glucose ≥7.0 mmol/L at screening
14. Prolongation of the QTcF over 450 msec or any other clinically significant abnormal ECG results as judged by the investigator
15. Supine blood pressure (after ≥5 min rest) <90 mmHg or >150 mmHg (systolic) and/or <50 mmHg or >90 mmHg (diastolic)
16. Heart rate (ECG-recorded after ≥5 min rest) <45 or >90 beats per minute
17. Positive hepatitis B surface antigen (HBsAg), hepatitis C virus antibody (HCV Ab) or human immunodeficiency virus (HIV) 1 and 2 antibody results
18. Evidence of renal impairment at screening, as indicated by an estimated GFR of <80 mL/min /1.73m² using the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI; 2009) equation
19. Subjects who have received any IMP in a clinical research study within the 90 days prior to Day 1, or less than 5 elimination half-lives prior to Day 1, whichever is longer
20. Subjects who have previously been administered IMP in this study
21. Donation of blood or plasma within the previous 3 months or loss of greater than 400 mL of blood
22. Subjects who are taking, or have taken, any prescribed or over-the-counter drug or herbal remedies/vitamins in the 14 days
before IMP administration. Paracetamol will be permitted until 48 h prior to Day -1 except 48 h prior to the mixed meal tests on Day -1 and Day 4 (Cohorts 2 to 6) where paracetamol is not permitted. NSAIDs can be given at the discretion of the investigator to treat any AEs if necessary (up to 4 g per day). Exceptions may apply, as determined by the investigator, if each of the following criteria are met: medication with a short half-life if the washout is such that no PD activity is expected by the time of dosing with IMP; and if the use of medication does not jeopardise the safety of the trial subject; and if the use of medication is not considered to interfere with the objectives of the study
23. Subject reports prior receipt of an amylin and/or calcitonin receptor agonist within the last 6 months

24. History of any drug or alcohol abuse in the past 2 years
25. Regular alcohol consumption >21 units per week (1 unit = ½ pint beer, or a 25 mL shot of 40% spirit, 1.5 to 2 units = 125 mL glass of wine, depending on type)
26. A confirmed positive alcohol breath test at screening or admission
27. Current smokers and those who have smoked within the last 12 months
28. Current users of e-cigarettes and nicotine replacement products and those who have used these products within the last 12 months
29. A confirmed breath carbon monoxide reading of greater than 10 ppm at screening or admission
30. Confirmed positive drugs of abuse test result at screening or admission
31. Anticipated change in lifestyle (such as eating, exercise or sleeping pattern) during the trial and/or clinically significant body weight change (≥5% self-reported change) or comprehensive dieting attempts (e.g. participation in a weight reduction program or treatment with any medication indicated for weight management) within the last 90 days prior to screening
32. Subjects who do not agree to consume the liquid mixed meal
33. Male subjects with pregnant or lactating partners
34. Subjects who are, or are immediate family members of, a study site or sponsor employee
35. Any disorder, unwillingness or inability, not covered by any of the other exclusion criteria, that the investigator evaluates might jeopardise the subject's safety or compliance with the protocol

Date of first enrolment
15/11/2023

Date of final enrolment
31/01/2026

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Quotient Sciences Limited
Mere Way, Ruddington
Nottingham
United Kingdom
NG11 6JS

Sponsor information

Organisation
Quotient Clinical (United Kingdom)

ROR
https://ror.org/03hjfdx24

Funder(s)

Funder type
Industry

Funder Name
Gubra A/S

Results and Publications

Individual participant data (IPD) sharing plan
The data-sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes