



Clinical trial results:

A randomized, double-blind, placebo-controlled, Phase III trial to evaluate the efficacy and safety of a single intra-articular injection of RTX-GRT7039 in adult subjects with pain associated with osteoarthritis of the knee.

Summary

EudraCT number	2021-005020-38
Trial protocol	ES DK PT BG
Global end of trial date	15 August 2024

Results information

Result version number	v1 (current)
This version publication date	27 June 2025
First version publication date	27 June 2025

Trial information

Trial identification

Sponsor protocol code	KF7039-02
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05449132
WHO universal trial number (UTN)	U1111-1268-7267

Notes:

Sponsors

Sponsor organisation name	Grünenthal GmbH
Sponsor organisation address	Zieglerstr. 6, Aachen, Germany, 52099
Public contact	Grünenthal Trial Information Desk, Grünenthal GmbH, Clinical-Trials@grunenthal.com
Scientific contact	Grünenthal Trial Information Desk, Grünenthal GmbH, Clinical-Trials@grunenthal.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	15 August 2024
Is this the analysis of the primary completion data?	Yes
Primary completion date	15 August 2024
Global end of trial reached?	Yes
Global end of trial date	15 August 2024
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

Demonstrate the analgesic efficacy of a single intra-articular Injection of intra-articular RTX-GRT7039 compared with placebo.

Protection of trial subjects:

The trial was conducted according to Good Clinical Practice guidelines, the ethical principles that have their origin in the Declaration of Helsinki, and the applicable local laws and regulations. The applicable regulatory authorities approved the trial as required by national regulations, and the trial activities were only started when approval from the relevant independent ethics committee was available.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	26 August 2022
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	United Kingdom: 60
Country: Number of subjects enrolled	United States: 306
Country: Number of subjects enrolled	Spain: 91
Country: Number of subjects enrolled	Denmark: 9
Worldwide total number of subjects	466
EEA total number of subjects	100

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	207

From 65 to 84 years	257
85 years and over	2

Subject disposition

Recruitment

Recruitment details:

This study was conducted in 4 countries (including Denmark, Spain, United Kingdom, and United States) between 26 Aug 2022 (first-subject-in) and 15 August 2024 (last-subject-out).

Pre-assignment

Screening details:

A total of 1302 subjects were screened in the study, of which 466 subjects were randomized and treated. Results reporting groups (Full Analysis Set and Safety Analysis Set) correspond to all subjects that received investigational medicinal product (IMP)

Period 1

Period 1 title	Overall study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor

Arms

Are arms mutually exclusive?	Yes
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Arm title	RTX-GRT7039
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Arm description:

Intra-articular RTX-GRT7039 400 ng injection. Full Analysis Set: 231 RTX-GRT7039; Safety Analysis Set: 231 RTX-GRT7039.

Arm type	Experimental
Investigational medicinal product name	RTX-GRT7039
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Injection

Dosage and administration details:

Fifteen minutes following intra-articular injection of 5 mL ropivacaine 0.5% as local anesthetic, 5 mL (400 ng) RTX-GRT7039 were injected into the joint of the index knee.

Arm title	Placebo
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Arm description:

Intra-articular injection of matching placebo. Full Analysis Set: 235 placebo; Safety Analysis Set: 235 placebo.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Injection

Dosage and administration details:

Fifteen minutes following intra articular injection of 5 mL ropivacaine 0.5% as local anesthetic, 5 mL of matching placebo were injected into the joint of the index knee.

Number of subjects in period 1	RTX-GRT7039	Placebo
Started	231	235
Completed	207	200
Not completed	24	35
Consent withdrawn by subject	7	13
Physician decision	1	2
Adverse event, non-fatal	2	6
Not specified	1	3
Lost to follow-up	9	7
Lack of efficacy	4	4

Baseline characteristics

Reporting groups

Reporting group title	Overall study (overall period)
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Reporting group description: -

Reporting group values	Overall study (overall period)	Total	
Number of subjects	466	466	
Age categorical Units: Subjects			
18 - 35	0	0	
36 - 64	207	207	
≥65	259	259	
Gender categorical Units: Subjects			
Female	307	307	
Male	159	159	

End points

End points reporting groups

Reporting group title	RTX-GRT7039
Reporting group description: Intra-articular RTX-GRT7039 400 ng injection. Full Analysis Set: 231 RTX-GRT7039; Safety Analysis Set: 231 RTX-GRT7039.	
Reporting group title	Placebo
Reporting group description: Intra-articular injection of matching placebo. Full Analysis Set: 235 placebo; Safety Analysis Set: 235 placebo.	

Primary: LS-mean (standard error [SE]) change from baseline in WOMAC pain subscale score at Week 12

End point title	LS-mean (standard error [SE]) change from baseline in WOMAC pain subscale score at Week 12
End point description: Difference in mean change from baseline in Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain subscale score at Week 12 in the index knee using an 11-point (0-10) numeric rating scale (NRS) between RTX-GRT7039 and placebo.	
End point type	Primary
End point timeframe: At Week 12	

End point values	RTX-GRT7039	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	231	235		
Units: LS-mean change				
least squares mean (standard error)	-3.25 ($\pm$ 0.16)	-2.99 ($\pm$ 0.17)		

Statistical analyses

Statistical analysis title	Mixed model repeated measures (MMRM) analysis
Comparison groups	RTX-GRT7039 v Placebo
Number of subjects included in analysis	466
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.25
Method	MMRM

Secondary: LS-mean (SE) change from baseline in WOMAC pain subscale score at Week 26

End point title	LS-mean (SE) change from baseline in WOMAC pain subscale score at Week 26
End point description: Difference in mean change from baseline in WOMAC pain subscale score at Week 26 in the index knee using an 11-point (0-10) numeric rating scale (NRS) between RTX-GRT7039 and placebo.	
End point type	Secondary
End point timeframe: At Week 26	

End point values	RTX-GRT7039	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	231	235		
Units: LS-mean change				
least squares mean (standard error)				
Week 26	-3.27 (± 0.17)	-2.82 (± 0.17)		

Statistical analyses

No statistical analyses for this end point

Secondary: LS-mean change from baseline in WOMAC physical function subscale score at Week 12 and Week 26

End point title	LS-mean change from baseline in WOMAC physical function subscale score at Week 12 and Week 26
End point description: Difference in mean change from baseline in WOMAC physical function subscale score at Week 12 and at Week 26 in the index knee using an 11-point (0-10) numeric rating scale (NRS) between RTX-GRT7039 and placebo	
End point type	Secondary
End point timeframe: at Week 12, Week 26	

End point values	RTX-GRT7039	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	231	235		
Units: LS mean change				
least squares mean (standard error)				
Week 12	-3.17 (± 0.16)	-2.86 (± 0.16)		
Week 26	-3.16 (± 0.16)	-2.65 (± 0.16)		

Statistical analyses

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse events were documented from the time of enrollment (i.e., the time the informed consent form is signed) up to the time of the last protocol scheduled contact.

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	27.0
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Reporting groups

Reporting group title	RTX-GRT7039
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Reporting group description:

Intra-articular RTX-GRT7039 400 ng injection. Full Analysis Set: 231 RTX-GRT7039; Safety Analysis Set: 231 RTX-GRT7039.

Reporting group title	Placebo
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Reporting group description:

Intra-articular injection of matching placebo. Full Analysis Set: 235 placebo; Safety Analysis Set: 235 placebo.

Serious adverse events	RTX-GRT7039	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	11 / 231 (4.76%)	15 / 235 (6.38%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Clear cell renal cell carcinoma			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Injury, poisoning and procedural complications			
Joint injury			
subjects affected / exposed	1 / 231 (0.43%)	0 / 235 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Vascular disorders			
Aortic aneurysm			

subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Deep vein thrombosis			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Acute coronary syndrome			
subjects affected / exposed	1 / 231 (0.43%)	0 / 235 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Acute myocardial infarction			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Aortic valve stenosis			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Atrioventricular block			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Amyotrophic lateral sclerosis			
subjects affected / exposed	1 / 231 (0.43%)	0 / 235 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cerebral ischaemia			
subjects affected / exposed	1 / 231 (0.43%)	0 / 235 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cerebrovascular accident			

subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 231 (0.43%)	0 / 235 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hepatobiliary disorders			
Portal vein thrombosis			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal and connective tissue disorders			
Osteoarthritis			
subjects affected / exposed	5 / 231 (2.16%)	7 / 235 (2.98%)	
occurrences causally related to treatment / all	0 / 5	0 / 10	
deaths causally related to treatment / all	0 / 0	0 / 0	
Arthralgia			
subjects affected / exposed	0 / 231 (0.00%)	2 / 235 (0.85%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Osteonecrosis			
subjects affected / exposed	1 / 231 (0.43%)	0 / 235 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Liver abscess			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Sepsis			

subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urinary tract infection			
subjects affected / exposed	0 / 231 (0.00%)	1 / 235 (0.43%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	RTX-GRT7039	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	41 / 231 (17.75%)	35 / 235 (14.89%)	
Injury, poisoning and procedural complications			
Procedural pain			
subjects affected / exposed	28 / 231 (12.12%)	13 / 235 (5.53%)	
occurrences (all)	29	14	
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	13 / 231 (5.63%)	22 / 235 (9.36%)	
occurrences (all)	14	28	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
14 September 2022	This global amendment incorporates changes that have been implemented as requested by the health authorities during their review of the clinical trial application, including update on IMP administration, exclusion criteria, concomitant treatments, imputation methods, adjustment trial discontinuation criteria, storage conditions, documentation requirements, contraception method definitions, and editorial adjustments.
01 December 2022	This amendment incorporates changes that have been implemented in order to enhance trial feasibility and recruitment, including correction and clarifications on safety endpoint, eligibility criteria, X-ray procedures, clarifications to the reporting of procedural pain as AE, addition of re-screening procedures, addition of definition for important medical events, updates to durability of effect analysis, and editorial changes.
01 February 2023	This amendment incorporates an update on the qualification of the person administering IMP.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

The study failed to meet its primary endpoint and is not intended to contribute to the evaluation of product effectiveness.

Notes: