Clinical trial results:
A Phase IIa, Open-Label, 2-Arm Multicenter Clinical Study to Evaluate the Efficacy, Safety and PK/PD of the human Anti-CD38 Antibody MOR202 in Anti-PLA2R Antibody Positive Membranous Nephropathy (NewPLACE)

Summary

EudraCT number	2020-002985-15
Trial protocol	GB DE GR
Global end of trial date	14 December 2023

Results information

Result version number	v1
This version publication date	26 December 2024
First version publication date	26 December 2024

Trial information

Trial identification

Sponsor protocol code	MOR202C205

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04733040
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	HI-Bio, A Biogen Company
Sponsor organisation address	6000 Shoreline Ct. Suite 304, South San Francisco, United States, 94080
Public contact	Global Program Medical Director, HI-Bio, A Biogen Company, +1 1-408-548-7261, clinicaltrialdisclosure@hibio.com
Scientific contact	Global Program Medical Director, HI-Bio, A Biogen Company, +1 1-408-548-7261, clinicaltrialdisclosure@hibio.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	14 December 2023
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	14 December 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective of this study was to assess the effectiveness of 2 different dosing regimens of MOR202 in adults with anti phospholipase A2 receptor antibodies (anti-PLA2R) antibody positive membranous nephropathy (aMN).

Protection of trial subjects:

This trial was designed and implemented, executed and reported in accordance with the ICH Harmonized Tripartite Guidelines for Good Clinical Practice (ICH-GCP), with applicable local regulations and with the ethical principles laid down in the Declaration of Helsinki.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	26 January 2021
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	Korea, Republic of: 4
Country: Number of subjects enrolled	Russian Federation: 3
Country: Number of subjects enrolled	United Kingdom: 1
Country: Number of subjects enrolled	Georgia: 7
Country: Number of subjects enrolled	Greece: 6
Country: Number of subjects enrolled	Germany: 3
Worldwide total number of subjects	24
EEA total number of subjects	9

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)	20
From 65 to 84 years	4
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Participants were screened for a period of 6 weeks before study start.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	MOR202 - 5 Doses

Arm description:

Participants received 5 doses of MOR202 on Days 1, 8, 15, 29, and 57.

Arm type	Experimental
Investigational medicinal product name	MOR202
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Infusion
Routes of administration	Intravenous use

Dosage and administration details:

Participants received MOR202 via an intravenous (IV) infusion based on their body weight.

Arm title	MOR202 - 2 Doses

Arm description:

Participants received 2 doses of MOR202 on Days 1 and 15.

Arm type	Experimental
Investigational medicinal product name	MOR202
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Infusion
Routes of administration	Intravenous use

Dosage and administration details:

Participants received MOR202 via an IV infusion based on their body weight

Number of subjects in period 1	MOR202 - 5 Doses	MOR202 - 2 Doses
Started	11	13
Received At Least 1 Dose of Study Drug	11	13
Completed	9	11
Not completed	2	2
Consent withdrawn by subject	2	2

Baseline characteristics

Reporting groups	
Reporting group title	MOR202 - 5 Doses
Reporting group description:	
Participants received 5 doses of MOR202 on Days 1, 8, 15, 29, and 57.	
Reporting group title	MOR202 - 2 Doses
Reporting group description:	
Participants received 2 doses of MOR202 on Days 1 and 15.	

Reporting group values	MOR202 - 5 Doses	MOR202 - 2 Doses	Total
Number of subjects	11	13	24
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	54.8	53.5	
standard deviation	± 12.94	± 9.01	-
Gender categorical Units: Subjects			
Female	1	3	4
Male	10	10	20
Race Units: Subjects			
White	8	12	20
Asian	3	1	4
Ethnicity Units: Subjects			
Hispanic or Latino	1	0	1
Not Hispanic or Latino	10	13	23

End points

End points reporting groups

Reporting group title	MOR202 - 5 Doses
Reporting group description:	
Participants received 5 doses of MOR202 on Days 1, 8, 15, 29, and 57.	
Reporting group title	MOR202 - 2 Doses
Reporting group description:	
Participants received 2 doses of MOR202 on Days 1 and 15.	

Primary: Percent Change From Baseline in Anti-PLA2R Antibody Levels

End point title	Percent Change From Baseline in Anti-PLA2R Antibody Levels[1]
End point description:	
Per-Protocol Set (PPS) included all randomized participants who did not have any protocol deviation which could impact the efficacy outcome.	
End point type	Primary
End point timeframe:	
Baseline, Month 3	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical analyses were planned for this end point

End point values	MOR202 - 5 Doses	MOR202 - 2 Doses		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	2	6		
Units: percent change				
arithmetic mean (standard deviation)	-53.21 (± 54.466)	9.28 (± 56.041)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants With Immunological Complete Response (ICR)

End point title	Percentage of Participants With Immunological Complete Response (ICR)
End point description:	
ICR was defined as the reduction of anti-PLA2R antibody titers to less than 14.0 relative unit/milliliter (RU/mL). Full Analysis Set (FAS) included all participants who were randomized into the study. Here, 'Number of subjects analyzed' = participants evaluable for this endpoint. 'n' = participants evaluable at the specified time point.	
End point type	Secondary

End point timeframe:
Months 3, 6, 12 and 24

End point values	MOR202 - 5 Doses	MOR202 - 2 Doses		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	10	13		
Units: Percentage of participants				
number (confidence interval 95%)				
Month 3 (n = 10, 13)	10 (0.3 to 44.5)	0 (0.0 to 24.7)		
Month 6 (n = 9, 11)	0 (0.0 to 33.6)	9.1 (0.1 to 41.3)		
Month 12 (n = 9, 11)	0 (0.0 to 33.6)	9.1 (0.1 to 42.3)		
Month 24 (n = 9, 13)	0 (0.0 to 33.6)	23.1 (5.0 to 53.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants With Overall Proteinuria Response (OPR)

End point title	Percentage of Participants With Overall Proteinuria Response (OPR)

End point description:

OPR was defined as the sum of participants with Proteinuria complete response (Prot-CR): reduction of proteinuria to less than 0.5 grams (g)/g, serum albumin within the reference range of the central laboratory and stable estimated glomerular filtration rate (eGFR) + Proteinuria partial response (Prot-PR): reduction by at least 50% of Urine protein to creatinine ratio (UPCR) at a given visit compared to baseline, proteinuria below 3.0 g/g and stable eGFR , but not meeting Prot-CR.

FAS included all participants who were randomized into the study.

Here, 'Number of subjects analyzed' = participants evaluable for this endpoint. 'n' = participants evaluable at the specified time point.

End point type	Secondary

End point timeframe:
Months 6, 12 and 24

End point values	MOR202 - 5 Doses	MOR202 - 2 Doses		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	9	11		
Units: Percentage of participants				
number (confidence interval 95%)				
Month 6 (n = 9, 11)	0 (0.0 to 33.6)	0 (0.0 to 28.5)		
Month 12 (n = 9, 11)	0 (0.0 to 33.6)	0 (0.0 to 28.5)		

Month 24 (n = 8, 10)	0 (0.0 to 33.6)	40 (12.2 to 73.8)		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants With Treatment Emergent Adverse Events (TEAEs)

End point title	Number of Participants With Treatment Emergent Adverse Events (TEAEs)

End point description:

An Adverse Event (AE) was any untoward medical occurrence associated with the use of a drug in humans, whether or not considered drug related. A Serious Adverse Event (SAE) was an AE that met at least 1 of the following criteria: resulted in death, was life-threatening, required inpatient hospitalization or prolongation of existing hospitalization for the AE, persistent or significant disability/incapacity or substantial disruption of the ability to conduct normal life functions, congenital anomaly/birth defect (in the child of a participant who was exposed to the study drug), important medical event or reaction. A summary of all SAEs and Other Adverse Events (nonserious) regardless of causality is located in the 'Reported Adverse Events' Section. Safety Analysis Set included all randomized participants who received at least 1 dose of study drug.

End point type	Secondary

End point timeframe:

First dose of study drug up to 48 months

End point values	MOR202 - 5 Doses	MOR202 - 2 Doses		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	13		
Units: Participants	9	9		

Statistical analyses

No statistical analyses for this end point

Secondary: Maximum Observed Plasma Concentration (Cmax)

End point title	Maximum Observed Plasma Concentration (Cmax)

End point description:

Pharmacokinetic (PK) Analysis Set included all participants with any available quantifiable MOR202 serum concentration data.

Here, 'n' = participants evaluable at the specified time point.

End point type	Secondary

End point timeframe:

Pre-dose, 30 minutes post-dose on Days 1 and 15

End point values	MOR202 - 5 Doses	MOR202 - 2 Doses		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	13		
Units: nanogram(s)/mL				
arithmetic mean (standard deviation)				
Day 1 Pre-Dose (n = 11, 13)	0.0 (± 0.00)	16.9 (± 61.02)		
Day 1 30 Minutes Post-Dose (n = 11, 13)	422454.5 (± 154966.68)	434384.6 (± 149604.78)		
Day 15 Pre-Dose (n = 8, 13)	205975.0 (± 96879.33)	64307.7 (± 41671.14)		
Day 15 30 Minutes Post-Dose (n = 8, 12)	556625.0 (± 158399.98)	474416.7 (± 183682.76)		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants With Anti-Drug Antibodies (ADA)

End point title	Number of Participants With Anti-Drug Antibodies (ADA)

End point description:

Immunogenicity Analysis Set included all participants with at least one MOR202 ADA sample.

Here, 'Number of subjects analyzed' = participants evaluable for this endpoint. 'n' = participants evaluable at the specified time point.

End point type	Secondary

End point timeframe:

First dose of study drug up to 24 months

End point values	MOR202 - 5 Doses	MOR202 - 2 Doses		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	13		
Units: participants	2	8		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
First dose of study drug up to 48 months	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	23.1

Reporting groups	
Reporting group title	MOR202 - 5 Doses
Reporting group description:	
Participants received 5 doses of MOR202 on Days 1, 8, 15, 29 and 57.	
Reporting group title	MOR202 - 2 Doses
Reporting group description:	
Participants received 2 doses of MOR202 on Days 1 and 15.	

Serious adverse events	MOR202 - 5 Doses	MOR202 - 2 Doses	
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 11 (27.27%)	0 / 13 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Renal and urinary disorders			
Chronic kidney disease			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (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			
Diverticulitis			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Epiglottitis			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	MOR202 - 5 Doses	MOR202 - 2 Doses	
Total subjects affected by non-serious adverse events subjects affected / exposed	6 / 11 (54.55%)	9 / 13 (69.23%)	
Vascular disorders Hypertension subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
General disorders and administration site conditions Fatigue subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
Oedema peripheral subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1	0 / 13 (0.00%) 0	
Sensation of foreign body subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
Immune system disorders Anaphylactic reaction subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1	0 / 13 (0.00%) 0	
Respiratory, thoracic and mediastinal disorders Cough subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
Investigations Blood creatinine increased subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
Blood immunoglobulin G increased subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
Vitamin D decreased subjects affected / exposed occurrences (all)	0 / 11 (0.00%) 0	1 / 13 (7.69%) 1	
Injury, poisoning and procedural complications			

Infusion related reaction			
subjects affected / exposed	1 / 11 (9.09%)	4 / 13 (30.77%)	
occurrences (all)	1	4	
Procedural nausea			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	
Procedural vomiting			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	
Nervous system disorders			
Headache			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	
Eosinophilia			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (0.00%)	
occurrences (all)	1	0	
Eye disorders			
Retinopathy proliferative			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (0.00%)	
occurrences (all)	1	0	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 11 (0.00%)	2 / 13 (15.38%)	
occurrences (all)	0	3	
Renal and urinary disorders			
Nephrotic syndrome			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	
Renal impairment			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	
Infections and infestations			

COVID-19			
subjects affected / exposed	1 / 11 (9.09%)	1 / 13 (7.69%)	
occurrences (all)	1	1	
Herpes zoster			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (0.00%)	
occurrences (all)	1	0	
Upper respiratory tract infection			
subjects affected / exposed	1 / 11 (9.09%)	0 / 13 (0.00%)	
occurrences (all)	1	0	
Metabolism and nutrition disorders			
Hyperglycaemia			
subjects affected / exposed	0 / 11 (0.00%)	1 / 13 (7.69%)	
occurrences (all)	0	1	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
25 October 2021	The purpose of this amendment is to obtain further safety information on infusion related reaction (IRRs) in all felzartamab treated participants by lengthening the observational period after the first three infusions to two hours. Utilization of Histamine-Type 2 receptor antagonist shall be added globally as premedication for all participants.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported