Clinical trial results:
A 10-day prospective, single-center, double-blind, placebo-controlled, randomized study to evaluate safety, tolerability and pharmacokinetics of 600 mg b.i.d. oral doses of LM11A-31-BHS in healthy elderly volunteers

Summary

EudraCT number	2018-001071-20
Trial protocol	ES
Global end of trial date	21 March 2019

Results information

Result version number	v1 (current)
This version publication date	07 July 2021
First version publication date	07 July 2021

Trial information

Trial identification

Sponsor protocol code	NSC18001

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	PharmatrophiX Inc.
Sponsor organisation address	1015 Monte Rosa Drive, Menlo Park, CA, United States, 94025
Public contact	CRO, NeuroScios GmbH, 0043 31324044412, nhelmberg@neuroscios.com
Scientific contact	Frank Longo, MD, PhD, PharmatrophiX Inc., 001 6507243172, frank@pharmatrophix.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	26 August 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	21 March 2019
Global end of trial reached?	Yes
Global end of trial date	21 March 2019
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To investigate the safety and tolerability of 600 mg b.i.d. of LM11A-31-BHS (free base) administered orally to healthy elderly volunteers for a period of 10 days in comparison to placebo.

Protection of trial subjects:

Trial specific stopping rules were set to protect the trial subjects. Dosing would have been stopped for all subjects and the trial terminated if any of the stopping rules had occured.

Background therapy: -	
Evidence for comparator: -	
Actual start date of recruitment	22 January 2019
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	Spain: 10
Worldwide total number of subjects	10
EEA total number of subjects	10

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)	5
From 65 to 84 years	5
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Recruitment took place between January 22nd, 2019 and March 5th, 2019.

Pre-assignment

Screening details:

Screening had to be performed within three weeks prior to the baseline visit. There were 5 screening failures.

Period 1

Period 1 title	Overall trial (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
Arm title	LM11A-31-BHS

Arm description:

600 mg LM11A-31_BHS in the morning and in the evening (total daily dosage = 1200 mg)

Arm type	Experimental
Investigational medicinal product name	LM11A-31-BHS
Investigational medicinal product code	LM11A-31-BHS
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

3 capsules with 200 mg LM11A-31-BHS administered b.i.d. with approximately 240 mL of water

Arm title	Placebo

Arm description:

600 mg placebo in the morning and in the evening (total daily dosage = 1200 mg)

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

3 capsules with 200 mg placebo administered b.i.d. with approximately 240 mL of water

Number of subjects in period 1	LM11A-31-BHS	Placebo
Started	8	2
Completed	8	2

Baseline characteristics

Reporting groups	
Reporting group title	LM11A-31-BHS
Reporting group description:	
600 mg LM11A-31_BHS in the morning and in the evening (total daily dosage = 1200 mg)	
Reporting group title	Placebo
Reporting group description:	
600 mg placebo in the morning and in the evening (total daily dosage = 1200 mg)	

Reporting group values	LM11A-31-BHS	Placebo	Total
Number of subjects	8	2	10
Age categorical Units: Subjects			
Adults (18-64 years)	4	1	5
From 65-84 years	4	1	5
Gender categorical Units: Subjects			
Female	4	1	5
Male	4	1	5

End points

End points reporting groups

Reporting group title	LM11A-31-BHS
Reporting group description:	
600 mg LM11A-31_BHS in the morning and in the evening (total daily dosage = 1200 mg)	
Reporting group title	Placebo
Reporting group description:	
600 mg placebo in the morning and in the evening (total daily dosage = 1200 mg)	

Primary: To investigate the safety and tolerability of 600 mg b.i.d. of LM11A-31-BHS administered to healthy elderly volunteers for a period of 10 days in comparison to placebo

End point title	To investigate the safety and tolerability of 600 mg b.i.d. of LM11A-31-BHS administered to healthy elderly volunteers for a period of 10 days in comparison to placebo[1]
End point description:	

End point type	Primary
End point timeframe:	
continuouse until day 11, last dose is given in the morning of day 10	

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: Because of the nature of the study, the results were only descriptively summerized.

End point values	LM11A-31-BHS	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	2		
Units: drug related adverse events				
mild drug related adverse events	4	0		
moderate drug related adverse events	0	0		
severe drug related adverse events	0	0		
drug related serious adverse events	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: To investigate the systemic pharmacokinetics of 600 mg b.i.d. doses of LM11A-31-BHS administered orally for a period of 10 days in healthy erlderly volunteers

End point title	To investigate the systemic pharmacokinetics of 600 mg b.i.d. doses of LM11A-31-BHS administered orally for a period of 10 days in healthy erlderly volunteers
End point description:	

End point type	Secondary

End point timeframe:
day 1, 2, 5, 8, 10 and 11 with several timepoints on day 1 and 10

End point values	LM11A-31-BHS	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	2		
Units: Cmax [ng/mL]				
arithmetic mean (standard deviation)				
day 1	1271.61 (± 606.76)	0 (± 0)		
day 10	885.18 (± 522.75)	0 (± 0)		

Statistical analyses

No statistical analyses for this end point

Secondary: To evaluate cerebrospinal fluid (CSF) levels of LM11A-31-BHS under the conditions of this trial

End point title	To evaluate cerebrospinal fluid (CSF) levels of LM11A-31-BHS under the conditions of this trial

End point description:

End point type	Secondary

End point timeframe:
several timepoints on day 10

End point values	LM11A-31-BHS	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	2		
Units: Cmax [ng/mL]				
arithmetic mean (standard deviation)	56.00 (± 24.54)	0 (± 0)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: January 22nd, 2019 - March 21st, 2019	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	22.0

Reporting groups	
Reporting group title	LM11A-31-BHS
Reporting group description: -	
Reporting group title	Placebo
Reporting group description: -	

Serious adverse events	LM11A-31-BHS	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Nervous system disorders			
Headache			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (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	LM11A-31-BHS	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	7 / 8 (87.50%)	2 / 2 (100.00%)	
Investigations			
Gamma-glutamyltransferase increased			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (0.00%)	
occurrences (all)	1	0	
Nervous system disorders			
Headache			

subjects affected / exposed	5 / 8 (62.50%)	0 / 2 (0.00%)	
occurrences (all)	7	0	
Presyncope			
subjects affected / exposed	0 / 8 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Eye disorders			
Dry eye			
subjects affected / exposed	0 / 8 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Gastrointestinal disorders			
Flatulence			
subjects affected / exposed	3 / 8 (37.50%)	0 / 2 (0.00%)	
occurrences (all)	3	0	
Diarrhea			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (0.00%)	
occurrences (all)	1	0	
Abdominal pain			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (0.00%)	
occurrences (all)	1	0	
Respiratory, thoracic and mediastinal disorders			
Oropharyngeal pain			
subjects affected / exposed	0 / 8 (0.00%)	2 / 2 (100.00%)	
occurrences (all)	0	3	
Renal and urinary disorders			
Polyuria			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (0.00%)	
occurrences (all)	1	0	
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	1 / 8 (12.50%)	0 / 2 (0.00%)	
occurrences (all)	3	0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported