



Clinical trial results:

Phase IIb, randomized, double-blind, placebo-controlled study in parallel groups assessing the efficacy and safety of two doses of SOM3355 in patients suffering from Huntington's Disease with choreic movements.

Summary

EudraCT number	2021-003453-28
Trial protocol	ES FR IT DE
Global end of trial date	25 June 2024

Results information

Result version number	v1 (current)
This version publication date	06 July 2025
First version publication date	06 July 2025

Trial information

Trial identification

Sponsor protocol code	SOMCT03
-----------------------	---------

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05475483
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	SOM Innovation Biotech SA
Sponsor organisation address	Baldiri Reixac, 4, Barcelona, Spain, 08028
Public contact	Clinical Trial Information Desk, SOM Innovation Biotech SA (SOM Biotech), +34 934 020 150, info@sombiotech.com
Scientific contact	Clinical Trial Information Desk, SOM Innovation Biotech SA (SOM Biotech), +34 934 020 150, info@sombiotech.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	17 July 2024
Is this the analysis of the primary completion data?	Yes
Primary completion date	25 June 2024
Global end of trial reached?	Yes
Global end of trial date	25 June 2024
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective of the study is to assess the efficacy of two doses of SOM3355 (400 mg/day and 600 mg/day taken twice daily [BID] over at least 8 weeks at maintenance dose) compared to placebo to reduce chorea in HD patients measured by the change in TMC score (primary efficacy endpoint).

Protection of trial subjects:

This study was conducted following the protocol and according to the ethical principles derived from the International Council for Harmonisation (ICH) guidelines for Good Clinical Practice (GCP), and applicable laws and regulations.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	02 August 2022
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Poland: 26
Country: Number of subjects enrolled	Spain: 35
Country: Number of subjects enrolled	France: 15
Country: Number of subjects enrolled	Germany: 21
Country: Number of subjects enrolled	Italy: 19
Country: Number of subjects enrolled	United Kingdom: 18
Country: Number of subjects enrolled	Switzerland: 5
Worldwide total number of subjects	139
EEA total number of subjects	116

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)	120
From 65 to 84 years	19
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

A total of 139 patients with Huntington's disease were randomized and treated between August 2022 and April 2024 at 23 sites in 7 European countries.

Pre-assignment

Screening details:

The main inclusion criteria were having a Unified Huntington's Disease Rating Scale (UHDRS) Total Maximal Chorea (TMC) score ≥ 10 and Total Functional Capacity (TFC) score ≥ 7 . The main exclusion criteria were being co-administered with VMAT2 inhibitors or other antichoreic treatments, having hypotension, or taking >2 antihypertensive drugs.

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	Investigator, Subject, Monitor, Data analyst, Carer, Assessor

Blinding implementation details:

All participants, site staff, Sponsor, contract research organization (CRO), and vendors involved with the study remained blinded to treatment assignments until the database was locked and the study unblinded.

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo

Arm description: -

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:

Placebo capsules were administered once daily (OD) for up-titration and down-titration (1 week each) and twice daily (BID) for at least 9 weeks at maintenance dose.

Arm title	SOM3355 400mg/day
------------------	-------------------

Arm description: -

Arm type	Experimental
Investigational medicinal product name	SOM3355 400mg/day
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

SOM3355 200mg capsules were administered once daily (OD) for up-titration and down-titration (1 week each) and twice daily (BID) for at least 9 weeks at maintenance dose.

Arm title	SOM3355 600mg/day
------------------	-------------------

Arm description: -

Arm type	Experimental
----------	--------------

Investigational medicinal product name	SOM3355 600mg/day
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

SOM3355 200mg capsules were administered once daily (OD) for up-titration and down-titration, and twice daily (BID) for up-titration (1 week each). SOM3355 300mg capsules were administered twice daily (BID) for at least 8 weeks at maintenance dose.

Number of subjects in period 1	Placebo	SOM3355 400mg/day	SOM3355 600mg/day
Started	48	41	50
Completed	41	36	41
Not completed	7	5	9
Subject was not available for a visit	-	1	-
Consent withdrawn by subject	1	3	-
Adverse event, non-fatal	3	1	6
Lost to follow-up	1	-	-
Protocol deviation	2	-	3

Baseline characteristics

Reporting groups

Reporting group title	Placebo
Reporting group description: -	
Reporting group title	SOM3355 400mg/day
Reporting group description: -	
Reporting group title	SOM3355 600mg/day
Reporting group description: -	

Reporting group values	Placebo	SOM3355 400mg/day	SOM3355 600mg/day
Number of subjects	48	41	50
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	43	32	45
From 65-84 years	5	9	5
85 years and over	0	0	0
Age continuous Units: years			
arithmetic mean	51.65	52.51	51.34
standard deviation	± 10.46	± 12.39	± 12.12
Gender categorical Units: Subjects			
Female	28	17	21
Male	20	24	29
Use of Neuroleptics			
Antipsychotic drugs (excluding haloperidol, pimozide, and tiapride) prescribed to treat behaviour disorders at a stable dose for at least 3 months before entering the study.			
Units: Subjects			
Yes	6	5	6
No	42	36	44
TMC score			
Baseline Total Maximal Chorea			
Units: unit(s)			
arithmetic mean	12.80	12.74	13.23
standard deviation	± 2.58	± 2.93	± 2.84
Reporting group values	Total		
Number of subjects	139		

Age categorical Units: Subjects			
In utero	0		
Preterm newborn infants (gestational age < 37 wks)	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)	120		
From 65-84 years	19		
85 years and over	0		
Age continuous Units: years			
arithmetic mean			
standard deviation	-		
Gender categorical Units: Subjects			
Female	66		
Male	73		
Use of Neuroleptics			
Antipsychotic drugs (excluding haloperidol, pimozide, and tiapride) prescribed to treat behaviour disorders at a stable dose for at least 3 months before entering the study.			
Units: Subjects			
Yes	17		
No	122		
TMC score			
Baseline Total Maximal Chorea			
Units: unit(s)			
arithmetic mean			
standard deviation	-		

Subject analysis sets

Subject analysis set title	mITT
Subject analysis set type	Modified intention-to-treat
Subject analysis set description:	
Modified Intention-to-Treat (mITT) population included all patients randomized to a treatment arm, who received at least one dose of study drug and had at least one post-baseline assessment of the TMC score.	
Subject analysis set title	SAF
Subject analysis set type	Safety analysis
Subject analysis set description:	
Safety (SAF) population included all patients who were administered at least one dose of any study drug (SOM3355 or placebo).	

Reporting group values	mITT	SAF	
Number of subjects	139	139	
Age categorical Units: Subjects			
In utero	0	0	

Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	120	120	
From 65-84 years	19	19	
85 years and over	0	0	
Age continuous			
Units: years			
arithmetic mean	51.79	51.79	
standard deviation	± 11.58	± 11.58	
Gender categorical			
Units: Subjects			
Female	66	66	
Male	73	73	
Use of Neuroleptics			
Antipsychotic drugs (excluding haloperidol, pimozide, and tiapride) prescribed to treat behaviour disorders at a stable dose for at least 3 months before entering the study.			
Units: Subjects			
Yes	17	17	
No	122	122	
TMC score			
Baseline Total Maximal Chorea			
Units: unit(s)			
arithmetic mean	12.94	12.94	
standard deviation	± 2.77	± 2.77	

End points

End points reporting groups

Reporting group title	Placebo
Reporting group description: -	
Reporting group title	SOM3355 400mg/day
Reporting group description: -	
Reporting group title	SOM3355 600mg/day
Reporting group description: -	
Subject analysis set title	mITT
Subject analysis set type	Modified intention-to-treat
Subject analysis set description: Modified Intention-to-Treat (mITT) population included all patients randomized to a treatment arm, who received at least one dose of study drug and had at least one post-baseline assessment of the TMC score.	
Subject analysis set title	SAF
Subject analysis set type	Safety analysis
Subject analysis set description: Safety (SAF) population included all patients who were administered at least one dose of any study drug (SOM3355 or placebo).	

Primary: Change in Total Maximal Chorea (TMC) score from baseline to end of maintenance dose (mITT - N=139)

End point title	Change in Total Maximal Chorea (TMC) score from baseline to end of maintenance dose (mITT - N=139)
End point description: The primary endpoint was the change in Total Maximal Chorea (TMC) score from baseline (defined for each patient as the average of values at the screening visit (Visit 0) and the inclusion visit (Visit 1)) to the end of maintenance dose (defined for each patient as the average of values at the end of Week 9 (Visit 4) and the end of Week 10 (Visit 5)). The primary efficacy analysis was conducted on the mITT Population, including 139 subjects.	
End point type	Primary
End point timeframe: From baseline to end of maintenance dose (10 weeks of treatment).	

End point values	Placebo	SOM3355 400mg/day	SOM3355 600mg/day	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	48	41	50	
Units: Change from baseline				
least squares mean (confidence interval 95%)	-2.09 (-2.89 to -1.28)	-2.31 (-3.15 to -1.47)	-3.05 (-3.86 to -2.25)	

Statistical analyses

Statistical analysis title	Mixed model for repeated measures (MMRM)
Comparison groups	Placebo v SOM3355 600mg/day

Number of subjects included in analysis	98
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.096
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-0.97
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.27
upper limit	0.34

Secondary: Change in Clinical Global Impression (CGI) from baseline to end of maintenance dose (mITT - N=139)

End point title	Change in Clinical Global Impression (CGI) from baseline to end of maintenance dose (mITT - N=139)
End point description:	The key secondary endpoint was the Clinical Global Impression of Change (CGI-C) at Visit 5 (week 10). The key secondary efficacy analysis was conducted on the mITT Population, including 139 subjects. Patients with a score of 1 (very much improved), 2 (much improved), or 3 (minimally improved) were defined as "Improved".
End point type	Secondary
End point timeframe:	From baseline to end of maintenance dose (10 weeks of treatment).

End point values	Placebo	SOM3355 400mg/day	SOM3355 600mg/day	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	41	37	41	
Units: Subjects				
Improved	15	26	23	
Not Improved	26	11	18	

Statistical analyses

Statistical analysis title	Logistic regression
Comparison groups	Placebo v SOM3355 600mg/day
Number of subjects included in analysis	82
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.078
Method	Regression, Logistic
Parameter estimate	Odds ratio (OR)
Point estimate	2.22

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.91
upper limit	5.37

Other pre-specified: Change in TMC score from baseline to end of maintenance dose for subjects not taking neuroleptics during the trial (mITT - N=122)

End point title	Change in TMC score from baseline to end of maintenance dose for subjects not taking neuroleptics during the trial (mITT - N=122)
End point description:	
Pre-defined sensitivity analysis of the primary efficacy endpoint (change in TMC score from baseline to the end of maintenance dose) was performed in 122 subjects of the mITT not taking neuroleptics during the trial.	
End point type	Other pre-specified
End point timeframe:	
From baseline to end of maintenance dose (10 weeks of treatment).	

End point values	Placebo	SOM3355 400mg/day	SOM3355 600mg/day	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	42	36	44	
Units: Change from Baseline				
least squares mean (confidence interval 95%)	-2.19 (-3.07 to -1.32)	-2.42 (-3.32 to -1.51)	-3.46 (-4.35 to -2.58)	

Statistical analyses

Statistical analysis title	Mixed model for repeated measures (MMRM)
Comparison groups	Placebo v SOM3355 600mg/day
Number of subjects included in analysis	86
Analysis specification	Pre-specified
Analysis type	other
P-value	= 0.045
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.27
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.51
upper limit	-0.03

Post-hoc: Change in TMC score from baseline to end of maintenance dose for subjects not taking neuroleptics and with mean baseline TMC score >12 (mITT - N=57)

End point title	Change in TMC score from baseline to end of maintenance dose for subjects not taking neuroleptics and with mean baseline TMC score >12 (mITT - N=57)
-----------------	--

End point description:

Post-hoc analysis of the primary efficacy endpoint (change in TMC score from baseline to the end of maintenance dose) was performed in 57 subjects of the mITT not taking neuroleptics during the trial and with a mean baseline TMC score >12.

End point type	Post-hoc
----------------	----------

End point timeframe:

From baseline to end of maintenance dose (10 weeks of treatment).

End point values	Placebo	SOM3355 400mg/day	SOM3355 600mg/day	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	21	14	22	
Units: Change from baseline				
least squares mean (confidence interval 95%)	-2.43 (-3.57 to -1.28)	-2.76 (-4.20 to -1.32)	-4.21 (-5.36 to -3.06)	

Statistical analyses

Statistical analysis title	Mixed model for repeated measures (MMRM)
Comparison groups	SOM3355 600mg/day v Placebo
Number of subjects included in analysis	43
Analysis specification	Post-hoc
Analysis type	other
P-value	= 0.032
Method	Mixed models analysis
Parameter estimate	Mean difference (final values)
Point estimate	-1.78
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.4
upper limit	-0.16

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From Baseline (visit 1) until End of Study visit (up to 13 weeks of treatment).

Assessment type	Systematic
-----------------	------------

Dictionary used

Dictionary name	MedDRA
-----------------	--------

Dictionary version	25.0
--------------------	------

Reporting groups

Reporting group title	Placebo
-----------------------	---------

Reporting group description: -

Reporting group title	SOM3355 400mg/day
-----------------------	-------------------

Reporting group description: -

Reporting group title	SOM3355 600mg/day
-----------------------	-------------------

Reporting group description: -

Serious adverse events	Placebo	SOM3355 400mg/day	SOM3355 600mg/day
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 48 (2.08%)	1 / 41 (2.44%)	1 / 50 (2.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			0
Nervous system disorders			
Syncope			
subjects affected / exposed	0 / 48 (0.00%)	0 / 41 (0.00%)	1 / 50 (2.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Psychiatric disorders			
Suicidal ideation			
subjects affected / exposed	1 / 48 (2.08%)	0 / 41 (0.00%)	0 / 50 (0.00%)
occurrences causally related to treatment / all	1 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Pneumonia pneumococcal			
subjects affected / exposed	0 / 48 (0.00%)	1 / 41 (2.44%)	0 / 50 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

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

Non-serious adverse events	Placebo	SOM3355 400mg/day	SOM3355 600mg/day
Total subjects affected by non-serious adverse events			
subjects affected / exposed	10 / 48 (20.83%)	15 / 41 (36.59%)	22 / 50 (44.00%)
Injury, poisoning and procedural complications			
Fall			
subjects affected / exposed	2 / 48 (4.17%)	3 / 41 (7.32%)	4 / 50 (8.00%)
occurrences (all)	5	6	7
Vascular disorders			
Bradycardia			
subjects affected / exposed	0 / 48 (0.00%)	2 / 41 (4.88%)	6 / 50 (12.00%)
occurrences (all)	0	2	7
Nervous system disorders			
Somnolence			
subjects affected / exposed	3 / 48 (6.25%)	1 / 41 (2.44%)	3 / 50 (6.00%)
occurrences (all)	3	1	3
Dizziness			
subjects affected / exposed	0 / 48 (0.00%)	4 / 41 (9.76%)	1 / 50 (2.00%)
occurrences (all)	0	4	1
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	1 / 48 (2.08%)	0 / 41 (0.00%)	4 / 50 (8.00%)
occurrences (all)	1	0	4
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	3 / 48 (6.25%)	4 / 41 (9.76%)	5 / 50 (10.00%)
occurrences (all)	3	6	5
Vomiting			
subjects affected / exposed	3 / 48 (6.25%)	0 / 41 (0.00%)	1 / 50 (2.00%)
occurrences (all)	3	0	1
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	0 / 48 (0.00%)	3 / 41 (7.32%)	2 / 50 (4.00%)
occurrences (all)	0	3	2
Infections and infestations			

Upper respiratory tract infection subjects affected / exposed occurrences (all)	0 / 48 (0.00%) 0	2 / 41 (4.88%) 2	3 / 50 (6.00%) 4
---	---------------------	---------------------	---------------------

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