



## Clinical trial results:

### Use of genotypic HIV-1 tropism testing in proviral DNA to guide CCR5 antagonist treatment in subjects with undetectable HIV-1 viremia

#### Summary

EudraCT number	2011-000799-32
Trial protocol	ES
Global end of trial date	29 May 2014

#### Results information

Result version number	v1 (current)
This version publication date	30 December 2016
First version publication date	30 December 2016

#### Trial information

##### Trial identification

Sponsor protocol code	PROTEST
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##### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01378910
WHO universal trial number (UTN)	-

Notes:

##### Sponsors

Sponsor organisation name	Fundació Lluita contra la SIDA
Sponsor organisation address	crt. canyet, s/n, Badalona, Spain, 08916
Public contact	Unitat VIH, Fundació Lluita contra la SIDA, +34 934978849, rescrig@fls-rs.com
Scientific contact	Unitat VIH, Fundació Lluita contra la SIDA, +34 934978849, rescrig@fls-rs.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	29 May 2014
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	29 May 2014
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

Assess whether the determination of viral tropism from proviral DNA in PBMCs is a suitable technique to guide treatment with CCR5 antagonists in patients with undetectable viral load who need antiretroviral treatment change for reasons of tolerability or adverse effects.

Protection of trial subjects:

not specific

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 June 2011
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: 74
Worldwide total number of subjects	74
EEA total number of subjects	74

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)	74
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Subjects who met inclusion criteria and accepted to sign the informed consent to participate will be cited for a screening visit and blood sample collection for HIV tropism determination. A total of 175 HIV-infected patients were selected at the screening phase

### Pre-assignment

Screening details:

A total of 175 HIV-infected patients were selected at the screening phase.

### Period 1

Period 1 title	overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

<b>Arm title</b>	maraviroc in combination with 2 NRTIs
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	maraviroc
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details: not available	
Investigational medicinal product name	lamivudine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details: not available	
Investigational medicinal product name	abacavir
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details: not available	
Investigational medicinal product name	emtricitabine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details: not available	

<b>Number of subjects in period 1</b>	maraviroc in combination with 2 NRTIs
Started	74
Completed	62
Not completed	12
Consent withdrawn by subject	2
Rash	1
R5- to X4-tropic shift	1
SAE	2
virological failure	5
Lost to follow-up	1

## Baseline characteristics

### Reporting groups

Reporting group title	overall trial
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Reporting group description: -

Reporting group values	overall trial	Total	
Number of subjects	74	74	
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)	74	74	
From 65-84 years	0	0	
85 years and over	0	0	
Age continuous			
Units: years			
median	48		
inter-quartile range (Q1-Q3)	43 to 52	-	
Gender categorical			
Units: Subjects			
Female	12	12	
Male	62	62	

## End points

### End points reporting groups

Reporting group title	maraviroc in combination with 2 NRTIs
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Reporting group description: -

### Primary: virological efficacy

End point title	virological efficacy <sup>[1]</sup>
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End point description:

End point type	Primary
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End point timeframe:

week 48

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: For the primary endpoint we calculate the sample size. We suppose a 95% confidence interval, a 6% precision and we assume that 85% of patients would remain suppressed after 48 weeks. At the end of the study 84% (N=62 out of 74) of HIV-infected patients switching to maraviroc plus 2 NRTIs maintained HIV-RNA levels below 50 cop/mL. This estimate had a final precision of 8.3%, which is slightly lower than the one initially planned (i.e.: 6%)

End point values	maraviroc in combination with 2 NRTIs			
Subject group type	Reporting group			
Number of subjects analysed	62			
Units: copies/ml	50			

### Statistical analyses

No statistical analyses for this end point

### Secondary: Total cholesterol

End point title	Total cholesterol
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End point description:

End point type	Secondary
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End point timeframe:

Baseline

<b>End point values</b>	maraviroc in combination with 2 NRTIs			
Subject group type	Reporting group			
Number of subjects analysed	74			
Units: mmol/L				
median (inter-quartile range (Q1-Q3))	5 (4.3 to 5.7)			

### Statistical analyses

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No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

week 48

Assessment type	Non-systematic
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### Dictionary used

Dictionary name	DAIDS AE GRADING TAB
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Dictionary version	2.0
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### Reporting groups

Reporting group title	maraviroc in combination with 2 NRTIs
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Reporting group description: -

<b>Serious adverse events</b>	maraviroc in combination with 2 NRTIs		
Total subjects affected by serious adverse events			
subjects affected / exposed	2 / 74 (2.70%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Renal and urinary disorders			
Hepatic failure			
subjects affected / exposed	1 / 74 (1.35%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Fibula fracture			
subjects affected / exposed	1 / 74 (1.35%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 0 %

<b>Non-serious adverse events</b>	maraviroc in combination with 2 NRTIs		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 74 (1.35%)		
Musculoskeletal and connective tissue disorders			

Rash			
subjects affected / exposed	1 / 74 (1.35%)		
occurrences (all)	1		

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
02 June 2011	new sites added in clinical trial
27 July 2011	Principal investigator changed
29 June 2012	new sites added in clinical trial
03 October 2012	New Principal investigator added in one site already opened

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported