Clinical trial results:
AN OPEN-LABEL STUDY OF SIPULEUCEL-T IN EUROPEAN MEN WITH METASTATIC, CASTRATE RESISTANT PROSTATE CANCER

Summary

EudraCT number	2011-001192-39
Trial protocol	AT GB NL
Global end of trial date	10 June 2014

Results information

Result version number	v1 (current)
This version publication date	14 December 2016
First version publication date	27 June 2015

Trial information

Trial identification

Sponsor protocol code	P11-1

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Dendreon Pharmaceuticals, Inc
Sponsor organisation address	1301 2nd Avenue, Seattle, United States,
Public contact	Jennifer Lill, Dendreon Pharmaceuticals, Inc, +1 206-455-2174, jlill@dendreon.com
Scientific contact	Jennifer Lill, Dendreon Pharmaceuticals, Inc, +1 206-455-2174, jlill@dendreon.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	10 June 2014
Is this the analysis of the primary completion data?	Yes
Primary completion date	10 June 2014
Global end of trial reached?	Yes
Global end of trial date	10 June 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To demonstrate that sipuleucel-T can be successfully manufactured for subjects with mCRPC at a European manufacturing facility.

Protection of trial subjects:

Utilization of an Independent Data Monitoring Committee that met at 3 month intervals and established procedures regarding chain of identity to ensure autologous product is delivered correctly.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	13 June 2012
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	Netherlands: 15
Country: Number of subjects enrolled	United Kingdom: 7
Country: Number of subjects enrolled	Austria: 17
Country: Number of subjects enrolled	France: 8
Worldwide total number of subjects	47
EEA total number of subjects	47

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)	12
From 65 to 84 years	34

85 years and over	1

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Administration of informed consent, evaluation of inclusion criteria, clinical evaluations and assorted laboratory tests.

Period 1

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

Arms

Arm title	sipuleucel-T

Arm description:

Each dose of sipuleucel-T contains a minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF. The recommended course of therapy for sipuleucel-T is 3 complete doses, given at approximately 2-week intervals.

sipuleucel-T: Each dose of sipuleucel-T contains a minimum of 50 million autologous CD54+ cells activated with PAP-GM-CSF. The recommended course of therapy for sipuleucel-T is 3 complete doses, given at approximately 2-week intervals.

Arm type	Experimental
Investigational medicinal product name	Sipuleucel-T
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Dispersion for infusion
Routes of administration	Intravenous use

Dosage and administration details:

3 250 mL doses infused approximately 2 weeks apart.

Number of subjects in period 1	sipuleucel-T
Started	47
Completed	43
Not completed	4
Started a medication restricted per the protocol	4

Baseline characteristics

Reporting groups

Reporting group title	Overall Trial

Reporting group description: -

Reporting group values	Overall Trial	Total	
Number of subjects	47	47	
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)	12	12	
From 65-84 years	34	34	
85 years and over	1	1	
Age continuous Units: years			
arithmetic mean	67.2		
standard deviation	± 7.8	-	
Gender categorical Units: Subjects			
Female	0	0	
Male	47	47	

Subject analysis sets

Subject analysis set title	Full analysis
Subject analysis set type	Full analysis

Subject analysis set description:

All subjects registered were included in the analysis.

Reporting group values	Full analysis		
Number of subjects	47		
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)	12		

From 65-84 years	34		
85 years and over	1		

Age continuous Units: years			
arithmetic mean	67.2		
standard deviation	± 7.8		
Gender categorical Units: Subjects			
Female	0		
Male	47		

End points

End points reporting groups

Reporting group title	sipuleucel-T

Reporting group description:

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Subject analysis set title	Full analysis
Subject analysis set type	Full analysis

Subject analysis set description:

All subjects registered were included in the analysis.

Primary: Cumulative CD54 Upregulation

End point title	Cumulative CD54 Upregulation[1]

End point description:

End point type	Primary

End point timeframe:

Over 3 infusions of Sipuleucel-T

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: Cumulative CD54 Upregulation parameters will be summarized descriptively (mean, median, standard deviation, minimum, and maximum) by infusion (1, 2, and 3) and cumulative (summed across infusions).

Descriptive statistics are sufficient for this single-arm study.

End point values	Full analysis			
Subject group type	Subject analysis set			
Number of subjects analysed	47			
Units: Ratio				
arithmetic mean (standard error)	34.1 (± 1.24)			

Statistical analyses

No statistical analyses for this end point

Primary: CD54+ cell count

End point title	CD54+ cell count[2]

End point description:

End point type	Primary

End point timeframe:

Cumulative through infusion 3

Notes:

[2] - 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: CD54+ cell count parameters will be summarized descriptively (mean, median, standard deviation, minimum, and maximum) by infusion (1, 2, and 3) and cumulative (summed across infusions)

Descriptive statistics are sufficient for this single-arm study.

End point values	Full analysis			
Subject group type	Subject analysis set			
Number of subjects analysed				
Units: 10^9				
arithmetic mean (standard error)	1.58 (± 0.1)			

Statistical analyses

No statistical analyses for this end point

Primary: Total nucleated cell count

End point title	Total nucleated cell count[3]

End point description:

End point type	Primary

End point timeframe:

Cumulative through infusion 3

Notes:

[3] - 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: Total nucleated cell count parameters will be summarized descriptively (mean, median, standard deviation, minimum, and maximum) by infusion (1, 2, and 3) and cumulative (summed across infusions)

Descriptive statistics are sufficient for this single-arm study.

End point values	Full analysis			
Subject group type	Subject analysis set			
Number of subjects analysed				
Units: 10^9				
arithmetic mean (standard error)	12.54 (± 0.74)			

Statistical analyses

No statistical analyses for this end point

Primary: Product viability (percentage)

End point title	Product viability (percentage)[4]

End point description:

End point type	Primary

End point timeframe:

Infusion 3

Notes:

[4] - 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: Product viability (percentage) parameters will be summarized descriptively (mean, median, standard deviation, minimum, and maximum) by infusion (1, 2, and 3).

Descriptive statistics are sufficient for this single-arm study.

End point values	Full analysis			
Subject group type	Subject analysis set			
Number of subjects analysed				
Units: percentage				
arithmetic mean (full range (min-max))	96.75 (90.4 to 99.53)			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From informed consent to last visit

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	14.1

Reporting groups

Reporting group title	All subjects

Reporting group description: -

Serious adverse events	All subjects		
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 47 (6.38%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Gastroenteritis radiation			
subjects affected / exposed	1 / 47 (2.13%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	1 / 47 (2.13%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Pain			
subjects affected / exposed	1 / 47 (2.13%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Calculus urinary			

subjects affected / exposed	1 / 47 (2.13%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Urinary Tract Obstruction			
subjects affected / exposed	1 / 47 (2.13%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	All subjects		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	40 / 47 (85.11%)		
Injury, poisoning and procedural complications			
Citrate Toxicity			
subjects affected / exposed	3 / 47 (6.38%)		
occurrences (all)	3		
Vascular disorders			
Hypertension			
subjects affected / exposed	3 / 47 (6.38%)		
occurrences (all)	3		
Nervous system disorders			
Dizziness			
subjects affected / exposed	5 / 47 (10.64%)		
occurrences (all)	5		
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	14 / 47 (29.79%)		
occurrences (all)	14		
Chills			
subjects affected / exposed	10 / 47 (21.28%)		
occurrences (all)	10		
Influenza like illness			
subjects affected / exposed	3 / 47 (6.38%)		
occurrences (all)	3		

Pain subjects affected / exposed occurrences (all)	3 / 47 (6.38%) 3		
Blood and lymphatic system disorders Anaemia subjects affected / exposed occurrences (all)	3 / 47 (6.38%) 3		
Gastrointestinal disorders Nausea subjects affected / exposed occurrences (all) Constipation subjects affected / exposed occurrences (all)	5 / 47 (10.64%) 5 3 / 47 (6.38%) 3		
Musculoskeletal and connective tissue disorders Back pain subjects affected / exposed occurrences (all) Myalgia subjects affected / exposed occurrences (all) Arthralgia subjects affected / exposed occurrences (all) Bone pain subjects affected / exposed occurrences (all) Pain in extremity subjects affected / exposed occurrences (all)	11 / 47 (23.40%) 11 4 / 47 (8.51%) 4 3 / 47 (6.38%) 3 3 / 47 (6.38%) 3 3 / 47 (6.38%) 3		
Infections and infestations Nasopharyngitis subjects affected / exposed occurrences (all)	3 / 47 (6.38%) 3		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
01 June 2012	Quality of Life questionnaire assessments added. Clarification of sample size from 10 up to 45 subjects in the statistical analysis (justification for 45 subjects). Statistical clarification for the decision to stop enrollment.
09 July 2013	Added thromboembolic and CVE reporting criteria of all countries to align with IB, edition 18.
02 December 2013	Updated leukapheresis and sipuleucel-T risks sections, and infusion section to align with IB, edition 19.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported