Phase I/IIa multicentre study of infusion of autologous peripheral blood T lymphocytes expanded and genetically modified using Sleeping Beauty family transposons to express a chimeric antigenic receptor with anti-CD19 specificity conjugated to the 4-1BB co-stimulatory region and CD3z and huEGFRt signal transmission (TranspoCART19) in patients with relapsed or refractory B-cell lymphoma.

Estado	**Tipo de Participantes**	**Rangos de Edad**
Reclutando	No aportado	Mayores de 64 , Adultos (18-64 años)
Género	**Fases**	**Participantes esperados**
Ambos	Fase I , Fase II	27
Resultados	**Bajo nivel intervención**	**Enfermedad rara**
Sin resultados	No	No
Cobertura geográfica	**Ámbitos del ensayo**	**Terapia avanzada**
Sin determinar	seguridad, eficacia, dosis	Terapia génica

Información

Identificador
2024-514544-90-00 (CTIS)

Cod. Protocolo
No aportado

Transicionado 2022-001040-23

Área terapéutica
Enfermedades [C] - Cáncer [C04]|

Enfermedad investigada
Relapsed or refractory B-cell lymphoma

Título Científico

Phase I/IIa multicentre phase I/IIa study of infusion of autologous peripheral blood T lymphocytes expanded and genetically modified using Sleeping Beauty family transposons to express a chimeric antigenic receptor with anti-CD19 specificity conjugated to the 4-1BB co-stimulatory and signal-transduction region CD3z and huEGFRt (TranspoCART19) in patients with relapsed or refractory B-cell lymphoma.

Justificación

No aportado

Objetivo Principal

Phase I: To determine the recommended optimal dose (RP2D) of TranspoCART19 cells and to evaluate the safety of their administration in patients with relapsed or refractory B-cell lymphoma.
Pase II: To evaluate the efficacy of TranspoCART19 cell infusion in patients with relapsed or refractory B-cell lymphoma.

Variables de Evaluación Primaria

Phase 1: To determine the Recommended Phase II Dose (RP2D) and evaluate the safety of TranspoCART19 cell infusion based on the following parameters: The proportion of patients who develop cytokine release syndrome and/or neurological toxicity within the first month following administration of TranspoCART19, and the number of Grade III/IV adverse events related to the investigational drug
Phase II: To determine the efficacy of the TranspoCART19 cell infusion based on the following parameters: Best response rate achieved within 3 months after infusion (overall and complete). The Lugano Criteria will be used.

Momentos temporales de evaluación primaria

No aportado

Objetivo Secundario

To assess the duration of response after infusion of TranspoCART19.
To assess progression-free and overall survival after TranspoCART19 infusion.
To assess the expansion and persistence of TranspoCART19 cells in peripheral blood after administration.
To assess adverse events following infusion of TranspoCART19 cells.
To assess the effect of TranspoCART19 treatment on patients' quality of life.
To assess the dynamics of disease response by PET (SUVmax, tumour metabolic volume and total lesion glycolysis).
To identify molecular markers of response by whole exome sequencing analysis of pre-treatment and relapse biopsy samples.
To follow-up of the tumour mass by liquid biopsy.
To identify clinical-biological factors associated with response to treatment with TranspoCART19 cells.
To identify serum biomarkers of TranspoCART19 cell toxicity (CRS/neurological toxicity).

Variables de Evaluación Secundaria

Procedure-related mortality (PRM) at 1 and 3 months, defined as any death not directly caused by lymphoma. For the estimation of MRP, disease relapse or progression will be considered as a competing event.
Assessment of toxicity at 1 and 3 months, defined as number of grade II-IV adverse events using the CTC (Common Toxicity Criteria) version 5.0.
Toxicity assessment at 1 and 3 years, defined as number of grade III-IV adverse events using the CTC (Common Toxicity Criteria) version 5.0..
Response rate (overall and complete) at one month, three months and one year. The Lugano criteria will be used.
Best response rate achieved (overall and complete). The Lugano criteria will be used.
Duration time of the overall response and of the complete response.
Progression-free survival (PFS) at 1 and 2 years post-procedure, defined as the time between TranspoCART19 infusion and disease progression or death. Patients alive and in complete remission will be censored at the time of last follow-up.
Overall survival (OS) at 1 and 2 years, defined as the time between TranspoCART19 infusion and death of the patient from any cause. Living patients will be censored at the time of last follow-up.
In vivo survival of TranspoCART19 cells in peripheral blood, which will be determined by flow cytometry on a weekly basis for the first month, monthly for the first 6 months and quarterly thereafter until 2 years after infusion.
Quality of life of the patients included, assessed by means of a questionnaire to be completed by patients or their legal guardians prior to treatment, at 3 and 6 months and one year after infusion.

Momentos temporales de evaluación secundaria

No aportado

Criterios de Inclusión

Patients diagnosed with relapsed or refractory B-cell lymphoma who meet the following conditions: Diffuse large B-cell lymphoma with relapsed or refractory disease after at least 2 lines of systemic therapy and non-candidate or relapsed after autologous haematopoietic stem cell transplantation. Includes follicular lymphoma grade 3b and lymphomas transformed from any indolent entity, primary mediastinal lymphoma and high-grade B lymphoma (double/triple Hit and high-grade lymphoma NOS). Primary diffuse diffuse large B-cell CNS lymphoma refractory or relapsed after 1 or more lines of systemic therapy including a high-dose methotrexate regimen. Refractory mantle cell lymphoma with disease or relapsed after at least one line of treatment (including an anthracycline or bendamustine based regimen, anti-CD20 monoclonal antibody and BTKi treatment: ibrutinib, acalabrutinib...). Follicular lymphoma (grades 1, 2 or 3a) histologically confirmed in the 6 months prior to screening (and after the last line of treatment received), refractory or relapsed, who have received at least 2 systemic treatment regimens (one of them including an antiCD20 such as rituximab, obinutuzumab). Post-transplant relapsed patients and patients with follicular lymphoma after one line of if they are POD24 or meet GELF criteria for treatment (see Annex II) may be included. Marginal lymphoma, including splenic, nodal and MALT, histologically confirmed within 6 months prior to screening (and after the last line of treatment), refractory or relapsed, having received at least 2 systemic treatment regimens (one of them including an antiCD20 rituximab, obinutuzumab and an alkylating agent, or relapsed after autologous transplantation.
Age over 18 years and under 80 years.
Functional status ECOG 0-1. Patients with ECOG 2 may be included if motivated by haematological disease (Protocol Annex III).
Adequate bone marrow haematopoietic reserve.
Life expectancy of at least 2 months.
Adequate venous access for lymphapheresis. Absence of contraindications for the procedure.
Signature of informed consent (patient or legal guardian).

Criterios de Exclusión

Patients who may benefit from other approved therapeutic options. Severe organ impairment, defined as cardiac ejection fraction <40%; DLCO <40%; calculated glomerular filtration rate <30 ml/min; baseline O2 saturation <92%; bilirubin > 2 times upper limit of normal (unless due to Gilbert's syndrome) or transaminases > 2.5 upper limit of normal. Pregnant or lactating women. Women of childbearing age should have a negative pregnancy test in the screening phase. Women of childbearing age, including those whose last menstrual cycle was in the year prior to screening, who are unable or unwilling to use highly effective contraception from the start of the study until the end of the study. Men who are unable or unwilling to use highly effective methods of contraception from the start of the study until the end of the study. Need to take chronic glucocorticoids in doses higher than 10 mg/day of prednisone (or equivalent) or other chronic immunosuppressants. Previously received CAR-T antiCD19 therapy. Previous treatment with other antiCD19 strategies is allowed, provided that CD19 expression has been confirmed in the tumour biopsy. Treatment with any experimental or non-marketed substance in the four weeks prior to recruitment, or actively participating in another therapeutic clinical trial. Diagnosis of another neoplasm, past or present. Patients in complete remission for more than 3 years, or with a history of non-melanoma skin cancer or completely resected carcinoma in situ may be included. Early relapse after allogeneic haematopoietic stem cell transplantation (less than 3 months for lymphapheresis, less than 6 months for TranspoCART19 infusion) or patients on active immunosuppressive treatment for graft-versus-host disease (corticosteroids or other systemic immunosuppressants). Active infection requiring systemic medical treatment. HIV infection. Concurrent and uncontrolled medical illnesses including cardiac, renal, hepatic, gastrointestinal, endocrine, pulmonary, neurological or psychiatric illnesses that in the opinion of the investigator pose a risk to the patient. Positive serology for hepatitis B, defined as a positive test for HBsAg. In addition, if the patient is HBsAg negative but has anti-HBc antibodies, a hepatitis B virus DNA test will be required, and if the result is positive, the patient will be excluded. Positive serology for hepatitis C, defined as a positive test for anti-HCV antibodies that is confirmed by RIBA.

Calendario

(Última actualización: 26/06/2026)

Autorización	Inicio de Ensayo	Inclusión Primer Paciente	Interrumpido	Reiniciado
15/03/2023	11/03/2024	14/05/2024	No aportado	No aportado

Fin de reclutamiento	Fin prematuro (España)	Fin prematuro (Global)	Fin del ensayo en España	Fin del ensayo global
No aportado	No aportado	No aportado	No aportado	No aportado

Promotor

Fundacion De Investigacion Biomedica De Salamanca Spain

Paseo De San Vicente 58-182

Contact Person

Esperanza Lopez Franco

+34923291200

uicec.coordinacion@ibsal.es

Monetary support: N/A

Tipo de promotor: Comercial

Ceim

CEIM Área de Salud de Salamanca

Pº San Vicente nº 55-182 37007 Salamanca

comite.etico.husa@saludcastillayleon.es

923291100

Centros

Activo (11/03/2024)

CLINICA UNIVERSIDAD DE NAVARRA

Pamplona/Iruña

NAVARRA

Activo (11/03/2024)

Clinica Universidad De Navarra

Madrid

MADRID

Haemotology and Hemotherapy

No iniciado (15/03/2023)

HOSPITAL CLINIC DE BARCELONA

Barcelona

BARCELONA

Activo (11/03/2024)

HOSPITAL CLINICO UNIVERSITARIO DE SALAMANCA (COMPLEJO ASIST. UNIVERSIT.SA)

Salamanca

SALAMANCA

Activo (15/05/2025)

HOSPITAL CLINICO UNIVERSITARIO VIRGEN DE LA ARRIXACA

Murcia

MURCIA

Activo (15/05/2025)

HOSPITAL UNIVERSITARIO DE NAVARRA

Pamplona/Iruña

NAVARRA

Activo (09/06/2025)

HOSPITAL UNIVERSITARIO FUNDACION JIMENEZ DIAZ

Madrid

MADRID

Activo (15/05/2025)

HOSPITAL UNIVERSITARIO VIRGEN DEL ROCIO

Sevilla

SEVILLA

Activo (02/06/2025)

Institut Catala D'oncologia

Hospitalet de Llobregat, L'

BARCELONA

Medicamentos

Genoxal 1.000 mg polvo para solución inyectable y para perfusión

SOLUTION FOR INJECTION/INFUSION

INTRAVENOUS INFUSION

Código ATC: L01AA01 - CICLOFOSFAMIDA

Principios Activos: N/A

Experimental

RoActemra 20 mg/mL concentrate for solution for infusion

SOLUTION FOR INFUSION

INTRAVENIOUS INFUSION

Código ATC: L04AC07 - TOCILIZUMAB

Principios Activos: N/A

Experimental

Fludarabina Teva 25 mg/ml pulbere pentru soluie injectabil/perfuzabil

SOLUTION FOR INJECTION/INFUSION

INTRAVENIOUS INFUSION

Código ATC: L01BB05 - FLUDARABINA

Principios Activos: N/A

Experimental

Bendamustina Tillomed 2,5 mg/ml polvo para concentrado para solución para perfusión EFG

SOLUTION FOR INFUSION

INTRAVENIOUS INFUSION

Código ATC: L01AA09 - BENDAMUSTINA

Principios Activos: N/A

Experimental

TranspoCART19

CELL SUSPENSION FOR INFUSION

INTRAVENIOUS INFUSION

-

Principios Activos: N/A

Experimental

Erbitux 5 mg/mL solution for infusion

SOLUTION FOR INFUSION

INTRAVENIOUS INFUSION

Código ATC: L01FE01 - CETUXIMAB

Principios Activos: N/A

Experimental

Sin resultados

Phase I/IIa multicentre study of infusion of autologous peripheral blood T lymphocytes expanded and genetically modified using Sleeping Beauty family transposons to express a chimeric antigenic receptor with anti-CD19 specificity conjugated to the 4-1BB co-stimulatory region and CD3z and huEGFRt signal transmission (TranspoCART19) in patients with relapsed or refractory B-cell lymphoma.

State	Type of participants	Age Ranges
Recruiting	Not provided	Older than 64 , Adults (18-64 years)
Gender	**Phases**	**Expected Participants**
Both	Phase I , Phase II	27
Results	**Low level of intervention**	**Rare disease**
No results	No	No
Geographic coverage	**Areas of the study**	**Advanced therapy**
Undetermined	safety, effectiveness, dose	Gene therapy

Information

Identifier
2024-514544-90-00 (CTIS)

Protocol Code
No aportado

Transitioned 2022-001040-23

Therapeutic area
Diseases [C] - Cancer [C04]|

Investigated Disease
Relapsed or refractory B-cell lymphoma

Scientific Title

Phase I/IIa multicentre phase I/IIa study of infusion of autologous peripheral blood T lymphocytes expanded and genetically modified using Sleeping Beauty family transposons to express a chimeric antigenic receptor with anti-CD19 specificity conjugated to the 4-1BB co-stimulatory and signal-transduction region CD3z and huEGFRt (TranspoCART19) in patients with relapsed or refractory B-cell lymphoma.

Rationale

Not provided

Main Objective

Phase I: To determine the recommended optimal dose (RP2D) of TranspoCART19 cells and to evaluate the safety of their administration in patients with relapsed or refractory B-cell lymphoma.
Pase II: To evaluate the efficacy of TranspoCART19 cell infusion in patients with relapsed or refractory B-cell lymphoma.

Primary Endpoints

Phase 1: To determine the Recommended Phase II Dose (RP2D) and evaluate the safety of TranspoCART19 cell infusion based on the following parameters: The proportion of patients who develop cytokine release syndrome and/or neurological toxicity within the first month following administration of TranspoCART19, and the number of Grade III/IV adverse events related to the investigational drug
Phase II: To determine the efficacy of the TranspoCART19 cell infusion based on the following parameters: Best response rate achieved within 3 months after infusion (overall and complete). The Lugano Criteria will be used.

Temporary moments of secondary assessment

Not provided

Secondary Objective

To assess the duration of response after infusion of TranspoCART19.
To assess progression-free and overall survival after TranspoCART19 infusion.
To assess the expansion and persistence of TranspoCART19 cells in peripheral blood after administration.
To assess adverse events following infusion of TranspoCART19 cells.
To assess the effect of TranspoCART19 treatment on patients' quality of life.
To assess the dynamics of disease response by PET (SUVmax, tumour metabolic volume and total lesion glycolysis).
To identify molecular markers of response by whole exome sequencing analysis of pre-treatment and relapse biopsy samples.
To follow-up of the tumour mass by liquid biopsy.
To identify clinical-biological factors associated with response to treatment with TranspoCART19 cells.
To identify serum biomarkers of TranspoCART19 cell toxicity (CRS/neurological toxicity).

Secondary Endpoints

Procedure-related mortality (PRM) at 1 and 3 months, defined as any death not directly caused by lymphoma. For the estimation of MRP, disease relapse or progression will be considered as a competing event.
Assessment of toxicity at 1 and 3 months, defined as number of grade II-IV adverse events using the CTC (Common Toxicity Criteria) version 5.0.
Toxicity assessment at 1 and 3 years, defined as number of grade III-IV adverse events using the CTC (Common Toxicity Criteria) version 5.0..
Response rate (overall and complete) at one month, three months and one year. The Lugano criteria will be used.
Best response rate achieved (overall and complete). The Lugano criteria will be used.
Duration time of the overall response and of the complete response.
Progression-free survival (PFS) at 1 and 2 years post-procedure, defined as the time between TranspoCART19 infusion and disease progression or death. Patients alive and in complete remission will be censored at the time of last follow-up.
Overall survival (OS) at 1 and 2 years, defined as the time between TranspoCART19 infusion and death of the patient from any cause. Living patients will be censored at the time of last follow-up.
In vivo survival of TranspoCART19 cells in peripheral blood, which will be determined by flow cytometry on a weekly basis for the first month, monthly for the first 6 months and quarterly thereafter until 2 years after infusion.
Quality of life of the patients included, assessed by means of a questionnaire to be completed by patients or their legal guardians prior to treatment, at 3 and 6 months and one year after infusion.

Temporary moments of secondary assessment

Not provided

Inclusion criteria

Patients diagnosed with relapsed or refractory B-cell lymphoma who meet the following conditions: Diffuse large B-cell lymphoma with relapsed or refractory disease after at least 2 lines of systemic therapy and non-candidate or relapsed after autologous haematopoietic stem cell transplantation. Includes follicular lymphoma grade 3b and lymphomas transformed from any indolent entity, primary mediastinal lymphoma and high-grade B lymphoma (double/triple Hit and high-grade lymphoma NOS). Primary diffuse diffuse large B-cell CNS lymphoma refractory or relapsed after 1 or more lines of systemic therapy including a high-dose methotrexate regimen. Refractory mantle cell lymphoma with disease or relapsed after at least one line of treatment (including an anthracycline or bendamustine based regimen, anti-CD20 monoclonal antibody and BTKi treatment: ibrutinib, acalabrutinib...). Follicular lymphoma (grades 1, 2 or 3a) histologically confirmed in the 6 months prior to screening (and after the last line of treatment received), refractory or relapsed, who have received at least 2 systemic treatment regimens (one of them including an antiCD20 such as rituximab, obinutuzumab). Post-transplant relapsed patients and patients with follicular lymphoma after one line of if they are POD24 or meet GELF criteria for treatment (see Annex II) may be included. Marginal lymphoma, including splenic, nodal and MALT, histologically confirmed within 6 months prior to screening (and after the last line of treatment), refractory or relapsed, having received at least 2 systemic treatment regimens (one of them including an antiCD20 rituximab, obinutuzumab and an alkylating agent, or relapsed after autologous transplantation.
Age over 18 years and under 80 years.
Functional status ECOG 0-1. Patients with ECOG 2 may be included if motivated by haematological disease (Protocol Annex III).
Adequate bone marrow haematopoietic reserve.
Life expectancy of at least 2 months.
Adequate venous access for lymphapheresis. Absence of contraindications for the procedure.
Signature of informed consent (patient or legal guardian).

Exclusion criteria

Patients who may benefit from other approved therapeutic options. Severe organ impairment, defined as cardiac ejection fraction <40%; DLCO <40%; calculated glomerular filtration rate <30 ml/min; baseline O2 saturation <92%; bilirubin > 2 times upper limit of normal (unless due to Gilbert's syndrome) or transaminases > 2.5 upper limit of normal. Pregnant or lactating women. Women of childbearing age should have a negative pregnancy test in the screening phase. Women of childbearing age, including those whose last menstrual cycle was in the year prior to screening, who are unable or unwilling to use highly effective contraception from the start of the study until the end of the study. Men who are unable or unwilling to use highly effective methods of contraception from the start of the study until the end of the study. Need to take chronic glucocorticoids in doses higher than 10 mg/day of prednisone (or equivalent) or other chronic immunosuppressants. Previously received CAR-T antiCD19 therapy. Previous treatment with other antiCD19 strategies is allowed, provided that CD19 expression has been confirmed in the tumour biopsy. Treatment with any experimental or non-marketed substance in the four weeks prior to recruitment, or actively participating in another therapeutic clinical trial. Diagnosis of another neoplasm, past or present. Patients in complete remission for more than 3 years, or with a history of non-melanoma skin cancer or completely resected carcinoma in situ may be included. Early relapse after allogeneic haematopoietic stem cell transplantation (less than 3 months for lymphapheresis, less than 6 months for TranspoCART19 infusion) or patients on active immunosuppressive treatment for graft-versus-host disease (corticosteroids or other systemic immunosuppressants). Active infection requiring systemic medical treatment. HIV infection. Concurrent and uncontrolled medical illnesses including cardiac, renal, hepatic, gastrointestinal, endocrine, pulmonary, neurological or psychiatric illnesses that in the opinion of the investigator pose a risk to the patient. Positive serology for hepatitis B, defined as a positive test for HBsAg. In addition, if the patient is HBsAg negative but has anti-HBc antibodies, a hepatitis B virus DNA test will be required, and if the result is positive, the patient will be excluded. Positive serology for hepatitis C, defined as a positive test for anti-HCV antibodies that is confirmed by RIBA.

Calendar

(Last Update: 26/06/2026)

Authorization	Start of Trial	First patient inclusion	Halted	Restarted
15/03/2023	11/03/2024	14/05/2024	Not aported	Not aported

End of recruitment	Premature end (Spain)	Premature End (Global)	Trial end (Spain)	Trial end (Global)
Not aported	Not aported	Not aported	Not aported	Not aported

Sponsor

Fundacion De Investigacion Biomedica De Salamanca Spain

Paseo De San Vicente 58-182

Contact Person

Esperanza Lopez Franco

+34923291200

uicec.coordinacion@ibsal.es

Monetary support: N/A

Sponsor type: Commercial

Ceim

CEIM Área de Salud de Salamanca

Pº San Vicente nº 55-182 37007 Salamanca

comite.etico.husa@saludcastillayleon.es

923291100

Sites

Active (11/03/2024)

CLINICA UNIVERSIDAD DE NAVARRA

Pamplona/Iruña

NAVARRA

Active (11/03/2024)

Clinica Universidad De Navarra

Madrid

MADRID

Haemotology and Hemotherapy

not initialized (15/03/2023)

HOSPITAL CLINIC DE BARCELONA

Barcelona

BARCELONA

Active (11/03/2024)

HOSPITAL CLINICO UNIVERSITARIO DE SALAMANCA (COMPLEJO ASIST. UNIVERSIT.SA)

Salamanca

SALAMANCA

Active (15/05/2025)

HOSPITAL CLINICO UNIVERSITARIO VIRGEN DE LA ARRIXACA

Murcia

MURCIA

Active (15/05/2025)

HOSPITAL UNIVERSITARIO DE NAVARRA

Pamplona/Iruña

NAVARRA

Active (09/06/2025)

HOSPITAL UNIVERSITARIO FUNDACION JIMENEZ DIAZ

Madrid

MADRID

Active (15/05/2025)

HOSPITAL UNIVERSITARIO VIRGEN DEL ROCIO

Sevilla

SEVILLA

Active (02/06/2025)

Institut Catala D'oncologia

Hospitalet de Llobregat, L'

BARCELONA

Medication

Genoxal 1.000 mg polvo para solución inyectable y para perfusión

SOLUTION FOR INJECTION/INFUSION

INTRAVENOUS INFUSION

ATC code: L01AA01 - CICLOFOSFAMIDA

Active Principles: N/A

Experimental

RoActemra 20 mg/mL concentrate for solution for infusion

SOLUTION FOR INFUSION

INTRAVENIOUS INFUSION

ATC code: L04AC07 - TOCILIZUMAB

Active Principles: N/A

Experimental

Fludarabina Teva 25 mg/ml pulbere pentru soluie injectabil/perfuzabil

SOLUTION FOR INJECTION/INFUSION

INTRAVENIOUS INFUSION

ATC code: L01BB05 - FLUDARABINA

Active Principles: N/A

Experimental

Bendamustina Tillomed 2,5 mg/ml polvo para concentrado para solución para perfusión EFG

SOLUTION FOR INFUSION

INTRAVENIOUS INFUSION

ATC code: L01AA09 - BENDAMUSTINA

Active Principles: N/A

Experimental

TranspoCART19

CELL SUSPENSION FOR INFUSION

INTRAVENIOUS INFUSION

-

Active Principles: N/A

Experimental

Erbitux 5 mg/mL solution for infusion

SOLUTION FOR INFUSION

INTRAVENIOUS INFUSION

ATC code: L01FE01 - CETUXIMAB

Active Principles: N/A

Experimental

No results