# 3.3.10 Translational Research in Pediatric Oncology, Hematopoietic Transplantation and Cell Therapy Group

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| Publications: | 15 |
| Impact Factor: | 75.272 |
| Q1: | 6 |

## Research Activity

### Publications


- de la Fuente J, Gluckman E, Makani J, Telfer P, Faulkner L, Corbacioglu S. The role of haematopoietic stem cell transplantation for sickle cell disease in the era of targeted disease-modifying therapies and gene editing. Lancet Haematol. 2020;7(12):902-911. Article. IF: 18,959; Q1
- Grunewald TGP, Alonso M, Avnet S, Banito A, Burdach S, Cidre-Aranaz F, Di Pompo G, Distel M, Dorado-Garcia H, Garcia-Castro J, González-González L, Grigoriadis AE, Kasan M, Koelsche C, Krumbholz M, Lecanda F, Lemma S, Longo DL, Madrigal-Esquivel C, Morales-Molina A, Musa J, Ohmura S, Ory B, Pereira-Silva M, Perut F, Rodríguez R, Seeling C, Al Shaaili N, Shaabani S, Shiavone K, Sinha S, Tomazou EM, Trautmann M, Vela M, Versleijen-Jonkers YMH, Visgauss J, Zalacain M, Schober SJ, Lissat A, English WR, Baldini N, Heymann D. Sarcoma treatment in the era of molecular medicine. EMBO Mol Med. 2020;12(11):-e11131. Review. IF: 12,137; Q1.SI
- Dona D, Canizales JT, Benetti E, Cananzi M, De Corti F, Calore E, Hierro L, Boluda ER, Hijosa MM, Guereta LG, Martínez AP, Barrios M, Reis PC, Teixeira A, Lopes MF, Kalicinski P, Branchereau S, Boyer O, Debray D, Sciveres M, Wennberg L, Fischler B, Barany P, Baker A, Baumann U, Schwerk N, Nicastro E, Candusso M, Toporski J, Sokal E, Stephenne X, Lindemans C, Miglinas M, Rascon J, Jara P. Pediatric transplantation in Europe during the COVID-19 pandemic: Early impact on activity and healthcare. Clin Transplant. 2020;34(10):-e14063. Article. IF: 2,863; Q2
- Urban JG, Gurrado K, Rivas PCB, Abou Elrous D, Machain MZ, Gomez MR, Rodríguez JG, Plaza BV, Gregorio LY, Fernandez EG, Martin CJ, Oliva MOL, Garcia EG, Sánchez GL, Cornejo GC, Gutierrez RS, Santovena AZ, Hijosa MM, Camblor CF, del Castillo YM, Sisinni L, Sánchez DB, Pérez-Martínez A, Zapardiel ES, Granados EL, Villatoro JM, Zabala RH, Borobia AM, Frias J, Ramírez E. A case-control study to assess the role of polyomavirus in transplant complications: Where do we stand?. Transpl Infect Dis. 2020;22(6):-e13432. Article. IF: 2,228; Q4
- Climent FJ, Calvo C, Garcia-Guereta L, Rodríguez-Álvarez D, Buitrago NM, Pérez-Martínez A. Fatal outcome of COVID-19 disease in a 5-month infant with comorbidities. Rev Esp Cardiol. 2020;73(8):667-669. Letter. IF: 4,753; Q2
- Faura A, Rives S, Lassaletta A, Sebastián E, Madero L, Huerta J, Garcia-Morin M, Martínez AP, Sisinni L, Astigarraga I, Velasco P, Gros L, Moreno L, Carbone A, Rodríguez-Vigil C, Riesco S, Mendoza MD, Macias EG, Trabazo M, Torrent M, Badell I, Fuster JL, Dominguez-Pinilla N, Ribelles AJ, Pérez-Alonso V, Sanmartin MF, Baragano M, Gorostegui M, Pérez-Jaume S, Fernandez-Teijeiro A, La Madrid AM, Dapena JL. Initial report on Spanish pediatric oncologic, hematologic, and post stem cell transplantation patients during SARS-CoV-2 pandemic. Pediatr Blood Cancer. 2020;67(9):-e28557. Letter. IF: 3,167; Q1
- Vela M, Stringa P, González-Navarro P, Machuca M, Pascual-Miguel B, Mestre C, Arreola NM, Papa-Gobbi R, Navarro-Zapata A, Pires-Lobo SC, Andres AM, Hernández-Oliveros F, Pérez-Martínez A. Donor's graftex vivoT-cell depletion with fludarabine reduces graft-versus-host disease signs and improves survival after intestinal transplantation - an experimental study. Transpl Int. 2020;33(10):1302-1311. Article. IF: 3,782; Q2
- Mirones I, Moreno L, Patino-Garcia A, Lizeaga G, Moraleda JM, Toribio ML, Pérez-Martínez A. Immunotherapy with CAR-T cells in paediatric haematology-oncology. An Pediatr. 2020;93(1):-. Article. IF: 1,5; Q4
- Vicent MG, Martínez AP, del Castillo MT, Molina B, Sisini L, Morón G, Diaz MA. COVID-19 in pediatric hematopoietic stem cell transplantation: The experience of Spanish Group of Transplant (GETMON/GETH). Pediatr Blood Cancer. 2020;67(9):-e28514. Letter. IF: 3,167; Q1
- de Rojas T, Pérez-Martínez A, Cela E, Baragano M, Gálan V, Mata C, Pereto A, Madero L. COVID-19 infection in children and adolescents with cancer in Madrid. Pediatr Blood Cancer. 2020;67(7):-e28397. Letter. IF: 3,167; Q10
- Sánchez MDC, Casanova LF, Pérez-Martínez A. Beyond CAR-T cells: Natural killer cells immunotherapy. Med Clin. 2020;154(4):134-141. Review. IF: 1,725; Q3
- Van Den Rym A, Taur P, Martínez-Barricarte R, Lorenzo L, Puel A, González-Navarro P, Pandrowala A, Gowri V, Safa A, Toledano V, Cubillos-Zapata C, López-Collazo E, Vela M, Pérez-Martínez A, Sánchez-Ramón S, Recio MJ, Casanova JL, Desai MM, de Diego RP. Human BCL10 Deficiency due to Homozygosity for a Rare Allele. J

Clin Immunol. 2020;40(2):388-398. Article. IF: 8,317; Q1

- Jara P, Baker A, Baumann U, Borobia AM, Branchereu S, Candusso M, Carcas AJ, Chardot C, Cobas J, D'Antiga L, Ferreras C, Fitzpatrick E, Frauca E, Hernández-Oliveros F, Kalicinski P, Lindemans C, Lopes MF, López-Granados E, de Magnee C, Mota C, Munoz JM, Ojeda JJ, Pérez-Martínez A, Perilongo G, Rascon J, Sciveres M, Stone R, Tarutis V, Toporski J, Torres JM, Wennberg L. Cross-cutting view of current challenges in paediatric solid organ and haematopoietic stem cell transplantation in Europe: the European Reference Network TransplantChild. Orphanet J Rare Dis. 2020;15(1):-16. Article. IF: 4,123; Q2
- Saborido CM, Borobia AM, Cobas J, D'Antiga L, Frauca E, Hernández-Oliveros F, Jara P, López-Granados E, Munoz JM, Nicastro E, Ojeda JJ, Pérez-Martínez A, Torres JM, Carcas A. Effectiveness of immunosuppression minimisation, conversion or withdrawal strategies in paediatric solid organ and haematopoietic stem cell transplantation: a protocol of a systematic review and meta-analysis. BMJ Open. 2020;10(12):-e037721. Review. IF: 2,692; Q2
- Builes MM, Cuenca MV, Soler JLF, Astigarraga I, Martínez AP, Valero JMV, Tong HY, Quiroga JV, Casanova LF, López AE, Sisinni L, Blanquer M, Aguilar IM, Martínez BG, Borobia AM, Pérez-Martínez A. Study protocol for a phase II, multicentre, prospective, non-randomised clinical trial to assess the safety and efficacy of infusing allogeneic activated and expanded natural killer cells as consolidation therapy for paediatric acute myeloblastic leukaemia. BMJ Open. 2020;10(1):-e029642. Article. IF: 2,692; Q2

## Research projects

**Escudero Lópeza A.** Identificación de biomarcadores genéticos que ayuden a predecir la evolución del trasplante de progenitores hematopoyéticos en edad pediátrica (PI17/01921). ISCIII. 2018-2021.

**Managment centre:** FIBHULP

**Pérez Martínez A,** de la Oliva Senovilla P. Implementación de una escala pediátrica de valoración de alerta temprana en pacientes pediátricos hospitalizados con patología hemato-oncológica y trasplante de progenitores hematopoyéticos como plan de mejora de la calidad y seguridad asistencial. Fundación Aladina. 2020-Ongoing.

**Managment centre:** FIBHULP

**Pérez Martínez A**. A phase I trial of memory t cells expressing an anti-NKG2D chimeric antigen receptor in children, adolescents and young adults with advanced sarcoma. Fundación Asociación Española Contra el Cáncer. 2019-Ongoing.

**Managment centre:** FIBHULP

**Pérez Martínez A.** A phase I/II dose-escalation multi center study to evaluate the safety of infusion of natural killer cells os memory T cells as adoptive therapy in complicated coronavirus preumonia (Release). Fundación para la Investigación Biomédica Hospital Universitario La Paz. 2020-2020.

**Managment centre:** FIBHULP

**Pérez Martínez A.** Contrato predoctoral (PEJD-2018-PRE/BMD-9122). CM. 2019-2021.

**Managment centre:** FIBHULP

**Pérez Martínez A.** Diseño del receptor antigenico quimerico NKG2D (CAR-NKG2D) como terapia celular en los sarcomas infantiles. Ong Otromundoesposible. 2019-Ongoing.

**Managment centre:** FIBHULP

**Pérez Martínez A.** Ensayo clínica fase I/II, multicéntrico abierto, de infusión de celulas NK activadas para el tratamiento de niños, adolescentes y adultos jóvenes con sarcomas. Fundación la Sonrisa de Alex. 2017-Ongoing.

**Managment centre:** FIBHULP

**Pérez Martínez A.** Ensayo clínico fase II de infusión intratumoral/intraventricular de células CART-NKG2D o NKIL15 en niños, adolescentes y adultos jóvenes con tumores de alto grado recurrentes/refractarios del sistema nervioso central (CINK-CAR) (ICI19/00052). ISCIII. 2020-2023.

**Managment centre:** FIBHULP

## Clinical trials

**González Martínez, B.** Estudio fase II, abierto, multicéntrico, de un brazo único, para determinar la seguridad y la eficacia de tisagenlecleucel en pacientes pediátricos diagnosticados de linfoma no Hodgkin de células B maduras en recaída/refractario (Bianca).

**Type:** EECC, phase II.
**HULP code:** Appendix 2 5138.
**Sponsored´s protocol code**: CCTL019C2202.
**Sponsored by:** Novartis Farmacéutica S.A.
**Signed date:** 07/09/2020

**Pérez Martínez, A.** Infusion de células natural killer aloreactivas o estimuladaas con IL-15 ex vivo tras trasplante haploidéntico de progenitores hematopoyéticos en pacientes pediátricos con neoplasias hematológicas.

**Type:** EECC, phase I.
**HULP code:** 5521.
**Sponsored´s protocol code:** PHINK-01/2019.
**Sponsored by:** FIBHULP.
**Signed date:** 28/09/2020

**Pérez Martínez, A.** A phase I/II dose-escalation multi center study to evaluate the safety of infusion of natural killer cells or memory t cells as adoptive therapy in coronavirus pneumonia and/or lymphopenia.

**Type:** EECC, phase I.
**HULP code:** 5579.
**Sponsored´s protocol code:** RELEASE.
**Sponsored by:** Pérez Martínez, Antonio.
**Signed date:** 29/09/2020

**Rubio Aparicio, PM.** An international multicenter phase II randomised trial evaluating and comparing two intensification treatment strategies for metastatic neuroblastoma patients with a poor response to induction chemotherapy a siopen study.

**Type:** EECC, phase II.
**HULP code:** 5096.
**Sponsored´s protocol code:** VERITAS.
**Sponsored by:** Instituto Investigacion Sanitaria Hospital La Fe.
**Signed date:** 12/02/2020

**Rubio Aparicio, PM.** Phase I-II trial of sunitinib plus nivolumab after standard treatment in advanced soft tissue and bone sarcomas.

**Type:** EECC, phase II.
**HULP code:** Appendix 1 4854.
**Sponsored´s protocol code:** GEIS-52.
**Sponsored by:** Grupo Español de Investigación en Sarcomas.
**Signed date:** 06/05/2020

## Patents and trademarks

**Vela Cuenca M, González Navarro P, Valentín Quiroga J, Escudero López A, Pérez Martínez A, Fernández Casanova L,** inventors; FIBHULP, CNIO, assignees. Anti-CXCR4 antibody combined with activated and expanded natural killer cells for cancer immunotherapy. 62/642,313 US Provisional Application; 2018 March 13.

**Antonio Pérez-Martínez; Bernat Soria; Cristina Ferreras.** Memory T cells as Adoptive Cell Therapy for Viral Infections. Universidad Autónoma de Madrid (UAM), Fundación para la Investigación Biomédica del Hospital Universitario La Paz (FIBHULP), Universidad Miguel Hernández de Elche, Fundación de la Comunitat Valenciana para la gestión del Instituto de Investigación Sanitaria y Biomédica deAlicante (ISABIAL). EP20382850. Deposited on 25/09/2020.