

## SCIENTIFIC AND TECHNOLOGICAL PROFILE OF THE GROUP

		<b>RICORS Code</b> RD21/0012/0006
<b>Thematic area:</b>	Primary Care, chronicity and Health promotion	
<b>Programme name:</b>	PRIMARY CARE INTERVENTIONS TO PREVENT MATERNAL AND CHILD CHRONIC DISEASES OF PERINATAL AND DEVELOPMENT ORIGIN	
<b>Group leader:</b>	Begoña Loureiro González	
<b>Applicant Institution:</b>	2681 Asociación Instituto de Investigación Sanitaria Biocruces	
<b>Working Institution:</b>	2800 BIOCRUCES HEALTH RESEARCH INSTITUTE (II BIOCRUCES)	
<b>PI Work Institution:</b>	CRUCES UNIVERSITY HOSPITAL	

### Participants

Researcher	Family Name (s)	First Name (s)	Work Institution	Position
1	Loureiro González	Begoña	Cruces University Hospital	Statutory staff
2	Burgos San Cristobal	Jorge	Cruces University Hospital	Statutory staff
3	Román Echevarría	Lourdes	Cruces University Hospital	Statutory staff
4	López-Herrera	María Cruz	Cruces University Hospital	Statutory staff
5	Ansó Oliván	Sara	Cruces University Hospital	Statutory staff
6	Asla Elorriaga	Izaskun	Cruces University Hospital	Statutory staff
7	Rodríguez Serna	Amaya	Cruces University Hospital	Statutory staff
8	Olazar Gómez	Lara	Health Care center Gernika-Lumo	Statutory staff

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## PUBLICATIONS

Up to twenty selected publications related to the RICORS's Thematic Area (published in the last five years)

B. Loureiro, M. Martinez-Biarge, F. Foti, M. Papadaki, F. M. Cowan, C. J. Wusthoff. MRI Patterns of brain injury and neurodevelopmental outcomes in neonates with severe anaemia at birth. *Early Human Development* 2017;105: 17-22.

Pallás Alonso CR, García González P. Jimenez Moya A, Loureiro González B, Martín Peinador Y, Soriano Faura J, Torres Valdivieso MJ and Ginovart Galiana G, representing the Follow up & Neurodevelopmental Group of the Spanish Society of Neonatology. Follow-up protocol for newborns under 1,500 g or younger than 32 weeks of gestation. *An Pediatr* 2018;88(4):229.e1-229e10.

Carmen Rosa Pallas-Alonso, Begoña Loureiro, Javier De la Cruz Bértolo, Pilar García, Gemma Ginovart, Ana Jimenez, Yolanda Martín, Javier Soriano, María José Torres, Máximo Vento. Spanish survey on follow-up programmes for children born very preterm. *Acta Paediatrica* 2018. DOI:10.1111/apa.14647.

Begoña Loureiro, Thais Agut, Nuria Boronat and Miriam Martinez-Biarge. Medium-long-term monitoring of premature children and their families in our country. *An Pediatr* 2019;91(3):139-141.

María Dolores Mesa; Begoña Loureiro; Iris Iglesia; Sergi Fernández González; Elisa Llurbá Olivé; Oscar García Algar; María José Solana; María Jesús Cabero Pérez; Talía Sainz; Leopoldo Martínez; Diana Escuder Vieco; Ana Parra Llorca; María Sánchez Campillo; Gerardo Rodríguez Martínez; Dolores Gómez Roig; Myriam Pérez Gruz; Vicente Andreu Fernández; Jordi Clotet; Sebastián Sailer; Isabel Iglesias Platas; Jesús López Herce; Rosa Aras; Carmen Pallás Alonso; Miguel Saenz de Pipaon; Máximo Vento; María Gormaz; Elvira Larqué Daza; Cristina Calvo and Fernando Cabañas. The Evolving Microbiome from Pregnancy to Early Infancy: A Comprehensive Review. *Nutrients* 2020;12,133;doi:10.3390/nu120101133.

Carmen Rey-Santano; Victoria E Mielgo; Miguel Angel Gomez-Solaetxe; Federico Bianco; Fabrizio Salomone and Begoña Loureiro. Nebulized Poractant alfa reduces the risk of respiratory failure at 72 hours in spontaneously breathing surfactant-deficient newborn piglets. *Critical Care Medicine* 2020;48:e523-e531.

Gómez-Roig MD, Pascal R, Cahuana MJ, García-Algar O, Sebastiani G, Andreu-Fernández V, Martínez L, Rodríguez G, Iglesia I, Ortiz-Arrabal O, Mesa MD, Cabero MJ, Guerra L, Llurba E, Domínguez C, Zanini MJ, Foraster M, Larqué E, Cabañas F, Lopez-Azorín M, Pérez A, Loureiro B, Pallás-Alonso CR, Escuder-Vieco D, Vento M. Environmental Exposure during Pregnancy: Influence on Prenatal Development and Early Life: A Comprehensive Review. *Fetal Diagn Ther.* 2021 Mar 18:1-13. doi: 10.1159/000514884. Epub ahead of print. PMID: 33735860.

Begoña Loureiro, Javier De la Cruz Bértolo, Dorotea Blanco, Gemma Ginovart, Ana Jiménez, Yolanda Martín, Javier Soriano, María José Torres, Máximo Vento, Carmen Rosa Pallás-Alonso. National protocol led to significant improvements in follow-up programmes for very low birth weight or very preterm infants. *Acta Paediatrica* 2021 Mar 31. doi: 10.1111/apa.15864. Epub ahead of print. PMID: 33792086.

Burgos J, Iglesias M, Pijoan JI, Rodriguez L, Fernandez-Llebrez L, Martinez-Astorquiza T. Probability of cesarean delivery after successful external cephalic version. *Int J Gynaecol Obstet.* 2015;131(2):192-5. DOI: 10.1016/j.ijgo.2015.04.050. IF: 1,674, Q3. (CLAVE: A).

Burgos J, Rodríguez L, Cobos P, Osuna C, Del Mar Centeno M, Larrieta R, et al. Management of breech presentation at term: a retrospective cohort study of 10 years of experience. *J Perinatol.* 2015;35(10):803-8. DOI: 10.1038/jp.2015.75. IF: 2,087, Q2. Posición: 33/80 (CLAVE: A).

Burgos J, Pijoan JI, Osuna C, Cobos P, Rodriguez L, Centeno MM, Serna R, Jimenez A, Garcia E, Fernandez-Llebrez L and Melchor JC. Increased pain relief with remifentanyl does not improve the success rate of external cephalic version. A randomized controlled trial. *Acta Obstet Gynecol Scand.* 2016;95(5):547-54. DOI: 10.1111/aogs.12859. IF: 2,480. Posición: 27/79 (CLAVE: A).

Burgos J, Arana I, Garitano I, Rodriguez L, Cobos P, Osuna C, Centeno, Fernández-Llebrez L. Induction of labor in breech presentation at term: a retrospective cohort study. *J Perinat Med* 2016. DOI: 10.1515/jpm-2015-0426. IF: 1.577. Posición: 50/79 (CLAVE: A).

Melchor JC, Navas H, Marcos M, Iza A, De Diego M, Rando D, et al. Predictive performance of PAMG-1 vs fFN test for risk of spontaneous preterm birth in symptomatic women attending an emergency obstetric unit: retrospective cohort study. *Ultrasound Obstet Gynecol*. 2018;51(5):644-9. DOI: 10.1002/uog.18892.

Melchor I, Burgos J, Del Campo A, Aiartzagüena A, Gutierrez J, Melchor JC. Effect of maternal obesity on pregnancy outcomes in women delivering singleton babies: a historical cohort study. *J Perinat Med*. 2019;47(6):625-30. DOI: 10.1515/jpm-2019-0103.

Llurba E, Bella M, Burgos J, Mazarico E, Gómez-Roig MD, De Diego R, et al. Early Prophylactic Enoxaparin for the Prevention of Preeclampsia and Intrauterine Growth Restriction: A Randomized Trial. *Fetal Diagn Ther*. 2020:1-10. DOI: 10.1159/000509662.

Maiz N, Tajada M, Rodríguez MA, Irasarry A, Molina FS, Tubau A, et al. Three-dimensional ultrasonography for advanced neurosonography (neurosofe-3D): Validation of a brain volume acquisition guideline. *Acta Obstet Gynecol Scand*. 2021;100(1):84-90. DOI: 10.1111/aogs.13996.

Rehal A, Benko Z, De Paco Matallana C, Syngelaki A, Janga D, Cicero S, et al. Early vaginal progesterone versus placebo in twin pregnancies for the prevention of spontaneous preterm birth: a randomized, double-blind trial. *Am J Obstet Gynecol*. 2021;224(1):86 e1- e19. DOI: 10.1016/j.ajog.2020.06.050.

Madrid-Aguilar M, López-Herrera MC, Pérez-López J, Escudero-Argaluz J, Elena Santesteban-Otazu E, Piening B, Villate-Navarro JI, Pijoan-Zubizarreta JI. Implementation of NeoKissEs in Spain: A validated surveillance system for nosocomial sepsis in very low birth weight infants. *An Pediatr (Barc)*. 2019 Jul;91(1):3-12. doi:10.1016/j.anpedi.2018.06.020. Epub 2018 Sep 24.

Rodríguez López J, García Lara NR, López Maestro M, De la Cruz Bértolo J, Martínez Ávila JC, Vento M, Parra Llorca A, Izquierdo Macián I, Pellicer A, Marín Huarte N, Asla Elorriaga I, Román Echevarría L, Copons Fernández C, Martín Ancel A, Cabañas F, García Algar Ó, Pallás Alonso CR. What is the impact of mother's bed incline on episodes of decreased oxygen saturation in healthy newborns in skin-to-skin contact after delivery: Study protocol for a randomized controlled trial. *Trials*. 2019 Mar 20;20(1):179. doi: 10.1186/s13063-019-3256-0. PMID: 30894206; PMCID: PMC6427856.

Manuel Sánchez-Luna, Belén Fernández Colomer, Concepción de Alba Romero, Ana Alarcón Allen, Ana Baña Souto, Fátima Camba Longueira, María Cernada Badía, Zenaida Galve Pradell, María González López, M. Cruz López Herrera, Carmen Ribes Bautista, Laura Sánchez García, Elena Zamora Flores, on behalf of the SENE COVID-19 Registry Study Group. Neonates Born to Mothers With COVID-19: Data From the Spanish Society of Neonatology Registry. *Pediatrics*. 2021;147(2):e2020015065.

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## INTERNATIONAL AND NATIONAL RESEARCH PROJECTS

(Funded in the last five years)

Begoña Loureiro, Principal investigator of Group 1 since July 2018 "Network Maternal Child Health and Development". Thematic Network (RETIC) of the Carlos III Institute of Health (BIOCRUCES: RD16/0022/0008. 2017-2021).

NeoCirc: "Dobutamine for NEOnatal CIRculatory failure defined by novel biomarkers". Grant agreement: FP7; HEALTH-2011.4.2-1 [Investigator-driven clinical trials on off-patent medicines for children] Project number: 282533. Starting Nov.2015 to 2018.

Collaborating researcher in MINECO project (Ministry of Economy, Industry and Competitiveness. R&D Projects, Excellence 2017, Type A. PSI2017-83657-P): Executive functions and low-risk prematurity in adolescence and early adulthood. University of Deusto (Department of Psychology). 2018-2020.

Principal investigator in the project "Administration of nebulized surfactant in a non-invasive way. Preclincic evaluation of the lung, systemic and cerebral effect in an experimental model." FIS14/0024, 01/01/2015-30/06/2019.

Collaborating researcher in the project "Minimally invasive management of surfactant (Lisa, Insure, nebulization). Effect on hemodynamics, oxygenation and brain function in experimental surfactant deficit model." PI18/0024, 01/01/2019-31/12/2021.

Collaborating researcher in Project NEOIPC: Establishing innovative optimal approaches for infection prevention of resistant bacteria in NICUs by integrating research, implementation science and surveillance in a sustainable global platform. ID: 965328, H2020-EU.3.1.2. (IP: Carlo Giaquinto, Università degli studi de Padova). 01/04/2021-31/03/2026. 9.999.816,75 €.

Collaborating Researcher: Role of placental growth factor in the management of non-severe preeclampsia: Randomized Study (MAP)". FIS PI15/00976; 59,628 euros; 01/01/2016-31/12/2017.

Collaborating researcher: International multicenter study "Early use of progesterone for the prevention of preterm birth in twin gestation: randomized, double-blind placebo study (EVENTS)". 2016 - 2018. FIS PI18/01027 (€93,170).

Collaborating Researcher: "Sequential Preeclampsia CRl bate using angiogenic markers in the first trimester" (CRISP study). FIS 2019 PI19/00692. 97,707.50 euros. Years 2019-2021.

Collaborating researcher "Episodes of decreased oxygen saturation in newborns in skin-to-skin contact in relation to maternal position after delivery. Randomized clinical trial" PI13/00481. Clinical Registration Trials.gov: NCT02585492. Year 2014-2016.

Collaborating researcher in "Evaluation of the effectiveness of a surveillance system on rates of nosocomial infection in very underweight newborns". NEOKISSES (PI13/00587), 01/01/2014 - 31/12/2017.

Collaborating researcher in the project "Evaluation of evidence-based intervention to reduce bacteremia associated with central vascular catheter in very underweight newborns". INBERBAC-Neo (PI17/0565; 146,107.50 euros ), 01/01/ 2018-31/12/2021.

Collaborating researcher in the project "Minimally invasive management of surfactant (Lisa, Insure, nebulization). Effect on hemodynamics, oxygenation and brain function in experimental surfactant deficit model." PI18/0024, 01/01/2019-31/12/2021.

Collaborating researchers in the project "Prospective validation through a national multicenter study (RED SAMID) of predictive models of neonatal mortality in preterm". PI20/00295.01/01/21-31/12/2023.

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## PATENTS

(Granted and licensed patents in the last five years. Include also licensed know-how)

## RICORS Call: Scientific and Technological Profile of the Participating Groups

**Aim:** describe the major contributions of the different participating groups in terms of papers, funding and patents.

**!** The structure of this template has been designed to ensure that the important aspects of your scientific and technological profile are presented in a way that will enable experts to make an effective assessment against the evaluation criteria.

**!** The font type and size recommended is Arial 9 points. Please respect the page limits and do not take it as a target either! It is in your interest to keep your text as concise as possible, since experts rarely view unnecessarily long documents in a positive light.

### Section 1. List of Participating Groups. PI participants.

**!** Remember

PI's Family Name | PI's First name(s) | PI's Work Institution | **Position \***

\***Position:** officer, statutory staff; contracted; fellow

### Section 2. Papers

**Indicate:** Authors; Title; Journal; PMID; Type of paper; Publication year; Impact Factor (JCR Thomson Reuters) and times cited.

### Section 3. International and National Research Projects

**!** Do not include regional or privately funded projects.

**Indicate:** Project ID; Name of the PI; Title; Funding Agency; Amount of Funding & Duration.

### Section 4. Patents

**Indicate:** Applicant; Title; Inventors; Patent Office; Date of application number; Date of grant and Entity-Organization Exploiting the Patent.