



3.7.3 Maternal and Fetal Medicine

1 Introduction

2 Executive summary

3 Research areas and groups

4 Associated clinicians

Publications: 26 | Q1: 14

COMPOSITION

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- **Inmaculada Orensanz Fernández.** Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz
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- **Laura Sotillo Mallo.** Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz
- **Inmaculada Duyos Mateo.** Facultativo Especialista de Área en Ginecología y Obstetricia. Hospital Universitario La Paz

STRATEGIC OBJETIVES

1. To evaluate the involvement of placental energy metabolism in obstetric pathology
2. Finding new biomarkers in gestational diabetes mellitus and macrosomia
3. To find new biomarkers of fetal and perinatal neurological damage and to establish new prevention strategies
4. New biomarkers in defective placentation
5. To deepen the understanding of the pathophysiology and find new lines of treatment for fetal cardiac damage in Anti-Ro positive women
6. Fetal therapy
7. Infectious diseases. Microbiota

RESEARCH LINES

- Diabetes mellitus, obesity, and metabolic syndrome in pregnancy. Energy metabolism in pregnancy
- Poor placentation
- Fetal neurodevelopment
- Inflammation, autoimmunity, and pregnancy
- Fetal Therapy
- Infectious diseases. Microbiota



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RESEARCH ACTIVITY

Doctoral Theses

- **Rol García MJ.** Influencia del dolor, ansiedad y depresión periparto en la atención obstétrica y lactancia materna[dissertation]. Madrid: UAM: 2025(25/04/2025). Director: Cuerva González MJ, Bartha Rasero JL

Publications

- **Alcázar JL, Peñate L, Casanova V, Piera C, Engels V, Medina M, Ros C, Sotillo L, Antolín E, Pelayo I, Bermejo C, Pascual MA, Graupera B, Barreche I, Orozco R, Ajossa S, Guerriero S.** Prevalence of contrast intravasation in HyCoSy/HyFoSy. Results of a multicenter study and systematic review of the literature with meta-analysis. *Eur J Obstet Gyn R B.* 2025; 305: 100-6. Article. IF: 2.3; Q2
- **Bartha JL.** New Evidence on nutrition and metabolic influences on pregnancy outcomes: insights from this special issue. *Nutrients.* 2025; 17(16): 2628. Editorial Material. IF: 5.8; Q1
- **Bellver J, del Arco A, Pellicer A, Caracena L, Serra V, Labarta E, Castellón G, Fernández G, Barrio A, Ortega I, Fernández I, Torres M, Ballesteros A, Muñoz E, Marqueta J, Ferrando M, Grañeras A, Bartha JL, Garrido N, García-Velasco JA.** Risk of preeclampsia and other pregnancy complications in frozen single euploid embryo transfers after natural versus artificial endometrial preparation: A truncated randomized controlled trial. *Placenta.* 2025; 163: 1-7. Article. IF: 3.1; Q1
- **Benavent D, Iniesta-Chamorro J, Novella-Navarro M, Pérez-Martínez M, Martínez-Sánchez N, Kaffati M, Juárez-García M, Molinari-Pérez M, González-Torbay A, Gutiérrez M, López-Juanes N, Navarro-Compán V, Monjo-Henry I, Rodríguez-**

Rosales G, Bachiller J, Calvo-Aranda E, Michelena X, Berbel-Arcobé L, Balsa A, Gómez EJ, Plasencia-Rodríguez C. Digital health intervention for patient monitoring in immune-mediated inflammatory diseases: cocreation and feasibility study of the IMIDoc platform. *JMIR Hum Factors.* 2025; 12: e58095. Article. IF: 3.9; Q1

- **Castillo-Marco N, Cordero T, Igual M, Muñoz-Blat I, Gómez-Álvarez C, Bernat-González N, Gaspar-Doménech A, Ortiz-Domingo É, Vives A, Ortega-Sanchís S, Monfort-Ortiz R, Volkov P, Delgado JL, Hernández-Hernández L, Canovas E, Gil MD, Santacruz B, González-González NL, Plasencia W, Perales-Marín A, Marcos-Puig B, Palacios-Marqués AM, Melchor I, Martín-Martínez A, Benítez-Delgado T, Simón C, Garrido-Gómez T.** Maternal plasma cell-free RNA as a predictor of early and late-onset preeclampsia throughout pregnancy. *Nat Commun.* 2025; 16(1): 9208. Article. IF: 18.1; D1
- **Cuerva MJ, Antolín E, Armijo O, Plaza J, Sanz R, Usandizaga R, Pérez-Medina T, Bartha JL, Zapardiel I.** Homogenization of lessons and materials in different teaching units in obstetrics and gynecology: a quasi-experimental study. *Rev Esp Educ Med.* 2025; 6(2): 653461. Article. IF: 0.7; Q4
- **Cuerva MJ, Bartha I, Escribano E, Chueca G, de Aguado MP, Espinosa-Martos I, Esteban S, de La Calle M, Jiménez E, Bartha JL.** Gut microbiome differences after vaginal birth in relation to rupture of membranes at term: a prospective longitudinal cohort study of twins. *Eur J Pediatr.* 2025; 184(8): 511. Article. IF: 2.9; Q1
- **Cuerva MJ, Cortés M.** ERASE: A structured debriefing model. *Rev Esp Educ Med.* 2025; 6(3): 664001. Article. IF: 0.7; Q4

- **Cuerva MJ, Garrido L, Ramírez-Castan A, Prieto D, López F, Bartha JL.** Is immediate arterial cord blood sampling necessary in vigorous term neonates? A retrospective study of the impact of cord clamping timing on cord blood gas analysis. *Eur J Obstet Gyn R B.* 2025; 312: 114517. Article. IF: 2.3; Q2
- **Cuerva MJ, Pou M, Cruset M, Llamazares A, Ramírez-Castan A, Cortes M, Lopez F, Bartha JL.** Are all Thierry's spatulas the same? A simulation study comparing various available models. *J Gynecol Obstet Hum Reprod.* 2025; 54(7): 102979. Article. IF: 1.5; Q3
- **de Winter DP, Verweij EJT, Debeer A, Devlieger R, Lewi L, Verbeeck S, Maurice P, Jouannic JM, Guillemin MG, Mailloux A, dos Santos MCP, Pacheco CADS, Moreira MEL, Vaena MMD, Bohlin K, Tiblad E, Thorup E, Petersen OB, Sanchez-Holgado M, Llorente AV, Poljak B, Khalil A, Le Duc K, Ghesquiere L, Krivec JL, Soltirovska-Salamon A, Dame C, Blank JD, Hohnacker A, Saxonhouse M, Connors NK, Geipel A, Rath J, Prasad S, van Wyk L, Geerts L, Schuler R, Thon N, Leibovitch L, Cohen S, Canul-Euan AA, Kelly E, Raghuram K, Caviglioli F, Colombo SFG, Elanjikal Z, Brayley J, Pfuerscheller D, Pichler G, Grisi AGA, Navarro EJJC, Pereira-Nunes J, Soares H, Zhou M, Borau MJG, Calderon EM, Galletti MF, Mariani GL, Mackin D, Malone F, Lampland A, Tse WT, Castleman J, van der Bom JG, de Haas M, Lopriore E, Fetus Newborn DIONYSUS Investigators (Antolín Alvarado E).** Variations and opportunities in postnatal management of hemolytic disease of the fetus and newborn. *JAMA Netw Open.* 2025; 8(1): e2454330. Article. IF: 11.7; D1
- **Di Renzo GC, Arduini M, Bartha JL, Froeliger A, Jorgensen JS, Kacerovsky M, Staniewski P,**

Wielgos M, Gao LA, Gravett MG. Clinical utility of a glycosylated fibronectin test (Lumella™) for assessment of impending preeclampsia. *J Matern-Fetal Neo M.* 2025; 38(1): 2474674. Article. IF: 2.1; Q2

- **Di Renzo GC, Bartha JL, David AL, Devlieger R, Sentilhes L, Surbek DV, Verlohren S, Anumba DOC.** Predicting and preventing preterm birth in Europe: current challenges and gaps. *J Matern-Fetal Neo M.* 2025; 38(1): 2547687. Review. IF: 2.1; Q2
- **Dudzik D, Atanasova V, Barbas C, Bartha JL.** First-trimester metabolic profiling of gestational diabetes mellitus: insights into early-onset and late-onset cases compared with healthy controls. *Front Mol Biosci.* 2025; 11: 1452312. Article. IF: 4.4; Q2
- **Fidalgo AM, Aquisé A, Molina FS, Youssef A, González-Vanegas O, Brunelli E, Cataneo I, Segata M, Cuerva MJ, Rolfe V, Gil MM.** Reproducibility of breech progression angle: standardization of transperineal measurements and development of image-based checklist for quality control. *Diagnostics (Basel).* 2025; 15(14): 1757. Article. IF: 3.8; Q1
- **Lerma-Puertas D, Aguerri A, Pardini G, Paules C, Lerma-Irureta D, Oros D, Ruiz-Martínez S.** Methodology used in studies aimed at measuring fetal soft tissues by 2d ultrasound for the screening of large for gestational age fetuses. *J Ultras Med.* 2025; 44(3): 365-79. Review. IF: 2.1; Q2
- **Mateos-Canals N, Ruiz-Martínez S, Sánchez NM, Rasero JLB, Fernández-Miranda MC.** Impact of Social Media use among pregnant women in the Northern Area of Madrid. *Clin Invest Ginecol Obstet.* 2025; 52(2): 101030. Article. IF: 0.2; Q4
- **Moise E, Moise KJ, Nwokocha M, Lowry K, Hutson E, de Winter DP, Delphi IUT Study**

3.7. Maternal Infant Child and Youth Research

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Grp, (Antolín Alvarado E). Critical procedural steps in intrauterine transfusion: Delphi survey of international experts. *Ultrasound Obstet Gyn.* 2025; 65(1): 78-84. Article. IF: 5.3; D1

• Peña-Burgos EM, de la Calle M, Pozo-Kreiling JJ, García-Díaz C, Regajo-Zapata RM. Placental pathological findings and clinical outcomes in triplet pregnancies conceived via oocyte donation and non-oocyte donation: a case-control study. *Diagnostics (Basel).* 2025; 15(21): 2681. Article. IF: 3.8; Q1

• Peña-Burgos EM, de la Calle M, Pozo-Kreiling JJ, Regajo-Zapata RM. Placental pathological findings in triplet pregnancies conceived through assisted reproductive technology: a study of 98 cases. *Placenta.* 2025; 168: 159-67. Article. IF: 3.1; Q1

• Peña-Burgos EM, Duyós-Mateo I, Hato-Salmón L, Antolín-Alvarado E, Arribas CB, de León-Luis JAE, Regajo-Zapata RM. Massive subchorionic thrombohematoma (Breus' mole): An exceedingly rare placental disorder-Case series and systematic review. *Placenta.* 2025; 168: 276-87. Review. IF: 3.1; Q1

• Peña-Burgos EM, Duyos-Mateo I, Pozo-Kreiling JJ, Regajo-Zapata RM, Quirós-González V, de la Calle M. How have the baseline characteristics and outcomes of triplet pregnancies changed over the last two decades? *J Obstet Gynaecol Can.* 2025; 47(2): 102735. Article. IF: 2.3; Q2

• Peña-Burgos EM, García-Munuera E, Pozo-Kreiling JJ, Regajo-Zapata RM, de la Calle M. Smaller placentas and maternal vascular malperfusion are associated with worse pregnancy outcomes in triplet pregnancies with a monochorionic component. *Placenta.* 2025; 170: 75-81. Article. IF: 3.1; Q1

• Peña-Burgos EM, Regajo-Zapata RM, Caballero-Ferrero A, Martínez-Payo C, Vinuela-Benítez MD, Montero D, de la Calle M. The spectrum of placental findings of first-trimester cytomegalovirus infection related to the presence of symptoms in the newborns and stillbirths. *Modern Pathol.* 2025; 38(9): 100808. Article. IF: 6.6; D1

• Rol MJ, Cuerva MJ, Briones A, Bartha JL. Peripartum anxiety symptoms and breastfeeding duration: Prospective observational study. *Clin Invest Ginecol Obstet.* 2025; 52(3): 101038. Article. IF: 0.2; Q4

• Silva-Fernández CS, Camacho PA, de la Calle M, Arribas SM, Garrosa E, Ramiro-Cortijo D. Analysis of maternity rights perception: impact of maternal care in diverse socio-health contexts. *Eur J Investig Health Psychol Educ.* 2025; 15(2): 10. Article. IF: 3.7; Q1

Research projects

• de la Calle Fernández-Miranda M. Evaluación del perfil de hipercoagulabilidad de la gestación y su relación con el riesgo tromboembólico materno y disfunción placentaria (PI24/01208). ISCIII. 2025-2027. Managment centre: FIBHULP

• Bartha Rasero JL. Validación de nuevos biomarcadores en diabetes gestacional de inicio tardío (PI23/01837). ISCIII. 2024-2026. Managment centre: FIBHULP

Clinical trials

• Cuerva Gonzalez Mj. Evaluación de la seguridad y la capacidad predictiva de parto prematuro del dispositivo de investigación clínica. cervisense tptl: un estudio clínico internacional.

Type/Phase: OTROS

Sponsored by: Ultrasound-Innovation Medtech SL

Signature date: 22/09/2025

• Bartha Rasero JL. A phase 3, randomized, placebo-controlled, double-blinded trial to evaluate the safety, tolerability, and immunogenicity of a multivalent group b streptococcus vaccine in healthy pregnant women and their infants.

Type/Phase: III

Sponsored by: Pfizer Inc.

Signature date: 28/08/2025