

CURRICULUM VITAE

Personal information

Surname(s): ORTEGA DELGADO **Name:** FRANCISCO JOSÉ
ID: 40536131B **Date of Birth:** 02-03-1980 **Gender:** Man
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Current professional situation

Employing entity: Fundació Institut d'Investigació Biomèdica de Girona Dr. Josep Trueta (IDIBGI)
Institution: Institut d'Investigació Biomèdica de Girona Dr. Josep Trueta (IDIBGI)
Center: Hospital Universitario Dr. Josep Trueta de Girona
Department: Section of Diabetes, Endocrinology and Nutrition (UDEN)
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Specialty: Biomedicine / Molecular biology **Professional category:** Senior Researcher
Type of contract: Miguel Servet (MS19/00109) **Start date:** 01-01-2020
Researcher ID: F-3883-2016 **Orcid code:** 0000-0003-2111-769X

University education, awards and language skills

Degree	University	Date
Degree in Biology	Universitat de Girona (UdG)	June (2003)
PhD in Experimental Sciences and Sustainability	Universitat de Girona (UdG)	June (2012)
Courses	Institution	Date
Workshop RNAseq	Genomics Core Facility (UPF)	May (2019)
Course on Applied Genomics	Inst. Cat. Cs. Cardiovasculars (ICCC)	October (2009)
Statistics with 'R' for Professionals in Health	Universidad de Vigo (UVigo)	November (2014)
Statistics with 'R' for Health (Advanced)	Universidad de Vigo (UVigo)	October (2016)
Awards	Institution	Date
Extraordinary Doctorate Award in Health	Universitat de Girona (UdG)	June (2013)
Daniel Bravo Grant in Biomedical Research	Fundación Daniel Bravo	June (2015)

Language	Speaking	Reading	Writing
English	Advanced	Advanced	Advanced
French	Advanced	Advanced	Advanced
Catalan	Advanced	Advanced	Advanced
Spanish	Advanced	Advanced	Advanced

R&D projects funded through competitive calls of public or private entities

Project Title: Restricting fatty liver: Therapeutic utility of miR-30b (CP19/00109). **Funding entity or bodies:** Instituto de Salud Carlos III (ISCIII, MS). **Start-End date:** 2020-24. **Total amount:** 242,500€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Papel de Olfactomedin 2 (OLFM2) en el balance energético (FI19/00045). **Funding entity or bodies:** Instituto de Salud Carlos III (ISCIII, PFIS). **Start-End date:** 2020-23. **Total amount:** 82,400€. **Involvement:** Principal Investigator. **Name principal investigator(s):** Francisco J Ortega

Project Title: Restringiendo el hígado graso: utilidad terapéutica del miR-30b (SED2019). **Funding entity or bodies:** Sociedad Española de Diabetes (SED). **Start-End date:** 2019-21. **Total amount:** 20,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Restringint el fetge gras no alcohòlic: utilitat terapèutica del miR-30b (ACD2019). **Funding entity or bodies:** Associació Catalana de Diabetes (ACD). **Start-End date:** 2019-20. **Total amount:** 10,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Papel de la Olfactomedina 2 (OLFM2) en el tejido adiposo en relación con la obesidad (PI18/00550). **Funding entity or bodies:** Instituto de Salud Carlos III (ISCIII). **Start-End date:** 2019-21. **Total amount:** 111,320€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Relevance of the cluster miR-424(322)/503 in the development of hyperplastic adipose tissue (440/C/2016). **Funding entity or bodies:** Fundació La Marató de TV3. **Start-End date:** 2017-20. **Total amount:** 299,875.85€. **Involvement:** Coordinator. **Name principal investigator(s):** Francisco J Ortega, David Llobet-Navas

Project Title: Rellevància del clúster miR-424(322)/503 en el desenvolupament d'un teixit adipós hiperplàsic. **Funding entity or bodies:** El Govern de la Generalitat (Health Department). **Start-End date:** 2017-20. **Total amount:** 107,068.13€ (employment grant). **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Paternal RNA-mediated epigenetic inheritance of metabolic disorders: impact of weight loss on the human sperm epitranscriptome and identification of obesity-susceptibility loci. HEROS: Heredity Epigenetic RNA Obesity Sperm. **Funding entity or bodies:** ERA/JPI-HDHL: "Biomarkers for Nutrition and Health (BioNH)". **Start-End date:** 2019-21. **Total amount:** 149,998.86€. **Involvement:** Researcher. **Name principal investigator(s):** Valerie Grandjean

Project Title: Restricting obesity: Anti-S6K1 therapy (174/U/2016). **Funding entity or bodies:** Fundació La Marató de TV3. **Start-End date:** 2017-20. **Total amount:** 200,000€. **Involvement:** Researcher. **Name principal investigator(s):** Sara C Kozma

Project Title: Determination of biomarkers of cardiovascular risk in plasma vesicles from obese patients. **Funding entity or bodies:** Fundación Daniel Bravo. **Start-End date:** 2015-16 (6 months). **Total amount:** 18,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Determinación del patrón de miRNAs en líquido cefalorraquídeo y suero de pacientes con esclerosis múltiple. Asociación con otros biomarcadores. **Funding entity or bodies:** Fundación

Salud 2000. **Start-End date:** 2015-17. **Total amount:** 25,000€. **Involvement:** Researcher. **Name principal investigator(s):** Lluís Ramió.

Project Title: Circulating microRNAs in pre-pubertal children as biomarkers of metabolic diseases such as type 2 diabetes. **Funding entity or bodies:** EFSD/Lilly Research Fellowship Programme. **Start-End date:** 2013-15. **Total amount:** 50,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Systems biology genome-wide association studies to identify novel type 2 diabetes molecular mechanisms. **Funding entity or bodies:** EFSD/Lilly Research Fellowship Programme. **Start-End date:** 2013-15. **Total amount:** 50,000€. **Involvement:** Researcher. **Name principal investigator(s):** Josep M Mercader

Project Title: Determinación en LCR de miRNAs implicados en las lesiones cerebrales activas de esclerosis múltiple. **Funding entity or bodies:** Fundación Genzyme. **Start-End date:** 2015-17. **Total amount:** 10,000€. **Involvement:** Researcher. **Name principal investigator(s):** Lluís Ramió

Project Title: The role of intestinal microflora in non-alcoholic fatty liver disease (NAFLD). **Funding entity or bodies:** 7th Framework European Union. **Start-End date:** 2009-15. **Total amount:** 5,999,809€. **Involvement:** Employee. **Name principal investigator(s):** Rémy Burcelin.

Project Title: MicroRNA circulantes y en el tejido adiposo como biomarcadores metabólicos (SAF2011-00214). **Funding entity or bodies:** Instituto de Salud Carlos III (ISCIII). **Start-End date:** 2011-14. **Total amount:** 510,620€. **Involvement:** Researcher. **Name principal investigator(s):** José M Fernández-Real

Project Title: Use digital PCR to evaluate whether transgelin 2 (TAGLN2) DNA copy numbers are associated with obesity measures. **Funding entity or bodies:** Applied Biosystems. **Start-End date:** N/A. **Total amount:** 1,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Recerca d'una signatura microRNA (miRNA) circulant específica per la diabetis tipus 2 (ACD 2011). **Funding entity or bodies:** Associació Catalana de Diabetes (ACD). **Start-End date:** 2011-13. **Total amount:** 12,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega, José M Fernández-Real

Project Title: CIBER Fisiopatología de la Obesidad y Nutrición (CIBERObn). **Funding entity or bodies:** Ministerio de Sanidad y Consumo (CB06/03/010). **Start-End date:** N/A. **Total amount:** N/A. **Involvement:** Employee. **Name principal investigator(s):** José M Fernández-Real

Project Title: Estudio del patrón de expresión de los microRNAs (miRNAs) asociado al tejido adiposo visceral en función del grado de adiposidad en humanos. **Funding entity or bodies:** Institut d'Investigació Biomèdica de Girona (IdIBGi). **Start-End date:** 2009-10. **Total amount:** 6,000€. **Involvement:** Applicant. **Name principal investigator(s):** Francisco J Ortega

Project Title: Inflammation in adipose tissue: study of the changes after weight loss and its relationship with adipose tissue proteomics. **Funding entity or bodies:** Ministerio de Educación y Ciencia (SAF2008-02073). **Start-End date:** 2008-10. **Total amount:** 240,000€. **Involvement:** Researcher. **Name principal investigator(s):** José M Fernández-Real

Project Title: Implicación de proteínas sobre-expresadas en el tejido adiposo Omental humano en obesidad y diabetes tipo 2. **Funding entity or bodies:** Fundación Mutua Madrileña. **Start-End date:** 2009-11. **Total amount:** 15,000€. **Involvement:** Researcher. **Name principal investigator(s):** Belén Peral

Industrial and intellectual property

Title registered industrial property: Método para el diagnóstico y/o pronóstico de obesidad mórbida. **Inventors/authors/obtainers:** Francisco J Ortega Delgado, Josep M Mercader Bigas, Wifredo Ricard Engel, Gema Frühbeck Martínez, José M Fernández-Real Lemos. **Entity holder of rights:** CIBER de la FISIOPATOLOGIA de la OBESIDAD y la NUTRICION (CIBEROBN). **Date of register:** 01/11/2012. **Identify key words:** Obesity, molecular mechanisms of disease. **Nº of patent:** ES2654.4.

Scientific production

* Joint First-Last Author / **Corresponding Author**

- 1. Adipose tissue knockdown of lysozyme reduces local inflammation and improves adipogenesis in high-fat diet-fed mice.** Latorre J, Lluch A, Ortega FJ, Gavaldà-Navarro A, Comas F, Morón-Ros S, Rodríguez A, Becerril S, Villarroya F, Frühbeck G, Ricart W, Giralte M, Fernández-Real JM, Moreno-Navarrete JM. *Pharmacol Res.* 2021 Feb 5:105486. Online ahead of print. PMID: 33556481 DOI: 10.1016/j.phrs.2021.105486
- 2. Activation of endogenous H2S biosynthesis or supplementation with exogenous H2S enhances adipose tissue adipogenesis and preserves adipocyte physiology in humans.** Comas F, Latorre J, Ortega FJ, Arnoriaga Rodríguez M, Kern M, Lluch A, Ricart W, Blüher M, Gotor C, Romero LC, Fernández-Real JM, Moreno-Navarrete JM. *Antioxid Redox Signal.* 2021 Feb 6. Online ahead of print. PMID: 33554726 DOI: 10.1089/ars.2020.8206
- 3. MicroRNA Profile of Cardiovascular Risk in Patients with Obstructive Sleep Apnea.** Santamaria-Martos F, Benítez I, Pinilla L, Ortega FJ, Zapater A, Girón C, Mínguez O, Gómez S, Vaca R, Fernandez-Real JM, Barbé F, Sánchez-de-la-Torre M. *Respiration.* 2020; 99(12):1122-1128. PMID: 33207343 DOI: 10.1159/000511093
- 4. Morbidly obese subjects show increased serum sulfide in proportion to fat mass.** Comas F, Latorre J, Ortega FJ, Arnoriaga Rodríguez M, Lluch A, Sabater M, Rius F, Ribas X, Costas M, Ricart W, Lecube A, Fernández-Real JM, Moreno-Navarrete JM. *Int J Obes (Lond).* 2021; 45(2):415-426. PMID: 33040077 DOI: 10.1038/s41366-020-00696-z
- 5. Lysozyme is a component of the innate immune system linked to obesity associated-chronic low-grade inflammation and altered glucose tolerance.** Moreno-Navarrete JM, Latorre J, Lluch A, Ortega FJ, Comas F, Arnoriaga-Rodríguez M, Ricart W, Fernández-Real JM. *Clin Nutr.* 2020; S0261-5614(20)30452-0. PMID: 32943240 DOI: 10.1016/j.clnu.2020.08.036 [Epub ahead of print]
- 6. Permanent cystathionine-β-Synthase gene knockdown promotes inflammation and oxidative stress in immortalized human adipose-derived mesenchymal stem cells, enhancing their adipogenic capacity.** Comas F, Latorre J, Ortega FJ, Oliveras-Cañellas N, Lluch A, Ricart W, Fernández-Real JM, Moreno-Navarrete JM. *Redox Biol.* 2020; 2:101668. PMID: 32800520 DOI: 10.1016/j.redox.2020.101668 [Epub ahead of print]
- 7. Weight loss normalizes enhanced expression of the oncogene survivin in visceral adipose tissue and blood leukocytes from individuals with obesity.** Izquierdo AG, Carreira MC, Rodriguez-Carnero G, Fernandez-Quintela A, Sueiro AM, Martinez-Olmos MA, Guzman G, De Luis D, Pinhel

MAS, Nicoletti CF, Nonino CB, [Ortega FJ](#), Portillo MP, Fernandez-Real JM, Casanueva FF, Crujeiras AB. *Int J Obes (Lond)*. 16 June 2020. PMID: 32546857 DOI: 10.1038/s41366-020-0630-7 [Epub ahead of print]

8. *Molecular phenomics of a high-calorie diet-induced porcine model of prepubertal obesity.* Jové M, Tibaub J, Serrano JCE, Berdún R, Rodríguez-Palmero M, Font-i-Furnols M, Cassanyé A, Rodríguez-Mortera R, Sol J, Rassendren H, Fàbrega E, Crescenti A, Castell A, Sabater M, [Ortega FJ](#), Martín-Garia M, Quintanilla R, Puigjaner J, Moreno JA, Prat J, Arolad L, Fernández-Real JM, Pamplona R, Portero-Otina M. *J Nutr Biochem*. 2020; 83:108393. PMID: 32512501 DOI: 10.1016/j.jnutbio.2020.108393

9. *Dietary intake of bioactive ingredients impacts liver and adipose tissue transcriptomes in a porcine model of prepubertal early obesity.* Ballester M, Quintanilla R, [Ortega FJ](#), Serrano JCE, Cassanyé A, Rodríguez-Palmero M, Moreno-Muñoz JA, Portero-Otin M, Tibau J. *Sci Rep*. 2020; 10(1):5375. PMID: 32214182 DOI: 10.1038/s41598-020-62320-4

10. *Compounds that modulate AMPK activity and hepatic steatosis impact the biosynthesis of microRNAs required to maintain lipid homeostasis in hepatocytes.* Latorre J*, [Ortega FJ*](#), Liñares-Pose L, Moreno-Navarrete JM, Lluch A, Comas F, Oliveras-Cañellas N, Ricart W, Höring M, Zhou Y, Liebisch G, Nidhina Haridas PA, Olkkonen VM, López M, Fernández-Real JM. *EBioMedicine*. 2020; 53:102697. PMID: 32143184 DOI: 10.1016/j.ebiom.2020.102697

11. *Deletion of iRhom2 protects against diet-induced obesity by increasing thermogenesis.* Badenes M, Amin A, González-García I, Félix I, Burbridge E, Cavadas M, [Ortega FJ](#), Carvalho E, Faísca P, Carobbio S, Seixas E, Pedroso D, Neves-Costa A, Moita LF, Fernández-Real JM, Vidal-Puig A, Domingos A, López M, Adrain C. *Mol Metab*. 2020; 31:67-84. PMID: 31918923 DOI: 10.1016/j.molmet.2019.10.006

12. *Analysis of miRNA signatures in CSF identifies upregulation of miR-21 and miR-146a/b in patients with multiple sclerosis and active lesions.* Muñoz-San Martín M, Reverter G, Robles-Cedeño R, Buxó M, [Ortega FJ](#), Gómez I, Tomàs-Roig J, Celarain N, Villar LM, Perkal H, Fernández-Real JM, Quintana E, Ramió-Torrentà L. *J Neuroinflammation*. 2019; 16(1):220. PMID: 31727077 DOI: 10.1186/s12974-019-1590-5

13. *Circulating microRNA profile as a potential biomarker for obstructive sleep apnea diagnosis.* Santamaria-Martos F, Benítez I, [Ortega FJ](#), Zapater A, Giron C, Pinilla L, Pascual L, Cortijo A, Dalmases M, Fernandez-Real JM, Barbé F, Sánchez-de-la-Torre M. *Sci Rep*. 2019; 9(1):13456. PMID: 31530881 DOI: 10.1038/s41598-019-49940-1

14. *Hydrogen sulfide impacts on inflammation-induced adipocyte dysfunction.* Comas F, Latorre J, Cussó O, [Ortega FJ](#), Lluch A, Sabater M, Castells-Nobau A, Ricart W, Ribas X, Costas M, Fernández-Real JM, Moreno-Navarrete JM. *Food Chem Toxicol*. 2019; 131:110543. PMID: 31154084 DOI: 10.1016/j.fct.2019.05.051

15. *Cytoskeletal transgelin 2 contributes to gender-dependent adipose tissue expandability and immune function.* [Ortega FJ](#), Moreno-Navarrete JM, Mercader JM, Gómez-Serrano M, García-Santos E, Latorre J, Lluch A, Sabater M, Caballano-Infantes E, Guzmán R, Macías-González M, Buxó M, Gironés J, Vilallonga R, Naon D, Botas P, Delgado E, Corella D, Burcelin R, Frühbeck G, Ricart W, Simó R, Castrillon-Rodríguez I, Tinahones FJ, Bosch F, Vidal-Puig A, Malagón MM, Peral B, Zorzano A, Fernández-Real JM. *FASEB J*. 2019; 33(8):9656-71. PMID: 31145872 DOI: 10.1096/fj.201900479R

16. *Reduced Plasma Orexin-A Concentrations are Associated with Cognitive Deficits in Anorexia Nervosa.* Steward T, Mestre-Bach G, Granero R, Sánchez I, Riesco N, Vintró-Alcaraz C, Sauchelli S, Jiménez-Murcia S, Agüera Z, Fernández-García JC, Garrido-Sánchez L, Tinahones FJ, Casanueva FF, Baños RM, Botella C, Crujeiras AB, Torre R, Fernández-Real JM, Frühbeck G, [Ortega FJ](#), Rodríguez A, Menchón JM, Fernández-Aranda F. *Sci Rep*. 2019; 9(1):7910. PMID: 31133733 DOI: 10.1038/s41598-019-44450-6

- 17. Associations between neuropsychological performance and appetite-regulating hormones in patients with anorexia nervosa and healthy controls: Ghrelin's putative role as a mediator of decision-making.** Paslakis G, Agüera Z, Granero R, Sánchez I, Riesco N, Jiménez-Murcia S, Fernández-García JC, Garrido-Sánchez L, Tinahones FJ, Casanueva FF, Baños RM, Botella C, Crujeiras AB, Torre R, Fernández-Real JM, Frühbeck G, Ortega FJ, Rodríguez A, Serra-Majem L, Fitó M, Menchón JM, Fernández-Aranda F. *Mol Cell Endocrinol.* 2019; 497:110441. PMID: 31121263 DOI: 10.1016/j.mce.2019.04.021
- 18. Comparative and functional analysis of plasma membrane-derived extracellular vesicles from obese vs. nonobese women.** Santamaria-Martos F, Benitez ID, Latorre J, Lluch A, Moreno-Navarrete JM, Sabater M, Ricart W, Sanchez de la Torre M, Mora S*, Fernández-Real JM*, Ortega FJ*. *Clin Nutr.* 2019 Apr 17. PMID: 31036413 DOI: 10.1016/j.clnu.2019.04.008 [Epub ahead of print]
- 19. Identification and validation of circulating miRNAs as endogenous controls in obstructive sleep apnea.** Santamaría-Martos F, Benítez I, Zapater A, Girón C, Pinilla L, Fernández-Real JM, Barbé F, Ortega FJ*, Sánchez-de-la-Torre M*. *PLoS ONE.* 2019; 14(3):e0213622. PMID: 30865706 DOI: 10.1371/journal.pone.0213622
- 20. Neuregulin 4 Is a Novel Marker of Beige Adipocyte Precursor Cells in Human Adipose Tissue.** Comas F, Martínez C, Sabater M, Ortega FJ, Latorre J, Díaz-Sáez F, Aragonés J, Camps M, Gumà A, Ricart W, Fernández-Real JM, Moreno-Navarrete JM. *Front Physiol.* 2019; 10:39. PMID: 30766490 DOI: 10.3389/fphys.2019.00039
- 21. Ageing influences the relationship of circulating miR-33a and miR-33b levels with insulin resistance and adiposity.** Corona-Meraz FI, Vázquez-Del Mercado M, Ortega FJ, Ruiz-Quezada SL, Guzmán-Ornelas MO, Navarro-Hernández RE. *Diab Vasc Dis Res.* 2019; 16(3):244-253. PMID: 30537863 DOI: 10.1177/1479164118816659
- 22. Decreased TLR3 in Hyperplastic Adipose Tissue, Blood and Inflamed Adipocytes is Related to Metabolic Inflammation.** Latorre J, Moreno-Navarrete JM, Sabater M, Buxo M, Rodriguez-Hermosa JI, Girones J, Fort JM, Vilallonga R, Ricart W, Simo R, Fernandez-Real JM, Ortega FJ. *Cell Physiol Biochem.* 2018; 51(3):1051-1068. PMID: 30476912 DOI: 10.1159/000495487
- 23. Adipose TSHB in Humans and Serum TSH in Hypothyroid Rats Inform About Cellular Senescence.** Moreno-Navarrete JM, Liñares-Pose L, Sabater M, Rial-Pensado E, Comas F, Jové M, Latorre J, Ortega FJ, Ricart W, Portero-Otin M, López M, Fernández-Real JM. *Cell Physiol Biochem.* 2018; 51(1):142-153. PMID: 30448824 DOI: 10.1159/000495170
- 24. Comment on: jejunal long noncoding RNAs are associated with glycemic control via gut-brain axis after bariatric surgery in diabetic mice. Ortega FJ.** *Surg Obes Relat Dis.* 2018; 14(8):e4-e5. **Review.** PMID: 30251632 DOI: 10.1016/j.soard.2018.03.031
- 25. Adipose tissue TSH as a new modulator of human adipocyte mitochondrial function.** Comas F, Lluch A, Sabater M, Latorre J, Ortega FJ, Ricart W, López M, Fernández-Real JM, Moreno-Navarrete JM. *Int J Obes (Lond).* 2018; 43(8):1611-1619. PMID: 30206337 DOI: 10.1038/s41366-018-0203-1
- 26. Extracellular Vesicles from Hypoxic Adipocytes and obese subjects reduce Insulin-Stimulated Glucose Uptake.** Mleczko J*, Ortega FJ*, Falcon-Perez JM, Wabitsch M, Fernandez-Real JM, Mora S. *Mol Nutr Food Res.* 2018; 62(5). PMID: 29292863 DOI: 10.1002/mnfr.201700917
- 27. Gut Microbiota Interacts with Markers of Adipose Tissue Browning, Insulin Action and Plasma Acetate in Morbid Obesity.** Moreno-Navarrete JM, Serino M, Blasco-Baque V, Azalbert V, Barton RH, Cardellini M, Latorre J, Ortega FJ, Sabater-Masdeu M, Burcelin R, Dumas ME, Ricart W, Federici M, Fernández-Real JM. *Mol Nutr Food Res.* 2018; 62(3). PMID: 29105287 DOI: 10.1002/mnfr.201700721
- 28. MicroRNA-221-3p regulates Angiopoietin-like 8 (ANGPTL8) expression in adipocytes.** Mysore R*, Ortega FJ*, Latorre J, Ahonen M, Savolainen-Peltonen H, Fischer-Posovszky P, Wabitsch M,

Olkkonen VM, Fernández-Real JM, Nidhina Haridas PA. *J Clin Endocrinol Metab.* 2017; 102(11):4001-4012. PMID: 28938482 DOI: 10.1210/jc.2017-00453

29. Heme Biosynthetic Pathway is Functionally Linked to Adipogenesis via Mitochondrial Respiratory Activity. Moreno-Navarrete JM, Rodríguez A, Ortega FJ, Becerril S, Girones J, Sabater-Masdeu M, Latorre J, Ricart W, Frühbeck G, Fernández-Real JM. *Obesity (Silver Spring).* 2017; 25(10):1723-1733. PMID: 28857503 DOI: 10.1002/oby.21956

30. Increased adipose tissue heme levels and exportation are associated with altered systemic glucose metabolism. Moreno-Navarrete JM, Rodríguez A, Ortega FJ, Becerril S, Sabater-Masdeu M, Latorre J, Ricart W, Frühbeck G, Fernández-Real JM. *Sci Rep.* 2017; 13; 7(1):5305. PMID: 28706239 DOI: 10.1038/s41598-017-05597-2

31. TSHB mRNA is linked to cholesterol metabolism in adipose tissue. Moreno-Navarrete JM, Moreno M, Ortega FJ, Xifra G, Hong S, Asara JM, Serrano JCE, Jové M, Pissios P, Blüher M, Ricart W, Portero-Otin M, Fernández-Real JM. *FASEB J.* 2017; 31(10):4482-4491. PMID: 28646016 DOI: 10.1096/fj.201700161R

32. Dysregulation of placental miRNA in maternal obesity is associated with pre and post-natal growth. Carreras-Badosa G, Bonmatí A, Ortega FJ, Mercader JM, Guindo-Martínez M, Torrents D, Prats-Puig A, Martínez-Calcerada JM, DE Zegher F, Ibáñez L, Fernández-Real JM, Lopez-Bermejo A, Bassols J. *J Clin Endocrinol Metab.* 2017; 102(7):2584-2594. PMID: 28368446 DOI: 10.1210/jc.2017-00089

33. Inflammation in the spotlight – Clinical relevance of genetic variants affecting NFκB and TNFR1. Ortega FJ*, Fernández-Real JM*. *Ann Transl Med.* 2017; 5(10):219. **Review.** PMID: 28603734 DOI: 10.21037/atm.2017.02.13

34. HMOX1 as a marker of iron excess-induced adipose tissue dysfunction, affecting glucose uptake and respiratory capacity in human adipocytes. Moreno-Navarrete JM, Ortega FJ, Rodríguez A, Latorre J, Becerril S, Sabater-Masdeu M, Ricart W, Frühbeck G, Fernández-Real JM. *Diabetologia.* 2017; 60(5):915-926. PMID: 28243792 DOI: 10.1007/s00125-017-4228-0

35. Decreased lipid metabolism but increased FA biosynthesis are coupled with changes in liver microRNAs in obese subjects with NAFLD. Latorre J, Moreno-Navarrete JM, Mercader JM, Sabater M, Rovira O, Gironès J, Ricart W, Fernández-Real JM, Ortega FJ. *Int J Obes (Lond).* 2017; 41(4):620-630. PMID: 28119530 DOI: 10.1038/ijo.2017.21

36. Modulation of SHBG binding to testosterone and estradiol by sex and morbid obesity. Grasa MD, Gulfo J, Camps N, Alcalá R, Monserrat L, Moreno-Navarrete JM, Ortega FJ, Esteve M, Remesar X, Fernández-López JA, Fernández-Real JM, Alemany M. *Eur J Endocrinol.* 2017; 176(4):393-404. PMID: 28077498 DOI: 10.1530/EJE-16-0834

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Authors: J.M. Moreno-Navarrete, M. Serrano, M. Sabater, N. Pueyo, F.J. Ortega, J.I. Rodríguez-Hermosa, G. Pardo, W. Ricart, J.M. Fernández-Real

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Authors: J.M. Moreno-Navarrete, M. Serrano, M. Sabater, N. Pueyo, F.J. Ortega, J.I. Rodríguez-Hermosa, G. Pardo, W. Ricart, J.M. Fernández-Real.

Title of the work: **Decreased lactoferrin expression in adipose tissue and adipocytes in association with obesity**

Poster Presentation (IV Simposium del CIBERobn, Málaga, 2011).

Authors: F.J. Ortega, J.M. Mercader, J.M. Moreno-Navarrete, M. Sabater, N. Pueyo, G. Pardo, M. Serrano, S. Valdés, B. Ruiz, E. Luche, D. Naon, W. Ricart, P. Botas, E. Delgado, R. Burcelin, G. Frühbeck, F. Bosch, G. Mingrone, A. Zorzano, J.M. Fernández-Real

Title of the work: **Targeting the association of Calgranulin B (S100A9) with insulin resistance and type 2 diabetes**

Poster Presentation (48th Annual Meeting of the EASD, Berlin, 2012).

Authors: F.J. Ortega, N. Pueyo, J.M. Mercader, J.M. Moreno-Navarrete, S. Bonàs, J.I. Rodríguez-Hermosa, G. Pardo, M. Serrano, P. Botas, E. Delgado, W. Ricart, F.J. Tinahones, D. Torrents, J.M. Fernández-Real

Title of the work: **Common genetic variants of Surfactant Protein-D (SP-D) and its gene expression in adipose are linked to obesity and type 2 diabetes**

Poster Presentation (48th Annual Meeting of the EASD, Berlin, 2012).

Authors: M. Serrano, P. Petrov, J.M. Moreno-Navarrete, F.J. Ortega, J. Ribot, W. Ricart, A. Palou, M. Bonet, J.M. Fernández-Real

Title of the work: **RB1 mRNA, protein and activity in association with adipogenic capacity of human adipose tissue**

Oral Presentation (48th Annual Meeting of the EASD, Berlin, 2012).

Authors: E. Costa, J.M. Moreno-Navarrete, F.J. Ortega, M. Serrano, G. Pardo, N. Pueyo, E. Guerra, W. Ricart, J.M. Fernández-Real.

Title of the work: **Decreased PRDM16 gene expression in subcutaneous and visceral human adipose tissue in association with obesity**

Poster Presentation (48th Annual Meeting of the EASD, Berlin, 2012).

Authors: J.M. Moreno-Navarrete, V. Catalan, F.J. Ortega, M. Serrano, J. Gomez-Ambrosi, W. Ricart, C. Diéguez, G. Frühbeck, J.M. Fernández-Real

Title of the work: **Iron metabolism-related gene expressions in human adipose tissue in association with obesity and insulin sensitivity**

Poster Presentation (48th Annual Meeting of the EASD, Berlin, 2012).

Authors: F.J. Ortega, J.M. Fernández-Real

Title of the work: **Recerca d'una signatura microRNA (miRNA) circulant específica per la diabetis de tipus 2**

Oral Presentation (12^è Congrés de l'Associació Catalana de Diabetis, Girona, 2013).

Authors: G. Xifra, F.J. Ortega, J.M. Moreno-Navarrete, M. Moreno, E. Guerra, G. Pardo, W. Ricart, J.M. Fernández-Real

Title of the work: **Canvis derivats de la pèrdua de pes induïda per cirurgia bariàtrica en l'expressió de factors clau en la sensibilitat a la insulina i el metabolisme lipídic al teixit adipós**

Oral Presentation (12^è Congrés de l'Associació Catalana de Diabetis, Girona, 2013).

Authors: J.M. Fernández-Real, J.M. Moreno-Navarrete, M.G. Novelle, V. Catalán, F.J. Ortega, M. Moreno, J. Gomez-Ambrosi, G. Xifra, M. Serrano, E. Guerra, G. Frühbeck, C. Diéguez, W. Ricart

Title of the work: **The potential role of iron and endogenous transferrin biosynthesis in human and 3T3-L1 adipocyte differentiation**

Poster Presentation (49th Annual Meeting of the EASD, Barcelona, 2013).

Authors: F.J. Ortega, G. Pardo, J.M. Moreno-Navarrete, N. Pueyo, M. Sabater, M. Serrano, D. Mayas, M. Serino, J.I. Rodríguez-Hermosa, W. Ricart, E. Luche, R. Burcelin, F.J. Tinahones, G. Frühbeck, G. Mingrone, J.M. Fernández-Real

Title of the work: **Dual effects of inflammation and insulin resistance on markers of renewal of adipose tissue**

Poster Presentation (49th Annual Meeting of the EASD, Barcelona, 2013).

Authors: F.J. Ortega, A. Prats-Puig, J.M. Mercader, J.M. Moreno-Navarrete, M. Moreno, N. Bonet, W. Ricart, A. Lopez-Bermejo, J.M. Fernández-Real

Title of the work: **Study of circulating microRNAs in prepubertal obesity**

Poster Presentation (49th Annual Meeting of the EASD, Barcelona, 2013).

Authors: A. Prats-Puig, F.J. Ortega, J.M. Mercader, G. Carreras-Badosa, F. Díaz-Roldán, J. Bassols, A. Lopez-Bermejo, J.M. Fernández-Real

Title of the work: **Study of circulating microRNAs in prepubertal obesity**

Oral Presentation (9th Joint Meeting of Paediatric Endocrinology, Milan, 2013).

Authors: E. Quintana, F.J. Ortega, R. Robles, J.M. Fernández-Real, Ll. Ramió-Torrentà

Title of the work: **Differential microRNA signature in cerebrospinal fluid from patients with high active multiple sclerosis**

Poster Presentation (29th Congress of the European Committee for Research and Treatment in Multiple Sclerosis (ECTRIMS), Copenhagen, 2013).

Authors: E. Quintana, F.J. Ortega, N. Pueyo, R. Robles, J.M. Fernández-Real, Ll. Ramió-Torrentà

Title of the work: **Determinación del patrón de miRNA en líquido cefalorraquídeo de pacientes con esclerosis múltiple y bandas oligoclonales de IgM**

Oral Presentation (LXV Reunión Anual Sociedad Española Neurología, Barcelona, 2013).

Authors: A. Prats-Puig, F.J. Ortega, J.M. Mercader, J.M. Moreno-Navarrete, M. Moreno, N. Bonet, W. Ricart, A. Lopez-Bermejo, J.M. Fernández-Real

Title of the work: **Changes in circulating microRNAs are associated with childhood obesity**

XIII Frederik Paulsen Award (XXXVI Congreso de la SEEP, Sevilla, 2014).

Authors: J.M. Mercader, F.J. Ortega, M.I. Cardona-Alvarado, J.M. Moreno-Navarrete, M. Moreno, M. Sabater, N. Fuentes-Batllevell, W. Ricart, E.L. Pérez-Luque, J.M. Fernández-Real

Title of the work: **Genomic profiling in plasma reveals the effect of a polyunsaturated fatty acid-enriched diet on common microRNAs**

Poster Presentation (50th Annual Meeting of the EASD, Vienna, 2014).

Authors: F.J. Ortega, J.M. Mercader, J.M. Moreno-Navarrete, L. Nonell, E. Puigdecenet, G. Xifra, M. Sabater, M. Moreno, N. Fuentes-Batllevell, D. Mayas, N. Moreno-Castellanos, W. Ricart, F.J. Tinahones, M. Malagón, J.M. Fernández-Real.

Title of the work: **The number of microRNA target sites identifies those transcripts that will experience the most dramatic downregulation in adipose tissue from obese subjects after weight loss**

Poster Presentation (50th Annual Meeting of the EASD, Vienna, 2014).

Authors: G. Xifra, M. Moreno, M. Serrano, F.J. Ortega, J. Bassols, W. Ricart, J.M. Moreno-Navarrete, J.M. Fernández-Real

Title of the work: **Coxsackie and adenovirus receptor: novel depot-specific molecule in human adipose tissue?**

Poster Presentation (50th Annual Meeting of the EASD, Vienna, 2014).

Authors: M. Moreno, J.M. Moreno-Navarrete, F.J. Ortega, G. Xifra, W. Ricart, J.M. Fernández-Real

Title of the work: **Adipose tissue as an extrathyroidal source of TSH- β**

Poster Presentation (50th Annual Meeting of the EASD, Vienna, 2014).

Authors: J.M. Moreno-Navarrete, M. Moreno, M. Vidal, F.J. Ortega, M. Serrano, G. Xifra, W. Ricart, J.M. Fernández-Real

Title of the work: Deleted in Breast Cancer 1 (DBC1) plays a bifunctional role in adipocyte differentiation and inflammation

Poster Presentation (50th Annual Meeting of the EASD, Vienna, 2014).

Authors: Ll. Ramió-Torrentà, R. Menéndez, E. Quintana, R. Robles, H. Perkal, F.J. Ortega, J.M. Fernández-Real, J. Gich

Title of the work: La expresión de miR-142-3p en LCR de pacientes con EM se relaciona con un mejor rendimiento cognitivo

Oral Presentation (LXVI Reunión Anual Sociedad Española Neurología, Valencia, 2014).

Authors: F.J. Ortega, J.M. Mercader, J.M. Moreno-Navarrete, L. Nonell, E. Puigdecenet, J.I. Rodríguez-Hermosa, O. Rovira, G. Xifra, E. Guerra, M. Moreno, D. Mayas, N. Moreno-Castellanos, J.A. Fernández-Formoso, W. Ricart, F.J. Tinahones, M.M. Malagón, J.M. Fernández-Real

Title of the work: Weight loss rescues impaired microRNA-induced silencing in obese adipose tissue and inflamed adipocytes

Poster Presentation (VI Simposium del CIBERobn, Madrid, 2014).

Authors: M. Moreno, J.M. Moreno-Navarrete, F.J. Ortega, G. Xifra, W. Ricart, J.M. Fernández-Real

Title of the work: Adipose tissue as an extrathyroidal source of TSH β

Poster Presentation (VI Simposium del CIBERobn, Madrid, 2014).

Authors: F.J. Ortega, J.M. Mercader, J.M. Moreno-Navarrete, L. Nonell, E. Puigdecenet, J.I. Rodríguez-Hermosa, O. Rovira, G. Xifra, E. Guerra, M. Moreno, D. Mayas, N. Moreno-Castellanos, J.A. Fernández-Formoso, W. Ricart, F.J. Tinahones, M.M. Malagón, J.M. Fernández-Real

Title of the work: Weight loss rescues impaired microRNA-induced silencing in obese adipose tissue and inflamed adipocytes

Premio a la mejor comunicación científica (VI Simposium del CIBERobn, Madrid, 2014).

Authors: F.J. Ortega, J.M. Mercader, J.M. Moreno-Navarrete, L. Nonell, E. Puigdecenet, J.I. Rodríguez-Hermosa, O. Rovira, G. Xifra, E. Guerra, M. Moreno, D. Mayas, N. Moreno-Castellanos, J.A. Fernández-Formoso, W. Ricart, F.J. Tinahones, M.M. Malagón, J.M. Fernández-Real

Title of the work: Wide transcriptome and microRNA profiles depict enhanced microRNA target genes expression, increased inflammation and decreased lipid metabolism in obese adipose tissue

Oral Presentation (13^é Congrés de l'Associació Catalana de Diabetis, Barcelona, 2015).

Authors: J.M. Moreno-Navarrete, F.J. Ortega, M. Moreno, G. Xifra, W. Ricart, J.M. Fernández-Real **Title of the work:** PRDM16 sustains white fat gene expression profile in human adipocytes in direct relation with insulin action

Oral Presentation (13^é Congrés de l'Associació Catalana de Diabetis, Barcelona, 2015).

Authors: J. Gironès, G. Xifra, M. Puig, F.J. Ortega, J.I. Rodríguez-Hermosa, J.M. Moreno-Navarrete, E. García, J. Roig, A. Codina, J.M. Fernández-Real

Title of the work: Cambios en la expresión de genes lipogénicos y inflamatorios en pacientes obesos intervenidos de obesidad mórbida y su asociación con la mejoría en la sensibilidad a la insulina

Poster Presentation (XVII Congreso de la Sociedad Española de Cirugía de la Obesidad y de las Enfermedades Metabólicas y de la Sección de Obesidad de la AEC, Vitoria, 2015).

Authors: R. Vilallonga, F.J. Ortega, G. Xifra, M. Sabater, J.M. Moreno-Navarrete, M. Moreno, W. Ricart, R. Simó, J.M. Fort-López, J.M. Fernández-Real

Title of the work: La cirugía bariátrica evoca cambios en los genes inflamatorios y lipogénicos en el tejido adiposo del paciente obeso

Oral Presentation (XVII Congreso de la Sociedad Española de Cirugía de la Obesidad y de las Enfermedades Metabólicas y de la Sección de Obesidad de la AEC, Vitoria, 2015).

Authors: F.J. Ortega, M. Moreno, J.M. Mercader, J.M. Moreno-Navarrete, M. Sabater, W. Ricart, J.M. Fernández-Real

Title of the work: Inflammation triggers specific microRNA profiles in human adipocytes and macrophages and in their supernatants

Poster Presentation (51st Annual Meeting of the EASD, Stockholm, 2015).

Authors: N. Pueyo, F.J. Ortega, E. Quintana, R Robles, M. Fontan, J.M. Fernández-Real, Ll. Ramió

Title of the work: Concentraciones séricas de vitamina D y frecuencia de esclerosis múltiple en una población mediterránea

Oral Presentation (LXVII Reunión Anual Sociedad Española Neurología, Valencia, 2015).

Authors: F.J. Ortega, G. Xifra, Z. Agüera, M. Sabater, J.M. Moreno-Navarrete, I. Alonso-Ledesma, P. Botas, E. Delgado, S. Jimenez-Murcia, J.C. Fernández-García, F.J. Tinahones, R.M. Baños, C. Botella, R. de la Torre, G. Frühbeck, A. Rodríguez, X. Estivill, F. Casanueva, W. Ricart, F. Fernández-Aranda, J.M. Fernández-Real

Title of the work: Genetic variations of the bitter taste receptor TAS2R38 modifying eating also affect single immune traits

Poster Presentation (VII Simposium del CIBERobn, Madrid, 2015).

Authors: J.M. Moreno-Navarrete, G. Blasco, G. Xifra, J. Puig, F.J. Ortega, W. Ricart, J.M. Fernández-Real

Title of the work: Obesity is associated with gene and imaging markers of iron accumulation in skeletal muscle

Poster Presentation (VII Simposium del CIBERobn, Madrid, 2015).

Authors: J. Bassols, G. Carreras-Badosa, A. Bonmatí, F.J. Ortega, J.M. Mercader, J.M. Martínez-Calcerrada, L. Ibañez, J.M. Fernández-Real, A. Lopez-Bermejo

Title of the work: El perfil de miRNAs circulantes en gestantes obesas se asocia al crecimiento prenatal y postnatal

Oral Presentation (XXXVII Congreso de la Sociedad Española de Endocrinología Pediátrica, Valencia, 2015).

Authors: J. Bassols, G. Carreras-Badosa, A. Bonmatí, F.J. Ortega, J.M. Mercader, E. Platero, L. Ibañez, J.M. Fernández-Real, A. Lopez-Bermejo

Title of the work: MicroRNAs circulantes en obesidad pregestacional y gestacional

Poster Presentation (XXXVII Congreso de la Sociedad Española de Endocrinología Pediátrica, Valencia, 2015).

Authors: J. Bassols, G. Carreras-Badosa, A. Bonmatí, F.J. Ortega, J.M. Mercader, A. Prats-Puig, J. Sanchez, F. deZegher, L. Ibañez, J.M. Fernández-Real, A. Lopez-Bermejo

Title of the work: The Altered Circulating miRNA Profile in Maternal Obesity Associate with Pre- and Post-Natal Growth

Free Presentation (54th European Society for Paediatric Endocrinology (ESPE), Barcelona, 2015).

Authors: J. Bassols, G. Carreras-Badosa, A. Bonmatí, F.J. Ortega, J.M. Mercader, A. Prats-Puig, N. Sacot, F. deZegher, L. Ibañez, J.M. Fernández-Real, A. Lopez-Bermejo

Title of the work: Circulating miRNA Expression Profile in Pregestational and Gestational Obesity

Free Presentation (54th European Society for Paediatric Endocrinology (ESPE), Barcelona, 2015).

Authors: M.I. Cardona-Alvarado, F.J. Ortega, J. Molina, E. Ramírez, J.M. Fernández-Real, E.L. Pérez-Luque

Title of the work: Efecto de una dieta enriquecida con ácidos grasos poli-insaturados sobre parámetros metabólicos, antropométricos, antiinflamatorios en sujetos obesos

Oral Presentation (XVII Congreso de la Sociedad Latinoamericana de Nutrición (SLAN), Punta Cana, 2015).

Authors: M.I. Cardona-Alvarado, F.J. Ortega, E. Ramírez, J. Molina, J.M. Fernández-Real, E.L. Pérez-Luque
Title of the work: **Desaturase Activity in to response to enriched diet with polyunsaturated fatty acids in obese subjects**

Poster Presentation (12th European Nutrition Conference (FENS), Berlin, 2015).

Authors: M. Serrano, M. Moreno, J. Bassols, J. Moreno-Navarrete, F.J. Ortega, W. Ricart, J.M. Fernández-Real
Title of the work: **Coxsackie and Adenovirus Receptor Is Increased in Adipose Tissue of Obese Subjects: A Role for Adenovirus Infection?**

Oral Presentation (98th Annual Meeting and Expo of the Endocrine Society (ENDO 2016), Boston, MA, 2016).

Authors: M.I. Cardona-Alvarado, F.J. Ortega, J. Molina, E. Ramírez, J.M. Fernández-Real, E.L. Pérez-Luque
Title of the work: **Efecto de una dieta isocalórica suplementada con nueces y almendras sobre la actividad de las desaturasas y su relación con parámetros metabólicos e inamatorios en sujetos obesos**

Oral Presentation (LVI Congreso Internacional de la Sociedad Mexicana de Nutrición y Endocrinología (SMNE), Monterrey, 2016).

Authors: E. Quintana, F.J. Ortega, F. Javier, R. Robles, Ll.M. Villar, M. Buxó, J.M. Mercader, N. Pueyo, H. Perkal, J.M. Fernández-Real, Ll. Ramió-Torrentà

Title of the work: **miRNAs en LCR permiten predecir aquellos pacientes con un curso agresivo de la enfermedad**

Oral Presentation (LXVIII Reunión Anual Sociedad Española Neurología, Valencia, 2016).

Authors: E. Quintana, G. Reverter, O. Belchi, F.J. Ortega, R. Robles, Ll.M. Villar, N. Pueyo, H. Perkal, J.M. Fernández-Real, Ll. Ramió-Torrentà

Title of the work: **Sobreexpresión de miR-146a, miR-146b y miR-21 en LCR de pacientes con lesiones activas de esclerosis múltiple**

Oral Presentation (LXVIII Reunión Anual Sociedad Española Neurología, Valencia, 2016).

Authors: J. Latorre, J.M. Moreno-Navarrete, M. Sabater, M. Buxó, J.I. Rodríguez-Hermosa, J. Gironés, José M. Fort, R. Vilallonga, W. Ricart, R. Simó, J.M. Fernández-Real, F.J. Ortega

Title of the work: **Inflammatory-induced expression of toll-like receptors in blood and adipose tissue in association with metabolic inflammation**

Poster Presentation (IX Simposium del CIBERobn, Madrid, 2017).

Authors: J. Latorre, J.M. Moreno-Navarrete, F.J. Ortega, M. Sabater, A. Rodriguez, S. Becerril, G. Frühbeck, R. Vilallonga, R. Simó, W. Ricart, J.M. Fernández-Real

Title of the work: **Lysozyme as a new player in obesity-related adipose tissue inflammation**

Poster Presentation (IX Simposium del CIBERobn, Madrid, 2017).

Authors: J. Latorre, J.M. Moreno-Navarrete, F.J. Ortega, M. Sabater, A. Rodriguez, S. Becerril, G. Frühbeck, R. Vilallonga, R. Simó, W. Ricart, J.M. Fernández-Real

Title of the work: **Lysozyme as a new player in obesity-related adipose tissue inflammation**

Poster Presentation (53rd Annual Meeting of the EASD, Lisbon, 2017).

Authors: F. Santamaria-Martos, I. Benitez, F.J. Ortega, O. Minguez, A. Cortijo, V. Quibus, J. Fernandez-Real, F. Barbe, M. Sanchez de la Torre

Title of the work: **MicroRNA Profile of Cardiovascular Risk in Patients with Obstructive Sleep Apnea**

Poster Presentation (American Thoracic Society, San Diego, CA, 2018).

Authors: F.J. Ortega

Title of the work: **Cytoskeletal Reorganization in Adipose Tissue and Inflammation**

Invited Speaker (Chronic Inflammation and Prevalent Metabolic Diseases (CIPMD) Symposium, Girona, 2018).

Authors: F.J. Ortega, J.M. Moreno-Navarrete, J.M. Mercader, M. Gómez-Serrano, E. García-Santos, J. Latorre, M. Sabater, R. Guzmán, M. Macías-González, M. Buxó, J.I. Rodríguez-Hermosa, R. Vilallonga, D. Naon, P.

Botas, E. Delgado, D. Corella, R. Burcelin, G. Frühbeck, W. Ricart, R. Simó, I. Castrillón-Rodríguez, M.T. Martínez-Larrad, M. Serrano-Ríos, F.J. Tinahones, A. Vidal-Puig, M.M. Malagón, B. Peral, A. Zorzano, J.M. Fernández-Real

Title of the work: Cytoskeletal Transgelin 2 (TAGLN2) is associated with sex-dependent adipose tissue expandability

Oral Presentation (Meeting of the European Society for Clinical Investigation (ESCI), Barcelona, 2018).

Authors: A. Lluch, J. Latorre, J.M. Moreno-Navarrete, M. Sabater, M. Buxó, J.I. Rodríguez-Hermosa, J. Gironès, W. Ricart, R. Vilallonga, R. Simó, J.M. Fernández-Real, F.J. Ortega

Title of the work: Decreased TLR3 in hyperplastic adipose tissue, blood and inflamed adipocytes is related to metabolic inflammation

Poster Presentation (Meeting of the European Society for Clinical Investigation (ESCI), Barcelona, 2018).

Authors: J. Latorre, J.M. Moreno-Navarrete, F.J. Ortega, M. Sabater, A. Rodríguez, S. Becerril, G. Frühbeck, R. Vilallonga, R. Simó, W. Ricart, J.M. Fernández-Real

Title of the work: Adipose tissue and circulating lysozyme in association with obesity-related metabolic disturbances

Poster Presentation (Meeting of the European Society for Clinical Investigation (ESCI), Barcelona, 2018).

Authors: M. Sabater, M.E. Palomo-Buitrago, F. Comas, J. Latorre, F.J. Ortega, V. Pérez-Brocal, A. Moya, W. Ricart, J.M. Moreno-Navarrete, J.M. Fernández-Real

Title of the work: The ratio of Erysipelotrichaceae/Alistipes putredinis as a novel biomarker of obesity-associated gut dysbiosis in humans

Poster Presentation (Meeting of the European Society for Clinical Investigation (ESCI), Barcelona, 2018).

Authors: F.J. Ortega, J.M. Moreno-Navarrete, M. Gómez-Serrano, E. García-Santos, J. Latorre, M. Sabater, E. Caballano-Infantes, R. Guzmán, A. Vidal-Puig, M.M. Malagón, B. Peral, A. Zorzano, J.M. Fernández-Real

Title of the work: Cytoskeletal TAGLN2 is associated with sex-dependent adipose tissue expandability

Poster Presentation (54th Annual Meeting of the EASD, Berlin, 2018).

Authors: J. Latorre, F. Santamaria-Martos, I. Benitez, J.M. Moreno-Navarrete, M. Sabater, W. Ricart, M. Sanchez de la Torre, J.M. Fernández-Real, S. Mora, F.J. Ortega

Title of the work: Comparative and functional analysis of plasma membrane-derived extracellular vesicles from obese vs. nonobese women

Poster Presentation (54th Annual Meeting of the EASD, Berlin, 2018).

Authors: J.M. Moreno-Navarrete, F. Comas, J. Latorre, M. Arnoriaga-Rodríguez, F.J. Ortega, M. Kern, O. Cusso, M. Sabater, W. Ricart, X. Ribas, M. Costas, M. Blüher, J.M. Fernández-Real

Title of the work: The importance of adipocyte H2S-synthesising enzymes in human adipose tissue adipogenesis and systemic insulin action

Poster Presentation (54th Annual Meeting of the EASD, Berlin, 2018).

Authors: F.J. Ortega

Title of the work: FatBank

Invited Speaker (Jornada científica en commemoració del 5^è aniversari del Biobanc IDIBGI, Girona, 2018).

Authors: F.J. Ortega, J. Latorre, J.M. Moreno-Navarrete, M. Sabater, A. Rodriguez, S. Becerril, G. Frühbeck, R. Vilallonga, R. Simó, W. Ricart, J.M. Fernández-Real

Title of the work: Comparative and functional analysis of plasma membrane-derived extracellular vesicles from obese vs. nonobese women

Oral Presentation (X Symposium del CIBERobn, Madrid, 2018) – Awarded as Best Oral Communication.

Authors: J. Latorre, J.M. Moreno-Navarrete, F.J. Ortega, M. Sabater, A. Rodriguez, S. Becerril, G. Frühbeck, R. Vilallonga, R. Simó, W. Ricart, J.M. Fernández-Real

Title of the work: Lysozyme as a new player in obesity-related adipose tissue inflammation

Poster Presentation (X Simposium del CIBERobn, Madrid, 2018).

Authors: J. Latorre, J.M. Moreno-Navarrete, M. Buxò, M. Sabater, A. Lluch, F. Comas-Vila, M. Ballester, W. Ricart, F.J. Ortega, J.M. Fernández-Real

Title of the work: Analysis of long noncoding RNA profiles in human adipose tissue highlights the metabolic relevance of adipogenic linc-GALNTL6-4

Poster Presentation (55th Annual Meeting of the EASD, Barcelona, 2019).

Authors: J. Latorre, J.M. Moreno-Navarrete, M. Buxò, M. Sabater, A. Lluch, F. Comas-Vila, M. Ballester, W. Ricart, F.J. Ortega, J.M. Fernández-Real

Title of the work: Analysis of long noncoding RNA profiles in human adipose tissue highlights the metabolic relevance of adipogenic linc-GALNTL6-4

Poster Presentation (XI Simposium del CIBERobn, Virtual, 2020).

Authors: F.J. Ortega, R. Rodríguez-Barrueco, J. Latorre, L. Devis-Jauregui, A. Lluch, N. Bonifaci, F.J. Llobet, L. Coll, M. Olivan, J.M. Moreno-Navarrete, A. Castells Nobau, J.M. Fernández-Real, J.M. Silva, D. Llobet-Navas

Title of the work: The miR-424(322)/503 cluster regulates fat cell differentiation and the commitment required to develop obesity by inhibiting γ -Synuclein

Poster Presentation (XI Simposium del CIBERobn, Virtual, 2020).

Authors: J. Mentxaka, M. Sebastian de la Cruz, H. Rojas, I. González-Moro, A. Olazagoitia-Garmendia, L.M. Mendoza, A. Lluch, F.J. Ortega, A. Castellanos-Rubio, I. Santin

Title of the work: A long non-coding RNA, that harbors a SNP associated with basal and glucose-stimulated insulin levels, regulates the expression of the type 2 transglutaminase gene in pancreatic β -cells

Poster Presentation (NHLBI Long Non-coding RNAs Symposium: from Basic Mechanism to Human Disease, Virtual, 2021).

Authors: F.J. Ortega, R. Rodríguez-Barrueco, J. Latorre, L. Devis-Jauregui, A. Lluch, N. Bonifaci, F.J. Llobet, L. Coll, M. Olivan, J.M. Moreno-Navarrete, A. Castells-Nobau, J.M. Fernández-Real, J.M. Silva, D. Llobet-Navas

Title of the work: The miR-424(322)/503 cluster regulates fat cell differentiation and the commitment required to develop obesity by inhibiting γ -Synuclein

Oral Presentation (57th Annual Meeting of the EASD, Virtual, 2021).

Authors: J. Mentxaka, M. Sebastian de la Cruz, H. Rojas, I. González-Moro, A. Olazagoitia-Garmendia, L.M. Mendoza, A. Lluch, F.J. Ortega, A. Castellanos-Rubio, I. Santin

Title of the work: A long non-coding RNA, that harbors a SNP associated with basal and glucose-stimulated insulin levels, regulates the expression of the type 2 transglutaminase gene in pancreatic β -cells

Oral Presentation (XXXII Congreso Anual de la Sociedad Española de Diabetes (SED), Virtual, 2021).

Authors: F.J. Ortega, J. Latorre, A. Lluch, A. Castells-Nobau, N. Oliveras-Cañellas, J.M. Moreno-Navarrete, J.M. Fernández-Real

Title of the work: Restringiendo el hígado graso: Utilidad terapéutica del miR-30b

Oral Presentation (XXXII Congreso Anual de la Sociedad Española de Diabetes (SED), Virtual, 2021).

Authors: J. Latorre, N. Oliveras-Cañellas, A. Lluch, A. Castellanos-Rubio, I. Santin, J.M. Fernández-Real, F.J. Ortega

Title of the work: Variaciones en la expresión de un ARN no codificante de cadena larga condicionan el receptor de ácidos grasos libres FFAR3 y el metabolismo de las células adiposas en sujetos obesos

Poster Presentation (XXXII Congreso Anual de la Sociedad Española de Diabetes (SED), Virtual, 2021).

Authors: A. Lluch, S.R. Veiga, J. Latorre, J.M. Moreno-Navarrete, N. Bonifaci, R. Rodríguez-Barrueco, D. Llobet-Navas, Y. Zhou, G. Liebisch, G. Thomas, J.M. Fernández-Real, S.C. Kozma, F.J. Ortega

Title of the work: A compound directed against S6K1 hampers fat mass expansion and mitigates diet-induced hepatosteatosis

Poster Presentation (XXXII Congreso Anual de la Sociedad Española de Diabetes (SED), Virtual, 2021).

Teaching experience

Courses and seminars given to healthcare professionals focused on improving medical care:

Entity where project took place: Universitat de Girona (UdG). **Type of participation:** Invited speaker. **Organising entity:** Master de Biología Molecular y Biomedicina. **Type of entity:** University. **Name of the course:** Biological Basis of Metabolic Disease. **Year(s):** 2010-2017 (7 consecutive years), and 2019.

Experience supervising doctoral thesis and final projects:

Project title: RELEVANCE OF THE EPIGENETIC REGULATION EXERCISED BY HEPATIC microRNAs IN THE FATTY LIVER ARENA: from the bedside to the bench. **Type of project:** Work leading to a **Ph.D.** degree **Entity:** Universidad de Girona (UdG). **Date of reading:** 04/03/2020. **City:** Girona. **Student:** Jèssica Latorre. **Obtained qualification:** "Cum laude" (with highest honour)

Project title: Identification of Olfactomedin 2 as a novel factor involved in the physiology of adipose tissue. **Type of project:** Work leading to an **ASD** degree. **Entity:** Universidad de Girona (UdG). **Date of reading:** 10/06/2017. **City:** Girona. **Student:** Aina Lluch. **Obtained qualification:** 8.7

Project title: Associació entre la velocitat de sedimentació globular (VSG), l'obesitat i altres paràmetres del trastorn metabòlic. **Type of project:** Work leading to an **ASD** degree. **Entity:** Universidad de Girona (UdG). **Date of reading:** 11/09/2015. **City:** Girona. **Student:** Josep Carreres. **Obtained qualification:** 8.7

Project title: Efecte de l'estímul inflamatori sobre l'expressió i secreció miRNA de Macròfags i Adipòcits. **Type of project:** Work leading to an **ASD** degree. **Entity:** Universidad de Girona (UdG). **Date of reading:** 01/07/2013. **City:** Girona. **Student:** Nuria Fuentes. **Obtained qualification:** 8.5

Project title: Estudio de los Efectos de los Inhibidores de 38-MAPK en la Adipogénesis y la Vía de Señalización de la Insulina en 3T3-L1. **Type of project:** Work leading to an **ASD** degree. **Entity:** Universidad de Girona (UdG). **Date of reading:** 30/06/2012. **City:** Girona. **Student:** Marina Koroleva. **Obtained qualification:** 8.5

Activities/achievements as Referee and/or Scientific adviser

Member of:

Board member of the **Associació Catalana de Diabetis (ACD, 2017-20)**

Reviewer for:

Am J Physiol Endocrinol Metab - **10** times (12/2013, 09, 11 and 12/2014, 06 and 10/2015, 07/2016, 10/2017, 09/2019, 03/2020)

Am J Physiol Heart Circ Physiol - **1** time (02/2015)

Am J Physiol Regul Integr Comp Physiol - **1** time (11/2014)

Ann Intern Med - **1** time (12/2011)

Atherosclerosis - 4 times (10/2012, 03/2014, 07/2015 and 03/2016)
Biochimie - 1 time (09/2015)
Biochim Biophys Acta - 4 times (01/2012, 04/2018, 01/2019, 04/2020, 03/2021)
Biomed Pharmacother - 1 time (04/2018)
Biosci Rep - 1 time (10/2017)
BMC Med Genomics - 2 times (10 and 11/2014)
Br J Nutr - 1 time (06/2020)
Cardiovasc Diabetol - 1 time (12/2013)
Cell Prolif - 1 time (09/2016)
Comput Struct Biotechnol J - 1 time (08/2014)
Curr Med Res Opin - 1 time (01/2018)
Clin Epigenetics - 1 time (05/2015)
Diabetes - 1 time (10/2015)
Diabetes Care - 2 times (08/2010, 09/2013)
Diabetologia - 2 times (12/2014, 04/2015)
Disease Markers - 1 time (12/2014)
EBioMedicine - 5 times (09/2018, 01/2019, 02/19, 02/20, 07/20)
Epigen - 1 time (01/2016)
Eur J Endocrinol - 1 time (10/2014)
Expert Opin Ther Targets - 1 time (10/2010)
FASEB J - 1 time (10/2019)
Genes - 1 time (10/2017)
Genes Nutr - 2 times (12/2015, 11/2018)
Horm Met Res - 1 time (05/2015)
Horm Res Paediatr - 1 time (11/2015)
Int J Mol Sci - 1 time (11/2020)
J Clin Endocrinol Metab - 8 times (05/2014, 10/2016, 02, 04, 05 and 11/2017, 04/2019, 02/2020)
J Appl Physiol - 1 time (05/2016)
J Cel Mol Med - 1 time (12/2014)
J Endocrinol 7 times (05 and 10/2012, 01 and 09/2013, 01/2014, 09/2016, 07/2019)
J Funct Foods - 2 times (02/2015, 11/2020)
J Hum Hypertens c 1 time (03/2017)
J Mol Med (Berl) - 1 time (05/2013)
J Nutr Biochem - 2 times (03/2019, 03/2020)
J Pharm Pharmacol - 1 time (10/2020)
J Physiol Biochem - 1 time (03/2016)
Mol Cancer - 1 time (12/2014)
Mol Cell Endocrinol - 2 times (02/2017, 12/2018)
Mol Nutr Food Res - 3 times (02/2016 and 08/2016, 12/2020)
Nutrients - 2 times (05/2017, 01/2021)
Obesity - 1 time (08/2016)
Obesity Reviews - 1 time (04/2019)
OMICS Clin - 1 time (10/2015)
PeerJ - 1 time (11/2015)
Pediatr Obes - 1 time (08/2015)
Physiol Res - 1 time (09/2009)
PLoS ONE - 3 times (08/2010, 11/2015, 04/2016)
Rev Endocr Metab Dis - 1 time (03/2021)
Sci Rep - 8 times (06 and 10/2015, 10/2016, 03/2017, 06/2018, 01 and 07/2019, 09/2020)

Stem Cell Res - 1 time (08/2014)

Surg Obes Relat Dis - 9 times (11/2013, 10/2014, 01, 05, 07, 09 and 10/2016, 01/2017, 04/2018)

Referee for:

The **Estonian Research Council** - Peer Review, Ref# PSG512 application 2020 (08/2019)

The **Wellcome Trust** - Grants Adviser, Ref#109429/Z/15/Z (07/2015)

The **French National Research Agency (FNRA)** - Project "BRITE-MIR" (03/2013)

The **Sir Henry Dale Fellowship** - Peer Review, Ref#SHDF 11/12 (08/2015)

Diabetes.UK (Early-Career Small Grant 2015) - Peer Review, Ref#16/0005434 (03/2016)

Ministerio de Ciencia, Tecnología e Innovación Productiva de la República Argentina - (Proyectos de Investigación Científica y Tecnológica, PICT 2016) - Comisión de Medicina Humana y Salud Pública de la ANPCYT, Ref#PICT-2016-0135 (11/2016)

Israel Science Foundation (Individual Research Grants 2017) - Peer Review, Ref#1622/17 (02/2017)

National Science Centre of Poland (Funding scheme PRELUDIUM 2018) - Peer Review, Ref# 390749, Panel NZ7 (04/2018)

Swiss National Science Foundation (Project funding in biology and medicine - division III) - Peer Review, Ref# 310030_182655 (06/2018)

Agencia Nacional de Investigación e Innovación (ANII) de Uruguay (Fondo Clemente Estable 2019 (FCE 2019)) - Peer Review, Ref# FCE_1_2019_1_155859

Reviewer of:

The **Sociedad Española de Diabetes (SED)** - 49th Annual Meeting of the EASD, Barcelona (09/2013)

The **Sociedad Española de Diabetes (SED)** - 52nd Annual Meeting of the EASD, Munich (09/2016)

The **Sociedad Española de Diabetes (SED)** - 53rd Annual Meeting of the EASD, Lisboa (09/2017)

The **Associació Catalana de Diabetis (ACD)** - "La genòmica aplicada a l'endocrinologia clínica: perspectives en el camp dels microRNAs, l'obesitat i el trastorn metabòlic". Ortega FJ. Review (01/2015) - http://www.acdiabetis.org/d_avui/docs/la_genomica_aplicada_F_ORTEGA.pdf

Chairman for:

The final dissertation of **8** (10/2012), **9** (10/2013), **6** (07/2016) and **5** (09/2018) students of the Master of Molecular Biology and Biomedicine - Universidad de Girona (UdG)

Doctoral Thesis of María Gómez Serrano, entitled "Aplicación de técnicas proteómicas de alta resolución al estudio de la obesidad y la diabetes tipo 2: análisis de la disfunción mitocondrial en el tejido adiposo humano", inside the Program of Medicine, at the University of Madrid (UAM) - **Court #3** (05/2017)

Doctoral Thesis of Eva López Navarro, entitled "Estudi de l'Expressió dels Receptors Hormonals Tiroïdals i les Deiodinases en Cèl·lules de l'Aparell Reproductor de Dones Fèrtils i Estèrils Sotmeses a Cicles de Fecundació in vitro", inside the Program of Experimental Sciences and Sustainability, at the University of Girona (UdG) - **Alternate #2** (03/2015)

Doctoral Thesis of Jordi Calabia Martínez, entitled "Estudi de l'Hemodinàmica Intrarenal Mitjançant l'Índex de Resistivitat com a Marcador d'Afectació Renal, Risc Cardiovascular i Rigidesa Arterial", inside the Program of Experimental Sciences and Sustainability, at the University of Girona (UdG) - **Alternate #2** (12/2014)

Doctoral Thesis of Lluís Ramió i Torrentà, entitled "Determinació del Patró de miRNA en Líquid Cefaloraquídi de Pacients amb Esclerosi Múltiple (Estudi miEM)", inside the Program of Experimental Sciences and Sustainability, at the University of Girona (UdG) - **Alternate #1** (10/2014)

Biographical sketch Francisco José Ortega joined the Unit of Endocrinology, Diabetes and Nutrition (UDEN) of the Biomedical Research Institute of Girona (IDIBGI) in 2005. Since 2007, F.J. Ortega has belonged to the CIBER de la Fisiopatología de la Obesidad y la Nutrición (CIBEROBN). He defended his Doctoral Thesis in June 2012 and got his doctorate Cum Laude in Experimental Sciences and Sustainability by the University of Girona (UdG). His dissertation was awarded by the Extraordinary Doctorate Award in the Category of Health (UdG). During his career, F.J. Ortega has gained a very strong track record, especially in the field of obesity and metabolic diseases. As a result, F.J. Ortega was appointed in 2016 as Principal Investigator (PI) by the Department of Health of the Generalitat de Catalunya (PERIS 2016-2020). F.J. Ortega is now a recipient of the Miguel Servet scheme (MS19/00109), and his team consists of one Ph.D. student (F119/00045). His current research lines are funded by the ISCIII (PI18/00550), the Fundació La Marató de TV3 (2016), the Spanish Society of Diabetes (2019), and the Catalan Association of Diabetes (2019). F.J. Ortega was also the PI of projects funded by the Daniel Bravo Foundation (2015), the European Foundation for the Study of Diabetes and Lilly (2013), the Catalan Association of Diabetes (2013), and the IDIBGI (2009). With an h-index of 35, F.J. Ortega has participated in research leading to >140 publications and several participations in national and international symposiums, and has conducted the evaluation of dissertations and the supervision of works leading to the Master/Ph.D. degree. He also participates in committees, giving scientific advisory as reviewer for several journals, official research agencies, international awards and symposiums.

Bosquejo biográfico Francisco José Ortega se incorporó a la Unidad de Endocrinología, Diabetes y Nutrición (UDEN) del Instituto de Investigación Biomédica de Girona (IDIBGI) en el 2005. Desde el 2007, F.J. Ortega es un investigador adscrito al CIBER de la Fisiopatología de la Obesidad y la Nutrición (CIBEROBN). Defendió su Tesis Doctoral en junio del 2012 y se doctoró Cum Laude en Ciencias Experimentales y Sostenibilidad por la Universidad de Girona (UdG). Su disertación fue premiada con el Premio Extraordinario de Doctorado en la Categoría de Salud (UdG). Durante su carrera, F.J. Ortega ha consolidado una trayectoria firme en el campo de la obesidad y las enfermedades metabólicas. Como resultado, en el 2016 fue nombrado Investigador Principal (IP) por el Departamento de Salud de la Generalitat de Catalunya (PERIS 2016-2020). Hoy en día, F.J. Ortega es investigador beneficiario del esquema Miguel Servet (MS19/00109), y su equipo está formado por una estudiante de doctorado también financiada por el ISCIII (F119/00045). Sus líneas de investigación actuales están financiadas por el ISCIII (PI18/00550), la Fundació La Marató de TV3 (2016), la Sociedad Española de Diabetes (2019) y la Asociación Catalana de Diabetes (2019). F.J. Ortega fue también el IP de proyectos financiados por la Fundación Daniel Bravo (2015), la Fundación Europea para el Estudio de la Diabetes y Lilly (2013), la Asociación Catalana de Diabetes (2013) y el IDIBGI (2009). Con un índice h de 35, este IP ha participado en investigaciones que han dado lugar a más de 140 publicaciones y varias participaciones en congresos nacionales e internacionales, y ha realizado la evaluación de disertaciones y la supervisión de trabajos conducentes al título de Máster y Doctor en Ciencias Experimentales, Biomedicina y Biotecnología. También participa en comités, brindando asesoría científica como revisor de diversas revistas, agencias oficiales de investigación, premios internacionales y simposios.

Esbós biogràfic Francisco José Ortega es va incorporar a la Unitat d'Endocrinologia, Diabetis i Nutrició (UDEN) de l'Institut d'Investigació Biomèdica de Girona (IDIBGI) al 2005. Des del 2007, F.J. Ortega és un investigador adscrit al CIBER de la Fisiopatologia de la Obesidad y la Nutrición (CIBEROBN). Va defensar la seva Tesi Doctoral al juny del 2012 i va doctorar-se Cum Laude en Ciències Experimentals i Sostenibilitat per la Universitat de Girona (UdG). La seva dissertació va ser premiada amb el Premi Extraordinari de Doctorat en la Categoria de Salut (UdG). Durant la seva carrera, F.J. Ortega ha consolidat una trajectòria ferma en el camp de l'obesitat i les malalties

metabòliques. Com a resultat, al 2016 va ser nomenat Investigador Principal (IP) pel Departament de Salut de la Generalitat de Catalunya (PERIS 2016-2020). Avui dia, F.J. Ortega és investigador beneficiari de l'esquema Miguel Servet (MS19/00109), i el seu equip està format per una estudiant de doctorat també finançada per l'ISCIII (F119/00045). Les seves línies de recerca actuals estan finançades per l'ISCIII (PI18 / 00550), la Fundació La Marató de TV3 (2016), la Societat Espanyola de Diabetis (2019) i l'Associació Catalana de Diabetis (2019). F.J. Ortega va ser també l'IP de projectes finançats per la Fundació Daniel Bravo (2015), la Fundació Europea per l'Estudi de la Diabetis i Lilly (2013), l'Associació Catalana de Diabetis (2013) i l'IDIBGI (2009). Amb un índex h de 35, aquest IP ha participat en investigacions que han donat peu a més de 140 publicacions i diverses participacions en congressos nacionals i internacionals, i ha realitzat l'avaluació de dissertacions i la supervisió de treballs conduents al títol de Màster i Doctor en Ciències Experimentals, Biomedicina i Biotecnologia. També participa en comitès, brindant assessoria científica com a revisor de diverses revistes, agències oficials d'investigació, premis internacionals i simposis.

Biographical sketch (2nd) Francisco José Ortega graduated in Biology from the University of Girona (UdG) in 2003. After obtaining his bachelor's degree, and due to unforeseen personal circumstances, he had to expend two years in Paris, France. Back in Spain, F.J. Ortega joined the Unit of Endocrinology, Diabetes and Nutrition (UDEN) of the Biomedical Research Institute of Girona (IDIBGI) in 2005. Since 2007, F.J. Ortega has belonged to the CIBER de la Fisiopatología de la Obesidad y la Nutrición (CIBEROBN). During this period, he has gained a very strong track record, especially in the field of obesity and related diseases (>25 first/last author publications and >140 collaborative research articles). As a result, F.J. Ortega was appointed in 2016 as Principal Investigator by the Department of Health of the Generalitat de Catalunya (Pla Estratègic de Recerca i Innovació en Salut, PERIS 2016-2020).

F.J. Ortega pursued a Ph.D. degree aimed for a better understanding of the mechanisms that participate in the physiopathology of a hyperplastic adipose tissue, including but not limited to inflammation, insulin resistance, type 2 diabetes, and fatty liver disease. F.J. Ortega defended his Doctoral Thesis in June 2012 and got his doctorate Cum Laude in Experimental Sciences and Sustainability by the UdG. His dissertation was awarded by the Extraordinary Doctorate Award in the Category of Health.

To gain insights into the epigenetic modulation exerted by microRNAs (miRNA) in the obesity arena, F.J. Ortega profiled their expression in the adipose tissue of lean and obese subjects. This work was partially supported by the first research grant that F.J. Ortega owned as Principal Investigator (IDIBGI 2009). Several miRNA were found to be modulated in differentiated adipocytes, and significant variations were associated with clinical outputs (PMID: 20126310). Since then, F.J. Ortega has been focused on deciphering the relevance of these molecules in the physiology of human adipose tissue and its development towards the pathological levels found in obesity, further characterizing miRNA expression patterns in fat depots (PMID: 26252355) and adipocytes (PMID: 25926893, PMID: 28938482), and monitoring changes in circulating miRNA signatures related to nutritional inputs (PMID: 26092372), type 2 diabetes (PMID: 24478399), and obesity in both adults (PMID: 23396142) and children (PMID: 23928666). As a result, F.J. Ortega and co-workers filed a patent application entitled "Method for the diagnosis and/or prognosis of morbid obesity" (ES2654.4), hold by the CIBEROBN in 2012. All these pioneering studies have placed F.J. Ortega at the forefront of researches involving miRNA in obesity and related diseases.

F.J. Ortega is now recipient of a Miguel Servet scheme (MS19/00109, Ministerio de Ciencia, Innovación y Universidades, ISCIII, Gobierno de España) and the Principal Investigator of five national projects (F119/00045, PI18/00550, SED 2019, ACD 2019, and 440/C/2016) funded by the Instituto de Salud Carlos III (ISCIII), Sociedad Española de Diabetes, Associació Catalana de Diabetis, and Fundació La Marató de TV3, respectively. He was also the Principal Investigator of projects

funded by the European Foundation for the Study of Diabetes and Lilly (EFSD/Lilly Fellowship Award 2013), the Associació Catalana de Diabetis (ACD 2013), and the Daniel Bravo Foundation (2015). Formerly, he gained expertise in project management by performing fruitful activity in a research funded by the ISCIII (SAF2011-00214), and participated in many other national and international proposals. Research completed over the last decade in molecular and cellular mechanisms related to the physiopathology of adipose tissue, as well as the most recent work in non-alcoholic fatty liver disease (PMID: 32143184, PMID: 28119530, MS19/00109, SED 2019, ACD 2019), supports his capacity to produce recognized achievements in this research field.