

CV Date	19/03/2024
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Part A. PERSONAL INFORMATION

First Name *	Sonia		
Family Name *	Fernández Veledo		
Sex *	Female	Date of Birth *	25/01/1977
ID number Social Security, Passport *	53064774W	Phone Number *	(+34) 977295800 - 3401
URL Web	www.diamet.org		
Email Address	sonia.fernandezveledo@gmail.com		
Researcher's identification number	Open Researcher and Contributor ID (ORCID) *	0000-0003-2906-3788	
	Researcher ID	V-4625-2018	
	Scopus Author ID	6507474832	

* Mandatory

A.1. Current position

Job Title	Senior Researcher (R4)		
Starting date	2011		
Institution	Fundació Privada Institut d'investigació Sanitària Pere Virgili		
Department / Centre			
Country	Spain	Phone Number	977297062 - 7062
Keywords	Pharmacology; Clinical medicine; Molecular mechanism of disease; Laboratory animals; Cell culture; Cell biology; Genomics; Proteomics; Obesity; Chronic diseases (diabetes, asthma, others)		

A.2. Previous positions

Period	Job Title / Name of Employer / Country
2009 - 2010	Postdoctoral fellow / Universidad Autónoma de Madrid
2004 - 2008	Postdoctoral fellow / Universidad Complutense de Madrid
2008 - 2008	Postdoctoral fellow / The Scripps Research Institute

A.3. Education

Degree/Master/PhD	University / Country	Year
Biochemistry and Molecular Biology	Universitat de Barcelona	2004
Biochemistry	Universitat de Barcelona	1999

A.4. General quality indicators of scientific production

106 scientific publications (93.33% Q1 last 5 years: 55.5% of which % D1)

- 45 original articles as senior/correspondence author

- 5 reviews as senior/correspondence author

Average IF (last 5 years): 9.9

Book chapters: 6

Total citations: 15950*

H index: 37*

PhD thesis: 8 (PhD thesis in progress: 7)

> 100 communications in national/international conferences

33 invited/keynote talks, 12 oral communication

(*GoogleScholar)

Part B. CV SUMMARY

Dr. Fernández-Veledo (1977) is a **biomedical researcher** with demonstrated experience in bench-to bedside research focused on molecular metabolism and metabolic diseases. After completing her doctorate at the UB (Biomedicine, 2000-2004) and developing a solid postdoctoral training in several research centers in Madrid (UCM, CBMSO) and La Jolla (The Scripps Research Institute), Dr. Fernández-Veledo began her independent career in 2011 as a Miguel Servet researcher at the Pere Virgili Health Research Institute (IISPV, Tarragona). Currently, she is a consolidated researcher at the IISPV, where she **leads the "DIAMET Lab"** (www.diamet.org), which also belongs to CIBERDEM. Her research is currently focused on developing a deeper understanding of the etiology of metabolic disorders such as obesity, T2D and most recently NAFLD, which should open new horizons for the development of novel treatments and clinical tools. To address this, she has directed her efforts to converging knowledge from different fields through the assembly of a multi-disciplinary team of biologists and medical researchers. Her priority is to bridge the gap between basic and clinical science. Discovering new metabolic regulators whose dysregulation triggers obesity and T2D has become one of the major topics of research of Dr. Fernández-Veledo in recent times.

Fernandez-Veledo has published **> 100 articles** in international peer-reviewed journals, **45 as a senior author** (some of them in high-impact journals such as Cell Metabolism, Nature Immunology, Diabetes Care, Microbiome, the British Journal of Pharmacology or Cardiovascular Disease). She has led **10 competitive research projects** (MINECO, Fundació La Caixa, Fundació La Marató de TV3, EASD, EISMEA) and **7 of Innovation & Transfer** (ISCIII, AGAUR, Fundació La Caixa,). In addition, Dr. Fernández-Veledo has experience in the management of non-competitive contracts and agreements with the pharmaceutical industry, and in the generation of intellectual property. Indeed, she has filled **3 patents**, from which one has been licensed to **SUCCIPRO S.L.**, a spin-off recently created from the IISPV and URV in which she is also co-founder. She is currently **Chief Scientific Officer** in SUCCIPRO S.L. She also has experience in organizing R&D activities and has participated in more than 100 national and international conferences. Since 2013, she has actively participated in various scientific evaluation committees of research projects and calls for human resources (FIS, MINECO, ANEP/AEI). Academic activities: Dr. Fernández-Veledo also has extensive experience in training graduates and postgraduates at various Spanish universities (UB, UCM, UAM). She is currently an **associate professor at the School of Medicine** (URV). She has supervised 8 PhD theses, 7 end-of-master and 15 end-of-degree projects; and is currently mentor of 8 PhD students. Fernández-Veledo has also experience supervising post-doctoral researchers (most of them holders of competitive fellowships).

Institutional Responsibilities: Beyond her management responsibilities as a group leader, Fernández-Veledo is actively involved in the organizational structures of the hosting institution. Specifically, she is member of the Steering Committee of IISPV, and has recently appointed as a **Coordinator of the Nutrition and Metabolism Research area**.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Publications

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 Scientific paper.** Ceperuelo-Mallafré, V; Llauradó, G; Keiran, N; et al; (15/15) Fernández-Veledo, S (AC). 2019. Pre-operative circulating succinate levels as a biomarker for diabetes remission after bariatric surgery. Diabetes Care. <https://doi.org/10.2337/dc19-0114>
- 2 Scientific paper.** Keiran N; Calvo E; Ceperuelo-Mallafré V; et al; (19/19) Fernández-Veledo S (AC). 2019. SUCNR1 signaling controls macrophage alternative activation and regulates immune metabolic responses in obesity. Nature Immunology. <https://doi.org/10.1038/s41590-019-0372-7>

- 3 **Scientific paper.** Benaiges, E.; Ceperuelo-Mallafré, V.; Guaita, S.; et al; (14/14) Fernández-Veledo, S. (AC). 2024. Survivin/BIRC5 as a novel molecular effector at the crossroads of glucose metabolism and radioresistance in head and neck squamous cell carcinoma. *Head and Neck*. <https://doi.org/10.1002/hed.27651>
- 4 **Scientific paper.** (1/5) Fernández-Veledo, S. (AC); Marsal-Beltran, A.; Ceperuelo-Mallafré, V.; Astiarraga, B.; Cedó, L.2024. The Impact of Microbial Metabolites on Host Health and Disease. *Endocrinology (Switzerland)*. Part F2257, pp.71-109. https://doi.org/10.1007/978-3-031-35064-1_3
- 5 **Scientific paper.** Fernández-Veledo, S.; Marsal-Beltran, A.; Vendrell, J.2024. Type 2 diabetes and succinate: unmasking an age-old molecule. *Diabetologia*. <https://doi.org/10.1007/s00125-023-06063-7>
- 6 **Scientific paper.** Hernández-Montoliu, L.; Rodríguez-Peña, M.-M.; Puig, R.; et al; Vilarrasa, N.; (15/17) Fernández-Veledo, S.2023. A specific gut microbiota signature is associated with an enhanced GLP-1 and GLP-2 secretion and improved metabolic control in patients with type 2 diabetes after metabolic Roux-en-Y gastric bypass. *Frontiers in Endocrinology*. 14. <https://doi.org/10.3389/fendo.2023.1181744>.
- 7 **Scientific paper.** Guaita-Cespedes, M.; Grillo-Risco, R.; Hidalgo, M.R.; (4/8) Fernández-Veledo, S.; Burks, D.J.; de la Iglesia-Vayá, M.; Galán, A.; Garcia-Garcia, F.2023. Deciphering the sex bias in housekeeping gene expression in adipose tissue: a comprehensive meta-analysis of transcriptomic studies. *Biology of Sex Differences*. 14-1. <https://doi.org/10.1186/s13293-023-00506-x>
- 8 **Scientific paper.** Sánchez, A.; García-Pardo, G.; Gómez-Bertomeu, F.; et al; Peraire, J.; (9/13) Fernández-Veledo, S.2023. Mitochondrial dysfunction, lipids metabolism, and amino acid biosynthesis are key pathways for COVID-19 recovery. *iScience*. 26-10. <https://doi.org/10.1016/j.isci.2023.107948>
- 9 **Scientific paper.** Marsal-Beltran, A.; Rodríguez-Castellano, A.; Astiarraga, B.; et al; (24/24) Fernández-Veledo, S. (AC). 2023. Protective effects of the succinate/SUCNR1 axis on damaged hepatocytes in NAFLD. *Metabolism: Clinical and Experimental*. 145. <https://doi.org/10.1016/j.metabol.2023.155630>
- 10 **Scientific paper.** Villanueva-Carmona, T.; Cedó, L.; Núñez-Roa, C.; Maymó-Masip, E.; Vendrell, J.; (6/6) Fernández-Veledo, S. (AC). 2023. Protocol for the in vitro isolation and culture of mature adipocytes and white adipose tissue explants from humans and mice. *STAR Protocols*. 4-4. <https://doi.org/10.1016/j.xpro.2023.102693>
- 11 **Scientific paper.** Villanueva-Carmona, Teresa; Cedó, Lúcia; Madeira, Ana; et al; (22/22) Fernández-Veledo, Sonia (AC). 2023. SUCNR1 signaling in adipocytes controls energy metabolism by modulating circadian clock and leptin expression. *Cell Metabolism*. ISSN 1550-4131. <https://doi.org/10.1016/j.cmet.2023.03.004>
- 12 **Scientific paper.** Naón, D.; Hernández-Alvarez, M.I.; Shinjo, S.; et al; Scorrano, L.; (14/19) Fernández-Veledo, S.2023. Splice variants of mitofusin 2 shape the endoplasmic reticulum and tether it to mitochondria. *Science*. 380-6651. <https://doi.org/10.1126/science.adh9351>
- 13 **Scientific paper.** Klid, S.; Maymó-Masip, E.; Algaba-Chueca, F.; et al; Megía, A.; (10/11) Fernández-Veledo, S. (AC). 2023. The ANGPTL3-4-8 Axis in Normal Gestation and in Gestational Diabetes, and Its Potential Involvement in Fetal Growth. *International Journal of Molecular Sciences*. 24-3. <https://doi.org/10.3390/ijms24032486>
- 14 **Scientific paper.** Ceperuelo-Mallafré, V.; Reverté, L.; Peraire, J.; et al; (16/16) Fernández-Veledo, S. (AC). 2022. Circulating pyruvate is a potent prognostic marker for critical COVID-19 outcomes. *Frontiers in Immunology*. 13. <https://doi.org/10.3389/fimmu.2022.912579>
- 15 **Scientific paper.** Algaba-Chueca, F.; Maymó-Masip, E.; Ballesteros, M.; et al; Megía, A.; (8/10) Fernández-Veledo, S. (AC). 2022. Cord Blood Advanced Lipoprotein Testing Reveals an Interaction between Gestational Diabetes and Birth-Weight and Suggests a New Early Biomarker of Infant Obesity. *Biomedicines*. 10-5. <https://doi.org/10.3390/biomedicines10051033>

- 16 **Scientific paper.** Ballesteros, M.; Gil-Lluís, P.; Ejarque, M.; Diaz-Perdigones, C.; Martinez-Guasch, L.; (6/8) Fernández-Veledo, S.; Vendrell, J.; Megía, A.2022. DNA Methylation in Gestational Diabetes and its Predictive Value for Postpartum Glucose Disturbances. *Journal of clinical endocrinology and metabolism.* 107-10, pp.2748-2757. <https://doi.org/10.1210/clinem/dgac462>
- 17 **Scientific paper.** Ejarque M; Sabadell-Basallote J; Benaiges E; et al; (10/10) Fernández-Veledo S (AC). 2022. Diabetes alters the protein secretome of human adipose-derived stem cells and promotes tumorigenesis in hepatic cancer cells. *Clinical and Translational Medicine.* <https://doi.org/10.1002/ctm2.823>
- 18 **Scientific paper.** Terrón-Puig, M.; Huber-Ruano, I.; Sabadell-Basallote, J.; et al; (10/10) Fernández-Veledo, S. (AC). 2022. Glycogen accumulation in adipocyte precursors from elderly and obese subjects triggers inflammation via SIRT1/6 signaling. *Aging Cell.* <https://doi.org/10.1111/ace1.13667>
- 19 **Scientific paper.** Llauroadó, G.; Amigó, N.; Fuertes-Martín, R.; et al; González-Clemente, J.-M.; (9/12) Fernández-Veledo, S.2022. Measurement of Serum N-Glycans in the Assessment of Early Vascular Aging (Arterial Stiffness) in Adults With Type 1 Diabetes. *Diabetes Care.* 45-10, pp.2430-2438. <https://doi.org/10.2337/dc22-0331>
- 20 **Scientific paper.** Jurado-Fasoli, L.; Di, X.; Kohler, I.; et al; Martinez-Tellez, B.; (10/13) Fernández-Veledo, S.2022. Omega-6 and omega-3 oxylipins as potential markers of cardiometabolic risk in young adults. *Obesity.* 30-1, pp.50-61. ISSN 19307381. <https://doi.org/10.1002/oby.23282>
- 21 **Scientific paper.** Cuesta, N.; Fernández-Veledo, S.; Punzón, C.; Moreno, C.; Barrocal, B.; Sreeramkumar, V.; Desco, M.; Fresno, M.2022. Opposing Actions of TLR2 and TLR4 in Adipocyte Differentiation and Mature-Onset Obesity. *International Journal of Molecular Sciences.* 23-24. <https://doi.org/10.3390/ijms232415682>.
- 22 **Scientific paper.** Huber-Ruano I; Calvo E; Mayneris-Perxachs J; et al; (19/19) Fernández-Veledo S (AC). 2022. Orally administered *Odoribacter laneus* improves glucose control and inflammatory profile in obese mice by depleting circulating succinate. *Microbiome.* <https://doi.org/10.1186/s40168-022-01306-y>
- 23 **Scientific paper.** Gonzalez-Franquesa, A.; Gama-Perez, P.; Kulis, M.; et al; Garcia-Roves, P.M.; (34/47) Fernández-Veledo, S.2022. Remission of obesity and insulin resistance is not sufficient to restore mitochondrial homeostasis in visceral adipose tissue. *Redox Biology.* 54. <https://doi.org/10.1016/j.redox.2022.102353>
- 24 **Scientific paper.** Monfort-Ferré D; Caro A; Menacho M; et al; Serena C; (13/14) Fernández-Veledo S (AC). 2022. The Gut Microbiota Metabolite Succinate promotes Adipose Tissue Browning in Crohn's Disease. *Journal of Crohns and Colitis.* <https://doi.org/10.1093/ecco-jcc/ijac069>
- 25 **Scientific paper.** Rodríguez-Peña MM; Astiarraga B; Seco J; et al; Vendrell J; (13/14) Fernández-Veledo S (AC). 2021. Changes in glucagon-like peptide 1 and 2 levels in people with obesity after a diet-induced weight-loss intervention are related to a specific microbiota signature: A prospective cohort study. *Clinical and Translational Medicine.* <https://doi.org/10.1002/ctm2.575>
- 26 **Scientific paper.** Madeira A; Serena C; Ejarque M; et al; (14/14) Fernández-Veledo S (AC). 2021. Crohn's Disease Increases the Mesothelial Properties of Adipocyte Progenitors in the Creeping Fat. *International Journal of Molecular Science.* <https://doi.org/10.3390/ijms22084292>
- 27 **Scientific paper.** Gesteiro, E.; Megía, A.; Guadalupe-Grau, A.; (4/6) Fernandez-Veledo, S.; Vendrell, J.; González-Gross, M.2021. Early identification of metabolic syndrome risk: A review of reviews and proposal for defining pre-metabolic syndrome status. *Nutrition, Metabolism and Cardiovascular Diseases.* 31-9, pp.2557-2574. <https://doi.org/10.1016/j.numecd.2021.05.022>
- 28 **Scientific paper.** Calvo, E.; Keiran, N.; Núñez-Roa, C.; et al; (14/14) Fernández-Veledo, S. (AC). 2021. Effects of stem cells from inducible brown adipose tissue on diet-induced obesity in mice. *Scientific reports.* 11-1, pp.13923-13923. <https://doi.org/10.1038/s41598-021-93224-6>

- 29 Scientific paper.** Osuna-Prieto, F.J.; Martínez-Tellez, B.; Ortiz-Alvarez, L.; et al; (18/18) Fernández-Veledo, S. (AC). 2021. Elevated plasma succinate levels are linked to higher cardiovascular disease risk factors in young adults. *Cardiovascular Diabetology*. 20-1. <https://doi.org/10.1186/s12933-021-01333-3>
- 30 Scientific paper.** Klionsky, D.J.; Abdel-Aziz, A.K.; Abdelfatah, S.; et al; Tong, C.-K.; (741/2929) Fernández-Veledo, S.2021. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition)1. *Autophagy*. 17-1, pp.1-382. <https://doi.org/10.1080/15548627.2020.1797280>
- 31 Scientific paper.** Sánchez-Ceinos, J.; Guzmán-Ruiz, R.; Rangel-Zúñiga, O.A.; et al; Malagón, M.M.; (11/18) Fernández-Veledo, S.2021. Impaired mRNA splicing and proteostasis in preadipocytes in obesity related metabolic disease. *eLife*. 10. <https://doi.org/10.7554/eLife.65996>
- 32 Scientific paper.** Casajoana A; Guerrero-Pérez F; García Ruiz de Gordejuela A; et al; Vilarrasa N; (14/17) Fernández-Veledo S. 2021. Role of Gastrointestinal Hormones as a Predictive Factor for Long-Term Diabetes Remission: Randomized Trial Comparing Metabolic Gastric Bypass, Sleeve Gastrectomy, and Greater Curvature Plication. *Obesity surgery*. <https://doi.org/10.1007/s11695-020-05192-x>
- 33 Scientific paper.** Ximena Terra; Victoria Ceperuelo-Mallafré; Carla Merma; et al; Francesc Xavier Avilés Jurado; (16/17) Sonia Fernández-Veledo (AC). 2021. Succinate Pathway in Head and Neck Squamous Cell Carcinoma: Potential as a Diagnostic and Prognostic Marker. *Cancers*. <https://doi.org/10.3390/cancers13071653>
- 34 Scientific paper.** Benaiges E; Ceperuelo-Mallafré V; Madeira A; et al; (11/11) Fernández-Veledo S (AC). 2021. Survivin drives tumor-associated macrophage reprogramming: a novel mechanism with potential impact for obesity. *Cell Oncology*. <https://doi.org/10.1007/s13402-021-00597-x>
- 35 Scientific paper.** Klid, S.; Algaba-Chueca, F.; Maymó-Masip, E.; et al; (10/10) Fernández-Veledo, S. (AC). 2021. The angiogenic properties of human amniotic membrane stem cells are enhanced in gestational diabetes and associate with fetal adiposity. *Stem Cell Research and Therapy*. 12-1. ISSN 17576512. <https://doi.org/10.1186/s13287-021-02678-y>
- 36 Scientific paper.** Serena C; Millan M; Ejarque M; et al; (14/14) Fernández-Veledo S (AC). 2020. Adipose stem cells from patients with Crohn's disease show a distinctive DNA methylation pattern. *Clin Epigenetics*. <https://doi.org/10.1186/s13148-020-00843-3>
- 37 Scientific paper.** Ejarque, M; Sabadell-Basallote, J; Beiroa, D; et al; (14/14) Fernández-Veledo S (AC). 2020. Adipose tissue is a key organ for the beneficial effects of GLP-2 on glucose metabolism. *British Journal of Pharmacology*. <https://doi.org/10.1111/bph.15278>
- 38 Scientific paper.** López-Cano C; Gutiérrez-Carrasquilla L; Barbé F; et al; Lecube A; (9/13) Fernández-Veledo S. 2020. Effect of Type 2 Diabetes Mellitus on the Hypoxia-Inducible Factor 1-Alpha Expression. Is There a Relationship with the Clock Genes?. *Journal of Clinical Medicine*. <https://doi.org/10.3390/jcm9082632>
- 39 Scientific paper.** Algaba-Chueca F; Maymó-Masip E; Ejarque M; et al; (14/14) Fernández-Veledo S (AC). 2020. Gestational diabetes impacts fetal precursor cell responses with potential consequences for offspring. *Stem Cells Transl Med*. <https://doi.org/10.1002/sctm.19-0242>
- 40 Scientific paper.** Astiarraga, B; Martínez, L; Ceperuelo-Mallafré, V; et al; (12/12) Fernández-Veledo S (AC). 2020. Impaired Succinate Response to a Mixed Meal in Obesity and Type 2 Diabetes Is Normalized After Metabolic Surgery. *Diabetes Care*. <https://doi.org/10.2337/dc20-0460>
- 41 Scientific paper.** Serena, C.; Queipo-Ortuño, M.; Millan, M.; et al; Vendrell, J.; (17/18) Fernández-Veledo, S. (AC). 2020. Microbial signature in adipose tissue of crohn's disease patients. *Journal of Clinical Medicine*. 9-8, pp.1-16. <https://doi.org/10.3390/jcm9082448>
- 42 Scientific paper.** Ejarque, M.; Ceperuelo Mallafré, V.; Serena, C.; et al; (16/16) Fernández Veledo, S. (AC). 2019. Adipose tissue mitochondrial dysfunction in human obesity is linked to a specific DNA methylation signature in adipose-derived stem cells. *International journal of obesity*. ISSN 1476-5497. <https://doi.org/10.1038/s41366-018-0219-6>

- 43 Scientific paper.** Hernández Alvarez, Ml.; Sebastián, D.; Vives, S.; et al; Zorzano, A.; (31/33) Fernández Veledo, S.2019. Deficient Endoplasmic Reticulum-Mitochondrial Phosphatidylserine Transfer Causes Liver Disease. *Cell*. 177-4, pp.881. ISSN 1097-4172. <https://doi.org/10.1016/j.cell.2019.04.010>
- 44 Scientific paper.** Ejarque, M.; Guerrero Pérez, F.; de la Morena, N.; et al; Vilarrasa, N.; (12/14) Fernández Veledo, S.2019. Role of adipose tissue GLP-1R expression in metabolic improvement after bariatric surgery in patients with type 2 diabetes. *Scientific reports*. 9-1, pp.6274. ISSN 2045-2322. <https://doi.org/10.1038/s41598-019-42770-1>
- 45 Scientific paper.** Llauroadó, G.; Amigó, N.; Cano, A.; et al; González Clemente, JM.; (7/10) Fernández Veledo, S.2019. Specific Nuclear Magnetic Resonance Lipoprotein Subclass Profiles and Central Arterial Stiffness in Type 1 Diabetes Mellitus: A Case Control Study. *Journal of clinical medicine*. 8-11. ISSN 2077-0383. <https://doi.org/10.3390/jcm8111875>
- 46 Book chapter.** Fernández-Veledo, S; Marsal-Beltran, A; Ceperuelo-Mallafre, V; Astiarraga, B; Cedó, L. 2023. Gut Microbiome, Microbial Metabolites and Cardiometabolic Risk. *The Impact of Microbial Metabolites In Host Health and Disease*. *Endocrinology*.
- 47 Bibliographic review.** (1/3) Fernández-Veledo S (AC); Ceperuelo-Mallafre V; Vendrell J. 2021. Rethinking succinate: an unexpected hormone-like metabolite in energy homeostasis. *Trends Endocrinol Metab* . <https://doi.org/10.1016/j.tem.2021.06.003>
- 48 Bibliographic review.** (1/2) Fernández Veledo, S. (AC); Vendrell, J.2019. Gut microbiota-derived succinate: Friend or foe in human metabolic diseases?. *Reviews in endocrine & metabolic disorders*. ISSN 1573-2606. <https://doi.org/10.1007/s11154-019-09513-z>

C.2. Conferences and meetings

- 1 Fernández-Veledo S. Succinato como metabolito derivado de la icrobiota con potebcial terapéutico. III Nutraceutical seminars. Universitat Rovira i Virgili. 2024. Participatory - invited/keynote talk.
- 2 Fernández-Veledo S. The role of succinate/SUCNR1 in liver health and MASLD. Liver seminars IDIBAPS. Institut d'Investigacions Biomèdiques August Pi i Sunyer. 2024. Participatory - invited/keynote talk.
- 3 Fernández-Veledo S.. Succinato, leptina y genes reloj. XIX National Congress of SEEDO. Sociedad Española para el Estudio de la Obesidad. 2023. Participatory - invited/keynote talk.
- 4 Fernández-Veledo, S. The liver-adipose tissue couple: in sickness and in health. 5th Meeting of translational hepatology. Asociación Española para el Estudio del Hígado. 2023. Participatory - invited/keynote talk.
- 5 Fernández-Veledo S. Rethinking succinate: a dual metabolite with unexpected Cytokine- and Hormone-like properties.. 44º Congreso de la Sociedad Española de Bioquímica y Biología Molecular. Sociedad Española de Bioquímica y Biología Molecular. 2022. Participatory - invited/keynote talk.
- 6 Fernández-Veledo S. Succinate: a microbiota-derived metabolite with a key role in energy homeostasis. *Microbiome Interactions in Health and Disease.. Microbiome Interactions in Health and Disease*. Wellcome Connecting Science.. 2022. United Kingdom. Participatory - invited/keynote talk.
- 7 Fernández-Veledo S. Gut microbiota-derived metabolites in obesity and type 2 diabetes. *Diabetes, Obesity and Dislipidemia*. 19th International Congress of Endocrinology. Congreso virtual. International Society of Endocrinology. 2021. Participatory - oral communication.
- 8 Fernández-Veledo S. Succinate-SUCNR1 signaling in obesity and fatty liver.. Workshop: Frontiers in fatty liver disease: from molecular basis to clinical and nutritional aspects. CIBER Fisiopatología de la obesidad y Nutrición (CIBEROBN). 2021. Participatory - invited/keynote talk.
- 9 Fernández-Veledo S. Succinate: a microbiota-derived metabolite with promising therapeutic potential for metabolic disease.. 8th International Human Microbiome Consortium Congress 2021. International Human Microbiome Consortium. 2021. Participatory - invited/keynote talk.

- 10 Fernández-Veledo S. Harnessing the microbiome in metabolic disease. ONLINE. e-ECE2020. European society of endocrinology. 2020. Participatory - Plenary session.
- 11 Fernández-Veledo S. Succinate as a microbial metabolite with potential effects on satiety and cognition. Associació Catalan de Diabetis. Cervell i Diabetis.. Associació Catalana de Diabetis. 2020. Participatory - invited/keynote talk.
- 12 Fernández-veledo S. Succinate/SUCNR1 axis as a new regulatory hub orchestrating immunometabolic responses in obesity and T2D.: from the lab to the clinic. Ciclo de Seminarios IBUB. Universitat de Barcelona. 2020. Spain. Participatory - invited/keynote talk.
- 13 Fernández-Veledo S. Succinate/SUCNR1 axis, immunity and metabolism. SCBcat 6th MetNet Annual Meeting. Societat Catalana de Biologia. 2020. Participatory - invited/keynote talk.
- 14 Fernández-Veledo S. Understanding the pathophysiological role of succinate/SUNR1 axis in obesity and T2D: From the laboratory to the clinic. XXXI Congreso Nacional Sociedad Española de Diabetes. ONLINE. Sociedad Española de Diabetes. 2020. Participatory - invited/keynote talk.
- 15 Fernández-Veledo S. SUCNR1 controls an anti-inflammatory program in macrophages to regulate the metabolic response to obesity. Reunión anual de grupos Adipoplast. Fundación para la Investigación biomédica de Córdoba. 2019. Spain. Participatory - invited/keynote talk.
- 16 Fernández-Veledo S. SUCNR1 signaling controls the anti-inflammatory macrophage program and regulates immune metabolic responses in obesity. EMBO Workshop. Organ crosstalk in energy balance and metabolic disease. EMBO. 2019. Spain. Participatory - invited/keynote talk.

C.3. Research projects and contracts

- 1 **Project.** DTS23/00031, Nuevos péptidos bloqueantes para el tratamiento del hígado graso no alcohólico. Instituto de Salud Carlos III. Fernández-Veledo, S.(Fundació Institut d'Investigació Sanitària Pere Virgili). 2023-2026. 136.730 €. Principal investigator.
- 2 **Project.** C123-20043, FISRTGUT. Novel gut-restricted first-in-class therapy for Inflammatory Bowel Disease. CaixaImpulse Innovation 2023. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2023-2025. 150.000 €. Team member.
- 3 **Project.** PID2021-122480OB-100, SUC_LIVE. Succinate/SUCNR1 axis in liver. From the physiology to NAFLD progression: basic and clinical approach.. Ministerio de Ciencia e Innovación.. Fernández-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2022-2025. 299.200 €. Principal investigator.
- 4 **Project.** PDC2022-133164-I00, Desarrollo de un nuevo producto biofarmaceutica para el tratamiento de enfermedades metabólicas asociadas a la obesidad. Agencia Estatal de Investigación. Fernández-Veledo S. (Fundació privada Institut d'Investigació Sanitaria Pere Virgili). 2022-2024. 149.500 €. Principal investigator.
- 5 **Project.** NEURO_DIA, NEUROinflammatory role of the succinate/SUCNR1 axis in obesity-related DIAbetes.. European Foundation for the Study of Diabetes (EFSD).. Fernández-Veledo S.(Fundació Institut d'Investigació Sanitària Pere Virgili). 2022-2024. 100.000 €. Principal investigator.
- 6 **Project.** 2021 INNOV 00033, Succinate-SUCNR1 axis, a central but unexploited target for obesity-related disorder.. Generalitat de Catalunya. AGAUR. Fernández-Veledo S.(Fundació privada Institut d'Investigació Pere Virgili). 2022-2024. 84.000 €. Principal investigator.
- 7 **Project.** METASUCC, Succinate/SUCNR1 axis: a novel target for anti-obesity therapies. Obra Social Fundación la Caixa. Fernández-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2020-2023. 998.903 €. Principal investigator.
- 8 **Project.** IU68-018623. 2019 INNOV 00008, New probiotic strategies for obesity-related disorders and development of the companion diagnostic kit.. Generalitat de Catalunya. AGAUR. Fernández-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2020-2022. 84.000 €. Principal investigator.

- 9 **Project.** LABAE18025AVIL, Microbiota tumor metabolic regulation as prognostic factors in HNSCC. Asociación Española Contra el Cáncer (AEC). Avilés FX. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2019-2022. 196.000 €. Collaboration. co-IP.
- 10 **Project.** IU68-017106, Nuevas Estrategias probióticas para la obesidad y desarrollo de su kit diagnóstico. Generalitat de Catalunya. AGAUR. Fernández-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2020-2021. 99.970 €. Principal investigator.
- 11 **Project.** SUCCIPRO, A new probiotic strategy to improve metabolic and inflammatory profile in obese patients.. Obra Social Fundación la Caixa. Fernández-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2019-2021. 70.000 €. Scientific PI.
- 12 **Project.** DTS19/00040, New probiotic strategies for obesity-related disturbances and its companion diagnostic.. Instituto de Salud Carlos III. Fernandez-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2019-2021. 115.000 €. Principal investigator.
- 13 **Project.** RTI2018-093919, SUC-HOM. Succinate as a new extracellular signalling metabolite governing glucose homeostasis: SUCNR1, a molecular drug target in obesity and related diseases. Ministerio de Ciencia e Innovación.. Fernández-Veledo S. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2019-2021. 205.700 €. Principal investigator.
- 14 **Project.** Using indicators to influence consumer behaviour and prevent pre-disease through food and lifestyle related interventions.. Eit Food. Vendrell J. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2019-2020. 30.000 €. Team member.
- 15 **Project.** An integrative analysis of DNA methylation and RNA-Seq data in human adipose-stem cells of Crohn's disease patients with different clinical activity.. European Crohn's and Colitis Foundation. Serena C. (Fundació Institut d'Investigació Sanitària Pere Virgili). 2019-2019. 50.000 €. Team member.
- 16 **Project.** Papel de la vía del succinato en la inflamación de los injertos renales procedentes de donantes cadáver.. Fundación Mutua Madrileña. Díaz Encarnación MM. (Fundació Puigvert). 2019-2019. Team member.
- 17 **Project.** META_NEURO, Metabolic control of smoldering neuroinflammation.. University of Cambridge. Peruzzotti-Jametti L. (Fundació Institut d'Investigació Sanitària Pere Virgili). From 2022. 599.422 €. Team member.
- 18 **Project.** R2B2019/11, Valorització d'una nova estratègia probiòtica pel tractament de la obesitat i el desenvolupament d'un kit auto usuari pel maneig diagnòstic/terapèutic.URV. Research Business. Universitat Rovira i Virgili. Vendrell J.(Fundació Institut d'Investigació Sanitària Pere Virgili). From 2020. 15.000 €. Team member.
- 19 **Contract.** New approaches and concepts in diabetes and obesity: looking for alternative therapeutic targets. AstraZeneca Farmacéutica Spain. Sonia Fernández-Veledo. 2018-01/01/2019. 20.000 €.

C.4. Activities of technology / knowledge transfer and results exploitation

- 1 **Patent of invention.** Vendrell Joan; Fernández-Veledo Sonia; Ceperuelo-Mallafré Victòria; Vilarrassa Núria; Llauradó Gemma. EPO 19382564.3.. Succinate as a biomarker for selecting a bariatric surgical procedure and for predicting type 2 diabetes remission after bariatric surgery Spain. 02/07/2019. IISPV, CIBERDEM, IDIBELL, IMIM.
- 2 **Patent of invention.** Sonia Fernández Veledo; Joan Vendrell; Carolina Serena; María Victoria Ceperuelo Mallafré; Enrique Calvo. WO2019141780A1. Targeted interventions directed at reducing the levels of circulating succinate in a subject, and kits and method for determining effectiveness of said interventions. Spain. 17/01/2019. IISPV, URV, CIBER.
- 3 **Patent of invention.** Sonia Fernández Veledo; Joan Vendrell; Carolina serena; Antonio Zorzano. EP17382615.7. Methods for improving the cell therapy efficacy with mesenchmal stem cell populations Spain. 18/09/2017. IISPV, URV, UB, IRB, CIBER.