

PERSONAL DATA

Dr. Francisco Javier Ruiz-Ojeda

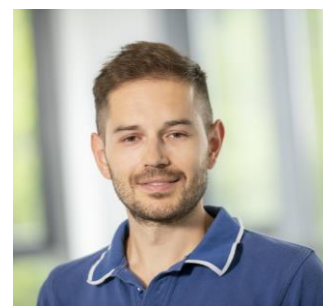
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SUMMARY

Ph. D in Nutrition and Molecular Biology. Experienced in Biochemistry and Molecular Biology techniques and cell culture for eight years, and mouse husbandry for two years. Experimented RNA isolation, shRNA transfection, qRT-PCR, Western blot and immunoprecipitation, data management and statistics.

RECENT PROFESSIONAL SITUATION

Institution: Institute for Diabetes and Obesity, Helmholtz Zentrum München, Munich. Professional category: Postdoctoral Researcher. Grant from Alfonso Martín Escudero Foundation, Spain. Competitive application process. 29/01/2018 - 31/01/2020. Postdoc contract since February 2020 until September 2020.

ACADEMIC EDUCATION

International Ph.D. Thesis: Human Nutrition and Molecular Biology. University of Granada, Spain, November 2016. Biological implications of insulin resistance signaling, inflammation and extracellular matrix genes in human adipose tissue-derived mesenchymal stem cell cultures

Ph.D. internship: Li Ka Shing Centre for Health Research Innovation, University of Alberta. Edmonton, Alberta, Canada. Supervisor: Dr. Spencer Proctor, (10 May 2016 – 9 August 2016).

Ph.D. internship: School of Life Sciences in Medical School, The University of Nottingham. Nottingham, United Kingdom. Supervisor: Dr. Ian Macdonald (Sept 2014 – Dec 2014).

Bachelor: Food Science and Technology. University of Granada (Spain), September 2011.

Master: Human Nutrition, University of Granada (Spain), September 2012.

Degree: Human Nutrition and Dietetics. University of Granada, Spain, July 2009.

EXPERIENCE IN THE RESEARCH AREA

- Biochemistry and Molecular Biology
- Cell culture, treatments and transfection to knockdown genes (shRNA, lentivirus and adenovirus)
- RNA, DNA isolation and qRT-PCR
- Protein isolation, Western blots and immunoprecipitation
- Immunostaining
- Mouse husbandry and metabolic phenotyping
- TSE management (metabolic cages for indirect calorimetry)
- Data collection.
- Statistics (SPSS, Graphpad prism).
- Writing manuscripts and research projects.

SKILLS HIGHLIGHT

- Good working atmosphere.
- Collaborative work.
- Experience in multidisciplinary teams.
- Time flexibility.
- High productivity.
- Basic knowledge of German.
- Good knowledge of English.

PUBLICATIONS

1. **Ruiz-Ojeda FJ**, Wang J, Bäcker T, KruegerM, Zamani S, Rosowski S, Gruber T, Onogi Y, Feuchtinger A, Schulz TJ, FässlerR, Müller TD, García-Cáceres C, Meier M, Blüher M, Ussar S. Active integrins regulate whiteadipose tissue insulin sensitivity and brown fat thermogenesis. *Mol Metab.* 2021Jan 7:101147. doi: 10.1016/j.molmet.2020.101147.
2. Gruber T, Pan C, Contreras RE, Wiedemann T, Morgan DA, Skowronski A., Lefort S, De Bernadis Murat C, Le Thuc O, Legutko B, **Ruiz-Ojeda FJ**, Fuente-Fernández M, García-Villalón AL, González-Hedström D, Huber M, Kuspers I, Joris PJ, Stehouwer CDA, Müller TD, Ussar S, Pfluger PT, Woods SC, Ertürk A, Yi CX, LeDuc C, Rahmouni K, Granada M, Horvath TL, Tschöp MH, García-Cáceres C. Obesity-associated hyperleptinemia alters the gliovascular interface of the hypothalamus to promote hypertension. *Cell metab* 2021. January 4th 2021 accepted-in press.
3. Casuso RA, Al Fazazi S, **Ruiz-Ojeda FJ**, Plaza-Diaz J, Rueda-Robles A, Aragón-Vela J, Huertas JR. Hydroxytyrosol modifies skeletal muscle GLUT4/AKT/Rac1 axis in trained rats. *J Cell Physiol.* 2020. doi: 10.1002/jcp.29876.
4. Plaza-Diaz J, Pastor-Villaescusa B, Rueda-Robles A, Abadia-Molina F, **Ruiz-Ojeda FJ**. Plausible Biological Interactions of Low- and Non-Calorie Sweeteners with the Intestinal Microbiota: An Update of Recent Studies. *Nutrients.* 2020;12(4):1153. doi: 10.3390/nu12041153.
5. **Ruiz-Ojeda FJ**, Méndez-Gutiérrez A, Aguilera CM, Plaza-Díaz J. Extracellular Matrix Remodeling of Adipose Tissue in Obesity and Metabolic Diseases. *Int J Mol Sci.* 2019; 20(19). pii: E4888. doi: 10.3390/ijms20194888.
6. Huertas JR, **Ruiz-Ojeda FJ**, Plaza-Díaz J, Nordsborg NB, Martín-Albo J, Rueda-Robles A, Casuso RA. Human muscular mitochondrial fusion in athletes during exercise. *FASEB J.* 2019 Aug 9:fj201900365RR. doi: 10.1096/fj.201900365RR.
7. Anguita-Ruiz A, Plaza-Diaz J, **Ruiz-Ojeda FJ**, Rupérez AI, Leis R, Bueno G, Gil-Campos M, Vázquez-Cobela R, Cañete R, Moreno LA, Gil Á, Aguilera CM. X chromosome genetic data in a Spanish children cohort, dataset description and analysis pipeline. *Sci Data.* 2019 Jul 22;6(1):130. doi: 10.1038/s41597-019-0109-3.
8. **Ruiz-Ojeda FJ**, Anguita-Ruiz A, Rupérez AI, Gomez-Llorente C, Olza J, Vázquez-Cobela R, Gil-Campos M, Bueno G, Leis R, Cañete R, Moreno LA, Gil A, Aguilera CM. Effects of X-chromosome Tenomodulin Genetic Variants on Obesity in a Children's Cohort and

- Implications of the Gene in Adipocyte Metabolism. *Sci Rep.* 2019; 9(1):3979. doi: 10.1038/s41598-019-40482-0.
9. Plaza-Díaz J, Gómez-Fernández A, Chueca N, Torre-Aguilar MJ, Gil Á, Perez-Navero JL, Flores-Rojas K, Martín-Borreguero P, Solis-Urra P, **Ruiz-Ojeda FJ**, Garcia F, Gil-Campos M. Autism Spectrum Disorder (ASD) with and without Mental Regression is Associated with Changes in the Fecal Microbiota. *Nutrients.* 2019 Feb 5;11(2). pii: E337. doi: 10.3390/nu11020337.
 10. Plaza-Díaz J, **Ruiz-Ojeda FJ**, Gil-Campos M, Gil A. Mechanisms of Action of Probiotics. *Adv Nutr.* 2019, 10;S1: DOI 10.1093/advances/nmy063
 11. **Ruiz-Ojeda FJ**, Plaza-Díaz J, Sáez-Lara MJ, Gil A. Effects of sweeteners on the gut microbiota: a review of experimental studies and clinical trials. *Adv Nutr.* 2019, 10; S1 DOI: 10.1093/advances/nmy037.
 12. **Ruiz-Ojeda FJ**, Anguita-Ruiz A, Leis R, Aguilera CM. Genetic Factors and Molecular Mechanisms of Vitamin D and Obesity Relationship. *Ann Nutr Metab.* 2018 Jul 6; 73(2):89-99.
 13. Casuso RA, Plaza-Díaz J, **Ruiz-Ojeda FJ**, Aragón-Vela J, Robles-Sanchez C, Nordsborg NB, Hebberecht M, Salmeron LM, Huertas JR. High-intensity high-volume swimming induces more robust signaling through PGC-1 α and AMPK activation than sprint interval swimming in m. triceps brachii. *PLoS One.* 2017; 12(10):e0185494.
 14. Plaza-Díaz J, **Ruiz-Ojeda FJ**, Gil-Campos M, Gil A. Immune-Mediated Mechanisms of Action of Probiotics and Synbiotics in Treating Pediatric Intestinal Diseases. *Nutrients.* 2018; 10(1).
 15. Plaza-Díaz J, **Ruiz-Ojeda FJ**, Vilchez-Padial LM, Gil A. Evidence of the Anti-Inflammatory Effects of Probiotics and Synbiotics in Intestinal Chronic Diseases. *Nutrients.* 2017; 9(6).
 16. **Ruiz-Ojeda FJ**, Rupérez AI, Gomez-Llorente C, Gil A, Aguilera CM. Cell Models and Their Application for Studying Adipogenic Differentiation in Relation to Obesity: A Review. *Int. J. Mol. Sci.* 2016; 17(7), 1040.
 17. **Ruiz-Ojeda FJ**, Aguilera CM, Rupérez AI, Gil Á, Gomez-Llorente C. An analogue of atrial natriuretic peptide (C-ANP₄₋₂₃) modulates glucose metabolism in human differentiated adipocytes. *Mol Cell Endocrinol.* 2016; 431:101-8.
 18. **Ruiz-Ojeda FJ**, Gomez-Llorente C, Aguilera CM, Gil A, Rupérez AI. Impact of 3-Amino-1,2,4-Triazole (3-AT)-Derived Increase in Hydrogen Peroxide Levels on Inflammation and Metabolism in Human Differentiated Adipocytes. *PLoS One.* 2016; 11(3):e0152550.
 19. Sáez-Lara MJ, Robles-Sanchez C, **Ruiz-Ojeda FJ**, Plaza-Díaz J, Gil A. Effects of Probiotics and Synbiotics on Obesity, Insulin Resistance Syndrome, Type 2 Diabetes and Non-Alcoholic Fatty Liver Disease: A Review of Human Clinical Trials. *Int J Mol Sci.* 2016; 17(6), 928.
 20. Roman S, Agil A, Peran M, Alvaro-Galue E, **Ruiz-Ojeda FJ**, Fernández-Vázquez G, Marchal JA. Brown adipose tissue and novel therapeutic approaches to treat metabolic disorders. *Transl Rev.* 2014; 165(4):464-79.
 21. Navarro-Alarcón M, **Ruiz-Ojeda FJ**, Blanca-Herrera RM, A-Serrano MM, Acuña-Castroviejo D, Fernández-Vázquez G, Agil A. Melatonin and metabolic regulation: a review. *Food Funct.* 2014; 5(11):2806-32.

22. Navarro-Alarcon M, **Ruiz-Ojeda FJ**, Blanca-Herrera RM, Kaki A, Adem A, Agil A. Melatonin administration in diabetes: regulation of plasma Cr, V and Mg in young male Zucker diabetic Fatty rats. *Food Funct.* 2014; 5(3):512-6.
23. Navarro-Alarcon M, **Ruiz-Ojeda FJ**, Blanca-Herrera RM, Agil A. Antioxidant activity of melatonin in diabetes in relation to the regulation and levels of plasma Cu, Zn, Fe, Mn, and Se in Zucker diabetic fatty rats. *Nutrition.* 2013; 29(5):785-9.

PARTICIPATION IN RESEARCH PROJECTS

1. **Biological implications of insulin resistance signaling, inflammation and extracellular matrix genes in culture of human adipose tissue-derived stem cells** (Junta de Andalucía, P10-CTS-6770). Granada, Spain.
2. **Generate a comprehensive map of cell surface regulators of insulin receptor function in adipocytes.** Institute for Diabetes and Obesity (IDO), Helmholtz Zentrum München, German Research Center for Environmental Health, Munich.
3. **Integrin-matrix interactions in the regulation of metabolism.** Institute for Diabetes and Obesity (IDO), Helmholtz Zentrum München, German Research Center for Environmental Health, Munich.
4. **Obesity-induced hypertension is driven by hypothalamic HIF-1 α /VEGF signaling cascade.** PI: Dr. Cristina García-Cáceres. Astrocytes group. Helmholtz Zentrum München, Munich, Germany. 01/01/2019-30/09/2020. Team member.
5. **Role of Melatonin on metabolic syndrome prevention in Zucker obese and diabetic fatty rats** (University of Granada, GREIB). Granada, Spain.
6. **ACTIBATE: Activating Brown Adipose Tissue through Exercise.** Ministerio de Economía y Competitividad, Instituto de Salud Carlos III P113/01393, Spain. 2014-2017. PI: Jonatan Ruiz.

TEACHING EXPERIENCE

Biochemistry and Molecular Biology: first course in the Human Nutrition and Dietetics degree, Department of Biochemistry and Molecular Biology II, School of Pharmacy, University of Granada, Granada, Spain (2014 – 2017).

Master: Online master of Clinical Nutrition, University of Granada, Spain (2017-2020).

EXPERIENCE SUPERVISING MASTER THESIS

1. **Master Thesis** in “Molecular immunology and cellular”. Student: Jose Manuel Jiménez Pastor. Defense: 21/07/2017, University of Granada, Spain.
2. **Master Thesis** in “Clinical Nutrition Master”. Student: Hillary Giselle Paz López De De Bruin. Defense: 01/06/2017, University of Granada, Spain.
3. **Master Thesis** in “Clinical Nutrition Master”. Student: Ana Hidalgo López. Defense: 01/06/2016, University of Granada, Spain.

EXPERIENCE SUPERVISING MASTER THESIS

1. Award to the best communication in Conference “FESNAD 2015”. 06/03/2015, Seville, Spain
2. Topic Editor of “Molecules” journal (2020).