



## CURRICULUM VITAE ABREVIADO (CVA)

### Part A. PERSONAL INFORMATION

CV date	16/01/2023
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First name	Jonatan		
Family name	Ruiz Ruiz		
Gender (*)	Man	Birth date	1978
ID number			
e-mail	ruizj@ugr.es	Web:	<a href="https://bit.ly/3lJ49Jw">https://bit.ly/3lJ49Jw</a>
Open Researcher and Contributor ID (ORCID)	0000-0002-7548-7138		

#### A.1. Current position

Position	Associated Professor - <i>Profesor Titular de Universidad</i>		
Initial date	25/11/2017		
Institution	University of Granada		
Department/Center	Physical Education and Sports	Faculty of Sport Sciences	
Country	Spain	Teleph. number	+34 699581771
Key words	Cardiometabolic health; Exercise; Obesity		

#### A.2. Previous positions

Period	Position/Institution/Country/Interruption cause
2016-2017	Assistant Professor/University of Granada/Spain
2011-2015	Ramón y Cajal Research Fellow/ University of Granada/Spain
2007-2010	Post-Doc Researcher/Karolinska Institutet/Sweden
2005-2006	Pre-Doc Researcher/ Karolinska Institutet/Sweden
2003-2006	Pre-Doc Researcher/University of Granada/Spain
2001-2002	Starting Researcher/ University of Granada/Spain

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Medical Sciences	Karolinska Institutet/Sweden	30-03-2007
PhD in Exercise Physiology	University of Granada/Spain	22-02-2007
Master Degree in Sport Sciences research	University of Granada/Spain	2003
Degree in Sport Sciences	University of Granada/Spain	2002
Degree in Physical Education	University of Granada/Spain	1999

### Part B. CV SUMMARY

**Scientific research and transference:** Dr. Jonatan Ruiz Ruiz (JRR) research focuses on the aetiology and pathophysiology of obesity and the role of physical activity and fitness on prevention and treatment of obesity-related comorbidities. As undergraduate student, JRR developed a novel methodology to assess handgrip strength in humans that has been adopted by international fitness test batteries. JRR's PhD Thesis in the University of Granada (UGR) provided strong evidence on that physical fitness is a powerful marker of cardiometabolic health in adolescents, and received the best Thesis in Biomedicine award. During the PhD training, JRR did several research stays in Karolinska Institutet (KI, Sweden), and carried out a second PhD Thesis. In KI, JRR demonstrated that physical activity has a strong impact on obesity and cardiometabolic health in European children as young as 9 years of age, and received several international awards. JRR worked on several large-scale longitudinal cohorts during the *post-doctoral period in KI and in the United States* and revealed that higher level of fitness is associated with a reduced risk (15-30%) of cardiovascular disease, cancer, and all-cause mortality in adults. JRR became a world expert in the physical activity and fitness area and developed the ALPHA fitness test battery that has been implemented in the European health monitoring system as well as in more than 20



non-EU countries. During the post-doc period, JRR demonstrated in a number of novel gene-lifestyle interaction studies that physical activity can counteract the genetic predisposition to develop obesity. Back in the UGR as a Ramón y Cajal Research Fellow (ranked N°1, 2011), **JRR established his own research group**, and conducted innovative exercise intervention studies in women during pregnancy, overweight/obese children, young and middle-aged adults, and in elderly people. His results have been broadly disseminated not only in original research and invited authoritative reviews but also in international conferences and in a number of media channels including radio, TV programs and press. **Over the last decade**, JRR has accumulated a vast experience in human brown adipose tissue (BAT) metabolism, becoming an international leader in human BAT physiology. Firstly, JRR designed a new personalized cooling protocol to activate BAT, led a number of methodological studies to improve BAT assessment, and discovered a novel BAT depot at the dorsocervical area in humans. JRR has demonstrated that human BAT's contribution to energy balance is much more modest than observed in small mammals. Remarkably, JRR conducted the largest and most comprehensive randomized controlled trial investigating the dose-response effect of 24-week exercise intervention on BAT in humans. Findings showed that exercise does not modify BAT volume or activity, or gene expression of key browning markers in abdominal subcutaneous adipose tissue; it reduced total and visceral fat and inflammatory markers, and modified gut microbiota composition and diversity towards a healthier phenotype.

**Leadership:** JRR is co-Director of a relatively young research group (CTS-977, mean age: 35 years, 53 members) founded in January 2013 (<http://profith.ugr.es>), that has raised >3.5M €. JRR is also Scientific Director of a Unit of Excellence <https://uceens.ugr.es> which involves 95 outstanding researchers from five UGR Departments, which aims to have the Maria de Maeztu distinction; and became recently Leader of a CIBERobn research group with a special focus on exercise, obesity and related comorbidities (Dec 2022, ref: ref. CB22/03/00058). JRR is within the Top 3 researchers in Sport Sciences in Spain according to several national rankings, and has a very active and fruitful collaboration with National and International research groups (>70% of publications with international researchers). JRR has received 32 prizes/awards, is elected Vicepresident of the prestigious Spanish Young Academy (<https://academiajoven.es>), and is member of national and international scientific networks on exercise (EXERNET), diabetes (EFSD), and BAT (EuroBat).

**Supervisor:** JRR has supervised 32 PhD Theses (12 awarded) and is currently supervising 5 post-docs and 5 PhD students. Former PhD students are now Full Professors, Assistant or Associated Professors, and some of them hold prestigious Research Grants including Marie Curie Individual Fellowship, Ramón y Cajal, Juan de la Cierva, Ramón Areces, Martín Escudero, and Margarita Salas.

**Reviewer:** JRR is regular member of International Review Boards including H2020 program, and national Research Agencies from Spain, Finland, The Netherlands, Denmark, and Germany, and is regular reviewer of prestigious journals including Science, Nature or NEJM.

**Organizer of Scientific events:** JRR has been actively involved in the organization and coordination of more than 40 National and International congresses, symposiums and summer courses.

## Part C. RELEVANT MERITS

### C.1. Publications

JRR has published more than 500 papers in the most prestigious journals in the area of Sport Sciences, Nutrition & Dietetics, Endocrinology and in Physiology - [pubmed link](#); >170 as first or last author; >70% Q1; WoS h-index 75; 6 papers Highly Cited in the Field; 1 paper cited >1500 times; 8 papers cited >300 times; 19 cited >200 times; 48 cited >100 times).

Selection of Top 10 publications from the last 5 years:

1. **Ruiz JR**, Martinez-Tellez B, Sanchez-Delgado G, Osuna-Prieto FJ, Rensen PCN, Boon MR (1/6). Role of Human Brown Fat in Obesity, Metabolism and Cardiovascular Disease: Strategies to Turn Up the Heat. *Prog Cardiovasc Dis*. 2018; 61(2):232-245. (IF: 6.162, 16/136 in Cardiac & Cardiovascular System, Q1).
2. Acosta FM, Martinez-Tellez B, Sanchez-Delgado G et al. **Ruiz JR** (10/10). Association of objectively measured physical activity with brown adipose tissue volume and activity in young adults. *J Clin Endocrinol Metab*. 2019; 104(2) 223-233. (IF: 5.6, 22/145 in Endocrinology and Metab, Q1).
3. Sanchez-Delgado G, Alcantara JMA, Acosta FM et al. **Ruiz JR** (9/9). Estimation of non-shivering thermogenesis and cold-induced nutrient oxidation rates: Impact of method for data selection and analysis. *Clin Nutr*. 2019; 38 (5), 2168-2174. (IF: 6.402, 6/87 in Nutrition & Dietetics, D1).



4. Amaro-Gahete FJ, Sanchez-Delgado G, Ara I. **Ruiz JR** (4/4). Cardiorespiratory Fitness May Influence Metabolic Inflexibility During Exercise in Obese Persons. *J Clin Endocrinol Metab* 2019; 104 (12), 5780-5790. (IF: 5.6, 22/145 in Endocrinology and Metab, Q1).
5. Sanchez-Delgado G, Acosta FM, Martinez-Tellez B et al. **Ruiz JR** (10/10). Brown Adipose Tissue Volume and 18F-fluorodeoxyglucose Uptake Are Not Associated With Energy Intake in Young Human Adults. *Am J Clin Nutr* 2020; 111(2):329-339. (IF: 6.568, 5/87 in Nutrition & Dietetics D1).
6. Sanchez-Delgado G, Martinez-Tellez B, Acosta FM, Virtue S, Vidal-Puig A, Gil A, Llamas-Elvira JM, **Ruiz JR** (8/8). Brown Adipose Tissue Volume and Fat Content are Positively Associated with Whole-Body Adiposity in Young Men, Not in Women. *Diabetes*. 2021; 15:db210011 (IF: 9.337, 12/146 in Endocrinology and Metab, D1).
7. Carneiro-Barrera A, Amaro-Gahete FJ, Guillén-Riquelme A, Jurado-Fasoli L, Sáez-Roca G, Martín-Carrasco C, Buela-Casal G, **Ruiz JR** (8/8). Effect of an Interdisciplinary Weight Loss and Lifestyle Intervention on Obstructive Sleep Apnea Severity: The INTERAPNEA Randomized Clinical Trial. *JAMA Netw Open*. 2022; 5(4): e228212 (IF: 13.366, 15/172 in Medicine, General & Internal, D1).
8. Acosta FM, Sanchez-Delgado G, Martinez-Tellez B et al. **Ruiz JR** (9/9). A larger brown fat volume and lower radiodensity are related to a greater cardiometabolic risk, especially in young men. *Eur J Endocrinol*. 2022; 187(1): 171-183. (IF: 6.558, 27/146 in Endocrinology and Metab, Q1).
9. Martinez-Tellez B, Sanchez-Delgado G, Acosta FM et al. **Ruiz JR** (23/23). No evidence of brown adipose tissue activation after 24 weeks of supervised exercise training in young sedentary adults: The ACTIBATE randomized controlled trial. *Nat Commun* 2022; 13(1):5259. (IF: 17.694, 6/73 in Multidisciplinary Sciences, D1).
10. Jurado-Fasoli L, Di X, Sanchez-Delgado G, et al. **\*Ruiz JR, \*Martinez-Tellez B** (15/16; \*share senior authorship). Acute and long-term exercise differently modulate plasma levels of oxylipins, endocannabinoids, and their analogues in young sedentary adults: A sub-study and secondary analyses from the ACTIBATE randomized controlled-trial. *EBioMedicine*. 2022; 85:104313. (IF: 11.205, 11/195 in Medicine, Research & Experimental, D1).

### **C.2. Congress - invited speaker** in >60 National/International Conferences, see a selection:

1. 9th Symposium European Youth Heart Study. Universidade de Lisboa, Lisbon, Sept 2018.
2. XVII Congress of the Spanish Society of Nutrition. Barcelona, June 2018.
3. Copenhagen Brown Adipose Tissue Conference, Copenhagen, June 2019.
4. FINUT 2020 Congress, Mexico, October 2020.
5. IV FESNAD Conference, Zaragoza, October 2020.
6. University of Concepción, Chile, March 2021.
7. VII International EXERNET Symposium, Cuenca, October 2021.
8. XVIII National Congress SEEDO, Barcelona 2022.

### **C.3. Research projects**

JRR has been PI in 11 research projects, 4 of which are currently active. JRR is PI of the UGR partner in an EU Erasmus + SPO project (ref. 101089829 - FitBack4Literacy - 2023-2025), and has been researcher in two other EU Projects (H2020, ref. SE-210221640, 2016-2021; Erasmus + project, ref. 613010-EPP-1-2019-1-SI-SPO-SCP, 2020-2022). From 2011, JRR has raised more than 1.8M € from national and private calls, excluding funds for hiring personnel (n=29 contracts).

Selection of Top 5 projects with JRR as PI:

1. Time restricted eating and ectopic fat in adults with obesity. Junta de Andalucía, Consejería de Transformación económica, Industria, Conocimiento y Universidades (A-CTS-516-UGR20). Period: 2021-2023. Funding: 35,000€.
2. Molecular transducers of exercise and brown adipose tissue activation: Looking for new therapeutic targets within intercellular communication. Junta de Andalucía, Consejería de Economía, Conocimiento, Empresas y Universidad (P18-RT-4455). Period: 2020-2023. Funding: 142,352€.
3. Exercise in the prevention and treatment of obesity and insulin resistance: Smart analysis-smart interventions. The SmartMove Project. Ministerio de Economía y Competitividad i+D+I (DEP2016-79512-R). Period: 2017-2020. Funding: 100,000 €.
4. Impact of physical activity and diet on gut microbiota. Implications for health. Danone Foundation. Period: 2018-2020. Funding: 40,000€.



5. ACTIBATE: Activating Brown Adipose Tissue through Exercise. Funded by: Ministerio de Economía y Competitividad, Instituto de Salud Carlos III (PI13/01393). Period: 2014-2017. Funding: 171.273 €

#### C.4. Contracts, technological or transfer merits

- Kerry Inc. (165,635€, 2022-2024); Vyaire S.L. (21,000€; 2020-2022), Wiemsbpro S.L. (7,797€; 2020-2022); HSN S.L. (15,000€; 2020-2021); Lactalis IBERIA, Puleva S.A. Biosearch, Biosearch, S.A (197,000€; 2013-2016). JRR has been scientific advisor of Eprova-Merck (Germany); Sony; Eye Toy Kinetics (Japón); and Progénika (Vizcaya, España).
- Scientific Advisor of a scientific outreach company devoted to disseminate science (The Voice of Science S.L., <https://thevoiceofscience.net>) whose CEO is a former PhD Student (Dr. Martinez-Tellez) (2020 – present).
- Scientific Advisor of the University Concepción, Chile (2021 – present).
- Co-Author of the Physical activity guidelines for Andalusia (SE-8656-2010, 2010) – document downloaded more than 50,000 times (<https://bit.ly/3Gakrcl>).
- Co-Author of the white book for Physical Activity and Health of the EU Commission (<https://bit.ly/3dgOVGW>).

#### C.5. Patents

- Software to monitor skin body temperature in humans: [Temperatus®](#). University of Granada: Safe Creative (identificador: 1904110623465). April 2019.
- [BMI clasificador®](#). University of Granada: Safe Creative (identificador: 2004243758191). April 2020.
- A sociodemographic, anthropometric and lifestyle-based prediction score for screening children with overweight/obesity for hepatic steatosis; the HEPAKID index. Public University of Navarra. Safe Creative (identificador: 2101126558890). May 2021.
- Application of *Roseburia inulinivorans* for improving muscular strength. Leiden University Medical Center and University of Granada, Dutch Patent Application No 2032642 (patent filled & manuscript under embargo). Ded 2022.

#### C.6. Prizes and Awards

JRR has received 32 prizes or awards; see a selection:

2012	University of Granada (Spain) Award to the best young researcher.
2012	Spanish Association of Sports Sciences Award to the best young researcher.
2015	Young Researcher award (Type 2 Diabetes and Obesity) - AstraZeneca Foundation.
2017	Award to the Scientific Excellence by the Caja Rural.
2018	National Award to the best researchers born in 1978.
2019	National Award: estrategia NAOS, Agencia Española de Seguridad alimentaria y nutrición.
2020	Award of the Royal Academy of Medicine of Andalusia.

#### C.7. Institutional responsibilities

2011 –	Teacher of the Physical activity and health module in the Department of Physical Education and Sports, Faculty of Sports Sciences, University of Granada.
2011 –	Regular teacher in Master Programs of National and International Universities.
2011 –	Organizer of the monthly Seminar: Research in physical activity and health. Faculty of Sport Sciences, University of Granada, Spain.
2011 –	Member of the Scientific Committee of the Research Institute on Sport and Health, University of Granada, Spain.
2013 – 2017	Vice-director of the Department of Physical Education and Sport, Faculty of Sport Sciences, University of Granada, Spain.
2012 – 2020	Vice-president of the Spanish Association of Sport Sciences.
2021 –	Vice-president of the Spanish Young Academy, <a href="https://academijoven.es">https://academijoven.es</a> .
2022 –	President of the Scientific Advisory Board of the <i>Unidad de Atención al Paciente Oncológico Foundation</i> , that is treating, through a lifestyle multidisciplinary approach, to >400 patients with cancer.