CURRICULUM VITAE ABREVIADO (CVA)

CV date	25/04/2023

Part A. PERSONAL INFORMATION

First and Family name	**FRANCISCO B. ORTEGA PORCEL**		
Social Security, Passport, ID number		Age	
Researcher numbers	Researcher ID	https://www.webofscience.com/wos/author/record/B-4002-2010	
	Orcid code	orcid.org/0000-0003-2001-1121	

A.1. Current position

Name of University/Institution	University of Granada		
Department	Department of Physical Education and Sports		
Address and Country	Ctra. de Alfacar, Granada 18071, Spain		
Phone number			
Current position	Professor (Catedrático de Universidad)	From	July 2021
Espec. cód. UNESCO	2411.06 Exercise physiology / 3212 Public Health		
Palabras clave	Physical fitness, Physical activity, accelerometry, cognition, obesity		

A.2. Education

PhD	University	Year
Doctor in Exercise Physiology	University of Granada, Spain	2008
Doctor in Medical Sciences	Karolinska Institutet, Sweden	2008
Degree in Sport Sciences	University of Granada, Spain	2002

A.3. Bibliometric summary.

FB Ortega has **450 JCR/Pubmed publications** (See-HERE), playing a leading role (**First/Last author) in 158** publications. They had a large impact in the scientific community as shown by the **50 000 citations** and a **h-index of 102** in Google Scholar, which ranks him within in the **top-10 most cited** researchers at the **University** of **Granada** out of **1700** researchers of all areas of knowledge and all ages (See-HERE), and as number **6th Worldwide in the field of Physical Fitness** (Experts cape). FB. Ortega has been listed as Highly Cited Researcher 2022 by Clarivate, the most exclusive researcher list including only the **0.1% of the most cited researchers in the world**.
One of his **most cited paper** was published in 2008 as part of his PhD thesis and has accumulated already more than 3320 citations in Google Scholar. He was one of the international experts selected by the **World Health Organization (WHO) to develop the 2020 Physical Activity Guidelines**, and the main guideline paper has accumulated already 3845 citations in Google Scholar, and is classified by the Web of Science as HOT PAPER, for being in the percentile 99.9th most cited. Currently, **15** of his publications have been classified by the Web of Science as **Highly-Cited Papers**, which means they are among in the **percentile 99th most cited.** Finally, it is worth mentioning that the **Faculty of Sports Science** of the University of Granada, in which the Dr. Ortega conduct his research from 2012, has been climbing up positions in the most-prestigious **Shanghai ranking to reach the 18th position in the World** (last update 2022, see HERE).

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

FB Ortega has applied and competed for nearly **all the scholarships and grants** provided by the Spanish Research and Education system, **succeeding in most** of them as described here.

In the last year of his degree (2001/2), the applicant got a starting-up research grant (Beca de Colaboración, MEC) at the School of Medicine, Granada. After his graduation in Sport Sciences, the applicant started his PhD Thesis in the program of Exercise Physiology at the School of Medicine. The beginning of his PhD studies was supported with 2 consecutive grants from the National Sport Council (Consejo Superior de Deportes, CSD) and in 2005 the applicant got the most prestigious Spanish training grant for PhD students (Beca FPU, MEC). The applicant did 2 research stays at **Karolinska Institutet** as a PhD student (4-5 months each), where he officially started a **separate PhD Thesis**. He earned **two independent PhDs**, first PhD in **Exercise Physiology** at Faculty of Medicine (University of Granada, Spain), and second PhD in **Medical Sciences** at Karolinska Institutet, Sweden (2002-2008).
In 2009, he got the National post-doc grant (beca post-doctoral del MEC) to stay at Karolinska Institutet for 2 years plus 1-year research contract (accumulating 3 years postdoc). During these 3 years living in Sweden, he did 3 short research stays at the **University of South Carolina** with the world-famous epidemiologist Prof. **Steven Blair**. In March 2012, FB Ortega was **ranked as number 1 in the application to the Ramón y Cajal**, area of Clinical Medicine and Epidemiology, which allowed him to come back to the University of Granada and he **currently** working as Associate Professor at University of Granada. His **affiliation to Karolinska Institutet** in Sweden has been yearly updated due to active collaboration and is **still active to date**. On year after his arrival to Granada, Spain, in 2013, **he founded the PROFITH research group** (http://profith.ugr.es), and he has been the Co-Director from the beginning to date. The group has successfully grown **from the 5 original members to the current 55 contracted members** in 9 years.

Part C. RELEVANT MERITS

C.1. Publications

Top-10 Selected Publications, sorted by topic.

Papers on Sport Science and Overall Health:

1. **Ortega FB**, Leskošek B, Blagus R, et al. European fitness landscape for children and adolescents: updated reference values, fitness maps and country rankings based on nearly 8 million test results from 34 countries gathered by the FitBack network. Br J Sports Med. 2023;57(5):299-310. doi:10.1136/bjsports-2022-106176. *This study provided the most up-dated and representative fitness reference values for European children and adolescents (8 million data, 34 countries) (PMID: 36623866), and even more important, a free-access, multilingual web platform, to generate individual and group reports based on fitness testing, which is unique in Europe and in the World (www.fitbackeurope.eu).*
2. Bull FC, Al-Ansari SS, Biddle S, Borodulin K, Buman MP, Cardon G, Carty C, Chaput JP, Chastin S, Chou R, Dempsey PC, DiPietro L, Ekelund U, Firth J, Friedenreich CM, Garcia L, Gichu M, Jago R, Katzmarzyk PT, Lambert E, Leitzmann M, Milton K, **Ortega FB,** Ranasinghe C, Stamatakis E, Tiedemann A, Troiano RP, van der Ploeg HP, Wari V, Willumsen JF. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. Br J Sports Med. 2020 Dec;54(24):1451-1462. *Except for 1st and last, authors composing the expert committee listed in alphabetic order. +1600 citations in GS and +880 in WOS, marked as Hot Paper, i.e. 99.9th percentile most cited. This is a landmark study in the field with a huge impact on physical activity promotion policies and research directions all around the world.*
3. Henriksson H, Henriksson P, Tynelius P, Ekstedt M, Berglind D, Labayen I, Ruiz, JR, Lavie CJ, **Ortega FB**. Cardiorespiratory fitness, muscular strength, and obesity in adolescence and later chronic disability due to cardiovascular disease: a cohort study of 1 million men. **Eur Heart J** 2020; 41(15):1503-1510.
4. Henriksson P, Henriksson H, Tynelius P, Berglind D, Löf M, Lee IM, Shiroma EJ, Ortega FB. Fitness and Body Mass Index During Adolescence and Disability Later in Life: A Cohort Study. Ann Intern Med. 2019;170:230-239.
   In papers 2-3 I studied 1 million participants over 30 years and demonstrated the relevance of fitness components and obesity as risk factors for chronic diseases (including cardiovascular and mental), leading to disability.

5. **Ortega FB**, Lavie CJ, Blair SN. Obesity and Cardiovascular Disease. **Circulation Research**, 2016 May 27;118(11):1752-70. *WOS Ranked as Highly Cited Paper (99th centile) with 459 citations. This was a comprehensive (10 000 words) invited review in the field of obesity, fitness and cardiovascular disease.*
6. **Ortega FB,** Sui X, Lavie CJ & Blair SN. Body mass index, the most widely used but also widely criticized index: Would a criterion standard measure of total body fat be a better predictor of cardiovascular disease mortality? **Mayo Clin Proc**. 2016;91(4):443-55. *Here I questioned the current world-wide definition of obesity (an excess of body fat) in favour of a new one (an excess of body weight). I demonstrated this with empirical and cohort data using gold-standard methods and provided a plausible physiological explanation. Mayo Clinic Proceeding awarded the paper among the most cited 2018.*
7. **Ortega FB,** Lee DC, Katzmarzyk PT, Ruiz JR, Sui X, Church TS & Blair SN. The intriguing metabolically healthy but obese phenotype: cardiovascular prognosis and role of fitness. **Eur Heart J**, 2013;34:389-97. *WOS ranked it a Highly Cited Paper (99th centile),293 citations. This paper received >300 press notes (including BBC and CNN). I demonstrated that cardiorespiratory fitness plays an important role in the cardiovascular prognosis in metabolically healthy obese individuals, which had important clinical implications.*
8. **Ortega FB**, Silventoinen K, Tynelius P, Rasmussen F. Muscular strength in male adolescents and premature death: a cohort study of one million participants. **BMJ**. 2012 Nov 20; 345: e7279. *WOS ranked it Highly Cited Paper (99th centile),290 citations. This paper was acknowledged as Most Popular BMJ's paper, with 51,908 views in 2 months. I linked for the first time muscular fitness in adolescence with future cardiovascular and psychiatric mortality/morbidity. This and some of my other papers contributed to created fitness national-level monitoring systems after fitness proved to be highly health informative.*

Papers on Brain Health:

9. **Ortega FB**, Mora-Gonzalez J, Cadenas-Sanchez C, Esteban-Cornejo I, Migueles JH, Solis-Urra P, Verdejo-Roman J, Rodriguez-Ayllon M, Molina-Garcia P, Ruiz JR, Martinez-Vizcaino V, Hillman CH, Erickson KI, Kramer AF, Labayen I, Catena A. Effects of exercise on brain health outcomes in children with overweight/obesity: the ActiveBrains randomized controlled trial. JAMA Network Open (In press). The paper can be accessed as a pre-print in the repository of MedRxiv, 2022.03.17.22272506. https://doi.org/10.1101/2022.03.17.22272506
   This is my biggest contribution in the field of exercise and brain health. This paper reports the ActiveBrain trial effects on primary outcomes and showed for first time strong evidence suggesting that intelligence can be effectively improved by exercise during growth, among many other important findings described. This study lays ground for school policies changes in physical education as part of the curriculum.

10. Esteban-Cornejo I, Cadenas-Sanchez C, Contreras-Rodriguez O, Verdejo-Roman J, Mora-Gonzalez J, Migueles JH, Henriksson P, Davis CL, Verdejo-Garcia A, Catena A, **Ortega FB**. A whole brain volumetric approach in overweight/obese children: Examining the association with different physical fitness components and academic performance. The ActiveBrains project. **Neuroimage**. 2017 Aug 5; 159:346-354. *(WOS ranked 1st Journal in the field of Neuroimage). In this study, we identified structural regions of the brain more developed in fitter participants, and that were important for academic performance. This supports an important role of fitness in brain health.*

C.2. Research projects

FB Ortega has participated in 30 projects, he is currently the PI in 10 projects. Below are **listed only** the **most relevant projects** and those in which **FB Ortega is principal investigator**:

- **VASCULACTIVE**. Effects of exercise on brain vascularization in coronary heart disease patients. Entidad financiadora: MINECO – I+D+I RETOS. 2021-2024. Budget: 121.000 €
- **HEARTY-BRAIN** - Effects of Exercise on Brain in Patients with Coronary Heart Disease: The Heart-Brain Connection. Plan Andaluz de Investigación (PAIDI) (Convocatoria 2020, Ref: P20_00124). 2021-2023. Budget: 116.000 €
- **ADVANCED EQUIPMENT** for assessing and improving health in general, sport and diseased populations: iMUDS. Ayudas de infraestructura, Junta de Andalucía. 2020-2022. Budget:394.714 €

- **FITBACK** - Programa SPO – Sport. The European Network for the Support of Development of Systems for Monitoring Physical Fitness of Children and Adolescents. European Comission (Erasmus plus call). 2020-2022 Budget: 400.000 € (41.652 € para la Univ. Of Granada)
- **PROYECTO GENOBEX** - Genes, Obesity And Exercise. Programa Operativo Fondos FEDER-Junta de Andalucía. 2020-2022. Budget: 33.400 €
- **MECABRAIN** - Peripheral mechanisms inducing neurogenesis, hippocampal function and mental health in children: The role of exercise. Minister of Economy and Competitiveness – Proyecto EXPLORA (Call 2017, Ref: DEP2017-91544-EXP). 2018-2020. 48.400 EUR. y cofinanciado por la Fundación Alicia Koplowitz con 50.000€.
- **CoCA** - Comorbid Conditions of Attention deficit / hyperactivity disorder. COMISIÓN EUROPEA. FB Ortega is Co-leader in 2 work-pakages and PI of the UGR-partner. 2016-2020. Total Budget 6 million euros, UGR Budget 105.000 EUR.
- **SMARTMOVE** - Exercise in the prevention and treatment of obesity and insulin resistance: smart analysis-smart interventions. Minister of Economy and Competitiveness (Call 2016, Ref: DEP2016-79512-R). 2016-2020. Budget: 121.000 EUR.
- **ACTIVEBRAINS** - Effects of an exercise-based randomized controlled trial on cognition, brain structure and brain function in overweight preadolescent children. Minister of Economy and **Competitiveness** (Call 2013, Ref: DEP2013-47540).2014-2017. Budget: 145.200 EUR.

C.3. Contracts, technological or transfer merits Huawei

Towards Intelligent Health and Well-Being Network of Physical Activity Assessment (The **INTERLIVE** Network). **Consortium project** composed of 7 European Universities, including UGR represented by FB. Ortega as PI. **Funded** by **Huawei** Technologies Oy Co. Ltd with a total 1.5 million €. The UGR budget is 160.000€. 2020-2022

C.4. Patents / Intellectual property

No patents so far. On the other hand, FB. Ortega has been responsible for the development of resources and tools useful for the society that have been registered in **Intellectual Property** datasets (Safe Creative), i.e. the 2kmFIT app and the BMI classifier.

C.5. Invited speaker to national and international conferences

Main speaker in **20 conferences** and presented **poster/oral communications** in **>140 conferences**. Only a few **relevant and recent international conferences, as keynote speaker,** are **presented here as an example**.

1. Effects of exercise on brain health in children. 28th European congress on obesity: Conducted online due to COVID-19 pandemic. 2021. Keynote Lecture in the 27th Annual Congress of the European College of Sport Science. Aug. 2022.
2. Determinants and consequences of physical activity and sedentary behaviour in children and adolescents with obesity. 28th European congress on obesity: Conducted online due to COVID-19 pandemic. 2021.
3. Fitness and Health in Young People. PHACtually Speaking Seminar Series, organized by the Canadian Public Health Agency. Canada (conducted online due to COVID-19 pandemic). 2021.
4. Physical activity, fitness, cognition and brain. Congress on Fitness and cognition in childhood. Santiago de Chile, Chile. 2019.
5. Fitter kids for a healthier adult society. 5th International Scientific Conference: Exercise as Quality of Life 2019: From Active Childhood to Healthy Aging. Novi Sad, Serbia. 2019.
6. Cardiorespiratory fitness and muscular strength in youth as predictors of future chronic disease. International Summit Forum on "Exercise and Healthy China 2030. Beijing, China. 2018.
7. Exercise, fitness and obesity in ADHD patients. WPA XVII World Congress of Psychiatry. Berlin, Germany. 2017.

C.6. Research awards and prizes

FB. Ortega has got **16 research prizes/awards**. Below a selection of 3 of them:
2017- Awarded as the most cited Author in Social Sciences, by the UGR-Caja Rural, Spain.
2014 - Awarded as the best Young Scientist of Andalusia, the Andalucian Goverment, Spain.
2013 - Awarded as the best Young Scientist granted by the "Consejo Social", Universidad de Granada, Spain.

ORTEGA PORCEL FRANCISCO BARTOLOME
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