MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	Gonzalo		
Family name	Márquez Sánchez		
Gender (*)	Man	Birth date (dd/mm/yyyy)	
ID number			
e-mail		URL Web	
Open Researcher and Contributor ID (ORCID) (*)			

A.1. Current position

Position	Profesor Titular de Universidad		
Initial date	06/05/2022		
Institution	University of A Coruña		
Department/Center	Department of Physical Education and Sport	Faculty of Sports Sciences	
Country	Spain	Teleph. number	
Key words	Neuromuscular Physiology, Biomechanics, Motor control, Sport training		

A.2. Previous positions (research activity interuptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
01/01/2008 to 31/12/2009	Predoctoral fellow (UDC) / University of A Coruña / Spain
15/03/2010 to 14/12/2010	Postdoctoral fellow (Research contract) / University of A Coruña / Spain
01/05/2011 to 29/07/2011	Postdoctoral fellow (Research contract) / University of A Coruña / Spain
26/09/2011 to 27/02/2020	Profesor ayudante doctor/Contratado Doctor/Titular / Universidad Católica de Murcia (UCAM) / Spain
26/02/2020 to 06/05/2022	Profesor ayudante doctor / University of A Coruña / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Bachelor of Science in Physical Activity and Sport	University of A Coruña (España)	2005
Advanced Studies Diploma (former DEA)	University of A Coruña (España)	2007
Pedagogic Aptitude Course	University of A Coruña (España)	2008
PhD, Doctoral Program in Sport Science	University of A Coruña (España)	2011

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

My academic appointments include a predoctoral research and teaching fellowship at the University of A Coruña (January 1, 2008 – December 31, 2009); a postdoctoral research contract with the Learning and Motor Control Group at the University of A Coruña (March 15, 2010 – July 29, 2011); a faculty position at the Catholic University of Murcia (UCAM) (September 26, 2011 – February 26, 2020); an assistant professor role in the Department of Physical Education and Sport at the University of A Coruña (February 26, 2020 – May 6, 2022);

my current position as an associate professor in the Department of Physical Education and Sport at the University of A Coruña (May 6, 2022 – present).

In addition, as part of my postdoctoral journey, I was awarded two postdoctoral grants to work as a visiting researcher at the Motor Control Lab of the University of Fribourg, Switzerland, under the supervision of Professor Wolfgang Taube. These visits occurred from June 15 to September 15, 2012, and June 1 to September 30, 2015, totaling seven months. In 2021, I was awarded a senior research grant to visit the Neuromuscular Research Lab at the Polytechnic Institute of Guarda, Portugal, under the supervision of Dr. Carolina Vila-Cha, a recognized expert in motor unit adaptations in response to resistance and endurance training.

My research background includes the publication of 62 articles in journals indexed in the Journal Citations Report (JCR) within the Web of Science (WoS) database. These publications have received 1,490 citations, with an H-index of 23 and i10-index of 39 (source: Google Scholar; https://scholar.google.es/citations?user=dtDHmSoAAAAJ&hl=es). It is worth noting that my publications are distributed as follows: 26 in Q1, 23 in Q2, 9 in Q3, and 3 in Q4. Grouping these, 77% of my publications have been published in the first and second quartiles. Regarding the impact factor of the journals, the range varies from 0.5 to 9, with an average impact factor of 3.4. In terms of my role within these publications, I played a **leading role** in 64% of them, meaning I am the first author, last author, or corresponding author. Most of these articles have been published in journals within the field of sports sciences, while the remainder are in the fields of physiology and neuroscience. Out of the 62 articles published, 23 are directly linked to research projects funded through competitive calls (both public and private), and 13 are associated with four doctoral theses (already defended, excluding the candidate's own thesis).

I have participated in 8 research projects (5 as principal investigator and 3 as a member of the research team). Details of the 5 projects I led, funded through national and university-specific calls, are provided in section C.3 of the curriculum. Of the remaining projects, I contributed to the research team for 2 projects funded by Spain's National R&D Plan in 2011 (DEP2011-22466), 2015 (PSI2015-71061-P), and 2018 (PGC2018-097388-B-I00-MCI/AEI/FEDER, UE). Additionally, I am the coordinator of a Research Network in Sport Science (Red de Entrenamiento de Fuerza) funded by the Spanish Higher Council for Sports (CSD_15/UPB/21) since 2021 to date (4 years).

I have supervised 4 doctoral theses and > 25 master's theses, all related to research in the field of physical activity and sport. Among my main recognitions and awards not mentioned previously, I would like to highlight: (I) associate editor roles in 3 scientific journals (Frontiers in Physiology, Brain Sciences, and Sports); (II) scientific reviewer for more than 20 JCR-indexed journals; (III) awards for oral or poster presentation at 3 scientific conferences.

Part C. RELEVANT MERITS

C.1. Publications

1. **Márquez G***, González-Hernandez J, Jiménez-Reyes P, Colomer-Poveda D, Boullosa D. Co-existence of peripheral fatigue of the knee extensors and jump potentiation after an incremental running test to exhaustion in endurance trained male runners. Front Sports Act Living. 2023 Nov 9;5:1267593. doi: 10.3389/fspor.2023.1267593.
2. **Márquez G*,** Colomer D, Benavente C, Morenilla L, Alix-Fages C, Padial P, Feriche B. Altitude-induced effects on neuromuscular, metabolic and perceptual responses before, during and after a high-intensity resistance training session. Eur J Appl Physiol. 2023 Oct;123(10):2119-2129. doi: 10.1007/s00421-023-05195-3..
3. Hortobágyi T, Granacher U, Fernandez-Del-Olmo M, Howatson G, Manca A, Deriu F, Taube W, Gruber M, **Márquez G,** Colomer-Poveda D. Functional relevance of resistance

training-induced neuroplasticity in health and disease. Neuroscience & Biobehavioral Reviews 122, 79-91

4. Colomer-Poveda D, Romero-Arenas S, Fariñas J, Iglesias-Soler E, Hortobágyi T, **Márquez G.** Training load but not fatigue affects cross-education of maximal voluntary force. Scand J Med Sci Sports. 2021 Feb;31(2):313-324. doi: 10.1111/sms.13844.
5. Colomer-Poveda D, Romero-Arenas S, Keller M, Hortobágyi T, **Márquez G**.* Training intensity-dependent increases in corticospinal but not intracortical excitability after acute strength training. Scandinavian Journal of Medicine and Science in Sports, 2020 Apr;30(4):652-661.
6. Colomer-Poveda D, Romero-Arenas S, Lundbye-Jensen J, Hortobágyi T, **Márquez G**.* Contraction intensity-dependent variations in the responses to brain and corticospinal tract stimulation after a single session of resistance training in men. J Appl Physiol (1985). 2019 Oct 1;127(4):1128-1139.
7. Carlos Alix-Fages, Amador García-Ramos, Giancarlo Calderón-Nadal, David Colomer-Poveda, Salvador Romero-Arenas, Miguel Fernández-del-Olmo, **Gonzalo Márquez*** (2020). Anodal transcranial direct current stimulation enhances strength training volume but not the force–velocity profile. European Journal of Applied Physiology. 10.1007/s00421-020-04417-2
8. González-Hernández JM, García-Ramos A, Colomer-Poveda D, Tvarijonaviciute A, Cerón J, Jiménez-Reyes P, **Márquez G**. Resistance Training to Failure vs. Not to Failure: Acute and Delayed Markers of Mechanical, Neuromuscular, and Biochemical Fatigue. J Strength Cond Res. 2021 Apr 1;35(4):886-893. doi: 10.1519/JSC.0000000000003921.
9. **Márquez G***, Keller M, Lundbye-Jensen J, Taube W. Surround Inhibition in the Primary Motor Cortex is Task-specifically Modulated in Non-professional Musicians but not in Healthy Controls During Real Piano Playing. Neuroscience. 2018 Mar 1;373:106-112. doi: 10.1016/j.neuroscience.2018.01.017.
10. David Colomer Poveda, Salvador Romero Arenas, **Gonzalo Márquez*** (2017). Effects of 4 weeks of low-load unilateral resistance training, with and without blood flow restriction, on strength, thickness, V wave, and H reflex of the soleus muscle in men - Eur J Appl Physiol, 117(7), 1339-1347.
11. **Gonzalo Márquez***, Salvador Romero Arenas, Antonio Vera Ibañez, Miguel Fernandez Del Olmo, Wolfgang Taube (2016). Peripheral and central fatigue after high intensity resistance circuit training - Muscle & Nerve, 56(1):152-159.
12. **Gonzalo Márquez***, Luis Morenilla, Wolfgang Taube, Miguel Fernandez Del Olmo (2014). Effect of surface stiffness on the neural control of stretch-shortening cycle movements - Acta Physiologica, 212, 214-225.

C.2. Selected congress presentations

1. **Invited Speaker** at the "X International Congress of the Spanish Association of Sports Science"s. **Presentation title:** Non-invasive brain stimulation and sports performance: reality or fiction? **Date and Location:** University of A Coruña. A Coruña, 2018

2. **Invited Speaker** at the "I International Congress on Sport and Exercise Prescription and Programming in Chronic Disease". **Presentation title:** Brain neurostimulation and exercise. **Date and Location:** Catholic University of Murcia. Murcia, 2018

3. **Invited Speaker** at the "I Conference on Transcranial Direct Current Stimulation (tDCS): Applications and Current Research Trends". **Presentation title:** tDCS and performance in different physical-sports tasks. **Date and Location:** Faculty of Health Sciences, Rey Juan Carlos University; Madrid, 2021

4. **Invited Speaker** at the "XI International Congress of the Spanish Association of Sports Science"s. **Presentation title:** Neuroplasticity and strength training: past, present, and future. Date and Location: Catholic University of Murcia (Murcia). Murcia, 2022

C.3. Research projects

1. **Project Title**: Effects of transcranial direct current stimulation combined with strength training on neuromuscular and cognitive markers in young and elderly individuals (PID-2021-128204OA-100). **Funding Entity**: MINECO. **Duration**: from 2022 to 2025. **Grant Amount**: €75,000. **Principal Investigators**: Virginia López Alonso and Gonzalo Márquez
2. **Project Title**: Interhemispheric transfer of motor learning: neurophysiological mechanisms and therapeutic applications (PSI2015-71061-P). **Funding Entity**: MINECO. **Duration**: From 2016 to 2019. **Grant Amount**: €52,151. **Principal Investigator**: Gonzalo Márquez
3. **Project Title**: Acute and chronic effects of a high-intensity interval power training program on cardiovascular, neuromuscular, metabolic, and osteoarticular markers in populations of different ages. **Funding Entity**: Catholic University of Murcia (PMAFI/23/14). **Duration**: From 2014 to 2016. **Grant Amount**: €10,000. **Principal Investigator**: Gonzalo Márquez
4. **Project Title**: Chronic effects of a high-intensity interval training (HIIT) program on cardiovascular, neuromuscular, and metabolic markers in professional athletes from the Region of Murcia and UCAM. **Funding Entities**: Infanta Cristina High-Performance Center of the Region of Murcia (CAR 27/15). **Duration**: From 2015 to 2016. **Grant Amount**: €7,260. **Principal Investigator**: Gonzalo Márquez
5. **Project Title**: Grants for the provision of scientific-technical infrastructures for research groups within the Support and Promotion of Research Plan 2016/2017 (UCAM) **Funding Entity**: Catholic University of Murcia (PMAFI_16/17). **Duration**: From 2017 to 2018. **Grant Amount**: €21,344. **Principal Investigator**: Gonzalo Márquez

C.4. Book Chapters

1. **Márquez-Sánchez, G.,** Colomer Poveda, D., García-Ramos, A. (2025). Chapter 4. Lifting Velocity – A Critical Programming Variable. In *Velocity-Based Training - Prescribing and Assessing the Effects of Resistance Training*. Routledge. ISBN: 9780367756901.
2. Colomer Poveda, D., **Márquez-Sánchez, G.,** López-Alonso, V. (2024). Chapter 2. Transcranial Direct Current Stimulation as a Strategy to Optimize Sports Performance. In *An Insight into Neuromodulation: Current Trends and Future Challenges*. Nova Science Publishers. ISBN: 9798891134454
3. Soriano-Rodríguez, M.A., Amaro-Gahete F., **Márquez-Sánchez G.** (2023). Chapter 5. Fuerza muscular: desarrollo y manifestaciones de la fuerza. In *Fisiología del Ejercicio*. Editorial Médica Panamericana. ISBN: 9788491107491

C.5. Thesis (supervised)

1. **Maria Emilia López Pérez**: "Psychophysiological responses to high-intensity exercise with an air flow restriction mask." Defended on 12/13/2019. Grade: *Outstanding Cum Laude*
2. **David Colomer Poveda**: "Effects of load and fatigue during unilateral resistance training on neuromuscular adaptations." Defended on 07/24/2020, Grade *Outstanding Cum Laude*
3. **Jorge Miguel González Hernández**: "Study of the acute and delayed effects of different strength training configurations: Proposal of velocity loss between sets as an indicator of neuromuscular fatigue." Defended on 07/23/2020, Grade *Outstanding Cum Laude*
4. **Shyamali Kaushalya**: "The ergogenic effect of transcranial direct current stimulation on cycling time-to-exhaustion task performance in physically active individuals." Defended on 12/18/2020, Grade *Outstanding Cum Laude*