

## EXPRESSION OF INTEREST – CANDIDATE FOR PF GLOBAL

### Researcher Profile:

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**Name and Surname:** Víctor Hernández Beltrán

**Position:** PhD

**Department/Unit/Centre:** University of Extremadura

- a) Describe your qualifications and experience. Provide information regarding your level of experience on the research topic proposed and your track record of publications, invited talks, and conference participation relative to your career stage (e.g., papers, projects, main international collaborations, patent etc.), highlighting which scientific, technical and soft skills you will transfer to the TC Hosting Institution during the implementation of the Outgoing Phase in your research project.

I hold a consolidated academic background in education, disability studies, adapted sport, and bibliometrics, supported by several years of experience in research, editorial coordination, and scientific production. My studies have focused on inclusive education, performance analysis in adapted sports and the development of advanced scientific databases for research purposes. Also, we have a great team and a high network of collaborations from different countries, such as Portugal, Brazil, Mozambique, the United Kingdom, Colombia, Chile, etc.

In this line, I have contributed to peer-reviewed publications in high-impact journals, authored book chapters, coordinated collective academic volumes, and participated in national and international conferences in education, sport sciences, and disability research. I have also been invited to collaborate with research groups and institutions across Europe and Latin America, strengthening my international projection and establishing stable academic networks aligned with the proposed research topic.

My technical expertise includes bibliometric analysis (Scopus, Web of Science, VOSviewer), quantitative and mixed-methods research design, database construction and normalisation, and performance analytics in adapted sport. Additionally, I bring strong editorial and scientific-communication skills, having coordinated multi-author academic projects and supported manuscript development for high-impact journals. These experiences have equipped me with advanced soft skills—leadership, intercultural collaboration, project coordination, scientific writing, and knowledge translation—that I will transfer to the TC Hosting Institution during the Outgoing Phase. My profile combines methodological rigor, international collaboration experience, and the capacity to generate high-quality scientific outputs, ensuring a meaningful contribution to the host institution's research environment.

- b) Show your level of independence and demonstrated capacity for leading projects, for example by securing funding, and mentoring students.

Throughout my career, I have progressively demonstrated a high level of research independence by leading multi-author academic projects, coordinating collective book volumes, and managing the full editorial workflow of scientific publications. I have designed and implemented original research lines in education, disability, adapted sport, and bibliometrics, including the development of advanced databases for wheelchair basketball performance analysis and the coordination of collaborative studies with international partners. My ability to independently conceptualize research questions, structure methodological frameworks, and deliver high-quality scientific outputs reflects a mature and autonomous research profile aligned with my career stage.

I have also gained substantial experience in mentoring and supervising students and early-career researchers, particularly in areas such as research design, academic writing, bibliometric methods, and data analysis. My role

as an editorial coordinator and advisor has allowed me to guide junior researchers through manuscript preparation, methodological refinement, and conference participation, fostering their academic growth and autonomy. These experiences have strengthened my leadership, communication, and team-coordination skills—competencies that I will actively transfer to the TC Hosting Institution during the Outgoing Phase. My capacity to lead collaborative initiatives, mentor emerging scholars, and manage complex academic tasks positions me as a researcher capable of contributing meaningfully to the host institution's scientific environment.

## **Project idea, if any (scientific requirements, topic, discipline):**

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### **Title project: Adapted Physical Activity and Sport Performance**

#### **i) Fundamentation:**

Adapted Physical Activity (APA) is an interdisciplinary field that promotes inclusion and the improvement of quality of life for people with disabilities, functional diversity, or special needs through physical exercise and sports. In recent decades, significant progress has been made in APA research, highlighting its benefits not only on a physical level but also psychologically and socially. However, despite these advances, important challenges remain regarding the optimization of sports performance in adapted contexts, the individualization of programs, and the transfer of knowledge to professional and educational practice.

This scientific project is based on the need to deepen the mechanisms, strategies, and programs that enhance sports performance in populations requiring specific adaptations. International literature indicates that personalizing interventions, based on functional assessment and the use of innovative technologies, is key to maximizing sports outcomes and the active participation of athletes in both competitive and recreational settings. It also recognizes the importance of training qualified professionals capable of designing, implementing, and evaluating APA programs with scientific rigor and sensitivity toward diversity.

In this sense, the project promotes excellence in science applied to sport and APA, as well as the transfer of knowledge to society. The integration of advances in exercise physiology, biomechanics, sports psychology, and adapted pedagogy will not only improve performance but also foster greater inclusion and equity in access to sports practice.

The foundation of this project is based on the premise that APA and sports performance are not mutually exclusive fields, but rather complementary. The scientific approach proposed aims to identify determining factors of performance in athletes with specific needs, analyze the impact of methodological and technological adaptations, and develop innovative strategies that can be replicated in different contexts. Furthermore, the project intends to contribute to the consolidation of international collaboration networks, fostering researcher mobility and the exchange of best practices.

The social and scientific relevance of APA is evident in the growing demand for inclusive programs and in the institutional recognition of adapted sports as a driver of integration and personal achievement. The expected results of the project will have a direct impact on improving participants' quality of life, advancing the science applied to sport, and consolidating a more equitable and diverse sports culture.

#### **ii) An overview of the project based on the candidate's most representative work and their contribution to the development of the scientific field**

The contextualisation of this project is based on works published in high-impact journals that have made significant contributions to the development of APA and sports performance. Among the most notable publications are studies on the application of individualised methodologies to improve performance in athletes with functional diversity, as well as pioneering research into the use of functional assessment and biomechanics technologies in

adapted sports contexts. Below are some examples published in high-impact journals, such as those from the MDPI group:

- Cabo, C. A., Hernández-Beltrán, V., Fernandes, O., Mendes, C., Gamonales, J.M., Espada, M.C., & Parraca, J.A. (2025). Effectiveness of different physical activity programs in improving older adults' physical capacities: a randomized controlled trial. *Frontiers in Physiology*, 16. <https://doi.org/10.3389/fphys.2025.1540776>
- Cabo, C.A., Hernández-Beltrán, V., Gamonales, J.M., Fernandes, O., Espada, M.C., & Parraca, J.A. (2024). Evolution of documents related to the influence of physical activity and functional capacity throughout the aging process: a bibliometric review. *Frontiers in Physiology*, 15(1427038). <https://doi.org/10.3389/fphys.2024.1427038>
- Díaz-Cortés, J.C., Hernández-Beltrán, V., Solano-Ruiz, L.F., Cepeda-Hernández, J.A., Méndez-Castro, G. E., Becerra-Patiño, B. A., & Gamonales, J.M. (2024). Decrease in muscle shortening and effect on strength and speed in adolescent soccer players (u-13). *Sportis. Scientific Journal of School Sport, Physical Education and Psychomotricity*, 10(3), 735–761. <https://doi.org/10.17979/sportis.2024.10.3.10779>
- Gamonales, J.M., Hernández-Beltrán, V., Escudero-Tena, A., & Ibáñez, S.J. (2023). Analysis of the External and Internal Load in Professional Basketball Players. *Sport*, 11(10), 195. <https://doi.org/10.3390/sports11100195>
- Gamonales, J.M., Escudero-Tena, A., & Ibáñez, S.J. (2023). Analysis of the training tasks of a professional basketball team. *E-Motion: Revista de Educación, Motricidad e Investigación*, (20), 43–56. <https://doi.org/10.33776/remo.vi20.7738>
- Gamonales, J. M., Hernández-Beltrán, V., Perdomo-Alonso, A., Bagueiras-Martínez, J., Gómez-Carrero, S., Ferreira, C. C., Santos, F. J., & Espada, M. C. (2024). Does the category and game position influence sports injuries in football? *Retos. Nuevas Tendencias En Educación Física, Deporte y Recreación*, (54), 817–824. <https://doi.org/10.47197/retos.v54.103513>
- Hernández-Beltrán, V., Becerra-Patiño, B. A., Perdomo-Alonso, A., Bagueiras-Martínez, J., Gómez-Carrero, S., Espada, M. C., & Gamonales, J. M. (2024). Characterization of the External Load of Soccer Goalkeepers Depending on the Category and Sports Context. *Sports*, 12(12), 318. <https://doi.org/10.3390/sports12120318>
- Hernández-Beltrán, V., Castelli Correia de Campos, L.F., Espada, M.C., & Gamonales, J.M. (2024). Sports Performance Analysis of Wheelchair Basketball Players Considering Functional Classification. *Applied Sciences*, 14(12), 5111. <https://doi.org/10.3390/app14125111>
- Hernández-Beltrán, V., Espada, M.C., Castelli Correia de Campos, L.F., Gamonales, J.M., & Becerra-Patiño, B.A. (2024). Analysis of the publications related to sports performance in wheelchair basketball: bibliometric review. *Retos. Nuevas Tendencias En Educación Física, Deporte y Recreación*, (61), 344–355. <https://doi.org/10.47197/retos.v61.105959>
- Hernández-Beltrán, V., Gámez-Calvo, L., Castelli Correia de Campos, L.F., Bertu, F., & Gamonales, J.M. (2024). Análisis de la composición corporal de los jugadores de la selección española de fútbol para ciegos. *Revista Andaluza de Medicina Del Deporte*, 16(3–4), 100–106. <https://doi.org/10.33155/ramd.v16i3-4.1112>
- Hernández-Beltrán, V., Gamonales, J.M., Muñoz-Jiménez, J., Rocha, J., & Ibáñez, S.J. (2024). Does the Location of the Inertial Device Influence the Sports Performance in Wheelchair Basketball? *Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte*, xx(xx), xx-xx. In Press
- Hernández-Beltrán, V., Ibáñez, S.J., Muñoz-Jiménez, J., & Gamonales, J.M. (2024). When Does a Wheelchair Basketball Team Win? *Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte*, xx(xx), xx-xx. In Press
- Hernández-Beltrán, V., Ibáñez, S.J., Espada, M.C., & Gamonales, J.M. (2023). Influence of Game Space on the Design of Wheelchair Basketball Tasks. *Applied Sciences*, 13(19), 11024. <https://doi.org/10.3390/app131911024>
- Massini, D.A., Almeida, T.A.F., Macedo, A.G., Peres, A.B., Hernández-Beltrán, V., Gamonales, J. M., Espada, M. C., Neiva, C. M., & Pessôa Filho, D. M. (2025). Effect of whole-body vibration training on bone mineral density in older adults: a systematic review and meta-analysis. *PeerJ*, 13, e19230. <https://doi.org/10.7717/peerj.19230>
- Santamaría-Moral, D., Hernández-Beltrán, V., Espada, M.C., Castelli Correia de Campos, L.F., & Gamonales, J.M. (2025). Does the menstrual cycle influence the sports performance of women volleyball players? A pilot

study. *Cultura, Ciencia y Deporte*, 20(64), 2199.

Santos, F., Clemente, F.M., Sarmiento, H., Ferreira, C., Figueiredo, T., Hernández-Beltrán, V., Gamonales, J.M., & Espada, M.C. (2024). External load of different format small-sided games in youth football players in relation to age. *International Journal of Sports Science & Coaching*, 19(5), 2024–2034. <https://doi.org/10.1177/17479541241231485>

Venâncio, T.F., Costa, M.J., Santos, C.C., Batalha, N., Hernández-Beltrán, V., Gamonales, J.M., & Espada, M.C. (2025). Evolution of documents related to strength training research on competitive swimmers: a bibliometric review. *Frontiers in Sports and Active Living*, 7. <https://doi.org/10.3389/fspor.2025.1603576>

The project will address different dimensions to identify the importance of personalizing training programs and integrating inclusive pedagogical strategies—elements that are directly reflected in the objectives of this project. Furthermore, participation in research with international collaborations has fostered the establishment of scientific cooperation networks to promote excellence, knowledge transfer, and innovation in APA.

In summary, the work carried out reinforces the scientific foundation of this project, providing empirical and methodological evidence that guides the design of effective and sustainable interventions in the field of APA and sports performance.

**iii) Objectives and strategy: Clear scientific objectives, including methodology, strategies for securing funding, target funding sources, knowledge transfer and staff training**

The main objectives of this project are:

To identify the key factors that impact sports performance in individuals with specific needs, through the application of advanced scientific methodologies and individualised functional assessment. To develop and validate innovative APA programmes, incorporating emerging technologies and inclusive pedagogical strategies that optimise performance and encourage active participation in sport. To promote the consolidation of interdisciplinary and international collaboration networks, facilitating the exchange of best practices and the mobility of researchers. Regarding knowledge transfer, the creation of educational materials, the organisation of technical seminars and workshops for professionals, associations and sports organisations, as well as the publication of results in scientific journals and open-access digital platforms are envisaged. Collaboration with public institutions, such as various national or international universities (University of Lisbon, University of Extremadura, Francisco de Vitoria University, Polytechnic Institute of Setúbal, São Paulo State University, São Carlos Federal University, Universidade Pedagógica de Maputo (Moçambique) and/or Universidade Eduardo Mondlane (Moçambique)) and private entities will also be promoted to facilitate the implementation of findings and the improvement of existing programmes.

With regard to human resource training, the project envisages the active integration of undergraduate and postgraduate students, the undertaking of training placements, and participation in applied research projects. In addition, continuous training for members of the university will be enhanced through workshops, specialised courses, and ongoing updates on new trends and technologies in the field of APA and sports performance, such as the use of inertial devices to quantify sports performance and prevent injuries.

**iv) Expected impact: Identification of challenges, opportunities and targets, with progress indicators and anticipated scientific outcomes**

The project anticipates the generation of new knowledge through the undertaking of innovative studies, the results of which may be published in high-impact scientific journals. It is also expected that communications will be presented at national and international conferences. Additionally, the development of advanced methodologies and technological tools is foreseen, boosting the transfer of knowledge to the academic and sporting communities.

Furthermore, due to both national and international relationships that will be established, dissemination will

achieve significant value within the scientific community. This will enable researchers and members to share their scientific findings.

To assess the expected impact of the project, the following progress indicators are proposed:

- Number of undergraduate and postgraduate students actively involved in the project.
- Quantity of training placements completed, and hours of training provided.
- Participation in applied research projects and number of resulting scientific publications.
- Attendance at and organisation of workshops and specialist courses for the continuous training of the university/department's members.
- Implementation and use of new technologies, such as inertial devices, in the group's activities.
- Collaborations established with other institutions, both nationally and internationally.
- Results obtained in injury prevention and improvement of sports performance, measured through periodic evaluations.

These indicators will enable both quantitative and qualitative monitoring of the project's progress, making it easier to identify achievements, areas for improvement, and the actual impact on the training of human resources within the scientific field.