Curriculum Vitae

Name:	Valeria Belluscio
Citizenship:	Italian
Place of birth:	Rome
Date of birth:	11/04/1991
Spoken Languages:	Italian, English

1. ***EDUCATION***

- **2016-2019 PhD Doctoral School in Human Movement and Sport Science** (University of Rome Foro Italico, Rome, Italy): winner of a scholarship for being 7 months at the Oregon Health and Science University (OHSU, Oregon, USA) at the Neurology department of the Parkinson's disease Center; winner of a scholarship for being 2 months at the University of Stuttgart, Stuttgart, Germany.
  PhD Thesis Title: "From the lab to the field: the use of wearable inertial sensors for quantifying movement disorders".

- **2013-2015 European Master in Health and Physical Activity (109/110)** (University of Rome Foro Italico, Rome, Italy): Internship in "Movement Therapy for Special Populations" at the Cologne University and in "Movement therapy in orthopaedic rehabilitation" at Villa Stuart Clinic in Rome.

- **2010-2013 Bachelor Degree in Human and Sport Science (110/110 cum Laude)** (University of Rome Foro Italico, Rome, Italy)

- **2005-2010 Diploma di Maturità Scientifica (90/100)** (Liceo Scientifico Statale Aristotele, Rome, Italy

2. ***FELLOWSHIPS and HONORS***

- Young Scholarship Award, 20th SIAMOC Conference, Bologna (Italy), October 2019.
- Young Scholarship Award, 19th SIAMOC Conference, Florence (Italy), October 2018.
- Young Travel Award, GCMAS Conference, Indianapolis (USA), May 2018.
- Young Scholarship Award, 18th SIAMOC Conference, Turin (Italy), October 2017.
- Young "Torno Subito" Award (Regione Lazio).

3. ***TEACHING EXPERIENCE***

- **AA 2021-2022- Università Telematica Unicusano** (Contract Lecturer in Biomechanics of Sport- 6 CFU, LM68).

- **AA 2020-2021- Università Telematica Unicusano** (Contract Lecturer in Biomechanics of Sport- 5 CFU, LM68).

- **AA 2019/2020- Università Telematica San Raffaele** (Master in Biomechanics: Movement Analysis instruments and sport applications)

- **2016-2019- University of Rome "Foro Italico"** (Support during laboratory activities with Master students)

4. *CHRONOLOGY OF EMPLOYMENT AND RESEARCH EXPERIENCES*

- **2020-2021** Post-Doc Fellow (University of Rome Foro Italico, Italy)
  Wearable Assistant for VEterans in sport (WAVE Project).

- **2019-on going** Gait Analysis Laboratory Technician (IRCSS Fondazione Santa Lucia, Rome, Italy): Wearable sensors to objectively assess the efficacy of "Equistasi" device in people with Parkinson's disease. Patients assessment and report preparation for ASL medical prescription.

- **2014-2015** CONI Project "Sport di Classe": Tutor of physical education in primary school.

5. *PUBLICATIONS*

1) Bergamini E., Iosa M., **Belluscio V**., Morone G., Tramontano M., Vannozzi G., Multi-sensor assessment of dynamic balance during gait in patients with subacute stroke. Journal of Biomechanics; Aug 16;61: 208-215; 2017.

2) **Belluscio V**., Bergamini E., Iosa M., Morone G., Tramontano M., Vannozzi G.; The iFST: an instrumented version of the Fukuda Stepping Test for balance assessment. Gait&Posture; Feb;60: 203-208; 2018.

3) Tramontano M. Bergamini E, Iosa M, **Belluscio V**., Vannozzi G, Morone G.; Vestibular rehabilitation training in patients with subacute stroke: A preliminary randomized controlled trial. NeuroRehabilitation; 43(2):247-254; 2018.

4) **Belluscio V**., Bergamini E., Salatino G., Marro T., Gentili P., Iosa M., Morelli D., Vannozzi G. Dynamic balance assessment during gait in children with Down and Prader-Willi Syndromes using inertial sensors. Human Movement Science; Nov 28;63: 53-61; 2018.

5) Stuart S., **Belluscio V**., Quinn J., Mancini M. Pre-frontal cortical activity during walking and turning is reliable and differentiate across young, older adults and people with Parkinson's disease. Frontiers in Neurology: Movement Disorders; May 19, 2019

6) **Belluscio V**., Stuart S., Bergamini E., Vannozzi G., Mancini M. The Association Between Prefrontal Cortex Activity and Turning Behaviors in People With and Without Freezing of Gait. Neuroscience; Vol. 416; 168-176; Sept.15, 2019.

7) **Belluscio V**., Bergamini E., Tramontano M., Orejel Bustos A., Allevi G., Formisano R., Vannozzi G., Buzzi MG. Gait Quality Assessment in Survivors from Severe Traumatic Brain Injury: An Instrumented Approach Based on Inertial Sensors. Sensors; Dec 2019.

8) De Bartolo D., **Belluscio V**., Vannozzi G.,Santucci S., Antonucci A., Morone G., Giordani G., Resta F., Marinozzi F., Bini F., Paolucci S., Iosa M. Sensorized Assessment of Dynamic Locomotor Imagery in People with Stroke and Healthy Subjects. Sensors; Aug, 2020.

9) **Belluscio V**., Bergamini E., Tramontano M., Formisano R., Buzzi MG., Vannozzi G. Does Curved Walking Sharpen Gait Disorders? An instrumented approach based on wearable inertial sensors. Sensors; Sept, 2020.

10) **Belluscio V**., Iosa M., Vannozzi G., Peppe A. Auditory Cue Based on the Golden Ratio Can Improve Gait Patterns in People with Parkinson's Disease. Sensors; January 2021.

11) Rum L., Sten O., Vendrame E., **Belluscio V**., Camomilla V., Vannozzi G.*, Truppa L., Notarantonio M., Sciarra T., Lazich A., Mannini A., Bergamini E. Wearable Sensors in Sports for Persons with Disability: A Systematic Review. Sensors; March 2021

12) Orejel Bustos A., **Belluscio V**., Camomilla V, Lucangeli L., Rizzo F., Sciarra T., Martelli F., Giacomozzi C.; Overuse-Related Injuries of the Musculoskeletal System: Systematic Review and Quantitative Synthesis of Injuries, Locations, Risk Factors and Assessment Techniques. Sensors, April 2021.

13) **Belluscio V**., Orejel Bustos A., Camomilla V, Rizzo F., Sciarra T., Gabbianelli M., Guerriero F., Morsilli O., Martelli F., Giacomozzi C Experimental study protocol of the project MOtor function and VItamin D: Toolkit for motor performance and risk Assessment (MOVIDA). PLosOne, July 2021.

14) **Belluscio V.,** Casti G., Ferrari M., Quaresima V., Sappia MS, Horschig JM, Vannozzi G; Modifications in prefrontal cortex oxygenation during differ-ent walking conditions: a combined fNIRS and IMUs study; Sensors, September 2021.

15) Vendrame E., **Belluscio V**., Truppa L., Rum L., Lazich A., Bergamini E., Mannini A. Performance Assessment in Archery: a Systematic Review. Submitted do Journal of Sport Biomechanics.

6) CONFERENCES

a1) *Belluscio V*., Bergamini E., Iosa M., Morone G., Tramontano M., Vannozzi G.; The iFST: an instrumented version of the Fukuda Stepping Test for balance assessment. Oral presentation. Oral presentation. XXVIII Congress of the Italian Society of Human Movement Analysis in Clinics (SIAMOC), October 2017, Torino (Italy).

a2) *Belluscio V*., Bergamini E., Salatino G., Marro T., Gentili P., Iosa M., Morelli D., Vannozzi G. Dynamic balance assessment during gait in children with Down and Prader-Willi Syndromes using inertial sensors. Poster presentation. GCAMS Conference, Indianapolis, USA.

a3) *Belluscio V*., Stuart S., Bergamini E., Vannozzi G., Mancini M. The Association Between Prefrontal Cortex Activity and Turning Behaviors in People With and Without Freezing of Gait. Oral presentation. XIX Congress of the Italian Society of Human Movement Analysis in Clinics (SIAMOC), October 2018, Firenze (Italy).

a4) *Belluscio V.*, Stuart S., Bergamini E, Vannozzi G., Mancini M. Are there associations between prefrontal cortex and turning behavior in people with and without freezing of gait? Poster presentation. International Society of Posture and Gait Research (ISPGR), July 2019, Edimburgh, Scotland.

a5) *Belluscio V.*, Bergamini E., Tramontano M., Orejel Bustos A., Allevi G., Formisano R., Vannozzi G., Buzzi MG. Gait Quality Assessment in Survivors from Severe Traumatic Brain Injury: An Instrumented Approach Based on Inertial Sensors. Oral presentation. International Society of Biomechanics (ISB), July 2019, Calgary, Canada.

a6) *Belluscio V.*, E. Bergamini, A. Orejel Bustos, G. Allevi, M.G. Buzzi, M. Tramontano, G. Vannozzi. Does curved walking sharpen gait disorders? An instrumented approach using inertial sensors. Oral presentation. XX Congress of the Italian Society of Human Movement Analysis in Clinics (SIAMOC), October 2019, Bologna (Italy).

a7) *Belluscio V.*, Quaresima V., Casti G., Ferrari M., Vannozzi G. Modifications in pre-frontal cortex oxygenation during different walking conditions: an assessment through fNIRS and wearable inertial sensors. fNIRS Blitz, October 2020, Online Conference, Poster presentation.

a8) Belluscio V, Casti G, Ferrari M, Quaresima V, Horschig JH, Sappia MS, Vannozzi G. Cortical activation and human movement: a preliminary study about the combination of fNIRS and IMUs during different walking modalities. ICAMPAM Conference, May 2021, Poster presentation.

a9) *Belluscio V*, Vendrame E, Rum L, Truppa L, Vannozzi G, Camomilla V, Lazich A, Mannini A, Bergamini E. Joint kinematics and EMG characterization of para-archery shooting technique: an explorative study. XXI Congress of the Italian Society of Human Movement Analysis in Clinics (SIAMOC), October 2021, Online Conference, Oral presentation.

a10) *Belluscio V*, Rum L, Vendrame E, Truppa L, Vannozzi G, Camomilla V, Lazich A, Mannini A, Bergamini E. The WAVE project: towards a wearable technological solution for para-sports. VISTA Conference 2021, November 2021, Oral presentation.

7) STUDENTS SUPERVISION

- European Master "Health and Physical Activity" (HPA), University of Rome Foro Italico: Amaranta Orejel Bustos (aa 2019-2020 co-supervisor), Gabriele Casti (aa 2019-2020 co-supervisor), Cecilia Lo Zoppo (aa 2020-2021 co-supervisor).

- Laurea Triennale in Fisioterapia, Università degli Studi di Roma "Tor Vergata": Flavia D'Audino (aa 2018-2019), Mattia Rotundo e Tommaso Lucenti (aa 2019-2020) (Supporto nel reclutamento partecipanti/pazienti, acquisizione ed elaborazione dati).

- Università Nicolò Cusano, LM68: Giovanni Scelzi (aa 2020-2021- supervisor), Nicola Milani (aa 2020-2021- supervisor)

8) INFORMATIC AND LINGUISTIC KNOWLEDGES

- Microsoft Office™ tools, Software for data analysis Matlab® (MathWork™, USA), Software for statistical analysis SPSS® (SPSS Inc., USA), GraphPad Prism (GraphPad Software Inc., USA), Software for stereophotogrammetric systems Vicon Nexus (Oxford Metrics, UK) e BTS SMART Analyzer (BTS, Italy), Software for wearable inertial sensors Motion Studio and Motion Capture (APDM Inc., Portland (OR), USA), BTS- GWalk (BTS, Italy).

- Italian mother tongue; Fluent English written and spoken (C1 level):
    - English Certificate "Metodo Callan" – New York School, Roma, Italy.
    - English Certificate "English as Second Language" – University College of Caribbean, Jamaica.

9) PROJECTS

Participation to the Piano Nazionale Ricerca Militare (2019). "MOVIDA – Motor function and Vitamin D: toolkit for motor performance and risk assessment", financed by the Italian Ministry of Defense – coordinator Dr. Claudia Giacomozzi.

10) MEMBERSHIP

- ▪ISB – International Society of Biomechanics
- ▪SIAMOC – Società Italiana di Analisi del Movimento in Clinica
- ▪ISPGR - International Society of Posture and Gait Research
- ▪GCMAS - Gait and Clinical Movement Analysis Society

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DATA
13/10/2021