

## CURRICULUM VITAE

### CHIARA MILANESE

#### Personal data

First and family name: Chiara Milanese

Place and date of birth: Verona, October 5<sup>th</sup>, 1960

Nationality: Italian

Address (work): School of Exercise and Sport Science, Via Casorati 43, 37131, Verona. Department of Neurosciences, Biomedicina and Movement Sciences, University of Verona, Italy.

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**Present position:** 2005-2019 Research Assistant Professor of School of Exercise and Sport Science, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona.

2019-today: Associate Professor, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona.

**Education:** 1982 degree in Physical Education at the Institute Advanced of Physical Education of Bologna, Italy.

**Main fields of research:** kinematic and kinetic analysis of sport activities especially in track-and-field, golf and tennis; research on teaching methodology for improving motor skills; studies into kinanthropometry and body composition correlated to general physical activity, sport performance and chronic disease (e.g. osteoporosis, obesity, anorexia nervosa, spinal cord injury).

#### Grants:

- Joint Projects 2009 as principal investigator for the project: Sprint start of track: “Developing novel starting blocks to measure kinetic aspects”.
- Joint Project 2010 as principal investigator for the project: Effects of localized ultrasound delivery and total body vibration on total and regional body composition.
- Joint Projects 2018: as principal investigator for the project: Artificial Intelligence and Predictive analytics in Soccer to predict player injury risk and optimize performance. Università degli Studi di Verona.

#### Teaching activity:

2005-today: Professor of the Undergraduate Degree course in Motor Activities and Sport Sciences, and the Graduate Course in Sport Sciences and Techniques.

Within these, I conduct the following courses:

- Technique and didactics of individual sports: track-and-field and gymnastics.
- Methods and didactics of sport activities: physical conditioning in golf and tennis.

2010: thematic seminar (Anthropometric and Body Composition Measurements) for the PhD School in Biomedical Translational Sciences.

2011-2014: Tutor in the preparation of the thesis ““Amplification of error: a learning strategy to improve motor skills”, in Science of Physical Exercise and Human Movements, Dept. of Neurological and Vision Sciences, University of Verona, Italy.

### **Additional activity**

Member of the Academic board:

2008-today: member in the Faculty of Exercise and Sport Science, University of Verona, Italy.

2008-2015: member of the Board PhD program in “Biomedical Translational Sciences”, University of Verona, Italy.

2010-today: member of the Didactic Commission of the Master’s degree “Sciences and Techniques of Sports”, Faculty of Exercise and Sport Science, University of Verona, Italy.

2017: member of the Board of the PhD program in “Neuroscience, and Psychological and Psychiatric Sciences”, University of Verona, Italy.

### **Editorial activity:**

Editorial Board Member: Plos One; Scientific Reports; The Open Nutrition Journal.

### **List of Publications**

1. Cavedon V, Sandri M, Pirlo M, Petrone N, Zancanaro C, **Milanese C**. Anthropometry-driven block setting improves starting block performance in sprinters. *PLoS ONE*, 2019.
2. Venturelli M, Villa F, Ruzzante F, Tarperi C, Rudi D, **Milanese C**, Cavedon V, Fonte C, Picelli A, Smania N, Calabria E, Skafidas S, Layec G, Schena F. Neuromuscular and muscle metabolic functions in melas before and after resistance training: a case study. *Frontiers in Physiology*, 2019.
3. Naro F, Venturelli M, Monaco I, Toniolo L, Muti E, **Milanese C**, Zhao J, Richardson R, Schena F, Reggiani C. Skeletal muscle fiber size and gene expression in the oldest-old with differing degrees of mobility. *Frontiers in Physiology*, 2019.
4. Gajofatto, A, Donisi, V, Busch, I, Gobbin, F, Butturini, E, Calabrese, M, Carcereri de Prati, A, Cesari, P, Del Piccolo, L, Donadelli, M, Fabene, P, Fochi, S, Gomez-Lira, M, Magliozzi, R, Malerba, G, Mariotti, R, Mariotto, S, **Milanese, C**, Romanelli, M G, Sbarbati, A, Schena, F, Mazzi, M A, Rimondini, M. Biopsychosocial model of resilience in young adults with multiple sclerosis (BPS-ARMS): an observational study protocol exploring psychological reactions early after diagnosis. *BMJ OPEN*, 2019.
5. Cavedon, V, **Milanese, C**, Laginestra, F G, Giuriato, G, Pedrinolla, A, Ruzzante, F, Schena, F, Venturelli, M. Bone and skeletal muscle changes in oldest-old women: the role of physical inactivity. *Aging Clinical and Experimental Research*, 2019.
6. Rossi, A P, Muollo, V, Fantin, F, Masciocchi, E, Urbani, S, Taylor, M, Caruso, B, **Milanese, C**, Capelli, C, Schena, F, Zamboni, M. Effects of diet combined with Nordic walking or walking programme on weight loss and arterial stiffness in postmenopausal overweight and obese women: The Walking and Aging Verona pilot study. *European Journal of Preventive Cardiology*, 2019.

7. Coratella, G, Beato, M, Cè, E, Scurati, R, **Milanese, C**, Schena, F, Esposito, F. Effects of in-season enhanced negative work-based vs traditional weight training on change of direction and hamstrings-to-quadriceps ratio in soccer players. *Biology of Sport*, 2019.
8. Muollo, V.; Rossi, A, **Milanese, C**, Masciocchi, E, Taylor, M, Zamboni, M, Rosa, R, Schena, F, Pellegrini, B. The effects of exercise and diet program in overweight people – Nordic walking versus walking. *Clinical Interventions in Aging*, 2019.
9. Cavedon V, Zancanaro C, **Milanese C**. Anthropometry, body composition, and performance in sport-specific field-test in female wheelchair basketball players. *Frontiers in Physiology*, 2018, vol. 9, p. 1-13.
10. Cavedon V, Zancanaro C, **Milanese C**. Anthropometric prediction of DXA-measured body composition in female team handball players. *PEERJ*, 2018, 1-15.
11. Fattoretti P, Malatesta M, Cisterna B, **Milanese C**, Zancanaro C. Modulatory Effect of Aerobic Physical Activity on Synaptic Ultrastructure in the Old Mouse Hippocampus. *Frontiers in Aging Neuroscience*, 2018, vol. 10, 1-9.
12. Coratella G, Beato M, **Milanese C**, Longo S, Limonta E, Rampichini S, Cè E, Bisconti A, Schena F, Esposito F. Specific Adaptations in Performance and Muscle Architecture After Weighted Jump-Squat vs Body Mass Squat Jump Training in Recreational Soccer Players. *The Journal of Strength and Conditioning Research*, February 2018.
13. **Milanese C**, Cavedon V, Sandri M, Tam E, Piscitelli F, Boschi F, Zancanaro C. Metabolic effect of bodyweight whole-body vibration in a 20-min exercise session: A crossover study using verified vibration stimulus. *PLoS ONE*, 2018, vol. 13, 1-17.
14. Calugi S, Sartirana M, **Milanese C**, El Ghoch M, Riolfi F, Dalle Grave R. The clinical impairment assessment questionnaire: validation in Italian patients with eating disorders. *Eating and Weight Disorders*, 2018, vol. 23, n. 5, 685-694.
15. Dalle Grave R, Sartirana M, **Milanese C**, El Ghoch M, Brocco C, Pellicone C, Calugi S. Validity and reliability of the eating problem checklist. *Eating Disorders*, 2018, 1-16.
16. Calugi S, **Milanese C**, Sartirana M, El Ghoch M, Sartori F, Geccherle E, Coppini A, Franchini C, Dalle Grave R. The eating disorder examination questionnaire: reliability and validity of the Italian version. *Eating and Weight Disorder*, 2017, vol. 22, 509-514.
17. Rinaldo N, Bacchi E, Coratella, G, Vitali F, **Milanese C**, Rossi A, Schena F, Lanza M. Effects of combined aerobic-strength training vs fitness education program in COPD patients. *International Journal of Sports Medicine*, 2017, vol. 38, 1001-1008.
18. Calugi S, Miniati M, **Milanese C**, Sartirana M, El Ghoch M, Dalle Grave R. The Starvation Symptom Inventory: Development and Psychometric Properties. *Nutrients*, 2017.
19. Bacchi E, Cavedon V, Zancanaro C, Moghetti P, **Milanese C**. Comparison between dual-energy X-ray absorptiometry and skinfold thickness in assessing body fat in overweight/obese adult patients with type-2 diabetes. *Scientific Reports*, 2017, vol. 7, 1-8.
20. El Ghoch M, Calugi S, **Milanese C**, Bazzani PV., Dalle Grave R. Body composition in men with anorexia nervosa: longitudinal study. *International Journal of Eating Disorders*. 2017.

21. El Ghoch M, Pourhassan M, **Milanese C**, Müller MJ, Calugi S, Bazzani PV, Dalle Grave R. Changes in lean and skeletal muscle body mass in adult females with anorexia nervosa before and after weight restoration. *Clinical Nutrition*, 2017, 36, (1) 170-178.
22. **Milanese C**, Cavedon V, Corte S, Agostini T. The effects of two different correction strategies on the snatch technique in weightlifting. *Journal of Sports Sciences*, 2017, 35, 476-483.
23. El Ghoch M, Calugi S, Bernabè J, Pellegrini M, **Milanese C**, Chignola E, Dalle Grave R. Sleep patterns before and after weight restoration in females with anorexia nervosa: a longitudinal controlled study. *European Eating Disorders Review*. 2016.
24. Raffaelli C, **Milanese C**, Lanza M, Zamparo P. Water based training enhances both physical capacities and body composition in healthy young adult women. *Sport Sciences for Health*, 2016, 12: 195-207.
25. **Milanese C**, Corte S, Salvetti L, Cavedon V, Agostini T. Correction of a technical error in the golf swing: error amplification vs. direct instruction. *Journal of Motor Behavior*, 2016.
26. Piscitelli F, **Milanese C**, Sandri M, Cavedon V, Zancanaro C. Investigating predictors of ball-throwing velocity in team handball: the role of sex, anthropometry, and body composition. *Sport Sciences for Health*, 2016.
27. **Milanese C**, Cavedon V, Corradini G, De Vita F, Zancanaro C. Seasonal DXA-measured body composition changes in professional male soccer players. *Journal of Sports Sciences*, 2015.
28. Cavedon V, Zancanaro C, **Milanese C**. Physique and Performance of Young Wheelchair Basketball Players in Relation with Classification. *PLoS ONE*, 2015.
29. Coratella G, **Milanese C**, Schena F. Cross-education effect after unilateral eccentric-only isokinetic vs dynamic constant external resistance training. *Sport Sciences for Health*, 2015.
30. Corte S, Cavedon V, **Milanese C**. Differential effects of main error correction versus secondary error correction on motor pattern of running. *Human Movement Science*, 2015.
31. Coratella G, **Milanese C**, Schena F. Unilateral eccentric resistance training: A direct comparison between isokinetic and dynamic constant external resistance modalities. *European Journal of Sport Science*, 2015.
32. Zancanaro C, **Milanese C**, Lovato C, Sandri M, Giachetti A. Reliability of Three-dimensional Photonic Scanner Anthropometry Performed by Skilled and Naïve Operators. *International Journal of Ergonomics*, 2015, vol.5 (1), 1-11.
33. Bruseghini P, Calabria E, Tam E, **Milanese C**, Oliboni E, Pezzato A, Pogliaghi S, Salvagno G, Schena F, Pozzi Mucelli R, Capelli C. Effects of eight weeks of aerobic interval training and of isoinertial resistance training on risk factors of cardiometabolic diseases and exercise capacity in healthy elderly subjects. *Oncotarget*, 2015.
34. **Milanese C**, Giachetti A, Cavedon V, Piscitelli F, Zancanaro C. Digital three-dimensional anthropometry detection of exercise-induced fat mass reduction in obese women. *Sport Sciences for Health*, 2015.

35. El Ghoch M, **Milanese C**, Calugi S, Müller M J, Pourhassan M, Ruocco A, Dalle Grave R. Regional fat distribution in adolescent and adult females with anorexia nervosa: A longitudinal study. *Clinical Nutrition* (Edinburgh, Scotland), 2015.
36. Giachetti A, Lovato C, Piscitelli F, **Milanese C**, Zancanaro C. Robust Automatic Measurement of 3D Scanned Models for the Human Body Fat Estimation. *IEEE Journal of Biomedical and Health Informatics*, 2015.
37. **Milanese C**, Cavedon V, Piscitelli F, Zancanaro C. Effect of low-intensity, low-frequency ultrasound treatment on anthropometry, subcutaneous adipose tissue, and body composition of young normal weight females. *Journal of Cosmetic Dermatology*, 2014.
38. Venturelli M, Morgan R, Anthony J, Van Reese, Bottura R, Tarperi C, **Milanese C**, Schena F, Reggiani C, Naro F, Cawthon R M, Richardson R S. Cellular aging of skeletal muscle: telomeric and free radical evidence that physical inactivity is responsible and not age. *Clinical Science*, 2014; 127(5-6).
39. Cavedon V, Zancanaro C, **Milanese C**. Kinematic analysis of the wheelchair tennis serve: Implications for classification. *Scandinavian Journal of Medicine and Science in Sports* 2014; 24(5).
40. **Milanese C**, Piscitelli F, Cavedon V, Zancanaro C. Effect of distinct impact loading sports on body composition in pre-menarcheal girls. *Science & Sports* 2014, 29(1):10-19.
41. El Ghoch M, **Milanese C**, Calugi S, Pellegrini M, Battistini N, Dalle Grave R. Body composition, eating disorder psychopathology, and psychological distress in anorexia nervosa: a longitudinal study. *American Journal of Clinical Nutrition*, 2014; 99(4).
42. **Milanese C**, Bertucco M, Zancanaro C. The effects of three different rear knee angles on kinematics in the sprint start. *Biology of Sport*, 2014, 31:209-215.
43. Bacchi E, Negri C, Zanolini N, Tarperi C, Baraldo A, Faccioli N, **Milanese C**, Zanolin M, Lanza M, Cevese A, Bonora E, Schena F, Moghetti P. Relationships between cardiorespiratory fitness, metabolic control, and fat distribution in type 2 diabetes subjects. *Acta Diabetologica*, 2014, 51(3).
44. El Ghoch M, Calugi S, Pellegrini M, **Milanese C**, Busacchi M, Battistini N, Bernabè Jasmine, Dalle Grave R. Measured Physical Activity in Anorexia Nervosa: Features and Treatment Outcome. *International Journal of Eating Disorders*, 2013, 46(7).
45. **Milanese C**, Piscitelli P, Zenti M, Moghetti P, Sandri M, Zancanaro C. Ten-week Whole-body Vibration Training Improves Body Composition and Muscle Strength in Obese Women. *International journal of medical sciences*, 2013, 10(3):307-11.
46. El Ghoch M., Alberti M., **Milanese C.**, Battistini NC., Pellegrini M., Capelli C., Calugi S., Dalle Grave R. Comparison between dual-energy x-ray absorptiometry and skinfolds thickness in assessing body fat in anorexia nervosa before and after weight restoration. *Clinical Nutrition*, 2012, vol. 31, 911-916.
47. **Milanese C**, Piscitelli F, Lampis C, Zancanaro C. Effect of a competitive season on anthropometry and three-compartment body composition in female handball players. *Biology of Sport*, 2012, vol. 29, 199-204.

48. **Milanese C**, Piscitelli F, Simoni C, Pugliarello R, Zancanaro C, Effects of whole-body vibration with or without localized radiofrequency on anthropometry, body composition, and motor performance in young nonobese women. *Journal of Alternative and Complementary Medicine*, 2012, vol. 18, 69-75.
49. Bacchi E, Negri C, Zanolin ME, **Milanese C**, Faccioli N, Trombetta M, Zoppini G, Cevese A, Bonadonna RC, Schena F, Bonora E, Lanza M, Moghetti P. Metabolic effects of aerobic training and resistance training in type 2 diabetic subjects: a randomized controlled trial (the RAED2 study). *Diabetes Care*, 2012, vol. 35, 676-682.
50. **Milanese C**, Piscitelli F, Lampis C, Zancanaro C. Anthropometry and body composition of female handball players according to competitive level or the playing position. *Journal of Sports Sciences*, 2011, vol. 29, 1301-1309.
51. **Milanese C**, Piscitelli F, Simoni C, Zancanaro C. Mild chronic whole body vibration does not affect bone mineral mass or density in young females. *Journal of Human Sport and Exercise*, 2011, vol. 6, 474-479.
52. **Milanese C**, Bortolami O, Bertuccio M, Verlatto G, Zancanaro C. Anthropometry and motor fitness in children aged 6-12 years. *Journal of Human Sport and Exercise*, 2010, vol. 5, 265-279.
53. **Milanese C**, Facci G, Cesari C, Zancanaro C. "Amplification of Error": A Rapidly Effective Method for Motor Performance Improvement. *The Sport Psychologist*, 2008, vol. 22, 0888-4781, 164-174.
54. Bruni M, **Milanese C**, Mariotti R, Zancanaro C. Anthropometric characteristics and body composition of agonist and non-agonist soccer players. *Italian Journal of Sport Sciences*, 2008, vol. 1, 44-47.
55. Calderan L, Marzola P, Nicolato E, Fabene P.F, **Milanese C**, Bernardi P, Giordano A, Cinti S, Sbarbati A, In vivo phenotyping of the ob/ob mouse by Magnetic Resonance Imaging and <sup>1</sup>H-Magnetic Resonance Spectroscopy. *Obesity* (Silver Spring, MD.), 2006, vol. 14, 405-414.
56. **Milanese C**, Zanatta M, Scarceri S, Somnavilla C, Zancanaro C. Developmental aspects and neuronal regeneration in the vomeronasal neuroepithelium. *Recent Research Developments in Neuroscience*, 2004, vol. 1, pp. 73-80.
57. **Milanese C**, Dalbosco B, Gobbo S, Perini G, Zancanaro C. Leptin in adipose tissue morphological aspects. *European Journal of Anatomy*, 2004, vol. 8, pp. 95-99.
58. Cesari P, **Milanese C**. What can we learn from mistakes? *Coaching & Sport Science*, 1995, vol. 1, 19-28.

### **Presentations through invitation**

2013 "Amplification of error: a learning strategy to improve motor skills in golf. International Conference of Professional Golfers' Association of Europe.

2014 "Motor learning strategies: possible application on non-verbal learning difficulties"; National Conference: Verona City Hospital, U.O.C. of Child Neuropsychiatry.

2015 Error amplification strategy for correcting the technical error. 6th International Congress Mountain, Sport & Health, Rovereto, Italy, 12-13 November 2015.

2018: "Corpo e Matematica". Aspetti clinici, riabilitativi e scolastici. Azienda Ospedaliera Integrata di Verona, U.O.C. di Neuropsichiatria Infantile. Titolo: "Apprendimento motorio nell'età evolutiva: strategie di intervento".

## Proceedings of International and National Congress

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Milanese C, Cavedon V, Pirlo M, Zancanaro. Anthropometric characteristics for identifying personalized anterior-posterior block distances in sprint start. X National Congress-Italian Society of Movement and Sport Sciences", Messina, 5-7 October 2018. Keynote.

Milanese C, Cavedon V, Pirlo M, Zancanaro. Effect of postural changes on block start performance in sprint running. IX National Congress-Italian Society of Movement and Sport Sciences", Brescia, 29 September-01 October 2018. Oral presentation.

Milanese C, Cavedon V, Pirlo M, Zancanaro C. Correlation analysis of anthropometry and sprint start performance in skilled sprinters. VIII National Congress-Italian Society of Movement and Sport Sciences", Roma, 7-8 October 2016. E-Poster.

Milanese C, Corte S, Cavedon V, Agostini T. Motor learning strategy: using mistakes to eliminate mistakes. In "Sport Sciences for Health" vol.10 n. Suppl. 1, Atti di "VI National Congress-Italian Society of Movement and Sport Sciences", Napoli, 26-28 September 2014, pp 40. E-Poster

Milanese C, Corte S, Salvetti L, Cavedon V, Agostini T. The correction of pattern errors in golf swing: direct instruction feedback vs amplification of error feedback. In "Sport Sciences for Health" vol.9 n. Suppl. 1, Atti di "V National Congress-Italian Society of Movement and Sport Sciences", Pavia, 27-29 September 2013, pp 54. Oral presentation.

Milanese C, Corte S, Salvetti L, Cavedon V, Agostini T. Amplification of error: a learning strategy to improve motor skills. 18th Annual Congress of the European College Of Sport Science 2013, Barcelona – Spain, 26-29 June 2013, pp. 159. Oral presentation.

Milanese C, Piscitelli F, Cavedon V, Zancanaro C. Effect of different impact loadind sports on bone quality and body composition in pre-puberal girls. In "Sport Sciences for Health" vol.8 n. Suppl. 1 to No 3, Atti di "4rd National Congress-Italian Society of Movement and Sport Sciences", Palermo, 5-7 October 2012, 2012, pp 15-15. Short-oral presentation.

Milanese C.; Piscitelli F.; Ghezzi S.; Danelutti M.; Moghetti P.; Zenti M.G.; Zancanaro C. Effects of whole-body vibration on body composition and muscle strength in obese middle-aged women. *The Journal of sports Medicine and Physical Fitness*. vol. 51 n. Suppl. 1 to No. 3 , 3rd National Congress-Italian Society of Movement and Sport Sciences, Verona, 29 September/01 October 2011, 45-46. E-Poster

Milanese C., Cesari P., Facci G., Bragagnolo W., Zancanaro C. "Amplification of error": a rapidly effective method for motor performance improvement. *The Sport Psychology and Sport Sciences Conference*, Lignano Sabbiadoro (UD), September 5-9 2010, 34-34. Oral presentation.

Milanese C., Piscitelli F., Lampis C., Zancanaro C. Anthropometry and body composition in female handball players of different competitive level according to the playing position. *15th Annual Congress of the European College of Sport Science*, Antalya/Turkey , 23/26 June 2010, 574-574. E-Poster

Milanese C., Piscitelli F., Simoni C., Zancanaro C. Effect of whole-body vibration with or without localized radiofrequency on anthropometry and body composition in young non obese women. *The Journal of sports Medicine and Physical Fitness*. vol. 50 n. Suppl. I to No. 3 , 2nd National Congress-Italian Society of Movement and Sport Sciences, Turin, Italy, 30 September/02 October 2010, 38-39. Oral presentation

Milanese C., Bertuccio M., Ferrari G., Zancanaro C. Kinematic analysis of three different sprint start position in novice athletes. *European College of Sport Science*, Oslo , 24-27 June 2009. E-Poster

Milanese C., Cesari P., Zancanaro C. Discriminant analysis of anthropometric and body composition variables among sub-elite male athletes in four sports and physically active subjects. *European College of Sport Science*, Estoril-Portugal, 9-12 July 2008. E-Poster

Milanese C., Achille L., Mariotti R., Zancanaro C. Anthropometry and body composition in male physically active subjects and athletes practicing sport with different requirements. *12th Annual Congress of the European College of Sport Science*, Jyväskylä, July 11-14, 2007. E-Poster

Milanese C., Bruni M., Mariotti R., Zancanaro C. Body composition in soccer players of different competitive level. *12th Congress of the European College of Sport Science*, Jyväskylä, Finland, July, 11-14, 2007. E-Poster

Milanese C., Zancanaro C. "Amplification of error" as a rapid technique for motor performance improvement. A potential tool for adapted physical activity. *15th International Symposium Adapted Physical Activity, "ISAPA 2005"*, Verona, Italy, 5-9 July, 2005. E-Poster

## **Books**

Milanese C. Ideali modelli biomeccanici di base: corsa-salto-lancio. *Ed. Libreria Cortina-Verona*, 2002.

Milanese C. Il tennis ed i modelli biomeccanici di base dell'osservatore, *Ed. Libreria Cortina-Verona*, 2001.

Bragagnolo W., Facci G., Milanese C., Il salto in alto e il modello meccanico dell'osservatore. *Società Stampa Sportiva-Roma*, 1997.

Bragagnolo W., Milanese C., Gli ostacoli e il modello meccanico dell'osservatore. *Società Stampa Sportiva-Roma*, 1991.

Bragagnolo W., Milanese C. L'ordine d'intervento dei segmenti nella catena cinetica della corsa. *Società stampa sportiva, Roma*, 1988.

Verona, 09/10/2019

Chiara Milanese

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