

## **Candidatura di Ambra Bisio al Consiglio Direttivo della SIPF per il biennio 2023-2025**

Ai Soci della SIPF

Con la presente intendo proporre la mia candidatura a membro del Consiglio Direttivo della SIPF per il biennio 2023-2025.

Sono ricercatrice presso la sezione di Fisiologia Umana, Dipartimento di Medicina Sperimentale (DIMES), Università di Genova. Faccio parte del Centro Polifunzionale di Scienze Motorie e del Joint Lab tra DIMES e Fondazione Italiana Sclerosi Multipla. La mia attività di ricerca è rivolta allo studio delle basi neurofisiologiche dell'integrazione sensorimotoria, dell'apprendimento motorio e della neuroplasticità nelle varie età della vita.

Ho avuto l'opportunità di lavorare in gruppi di ricerca multidisciplinari, confrontandomi con persone con background diversi ma capaci di integrarsi e apprendere le une dalle altre. Questo ha maturato in me la convinzione che la crescita lavorativa e personale passa attraverso il confronto e la collaborazione con studiosi di discipline differenti.

Mi piacerebbe mettere a disposizione della SIPF la mia esperienza per sviluppare la comunicazione con ricercatori di altre discipline, ma interessati alla psicofisiologia, con particolare attenzione alle neuroscienze applicate all'esercizio fisico e allo sport, al fine di promuovere attività congiunte.

Un caro saluto

Ambra Bisio

EUROPEAN  
CURRICULUM VITAE  
FORMAT



**PERSONAL INFORMATION**

Name **AMBRA BISIO**  
Telephone **Office: +39 010 353 8182**  
Fax **+39 010 3538194**  
E-mail [\*\*ambra.bisio@unige.it\*\*](mailto:ambra.bisio@unige.it)

Nationality Italian  
Date of birth 05/12/1981

**WORK EXPERIENCE**

- Dates (from – to) **1 DECEMBER 2021 – PRESENT**
- Name of employer University of Genoa, Department of Experimental Medicine – Genoa (Italy)
- Occupation or position held Assistant Professor in Human Movement and Sport Science (RTD-B in M-EDF/01)

In this period Ambra Bisio was in compulsory maternity leave from 03/02/2022 to 03/07/2022.

- Dates (from – to) **1 SEPTEMBER 2019 – 30 NOVEMBER 2021**
- Name of employer University of Genoa, Department of Experimental Medicine – Genoa (Italy)
- Occupation or position held Assistant Professor in Human Movement and Sport Science (RTD-A in M-EDF/01)
- Dates (from – to) **3 NOVEMBER 2014 – 31 MAY 2019**
- Name of employer University of Genoa, Department of Experimental Medicine – Genoa (Italy)
- Occupation or position held Post-Doc Researcher

In this period Ambra Bisio was in compulsory maternity leave from 11/06/2018 to 17/11/2018 and in parental leave from 01/01/2019 to 28/02/2019.

- Dates (from – to) **2 NOVEMBER 2012 – 1 NOVEMBER 2014**
- Name of employer University of Genoa, Department of Neurology, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health – Genoa (Italy). Sponsored by Polo di Ricerca e Innovazione SI4Life.
- Occupation or position held Post-Doc Researcher
- Dates (from – to) **1 MARCH 2012 – 31 OCTOBER 2014**
- Name of employer Italian Multiple Sclerosis Foundation – Genoa (Italy)
- Occupation or position held Scientific Consultant
- Dates (from – to) **1 JANUARY 2012 – 29 FEBRUARY 2012**
- Name of employer University of Burgundy, INSERM U1093 Lab. – Dijon (France)
- Occupation or position held Visiting Researcher
- Dates (from – to) **1 MAY 2011 – 29 FEBRUARY 2012**
- Name of employer Italian Institute of Technology – Genoa (Italy)

- Occupation or position held      Junior Post Doc Researcher
  - Dates (from – to)                **1 JANUARY 2011 – 30 APRIL 2011**
  - Name of employer                Italian Institute of Technology – Genoa (Italy)
- Occupation or position held      Research Fellow

## EDUCATION AND TRAINING

- Dates (from – to)                **1 JANUARY 2008 – 27 APRIL 2011**
- Name of organization            University of Genoa – Genoa (Italy). Sponsored by the Italian Institute of Technology
- Title of qualification awarded    PhD in Robotics, Neuroscience and Nanotechnology
  
- Dates (from – to)                **SEPTEMBER 2004 – SEPTEMBER 2007**
- Name of organization            University of Genoa - Genoa (Italy)
- Title of qualification awarded    Master's Degree in Bioengineering. Final mark: 109/110
  
- Dates (from – to)                **SEPTEMBER 2000 – DECEMBER 2004**
- Name of organization            University of Genoa - Genoa (Italy)
- Title of qualification awarded    Bachelor's Degree in Biomedical Engineering. Final mark: 97/110

## PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE                **ITALIAN**

OTHER LANGUAGES

- Reading skills                    **ENGLISH**  
GOOD
- Writing skills                    GOOD
- Verbal skills                    GOOD

- Reading skills                    **FRENCH**  
GOOD
- Writing skills                    BASIC
- Verbal skills                    GOOD

DRIVING LICENSE                B

## SCIENTIFIC CONTRIBUTION

PUBLICATION TRACK              Number of publications in international journals: 63 (first/last/corresponding author: 21)  
RECORD                                H-index: 17

\*co-first author      °corresponding author

1. **Bisio A.**, Stucchi N., Jacono M., Fadiga L., Pozzo T. (2010). Automatic versus Voluntary Motor Imitation: Effect of Visual Context and Stimulus Velocity. *PlosONE* 5(10): e13506.
2. Sciutti A.\*, **Bisio A.\***, Nori F., Metta G., Fadiga L., Pozzo T., Sandini G. (2012). Measuring human-robot interaction through motor resonance. *International Journal of Social Robotics*.
3. **Bisio A.**, Casteran M., Ballay Y., Manckoundia P., Mourey F., Pozzo T. (2012). Motor resonance mechanisms are preserved in Alzheimer's disease patients. *Neuroscience*, 222: 58-68.
4. Gavazzi G., **Bisio A.**, Pozzo T. (2013). Time perception of visual motion is tuned by the motor representation of human actions, *Scientific Reports* 3, Article number:1168.
5. Sciutti A., **Bisio A.**, Nori F., Metta G., Fadiga L., Sandini G. (2013). Robots can be perceived as goal-oriented agents, *Interaction Studies*, 14(3): 329-350.
6. **Bisio A.**, Avanzino L., Ruggeri P., Bove M. (2014). The tool as the last piece of the athlete's gesture imagery puzzle, *Neuroscience*, 265: 196-203.
7. Broz F., Nehaniv C.L., Belpaeme T., **Bisio A.**, Dautenhahn K., Fadiga L., Ferrauto T., Fischer K., Forster F., Gigliotta O., Griffiths S., Lehmann H., Lohan K.S., Lyon C., Marocco D., Massera G., Metta G., Mohan V., Morse A., Nolfi S., Nori F., Peniak M., Pitsch K., Rohlfling K.J., Sagerer G., Sato Y., Saunders J., Schillingmann L., Sciutti A., Tikhanoff V., Wrede B., Zeschel A., Cangelosi A. (2014). The ITALK Project: A Developmental Robotics Approach to the Study of Individual, Social, and Linguistic Learning, *Topics in Cognitive Science*, 1-11.
8. **Bisio A.**, Sciutti A., Nori F., Metta G., Fadiga L., Sandini G., Pozzo T. (2014). Motor Contagion during Human-Human and Human-Robot Interaction, *PLoS ONE* 9(8): e106172.
9. Berret B., **Bisio A.**, Jacono M., Pozzo T. (2014). Reach endpoint formation during the visuomotor planning of free arm pointing, *European Journal of Neuroscience*, 40(10):3491-503.
10. **Bisio A.**, Avanzino L., Gueugneau N., Pozzo T., Ruggeri P., Bove P. (2015). Observing and perceiving: a combined approach to induce plasticity in human motor cortex. *Clinical Neurophysiology*, 126 (6), 1212-1220.
11. Avanzino L., Lagravinese L., **Bisio A.**, Perasso L., Ruggeri P., Bove M. (2015). Action observation: mirroring across our spontaneous movement tempo. *Scientific reports*, 5.
12. Avanzino L.\*, Gueugneau N.\*, **Bisio A.**, Ruggeri P., Papaxanthis C., Bove M. (2015). Motor cortical plasticity induced by motor learning through mental practice. *Frontiers in Behavioral Neuroscience*, 9:105.
13. **Bisio A.**, Avanzino L., Lagravinese G., Biggio M., Ruggeri P., Bove M. (2015). Spontaneous movement tempo can be influenced by combining action observation and somatosensory stimulation. *Frontiers in Behavioral Neuroscience*, 9:228.
14. **Bisio A.**, Casteran M., Ballay Y., Manckoundia P., Mourey F., Pozzo T. (2016) Voluntary imitation in Alzheimer's disease patients. *Frontiers in Aging Neuroscience*, 8:48.
15. Lyon C., Nehaniv C.L., Saunders J., Belpaeme T., **Bisio A.**, Fischer K., Förster F., Lehmann H., Metta G., Mohan V., Morse A., Nolfi S., Nori F., Rohlfling K., Sciutti A., Tani J., Tuci E., Wrede B., Zeschel A., Cangelosi A. (2016) Embodied Language Learning and Cognitive Bootstrapping: Methods and Design Principles. *International Journal of Advanced Robotic Systems* 13:105, 1-22.
16. **Bisio A.**, Pedullà L., Bonzano L., Ruggeri P., Bricchetto G., Bove M. Evaluation of Handwriting Movement Kinematics: From an Ecological to a Magnetic Resonance Environment (2016) *Frontiers in Human Neuroscience*, 10:488.
17. Lagravinese G., **Bisio A.**, Ruggeri P., Bove M., Avanzino L. (2016) Learning by observing: the effect of multiple sessions of action-observation training on the spontaneous movement tempo and motor resonance. *Neuropsychologia*, 96: 89-95.
18. **Bisio A.\***, Garbarini F.\*, Biggio M., Fossataro C., Ruggeri P., Bove M. (2017). Dynamic shaping of the defensive peripersonal space through predictive motor mechanisms: when the "near" becomes "far". *Journal of Neuroscience*, 0371-16.
19. **Bisio A.**, Avanzino L., Biggio M., Ruggeri P., Bove M. (2017) Motor training and the combination of action observation and peripheral nerve stimulation reciprocally interfere with the plastic changes induced in primary motor cortex excitability. *Neuroscience*, 348: 33-40.
20. Biggio M., **Bisio A.**, Avanzino L., Ruggeri P., Bove M. (2017) This racket is not mine: The influence of the tool-use on peripersonal space. *Neuropsychologia* 103: 54-58.
21. Bonassi G., Biggio M., **Bisio A.**, Ruggeri P., Bove M., Avanzino L. (2017) Provision of somatosensory inputs during motor imagery enhances learning-induced plasticity in human motor

cortex. *Scientific Reports* 7 (1), 9300.

22. Bove M., Strassera L., Faelli E., Biggio M., **Bisio A.**, Avanzino L., Ruggeri P. (2017) Sensorimotor Skills Impact on Temporal Expectation: Evidence from Swimmers. *Frontiers in Psychology*, 8:1714.
23. Lagravinese G., **Bisio A.**, Raffo De Ferrari A., Pelosin E., Ruggeri P., Bove M., Avanzino L. (2017) An Emotion-Enriched Context Influences the Effect of Action Observation on Cortical Excitability. *Frontiers in Human Neuroscience*, 11:504.
24. Signori A., Sormani M.P., Schiavetti I., **Bisio A.**, Bove M., Bonzano L. (2017) Quantitative assessment of finger motor performance: Normative data. *PLoS ONE* 12(10): e0186524.
25. **Bisio A.**, Pedullà L., Bonzano L., Tacchino A., Brichetto G., Bove M. (2017) The kinematics of handwriting movements as expression of cognitive and sensorimotor impairments in people with multiple sclerosis. *Scientific Reports* 7 (1), 17730.
26. Pelosin E., **Bisio A.**, Pozzo T., Lagravinese G., Crisafulli O., Marchese R., Abbruzzese G., Avanzino L. (2018) Postural stabilisation strategies to motor contagion induced by action observation are impaired in Parkinson disease. *Frontiers in Neurology*, 9: 105.
27. Garbarini F. \*, **Bisio A.** \*, Biggio M., Pia L., Bove M. (2018). Motor sequence learning and intermanual transfer with a phantom limb. *Cortex*, 101, pp. 181-191.
28. Crivelli D. \*, Pedullà L. \*, **Bisio A.**, Sabogal Rueda M.D., Brichetto G., Bove M., Balconi M. (2018) When "extraneous" becomes "mine". Neurophysiological evidence of sensorimotor integration during observation of suboptimal movement patterns performed by people with Multiple Sclerosis. *Neuroscience*, 386, pp. 326-338.
29. Bennabi D., Carvalho N., **Bisio A.**, Haffen E., Pozzo T. (2018) Motor Resonance Mechanisms during Action Imitation in Depression. *Neuropsychiatry*, 8(5), pp. 1503-1512.
30. Piastra G. \*, Perasso L. \*, Lucarini S., Monacelli F., **Bisio A.** °, Ferrando V, Gallamini M., Faelli E., Ruggeri. P. (2018). Effects of Two Types of 9-Month Adapted Physical Activity Program on Muscle Mass, Muscle Strength, and Balance in Moderate Sarcopenic Older Women. *BioMed Research International*.
31. Perasso L., Avanzino L., Lagravinese G., Giannini A., Faelli E., **Bisio A.**, Quartarone A., Rizzo V., Ruggeri P., Bove M. (2019) Boosting and consolidating the proprioceptive cortical aftereffect by combining tendon vibration and repetitive TMS over primary motor cortex. *Neurological Sciences*, pp. 1-8.
32. Faelli E., Strassera L., Pelosin E., Perasso L., Ferrando V., **Bisio A.**, Ruggeri P. (2019) Action observation combined with conventional training improves the rugby lineout throwing performance: A pilot study. *Frontiers in Psychology*, 10:889.
33. Faelli E., Ferrando V., **Bisio A.**, Ferrando M., Torre A.L., Panasci M., Ruggeri P. (2019) Effects of Two High-intensity Interval Training Concepts in Recreational Runners. *International Journal of Sports Medicine*, 40(10), pp. 639-644.
34. Bonassi G., **Bisio A.**, Lagravinese G., Ruggeri P., Bove, M., Avanzino L. (2019) Selective sensorimotor modulation operates during cognitive representation of movement. *Neuroscience*, 409, pp. 16-25.
35. **Bisio A.**, Biggio M., Avanzino L., Ruggeri P., Bove M. (2019) Kinaesthetic illusion shapes the cortical plasticity evoked by action observation. *The Journal of Physiology*, 597, pp. 3233-3245.
36. Biggio M., **Bisio A.**, Ruggeri, P., Bove M. (2019) Defensive peripersonal space is modified by a learnt protective posture. pp.1-6. *Scientific Reports*, 9.
37. Gervasoni E., Cattaneo D., Bertoni R., Grosso C., **Bisio A.**, Rovaris M., Bove M. (2019). Effect of arm cycling and task-oriented exercises on fatigue and upper limb performance in multiple sclerosis: a randomized crossover study. *International Journal of Rehabilitation Research*, 42:300-308.
38. Canepa P., Pedullà L., **Bisio A.**, Ruggeri P., Bove M. (2020) Is the 12 minute-walk/run test a predictive index of cognitive fitness in young healthy individuals? A pilot study on aerobic capacity and working memory in a real-life scenario. *Neuroscience Letters*, 728.
39. Pedulla L., Gervasoni E., **Bisio A.**, Biggio M., Ruggeri P., Avanzino L., Bove M. (2020) The last chance to pass the ball: Investigating the role of temporal expectation and motor resonance in processing temporal errors in motor actions. *Social Cognitive and Affective Neuroscience*, 15(1), 123-134.
40. Bonassi G., Lagravinese G., **Bisio A.**, Ruggeri P., Pelosin E., Bove M., Avanzino L. (2020) Consolidation and retention of motor skill after motor imagery training. *Neuropsychologia*, 143.

41. Canepa P, Sbragi A., Saino F., Biggio M., Bove M., **Bisio A.** (2020) Thinking before Doing: a Pilot Study on the Application of Motor Imagery as a Learning Method during Physical Education Lesson in High School. *Frontiers in Sport and Active Living*.
42. Biggio M., **Bisio A.**, Avanzino L., Ruggeri P., Bove M. (2020) Familiarity with a Tool Influences Peripersonal Space and Primary Motor Cortex Excitability of Muscles Involved in Haptic Contact. *Cerebral Cortex Communications*, 1(1), 1-9.
43. Faelli E., **Bisio A.**, Codella R., Ferrando V., Perasso L., Panasci M., Saverino D., Ruggeri P. (2020) Acute and Chronic Catabolic Responses to CrossFit® and Resistance Training in Young Males. *International Journal of Environmental Research and Public Health*. 17, 7172.
44. Bennabi D., Carvalho N., **Bisio A.**, Mayer J.T., Pozzo T., Hafen H. (2020) Influence of Transcranial Direct Current Stimulation on Psychomotor Symptoms in Major Depression. *Brain Sciences*. 10, 792.
45. Mercante B., Loi N., Ginatempo F., Biggio M., Manca A., **Bisio A.**, Enrico P., Bove M., Deriu F. (2020) Transcutaneous trigeminal nerve stimulation modulates the hand blink reflex. *Scientific Reports* 10 (1), 1-9.
46. **Bisio A.\***, Biggio M.\*, Canepa P., Faelli E., Ruggeri P., Avanzino L., Bove M. (2021) Primary motor cortex excitability as a marker of plasticity in a stimulation protocol combining action observation and kinesthetic illusion of movement. *European Journal of Neuroscience*. 53(8):2763-2773
47. De Nardi M., Silvani S., Facheris C., Pagnoncelli M., **Bisio A.**, Faelli E., La Torre A., Ruggeri P., Codella R. Effectiveness and safety of a thermal insulating coverage on the top of the cryo-cabin during a partial-body cryostimulation. *Journal of Thermal Biology*, 102901.
48. De Nardi M., **Bisio A.**, Della Guardia L., Facheris C., Faelli E., La Torre A., Luzi L., Ruggeri P., Codella R. Partial-body cryostimulation increases resting energy expenditure in lean and obese women. *International Journal of Environmental Research and Public Health*. 18(8):4127.
49. Bonzano L.\*, **Bisio A.\***, Pedullà L., Bricchetto G., Bove M. (2021) Right inferior parietal lobule activity is associated with handwriting spontaneous tempo. *Frontiers in Neuroscience*. 2021, Vol.15, p.605
50. **Bisio A.**, Faelli E, Pelosin E, Carrara G, Ferrando V, Avanzino L, Ruggeri P. (2021) Evaluation of Explicit Motor Timing Ability in Young Tennis Players. *Front Psychol*. 12:687302.
51. Canepa P, Papaxanthis C, **Bisio A.**, Biggio M, Paizis C, Faelli E, Avanzino L, Bove M. (2021) Motor Cortical Excitability Changes in Preparation to Concentric and Eccentric Movements. *Neuroscience*. 1;475:73-82.
52. Faelli E, Strassera L, Ottobrini S, Ferrando V, **Bisio A.**, Puce L, Panasci M, Lagorio C, Ruggeri P, Bove M. (2021) Not Breathing During the Approach Phase Ameliorates Freestyle Turn Performance in Prepubertal Swimmers. *Front Sports Act Living*. 3:731953.
53. Faelli E, Panasci M, Ferrando V, **Bisio A.**, Filipas L, Ruggeri P, Bove M. (2021) The Effect of Static and Dynamic Stretching during Warm-Up on Running Economy and Perception of Effort in Recreational Endurance Runners. *Int J Environ Res Public Health*. 18(16):8386.
54. Bonassi G., Pelosin E., Lagravinese G., **Bisio A.**, Grasselli G., Bove M., Avanzino L. (2021) Somatosensory inputs modulate the excitability of cerebellar-cortical interaction. *Clinical Neurophysiology*. 132(12): 3095-3103
55. Biggio M, **Bisio A.**, Bruno V, Garbarini F, Bove M. Wearing a Mask Shapes Interpersonal Space during COVID-19 Pandemic. *Brain Sci*. 2022, 12, 682
56. Faelli E, Panasci M, Ferrando V, Codella R, **Bisio A.**, Ruggeri P (2022). High-Intensity Interval Training for Rowing: Acute Responses in National-Level Adolescent Males. *Int J Environ Res Public Health*. 19(13). N° 8132
57. Lagravinese G, **Bisio A.**, Bove M, Botta A, Bonassi G, Marchese R, Ruggeri P, Pelosin E, Avanzino A. (2022) Motor Resonance Flexibility to Emotion-Enriched Context in Parkinson's Disease Patients. *Genetics Research*. N° 6487419
58. Panasci M, Ferrando V, **Bisio A.**, Filipas L, Ruggeri P, Faelli E. (2022) Shuttle Running Within a Small-Sided Game: Effects on Internal and External Workloads, in Young Elite Soccer Players. *International journal of sports physiology and performance*, 18(1), 77–84
59. De Nardi M, Allemano S, **Bisio A.**, Faelli E, La Torre A, Ruggeri P, Codella R (2023). Thermal responses induced by nitrogen and forced convection based partial-body cryostimulation. *Journal of Thermal Biology*, 103620
60. Bonassi G, Lagravinese G, Bove M, **Bisio A.**, Botta A, Putzolu M, Cosentino C, Mezzarobba S, Pelosin E, Avanzino L (2023). How music moves us: music-induced emotion influences motor learning.

Neuroscience. 526, 246-255

61. Albergoni A, Biggio M, Faelli E, Pesce A, Ruggeri P, Avanzino L, Bove M and **Bisio A** (2023). Sensorimotor expertise influences perceptual weight judgments during observation of a sport-specific gesture. *Front. Sports Act. Living* 5:1148812.

62. Albergoni A, Biggio M, Faelli E, Ruggeri P, Avanzino L, Bove M and **Bisio A** (2023) Aging deteriorates the ability to discriminate the weight of an object during an action observation task. *Front. Aging Neurosci.* 5:1216304.

63. Tacchino A, Pedullà L, Podda J, Monti Bragadin M, Battaglia M, **Bisio A**, Bove M, Bricchetto G (2023) Motor imagery priming effect on motor execution in people with Multiple Sclerosis. *Front. Hum. Neurosci.*

## EDITORIAL CONTRIBUTION

### Book chapters

**Bisio A.**, Bove M. (2018) Cognitive Strategies to Enhance Motor Performance: Examples of Applying Action Observation, Motor Imagery and Psyching-up Techniques. Chapter 12 (pp. 248-281) of *Handbook of Sport Neuroscience and Psychophysiology*. Ed. Routledge.

**Bisio A.**, Sbragi A. (2019) "Spazio al tempo" paragrafo di "Quaderni di Sport di Classe: Guida didattica per tutor e docenti della scuola primaria", Volume 3. Calzetti & Mariucci Editori. Progetto promosso da Sport e Salute e MIUR, in collaborazione con CONI e CIP.

**Bisio A.** (2020) "Imitare, osservare e immaginare per apprendere" paragrafo del libro "Movimento Creativo. Corso di Scienze motorie e sportive per la Scuola secondaria di Secondo grado" di Zocca, Sbragi, Gulisano, Manetti, Marella. G. D'anna Casa Editrice, Loesher Editore.

### Editorial and reviewing activity

**Lead Guest Editor** for "Neural Plasticity" - Special Issue BAOMI: "Boosting Action Observation and Motor Imagery to Promote Plasticity and Learning". Editorial: **Bisio A.**, Bassolino M., Pozzo T., Wenderoth N. (2018: 8625861)

**Reviewer** for *Cerebral Cortex*, *Scientific Reports*, *Research in Sports Medicine*, *PlosONE*, *Neuroscience*, *Neuroscience Letters*, *Consciousness and Cognition*, *PeerJ*, *Experimental Brain Research*, *Mindfulness*, *Frontiers in Neuroscience*, *Frontiers in Psychology*, *Multiple Sclerosis Journal (Experimental, Translational and Clinical)*, *Multisensory Research*, *Neuropsychologia*.

## HONORS

**2010** Best poster. "Compulsive Behaviour and Automatic Imitation in Alzheimer's Disease." NeuCore, Il trattamento dei disturbi cognitivi, Rovereto.

**2013** Premio SIPF Giovani – for the best contribution "Action observation combined with peripheral electrical nerve stimulation induces plasticity in human motor cortex." XXI Congresso Nazionale della Società Italiana di Psicofisiologia, Lecce.

**2016** Travel Grant for the 32th ECTRIMS–21th RIMS Congress, London.

**2018** National scientific qualification for Associate Professor in 06/N2-Sciences of physical exercise and sport.

**2018** National scientific qualification for Associate Professor for 05/D1-Physiology.

## RESEARCH SUPPORT

### Ongoing

**PRIN 2022** "Testing the efficacy of remote, sustainable empowerment protocols in promoting psycho-physical well-being in the life-span" 2-years project. Budget: 219.532 €. Role: Coordinator of the UNIGE unit.

**Curiosity Driven 2021.** "PROPrioception in AGEing – PROPAGE". 2-years project. Budget: 69.774 €. Role: PI.

**PNRR MUR – M4C2 – Investimento 1.3 – Avviso "Partenariati estesi" D.D. n. 341/2022.** "MNESYS – A multiscale integrated approach to the study of the nervous system in health and disease". 3-years project. Role: Participant.

**FISM 2022 (n° 2022/R-Multi/021).** "Unraveling active ingredients of neurorehabilitation: investigating cortical activity during task-oriented exercises". 2-years project. Budget: 233.415 €. Role: Participant.

**FISM 2022 (2022/R-Multi/040).** "Disentangling Blink Reflexes in Multiple Sclerosis through explainable

artificial intelligence systems". 3-years project. Budget: 270,897.06 €. Role: Participant.

### **Completed**

**FISM 2019 (n° 2019/R-Multi/007).** "Can action observation and motor imagery training cause fatigability in MS? Assessment of their feasibility in the progressive forms." 1-year project. Budget: 52.845 €. Role: PI.

**FISM 2016 (n° 2016/R/4).** "Monitoring and integrating the rehabilitative process of persons with multiple sclerosis by means of a prosthetic aid with biofeedback". 3-years project. Budget 170.000 €. Role: Participant.

**ARSEP – 2015.** "Aerobic training as substrate for neural plastic changes in multiple sclerosis: a putative disease-modifying treatment? 1-year project." Budget: 40.300 €. Role: Participant.

**Bando POR FESR Liguria 2014-2020 (n° 564) - ASSE 1 "Ricerca ed Innovazione (OT1)".** "Sistema di Stimolazione Propriocettiva Multisito della mano: SiSProm". 2-years project. Budget 373.862 €. Role: Consultant.

**FISM 2014 (n° 2014/R/5).** "Re-writing in multiple sclerosis: a novel approach to evaluate and cope with the writing deterioration in patients with multiple sclerosis." 1-year project. Budget: 20.000 €. Role: PI.

**Bando attuativo PAR FAS 2007-2013, Programma triennale per la ricerca e l'innovazione: progetti integrati ad alta tecnologia.** "Ausili Cibernetici Riabilitativi per la diagnosi e la valutazione quantitativa della disabilità motoria dell'Arto Superiore nei bambini e negli adulti (ACIRAS)". 2-years project. Budget: 103.886 €. Role: Participant.

**European Project (n° 214668).** "Integration and Transfer of Action and Language Knowledge in Robots (ITALK)." 4-years project. Budget: 6.250.000 €. Role: Participant.

### **TEACHING ACTIVITY**

Dr. Bisio has been teaching at the University of Genoa from 2012 in the Bachelor degree course of Physiotherapy and in the Bachelor and Master Degree Courses of Sport Sciences. She is presently teaching:

- Biomechanics of motor and sport gesture (Bachelor Degree in Sport Science and health) (20 hours)
- Theory and techniques for physical activities in elderly (Master Degree in Science and techniques of preventive and adapted physical activities) (10 hours)
- Physical activity and ageing (Master Degree in Science and techniques of preventive and adapted physical activities) (10 hours)
- Motor activities for disables (Master Degree in Science and techniques of preventive and adapted physical activities) (10 hours)
- Techniques of analysis in sport (Master Degree in Science Sciences and techniques in sport (20 hours)
- Teaching Methods for Physical Activity (Bachelor Degree in Podiatry) (10 hours)
- Human physiology laboratory (Master degree in Medicine and surgery) (4 hours)
- Laboratory for training doctor (Master degree in Medicine and surgery) (25 hours)

### **INSTITUTIONAL POSITIONS**

- Member of the Academic Board of PhD Course in Neuroscience, University of Genoa
- Member of the Commissione Paritetica docenti-studenti of the School of Medical and Pharmaceutical Sciences
- Member of the Web Site Commission of the Department of Experimental Medicine
- Member of the Didactic-Pedagogical Programming Technique Commission of the Sport Science Courses (L/22, LM/67, LM/68);
- Member of the Quality Assurance Commission of the Sport Science Courses (L/22, LM/67, LM/68);
- Member of the ERASMUS Commission of the Sport Science Courses (L/22, LM/67, LM/68);
- Member of the Quality Assurance Commission of the Podiatry Course.

