



Roma, 28 Marzo 2020

CURRICULUM VITAE
Fisioterapista Ricercatrice Senior, PhD
Federica Tamburella

Informazioni Personali

Nome:	Tamburella Federica		
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Recapiti:			
			fax: +39 06 51501679
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Data e luogo di nascita:			

Formazione Professionale

- **Diploma di Medico Osteopata**, presso il CERDO Centre pour l'Étude, la Recherche et la Diffusion Ostéopathiques of Rome, in data 21 Settembre 2018, Tesi dal titolo: "Cerebral perfusion changes after osteopathic manipulative treatment in asymptomatic volunteers: a randomized manual placebo controlled trial".
- **PhD Degree of Doctor of Philosophy, Biomedical Science and Engineering**, presso Aalborg University, Department of Health Science and Technology in data 24 Aprile 2015. Tesi dal titolo: "Gait recovery in spinal cord injury subjects: from clinical experience to research development".
- **Laurea di Primo livello in fisioterapia**, presso l'Università di Roma, Tor Vergata - Medicine and Surgery Faculty in data 28 Novembre 2005, Voto: 110/110 con lode. Tesi dal titolo: "Kinematic analysis of gait during walking in water and on land after incomplete spinal cord injury".
- **Diploma di Scuola Superiore**, Presso Liceo Scientifico G. Peano, Roma, Italia in data 11/07/2002. Voto: 100/100

ESPERIENZA LAVORATIVA

Gennaio 2006 – oggi

Fisioterapista ricercatrice senior presso i laboratori: *SPInal REhabilitation Lab (SPIRE)* e *Neurological Rehabilitation (NeuroRobot Lab)* Unità Operativa Complessa 1 - Spinal Cord Rehab Unit, IRCCS Fondazione Santa Lucia – Roma (Italia).

RICONOSCIMENTI

- ISCOS SCRIPT committee members per l'Europa da Aprile 2017
- Borsa di studio per il lavoro svolto nell'ambito dei progetti di ricerca su ESOSCHELETRI presso la Fondazione De Matteis Roma, Maggio 2015
- Borsa di studio presso la Fondazione Santa Lucia IRCCS Santa di Roma, da Gennaio a Dicembre 2006 per il progetto "Development of clinical scales for gait assessments in spinal cord injury subjects"

PRINCIPALI CORSI TECNICI E PROFESSIONALI

Giugno 2018:	Training course for "EKSO" exoskeleton use, certified by EKSO and EMAC, USA
Marzo 2018:	Advanced course for "Lokomat- Pro V6" use, certified by HOKOMA, Switzerland with the degree of <u>Official Lokomat Trainer</u>
2012 to 2018:	"OSTEOPATHIC TECHNIQUE", C.E.R.D.O. - CENTRE POUR L'ETUDE, LA RECHERCHE ET LA DIFFUSION OSTÉOPATHIQUES – Rome
Giugno 2016:	TRAINING on GRASP, MALT, ISNCSCI and Modified Ashworth Scale for the NISCI-study
Febbraio 2016:	Training course for "Lokomat- Pro V6" use, certified by HOKOMA, Switzerland

Ottobre 2012	"Advanced Course for EMG surface analysis", <i>Campus Biomedico University - Rome</i>
Dicembre 2011	Training course for "Lokomat" use, certified by <i>HOKOMA</i> , Switzerland
Febbraio 2011	"Advanced Training course of KinesioTaping Technique" for teachers and users certified by <i>MOTUS</i> and <i>K Active German School</i> - Verona
Novembre 2010	Course of "Application of Kinesiology Tape", for users certified by <i>CSA</i> - Rome
Aprile/ Ottobre 2009	"Neuromuscular Taping", for users certified by <i>Taping Nueromuscolare Institute (TNM)</i> , Rome
Ottobre 2008	"Final Stage: Postural Treatment Mézières", certified by <i>CERTAG School of Paris</i>
Maggio/giugno 2008	"Vestibular Rehabilitation and rehabilitation of peripheral vertigo", certified by <i>CERTAG School of Paris</i> - Rome
Marzo 2008	"Intervention strategies according to the technique Mézières in the treatment of diseases of the upper limb and the cervical-dorsal parts – Ed.0 ", certified by <i>CERTAG School of Paris</i> - Rome
Novembre 2007	"Intervention strategies according to the technique Mézières in the treatment of diseases of the lower limb and scoliosis - Ed. 1", certified by <i>CERTAG School of Paris</i> - Rome
Giugno 2007	"Baropodometric and optoelectronic assessments for neurophysiological and clinical examination", <i>Diagnostic Support s.r.l. – Rome</i>
	"Connective Tissue massage reflex", <i>I.A.F. – Rome</i>
	"Guidelines imaging of joints and muscles diseases", <i>I.N.I. – Grottaferrata (Rome)</i>
Dicembre 2006	"Postural Treatment Mézières: Propedeutic and Training Course", certified by <i>CERTAG School of Paris</i> - Rome
Maggio 2006	"Injection of Botulinum Toxin A and Functional taping technique for the management of spasticity localized at upper and lower Limbs", <i>I.I.R.C.C.S. Fondazione Santa Lucia – Rome</i>
Maggio 2006	"Rehabilitation of patient undergoing corrective osteotomy and of polytrauma patient", <i>Ortopediche di Tor Vergata 3, Monteporzio Catone (Rome)</i>
Aprile 2006	"Baseline protocol for stroke assessment", <i>I.I.R.C.C.S. Fondazione Santa Lucia – Rome</i>
Gennaio 2006	"Gait Rehabilitation with body weight support technique in neurological rehabilitation", <i>Azienda Ospedaliera Universitaria di Parma</i>
Maggio 2005	"Orthopedics and traumatology Aspects of rehabilitation", <i>Giornate Ortopediche di Tor Vergata 3, Monteporzio Catone (Rome)</i>

CONGRESSI TECNICI E PROFESSIONALI

Congressi Internazionali:

1. **WeRob 2018**, 16-20 October, 2016. Pisa, Italy
2. **WeRob 2016**, 18-21 October, 2016. La Granja, Segovia, Spain
3. **ICNR 2016**, 18-21 October, 2016. La Granja, Segovia, Spain
4. **World conference of Neurorehabilitation**, April 2014, Istanbul, Turkey
5. **52st Annual Scientific Meeting of the International Spinal Cord Society 2013** October 2013, Istanbul, Turkey
6. **International Conference of NeuroRehabilitation**, Toledo, Spain, 14-16 November 2012
7. **51st Annual Scientific Meeting of the International Spinal Cord Society 2012** 3-5th September 2012, London, UK.
8. **ISCOS-ASIA International Conference on Spinal Cord Medicine and Rehabilitation**, Washington, 4-8 June 2011
9. **48 th Annual Scientific Meeting ISCOS – International Spinal Cord Society**, Firenze, 21- 24 October 2009

Congressi Nazionali:

1. **XV Congresso Somipar**, Imola (BO) 23–24 March 2012
2. Seminary "Surface electromyography for the assessment of motor modules – Dr. Leonardo Gizzi", IRCCS Fondazione S.Lucia, 28 September 2011
3. **XIV National Congress SomIPar**, Palermo 18-20 March 2010
4. **IX National Congress S.I.R.N – Italian Society of NeuroRehabilitation**, Rome, 5-8 May 2009
5. **XXXVI Congress SIMFER – Italian Society of Physical Medicine and Rehabilitation**, Rome, 16-20 November 2008
6. **"VIII National Congress S.I.R.N – Italian Society of NeuroRehabilitation"**, Montecatini Terme, 17-19 April 2008
7. **"VII National Congress S.I.R.N – Italian Society of NeuroRehabilitation"**, Naples, 19-21 April 2007
8. Seminary "Sport therapy for disability", I.R.C.C.S. Santa Lucia Foundation, Rome, 13 June 2003

LINGUE

- Lingua madre: Italiano
- Livello Avanzato: Inglese (letto, scritto e parlato)
- Livello intermedio: French (letto, scritto e parlato)

CONOSCENZE E COMPETENZE

- **EKSO esoscheletro riabilitativo** per la deambulazione
- **REWALK esoscheletro sostitutivo** per la deambulazione
- **Lokomat V6 esoscheletro riabilitativo** per la deambulazione (Hokoma - Switzerland)
- **Lokomat esoscheletro riabilitativo** per la deambulazione (Hokoma - Switzerland)
- **Gang Trainer GT1 esoscheletro riabilitativo** per la deambulazione (Reha-Stim, Berlin, Germany)
- **FLOAT: Free Levitation Overground Assisted Training** per riabilitazione di equilibrio e cammino (LUTZ Medical Engineering, Switzerland)
- **Stimolazione Elettrica Funzionale**
- **KineView Motion Software** per *Gait Analysis* (Hafnarfjordur, Iceland)
- **Physical Gait Software 2.66** per *Valutazione Baropodometrica e Stabilometrica Della funzione Equilibrio* (Milan, Italy)
- **TRIGNO wireless system** per *analisi elettromiografica di superficie* (Delsys – Boston, MA)
- **OPTITRACK** per *gait analysis*

AREA DI RICERCA ED INTERESSE

- Neuroriabilitazione, Neurologia, Esoscheletri e robot neuroanatomia
- Lesioni del midollo spinale, lesioni cerebellari, Stroke e riabilitazione, Equilibrio e deambulazione, sistemi elettromeccanici ed esoscheletrici, elettromiografia di superficie, analisi cinematica, tecnica di KinesioTaping

REVIEWER PER RIVISTE SCIENTIFICHE INDICIZZATE

- *Journal Of Neuro- engineer and neurorehabilitation* referee dal 2015
- *Frontiers in Human Neuroscience* referee dal 2014
- *Journal Of Spine and Neurosurgery* referee dal 2013
- *BMC Neurology* referee dal 2013
- *American Journal of Physical Medicine and Rehabilitation* referee dal 2013
- *Stroke Research and treatment* referee dal 2012

RESEARCH GRANTS (Seventh Framework Program of European Community for Research and Innovation)

I seguenti progetti di ricerca europei sono stati sviluppati e condotti in collaborazione con differenti partners, quali Consejo Superior de Investigaciones Científicas Madrid (CSIS) of Spain; Georg-August-Universitaet Goettingen of Germany, Graz University of technology, Össur uf company of Reykjavik, Iceland, EPFL of Lausanne, Imperial College of London,

- NISCI, Antibodies against Nogo-A to enhance regeneration and functional recovery after acute spinal cord injury, a multicenter European clinical proof of concept trial, FSL clinical center – Associate Investigator
Funded by the European Commission under Grant Agreement n° 681094: HORIZON H2020. 2016-2021. EU funding: 6.702.980
- H2020 - FTIPilot – Fast Track to Innovation Pilot 699796, *HANK European advanced exoskeleton for rehabilitation of Acquired Brain Damage (ABD) and/or spinal cord injury's patients* FSL clinical center – Associate Investigator - Funded by the European Commission under Grant Agreement n° 699796: HORIZON H2020. 2016-2018
Key role of Associate Investigator for the development, assessment and patients' training of the HANK exoskeleton for spinal cord injury patients and stroke subjects (<http://hankproject.eu>).
- 2013 ICT-2013- 611626 2013 ICT – SYMBITRON, *Symbiotic Man machine interaction for human-machine interface* FSL clinical center – Associate Investigator
Key role of Associate Investigator for the development, assessment and patients' training of new exoskeleton for spinal cord injury patients (<http://www.symbitron.eu/>).

- 2008 ICT-2007-224631- TOBI, *Tools for brain-computer interactions*. FSL clinical center – Associate Investigator (<http://www.tobi-project.org/welcome-tobi>).
Key role of Associate Investigator for the development, assessment and patients' training of Functional Electrical Stimulation (FES) in association with Brain Computer Interface (BCI).
- 2010 ICT-2009-247935- BETTER, *Brain-Neural Computer Interaction for Evaluation and Testing of Physical Therapies in Stroke Rehabilitation of Gait Disorders*. FSL clinical center – Associate Investigator (<http://www.car.upm-csic.es/bioingenieria/better/participants.htm>).
Key role of Associate Investigator for the development, evaluation, assessment and patients' training of new rehabilitation devices, such as motorized orthosis for the ankle, or commercial device modified in order to fit with the Top down rehabilitation approach.
- 2010 ICT-2009-247959- MINDWALKER, *Mind controlled orthosis and VR training environment for walk empowering*. FSL clinical center – Ethical Manager (<https://mindwalker-project.eu>).
Key role of Investigator for the development, evaluation and patients' training of the new exoskeleton.

BREVETTI: “Software de monitorization y control de una ortesis robotica/motorizada de tobillo y pie para rehabilitacion de lesiones del sistema nervioso central” with CSIC 50%

PUBBLICAZIONI SCIENTIFICHE

1. Outpatient Satisfaction With Osteopathic Manipulative Treatment in a Hospital Center: A Survey. Tramontano M, Martino Cinnera A, Petracca M, Gaeta A, **Tamburella F**, Audouard M, Caltagirone C. *Altern Ther Health Med*. 2017 Oct 28. pii: AT5540
2. A simple tool to measure spasticity in spinal cord injury subjects. Arami A, Tagliamonte NL, **Tamburella F**, Huang HY, Molinari M, Burdet E. *IEEE Int Conf Rehabil Robot*. 2017 Jul;2017:1590-1596. doi: 10.1109/ICORR.2017.8009475.
3. An Adaptive Neuromuscular Controller for Assistive Lower-Limb Exoskeletons: A Preliminary Study on Subjects with Spinal Cord Injury. Wu AR, Dzeladini F, Brug TJH, **Tamburella F**, Tagliamonte NL, van Asseldonk EHF, van der Kooij H, Ijspeert AJ. *Front Neurobot*. 2017 Jun 20;11:30. doi: 10.3389/fnbot.2017.00030
4. Boosting the traditional physiotherapist approach for stroke spasticity using a sensorized ankle foot orthosis: a pilot study. **Tamburella F**, Moreno JC, Iosa M, Pisotta I, Cincotti F, Mattia D, Pons JL, Molinari M. *Top Stroke Rehabil*. 2017 May 1:1-10. doi: 10.1080/10749357.2017.1318340.
5. Editorial: Neuro-motor control and feed-forward models of locomotion in humans. Iosa M, Gizzi L, **Tamburella F**, Dominici N. *Front Hum Neurosci*. 2015 Jun 2;9:306
6. **Tamburella, F.** (2015). Gait Recovery in spinal cord injury subjects: From clinical experience to research developments. Aalborg Universitetsforlag. (Ph.d.-serien for Det Sundhedsvidenskabelige Fakultet, Aalborg Universitet). DOI: 10.5278/vbn.phd.med.00033
7. Design and Control of the MINDWALKER Exoskeleton. Wang S, Wang L, Meijneke C, van Asseldonk E, Hoellinger T, Cheron G, Ivanenko Y, La Scaleia V, Sylos-Labini F, Molinari M, **Tamburella F**, Pisotta I, Thorsteinsson F, Ilzkovitz M, Gancet J, Nevatia Y, Hauffe R, Zanow F, van der Kooij H. *IEEE Trans Neural Syst Rehabil Eng*. 2014 Oct 30.
8. EMG patterns during assisted walking in the exoskeleton. F. Sylos-Labini, V. LaScaleia, A. d'Avella, I. Pisotta, **F. Tamburella**, G. Scivoletto, M. Molinari, S. Wang, L. Wang, E. van Asseldonk, H. VanderKooij, T. Hoellinger, G. Cheron, F. Thorsteinsson, M. Ilzkovitz, J. Gancet, R. Hauffe, F. Zanov, F. Lacquaniti and Y. Ivanenko *Front Hum Neurosci*. 2014 June
9. Somatosensory inputs by application of KinesioTaping: effects on spasticity, balance, and gait in chronic spinal cord injury. **F. Tamburella**, G. Scivoletto and M. Molinari *Front Hum Neurosci*. 2014 May 30;8:367.
10. Reliability, validity and effectiveness of Centre of Pressure parameters for stabilometric platform assessment in subjects with incomplete spinal cord injury: a serial cross-sectional study. **Tamburella F**, Scivoletto G, Iosa M., Molinari M., *J Neuroeng Rehabil*. 2014 May 13;11(1):86.
11. Who is going to walk? A review of the factors influencing walking recovery after spinal cord injury. Scivoletto G, **Tamburella F**, Laurenza L, Torre M, Molinari M. *Front Hum Neurosci*. 2014 Mar 13;8:141.
12. Walking Index for Spinal Cord Injury version II in acute spinal cord injury: reliability and reproducibility. Scivoletto G, **Tamburella F**, Laurenza L, Torre M, Molinari M, Ditunno JF. *Spinal Cord*. 2014 Jan;52(1):65-9.
13. Walking in water and on land after an incomplete spinal cord injury. **F. Tamburella**, G. Scivoletto, E. Cosentino, M. Molinari, *American Journal of Physical Medicine Rehabilitation*, October 2013 Oct;92(10 Suppl 2)
14. Impact of multiple injuries on functional and neurological outcomes of patients with spinal cord injury. Scivoletto G, Farchi S, Laurenza L, **Tamburella F**, Molinari M., Scand J Trauma Resusc Emerg Med. 2013 May 30
15. Distribution-based estimates of clinically significant changes in the international standards for neurological classification of spinal cord injury motor and sensory scores. Scivoletto G., **Tamburella F**, Laurenza L., Molinari M. *European Journal of Physical and Rehabilitation Medicine*, 2013 Jun;49(3):373-84.
16. Balance training improves static stability and gait in chronic incomplete spinal cord injury subjects: a pilot study. **Tamburella F**, Scivoletto G, Molinari M., *European Journal of Physical and Rehabilitation Medicine*, 2013 Jun;49(3):353-64.
17. The Spinal Cord Independence Measure. How much change is clinically significant for spinal cord injury subjects. Scivoletto G., **Tamburella F**, Laurenza L., Molinari M. *Disability and Rehabilitation*, 2013 Jan 24
18. Rehabilitation of gait after stroke: a review towards a top-down approach. Belda-Lois JM, Mena-Del Horno S, Bermejo-Bosch I, Moreno JC, Pons JL, Farina D, Iosa M, Molinari M, **Tamburella F**, Ramos A, Caria A, Solis-Escalante T, Brunner C, Rea M. *J Neuroeng Rehabil*. 2011 Dec 13;8(1):66
19. Consumer preference in ranking walking function utilizing the walking index for spinal cord injury II. Patrick M, Ditunno P, Ditunno JF, Marino RJ, Scivoletto G, Lam T, Loffree J, **Tamburella F**, Leiby B. *Spinal Cord*. 2011 Dec;49(12):1164-72
20. What users need. Requirements in BNCI-driven robot for gait recovery after stroke: a pilot study. M. Iosa, F. Cincotti, I. Pisotta, **F. Tamburella**, D. Mattia, M. Molinari, *International Journal of Bioelectromagnetism*, Vol. 13, N° 1, p.p. 13 – 15, 2011
21. Validity and reliability of the 10-m walk test and the 6-min walk test in spinal cord injury patients. Scivoletto G, **Tamburella F**, Laurenza L, Foti C, Ditunno JF, Molinari M. *Spinal Cord*. 2011 Jan 11
22. Walking index for spinal cord injury version 2 (WISCI-II) with repeatability of the 10-m walk time: Inter- and intra-rater reliabilities. Marino RJ, Scivoletto G, Patrick M, **Tamburella F**, Read MS, Burns AS, Hauck W, Ditunno J Jr; *Am J Phys Med Rehabil*. 2010 Jan;89(1):7-15.
23. Design and construction of a portable kit for the assessment of gait parameters in daily-rehabilitation. Daniele Giansanti, Sandra Morelli, Giovanni Maccioni, Andrea Giordano, **Federica Tamburella**, Marco Molinari, Salvatore Silvestri, Sergio Calabrese, Velio Macellari, Mauro Grigioni 2010, 34 p. *RAPPORTI ISTISAN* 10/13
24. Clinical factors that affect walking level and performance in chronic spinal cord lesion patients. Scivoletto G, Romenelli A, Mariotti A, Marinucci D, **Tamburella F**, Mammone A, Cosentino E, Sterzi S, Molinari M.; *Spine*. 2008 Feb 1; 33(3):259-64
25. Gait analysis of subjects with incomplete spinal cord injury lesion in a water environment. **Tamburella F**, Scivoletto G, Cosentino E., Molinari M. *EUR MED PHYS* 2008;44 (Suppl. 1 to No. 3)

CONTRIBUTI A LIBRI

1. Approach to Gait and Balance Rehabilitation in Spinal Cord Injury, **Tamburella F.**, Masciullo M., Molinari M., G. Scivoletto, , In: Sandrini G., Homberg V., Saltuari L., Smania N., Pedrocchi A. (eds) *Advanced Technologies for the Rehabilitation of Gait and Balance Disorders*. Biosystems & Biorobotics, vol 19. January 2018. Springer, Cham DOI: 10.1007/978-3-319-72736-3_16
2. **Tamburella, F.** (2015). Gait Recovery in spinal cord injury subjects: From clinical experience to research developments. Aalborg Universitetsforlag. (Ph.d.-serien for Det Sundhedsvidenskabelige Fakultet, Aalborg Universitet). DISSERTATION
3. Scivoletto G., **Tamburella F.**, Molinari Mielopatie: riabilitazione. In Compendio di Neuroriabilitazione. M. G. Sandrini and R. Dattola Editors, Capther 21 pp 327-340, 2012 Verduci Editore - Roma. ISBN 88-7620-861-5 / ISBN 978-88-7620-861-4
4. **Tamburella Federica**, Scivoletto Giorgio, Cosentino Elena, Molinari Marco. Walking in Water and Land after an Incomplete Spinal Cord Injury. in J. L. Pons, D. Torricelli and Marta Pajaro (eds.), *Converging Clinical and Engineering Research on Neurorehabilitation*, Biosystems & Biorobotics 1, pp 735-740. DOI: 10.1007/978-3-642-34546-3, Springer-Verlag Berlin Heidelberg 2013
5. Molinari M., **Tamburella F.**, Scivoletto G. The clinical Future of Muscle Synergies: Goals and Challenges. In J. L. Pons, D. Torricelli and Marta Pajaro (eds.), *Converging Clinical and Engineering Research on Neurorehabilitation*, Biosystems & Biorobotics 1, pp 1239-1242. DOI: 10.1007/978-3-642-34546-3, Springer-Verlag Berlin Heidelberg 2013.
6. I.Collantes, G. Asin, J. Moreno, J.L. Pons, **F. Tamburella**, M. Molinari Analysis of the effect of two different feedbacks on the biomechanical patterns of stroke patients during robotic assisted gait rehabilitation, In J. L. Pons, D. Torricelli and Marta Pajaro (eds.), *Converging Clinical and Engineering Research on Neurorehabilitation*, Biosystems & Biorobotics 1. Springer-Verlag Berlin Heidelberg 2013.
7. Morone G, Iosa M, **Tamburella F**, Muzzioli L, Pisotta I., Moreno JC, Pons JL, Paolucci S, Cincotti F, Molinari M, An EMG patterns comparison of 2 Robotic devices for body weight assisted walking training - In : Replace, Repair, Restore, Relieve – Bridging Clinical and Engineering Solutions in Neurorehabilitation Editors: Winnie Jensen, Ole Kæseler Andersen, Metin Akay - Proceedings of the 2nd International Conference on NeuroRehabilitation (ICNR2014), Aalborg, 24–26 June, 2014 - Biosystems & Biorobotics Volume 7 2014 pp 563 – 568 - DOI 10.1007/978-3-319-08072-7- Springer Cham Heidelberg New York Dordrecht London.
8. **Tamburella F.**, G. Scivoletto, M. Iosa, M. Molinari. Centre of Pressure Assessment in Subjects with Incomplete Spinal Cord Injury: Preliminary Data of Reliability, Validity and Effectiveness - In : Replace, Repair, Restore, Relieve – Bridging Clinical and Engineering Solutions in Neurorehabilitation Editors: Winnie Jensen, Ole Kæseler Andersen, Metin Akay - Proceedings of the 2nd International Conference on NeuroRehabilitation (ICNR2014), Aalborg, 24–26 June, 2014 - Springer Cham Heidelberg New York Dordrecht London - Biosystems & Biorobotics Volume 7 2014 pp 781 – 788 - DOI 10.1007/978-3-319-08072-7
9. F. Tamburella, G. Scivoletto e M. Molinari. La deambulazione del soggetto affetto da lesione incompleta del midollo spinale in ambiente acquatico in “Trattato di riabilitazione in acqua”. Tibaldi S. e Bortone A, eds. Edizioni Martina Bologna. In press.

PRESENTAZIONI ORALI A CONGRESSI

Congressi Internazionali:

1. Training balance recovery in people with incomplete SCI wearing a wearable, exoskeleton Edwin van Asseldonk, Amber Emmens, Tycho Brug, Iolanda Pisotta, Matteo Arquilla, **Federica Tamburella**, Marcella Masciullo, Nevio Tagliamonte, Romain Valette, Marco Molinari and Herman van der Kooij, *WeRob 2018*, 16-20 October Pisa, Italy
2. Tower limb wearable systems for mobility and rehabilitation challenges: clinical focus **F. Tamburella**, M. Masciullo, I. Pisotta, N.L. Tagliamonte, M. Molinari, *The International Symposium on Wearable Robotics WeRob 2016*, 18-21 October, 2016. La Granja, Segovia, Spain
3. Neuromuscular controller tested with paraplegics exhibits preferred speed-length relationship - Amy R. Wu, Florin Dzeladini, Tycho J. H. Brug, **F. Tamburella**, Nevio L. Tagliamonte, Edwin van Asseldonk, Herman van der Kooij, and Auke J. Ijspeert , *Cyathlon Symposium, SWISS Arena*, October 6, 2016
4. A versatile neuromuscular exoskeleton controller for gait assistance: a preliminary study on spinal cord injury patients Amy R. Wu, Florin Dzeladini, Tycho J. H. Brug, **Federica Tamburella**, Nevio L. Tagliamonte, Edwin van Asseldonk, Herman van der Kooij, and Auke J. Ijspeert, *WeRob 2016*, 18-21 October, 2016. La Granja, Segovia, Spain
5. Patient-specific vs Therapist-specific Rehabilitation in Neuro-Robotics. The clinical perspective, M.Molinari, D.Mattia, I.Pisotta, G.Scivoletto, **F. Tamburella**; *Workshop Neurorobotic for patient specific rehabilitation*, Padova 18th July 2014,
6. Robots for neurological rehabilitation: vistas from the rehab professionals. M Molinari *RoboBusiness Europe* - Billund Denmark –May 26-28 2014.
7. Lower limb exoskeletons mobility and rehabilitation challenges, Molinari M. Morone M., Pisotta I., Scivoletto G., Iosa M., **Tamburella F.** *ICRA*, Hong Kong, May-June 2014;
8. Walking in water and on land after an incomplete spinal cord injury. **F. Tamburella**, G. Scivoletto, E. Cosentino, M.Molinari –52st Annual Scientific Meeting of the International Spinal Cord Society 2013, 28th – 30th October 2013 in Istanbul, Turkey.
9. The impact of age on functional outcome in patients with spinal cord lesion. G. Scivoletto, M. Pazzaglia, L. Laurenza, **F. Tamburella**, M.Molinari –52st Annual Scientific Meeting of the International Spinal Cord Society 2013, 28th – 30th October 2013 in Istanbul, Turkey.
10. Walking in water and on land after an incomplete spinal cord injury. **F. Tamburella**, G. Scivoletto, E. Cosentino, M.Molinari – *International Conference of NeuroRehabilitation*, Toledo, Spain, 14-16 November 2012

11. The clinical future of muscle synergies. Goals and challenges. M.Molinari, F. **Tamburella**, G. Scivoletto, – *International Conference of NeuroRehabilitation*, Toledo, Spain, 14-16 November 2012
12. Visual biofeedback balance training improves static stability and locomotion pattern in chronic motor incomplete (AIS D) spinal cord injury subjects. F. **Tamburella**, G. Scivoletto, M. Molinari *51st Annual Scientific Meeting of the International Spinal Cord Society 2012* 3rd - 5th September 2012 in London, UK.
13. The Spinal Cord Independence Measure. How Much Change is Clinically Significant for Spinal Cord Injury Subjects. Giorgio Scivoletto; F. **Tamburella**; L. Laurenza; M. Molinari. *51st Annual Scientific Meeting of the International Spinal Cord Society 2012* 3rd - 5th September 2012 in London, UK.
14. Walking Index for Spinal Cord Injury (WISCI) Reliability in Patients with Acute Spinal Cord Injury (SCI). Scivoletto G., **Tamburella F.**, Foti C., Marco Molinari M., John F. Ditunno JF. *2011 International Congress on Spinal Cord Medicine and Rehabilitation*, Washington DC USA, June 6-8 2011
15. KinesioTaping treatment in spinal cord injured subjects. F. **Tamburella**, G. Scivoletto, M. Molinari. *49th Annual Scientific Meeting of International Spinal Cord Society (ISCoS)* New Delhi from 29th to 31st October 2010
16. Efficacy of balance rehabilitation in spinal cord lesion patients. Di Donna V., Scivoletto G., **Tamburella F.**, Girelli S., Molinari M.. *48th Annual Scientific Meeting ISCoS – International Spinal Cord Society*, Firenze, dal 21 al 24 October 2009
17. Walking determinants in spinal cord injury (SCI). G. Scivoletto, A. Romanelli, F. **Tamburella**, E. Cosentino, M. Molinari *46th ISCoS Annual Scientific Meeting and 10th NoSCoS Congress*, Reykjavik, June 27-1 July 2007
18. Usual versus non usual level of walking in spinal cord lesions (SCI) patients. G. Scivoletto, A. Romanelli, F. **Tamburella**, E. Cosentino, M. Molinari *46th ISCoS Annual Scientific Meeting and 10th NoSCoS Congress*, Reykjavik, June 27-1 July 2007

Congressi Nazionali:

1. BIOMECCANICA E BAROPODOMETRIA DELL'ARTO INFERIORE : F. Tamburella,.. Evento TECNOSAN 2014, Rome 02/04/2014
2. BNCI and robotics: MINDWALKER and SYMBITRON European Projects F. **Tamburella**,. *SIRAS Italian Society of Research, Innovation and new technologies for Rehabilitation*, 14-16 November 2013
3. Visual biofeedback balance training improves static stability and locomotion pattern in chronic motor incomplete (AIS D) spinal cord injury subjects. F. **Tamburella**, G. Scivoletto, M. Molinari, F. **Tamburella**, G.Scivoletto, M.Molinari. *XV Somipar National Congress*, Imola (BO), Italy, 23 – 24 March 2012
4. Standards of the American Spinal Injury Association. How much improvement is significant for patients with a spinal cord injury? G. Scivoletto, F. **Tamburella**, L. Laurenza, M. Molinari. *XV Somipar National Congress*, Imola (BO), Italy, 23 – 24 March 2012
5. Preliminary study on the effects of vibro-tactile stimulation on rehabilitation of patients with chronic ictus. G.Morone, M. Iosa, F. **Tamburella**, D. Mattia, M. Molinari, *SIRN, Verona, Italy, 2011*
6. Neuromuscular taping for the treatment of spasticity in subjects with an incomplete spinal cord injury lesion. F. **Tamburella**, G. Scivoletto, M. Molinari. *XIV SoMIPar National Congress*, Palermo, Italy, 18-20 March 2010
7. 10 Meter Walk Test and Six Minutes Walk Test for spinal cord injured subjects. F. **Tamburella**, G. Scivoletto, V. Di Donna, M. Molinari. *XIV SoMIPar National Congress*, Palermo, Italy, 18-20 March 2010
8. Update on the key role of cerebellum; Rehabilitation approach. F. **Tamburella**, *IX S.I.R.N. National Congress*, Rome, Italy, 6 - 9 May 2009
9. Gait analysis of subjects with an incomplete spinal cord lesion in a water environment. F. **Tamburella**, G. Scivoletto, E. Cosentino, M. Molinari, *XXXVI° SIMFER National Congress*, Rome, Italy, 16 – 20 November 2008
10. Gait analysis in a water environment. E. Cosentino, F. **Tamburella**, G. Scivoletto, M. Molinari - *VIII S.I.R.N. National Congress*, Montecatini Terme, Italy, 17-19 April 2008
11. Gait for spinal cord lesioned subjects: influence of clinical and demographic features. **Tamburella F.**, *XIII SoMIPar National Congress*, Udine, Italy 11-14 November 2007
12. Self-selected locomotion level versus maximal performance. Which one of these measures in spinal cord injury subjects? Scivoletto G., Cosentino E., Marinucci D., **Tamburella F.**, Molinari M. *XIII SOMIPAR National Congress*, Udine, Italy, 15-18 April 2007
13. Balance rehabilitation and gait recovery after a spinal cord injury: pilot study. **Tamburella F.**, Scivoletto G., Cosentino E., Molinari M. *VII S.I.R.N. National Congress*, Naples, Italy, 19-21 April 2007
14. New technologies for clinical assessment of gait. Integration of clinical scales and kinematic data. F.**Tamburella**, M.Molinari - *Seminar "New technologies for support and rehabilitation of disable people"*, I.R.C.C.S. S. Lucia Foundation, Rome, Italy, June 2006

PRESENTAZIONI DI POSTER A CONGRESSI

Congressi Internazionali:

1. Walking Assistance of Subjects with Spinal Cord Injury with an Ankle Exoskeleton and Neuromuscular Controller Matteo Arquilla, Iolanda Pisotta, **Federica Tamburella**, Nevio Luigi Tagliamonte, Marcella Masciullo, Amy Wu, Cory Meijneke, Auke Jan Ijspeert, Herman van der Kooij and Marco Molinari, *WeRob 2018 16-20 October 2018*, Pisa Italy
2. SYMBITRON: Symbiotic man-machine interactions in wearable exoskeletons to enhance mobility for paraplegics G. Scivoletto, H Vallery, I Pisotta, F Tamburella, H van der Kooij, E van Asseldonk, H Witteveen, A Emmens, E Burdet, A Pennycott, I Farkhatdinov, A Ijspeert, F Dzeladini, F Thorsteinson,; M Molinari, *53rd ISCoS Congress*, Maastricht, 1-4/09/14

3. Lower limb exoskeletons mobility and rehabilitation challenges. Marco Molinari MD PhD, Giovanni Morone MD, Iolanda Pisotta, Marco Iosa PhD, Giorgio Scivoletto MD PhD, Federica Tamburella PT. 2014 June 1 *ICRA2014 Conference*, Hong Kong (China).
4. Visual biofeedback balance training improves static stability and locomotion pattern in chronic motor incomplete (AIS D) spinal cord injury subjects F. Tamburella, G. Scivoletto, M. Molinari *World conference of Neurorehabilitation*, April 2014, Istanbul, Turkey
5. The Torque-Controlled Mindwalker Exoskeleton. Testing With Subjects With Spinal Cord Lesion Federica Tamburella, Iolanda Pisotta, Giorgio Scivoletto, Shiqian Wang, Letian Wang, Cor Meijneke, Edwin van Asseldonk, Thomas Hoellinger, Guy Cheron, Yuri Ivanenko, Valentina La Scaleia, Francesca Sylos-Labini, Luca Muzioli, Freygarður Thorsteinsson, Michel Ilzkovitz, Jeremi Gancet, Yashodhan Nevatia, Ralf Hauffe, Frank Zanow, Herman van der Kooij and Marco Molinari *World conference of Neurorehabilitation*, April 2014, Istanbul, Turkey
6. Psychometric analysis of Centre of Pressure assessment by means of stabilometric platform in patients with incomplete spinal cord injury Tamburella Federica, Scivoletto Giorgio, Marco Iosa, Molinari Marco *World conference of Neurorehabilitation*, April 2014, Istanbul, Turkey
7. Walking in water and on land after an incomplete spinal cord injury F. Tamburella, G. Scivoletto, E. Cosentino, M. Molinari *World conference of Neurorehabilitation*, April 2014, Istanbul, Turkey
8. Functional Electrical Stimulation (FES) and Brain Computer Interface (BCI) for improving upper limb functionality in Spinal Cord Injured Patients F. Tamburella, I. Pisotta, L. Muzzioli, G. Scivoletto, M. Rohm, R. Rupp, M. Molinari, -52st Annual Scientific Meeting of the International Spinal Cord Society 2013, 28th – 30th October 2013 in Istanbul, Turkey.
9. Psychometric analysis of Centre of Pressure assessment by means of stabilometric platform in patients with incomplete spinal cord injury F. Tamburella, G. Scivoletto, E. Cosentino, M. Molinari –52st Annual Scientific Meeting of the International Spinal Cord Society 2013, 28th – 30th October 2013 in Istanbul, Turkey.
10. Speed and energy consumption measurement in spinal cord injury subjects. Scivoletto, F. Tamburella, L. Laurenza, M. Molinari –52st Annual Scientific Meeting of the International Spinal Cord Society 2013, 28th – 30th October 2013 in Istanbul, Turkey.
11. Silent post traumatic syringomyelia and syringobulbia. G. Scivoletto, Laurenza, F. Tamburella, L. M. Molinari –52st Annual Scientific Meeting of the International Spinal Cord Society 2013, 28th – 30th October 2013 in Istanbul, Turkey.
12. Spinal cord interaction due to cocaine abuse G. Scivoletto, L. Laurenza, F. Tamburella, A. Clemenzi, M. Molinari –52st Annual Scientific Meeting of the International
13. "TOP-DOWN BNCI based rehabilitation approach: kinematic and electromyographic visual biofeedback training by means of a new Ankle-Foot Orthosis for stroke subjects" F. Tamburella, J. C. Moreno, G. Asín, J.L. Pons, L. Muzzioli, M. Iosa, I. Pisotta, F. Aloise, F. Cincotti, M. Molinari. *IV TOBI WORKSHOP*, January 23-25, 2012 Sion, Lausanne, Switzerland, January 23-25, 2013
14. Analysis of the effect of two different feedbacks on the biomechanical patterns of stroke patients during robotic-assisted gait rehabilitation. I. Collantes, G. Asin, J. Moreno, J.L. Pons, F. Tamburella, M. Molinari *International Conference of NeuroRehabilitation*, Toledo, Spain, 14-16 November 2012
15. "Short/long term effects of KinesioTaping on spasticity, balance, gait and electromyographic activity in chronic incomplete spinal cord injury subjects"; F. Tamburella, G. Scivoletto, M. Molinari; *51st Annual Scientific Meeting of the International Spinal Cord Society 2012* 3rd - 5th September 2012 in London, UK
16. Challenging the significance of the American Spinal Injury Association standards. How much change is meaningful for spinal cord injury subjects? Scivoletto G., Tamburella F, Laurenza L. Molinari M. *51st Annual Scientific meeting of the International Spinal Cord Society*, 3rd-5th September, 2012, London, UK
17. Predictors of complications after traumatic spinal cord injury. Scivoletto G., Iosa M., Tamburella F., Laurenza L., Molinari M. *51st Annual Scientific meeting of the International Spinal Cord Society*, 3rd-5th September, 2012, London, UK
18. "Collection of user requirements in a population of spinal cord injury patients and medical staff for the assistive lower limb exoskeleton", I. Pisotta, G. Scivoletto, F. Tamburella, F. Sylos Labini, E. Motard, J. Gancet, M. Ilzkovitz M. Molinari, Y. Ivanenko *51st Annual Scientific Meeting of the International Spinal Cord Society 2012*, 3rd - 5th September 2012 in London, UK.
19. MINDWALKER: Going One Step Further with Assistive Lower Limbs Exoskeleton for SCI Condition Subjects", Jeremi Gancet, Michel Ilzkovitz, Elvina Motard, Yashodhan Nevatia, Guy Cheron, Thomas Hoellinger, Karthik Seetharaman, Mathieu Petieau, Yuri Ivanenko, Marco Molinari, Iolanda Pisotta, Federica Tamburella, Francesca Sylos Labini, Herman Van der Kooij, Letian Wang, Frans C.T. Van der Helm, Shiqian Wang, Frank Zanow, Ralf Hauffe, Freygarður Thorsteinsson, Andrea d'Avella - *4th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob2012)*, June 24-27, 2012, Rome Italy
20. Neurorehabilitation after stroke: a new tool for a Top-Down approach" M. Iosa, F. Tamburella, J.C. Moreno, F. Aloise, I. Pisotta, L. Muzzioli, M. Molinari, J.L. Pons, and F. Cincotti. *GNB 2012*, June 26-29, 2012 Rome, Italy
21. "Functional Electrical Stimulation (FES) and Brain Computer Interface (BCI) for improving upper limb functionality in Spinal Cord Injured Patients" F. Tamburella, I. Pisotta, L. Muzzioli, G. Scivoletto, M. Rohm, R. Rupp, M. Molinari, *TOBI WORKSHOP*, Würzburg, Germany, March 20-22 2011
22. Walking Index for Spinal Cord Injury (WISCI) Reliability in Patients with Acute Spinal Cord Injury (SCI). Scivoletto G., Tamburella F., Foti C., Marco Molinari M., John F. Ditunno Jr., *International Congress on Spinal Cord Medicine and Rehabilitation*, Washington DC USA, June 6-8 2011
23. Kinesio® Taping (TNM) treatment in spinal cord injury (SCI) subjects. Tamburella F., Scivoletto G., Molinari M, *International Congress on Spinal Cord Medicine and Rehabilitation*, Washington DC USA, June 6-8 2011
24. What users need. Requirements in BNCI-driven robot for gait recovery after stroke: a pilot study. M. Iosa, F. Cincotti, I. Pisotta, F. Tamburella, D. Mattia, M. Molinari, *TOBI WORKSHOP*, Rome, 2-3 December 2010
25. Walking in water and on land after spinal cord lesion: a two dimensional kinematic study in subjects with incomplete injuries. Tamburella F., Cosentino E., Scivoletto G., Di Donna V., Molinari M.. *48th Annual Scientific Meeting ISCOS – International Spinal Cord Society*, Firenze, 21- 24 October 2009

Congressi Nazionali:

1. Progetto Symbitron: interazione simbiotica uomo-macchina finalizzata allo sviluppo di un esoscheletro modulare personalizzato per soggetti affetti da lesione del midollo spinale. Scivoletto G, Tamburella F., Pisotta I., Van Der Kooij H., Heide W., Meijneke C., Emmens A., Vallery H., Wang S., Burdet E., Pennycott A, Farkhatdinov I., Ijspeert A., Dzeladini F., Thorsteinson F., Molinari M. *XVI Congresso Nazionale SOMIPAR*, Bergamo, 15-17th May 2014
2. Gait analysis of subjects with an incomplete spinal cord lesion in a water environment. Tamburella F., Scivoletto G., Cosentino E., Molinari M. *XXXVI° SIMFER National Congress*, Rome, 16-20 November 2008

ESPERIENZE DI INSEGNAMENTO

- Ottobre 2019 - oggi: Insegnante a contratto (Corso di "Metodologia della ricerca") presso CERDO Centre pour l'Étude, la Recherche et la Diffusion Ostéopathiques of Roma;

- Aprile 2016 – oggi: Insegnante a contratto (Corso di "Metodologia della ricerca") presso la II Università di Roma, Tor Vergata for la scuola di Laurea in fisioterapia di primo livello (Facoltà di Medicina e Chirurgia).

- I seguenti corsi sono stati realizzati per fisioterapisti, medici, psicologi, podologi (lingua italiana):

- Insegnante a contratto, con il ruolo di responsabile scientifico e insegnante, con "DEA FORMAZIONE E SERVIZI s.n.c." of Rome, Italy, for the following ECM courses:
 1. "Anatomy Palpatory of leg and foot", Rome, October 2017
 2. "Anatomy Palpatory of leg and foot", Rome, 4 March 2017
 3. "Functional Taping for ankle and foot diseases", Rome, 20 February 2016
 4. "Functional Taping for ankle and foot diseases", Rome, 21 June 2015
 5. "REHABILITATION and CLINICAL SCALES for Activities of daily living: neurological disorders" September 2014
 6. "BIOMECHANICS AND BAROPODOMETRIC ASSESSEMENT FOR LOWER LIMBS: TECNOSAN", Rome 02 April 2014
 7. "Functional Taping for ankle and foot diseases", Rome, November 30th 2013
 8. "Functional Taping for ankle and foot diseases", Rome, March 2nd 2013
 9. "Functional Taping for ankle and foot diseases", Milan, October 27th 2012
 10. "Functional Taping for ankle and foot diseases", Rome, June 09th 2012
 11. "New technologies for evaluation, rehabilitation and autonomy", Rome, November 12-19th 2011
- Insegnante a contratto presso "I.R.C.C.S. Santa Lucia Foundation" di Roma, Italia, per i seguenti corsi aziendali di formazione:
 1. "CLINICAL REHABILITATIVE ROUND for technological improvements" from January 2016 until December 2016
 2. "CORPORATE TRAINING PROGRAM" for Physical Therapist focus on the "NEW TECHNOLOGIES FOR SCI and STROKE REHABILITATION" from January 2016 until December 2016.
 3. "AGGIORNAMENTO IN RIABILITAZIONE FISIOTERAPICA" Rome, November 14th and December 5th 2013
 4. "NEW INSTRUMENTAL TECHNIQUES FOR THE EVALUATION AND TREATMENT OF CEREBROVASCULAR AND ONCOLOGICAL DISEASES", Rome, November 14th 2011 – "GAIT REHABILITATION BY MEANS OF GAIT TRAINER AS ROBOTIC DEVICE: CLINICAL EXPERIENCE", Rome, November 26-27th 2011
 5. "MEASURING MOVEMENT IN A CLINICAL CONTEXT: INSTRUMENTAL MOTOR ASSESSMENT", Rome, December 15-16th 2011
 6. "GAIT REHABILITATION BY MEANS OF GAIT TRAINER AS ROBOTIC DEVICE: CLINICAL EXPERIENCE", Rome, December 11-12th 2009
 7. "MEASURING MOVEMENT IN A CLINICAL CONTEXT: INSTRUMENTAL MOTOR ASSESSMENT", Rome, December 16-17th 2009
- Insegnante a contratto with "O.S.M.A.I.R.M." Laterza (TA), Italy, per i seguenti corsi aziendali di formazione:
 1. "ONCOLOGIC REHABILITATION", Laterza (TA), June 18-19th 2010
 2. "CLINICAL AND REHABILITATION FOLLOWING ICTUS DISEASE", June 5-6th and 19-20th 2009

RUOLI IN SOCIETA' PROFESSIONALI

- ISCOS SCRIPT committee member per l'Italia da Aprile 2017
- Italian Society of Neurological Rehabilitation (SIRN)
- International Network of Spinal Cord Injury Physiotherapists (SCRIPT)

Questo documento è autorizzato al trattamento dei dati personali

Roma, 28 Marzo 2020

Dott.ssa Federica Tamburella

