



ENRICO REJC

RUOLO ATTUALE

(Professore, Ricercatore)

Informazioni personali

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Istruzione e Formazione

10/2012 – 01/2015

Università di Louisville

Postdoctoral associate (neurofisiologia, lesioni spinali)

01/2012 – 10/2012

Università di Udine

Assegnista di ricerca (Fisiologia dell'esercizio)

10/2009 – 04/2010

UCLA

Visiting researcher

01/2008 – 12/2010

Università di Udine

Dottorato di ricerca in Fisiologia dell'esercizio

11/2004 – 07/2007

Università di Udine

Laurea specialistica in Scienza dello Sport

05 – 07/2004

Manchester Metropolitan University

Visiting student

10/2000 – 07/2004

Università di Udine

Laurea triennale in Scienze Motorie

Posizioni accademiche

11/2022 – Presente **Ricercatore a tempo determinato di tipo B**

Dipartimento di Area Medica

Università di Udine, Udine, Italia.

02/2015 – 10/2022 **Assistant Professor (tempo determinato)**

Kentucky Spinal Cord Injury Research Center

Dipartimento di Neurochirurgia
Università di Louisville, Louisville, KY, USA.

01/2016 – 10/2022 **Direttore Scientifico**

Laboratorio (research core) metabolico, neuromuscolare e scheletrico
Kentucky Spinal Cord Injury Research Center
Università di Louisville, Louisville, KY, USA.

06/2016 – 10/2022 **Professore Aggregato**

Dipartimento di Fisiologia
Università di Louisville, Louisville, KY, USA.

04/2017 **Visiting Professor**

Dipartimento di Scienze Motorie e del Benessere
Università di Napoli "Parthenope, Napoli, Italia.

03/2018 **Visiting Professor**

Corso di laurea magistrale in Scienza dello Sport
Università di Udine, Udine, Italia.

Memberships, attività professionali, riconoscimenti.

06/2022 – 12/2024

Membro della commissione: "Trainee Professional Development Awards", Society for Neuroscience.

05/2022

Chairman della sessione: "Hypoxia: the Good (the Bad and the Ugly)"
Simposio "27th Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium"
Louisville, KY, USA.

10/2018 – 09/2021

Presidente-eletto; Presidente; Presidente-uscente
Society for Neuroscience, Louisville Chapter
Louisville, KY, USA.

2016 – 2019

Membro valutatore di poster scientifici
Research!Louisville e Society for Neuroscience, Louisville Chapter.
Louisville, KY, USA.

2009 – 2012

American Congress of Sports Medicine (Membro)

2012 – Presente

Society for Neuroscience (Membro)

RICONOSCIMENTI

- 2005 Premio “Stefano Benetton”. Concorso nazionale per tesi di laurea sullo sport.
Fondazione Stefano Benetton, Treviso, Italia
- 2006 Premio “Montagna e sport: tra tutela e sviluppo sostenibile”. Concorso nazionale.
Presidenza del Consiglio dei Ministri – Dipartimento per gli Affari Regionali.

Attività didattica

Insegnamento

- 2023-24 (i) Programmazione e conduzione delle attività motorie preventive e adattate (60 ore)
Corso di laurea specialistica Scienze e Tecniche Attività Motorie Preventive e Adattate.
Università di Udine, Udine, Italia.
- 10/2011 – 07/2012 (i) Prevenzione e recupero funzionale (C.d.L. specialistica Scienza dello sport) - Docente titolare
(ii) Fondamenti di fitness e wellness (C.d.L. Scienze Motorie)
(iii) Teoria e metodologia di studio della postura e del movimento umano (C.d.L. Scienze Motorie)
(iv) Laboratorio di valutazione funzionale (C.d.L. Scienze Motorie)
Università di Udine, Udine, Italia.
- 04/2017 (i) Controllo del movimento umano e lesione spinale - Visiting professor
C.d.L. specialistica - Dipartimento di Scienze Motorie e del Benessere
Università di Napoli “Parthenope, Napoli, Italia.
- 03/2018 (i) Controllo del movimento umano e lesione spinale - Visiting professor
C.d.L. specialistica Scienza dello sport
Università di Udine, Udine, Italia.

Relatore tesi di laurea

- 2006 –2010 Correlatore di 11 tesi di laurea triennale (Candidati: Anna Stefani, Alessandra Bressani, Stefano Micoli, Roberto Iezzi, Alessandro de Guidi, Silvia Masiero, Antonio Borriello, Elena Scotti, Giordano Francesco Jr., Manfredi Zampar, Alberto Botter)
Corso di laurea in Scienze motorie (n = 10) e Biotecnologie (n = 1)
Università di Udine, Udine, Italia.
- 2008-2011; 2019 Relatore (n = 1) e correlatore (n = 3) di tesi di laurea specialistica (Candidati: Ingrid Mattiuz, Enrico Di Doi, Alessandro Ganzini, Federica Gonnelli)
Corso di laurea specialistica Scienza dello Sport
Università di Udine, Udine, Italia.

Research career development awards advisor

- 2021 – 2023 Candidato: Andrew Smith, PT, PhD
NIH, Comprehensive Opportunities in Rehabilitation Research Training, K12 award (awarded).

Supervisore di Postdoctoral associates

- 2015 – 2016 Dr. Lian He
2016 – 2017 Dr. Ahmed Shalaby
2017 – 2019 Dr. David Arpin. Riconoscimenti: (i) Borsa di studio: Helmsley Restorative Medicine Trainee fellowship (2018); (ii) 3o posto alla presentazione di poster scientifici, SfN Louisville Chapter (2019).

2020 – 2022 Dr. Collin Bowersock. Riconoscimenti: Borsa di studio Todd Crawford Scholarship (2021); Invito a presentare una richiesta di finanziamento completa a: Neilsen Foundation's 2022 SCIRTS Postdoc grant application.
Università di Louisville, Louisville, KY, USA.

Supervisore di studenti impegnati in progetti di ricerca

05-07/2014; 09-11/2015 Nicole Bryant (C.d.L. triennale)
05-07/2017 Elizabeth Levay (C.d.L. triennale)
04-05/2018 Ethan Adams (C.d.L. triennale)
04-06/2018; 08-10/2019 Federica Gonnelli (C.d.L. specialistica). Riconoscimenti: Premio tesi di laurea Panathlon (2019)
06-07/2022 Sacha Keenan (tirocinante di scuola superiore)
Kentucky Spinal Cord Injury Research Center
Università di Louisville, Louisville, KY, USA.

Relatore per un *professional paper*

08-12/2019 Hanna Martin
C.d.L. specialistica in Clinical Investigation Sciences
Università di Louisville, Louisville, KY, USA.

Convegni e interviste

Conferenze ad invito

06/23/2010 Bilateral deficit during explosive lower limb extension: on its causes and adaptations to bed rest. Faculty of Human Movement Science, University of Verona, Verona, Italy.
03/12/2011 Novel approach for hamstrings active strengthening by Safe Leg. XX International Congress of Sports Rehabilitation and Traumatology. March 12, 2011, Bologna, Italy.
05/14/2015 Effects of lumbosacral spinal cord epidural stimulation for standing after chronic complete paralysis in humans. Neuroscience Grand Rounds, University of Louisville, Louisville, KY, USA.
06/18/2015 Epidural stimulation for standing: interaction among sensory information, training and stimulation parameters. Seminar Series, Kentucky Spinal Cord Injury Research Center, University of Louisville, Louisville, KY, USA.
07/22/2015 Lumbosacral spinal cord epidural stimulation for standing after chronic complete paralysis in humans. Dept. Medical and Biological Sciences, University of Udine, Udine, Italy.
10/01/2015 Effects of lumbosacral spinal cord epidural stimulation for the recovery of motor function after chronic complete paralysis in humans. Institute of Molecular Bioimaging and Physiology, National Research Council, Milano, Italy.
01/29/2016 Recovery of motor function for standing via lumbosacral spinal cord epidural stimulation and activity-based rehabilitation in chronic complete paraplegics. Seminar Series, Bioengineering Department, University of Louisville, Louisville, KY, USA.
02/19/2016 Effects of stand and step training with epidural stimulation on motor function for standing and muscle properties. Seminar Series, Kentucky Spinal Cord Injury Research Center, University of Louisville, Louisville, KY, USA.
03/02/2018 Task-specificity and variability of activity-based training with spinal cord epidural stimulation affect the recovery of standing in motor complete SCI individuals. Seminar Series, Kentucky Spinal Cord Injury Research Center, University of Louisville, Louisville, KY, USA.
03/21/2018 Spinal cord epidural stimulation and activity-based training for lower limb motor function recovery in individuals with chronic motor complete spinal cord injury. Seminar Series, Dept. of Medicine, University of Udine, Udine, Italy.
02/08/2019 Neurophysiological markers predicting independent standing enabled by spinal epidural stimulation in humans with motor complete spinal cord injury. Seminar Series, Kentucky Spinal Cord Injury Research Center, University of Louisville, Louisville, KY, USA.
02/25/2020 Spinal cord epidural stimulation for lower limb motor function recovery in individuals with chronic motor complete spinal cord injury. World Society for Stereotactic and Functional Neurosurgery, Webinar.

03/23/2020	Spinal cord epidural stimulation and recovery of motor function after chronic, complete spinal cord injury: details matter! American Congress of Rehabilitation Medicine, Webinar.
10/30/2020	Updates on motor and neuromuscular recovery by epidural stimulation after severe SCI. Seminar Series, Kentucky Spinal Cord Injury Research Center, University of Louisville, Webinar.
05/04/2021	The human spinal cord is smarter than we think - lessons learnt from 'complete' spinal cord injured individuals receiving epidural stimulation. Exercise Physiology Seminar Series, Dept. of Medicine, University of Udine, Webinar.
12/03/2021	Spinal cord epidural stimulation for motor recovery after complete spinal cord injury. Seminar series Talk with the experts, University of Pavia, Webinar.
03/14/2022	Recovery of Upright Postural Control with Epidural Stimulation and Robotic Postural Training in Individuals with Chronic Motor Complete Spinal Cord Injury. Gordon Research Conference "Bridging Neural Engineering and Neurobiology Edge Effects to Divergent Innovation". Ventura, CA.
07/27/2022	Spinal Cord Epidural Stimulation to Promote Standing Motor Function Recovery After Motor Complete Spinal Cord Injury. "Moving beyond isolated systems" Symposium. Louisville, KY.

Interviste ad invito

10/2022 ASIA (American Spinal Injury Association) SCI Science Perspectives Podcast – focus sul premio 2022 AISA TRoHNS relativo ad un Progetto di ricerca sul recupero della postura eretta mediante stimolazione elettrica del midollo spinale e caratteristiche del midollo spinale studiate tramite risonanza magnetica.

02/2022 DiSCIS (Discussions in Spinal Cord Injury Science) Podcast – focus sul recupero della postura eretta mediante stimolazione elettrica del midollo spinale e caratteristiche del midollo spinale studiate tramite risonanza magnetica.

06/2018 "UofL Today with Mark Hebert" intervista alla radio - focus sull'utilizzo del foam rolling massage in relazione alla performance fisica.

12/2017 "UofL Today with Mark Hebert" intervista alla radio - focus sull'utilizzo recovery of standing motor function in an individual with complete paralysis.

09/2015 "Ask Dr. Nandi" intervista TV - focus sul recupero della postura eretta mediante stimolazione elettrica del midollo spinale in persone con paraplegia.

ABSTRACTS E PRESENTAZIONI A CONVEGNI

Presentazioni orali (* su invito)

8) Rejc E, Gonnelli F, Mesbah S, Angeli C, Harkema S. Characteristics of lower limb EMG activity and standing ability in individuals with motor complete spinal cord injury using spinal cord epidural stimulation. Annual Meeting, Society for Neuroscience, San Diego, CA; November 2018, 356.05.

7) Rejc E, Angeli C, Harkema S. Activity-based training with spinal cord epidural stimulation for the recovery of standing in individuals with chronic motor complete spinal cord injury. Annual Meeting, American Spinal Cord Injury Association, Rochester, MN, May 2-4, 2018.

6) * Rejc E. Exercise training with spinal cord epidural stimulation for improving lower limb motor function and health in individuals with chronic complete spinal cord injury. International Workshop "Exercise therapy and health", AMASF Study Group, Napoli, Italy. April 4, 2017.

5) * Rejc E, Angeli C, Harkema S. Lumbosacral spinal cord epidural stimulation for standing after chronic complete paralysis in humans. 33rd Annual Neurotrauma Symposium, Santa Fe, NM, USA. June 28 - July 1, 2015.

4) * Rejc E. Effect of epidural stimulation of the lumbosacral spinal cord on voluntary movement and standing after motor complete paraplegia: a case study. XV SOMIPAR (Italian Medical Society of Paraplegia) National Congress. March 23, 2012.

3) * Rejc E. The bilateral deficit during maximal efforts. Symposium "Exercise physiology and the limits of human performance. A tribute to prof. Pietro Enrico di Prampero". Gemona del Friuli (UD), Italy, October 6-7, 2010.

2) Rejc E, Lazzar S, Antonutto G, di Prampero PE. Bilateral deficit and EMG activity during explosive lower limb contractions against different overloads. XIX Conference of the International Society for Posture and Gait Research; Bologna, Italy; June 21-25, 2009.

1) Rejc E, Pozzo R. Postural and training effects on neuromuscular and bioenergetic adaptations in cycling. Young Researchers Seminar, Innsbruck (Austria), 2004.

Posters

37) Rejc E, Bowersock C, Pisolkar T, Ai X, Zhu C, Angeli C, Agrawal S, Harkema S. Upright reactive postural responses promoted by epidural stimulation in individuals with motor complete SCI are enhanced when upper limbs are not used for self-balance assistance. Annual Meeting, Society for Neuroscience, San Diego, CA; November 13, 2022, 126.12.

36) Fatima F, Willhite A, Shekhovstov I, Ditterline B, Angeli C, Rejc E, Harkema S, Ovechkin A. Spinal cord epidural stimulation and respiratory training in patients with chronic spinal cord injury. Annual Meeting, Society for Neuroscience, San Diego, CA; November 13, 2022, 126.10.

35) Joshi K, Angeli C, Harkema S, Rejc E. Sitting postural improvements promoted by spinal cord epidural stimulation following cervical motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, San Diego, CA; November 13, 2022, 126.16.

34) Bowersock CD, Pisolkar T, Omofuma I, Luna T, Khan M, Santamaria V, Angeli C, Stein J, Agrawal S, Harkema S, Rejc E. Robotic postural stand training with epidural stimulation improved reactive standing postural control in individuals with motor complete SCI. Annual Meeting, Society for Neuroscience, Virtual; November 8-11, 2021; P368.08.

33) Joshi K, Smith N, Rejc E, Harkema S, Angeli C. The effects of core-specific and non-specific training with epidural stimulation on trunk kinematics of individuals with chronic motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, Virtual; November 8-11, 2021, P368.10.

32) Smith N, Joshi K, Rejc E, Harkema S, Angeli C. The effect of epidural stimulation targeted at trunk stability on trunk kinematics of individuals with chronic motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, Virtual; November 8-11, 2021, P368.12.

31) Anders L, Vandhanam M, Mohamed E, Gobejishvili L, Rejc E, Stocker A, Barve S, Abell T. Chemokine elevation in patients with the symptoms of gastroparesis. Digestive Disease Week® (DDW) 2020.

30) Rejc E, Angeli C, Harkema S. The human spinal cord can concurrently learn standing and stepping after chronic motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2019, 481.08.

29) Mesbah S, Pisolkar T, Angeli C, Harkema S, Rejc E. Neurophysiological markers and machine learning to support the selection of epidural stimulation parameters for standing rehabilitation in humans with chronic motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2019, 481.09.

28) Kirshblum S, Angeli C, Guest J, Forrest G, Wecht J, Harel N, Bloom O, Ovechkin A, Rejc E, Harkema S. Documentation of clinical benefits of epidural stimulation and proposal of a new multidimensional outcome measure for individuals with spinal cord injury. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2019, 481.15.

27) Harkema S, Gerasimenko Y, Herrity A, Hubscher C, Rejc E, Angeli C. Human spinal circuitry can integrate somatic-visceral functions with neuromodulation in individuals diagnosed with motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2019, 481.18.

26) Angeli C, Rejc E, Ferreira C, Harkema S. Human spinal circuitry generates intentional individual joint flexion after clinically diagnosed motor complete spinal cord injury with subthreshold lumbosacral epidural stimulation. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2019, 481.02.

25) Ball T, Angeli C, Rejc E, Mesbah S, Harkema S, Boakye M. Correlation of radiographic spinal cord parameters with volitional movement after spinal cord epidural stimulation for chronic traumatic spinal cord injury. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2019, 481.14.

24) Dietz N, Vadhanam M, Ugiliweneza B, Harkema S, Abell T, Boakye M, Whittemore S, Rejc E, Barve S. Correlation of Inflammatory Biomarkers with Neurogenic Bowel Dysfunction and Gut Microbiota Dysbiosis in Patients with Chronic Spinal Cord Injury. Annual Meeting, Congress of Neurological Surgeons, San Francisco, CA, October 2019.

23) Arpin D, Forrest G, Harkema S, Rejc E. Submaximal marker for investigating peak muscle torque using NMES after paralysis. Annual Meeting, Society for Neuroscience, San Diego, CA; November 2018, 771.15 / WW4.

22) Rejc E, Angeli CA, Harkema S. Interleaving stand-step training with spinal cord epidural stimulation effectively improved standing in individuals with chronic complete spinal cord injury. Annual Meeting, Society for Neuroscience, Washington, DC; November 2017, 53.26 / Z4.

21) Forrest G, Rejc E, Ramanujam A, Garbarin E, Harkema S. Patterns of stimulation effect on muscle volume. Annual Meeting, Society for Neuroscience, Washington, DC; November 2017, 142.03 / CC18.

20) Herrity A, Angeli C, Rejc E, Harkema S, Hubscher C. Spinal cord epidural stimulation effects on urogenital and bowel outcomes. Annual Meeting, Society for Neuroscience, Washington, DC; November 2017, 53.23 / Z1.

19) Rejc E, Angeli CA, Atkinson D, Harkema S. Activity-based training with spinal cord epidural stimulation promoted the recovery of lower limb motor function independent from spinal stimulation in a chronic motor complete paraplegic. Annual Meeting, Society for Neuroscience, San Diego, CA; November 2016, 323.21/AA17.

18) He L, Willhite A, Harkema S, Rejc E. Structural and functional changes in lower limb skeletal muscle after chronic complete spinal cord injury. Annual Meeting, Society for Neuroscience, San Diego, CA; November 2016, 158.12/RR19.

17) Forrest G, Rejc E, Garbarin E, Ramanujam A, Augustine J, Harkema S. Parameters of multi muscle neuromuscular stimulation: Effect on Muscle Volume. Annual Meeting, Society for Neuroscience, San Diego, CA; November 2016, 158.06/RR13.

16) Rejc E, Angeli CA, Harkema SJ. Activity-dependent improvement of full weight-bearing standing with epidural stimulation in chronic complete paraplegics. Annual Meeting, Society for Neuroscience, Chicago, IL; October 2015, 337.04/U36 (selected for the Hot Topics books).

15) Rejc E, Angeli CA, Harkema SJ. Lumbosacral spinal cord epidural stimulation enables full weight bearing standing in motor complete paraplegics. Annual Meeting, Society for Neuroscience, Washington, DC; November 2014, 629.15/HH8.

14) Rejc E, Botter A, Floreani M, Pisot R, di Prampero P, Lazzer S. Effects of 14 days of bed rest and following physical training on the maximal explosive power of lower limbs in elderly and young healthy males. 7th international scientific conference on kinesiology, Opatija (HR), May 22-25 2014.

13) Koren K, Simunic B, Rejc E, Lazzer S, Pisot R. Skeletal muscle's contractile parameters differ when measured from longitudinal than from transversal twitch deformation. 7th international scientific conference on kinesiology, Opatija (HR), May 22-25 2014.

12) Lazzer S, Taboga P, Salvadego D, Rejc E, Simunic B, Narici M, Buglione A, Giovannelli N, Antonutto G, Grassi B, Pisot R, di Prampero P. Factors affecting energy cost of running during an ultra-endurance race. 61st Annual Meeting, ACSM; Orlando, Florida (USA); May 27-31 2014.

11) Rejc E, Angeli CA, Edgerton VR, Gerasimenko Y, Harkema SJ. Effects of epidural stimulation of the lumbosacral spinal cord in standing after motor complete spinal cord injury. Annual Meeting, Society for Neuroscience, S Diego (CA); November 2013, 466.21/DDD5.

10) Sayenko D, Atkinson D, DY C, Rejc E, Gurley K, Smith V, Ferreira C, Angeli C, Edgerton VR, Gerasimenko Y, Harkema SJ. Location-specific effects of transcutaneous lumbar spinal stimulation on the recruitment of proximal and distal leg muscles in healthy individuals. Annual Meeting, Society for Neuroscience, S Diego (CA); November 2013, 745.05/SS1.

9) Rejc E, Angeli CA, Harkema S. Effects of epidural stimulation of the lumbosacral spinal cord in standing after motor complete spinal cord injury. 19th Annual KSCHIRT Symposium; Louisville, KY (USA); May 6-7 2013.

8) Dunbar C, Rejc E, Zdunowski S, Sotolongo A, Jindrich D, Roy R R, Zhong H, Courtine G, Liu J, Bernot T, Moseanko R, Tuszynski M, Edgerton V R. Role of motor pool recruitment and coordination in food-grasping and spring-pull tasks by Rhesus monkeys after a spinal hemisection. 40th Annual Meeting – Neuroscience; San Diego, California (USA); November 13-17 2010.

7) Harkema SJ, Gerasimenko Y, Hodes J, Burdick JW, Angeli C, Chen Y, Ferreira C, Rejc E, Edgerton VR. Sensory control of standing and stepping enabled by epidural stimulation after a human motor complete spinal cord injury. 40th Annual Meeting – Neuroscience; San Diego, California (USA); November 13-17 2010.

6) Salvadego D, Lazzer S, Marzorati M, Porcelli S, Rejc E, di Prampero PE, and Grassi B. Impairment of skeletal muscle oxidative metabolism during knee-extension exercise after bed rest. Annual Meeting, American College of Sports Medicine; Baltimore, Maryland (USA); June 2-5 2010.

5) di Prampero PE, Rejc E, Lazzer S, Antonutto G, Salvadego D, Grassi B, Porcelli S, Marzorati M, Simunic B, Pisot R. Effects of bed rest on the bilateral deficit and maximal explosive power of lower limbs. XXIII National Congress of Italian Association of Aero-Space Medicine (AIMAS). Pozzuoli (Italy), 20-22 May 2010.

4) di Prampero PE, Lazzer S, Rejc E. The muscle fatigue. XXIV National Congress of the National Association of Sports Medicine – University "G. d'Annunzio" (Italy), 2008.

3) Pozzo R, Pasutto C, Casasola S, Grazzina F, Rejc E, Cotelli F, Canclini A. Loading conditions and neuromuscular activity during "curve movements" in alpine skiing and in a new ski simulator. Abstract "Isokinetic 2006 – XV international congress on sports rehabilitation and traumatology".

2) Pozzo R, Rejc E, Cotelli C, Guerrini G, Morandini F, Canclini A. Kinematics and kinetics comparative analysis of ski jumping during competition and specific training exercise. Abstract "International congress – Mountain and Sport", Rovereto (Italy) 2005.

1) Pozzo R, Pasutto C, Casasola S, Grazzina F, Rejc E, Cotelli C, Canclini A. Kinematic, kinetic and neuromuscular comparative analysis of the "curve movement" between alpine skiing and a new ski simulator. Abstract "International congress – Mountain and Sport", Rovereto (Italy) 2005.

Attività editoriali e pubblicazioni

ATTIVITÀ EDITORIALI

2023 -Guest Editor in: Wearable Technologies.

Special Issue "Neuromodulation, Robotics, and Wearable Technologies - Promoting Sensorimotor Function".

02/2022 Rejc, E., Ichiyama, R. M., Angeli, C. A., eds. (2022). *Advances in Spinal Cord Epidural Stimulation for Motor and Autonomic Functions Recovery After Severe Spinal Cord Injury*. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88974-391-9 (E-book)

09/2019 – 09/2021 Guest Associate Editor in *Frontiers in Systems Neuroscience*.

Research Topic: "Advances in Spinal Cord Epidural Stimulation for Motor and Autonomic Functions Recovery after Severe Spinal Cord Injury".

2014 – 2022 Revisore di articoli scientifici ad hoc per: *Human Movement Science* (2014), *System* (2014), *Journal of Musculoskeletal and Neuronal Interactions* (2015), *Journal of Neurotrauma* (2016), *The Journal of Spinal Cord Medicine* (2019), *Annals of Neurology* (2020), *Annals of Clinical and Translational Neurology* (2020), *Frontiers Systems Neuroscience* (2021), *Science Advances* (2021), *Nature Medicine* (2022), *Nature Communications* (2022), *Science Robotics* (2022).

PUBBLICAZIONI

Articoli pubblicati su riviste internazionali indicizzate in Pubmed (* senior / corresponding author)
h-index (Scopus): 21 Totale citazioni (Scopus): 2023

-) Smith A, Draganich C, Thornton W, Berliner J, Lennarson P, Rejc E, Sevigny M, Charlifue S, Tefertiller C, Weber K. A single dermatome clinical prediction rule to predict independent walking one year after traumatic spinal cord injury. *Submitted to: JAMA Network Open*

48) Angeli C, Rejc E, Boakye M, Herrity A, Mesbah S, Hubscher C, Forrest G, Harkema S. Targeted selection of stimulation parameters for restoration of motor and autonomic function in individuals with spinal cord injury. *Neuromodulation*, 2023 May 4:S1094-7159(23)00148-4

47) Boakye M, Ball T, Dietz N, Sharma M, Angeli C, Rejc E, Kirshblum S, Forrest G, Arnold F, Harkema S. Spinal cord epidural stimulation for motor and autonomic function recovery after chronic spinal cord injury: A case series and technical note. *Surg Neurol Int* 2023;14:87

46) Gonnelli F, Rejc E, Floreani M, Lazzer S. Effects of NMES-elicited versus voluntary low-level conditioning contractions on explosive knee extensions. *J Musculoskelet Neuronal Interact*. 2022 Dec 1;22(4):465-473.

45) Bowersock C, Pisolkar T, Omofuma I, Luna T, Khan M, Santamaria V, Stein J, Agrawal S, Harkema S, Rejc E*. Robotic upright stand trainer (RobUST) and postural control in individuals with spinal cord injury. *J Spinal Cord Med*. in press

44) Rejc E*, Angeli CA, Ichiyama RM. Editorial: Advances in Spinal Cord Epidural Stimulation for Motor and Autonomic Functions Recovery After Severe Spinal Cord Injury. *Front. Syst. Neurosci.*, 06 Jan 2022.

43) Smith AC, Angeli CA, Ugiliweneza B, Weber KA, Bert RJ, MohammadJavad N, Mesbah S, Boakye M, Harkema SJ, Rejc E*. Spinal cord imaging markers and recovery of standing with epidural stimulation in individuals with clinically motor complete spinal cord injury. *Exp Brain Res*. 2022 Jan;240(1):279-288.

42) Floreani M, Rejc E, Gambin S, Vavassori L, Lazzer S. Effects of gravitational and iso-inertial resistance trainings using rating of perceived exertion on lower limbs muscle force and power abilities and metabolic cost of walking in healthy older adults. *J Sports Med Phys Fitness*. 2022 Jul;62(7):910-920.

41) Ibáñez J, Angeli C, Harkema SJ, Farina D, Rejc E*. Recruitment order of motor neurons promoted by epidural stimulation in individuals with spinal cord injury. *J Appl Physiol* (1985). 2021 Sep 1;131(3):1100-1110.

40) Gonnelli F, Rejc E*, Giovanelli N, Floreani M, Porcelli S, Harkema SJ, Willhite A, Stills S, Richardson T, Lazzer S. Long-pulse high-frequency neuromuscular electrical stimulation promotes higher fractional oxygen extraction in healthy able-bodied but not in spinal cord injured individuals during low-level fatiguing contractions. *Eur J Appl Physiol*. 2021 Jun;121(6):1653-1664.

39) Mesbah S, Ball T, Angeli C, Rejc E, Dietz N, Ugiliweneza B, Harkema S, Boakye M. Predictors of Volitional Motor Recovery with Spinal Cord Epidural Stimulation in Individuals with Chronic Traumatic Spinal Cord Injury. *Brain*. 2021 Mar 3;144(2):420-433.

38) Rejc E*, Smith AC, Weber KA, Ugiliweneza B, Bert RJ, MohammadJavad N, Boakye M, Harkema SJ, Angeli CA. Spinal cord imaging markers and recovery of volitional leg movement with spinal cord epidural stimulation in individuals with clinically motor complete spinal cord injury. *Front. Syst. Neurosci.* doi: 10.3389/fnsys.2020.559313.

37) Ditterline B, Harkema SJ, Willhite A, Stills S, Ugiliweneza B, Rejc E*. Epidural stimulation for cardiovascular function increases lower limb lean mass in individuals with chronic motor complete spinal cord injury. *Exp Physiol*. 2020 Oct;105(10):1684-1691.

36) Arpin D, Ugiliweneza B, Forrest G, Harkema SJ, Rejc E*. Optimizing neuromuscular electrical stimulation pulse width and amplitude to promote central activation in individuals with severe spinal cord injury. *Front Physiol*. 2019 Oct 18;10:1310.

35) Mesbah S, Gonnelli F, Angeli CA, El-Baz A, Harkema SJ, Rejc E*. Neurophysiological markers predicting recovery of standing in humans with chronic motor complete spinal cord injury. *Sci Rep*. 2019 Oct 9;9(1):14474.

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