Enrico Rejc, Ph.D.
Piazzale Diego Simonetti 2 (Work)
33013 Gemona (UD)
enrico.rejc@uniud.it

EDUCATION

10/2000 – 07/2004	B.S. in Human Movement Science (110 / 110), University of Udine, Udine, Italy.
11/2004 – 07/2007	M.S. in Sport Sciences (110 / 110 cum laude), University of Udine, Udine, Italy.
01/2008 – 12/2010	Ph.D. in Exercise Physiology, University of Udine, Udine, Italy.
10/2009 – 04/2010	Visiting researcher (Spinal Cord Injury), UCLA, Los Angeles, USA.
01/2012 – 10/2012	Research fellowship (Exercise Physiology), University of Udine, Udine, Italy.
10/2012 – 01/2015	Postdoctoral associate (Spinal Cord Injury), University of Louisville, Louisville, USA.

ACADEMIC APPOINTMENTS

11/2022 – Present	Ricercatore a tempo determinato di tipo B (Assistant Professor, tenure track) Department of Medicine University of Udine, Italy
02/2015 – 10/2022	Assistant Professor (term) Kentucky Spinal Cord Injury Research Center Department of Neurological Surgery University of Louisville, Louisville, KY, USA.
01/2016 – 10/2022	Scientific Director Metabolic, Neuromuscular and Skeletal research core Kentucky Spinal Cord Injury Research Center University of Louisville, Louisville, KY, USA.
06/2016 – 10/2022	Associate (secondary) Faculty Appointment Department of Physiology University of Louisville, Louisville, KY, USA.
04/2017	Visiting Professor (temporary appointment) Department of Human Movement Science University of Napoli "Parthenope, Napoli, Italy.
03/2018	Visiting Professor (temporary appointment) Department of Medicine University of Udine, Udine, Italy.

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

2009 – 2012	American Congress of Sports Medicine (Member)
2012 – Present	Society for Neuroscience (Member)

05/2017 Session Chairman - *Retraining the Skeletal Muscle System: Implications after Aging, Disuse or CNS Trauma*
21st Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium
Louisville, KY, USA.

2016 – 2019 Judging Member, poster presentations
Research!Louisville and Society for Neuroscience, Louisville Chapter.
Louisville, KY, USA.

10/2018 – 09/2021 President-elect; President; past-President
Society for Neuroscience, Louisville Chapter
Louisville, KY, USA.

05/2022 Session Chairman – *Hypoxia: the Good (the Bad and the Ugly)*
27th Annual Kentucky Spinal Cord and Head Injury Research Trust Symposium
Louisville, KY, USA.

06/2022 – 12/2024 Society for Neuroscience's committee member for Trainee Professional Development Awards

HONORS AND AWARDS

2005 National award "Stefano Benetton" for graduation thesis in sport sciences
Stefano Benetton Foundation
Treviso, Italy

2006 National award: "Mountain and sport: sustainable development"
Italian Government.

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES

Grant

2017 Invited *ad hoc* reviewer
Defense Medical Research and Development Program - Neuromusculoskeletal Injuries Rehabilitation Research
Department of Defense, USA.

2020 Invited reviewer
Catwalk Trust Project Grant
Neurological Foundation, New Zealand.

2021 Invited *full panel* reviewer
FY21 Spinal Cord Injury Research Program, Congressionally Directed Medical Research Programs
Department of Defense, USA.

Ph.D. Committee

2015-2018 Committee Member (Candidate: Robert Stallard)
Department of Electrical and Computer Engineering

University of Louisville, Louisville, KY, USA.

2017 External reviewer (Candidate: Giuseppe Bellistri)
Institute of Bioimaging and Molecular Physiology
Italian National Research Council, Milano, Italy.

2019-2022 External reviewer (Candidate: Federica Gonnelli)
Department of Medicine
University of Udine, Udine, Italy.

Habilitation committee

2021 Committee Member for the appointment of Assistant Professorship in Kinesiology (Candidate: Mitja Gerževič, PhD)
Euro-Mediterranean University, Piran, Slovenia.

Human Movement Science committees, University of Udine

2023 Erasmus study abroad (coordinator, BSc and MSc programs)
2023 Students' internships (coordinator, BSc and MSc programs)
2023 Quality control and improvement (member, MSc program)
2023 Master program teaching (member)
2023-24 Contract lecturing evaluation (MSc, member)

EDUCATIONAL ACTIVITIES

Teaching

2023-24 (i) Sciences and Techniques of Preventive and Adapted Physical Activities (Graduate program *STAMPA*; 60hrs; Instructor)
University of Udine, Udine, Italy.

10/2011 – 07/2012 (i) Injury prevention and sport rehabilitation (Graduate) - Course director
(ii) Fitness and Wellness (Undergraduate) - Instructor
(iii) Analysis of posture and human movement (Undergraduate) - Instructor
(iv) Physical testing (Undergraduate) - Instructor
School of Sport Sciences
University of Udine, Udine, Italy.

04/2017 (i) Human motor control (Graduate) - Visiting professor
Master in Human Movement Science
University of Napoli "Parthenope", Napoli, Italy.

03/2018 (i) Human motor control (Graduate) - Visiting professor
Master in Sport Sciences
University of Udine, Udine, Italy.

Thesis supervisor

2006 –2010 Co-mentor of 11 undergraduate theses (Candidates: Anna Stefani, Alessandra Bressani, Stefano Micoli, Roberto Iezzi, Alessandro de Guidi, Silvia Masiero, Antonio Borriello, Elena Scotti, Giordano Francesco Jr., Manfredi Zampar, Alberto Botter)
Bachelor in Human Movement Science (n = 10) and Medical Biotechnologies (n = 1)

University of Udine, Udine, Italy.

2008-2011; 2019 Mentor (n = 1) and co-mentor (n = 3) of graduate theses (Candidates: Ingrid Mattiuz, Enrico Di Doi, Alessandro Ganzini, Federica Gonnelli)
Master in Sport Sciences
University of Udine, Udine, Italy.

Research career development awards advisor

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

Postdoctoral associates supervisor

2015 – 2016 Dr. Lian He (Mentor)
2016 – 2017 Dr. Ahmed Shalaby (Co-mentor)
2017 – 2019 Dr. David Arpin (Mentor). *Awarded with*: (i) Helmsley Restorative Medicine Trainee fellowship (2018); (ii) 3rd place poster presentation, SfN Louisville Chapter (2019).
2020 – 2022 Dr. Collin Bowersock (Mentor). *Awarded with*: Todd Crawford Scholarship (2021); Neilsen Foundation's 2022 SCIRTS Postdoc grant application: invited to full proposal submission.

Students' supervisor in a research setting

05-07/2014; 09-11/2015 Nicole Bryant (undergraduate)
05-07/2017 Elizabeth Levay (undergraduate)
04-05/2018 Ethan Adams (undergraduate)
04-06/2018; 08-10/2019 Federica Gonnelli (graduate). *Awarded with*: 2019 Panathlon thesis award (Italy).
06-07/2022 Sacha Keenan (High school Summer Intern)
Kentucky Spinal Cord Injury Research Center
University of Louisville, Louisville, KY, USA.

Principal Advisor for professional paper

08-12/2019 Hanna Martin
MSc in Clinical Investigation Sciences
University of Louisville, Louisville, KY, USA.

Invited lectures

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.

Invited interviews

10/2022 ASIA (American Spinal Injury Association) SCI Science Perspectives Podcast – focus on 2022 AISA TRoHNS Award for a research project on recovery of standing by spinal cord epidural stimulation and characteristics of cord MRI.

02/2022 DiSCIS (Discussions in Spinal Cord Injury Science) Podcast – focus on motor recovery by spinal cord epidural stimulation and characteristics of cord MRI.

06/2018 "UofL Today with Mark Hebert" radio interview - focus on foam rolling massage and physical performance.

12/2017 "UofL Today with Mark Hebert" radio interview - focus on recovery of standing motor function in an individual with complete paralysis.

09/2015 "Ask Dr. Nandi" TV interview - focus on recovery of standing in individuals with complete paralysis implanted with spinal cord epidural stimulation.

RESEARCH FUNDING

Active research grant funding

1. DOH01-TRANS4-2022 Agrawal (PI) 10/01/2022 – 09/30/2027 2.4 calendar (20% effort)
   "Improving Balance after spinal cord injury using a robotic upright stand trainer"
   The major goal is to implement a novel robotic stand trainer to investigate and train standing postural control in individuals with spinal cord injury.
   Role: Co-Principal Investigator
   Direct Subaward Costs: $802,000 Total subaward costs: $962,500

2. W81XWH2010348 Boakye (PI) 07/01/2020-06/30/2023 0.12 calendar
   U.S. Department of Defense UofL Grant ID: OGMB200253
   'Epidural Stimulation Improvement of Neurogenic Bowel After Acute Spinal Cord Injury - A Large Animal Study"
   The major goal of this research is improving bowel function after spinal cord injury in a large animal study. This three-year study is expected to provide evidence of the best neuromodulatory strategy for improving bowel function after spinal cord injury.
   Role: Co-Investigator
   Direct Costs: $1,250,000; Total Costs: $1,846,434

Pending research grant funding

1. 1R01HD112388-01 Behrman (PI) 07/01/2023-06/30/2028 2.4 calendar
   "Sensorimotor principles to optimize trunk muscle activation in children with spinal cord injury"
   The main objective of this proposal is to define biomechanical- and neurophysiology-based principles of trunk muscle activation in children with SCI, which will be pivotal to guide and enhance future activity-based, restorative training targeting intrinsic trunk control in this population.
   Role: Co-Principal Investigator

2. 1R01NS133507-01 Boakye (PI) 07/01/2023-06/30/2028 2.4 calendar
   "MRI optimization and prediction of stepping by epidural stimulation after SCI"
   The overall objective of this proposal is to use a large animal model for histological validation of MRI measures of residual neural tissue and stimulator placement that can serve as biomarkers of epidural stimulation response.
   Role: Co-Principal Investigator

Completed research funding

1. ES_BI-2017(Harkema) Harkema (PI) 03/23/2017-12/31/2022 2.4 calendar
   Christopher and Dana Reeve Foundation UofL Grant ID: CCDN171218
   "Task and physiological specific stimulation for recovery of autonomic function, voluntary movement and standing using epidural stimulation and training after severe spinal cord injury"
   The major goal is to determine the level of functional gain that can be achieved in voluntary control of movements below the level of injury and autonomic nervous system function as a result of activation of spinal circuits with epidural stimulation with or without task-specific training in humans with complete motor paralysis.
   Role: Co-Investigator
   Direct Costs: $7,934,243; Total Costs: $8,690,519

2. Behrman (PI) Rejc (Pilot Study PI) 01/2018 - 12/2018
Kosair Charities
Pilot Study: "Activity-based training and skeletal muscle in children with spinal cord injury"
This funding established the Kosair Charities Center for Excellence in Pediatric Neurorecovery, Rehabilitation, and Research to transform the lives of children affected by spinal cord injury, brain injury, cerebral palsy, and other neurological disabilities. This major goal of this study was to examine the skeletal and muscular impact of activity-based training on children with spinal cord injury.
Role: PI – Pilot study

3. Harkema (PI) Rejc (Co-I) 02/2012 - 6/2018
Leona M & Harry B Helmsley Charitable Trust
"Recovery of Function, Health and Quality of Life for People with Paralysis"
The major goal is to restore motor function and quality of life in patients with spinal cord injury using epidural stimulation and locomotor training therapies.

4. Harkema (PI) Rejc (Co-I) 12/2015 - 12/2019
Leona M & Harry B Helmsley Charitable Trust
"Center for Restorative Medicine"
The Center for Restorative Medicine is an interdisciplinary, collaborative program in medical research for spinal cord injury.

5. Research Grant Rejc (PI) 01/2019 – 04/2020
University of Louisville School of Medicine
Toward the recovery of postural control in individuals with severe spinal cord injury.
Focuses on the effects of sensory stimulation to modulate standing postural control after SCI.

6. DOH01-C31290GG-3450000 Agrawal (PI) Rejc (Site Co-PI) 8/2016 - 8/2021
New York State Spinal Cord Injury Research Board/Columbia University
"TPAD- Tethered Pelvic Assist Device and Epidural Stimulation for Recovery of Standing in SCI"
The major goal is to improve the effectiveness of stand/balance training during SCI rehabilitation using a cable-driven robotic device.

7. Harkema (PI) Rejc (Co-I) 07/01/2019 - 06/30/2022
Kessler Foundation UofL Contract ID: CCDN200245
"Understand the Role of Lumbosacral scES in Recovery in Individuals with Severe SCI"
The major goal is to understand the role of lumbosacral spinal cord epidural stimulation in recovery of autonomic nervous system function and motor function, and the interaction between stimulation and training for these systems.

Not funded

-NIH NINDS R01-NS126276 Rejc (PI) 04/01/2022-03/31/2027
Spinal cord lesion determinants of successful motor recovery promoted by epidural stimulation.

-NIH NIBIB R01-NS126313 Agrawal (PI) Rejc (Co-PI) 06/01/2022 – 05/31/2027
Improving Posture and Balance Control in Individuals with SCI using a Robotic Stand Trainer.

-U of L School of Medicine. Rejc (PI) 2016
Impact of stand and step training with epidural stimulation on aerobic metabolism in chronic complete paraplegics.

-Nielsen Foundation. Rejc (PI) 2016
Recovery of standing balance control after severe spinal cord injury.

-Nielsen Foundation. Rejc (PI) 2017
Do spinal stimulation and training promote health after paralysis?

-Department of Defense. Rejc (PI) 2019
Neurophysiological biomarkers for standing rehabilitation with epidural stimulation in individuals with chronic complete spinal cord injury.

-U of L-ExCITE Product Development Grant – Cycle #7. Rejc (PI) 2019
Machine learning-based computer software for enhancing recovery of standing in humans with severe spinal cord injury. (invited to full proposal submission).

-Nielsen Foundation Rejc (PI) 2019
Epidural stimulation for standing rehabilitation after complete paralysis. (invited to full proposal submission).

PATENTS

-*A. Shalaby, S. Mesbah , A. El-Baz ,* ***E. Rejc*** *and S. Harkema.* "Automated segmentation of tissue in magnetic resonance imaging". PCT/US2018/064760

-*S Harkema,* ***E Rejc****, S. Mesbah*. "Determination of stimulation parameters for muscle activation". US Non-Provisional Patent Application Serial No. 16/906,443 (2020).

-*S Harkema,* ***E Rejc****, S. Angeli C, Hubscher C, Herrity A, Chen Y, Aslan S*. "Closed loop control system". U.S. Provisional Patent Application No. 62/945,702.

EDITORIAL WORK

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 *Ad hoc* manuscript reviewer for: *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).

PUBLICATIONS

Original articles published on international journals indexed in Pubmed (* senior / corresponding author)

h-index (Scopus): 21 Total citations (Scopus): 1948

-) *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. *Submitted to*: Neuromodulation

-) *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

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.

34) *Khan M, Luna T, Santamaria V, Omofuma I, Martelli D,* ***Rejc E****, Stein J, Harkema S, Agrawal S.* Stand Trainer with Applied Forces at the Pelvis and Trunk: Response to Perturbations and Assist-As-Needed Support. IEEE Trans Neural Syst Rehabil Eng. 2019 Sep;27(9):1855-1864.

33) *Mesbah S, Shalaby AM, Stills S, Soliman AM, Willhite A, Harkema SJ,* ***Rejc E****, El-baz AS.* Novel Stochastic Framework for Automatic Segmentation of Human Thigh MRI Volumes and Its Applications in Spinal Cord Injured Individuals. PLoS One. 2019 May 9;14(5):e0216487.

32) ***Rejc E****, Angeli C.* Spinal cord epidural stimulation for lower limb motor function recovery in individuals with motor complete spinal cord injury. Phys Med Rehabil Clin N Am. 2019 May;30(2):337-354.

31) *Šimunič B, Koren K, Rittweger J, Lazzer S, Reggiani C,* ***Rejc E****, Pišot R, Narici M, Degens H.* Tensiomyography detects early hallmarks of bed-rest-induced atrophy before changes in muscle architecture. J Appl Physiol (1985). 2019 Apr 1;126(4):815-822.

30) *Arpin D, Forrest G, Harkema S,* ***Rejc E****.* Submaximal marker for investigating peak muscle torque using NMES after paralysis. J Neurotrauma. 2019 Mar 19;36(6):930-936.

29) *Aslan S, Legg Ditterline BE, Park MC, Angeli CA,* ***Rejc E****, Chen Y, Ovechkin AV, Krassioukov A, Harkema SJ.* Epidural Spinal Cord Stimulation of Lumbosacral Networks Modulates Arterial Blood Pressure in Individuals with Spinal Cord Injury-Induced Cardiovascular Deficits. Frontiers in Physiology, May 2018,9:565.

28) *Giovannelli N, Vaccari F, Floreani M,* ***Rejc E****, Copetti J, Garra M, Biasutti L, Lazzer S.* Short-term effects of rolling massage on energy cost of running and power of the lower limbs. Int J Sports Physiol Perform. 2018 Nov 1;13(10):1337-1343.

27) *Floreani M,* ***Rejc E****, Taboga P, Ganzini A, Pišot R, Šimunič B, Biolo G, Reggiani C, Passaro A, Narici M, Rittweger J, di Prampero PE, Lazzer S.* Effects of 14 days of bed rest and following physical training on metabolic cost, mechanical work, and efficiency during walking in older and young healthy males. PLoS One. 2018 Mar 12;13(3):e0194291

26) ***Rejc E****, Floreani M, Taboga P, Botter A, Toniolo L, Cancellara L, Narici M, Simunic B, Pisot R, Biolo G, Passaro A, Rittweger J, Reggiani C, Lazzer S.* Loss of maximal explosive power of lower limbs after two weeks of disuse and incomplete recovery after retraining in older adults. J Physiol. 2018 Feb 15;596(4):647-665

25) ***Rejc E****, Angeli C, Atkinson D, Harkema S.* Motor recovery after activity-based training with spinal cord epidural stimulation in a chronic motor complete paraplegic. Scientific Reports 2017 7: 13476

24) *Giovanelli N, Taboga P,* ***Rejc E****, Lazzer S.* Effects of strength, explosive and plyometric training on energy cost of running in ultra-endurance athletes. Eur J Sport Sci. 2017 Aug;17(7):805-813

23) ***Rejc E****, Angeli C, Bryant N, Harkema S.* Effects of stand and step training with epidural stimulation on motor function for standing in chronic complete paraplegics. J Neurotrauma. 2017 May 1;34(9):1787-1802.

22) *Passaro A, Soavi C, Marusic U,* ***Rejc E****, Sanz JM, Morieri ML, Nora ED, Kavcic V, Narici MV, Reggiani C, Biolo G, Zuliani G, Lazzer S, Pišot R.* Computerized cognitive training and brain derived neurotrophic factor during bed rest: mechanisms to protect individual during acute stress. Aging (Albany NY). 2017 Feb 3;9(2):393-407.

21) *Moreno C, Mattiussi G, Nunez F, Messina G,* ***Rejc E****.* Intratissue Percutaneous Electolysis (EPI®) combined with Active Physical Therapy for the treatment of Adductor Longus Enthesopathy-related Groin Pain: a randomised trial. J Sports Med Phys Fitness. 2017 Jan 23 [Epub ahead of print]

20) *Nagahara R, Botter A,* ***Rejc E****, Koido M, Shimizu T, Samozino P, Morin JB.* Concurrent Validity of GPS for Deriving Mechanical Properties of Sprint Acceleration. Int J Sports Physiol Perform. 2017 Jan;12(1):129-132

19) *Porcelli S, Pugliese L, **Rejc E**, Pavei G, Bonato M, Montorsi M, La Torre A, Rasica L, Marzorati M.* Effects of a Short-Term High-Nitrate Diet on Exercise Performance. Nutrients. 2016 Aug 31;8(9).

18) *Giovanelli N, Taboga P, **Rejc E**, Simunic B, Antonutto G, Lazzer S.* Effects of an Uphill Marathon on Running Mechanics and Lower-Limb Muscle Fatigue. Int J Sports Physiol Perform. 2016 May;11(4):522-9.

17) ***Rejc E**, Angeli C, Harkema S.* Effects of Lumbosacral Spinal Cord Epidural Stimulation for Standing after Chronic Complete Paralysis in Humans. PLoS One. 2015 Jul 24;10(7):e0133998.

16) ***Rejc E***, di Prampero PE, Lazzer S, Grassi B, Simunic B, Pisot R, Antonutto G, Narici M.* A 35-day bed rest does not alter the bilateral deficit of the lower limbs during explosive efforts. Eur J Appl Physiol. 2015 Jun;115(6):1323-30

15) ***Rejc E***, di Prampero PE, Lazzer S, Grassi B, Simunic B, Pisot R, Antonutto G, Narici M.* Maximal explosive power of the lower limbs before and after 35 days of bed rest under different diet energy intake. Eur J Appl Physiol. 2015 Feb;115(2):429-36.

14) *Lazzer S, Salvadego D, Taboga P, **Rejc E**, Giovanelli N, di Prampero PE.* Effects of the Etna Uphill Ultra-Marathon on Energy Cost and Mechanics of Running. Int J Sports Physiol Perform. 2015 Mar;10(2):238-247.

13) *Lazzer S, Taboga P, Salvadego D, **Rejc E**, Simunic B, Narici M, Buglione A, Giovanelli N, Antonutto G, Grassi B, Pisot R, di Prampero PE.* Factors affecting metabolic cost of transport during a multi-stage running race. J Exp Biol. 2014 Mar 1;217(Pt 5):787-95.

12) *Samozino P, **Rejc E**, di Prampero PE, Belli A, Morin JB.* Force-Velocity Properties Contribution to Bilateral Deficit during Ballistic Push-Off. Med Sci Sports Exerc. 2014 Jan;46(1):107-14.

11) *Lazzer S, Salvadego D, Porcelli S, **Rejc E**, Sartorio A, Grassi B.* Skeletal muscle oxygen uptake in obese patients: functional evaluation by knee-extension exercise. Eur J Appl Physiol. 2013 Aug;113(8):2125-32.

10) *Salvadego D, Lazzer S, Marzorati M, Porcelli S, **Rejc E**, Simunic B, Pisot R, di Prampero PE, Grassi B.* Functional impairment of skeletal muscle oxidative metabolism during knee-extension exercise after bed rest. J Appl Physiol. 2011 Dec;111(6):1719-26.

9) *Lazzer S, Salvadego D, **Rejc E**, Buglione A, Antonutto G, di Prampero PE.* The energetics of ultra-endurance running. Eur J Appl Physiol. 2011 May;112(5):1709-15.

8) *Samozino P, **Rejc E**, Belli A, di Prampero PE, Morin JB.* Optimal force-velocity profile in ballistic movements. Altius: citius or fortius? Med Sci Sports Exerc. 2012 Feb;44(2):313-22.

7) *Harkema SJ, Gerasimenko Y, Hodes J, Burdick J, Angeli CA, Chen Y, Ferreira C, Willhite A, **Rejc E**, Grossman RG, Edgerton VR.* Effect of epidural stimulation of the lumbosacral spinal cord on voluntary movement, standing, and assisted stepping after motor complete paraplegia: a case study. Lancet. 2011 Jun 4;377(9781):1938-47.

6) ***Rejc E***, Lazzer S, Antonutto G.* Energy expenditure and dietary intake of athletes during an ultraendurance event developed by hiking, cycling and mountain climbing. J Sports Med Phys Fitness. 2010 Sep;50(3):296-302.

5) ***Rejc E***, Lazzer S, Antonutto G, Isola M, di Prampero PE.* Bilateral deficit and EMG activity during explosive lower limb contractions against different overloads. Eur J Appl Physiol. 2010 Jan;108(1):157-65.

4) *Lazzer S, Pozzo R, **Rejc E**, Antonutto G, Francescato MP.* Maximal explosive muscle power in obese and non-obese prepuberal children. Clin Physiol Funct Imaging. 2009 May 29(3):224-8.

3) *Onambélé GL, Maganaris CN, Mian OS, Tam E, **Rejc E**, McEwan IM, Narici MV.* Neuromuscular and balance responses to flywheel inertial versus weight training in older persons. J Biomech. 2008 Nov 14;41(15):3133-8.

2) *Onambélé GL, Narici MV, **Rejc E**, Maganaris CN.* Contribution of calf muscle-tendon properties to single-leg stance ability in the absence of visual feedback in relation to ageing. Gait & Posture 2007; 26: 343–348.

1) *Zamparo P, Tomadini S, Didonè F, Grazzina F,* ***Rejc E****, Capelli C.* Bioenergetic of a Slalom Kayak (K1) Competition. Int J Sports Med 2005; 26: 1 – 7.

Original articles published on journals with editorial board and book chapters

13) ***Rejc E****, Vaccari F, Botter A, Floreani M, Ganzini A, Lazzer S.* Effects of underweight-plyometric training on the neuromuscular characteristics in professional rugby players. Gazz Med Ital. 2021 November;180(11):722-9.

12) *Smith A, Tefertiller C, Joyce M, Tappan RS, Lubahn A, Hahn C,* ***Rejc E****.* Spinal cord epidural stimulation for voluntary movement after spinal cord injury: current state of the research. August 1, 2019. Academy of Neurologic Physical Therapy.

11) *Mesbah S, Gonnelli F, El-Baz A, Angeli C, Harkema S,* ***Rejc E****.* Spectral analysis of lower limb EMG activity in individuals with motor complete SCI during standing with epidural stimulation. 2018 IEEE International Symposium on Signal Processing. doi:10.1109/ISSPIT.2018.8705098 (2019).

10) *Harkema S,* ***Rejc E****, Angeli C.* Neuromodulation of the Spinal Cord for Movement Restoration. Book chapter, in: Krames, E., Peckham, P., & Rezai, A. (Eds.). (2018). Neuromodulation : Comprehensive textbook of principles, technologies, and therapies(Second edition. ed.). London, United Kingdom: Academic Press is an imprint of Elsevier.

9) ***Rejc E****, Del Torto A, Lazzer S.* Benefits of aerobic exercise training with recommendations for healthy aging. Annales Kinesiologiae 8 – 2017 - 2, pp.111-124.

8) *Mesbah S, Shalaby A, Stills S, Soliman A, Willhite A, Harkema S,* ***Rejc E****, El-baz A.* A Novel Automatic Segmentation Method to Quantify the Effects of Spinal Cord Injury on Human Thigh Muscles and Adipose Tissue. Book chapter: Medical Image Computing and Computer-Assisted Intervention − MICCAI 2017, pp.703-711.

7) *Mesbah S, Shalaby A, Willhite A, Harkema S,* ***Rejc E****, El-baz A.* Automatic 3-D muscle and fat segmentation of thigh magnetic resonance images in individuals with spinal cord injury. Proceedings - International Conference on Image Processing, Vol. 2017-September, 20 February 2018, Pages 3280-3284.

6) *Stallard R,* ***Rejc E****, Welch K.* Wavelet-Derived Features as Indicators of Physiological Changes Induced By Bed Rest. j.eswa.2017.08.024.

5) *Botter A,* ***Rejc E****, Tonizzo F, Bastiancig D, Falco D, D'Urso A.* Metabolic and muscular demands of two different small-sided games in young professional soccer players. Scienza e sport, April 2016.

4) *Koren K, Šimunič B,* ***Rejc E****, Lazzer S, Pisot R.* Differences between skeletal muscle contractile parameters estimated from transversal tensiomyographic and longitudinal torque twitch response. Kinesiology 47(2015)1:19-26

3) ***Rejc E****, Botter A, Floreani M, Ganzini A, Lazzer S, Antonutto G.* Effects of underweight-plyometric training on the maximal explosive power of lower limbs in professional rugby players. Scienza e sport, n° 17, January 2013.

2) ***Rejc E****, Benis R, Lazzer S, Pozzo R, Micoli S, Antonutto G.* Training the maximal explosive power with overloads: a critical review. Scuola Dello Sport, n° 81 (June 2009).

1) *Lazzer S, Muraro L,* ***Rejc E****, Antonutto G.* Evaluation of the maximal explosive power of lower limbs in volleyball players. Nuova Atletica (2009).

ABSTRACTS AND PRESENTATIONS

Oral presentations (* invited talks)

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**, Lazzer 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.